BOARD OF COMMISSIONERS

REVISED AGENDA

Monday, November 13, 2017 - 6:30 PM

Pledge of Allegiance

Notice of Executive Session preceding the Board of Commissioners meeting of November 13, 2017

1. Announcement of Vacancy of 7th Ward Commissioner Seat/Possible Appointment of Interim 7th Ward Commissioner

2. Consent Agenda
   a) Disbursement Review and Approval: 2017-10C, 2017-10D, 2017-11A
   b) Approval of Board of Commissioner Meeting Minutes - October 9, 2017 & October 23, 2017
   c) Authorization for the Radnor Township Police Department to receive bids for Police Uniforms for the years 2018, 2019, and 2020
   d) Staff Traffic Committee Meeting Minutes – October 18, 2017
   e) Resolution #2017-122 - Motion to Authorize the Sale of Surplus Vehicles and Equipment
   f) HARB - ARB-2017-19 – 326 Louella Avenue – Reduced footprint of previously submitted garage and pool house; and removal of existing carriage barn and concrete pad
3. Motion Authorizing Free Parking for the WBA in Downtown Wayne on Saturday after Thanksgiving and Saturday's in December
4. Announcement of Boards and Commissions Vacancies
5. Possible Motion to Appointment Applicants to the Various Boards and Commissions
6. Public Participation
7. Committee Reports

FINANCE & AUDIT

A. 2018 Budget Discussion
   - Capital Funding
   - Community Organization Funding
   - Radnor Fire Company Funding

PUBLIC WORKS & ENGINEERING

B. SALDO Application # 2017-S-06 - ***Caucus*** - 585 County Line Road – Minor Final Subdivision

C. Ordinance #2017-15 – ***(Adoption)*** - Establishing Rules and Regulations for The Management of Its Rights-Of Way; Requiring A Permit Application Fee And Plan For Any Street, Driveway, Or Utility Installation Upon Any Portion Of A Township Road Or Other Public Road Or Right-Of-Way

D. Ordinance #2017-14 – ***(Adoption)*** Adopting and Approving An Amendment To The Articles Of Incorporation Of The Jointly-Organized Municipal Authority Known As The "Radnor-Haverford-Marple Sewer Authority" With The Townships Of Haverford And Marple, All Of Delaware County,

Pennsylvania, To Add A Provision Therein Extending The Term Of Its Existence For An Additional Fifty Years From The Date Of The Approval of The Articles Of Amendment

E. Ordinance #2017-11 – (***Introduction***) - Proposed Ordinance Amendment to Chapter 142, Certificates of Occupancy and Chapter 235, Sewers, to Provide for the Elimination of Stormwater into the Township's Sanitary Sewer System

F. Presentation and Possible Resolution #2017-120- Authorizing a Multimodal Fund Transportation Fund (MTF) Grant Application for Improvements to the King of Prussia Road/Eagle Road/Pine Tree Road Intersection, in partnership with Cabrini and Eastern Universities

G. SALDO Application #2014-D-02 - ***Caucus*** - 145 King of Prussia Road - Preliminary Land Development

COMMUNITY DEVELOPMENT

H. Motion to Authorize Advertising for the Adoption of Ordinance #2016-13 at the November 27, 2017 Board of Commissioners Meeting - Ordinance #2016-13 – Amending Chapter 280 Zoning, Article XV, PLO Planned Laboratory-Office District, Sections 280-62, 280-63 And 280-64, By Providing For Additional Uses In The PLO Planned Laboratory-Office District Including Mixed Use Developments; Providing For Revised Dimensional Requirements For Mixed Use Developments Including Financial Subdivisions And Providing For Additional Accessory Uses ***(Requested by Commissioner Nagle)***

I. Commissioner Booker proposes to amend the first sentence of Chapter 280 Zoning, Article XV, PLO, Section 280-63 (A) to read as follows (new language **bold** and underlined): "Scientific or industrial research, testing or experimental laboratory or similar establishment for research or product development **(but excluding medical/dental offices for the provision of any type of treatments)**, provided that there is no commercial production or storage of any commodity . . . . "

PERSONNEL & ADMINISTRATION

J. Resolution #2017-129 - Exercising Its Municipal Option to Prohibit the Location of Category 4 Licensed Slot Machine Facilities Within Radnor Township Pursuant To Act 42 Of 2017

PUBLIC SAFETY

LIBRARY

PUBLIC HEALTH

PARKS & RECREATION

Old Business

New Business

- Request for Consideration to set a Special Meeting Date to discuss the Sewer Fund & Park and Open Space Fund

Public Participation

Adjournment

Announcement of Vacancy of 7th Ward Commissioner Seat/Possible Appointment of Interim 7th Ward Commissioner

RADNOR TOWNSHIP
DISBURSEMENTS SUMMARY
November 13, 2017

The table below summarizes the amount of disbursements made since the last public meeting held on October 23, 2017. 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://radnor.com/728/Disbursements-List

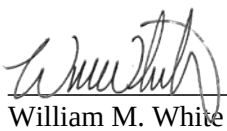
Fund (Fund Number)	**2017-10C October 20, 2017**	**2017-10D October 27, 2017**	**2017-11A November 3, 2017**	**Total**
General Fund (01)	$288,259.02	$259,953.59	$207,729.39	$755,942.00
Sewer Fund (02)	42,860.03	260,142.04	5,306.44	308,308.51
Storm Sewer Management (04)	152.50	7,091.41	122.50	7,366.41
Capital Improvement Fund (05)	18,341.00	1,932.45	0.00	20,273.45
Police Pension Fund (07)	5,095.17	0.00	4,990.52	10,085.69
OPEB Fund (08)	872.24	123,385.79	854.34	125,112.37
Escrow Fund (10)	1,800.00	0.00	0.00	1,800.00
Civilian Pension Fund (11)	4,541.57	0.00	4,448.15	8,989.72
Investigation Fund (12)	9,336.00	0.00	241.10	9,577.10
Comm. Shade Tree Fund (15)	1,465.00	0.00	0.00	1,465.00
$8 Million Settlement Fund (18)	2,550.00	5,057.50	0.00	7,607.50
The Willows Fund (23)	0	285.15	0.00	285.15
Library Improvement Fund (500)	23,154.50	0.00	55,957.29	79,111.79
Park & Trail Improvement Fund (501)	15,188.62	14,424.29	33,693.00	63,305.91
Total Accounts Payable Disbursements	**$413,615.65**	**$672,272.22**	**$313,342.73**	**$1,399,230.60**
Electronic Disbursements	n/a	n/a	n/a	$508,000.00
Grand Total	**$413,615.65**	**672,272.22**	**313,342.73**	**$1,907,230.60**

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 November 27, 2017

Description	Account No.	Date	Purpose	Amount
Credit Card Revenue Fees - Estimated	Various Funds	11/10/2017	10/17 Credit Card Revenue Processing Fees	$5,000.00 *
Payroll [Bi-Weekly] Transaction - Estimated	01-various	11/16/2017	Salaries and Payroll Taxes - General Fund	$485,500.00
Payroll [Bi-Weekly] Transaction - Estimated	02-various	11/16/2017	Salaries and Payroll Taxes - Sewer Fund	$17,500.00
Period Total				**$508,000.00**

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

Original Estimate			Actual Amount
$485,500.00	10/19/2017	Salaries and Payroll Taxes - General Fund	$443,627.79
$17,500.00	10/19/2017	Salaries and Payroll Taxes - Sewer Fund	$15,910.18
$503,000.00			**$459,537.97**
$485,500.00	11/1/2017	Salaries and Payroll Taxes - General Fund	$431,704.92
$17,500.00	11/1/2017	Salaries and Payroll Taxes - Sewer Fund	$15,706.88
$503,000.00			**$447,411.80**
$186,839.03	11/1/2017	Police Pension Payroll	$186,839.03
$137,409.28	11/1/2017	Civilian Pension Payroll	$137,409.28
$324,248.31			**$324,248.31**

TOWNSHIP OF RADNOR
Minutes of the Meeting of October 9, 2017

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

Elaine Schaefer, Vice President	*Donald Curley*	*Richard F. Booker*
Luke Clark	*John Nagle*	*James Higgins*

Absent: *Phil Ahr, President*

Also Present: *Robert A. Zienkowski, Township Manager; John Rice, Township Solicitor; William White, Assistant Township Manager & Finance Director; Steve Norcini, Township Engineer; William Colarulo, Superintendent of Police; Tammy Cohen, Director of Recreation and Community Programming; Kevin Kochanski, Community Development Director; Steve McNelis & Mark Domenick, Interim Public Works Director; Andrew Block, Deputy Superintendent of Police; Christopher Flanagan, Deputy Superintendent of Police; Mark Stiansen, Traffic Unit; Alex Janoski, Traffic Amy Kaminski, Traffic Engineer and Jennifer DeStefano, Executive Assistant to the Township Manager.*

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

Notice of Executive Session preceding the Board of Commissioners meeting of October 9, 2017

There was an Executive Session prior to this meeting where all Commissioners attended except for Commissioner Ahr where matters of Real Estate, Personnel and Litigation were discussed.

1. *Consent Agenda*

a) *Disbursement Review and Approval: 2017-9D, 2017-9E*

b) *Approval of Meeting Minutes from September 18, 2017 & September 25, 2017 Board of Commissioners meeting*

c) *Staff Traffic Committee Meeting Minutes - September 20, 2017*

~~d) Resolution #2017-110 - Authorizing the Township to Purchase & Replace Playground Equipment at Petrie Park~~

~~e) Resolution #2017-111 - Awarding the Professional Services Contract for Engineering, Permitting, and Construction Drawings for the Darby-Paoli Multi-Use Trail~~

~~f) Resolution #2017-113 - Authorizing the Professional Services Contract for Engineering, Design, Permitting, and Construction Drawings for the Skunk Hollow Emergency Sanitary Sewer Trunk Line Replacement.~~

g) *Waiver Request: 301 South Wayne Avenue GP# 17-155 – Requesting a waiver from §245-22 the Stormwater Management Requirements for Groundwater Recharge*

~~*h) Motion to Authorize John Rice to attend the Zoning Hearing Board meeting on behalf of the Board of Commissioners for APPEAL #3001 - The Applicant, GI II Radnor Crossing LP, property located at 284 Iven Avenue and split Zoned PA and R-1, seeks a special exception pursuant to Section 280-1 Ol(A)(l) of the Zoning Code to change one non-conforming use to another non-conforming use to change the tennis court to parking. In the alternative Applicant seeks a variance from section 280-14 or such other relief as required under the Zoning Code consistent with the Application.*~~

i) *HARB Certificates:*

- *HARB-2017-16 –224 S Aberdeen Avenue – Re-submitting for two (2) changes to previous HARB approval (2017-05) – dormer details and front entry pent roof.*
- *HARB-2017-17 – 400 Oak Lane - 2nd story addition above sun room; extend pent roof; change bay window roof to copper; remove hip roof and replace with gable roof; remove double staircase; remove shed dormer; add new two car garage; extend 2nd floor over porch.*
- *HARB-2017-18 – 416 St Davids Road - Build new detached garage, expand driveway in back of house for new garage; remove existing circular driveway in front of house.*
- *HARB-2017-20 – 430 Meadowbrook Avenue - Addition to east façade of house; replace existing bow window on north elevation and replace with casement windows; new covered entrance on south elevation.*

~~*j) Remove Pine Tree Rd. Traffic Islands (by Township Staff, with rental equipment as necessary), not to exceed $15,000* ***(Requested by Commissioner Booker)***~~

Items d, e, f, h and j were requested by Commissioners to be removed from the consent agenda.

Commissioner Clark made a motion to approve the consent agenda with items d, e, f, h and j removed, seconded by Commissioner Booker. Motion passed 6-0 with Commissioner Ahr absent.

2. Public Participation

Deborah Wessel – She wanted to urge the board to send John Rice to the Zoning Hearing Board meeting next week regarding Radnor Crossing.

Chuck Barber, Hildale Road – He inquired if item J pertaining to PLO Zoning Amendment could be delayed until after the election in November.

Ginny Hart, Radnor Way – She also asked for the PLO Amendment to be delayed.

William Martin, Rodney Road – He commented regarding an event with a concert that occurred at Villanova University during Hoops Mania and the noise that was created by it.

Sara Pilling, Garrett Avenue – She agreed with the previous comment of the noise created by the recent concert at Villanova University.

Baron Gemmer – He announced that the Carol H. Axelrod blood drive is today and tomorrow at Lankanau Hospital.

Toni Bailey, Conestoga Village – She commented regarding her opposition of the PLO Zoning amendment.

Resident at 601 Glenmary Road – He commented regarding his support of the PLO amendment.

Leslie Morgan, Farm Road – She inquired about whether the property owner at 145 King of Prussia Road will pay taxes.

3. Appointments to Various Boards and Commissions

Commissioner Schaefer made a motion to appoint Colleen Price to the EAC and Jeff Boogay to Shade Tree, seconded by Commissioner Higgins. Motion passed 6-0 with Commissioner Ahr absent.

4. Announcement of Boards and Commissions Vacancies

Shade Tree Commission - 2 Vacancies Environmental Advisory Council - 1 Vacancy

Board of Health – 1 Vacancy Stormwater Advisory Committee – 1 Vacancy

Commissioner Schaefer announced that there are vacancies on the following boards. Anyone interested should submit their resume to the Township Manager, Bob Zienkowski at 301 Iven Avenue, Wayne, PA 19087.

Shade Tree Commission - 1 Vacancy, Board of Health – 1 Vacancy, Stormwater Advisory Committee – 1 Vacancy.

I. Resolution #2017-116 - Authorizing Payment of Change Orders to the Prime Contractors for the Memorial Library of Radnor Update and Expansion Project

Rick Capone and Mike Stoll, QCI gave the background on the above resolution. There was a brief discussion amongst the Commissioners and staff.

Commissioner Curley made a motion, seconded by Commissioner Nagle. Motion passed 6-0 with Commissioner Ahr absent.

5. *Committee Reports*

PERSONNEL & ADMINISTRATION

A. Discussion and Possible Motion of the Willows Funding

There was an in-depth discussion amongst the Commissioners on how to proceed with funding of the Willows project. Commissioner Schaefer suggested that at the next meeting a Resolution is prepared and the Board discuss the terms of the MOU that the Board is comfortable with then.

Public Comment

Christina Perrone, Walnut Avenue – She commented on several items that are needed for the donor's commitment as well as the resident group to receive the 501c status.

B. *Motion to Replace the President of the Board and Elect a New Candidate* ***(Requested by Commissioner Booker)***

Commissioner Booker made a motion to replace the President of the Board and Elect a New Candidate, seconded by Commissioner Curley.

There was a brief discussion amongst the Commissioners.

Public Comment

Dan Sherry, Wayne – He commented regarding his support of the above motion.

Leslie Morgan, Farm Road – She inquired if Commissioner Ahr has participated in behind the scenes and just not participating in the meetings.

Christina Perrone, Walnut Avenue – She commented that Commissioner Ahr is not required to step down unless convicted according to the Township Charter.

Doug McCone – He commented regarding he is not in support of the motion.

Jim Corrodi, Windsor Avenue – He is not in support of the above motion.

Toni Bailey, Conestoga Village – She is in support of the motion and inquired who is representing Ward 7.

Commissioner Schaefer called the vote, motion failed 3-3 with Commissioners Higgins, Schaefer and Nagle opposed and Commissioner Ahr absent.

Commissioner Booker made a motion that the Board of Commissioners does hereby inform counsel for the Ethics Board that its opinion is that section 39-7 of the Radnor Code of Ethics requires the President of the Board of Commissioners to participate in all proceedings and in light of the absence of Commissioner Ahr, the Commissioners believe that it is appropriate that the Ethics Board Stay any further proceedings until such time the Ethics Board obtains representation thereon by the duly elected President of the Board of Commissioners, seconded by Commissioner Curley.

There was an in-depth discussion amongst the Commissioners about the above motion pertaining to the Ethics Board.

Public Comment

Dan Sherry, Wayne – He commented regarding his support of the above motion.

Doug McCone – He commented opposed to the motion.

Commissioner Schaefer called the vote, motion failed 3-3 with Commissioners Higgins, Schaefer and Nagle opposed and Commissioner Ahr absent.

C. Motion to Eliminate the Consent Agenda ***(Requested by Commissioner Nagle)***

Commissioner Nagle made a motion to create a set of guidelines and standards for the consent agenda.

There was a brief discussion amongst the Commissioners, the motion failed for lack of a second.

D. Motion that the agenda is locked as of noon on the Wednesday prior to the meeting. Any items requested after that time shall be placed on the next regular meeting agenda ***(Requested by Commissioner Nagle)***

Commissioner Nagle made a motion to lock the agenda as of noon on the Wednesday prior to the meeting also recognizing that there are emergency measures that could be added, seconded by Commissioner Higgins.

Public Comment

Dan Sherry, Wayne – He commented that he is not in support of the motion.

Baron Gemmer – He commented in agreement to the motion.

Lisa Borowski – She suggested having a committee structure and the public would have more time to comment at the committee level.

Commissioner Schaefer called the vote, motion failed 3-3 for lack of a majority with Commissioners Booker, Clark and Curley opposed and Commissioner Ahr absent.

FINANCE & AUDIT

E. 2018 Township Manager's Recommended Budget Presentation

Mr. Zienkowski briefly spoke to open the presentation of the 2018 Township Manager's Recommended Budget. Mr. White discussed the comprehensive Budget along with Kevin Kochanski, Steve Norcini, Steve McNelis, Mark Domenick, Bill Colarulo, Andrew Block, Christopher Flanagan and Tammy Cohen which can be found on the Township website at: http://www.radnor.com/910/Board-of-Commissioners-Presentations.

Commissioner Schaefer made a motion to remove Items F, H & J from the agenda because of time and move to the next meeting, seconded by Commissioner Curley.

Mr. Zienkowski commented that item F was to make the Commissioners aware of the item and see if there was any opposition, otherwise it does not need to come back to the Board. It was agreed it does not need to come back to the Board.

Commissioner Schaefer called the vote, motion passed 6-0 with Commissioner Ahr absent.

PUBLIC WORKS & ENGINEERING

~~*F. Violation of Ordinance No. 2012-05 of Radnor Township, the Shade Tree Ordinance, sections 263-9C and 263-11-A-3, by Miller Brothers, in Connection with Gas Utility Construction on East Beechtree Lane: Compensatory Plantings and Fine*~~

Removed

G. Ordinance #2017-16 – ***(Adoption) -*** *Vacating a Portion of Belrose Lane Extending Between Huston Road and Glenmary Lane with the Exception of Radnor's Easement Rights in the Sewer Facilities Located Within the Existing Right of Way*

Commissioner Higgins made a motion to adopt, seconded by Commissioner Booker. Motion passed 6-0 with Commissioner Ahr absent.

~~*H. Ordinance #2017-15 –* ***(Introduction)*** *- Establishing Rules and Regulations for The Management Of Its Rights-Of Way; Requiring A Permit Application Fee And Plan For Any Street, Driveway, Or Utility Installation Upon Any Portion Of A Township Road Or Other Public Road Or Right-Of-Way*~~

Removed

d) Resolution #2017-110 - Authorizing the Township to Purchase & Replace Playground Equipment at Petrie Park

Commissioner Higgins made a motion to approve, seconded by Commissioner Clark. Motion passed 6-0

e) Resolution #2017-111 - Awarding the Professional Services Contract for Engineering, Permitting, and Construction Drawings for the Darby-Paoli Multi-Use Trail

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

There was a brief discussion amongst the Commissioners and staff.

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

f) Resolution #2017-113 - Authorizing the Professional Services Contract for Engineering, Design, Permitting, and Construction Drawings for the Skunk Hollow Emergency Sanitary Sewer Trunk Line Replacement.

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

h) Motion to Authorize John Rice to attend the Zoning Hearing Board meeting on behalf of the Board of Commissioners for APPEAL #3001 - The Applicant, GI II Radnor Crossing LP, property located at 284 Iven Avenue and split Zoned PA and R-1, seeks a special exception pursuant to Section 280-1 Ol(A)(l) of the Zoning Code to change one non-conforming use to another non-conforming use to change the tennis court to parking. In the alternative Applicant seeks a variance from section 280-14 or such other relief as required under the Zoning Code consistent with the Application.

Commissioner Clark made a motion to authorize John Rice to attend the Zoning Hearing Board meeting on behalf of the Board of Commissioners to oppose the relief requested in Appeal #3001, seconded by Commissioner Booker.

There was a brief discussion amongst the Commissioners as well as Mr. Caniglia representing the applicant.

Public Comment
Deborah Wiesel – She commented regarding her support of the motion.

Ryan, Radnor Crossing – He commented that he is not in support of the motion that the additional parking is needed.

Commissioner Schaefer called the vote, motion passed 5-1 with Commissioner Higgins opposed and Commissioner Ahr absent.

j) Remove Pine Tree Rd. Traffic Islands (by Township Staff, with rental equipment as necessary), not to exceed $15,000 ***(Requested by Commissioner Booker)***

Commissioner Booker made a motion to approve, seconded by Commissioner Nagle.

Commissioner Nagle made a motion to strike the parenthetical comment from the motion, seconded by Commissioner Booker.

There was an in-depth conversation amongst the Commissioners and staff.

Public Comment
Dan Sherry, Wayne – He commented regarding the costs associated with the project.

Mr. Zienkowski commented that there may be a liability issue now that there will not be a traffic calming measures in place. Mr. Osborne commented he agrees with Mr. Zienkowski comments and stated that no parking is needed.

Commissioner Schaefer called the vote, motion passed 6-0 with Commissioner Ahr absent.

COMMUNITY DEVELOPMENT

I. Motion to Authorize Advertising for the Adoption of Ordinance #2016-13 at the November 13, 2017 Board of Commissioners Meeting - Ordinance #2016-13 – Amending Chapter 280 Zoning, Article Xv, PLO Planned Laboratory-Office District, Sections 280-62, 280-63 And 280-64, By Providing For Additional Uses In The PLO Planned Laboratory-Office District Including Mixed Use Developments; Providing For Revised Dimensional Requirements For Mixed Use Developments Including Financial Subdivisions And Providing For Additional Accessory Uses

There was an in-depth discussion amongst the Commissioners. Commissioner Curley reviewed a proposed schedule to follow for the process of the ordinance and discussions. Commissioner Higgins stated that he will not participate in the discussions or voting pertaining to the ordinance as his law firm represents University of Penn.

Commissioner Curley made a motion to extend the meeting until 11:15 PM, seconded by Schaefer. Motion passed 5-1 with Commissioner Booker opposed and Commissioner Ahr absent.

~~J.~~ *~~Authorization to file an Enforcement Action Re: 5 Marlyn Circle and 713 Miller Street~~*

PUBLIC SAFETY

LIBRARY

PUBLIC HEALTH

PARKS & RECREATION

Old Business - None

New Business - None

Public Participation

Dan Sherry, Wayne – He commented regarding to comments earlier in the meeting pertaining to 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 the Meeting of October 23, 2017

The Radnor Township Board of Commissioners met at approximately 7:00 PM in the Radnorshire Room in the Radnor Township Municipal Building, 301 Iven Avenue, Wayne, PA 19087

Commissioners Present

Elaine Schaefer, Vice President	*Donald Curley*	*Richard F. Booker*
Luke Clark	*John Nagle*	*James Higgins*

Absent: *Phil Ahr, President*

Also Present: *Robert A. Zienkowski, Township Manager; John Rice, Township Solicitor; William White, Assistant Township Manager & Finance Director; Steve Norcini, Township Engineer; William Colarulo, Superintendent of Police; Tammy Cohen, Director of Recreation and Community Programming; Kevin Kochanski, Community Development Director; Steve McNelis & Mark Domenick, Interim Public Works Director; Andrew Block, Deputy Superintendent of Police; Christopher Flanagan, Deputy Superintendent of Police; Mark Stiansen, Traffic Unit; Alex Janoski, Traffic Amy Kaminski, Traffic Engineer and Jennifer DeStefano, Executive Assistant to the Township Manager.*

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

Commissioner Schaefer commented that Item F has been removed from the agenda this evening at the request of the applicant for a continuance.

Mr. Zienkowski read in to record the letter of resignation as President of the Board from Commissioner Ahr which was received this afternoon.

Notice of Executive Session on October 23, 2017 preceding the Board of Commissioners meeting

There was an Executive Session on October 23, 2017 where all Commissioners participated with the exception of Commissioner Ahr and matters of Litigation, Real Estate and Personnel were discussed.

1. Consent Agenda

a) Disbursement Review and Approval: 2017-10A, 2017-10B

b) Acceptance of Department Monthly Reports

c) Motion to Authorize to Receive Sealed Bids for Gasoline and Diesel Fuel

d) Resolution #2017-117 - Authorizing the Township Manager to enter into a replacement operating lease agreement with KDI to provide various copiers / printers to Township Departments

e) Authorization to file an Enforcement Action Re: 5 Marlyn Circle and 713 Miller Street

f) Resolution #2017-119 - Awarding Contract for the Installation of Sidewalk - South Devon Avenue

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

2. Resolution #2017-121 - Declaring Its Support for Small Business Saturday In Radnor Township on November 25, 2017

Chris Todd, President WBA briefly commented about the importance to support the small business. He also inquired about free parking on Saturdays in Wayne for the month of December. That item will be brought back to board at the next meeting.

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

3. Proclamation - Baha'i Community of Radnor Township Celebrating 200th Anniversary

Commissioner Nagle presented a certificate in recognition of their 200th Anniversary of the Baha'i faith community.

4. Recognition of the Radnor Police SWAT Officers

Superintendent of Police, William Colarulo and Detective Jim Devaney, Springfield Police Department whom is also the head of the Delaware County SWAT Team presented members of the Delaware County SWAT Team which are Radnor Officers with a commendation for placing first place at a recent competition.

5. Recognition of Radnor Township Police Officers

Superintendent Colarulo presented Detective Christopher Four, Detective Santoliquito and Detective James Metzler for commendations for past incidents.

6. Announcement of Boards and Commissions Vacancies

Shade Tree Commission; Board of Health; Stormwater Advisory Committee – 1 Vacancy Each

Commissioner Schaefer announced that there are vacancies on the following boards. Anyone interested should submit their resume to the Township Manager, Bob Zienkowski at 301 Iven Avenue, Wayne, PA 19087.

Shade Tree Commission - 1 Vacancy, Board of Health – 1 Vacancy, Stormwater Advisory Committee – 1 Vacancy.

7. Public Participation

Susan Stern – She spoke about what really matters in Radnor and hopes that everyone speaking tonight take a deep breath contains their decorum.

Dan Sherry, Wayne – He commented in regards the vote that was made at the October 9th Board of Commissioner meeting pertaining to Commissioner Ahr.

Jerry O'Connor, Garrett Hill – He commented regarding the need of Commissioner Ahr to resign completely from the Board of Commissioners.

Jane Galli, Conestoga Village – She commented regarding the need of Commissioner Ahr to resign completely from the Board of Commissioners.

Austin Hepburn, Radnor – He commented regarding the repairs which have been made on King of Prussia Road under the time that was originally noted and thanked staff for their hard work. He also thanked Commissioner Booker for the removal of the islands on Pine Tree Road.

Lisa Borowski, Goshen Road – She also commented regarding the need for Commissioner Ahr to resign completely from the Board. She also commented regarding the Township newsletter.

Al Murphy – He commented about the feeling of a breach of trust amongst the Township.

Alex Yannopolis, Villanova – He commented about the upcoming vote for President of the Board of Commissioners, the safety of the residents in Ward 7.

Patty Booker, Belrose Lane – She commented regarding the recent Ethics complaint filed against Commissioner Booker.

Leslie Morgan, Farm Road – She commented regarding two recent right to know requests that she has submitted to the Township as well as thanked Commissioner Booker for making hard decisions.

Sara Pilling, Garrett Avenue – She commented regarding her attendance at Former Vice President Al Gore Climate Summit.

Toni Bailey, Conestoga Village – She commented that Mr. Ahr needs to reassure the residents of Ward 7 that he is representing them.

Mr. Danzik, Pine Tree Road – He commented regarding the Commissioners seeking to be mandatory reporters for youth services.

AnneMarie Hessman - She commented to encourage Commissioner Ahr to resign as Commissioner.

Ward 2 Resident - She commented regarding her opposition to the advertising of the building at 145 King of Prussia Road.

Brian Kuznesoff, Radnor Life & Style – He commented regarding the content of the Township Newsletter.

Kelly Martin, Ward 7 – She commented that she would like to see Commissioner Ahr to resign as Commissioner.

Roberta Winters – She announced the Candidates forum which will be October 26th and October 30th both beginning at 7 PM. She also commented about the memorial at Radnor High School which will be open to the public

Mr. Zienkowski made a few brief comments regarding previous comments made during public comment.

Jake Abel, Wayne – He commented that he would like to hear from the Commissioners on what they were told early on with the investigation pertaining to Commissioner Ahr.

8. Committee Reports

PERSONNEL & ADMINISTRATION

A. *Election of President & Vice President of the Board of Commissioners*

Commissioner Schaefer moved to nominate John Nagle as President and Luke Clark as Vice President until November 28th then Luke Clark as President to end of year and John Nagle as Vice President, seconded by Commissioner Higgins.

Commissioner Curley made a motion to nominate Luke Clark as President, seconded by Commissioner Booker.

There was a discussion amongst the Commissioners regarding the above motions.

Public Comment

Dan Sherry, Wayne – He commented regarding the above motions made.

Commissioner Schaefer called the vote on the motion made by Commissioner Curley. Motion failed for lack of majority.

Commissioner Schaefer called the vote on the motion made by herself. Motion failed for lack of majority.

B. *Motion to Appoint Stephen Harris as Special Counsel to the Radnor Township Ethics Board*

Commissioner Curley made a motion to appoint Stephen Harris as special counsel to the Radnor Township Ethics Board and John Rice to address the breach of confidentiality that occurred with the complaint and to report back within 30 days to the Board, seconded by Commissioner Schaefer.

There was a brief discussion regarding the above motion.

Public Comment

Dan Sherry, Wayne – He commented regarding his email sent to the Commissioners and Administration last week pertaining to the current Ethics Complaint.

Alex Yannopolis, Villanova – He inquired about who would sit in the President position on the Ethics Board.

Kelly Martin – She asked if the Ethics complaint could wait until it is found who had breached confidential document.

Commissioner Schaefer called the vote, motion passed 5-0 with Commissioner Booker abstaining and Commissioner Ahr absent. Commissioner Booker commented that he is in support of the investigation into the breach of confidentiality but abstaining from the vote of the Ethics Board Solicitor.

COMMUNITY DEVELOPMENT

C. *Motion to Authorize Advertising for the Adoption of Ordinance #2016-13 at the November 13, 2017 Board of Commissioners Meeting - Ordinance #2016-13 – Amending Chapter 280 Zoning, Article Xv, PLO Planned Laboratory-Office District, Sections 280-62, 280-63 And 280-64, By Providing For Additional Uses In The PLO Planned Laboratory-Office District Including Mixed Use Developments; Providing For Revised Dimensional Requirements For Mixed Use Developments Including Financial Subdivisions And Providing For Additional Accessory Uses*

Commissioner Curley made a motion to authorize advertising, seconded by Commissioner Nagle.

Commissioner Higgins commented that he will recuse himself from discussions and vote as he represents the University of Penn and has a conflict.

There was an in-depth discussion amongst the Commissioners summarizing their positions on the ordinance.

Public Comment

Dan Sherry, Wayne – He inquired about a conflict he believes Commissioner Schaefer has with the Trustees of the University of Pennsylvania.

Mr. Danzik, Pine Tree Road – He commented regarding his opposition to the proposed project.

Lloyd Goodman, Radnor Racquet – He commented in support of the ordinance.

Diane Edbril, Spruce Tree Road – She commented not in support of the ordinance.

Bill Hanson, Lancaster – He is in support of the ordinance.

Dave Falcone on behalf of the Trustees of the University of Pennsylvania – He commented that the Trustees of the University of Pennsylvania were committed to making the current ordinance work and it would be a big loss for everyone if it is not approved.

Ward 2 Resident – She commented regarding some of the details in the ordinance.

Mr. Zienkowski commented in support of the project and all the hard work that has gone into the zoning ordinance.

Commissioner Schaefer called the vote, motion failed with Commissioners Booker and Clark opposed, Commissioner Higgins abstaining and Commissioner Ahr absent.

PUBLIC WORKS & ENGINEERING

D. *Ordinance #2017-15 – **(Introduction)** - Establishing Rules and Regulations for The Management of Its Rights-Of Way; Requiring A Permit Application Fee And Plan For Any Street, Driveway, Or Utility Installation Upon Any Portion Of A Township Road Or Other Public Road Or Right-Of-Way*

Mr. Norcini explained that the proposed legislation encompasses many benefits to the Township. The benefit most forefront is the fact that due to the utility inspections required by this ordinance, Radnor Township residents and the motoring public will be able to travel roads under utility construction with far less angst. The Township is not staffed to perform more than spot inspections on Township streets, and there is a higher level of expectation by the Township, for work being completed on State streets, than is currently being provided. The Township will be able to have an inspector or inspectors on site at streets with utility work being performed, thereby ensuring a better quality of product for our residents. The inspection service costs will be reimbursed to the Township by the Utility. There was a brief discussion amongst the Commissioners and staff.

Commissioner Higgins made a motion to introduce, seconded by Commissioner Schaefer. Motion passed 5-1 with Commissioner Curley opposed and Commissioner Ahr absent.

G. *SALDO Application #2017-D-04 Cabrini Master Plan Revision – **Caucus** - Preliminary Land Development*

H. *SALDO Application #2017-D-05 Cabrini Phase 2 – **Caucus** - Final Land Development*

Howard Holden, Capital Projects Coordinator for Cabrini University made a presentation of the Master Plan as well as Phase 2 which can be found on the Township website at: http://www.radnor.com/910/Board-of-Commissioners-Presentations. There was a brief discussion with the Commissioners and the applicant. Jim

Greenfield briefly spoke on behalf of the neighbors on Woodcrest that believe there is an issue with slopes near the proposed parking garage that they would like the Township to consider.

Public Comment

Mr. Bryant, Woodcrest Road - Showed pictures of the steep slopes that the neighbors feel is a problem.

Mr. Brown, Woodcrest Road – He commented that Cabrini has generally been a good neighbor but the neighbors have been as well. He feels as though the project is too much.

Commissioner Schaefer would like the exit on Eagle Road to be looked further into as well as the potential of the steep slopes.

E. *220 Gulph Creek GP# 17-175 – Requesting a waiver from §245-22 the Stormwater Management Requirements for Groundwater Recharge*

The applicant has performed two infiltration tests at the location of the proposed stormwater management system location. The required infiltration is not feasible due to the infiltration testing results of zero inches per hour and the presence of limiting zone. As a result, the applicant has made provisions for the installation of a slow release underground system which is comprised of 175 LF of 24" perforated piping surrounded by 6' of stone. There was a brief discussion amongst the Commissioners, staff and applicant.

Commissioner Schaefer made a motion to approve along with the SNOUT to be installed, seconded by Commissioner Booker. Motion passed 6-0 with Commissioner Ahr absent.

~~F. *SALDO Application # 2017-S-06 – **Caucus** – 585 County Line Road – Minor Final Subdivision*~~

Continuance requested by the applicant.

~~I. *resentation and Possible Resolution #2017-120- Authorizing the Grant Application for Improvements to the King of Prussia Road/Eagle Road/Pine Tree Road Intersection, in partnership with Cabrini University and Eastern University*~~

Removed from the agenda due to timing.

FINANCE & AUDIT

~~J. *Capital Plan Discussion*~~

Removed from the agenda due to timing.

K. *Resolution #2017-115 – Adopting the Township Manager's Recommended Budget as the comprehensive budget under §7.06(A)(2) of the Radnor Township Charter*

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

L. *Q3 Finance Update Presentation*

Removed from the agenda due to timing.

PUBLIC SAFETY

LIBRARY

PUBLIC HEALTH

PARKS & RECREATION

Old Business - None

New Business - None

Public Participation

Dan Sherry, Wayne – He inquired if the Board was aware of the nature of the charges with Commissioner Ahr as well as commented about the Ethics complaint filed against Commissioner Booker.

Commissioner Curley commented that regarding the sidewalk on S. Devon, Bob has stated that Steve can get it done. It was a tight schedule and he is happy to see it moving along.

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

Respectfully submitted,

Jennifer DeStefano

Radnor Township

PROPOSED LEGISLATION

DATE: November 13, 2017

TO: Board of Commissioners

FROM: William A. Colarulo, Police Superintendent

LEGISLATION: Request for Motion Authorizing the Radnor Township Police Department to Receive Bids for Police Uniforms for the years 2018/2019/2020.

LEGISLATIVE HISTORY: The Radnor Township Police Department previously received proposals for Police Uniforms in 2014. This was reviewed by the Board of Commissioners in March 2014 and bid authorization was received. The recommended award bid was then awarded on April 28, 2014.

PURPOSE AND EXPLANATION: The Radnor Township Police Department would like to request authorization to receive bids for the Police Uniforms for the years 2018/2019/2020. This bid is for professional services and materials needed to provide uniforms for all forty-four (44) members of the Police Department. These items include uniform pants and shirts for all members of the Police Department, including identification for Officers of various ranks. This bid is being conducted to satisfy the Home Rule Charter Section 7.11, B. This bid will have a limit on terms that will not exceed three (3) years and will be evaluated based on the quality and experience of the working relationship for the bid is ultimately awarded.

IMPLEMENTATION SCHEDULE: Upon approval, the Radnor Township Police Department will prepare and finalize all bid specifications and documentation (November); advertise in accordance with the Township requirements (November); and recommend award of bid (December).

FISCAL IMPACT: Funding for this project is provided in the Radnor Township Police Department account of 01-410-4230 under the Police Department Uniforms area of the Township Budget.

RECOMMENDED ACTION: I respectfully request that the Board of Commissioners authorize the Radnor Township Police Department to receive bids for Police Uniforms for the years 2018/2019/2020 at the November 13, 2017, Board of Commissioners Meeting. I will be available at the November 13, 2017, Board of Commissioners Meeting to address any questions that you may have regarding this request.

RADNOR TOWNSHIP POLICE DEPARTMENT
301 Iven Avenue
Wayne, Pennsylvania 19087-5297
(610) 688-0503 ¤ Fax (610) 688-1238

William A. Colarulo
Police Superintendent

TO: A Staff Traffic Committee Meeting was held on October 18, 2017 and was attended by Deputy Superintendent Christopher Flanagan; Lieutenant Shawn Dietrich, Officers Alex Janoski, Ken Piree, Patrick Lacey of Highway Patrol; William Cassidy, Public Works Field Leader; William Gallagher, Supervisor of Parking; Damon Drummond, Gilmore and Associates, Traffic Engineer; Lori DeNicola, Administrative Assistant, and Doug Ford Radnor resident.

FR: William A. Colarulo

RE: **STAFF TRAFFIC COMMITTEE MEETING HELD IN THE POLICE ROLL CALL ROOM, WEDNESDAY, OCTOBER 18, 2017, 2017, 10:00 AM.**

NEW BUINESS:

1. Adrian Salvitti of 7 Old Oaks Road reports a sight distance issue at 2 Old Oaks Road. Ms. Salvitti states it is hard to see while attempting to exit onto Lancaster Avenue from Old Oaks.

   Highway Patrol conducted a sight visit at 2 Old Oaks Road. The property owners cut the bushes back.

2. Annmarie Rose of 364 Morris Road requests curb cuts for South Devon Avenue at Arbordale Road. She would also like a crossing guard at that intersection to as many neighborhood kids walk to Wayne Elementary School.

   Highway Patrol responded to S Devon and Arbordale. There are currently is no sidewalk at this location. Staff Traffic monitored this location. Thus, there is not a current need for curb cuts. Mrs. Rose was advised to call the Radnor School District regarding a crossing guard.

3. Mrs. Susanna Choo requests a crosswalk to access Veterans Park, on Lancaster Avenue.

Staff Traffic has had no response from Mrs. Choo. A letter was sent to her regarding this topic and she has not responded at this time.

4. Residents on Fairfax Road are concerned over sight distance at the intersection of Fairfax Road and Lowry's Lane.

   Staff Traffic recommends doing a site distance study on Lowry's Lane and surrounding streets. Highway Patrol has placed a counter out and the recorded speeds do not meet requirements for further investigation. Highway Patrol officers conducted site visit and contacted residents at the corner of Fairfax Road & Lowry's Lane and Hickory Lane & Lowry's Lane. All were advised to trim bushes back.

5. Susan Stern requests the speed on Brooke Road be increased and reassessed.

   Staff Traffic recommends no increase in speed at this time.

OLD BUSINESS:

1. Doug Ford requested speed analysis on Walnut @ Oak. (Follow Up on Numbers From Counter)

   Staff Traffic recommends everything stay the same.

2. Jane Lemmon requests speed humps or stop signs at Kinterra Road and Church Road.

   Speed humps were denied. Traffic study supports more detailed investigation by Damon Drummond of Gilmore and Associates regarding the stop signs. Request site visit. Mrs. Lemmon was updated by Officer Piree.

Radnor Township

PROPOSED MOTION

DATE: November 7, 2017

TO: Radnor Township Board of Commissioners

CC: Robert A. Zienkowski, Township Manager
William R. White, Assistant Township Manager/Finance Director

FROM: Stephen McNelis, Co-Interim Director of Public Works

LEGISLATION: Motion: Authorize the Sale of Surplus Township Vehicles & Equipment

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LEGISLATIVE HISTORY: The Public Works Department annually clears the fleet of vehicles and equipment that are being replaced through the capital equipment program.

PURPOSE AND EXPLANATION: The Public Works Department is requesting to place the vehicles and equipment outlined below at J.J. Kane Public Auction and/or Carriage Trade Auto Auctions:

Number	Description	VIN	Reserve Price ($)
51	**2002 International Dump Truck**	**1HTMKAAN83H556206**	**1000**
68	**1994 International Dump Truck**	**1HTSCAAP3SH651602**	**500**
CB3	**Clam Bucket**		**No Reserve**
	Portable Irrigation System		**No Reserve**

IMPLEMENTATION SCHEDULE: The vehicles will be auctioned at the next available auction.

FISCAL IMPACT: The Township will receive revenue, in the aggregate of the minimum reserves.

RECOMMENDED ACTION: I respectfully request the Board of Commissioners to approve the Motion for Clearance of Surplus Township Vehicles and Equipment.

CERTIFICATE OF APPROPRIATENESS

Radnor Township Historical and Architectural Review Board
Radnor Township, Pennsylvania

NAME OF OWNER:	MCHALE SEAN & RISI KARIN A
OWNER ADDRESS:	326 LOUELLA AVE, WAYNE, PA 19087
ADDRESS OF PROPERTY:	326 LOUELLA AV , WAYNE PA 19087
APPLICATION NUMBER:	HARB-2017-19

Subject to the conditions below the above owner, having complied with the Radnor Township Historical and Architectural Review Board (HARB) process, is hereby granted this permit for the

Reduced footprint of previously submitted garage and pool house; and removal of existing carriage barn and concrete pad.

at the address specified and may proceed with the building permit process. If not completed within one year of the date hereof, this permit is void and new application must be made. This Approval is subject to the Applicant applying for and receiving all necessary permits and approvals; and complying with all applicable Municipal regulations. Owner specifically gives the building inspector or designated official the right to inspect the work during progress and at completion.

NOTES AND/OR CONDITIONS OF APPROVAL:

Approved as submitted.

ISSUED: Monday, November 13, 2017

TOWNSHIP OFFICIAL **ACCEPTED BY APPLICANT**

_____ _____

Wayne Business Association

P.O. BOX 50 WAYNE, PENNSYLVANIA 19087

PRESIDENT
Christopher Todd
Christopher's Restaurant

VICE PRESIDENT
Deanna Doane
Click Canyon

SECRETARY
Nancy Campbell
Wayne Art Center

TREASURER
Nelson Dayton
Dayton Lock Company

BOARD OF DIRECTORS

Cheryl Atkins-Lubinski
Integrity Eye Associates, LLC

Gregory Basile
Comcast Business

David Brennan
Wayne Hotel

Alicia Eger
Coco Blu Boutique

Dr. Jenn Hartmann
Strafford Chiropractic and Healing Center

Carol L. Jane
Neighborhood League Shops

Mike Libert
Main Line Print Shop, Inc.

Nan Mangine
Valpak of Philadelphia

Joan M. Menige
Healthy Food Specialist/ Culinary Instructor

Scott Reidenbach, Esq.
Reidenbach & Associates, LLC

November 3rd, 2017

TO: Radnor Township Commissioners and Police Department

FROM: Wayne Business Association

RE: Free Saturday Parking Nov 25th, Dec 2nd, 9th, 16th, 23rd, 30th.

The Wayne Business Association (WBA) respectfully requests the consideration of free parking on the 5 Saturdays before Christmas and the on following, as done in the past. It is greatly appreciated by the merchants of Wayne and helps the Town succeed during the Holidays.

Thank You,

Christopher Todd, Volunteer President WBA

Announcement of Boards and Commissions Vacancies

Board of Health
1 Vacancy

Design Review Board **(as of 1/1/2018)**
1 Vacancy

Parks and Recreation Board **(as of 1/1/2018)**
1 Vacancy

Shade Tree Commission
1 Vacancy

Code Appeals Board **(as of 1/1/2018)**
1 Vacancy

Environmental Advisory Board **(as of 1/1/2018)**
1 Vacancy

Planning Commission **(as of 1/1/2018)**
1 Vacancy

Stormwater Advisory Committee
1 Vacancy

Possible Motion to Appointment Applicants to the Various Boards and Commissions

Public Participation

2018 Budget Discussion

Capital Funding
Community Organization Funding
Radnor Fire Company Funding

RADNOR TOWNSHIP

ENGINEERING DEPARTMENT

Memorandum

To: Radnor Township Board of Commissioners

From: Stephen F. Norcini, PE, Township Engineer

CC: Robert A. Zienkowski, Township Manager
William M. White, Assistant Manager/Director of Finance
John Rice, Solicitor, Grim, Bien, & Thatcher
Roger Phillips, PE, Gannett Fleming, Incorporated

Date: November 6th, 2017

Re: SALDO Application #2017-S-06 –*Caucus*- 585 County Line Road, Minor Subdivision. Applicant: Allison and James McGuckin

The above referenced application will be before the Board of Commissioners for Caucus. The subject properties are accessed by Gulph Creek Road and County Line Road.

Essentially, the lot line changes will create two lots from what is currently three lots. The applicants are requesting waivers for requirements regarding contour lines and the datum, tree location, and the Sewage Facilities Planning Module (SFPM).

Enclosed are the detailed Gannett Fleming, Incorporated and Gilmore & Associates review letters.

301 IVEN AVENUE, WAYNE PA 19087
T 610-688-5600, EXT. 130

LOCATION MAP

LOT LINE CHANGE
MINOR SUBDIVISION PLAN
585 COUNTY LINE ROAD

AERIAL VIEW PLAN
SCALE: 1"=200 +/-

DRAWING SCHEDULE	SHEET No.
COVER SHEET	1
EXISTING FEATURES	2
PROPOSED PLAN (RECORDING SHEET 1 OF 1)	3

THIS MINOR SUBDIVISION PLAN IS BEING SUBMITTED AS A FINAL PLAN PER §255-22.

NUM.	DATE	REVISION

PLAN PREPARED BY:
SITE ENGINEERING CONCEPTS, LLC
P.O. BOX 1992
SOUTHEASTERN, PA 19399
P: 610-240-0450 F: 610-240-0451 E:INFO@SITE-ENGINEERS.COM

PLAN PREPARED FOR:
JAMES & ALLISON McGUCKIN
585 COUNTY LINE ROAD
RADNOR, PA 19087
RADNOR TOWNSHIP DELAWARE COUNTY PENNSYLVANIA

DATE: SEPTEMBER 1, 2017

COVER SHEET

SHEET 1 of 3

CIVIL ENGINEER:

SITE ENGINEERING CONCEPTS, LLC
ATTN: PATRICK SPELLMAN, P.E.
P.O. BOX 1992 SOUTHEASTERN, PA 19399
P: 610-240-0450
E: RLAMBERT@SITE-ENGINEERS.COM

OWNER, 585 COUNTY LINE RD:

JAMES AND ALLISON McGUCKIN
585 COUNTY LINE ROAD
WAYNE, PA 19087
E: JAMESMCGUCKIN03@GMAIL.COM

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
PATRICK SPELLMAN
ENGINEER
No. 40021E

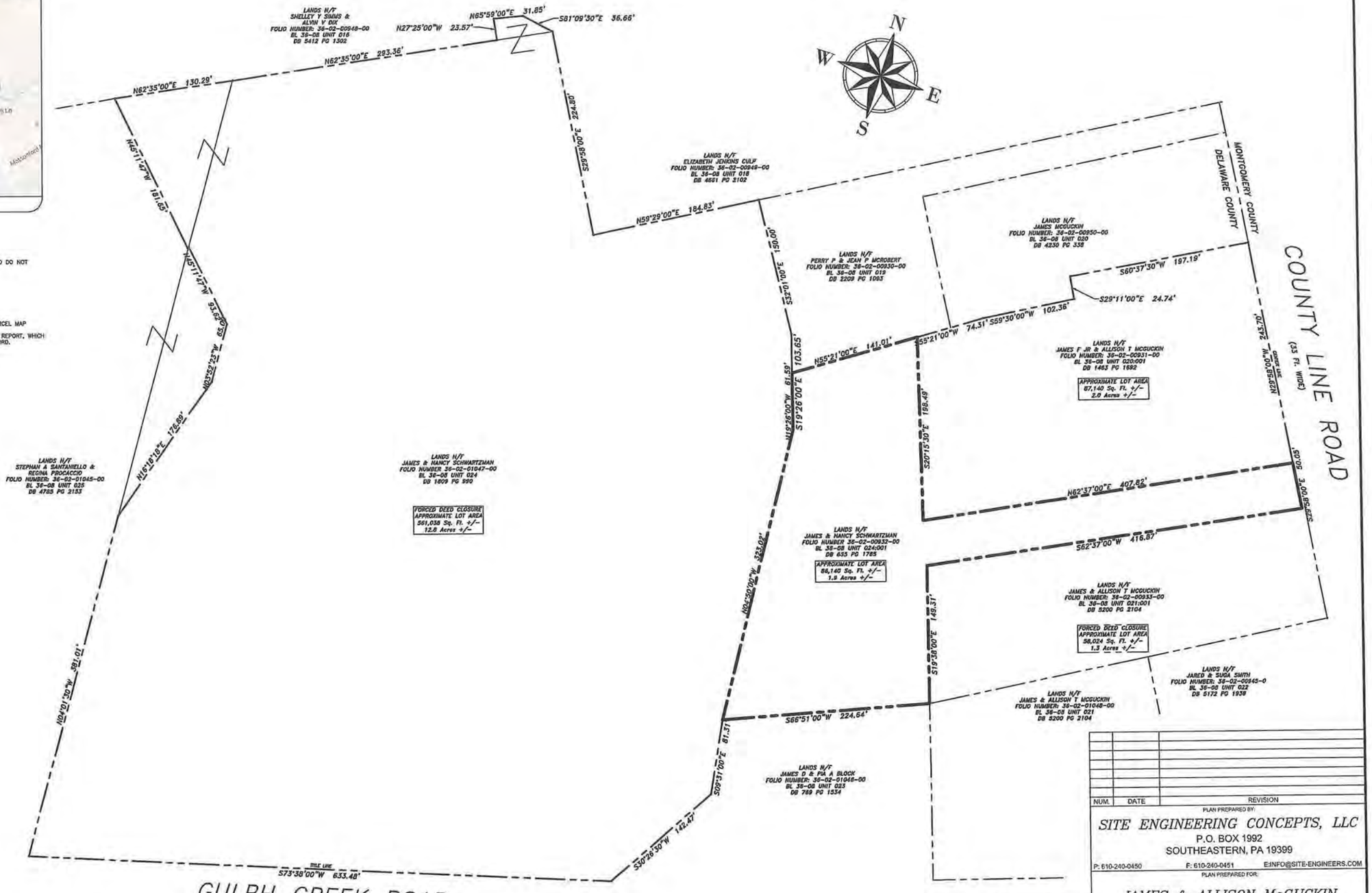
PATRICK SPELLMAN, P.E.
PE-40021

LOCATION MAP

GENERAL NOTES

1. PARCEL LINES SHOWN HAVE BEEN PLOTTED FROM EXISTING RECORDS AND DO NOT REPRESENT A FIELD SURVEY.
2. EXISTING RECORDS REFERENCED:
   DEED BOOK 1463 PAGE 1892
   DEED BOOK 5200 PAGE 2104
   DEED BOOK 655 PAGE 1765
   DEED BOOK 512 PAGE 1354
   DEED BOOK 1809 PAGE 990
   DEED BOOK 1809 PAGE 995
   PARTIAL COPY OF DELAWARE COUNTY RECORDER OF DEED HISTORIC PARCEL MAP
3. THIS PLAN WAS PERFORMED WITHOUT THE BENEFIT OF A CURRENT TITLE REPORT, WHICH WOULD DISCLOSE ANY RIGHTS, RESERVATIONS, EASEMENTS, ETC. OF RECORD.

ZONING SUMMARY	
R-1 - RESIDENTIAL DISTRICT	
ORDINANCE ITEM	REQUIREMENT
MIN. LOT AREA	43,560 SF
MIN. LOT WIDTH @ BLDG	120 FT
MIN. SETBACKS	
FRONT	60 FT
SIDE (INDIVIDUAL/AGGREGATE)	25 FT / 60 FT
REAR	40 FT
MAX. BUILDING HEIGHT	35 FT
MAX. BUILDING COVERAGE	15%
MAX. IMPERVIOUS COVERAGE	20%
RIPARIAN BUFFER SETBACK	35 FT



PLAN LEGEND

- SUPPLEMENTAL CONTOUR (1' INTERVAL)
- INDEX CONTOUR (5' INTERVAL)
- EXISTING STORM SEWER PIPING
- EXISTING SANITARY SEWER PIPING
- EXISTING GAS MAIN
- EXISTING WATER MAIN / SERVICE
- EXISTING UNDERGROUND TELEPHONE
- EXISTING EDGE OF WOODS
- EXISTING EDGE OF PAVEMENT
- EXISTING FENCE LINE
- PROPERTY LINE
- BUILDING SETBACK LINE

GRAPHIC SCALE

(IN FEET)
1 inch = 50 ft.

NUM.	DATE	REVISION

PLAN PREPARED BY:

SITE ENGINEERING CONCEPTS, LLC
P.O. BOX 1992
SOUTHEASTERN, PA 19399
P: 610-240-0450 F: 610-240-0451 E:INFO@SITE-ENGINEERS.COM

PLAN PREPARED FOR:

JAMES & ALLISON McGUCKIN
585 COUNTY LINE ROAD
RADNOR, PA 19087
RADNOR TOWNSHIP DELAWARE COUNTY PENNSYLVANIA

DATE: SEPTEMBER 1, 2017

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
L. PATRICK SPELLMAN
ENGINEER
No. 40021E

PATRICK SPELLMAN, P.E.
PE-40021

EXISTING BOUNDARY DEED PLOT

SHEET 2 of 3

SCALE: 1" =50'

LANDS N/F
SHELLEY Y SIMMS &
ALVIN V DIX
FOLIO NUMBER: 36-02-00546-00
BL 36-08 UNIT 018
DB 5412 PG 1302

N65°59'00"E 31.85'
S81°09'30"E 36.66'
N27°25'00"W 23.57'
N62°35'00"E 293.36'
N62°35'00"E 130.29'
S29°58'00"E 224.80'
N25°17'47"W 181.65'
N59°29'00"E 184.83'
N13°18'18"E 176.98'
N64°01'30"W 381.01'
S73°38'00"W 633.48'
S30°26'30"W 142.47'
S09°31'00"E 81.31'
S66°51'00"W 224.64'
S19°35'00"E 149.31'
S20°15'30"E 198.49'
N23°17'48"W 48.86'
S62°37'00"W 416.87'
S60°37'30"W 197.19'
S29°11'00"E 24.74'
S32°01'00"E 150.00'
S19°01'00"E 42.06'
N55°21'00"E 141.01'
S55°21'00"W 74.31'
S59°30'00"W 102.36'
N23°52'00"E 274.70'
S20°05'00"E 3.00'
N23°52'00"E 50.05'

LANDS N/F
STEPHAN A SANTANIELLO &
REGINA PROCACCIO
FOLIO NUMBER: 36-02-01045-00
BL 36-08 UNIT 025
DB 4785 PG 2153

LANDS N/F
JAMES & NANCY SCHWARTZMAN
FOLIO NUMBER 36-02-01047-00
BL 36-08 UNIT 024
DB 1809 PG 990

FORCED DEED CLOSURE
APPROXIMATE LOT AREA
561,038 Sq. Ft. +/-
12.8 Acres +/-

PROPOSED LOT AREA
626,882 Sq. Ft.

LANDS N/F
ELIZABETH JENKINS CULP
FOLIO NUMBER: 36-02-00949-00
BL 36-08 UNIT 018
DB 4661 PG 2102

LANDS N/F
PERRY P & JEAN P MCROBERY
FOLIO NUMBER: 36-02-00930-00
BL 36-08 UNIT 019
DB 2209 PG 1053

LANDS N/F
JAMES & NANCY SCHWARTZMAN
FOLIO NUMBER 36-02-00932-00
BL 36-08 UNIT 024:001
DB 655 PG 1765

APPROXIMATE LOT AREA
86,140 Sq. Ft. +/-
1.9 Acres +/-

PREMISES B
65,844 Sq. Ft.

LANDS N/F
JAMES & ALLISON T MCGUCKIN
FOLIO NUMBER: 36-02-01045-00
BL 36-08 UNIT 021
DB 5200 PG 2104

LANDS N/F
JAMES D & PIA A BLOCK
FOLIO NUMBER: 36-02-01046-00
BL 36-08 UNIT 023
DB 709 PG 1534

LANDS N/F
JAMES McGUCKIN
FOLIO NUMBER: 36-02-00950-00
BL 36-08 UNIT 020
DB 4230 PG 338

LANDS N/F
JAMES F JR & ALLISON T MCGUCKIN
FOLIO NUMBER: 36-02-00931-00
BL 36-08 UNIT 020:001
DB 1483 PG 1692

APPROXIMATE LOT AREA
87,140 Sq. Ft. +/-
2.0 Acres +/-

PROPOSED LOT AREA
107,436 Sq. Ft.

PREMISES A
20,296 Sq. Ft.

LANDS N/F
JAMES & ALLISON T MCGUCKIN
FOLIO NUMBER: 36-02-00933-00
BL 36-08 UNIT 021:001
DB 5200 PG 2104

LANDS N/F
JARED & SUSA SMITH
FOLIO NUMBER: 36-02-00945-0
BL 36-08 UNIT 022
DB 5172 PG 1639

MONTGOMERY COUNTY
DELAWARE COUNTY

COUNTY LINE ROAD
(33 FT. WIDE)

GULPH CREEK ROAD
(33 FT. WIDE)

TIDE LINE

N
W E
S

LOCATION MAP

GENERAL NOTES

1. PARCEL LINES SHOWN HAVE BEEN PLOTTED FROM EXISTING RECORDS AND DO NOT REPRESENT A FIELD SURVEY.
2. EXISTING RECORDS REFERENCED:
   DEED BOOK 1463 PAGE 1692
   DEED BOOK 5200 PAGE 2104
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   DEED BOOK 1809 PAGE 995
   PARTIAL COPY OF DELAWARE COUNTY RECORDER OF DEED HISTORIC PARCEL MAP
3. THIS PLAN WAS PERFORMED WITHOUT THE BENEFIT OF A CURRENT TITLE REPORT, WHICH WOULD DISCLOSE ANY RIGHTS, RESERVATIONS, EASEMENTS, ETC. OF RECORD.

COMMONWEALTH OF PENNSYLVANIA, COUNTY OF _____
ON THE ____ DAY OF _____, 20___ BEFORE ME, NOTARY PUBLIC OF THE COMMONWEALTH OF PENNSYLVANIA, PERSONALLY APPEARED JAMES AND ALLISON McGUCKIN, WHO ACKNOWLEDGED TO BE THE OWNERS OF THE PROPERTY SHOWN ON THE PLAN, THAT THE PLAN WAS MADE AT THEIR DIRECTION AND THAT IT IS THEIR INTENTION TO HAVE THE PLAN RECORDED.

JAMES McGUCKIN, OWNER, 585 COUNTY LINE ROAD

ALLISON McGUCKIN, OWNER, 585 COUNTY LINE ROAD

NOTARY PUBLIC:

MY COMMISSION EXPIRES:

COMMONWEALTH OF PENNSYLVANIA, COUNTY OF _____
ON THE ____ DAY OF _____, 20___ BEFORE ME, NOTARY PUBLIC OF THE COMMONWEALTH OF PENNSYLVANIA, PERSONALLY APPEARED JAMES AND NANCY SCHWARTZMANN, WHO ACKNOWLEDGED TO BE THE OWNERS OF THE PROPERTY SHOWN ON THE PLAN, THAT THE PLAN WAS MADE AT THEIR DIRECTION AND THAT IT IS THEIR INTENTION TO HAVE THE PLAN RECORDED.

JAMES SCHWARTZMANN, OWNER, 401 GULPH CREEK ROAD

NANCY SCHWARTZMANN, OWNER, 401 GULPH CREEK ROAD

NOTARY PUBLIC:

MY COMMISSION EXPIRES:

PROJECT NARRATIVE

THE OWNERS ADJOINING PARCEL 36-08-024:001 PROPOSE TO MOVE THE LOT LINES AND CONSOLIDATE THE PARCEL WITH THE ADJOINING PROPERTIES, THEREBY ELIMINATING THE UNDEVELOPED PARCEL.

NUM.	DATE	REVISION

WAIVER REQUESTED

1. §255-22 – PLAN CONTENTS:
THE APPLICANT IS REQUESTING A WAIVER, TO THE EXTENT NECESSARY, FROM CERTAIN PROVISIONS OF CHAPTER 255-22 REQUIRING A MINOR SUBDIVISION PLAN TO CONTAIN: EXISTING IMPROVEMENTS ON AND WITHIN 500' OF THE SITE; CONTOURS; DATUM; WETLANDS DELINEATION; STEEP SLOPES; FLOOD PLAINS; LARGE TREES AND PLANNING MODULES. THESE ITEMS ARE UNNECESSARY FOR THIS LOT LINE CHANGE PLAN AS THERE IS NO EXISTING DEVELOPMENT ON THE EXISTING PARCEL (LAWN AND LANDSCAPING ONLY) AND NO FUTURE DEVELOPMENT IS PROPOSED WITH THIS APPLICATION. A PARCEL WILL BE ELIMINATED BY CONSOLIDATING IT WITH THE ADJOINING PROPERTIES.

ZONING SUMMARY

R-1 - RESIDENTIAL DISTRICT

ORDINANCE ITEM	REQUIREMENT
MIN. LOT AREA	43,560 SF
MIN. LOT WIDTH @ BLDG.	120 FT
MIN. SETBACKS:	
FRONT	60 FT
SIDE (INDIVIDUAL/AGGREGATE)	25 FT / 80 FT
REAR	40 FT
MAX. BUILDING HEIGHT	35 FT
MAX. BUILDING COVERAGE	15%
MAX. IMPERVIOUS COVERAGE	22%
RIPARIAN BUFFER SETBACK	35 FT

PLAN LEGEND

- SUPPLEMENTAL CONTOUR (1' INTERVAL)
- INDEX CONTOUR (5' INTERVAL)
- EXISTING STORM SEWER PIPING
- EXISTING SANITARY SEWER PIPING
- EXISTING GAS MAIN
- EXISTING WATER MAIN / SERVICE
- EXISTING UNDERGROUND TELEPHONE
- EXISTING EDGE OF WOODS
- EXISTING EDGE OF PAVEMENT
- EXISTING FENCE LINE
- PROPERTY LINE
- BUILDING SETBACK LINE

GRAPHIC SCALE
50 0 25 50 100 200
(IN FEET)
1 inch = 50 ft.

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
PATRICK SPELLMAN
ENGINEER
No. 400216
PENNSYLVANIA

PATRICK SPELLMAN, P.E.
PE-40021

PLAN PREPARED BY:
SITE ENGINEERING CONCEPTS, LLC
P.O. BOX 1992
SOUTHEASTERN, PA 19399
P: 610-240-0450 F: 610-240-0451 E:INFO@SITE-ENGINEERS.COM

PLAN PREPARED FOR:
JAMES & ALLISON McGUCKIN
585 COUNTY LINE ROAD
RADNOR, PA 19087
RADNOR TOWNSHIP DELAWARE COUNTY PENNSYLVANIA

PROPOSED LOT LINE CHANGE PLAN (RECORDING SHEET 1 OF 1)

DATE: SEPT 1, 2017

SHEET 3 of 3

SCALE: 1"=50'

Gannett Fleming

Excellence Delivered As Promised

Date: October 11, 2017

To: Stephen Norcini, P.E. – Township Engineer

From: Roger Phillips, PE

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

RE: 585 County Line Road – Minor Final Plan
James and Allison McGuckin – Applicant

Date Accepted: September 5, 2017
90 Day Review: December 4, 2017

Gannett Fleming, Inc. has completed a review of the Lot Consolidation Plans for compliance with the Radnor Township Code. These Plans was reviewed for conformance with Zoning, Subdivision and Land Development, and other applicable codes of the Township of Radnor.

The applicant is proposing to consolidate the three existing parcels to form two parcels. This project does not meet the criteria for an administration review exemption. No improvements are proposed at this time.

Proposed Lot Line Change
Plans Prepared By: Site Engineering Concepts, LLC
Dated: 09/01/2017

The applicant is requesting a waiver, to the extent necessary, from certain provisions of §255-22 requiring a minor subdivision plan to contain; existing improvements on and within 500' of the site; wetland delineations; contours; datum; large trees; and planning modules. The applicant has indicated that these items are unnecessary for this lot line change plan as there is not existing development on the existing parcel and no future development is proposed with this application.

Zoning

1. The zoning table summary must be revised to reflect the existing and proposed lot conditions.

Gannett Fleming

Steve Norcini, Township Engineer
585 County Line Road
October 11, 2017

Subdivision and Land Development

1. §255.22.B(1)(k) – Features within 500 feet of the site must be shown on the plan. The applicant has requested a waiver from this requirement.

2. §255.22.B(1)(p) – Contour Lines must be shown on the plan. The applicant has requested a waiver from this requirement.

3. §255.22.B(1)(q) – Datum of contour lines must be shown on the plan. The applicant has requested a waiver from this requirement.

4. §255.22.B(1)(r) – Large trees over 6" in caliper must be shown on the plan. The applicant has requested a waiver from this requirement.

5. §255.22.B(3) – Planning modules for land development as required must be submitted. The applicant has requested a waiver from this requirement.

General

1. New deeds that reflect the lot line changes must be prepared and recorded with the Delaware County Recorder of Deeds.

The applicant appeared before the Planning Commission on October 2, 2017. The Planning Commission recommended approval conditioned on the applicant complying with all staff comments along with the recommended approval of the following waiver:

- §255-22 - To the extent necessary, from certain provisions of §255-22 requiring a minor subdivision plan to contain; existing improvements on and within 500' of the site; wetland delineations; contours; datum; large trees; and planning modules.

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

printed on recycled paper

Gannett Fleming

Excellence Delivered As Promised

Date: September 25, 2017

To: Stephen Norcini, P.E. – Township Engineer

From: Roger Phillips, PE

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

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James and Allison McGuckin – Applicant

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Zoning

1. The zoning table summary must be revised to reflect the existing and proposed lot conditions.

Gannett Fleming

Steve Norcini, Township Engineer
585 County Line Road
September 25, 2017

Subdivision and Land Development

1. §255.22.B(1)(k) – Features within 500 feet of the site must be shown on the plan. The applicant has requested a waiver from this requirement.

2. §255.22.B(1)(p) – Contour Lines must be shown on the plan. The applicant has requested a waiver from this requirement.

3. §255.22.B(1)(q) – Datum of contour lines must be shown on the plan. The applicant has requested a waiver from this requirement.

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General

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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

Printed on recycled paper

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

MEMORANDUM

Date: September 20, 2017

To: Steve Norcini, P.E.
Radnor Township Engineer

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

cc: Roger Phillips, P.E., Senior Project Manager, Gannett Fleming, Inc.
Damon Drummond, P.E., PTOE, Gilmore & Associates, Inc.

Reference: 585 County Line Road
Lot Subdivision and Consolidation
Minor/Final Land Development Review 1
Radnor Township, Delaware County, PA
G&A 17-09027

Gilmore & Associates, Inc. (G&A) has completed a transportation review of the referenced Lot Subdivision and Consolidation Plan for 585 County Line Road. The Application is to subdivide 20,296 SF (Premise A) from Folio Number 36-02-00932-00 (owned by James & Nancy Schwartzman) and to convey and consolidate with Folio Number 36-02-00931-00 (owned by James and Allison McGuckin). No additional improvements are under consideration on this Application.

A. DOCUMENTS REVIEWED

1. Lot Consolidation and Minor/Final Subdivision Plans for 585 County Line Road, prepared by Site Engineering Concepts, LLC, prepared for James and Allison McGuckin, consisting of 3 sheets, dated September 1, 2017.

2. Radnor Township Subdivision and Land Development Application

3. Waiver Request letter dated September 1, 2017 prepared by Site Engineering Concepts, LLC.

B. REVIEW COMMENTS

1. §255-27.B(3)(c) and §255-27.C(1) County Line Road is identified as a major collector; as such, major collectors require a basic dimension of an 80' Right-of-Way and 48' cartway width. The plan identifies an existing 33' Right-of-Way on County Line Road along the site frontage. . Although the project proposes no improvements the applicant may be required to provide the 80' Right-of-Way or request a waiver from this section of the ordinance. We defer to the Township Solicitor regarding this requirement.

65 E. Butler Avenue | Suite 100 | New Britain, PA 18901
Phone: 215-345-4330 | Fax: 215-345-8606

www.gilmore-assoc.com

RADNOR TOWNSHIP

MEMORANDUM

TO: MR. STEVE NORCINI
FROM: RAY DALY
SUBJECT: 585 COUNTY LINE ROAD
DATE: SEPTEMBER 13, 2017
CC: MR. PHILLIPS

Mr. Norcini

I have no comments on the sub-division.

Respectfully,

Ray Daly

Building Codes/Fire Codes Official

PHILIP M. AHR
President

ELAINE P. SCHAEFER
Vice President

JAMES C. HIGGINS, ESQ.

LUCAS A. CLARK, ESQ.

DON CURLEY

JOHN NAGLE

RICHARD F. BOOKER, ESQ.

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 7, 2017

James McGuckin, Jr.
585 County Line Road
Radnor, PA 19087

RE: Minor Final Subdivision Application #2017-S-06
585 County Line Road

Dear Mr. McGuckin:

In accordance with Section 255-18 of the Subdivision of Land Code of the Township of Radnor, we have reviewed your minor final subdivision application to change a lot line to divide an existing parcel and merge with existing lots to create 2 large lots. Therefore, I have accepted the application for minor final subdivision 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 2, 2017.**

Planning Commission meetings begin at **7:00 P.M.** These meetings will be held in the Radnor Township Municipal Building, 301 Iven Ave., Wayne, Pa 19087.

Sincerely,

Stephen F. Norcini, PE
Township Engineer

SITE ENGINEERING CONCEPTS, LLC

CIVIL ENGINEERING AND CONSULTING SERVICES

TRANSMITTAL

TO: Stephen Norcini, P.E., Township Engineer	FROM: Patrick Spellman
COMPANY: Radnor Township	DATE: 9/1/2017
STREET ADDRESS: 301 Iven Avenue	PHONE:
CITY, ZIP: Wayne, PA 19087	SENDER'S REFERENCE NUMBER: 36-08-020:001 McGuckin County Line Rd
RE: Lot Line Change Application	CC: Jame McGuckin, Owner William Brennan, Attorney James Schwartzmann, Owner Nick Caniglia, Attorney

COPIES	SHEETS	DATE	ITEM
1	2	9/1/17	MINOR SUBDIVISION APPLICATION
1	1	9/1/17	ACT 247 REVIEW APPLICATION
1	CHK	8/28/17	$350 LOT LINE CHANGE APPLICATION FEE
1	CHK	8/28/17	$1,300 PROFESSIONAL SERVICES ESCROW FEE
1	CHK	8/28/17	$170 ACT 247 FEE
26	3	9/1/17	LOT LINE CHANGE PLAN SET
7	3	9/1/17	LOT LINE CHANGE PLAN SET, 11X17
2	1	9/1/17	WAIVER REQUEST LETTER
2	6	3/29/96	DEED - 585 COUNTY LINE ROAD
2	43	11/14/16	TITLE REPORT AND DEED - 36-02-01047-00
10	-	9/1/17	USB DRIVE WITH PDF FILES

NOTES/COMMENTS:

Enclosed please find the above-referenced applications for the proposed Lot Line Change between 585 County Line Road and 401 Gulph Creek Road. If you have any questions or comments, please contact me at pspellman@site-engineers.com or 610.523.9002.

P.O. Box 1992 ° Southeastern, PA 19399
P: 610.240.0450 ° F: 610.240.0451

SITE ENGINEERING CONCEPTS, LLC
Consulting Engineering and Land Development Services

September 1, 2017

Mr. Robert Zienkowski
Township Manager
Radnor Township
301 Iven Ave
Wayne, PA 19087

Re: Waiver Requests
Lot Line Change/Minor Subdivision Plan
585 County Line Road

The Owners adjoining parcel 36-08-024:001 propose to move the lot lines and consolidate the parcel with the adjoining properties, thereby eliminating the undeveloped lot. The following waiver is requested for Minor Subdivision Application.

The Applicant is requesting a waiver, to the extent necessary, from certain provisions of Chapter 255-22 requiring a minor subdivision plan to contain: existing improvements on and within 500' of the site; wetlands delineation; contours; datum; large trees; and planning modules. These items are unnecessary for this lot line change plan as there is no existing development on the existing parcel (lawn and landscaping only) and no future development is proposed with this application. A parcel will be eliminated by consolidating it with the adjoining properties.

We appreciate your consideration of this request. Should you have any questions and/or additional comments, please contact me at pspellman@site-engineers.com or 610.523.9002.

Sincerely,

Patrick Spellman, P.E.

P.O. Box 1992 • Southeastern • PA 19399
P: 610.240.0450 F: 610.240.0451

DocuSign Envelope ID: E7CBBB2F-7AE3-49AC-995B-BFAFE0E2059C

RADNOR TOWNSHIP
301 IVEN AVE
WAYNE PA 19087
P) 610 688-5600
F) 610 971-0450
WWW.RADNOR.COM

SUBDIVISION ~~ LAND DEVELOPMENT Lot Line Adjustments

Location of Property 585 County Line Road

Zoning District R-1 Application No. _____ (Twp. Use)

Fee _____ Ward No. _____ Is property in HARB District No

Applicant: (Choose one) Owner X Equitable Owner _____

Name James F. McGuckin, Jr. and Allison T. McGuckin

Address 585 County Line Road, Radnor, PA 19087

Telephone _____ Fax _____ Cell _____

Email jamesmcguckin03@gmail.com

Designer: (Choose one) Engineer X Surveyor _____

Name Rob Lambert, Site Engineering Concepts LLC

Address PO Box 1992, Southeastern, PA 19399

Telephone 610-240-0450 ext. 11 Fax 610-240-0451

Email rlambert@site-engineers.com

Area of property 50' x 400' Area of disturbance none

Number of proposed buildings none Proposed use of property residential

Number of proposed lots no additional lots

Plan Status: Sketch Plan ____ Preliminary ____ Final ____ Revised ____

Are there any requirements of Chapter 255 (SALDO) that are not in compliance with?

No

DocuSign Envelope ID: E7CBBB2F-7AE3-49AC-995B-BFAFE0E2059C

Are there any requirements of Chapter 255 (SALDO) not being adhered to?
Explain the reason for noncompliance.

Yes. See attached waiver request

Are there any infringements of Chapter 280 (Zoning), and if so what and why?

No

Individual/Corporation/Partnership Name

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 DocuSigned by: James F. McGuckin, Jr. 1E8E51E088824F3... DocuSigned by: Allison T. McGuckin 420F488884304FC...

Print Name James F. McGuckin, Jr. Allison T. McGuckin

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.

DocuSign Envelope ID: E7CBBB2F-7AE3-49AC-995B-BFAFE0E2059C

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 James McGuckin, Jr E-mail jamesmcguckin03@gmail.com

Address 585 County Line Road Phone

Name of Development

Municipality Radnor

ARCHITECT, ENGINEER, OR SURVEYOR

Name of Firm SITE Engineering Concepts, LLC Phone 610-240-0450 x11

Address P.O. Box 1992; Southeastern, PA 19399

Contact Rob Lambert E-mail rlambert@site-engineers.com

Type of Review	Plan Status	Utilities: Existing	Utilities: Proposed	Environmental Characteristics
☐ Zoning Change	☐ Sketch	☐ Public Sewerage	☐ Public Sewerage	
☐ Land Development	☐ Preliminary	☐ Private Sewerage	☐ Private Sewerage	☐ Wetlands
☐ Subdivision	☒ Final	☐ Public Water	☐ Public Water	☐ Floodplain
☐ PRD	☐ Tentative	☐ Private Water	☐ Private Water	☐ Steep Slopes

Zoning District R-1

Tax Map # 36 / 08 / 020-001

Tax Folio # 36 / 02 / 00931 _ / 00

DocuSign Envelope ID: E7CBBB2F-7AE3-49AC-995B-BFAFE0E2059C

STATEMENT OF INTENT
WRITING "SEE ATTACHED PLAN" IS NOT ACCEPTABLE.

Existing and/or Proposed Use of Site/Buildings:

Single Family Residential. The owners propose a lot line change to divide an existing parcel and merge into their respective lots.

(net effect is 3 existing lots become 2 larger lots)

Total Site Area 16 Acres

Size of All Existing Buildings n/a Square Feet

Size of All Proposed Buildings n/a Square Feet

Size of Buildings to be Demolished n/a Square Feet

James F. McGuckin, Jr.
Print Developer's Name

DocuSigned by:
James F. McGuckin, Jr.
Developer's Signature

Allison T. McGuckin

DocuSigned by:
Allison T. McGuckin
420F468884304FC...

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 <u>original</u> signatures must be submitted to DCPD.

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Fee Simple Deed No. 752-S

Printed for and Sold by John C. Clark Co., 1326 Walnut St., Phila.

This Indenture Made the 29th day of March in the year of our Lord one thousand nine hundred and ninety-six (1996)

Between THOMAS E. McDYER

(hereinafter called the Grantor), of the one part, and

JAMES F. McGUCKIN, Jr. and ALLISON T. McGUCKIN, HUSBAND and WIFE

(hereinafter called the Grantee), of the other part,

Witnesseth That the said Grantor for and in consideration of the sum of SIX HUNDRED FIFTY THOUSAND DOLLARS ($650,000.00) lawful money of the United States of America, unto them well and truly paid by the said Grantees, 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 Grantees, their heirs and assigns, as tenants by the entireties, in fee.

ALL THAT CERTAIN messuage or tenement and tract of land or piece of ground and being more accurately described on Exhibit "A", attached hereto and made a part hereof.

UNDER and SUBJECT, to conditions and restrictions as of record.

VOL 1463 PG 1692

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EXHIBIT "A"

ALL THAT CERTAIN lot or piece of ground with the buildings and improvements thereon erected, **SITUATE** in Radnor Township, Delaware County, Pennsylvania, and described according to a subdivision Plan of John G. Bickell and Edna M. Bickell, made by Yerkes Engineering Co., Consulting Engineers and Surveyors dated March 6th, 1968 and last revised June 17th, 1976 as follows, to wit:

BEGINNING at a point on the title line in the bed of County Line Road (33 feet wide) said point being at the distance of 452.73 feet measured Northwardly along the line through the bed of County Line Road from its point of intersection with the title line of Gulph Creek Road; thence extending from said point of beginning South 62 degrees 37 minutes West crossing the Southwesterly side of County Line Road and extending along lands now or late of Charles G. Berwind 407.82 feet to a point; thence extending North 20 degrees 15 minutes 30 seconds West along the last mentioned lands 198.49 feet to a point in line of lands now or late of Catherine Des. F. Smith thence extending along the last mentioned lands the four following courses and distances (1) North 55 degrees 21 minutes East 15.99 feet to a point; (2) North 20 degrees 03 minutes West 120.17 feet to a point (3) North 41 degrees 46 minutes East 93.67 feet to a point and (4) 59 degrees 29 minutes East 52.44 feet to a point, a corner of Lot No. 1 on said plan; thence extending along Lot No. 1 the five following courses and distances (1) South 29 degrees 58 minutes East 175.08 feet to a point (2) North 60 degrees 58 minutes East 32.00 feet to a point (3) South 66 degrees 11 minutes East 97.51 feet to a point (4) South 29 degrees 58 minutes East 69.46 feet to a point and (5) North 62 degrees 37 minutes East recrossing the Southwesterly side of County Line Road aforesaid 106.41 feet to a point on the title line in the bed of same; thence extending South 29 degrees 58 minutes East along the title line through the bed of County Line Road 35.00 feet to the first mentioned point and place of beginning.

CONTAINING in Area 1.787 Acres.

BEING LOT NO. 2 as shown on above mentioned plan.

BEING FOLIO NO. 36-02-00931-00.

Description: Delaware,PA Document - Book.Page 1463.1692 Page: 2 of 6
Order: RDS McGuckin Comment: 36323

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EXHIBIT "A" – CONT.

AND WHEREAS Grantor hereby grants to Grantees, owner of the Dominant Tenement, their Heirs, Successors, and Assigns the following Easements Appurtenant with the attendant legal liabilities as follows:

TOGETHER with the easements appurtenant to existing utilities servicing lot #2 of aforementioned Subdivision Plan at 583 County Line Road, viz., the water service lines and electric lines and piles and cables presently crossing just South of the existing driveway on the adjacent lot #1 and together with the right to establish easements for future natural gas lines and public sewage lines within six feet either side of existing water service line, provided no injury occurs to the property of Grantor including but not limited to present or future septic tank systems parts or components located on lot # 1 of said Subdivision Plan and provided the owner of dominant tenement shall assume full and sole responsibility for any and all liability to any person or property arising out of the use of said utilities or damage accruing to any and all structures and components of said utilities, for the reseeding of grass, and restoring to the original condition of ground, for the construction, maintenance, repair, replacement of said utilities systems, the usage of which engenders the creation of these easements running with the land. Both the servient and dominant tenement owners shall respect the mutual rights, liberties and priviledges of one another with regard to these easements.

BEING the same premises interalia which Catherine T. Harrington, by deed dated 1/7/1980 and recorded 1/14/1980 in the County of Delaware, Commonwealth of Pennsylvania in Volume 2727 page 511, granted and conveyed unto Thomas E. McDyer, in fee.

BEING the same premises interalia which Thomas E. McDyer by deed dated 3/25/1996 and recorded 3/25/1996 in the County of Delaware, Commonwealth of Pennsylvania in Volume _____ Page _____, granted and conveyed unto Thomas E. McDyer, in fee.

Agreed to and accepted this 29th day of March, 1996 by the within Grantees:

James F. McGuckin
JAMES F. McGUCKIN

Allison T. McGuckin
ALLISON T. McGUCKIN

VOL 1463 PG 1694

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9750.00 Radnor 6500.00 State

RADNOR TWP RTT 9750.00
PA TRANS TAX 6500.00
TOTAL 16250.00
CHECK 6500.00

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF REVENUE
REALTY TRANSFER TAX
M2 CHECK 6500.00
22CL 2711 04-22-96 12:54TM

CHECK 9750.00
ITEM 2
04-22-96 MON M2 GERRY 2711 12:54TM

VOL 1463 PG 1695

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Together with all and singular the buildings and improvements, ways, streets, alleys, driveways, passages, 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

the said grantor , as well at law as in equity, of, in, and to the same.

To have and to hold the said lot or piece of ground described with the buildings and improvements thereon erected hereditaments and premises hereby granted, or mentioned and intended so to be, with the appurtenances, unto the said Grantees their heirs and assigns, to and for the only proper use and behoof of the said Grantees their heirs and assigns forever.
UNDER and SUBJECT, as aforesaid.

And the said Grantor , their heirs, executors and administrators do covenant, promise and agree, to and with the said Grantees, their heirs and assigns, by these presents, that he the said Grantor and his heirs, all and singular the hereditaments and premises hereby granted or mentioned and intended so to be, with the appurtenances, unto the said Grantees, their heirs and assigns, against him , the said Grantor and his heirs, and against all and every person and persons whomsoever lawfully claiming or to claim the same or any part thereof, by, from or under him or any of them, shall and will SUBJECT, as aforesaid.

WARRANT and forever DEFEND.

In Witness Whereof, the party of the first part has hereunto set his hand and seal . Dated the day and year first above written.

Sealed and Delivered
IN THE PRESENCE OF US:

Thomas E McDyer SEAL
THOMAS E. McDYER
SEAL
SEAL

VOL 1463 PG 1696

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Commonwealth of Pennsylvania
County of Delaware } ss:

On this, the 29th day of March, 1996, before me, a Notary Public for the Commonwealth of Pennsylvania, residing in the County of Delaware the undersigned Officer,

personally appeared Thomas E. McDyer, James F. McGuckin and Allison T. McGuckin

known to me (satisfactorily proven) to be the persons whose names ~~is~~ are subscribed to the within instrument, and acknowledged that they executed the same for the purposes therein contained.

I hereunto set my hand and official seal.

Notarial Seal
Michael S. Baurer, Notary Public
Philadelphia, Philadelphia County
My Commission Expires Jan. 18, 2000
Member, Pennsylvania Association of Notaries

Notary Public

RECORDER OF DEEDS
DELAWARE CO. PA
96 APR 12 PM 12:57

95 KEYSTONE AGENCY, INC.
96-7709-D
H.F. 20.00
Rec 13.00
9750.00
6500.00

RECEIVED

THOMAS E. McDYER

and

JAMES F. McGUCKIN, JR. and
ALLISON T. McGUCKIN,
HUSBAND and WIFE

PREMISES: 585 COUNTY LINE ROAD
RADNOR TOWNSHIP
DELAWARE COUNTY, PA

752-S John C. Clark Co., Phila.

Keystone Agency, Inc.
1500 Walnut St.
Suite 301
Phila, PA 19102

RECORDER OF DEEDS
DELAWARE CO. PA

122520

MAIL TAX BILLS TO
The address of the above-named Grantee
is 585 County Line Rd.
Radnor, PA 19087

On behalf of the Grantee

WOL1463 PG1697

1

Fidelity National Title Insurance Company

COMMITMENT FOR TITLE INSURANCE

ISSUED THROUGH AND PLEASE DIRECT INQUIRES TO:

CENTRAL MONTGOMERY ABSTRACT CO., INC.
1904-1906 Swede Road
East Norriton, Pennsylvania 19401
Phone: (610) 279-2975 Fax: (610) 279-5783 E-Mail: closings@cmatitle.com

FILE No. 41750

Effective Date: November 14, 2016

Schedule A

1. Policy or Policies to be Issued:

   A. Policy to be Issued:
   ALTA Owners 2006 (as modified by TIRBOP)
   Proposed Insured:
   Amount of Insurance:
   Effective Date:

   B. Policy to be Issued:
   ALTA Loan 2006 (as modified by TIRBOP)
   Proposed Insured:
   Amount of Insurance:
   Effective Date:

2. Title to the estate or interest in the land described or referred to in this Commitment is a Fee Simple and is at the effective date hereof vested in:

   James Charles Schwartzman and Nancy Hankin Schwartzman, husband and wife

3. The land referred to in this Commitment is described in Schedule C attached hereto and made part hereof.

   For Information Purposes Only:

   401 Gulph Creek Road
   County Line Road
   Radnor Township
   Delaware County, PA

   Folio No. 36-02-01047-00 and
   Folio No. 36-02-00932-00

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ALTA Commitment (6-17-06)

Schedule B Section 1
Requirements

THIS TITLE INSURANCE COMMITMENT (THE "COMMITMENT") IS ISSUED PURSUANT TO THE AGREEMENT TO ISSUE POLICY CONTAINED ON THE AMERICAN LAND TITLE INSURANCE COMMITMENT (2006) FRONT COVER FORM (THE "FORM") AND IS SUBJECT TO THE CONDITIONS STATED THEREIN. ANY TITLE SEARCH AND EXAMINATION CONDUCTED BY OR FOR THE COMPANY IN CONNECTION WITH THE ISSUANCE OF THIS COMMITMENT IS SOLELY FOR THE BENEFIT OF THE COMPANY. THE SOLE LIABILITY OF COMPANY AND ITS AGENT SHALL ARISE UNDER AND BE GOVERNED BY THE COMMITMENT AND/OR POLICY SUBSEQUENTLY ISSUED. IF THIS COPY OF THE COMMITMENT IS NOT ACCOMPANIED BY THE FORM, A COPY OF THE FORM MAY BE OBTAINED FROM THIS COMPANY UPON REQUEST.

PLEASE BE ADVISED THAT A CONTINUATION SEARCH WILL BE MADE 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 AND WILL COVER THE GAP BETWEEN THE LAST DATE COVERED BY THE OFFICIAL RECORD AT THE TIME OF CLOSING AND THE DATE OF RECORDING.

THE FOLLOWING REQUIREMENTS MUST BE MET:

1. Instrument(s) satisfactory to us, creating the estate or interest to be insured must be executed, delivered and filed for record.

   A. **DEED FROM:** James Charles Schwartzman and Nancy Hankin Schwartzman, husband and wife
   TO:
   DATED: _____
   RECORDED: _____

   B. **MORTGAGE FROM:**
   TO:
   DATED: _____
   RECORDED: _____

2. Payment of full consideration to or for the account of the grantors or mortgagors.
3. Payment of the premiums, fees and charges for the policy.
4. Possible unfiled mechanics liens and municipal claims.
5. Terms of any unrecorded lease or rights of parties in possession.
6. Proof that all natural persons in this transaction are of full age and legally competent.
7. Proof of identity of parties as set forth in Recital.
8. POWERS OF ATTORNEY: If any party to the settlement intends to use a Power of Attorney at settlement, a copy of such Power of Attorney must be submitted for review in advance of settlement. Failure to comply with this requirement may result in the postponement of the settlement. Acceptability of the Power of Attorney for purposes of completion of settlement is within the discretion of the insurer.
9. Proof to be provided that any individuals holding record title have not, subsequent to acquisition of title, been a party to any divorce proceedings, whether currently ongoing or completed prior to the transaction that is the subject of this report/commitment. In the event such divorce proceedings have occurred, same to be examined and possible additional exceptions and requirements to be added. This requirement applies only to individuals and is not applicable if record owner is an LLC, LP, Corporation or other business entity.
10. Information must be furnished concerning the Social Security Number(s) and/or the Tax Identification Number(s) and future addresses of grantors for the completion of Substitute Form 1099 at the Closing of Transaction.
11. Proof that no parties to this transaction are involved in bankruptcy proceedings; if bankruptcy has been filed, same to be examined; possible additional requirements/exceptions to be added.
12. Satisfactory evidence should be provided that improvements and/or repairs or alterations thereto are completed; that contractor, sub-contractors, labor and materialmen are all paid; and have released of record all liens or notice of intent to perfect a lien for labor material.

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Schedule B Section 1
Requirements continued

13. TAXES: Folio No. 36-02-01047-00 – 2017 Tax Assessment $1,133,360.00
Folio No. 36-02-00932-00 – 2017 Tax Assessment $ 50,000.00
Produce receipts for Township, County and School Taxes for the current and three prior years

14. WATER AND SEWER RENTS:
Produce receipts for Water and Sewer Rents for the current and three prior years.

15. MECHANICS AND MUNICIPAL CLAIMS: NONE

16. MORTGAGES:

A. $12,000.00 (Closed End), George H. Earle, III and Jacqueline S. Earle, his wife to Jackson K. Heilner and Louise T. Heilner, his wife, dated 9/20/1954, recorded 9/22/1954 in Mortgage Book 2068 Page 616.

B. $600,000.00 (Open End), James Charles Schwartzman and Nancy Hankin Schwartzman to First Penn Bank, dated 12/14/2001, recorded 1/17/2002 in Volume 2345 Page 1896; with Subordination of Mortgage recorded 7/5/2007 in Volume 4143 page 938, postponing lien of Mortgage to that as in Volume 4143 page 942.

C. $350,000.00 (Open End), James Charles Schwartzman and Nancy Hankin Schwartzman to First Penn Bank, dated 6/29/2004, recorded 7/22/2004 in Volume 3244 Page 786; with Modification of Mortgage dated 10/01/2004, recorded 11/01/2004 in Volume 3331 page 1527 and Modification of Mortgage dated 01/12/2005, recorded 01/28/2005 in Volume 3403 page 457; with Subordination of Mortgage recorded 07/05/2007 in Volume 4143 page 930, postponing lien of Mortgage to that as in Volume 4143 page 942.

D. $1,300,000.00 (Closed End), James Charles Schwartzman and Nancy Hankin Schwartzman to Arlington Capital Mortgage Corp., dated 4/14/2007, recorded 7/5/2007 in Volume 4143 Page 942; with Modification of Mortgage recorded 07/29/2008 in Volume 4407 page 1095; said Mortgage last Assigned to the use of First Priority Bank, by Assignment of Mortgage recorded 05/13/2010 in Volume 4740 page 2069.

17. FINANCING STATEMENTS:

A. SECURED PARTY: First Penn Bank DEBTOR: James Charles Schwartzman and Nancy Hankin Schwartzman, FILED: 1/17/2002 in the Office of the Recorder of Deeds of Delaware County, PA, in Volume 2345 page 1905. Last Continuation recorded 04/23/2014 in Volume 5486 page 132.

18. JUDGMENTS: NONE

19. Prior to settlement, search of statewide support lien system (http://www.childsupport.state.pa.us) to be performed to determine the existence of support arrearages, if any. Company or its Agent to be provided with social security numbers of all natural persons that are a party to the transaction so that this search can be performed by the closing officer no more than 30 days in advance of closing.

20. Names of all relevant parties to the within real estate transaction to be searched prior to closing to verify that they are not Specially Designated Nationals subject to the provisions of President's Executive Order Targeting Terrorist Assets.

21. Owner's Affidavit on Company form to be executed by sellers or mortgagors and filed with Company.

22. Last Insurer: NONE AVAILABLE.

23. The following note is for Informational Purposes Only

The following deed(s) affecting said land were recorded within six (6) months of the date of this report:

Grantor: James Charles Schwartzman and Nancy Hankin Schwartzman, husband and wife
Grantee: James Charles Schwartzman and Nancy Hankin Schwartzman, husband and wife
Recorded: 06/29/2016 in Instrument Number: Volume 5832 page 1794

24. Names of Purchasers to be furnished and searched, and any additional objections by reason thereof to be certified prior to settlement.

Schedule B Section 2
Exceptions

IN THE EVENT THAT ONE OR MORE OF THE EXCEPTIONS LISTED BELOW REFERENCES COVENANTS, CONDITIONS AND/OR RESTRICTIONS, PLEASE NOTE THAT THE EXCEPTION(S) SPECIFICALLY EXCLUDE ANY COVENANTS OR RESTRICTIONS, IF ANY, BASED UPON RACE, COLOR, RELIGION, SEX, SEXUAL ORIENTATION, FAMILIAL STATUS, MARITAL STATUS, DISABILITY, HANDICAP, NATIONAL ORIGIN, ANCESTRY, OR SOURCE OF INCOME, AS SET FORTH IN APPLICABLE STATE OR FEDERAL LAWS, EXCEPT TO THE EXTENT THAT SAID COVENANT OR RESTRICTION IS PERMITTED BY APPLICABLE LAW.

1. Defects, liens, encumbrances, adverse claims or other matters, if any, created, first appearing in the public records or attaching subsequent to the effective date hereof but prior to the date of the proposed Insured acquires for value of record the estate or interest or mortgage thereon covered by this report.
2. Rights or claims of parties in possession of the land not shown by the public record.
3. Any lien, or right to a lien, for services, labor or materials heretofore or hereafter furnished, imposed by law and not shown by the public records.
4. Easements, encroachments, overlaps, shortages of area, boundary line disputes and other matters affecting title that an accurate and complete survey would disclose.
5. Real Estate Taxes and/or Municipal or Authority charges which constitute a lien;

   Water Rents due from _____. Not yet payable.
   Sewer Rents due from _____. Not yet payable.
   County and Township/Borough Tax due for the current year. Not yet payable.
   School Tax due for the current year. Not yet payable.
   Possible additional tax assessment for new construction and/or major improvements. None currently due or payable.
6. Provisions of Acts of Assembly authorizing the State Highway Department to extend boundaries of state roads.
7. Restrictions as in Volumes 655 page 1765 and 5832 page 1797.
8. Easement Agreement as in Deed Book 2627 page 638.
9. Reservations as in Deed Book 1102 page 210.
10. Rights granted to Philadelphia Suburban Water Company as in Deed Book 1676 page 552.
11. Easement and rights as in Deed Book 2421 page 714.
12. Rights of the public and others entitled thereto in and to the use of that portion of the premises within the bounds of Gulph Creek Road and County Line Road.
13. Stormwater Controls and Best Management Practices Operation and Maintenance Agreement as in Volume 4055 page 530.
14. Notes, conditions, easements and building set back lines as shown on Plan of John Mott and James Schwartzman in Plan Volume 16 page 405.
15. Rights granted to Philadelphia Electric Company as in Deed Book 1476 page 341.
16. Rights granted to Philadelphia Suburban Water Co. as in Deed Book 1447 page 336.
17. Stream of water flows through premises hereon, subject to rights of other riparian owners abutting stream.
18. Use of waters of lake for riparian purposes excepted.
19. Title to bed of lake not vested in insured.

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ALTA Commitment (6-17-06)

Schedule C
Description and Recital

ALL THAT CERTAIN lot or piece of ground, with the buildings and improvements thereon erected, hereditaments and appurtenances, **SITUATE** in the Township of Radnor, County of Delaware and Commonwealth of Pennsylvania, bounded and described according to a Lot Line Change Plan, for John Mott and James Schwartzman, made by Yerkes Associates, Inc., West Chester, Pennsylvania, dated January 17, 1990, recorded in the Office of the Recorder of Deeds of Delaware County, PA, in Plan Volume 16 page 405, as follows, to wit:

BEGINNING at a point on the title line in the bed of County Line Road (33 feet wide) a corner of lands now or formerly of John H. Leady and Jane Ruddie, as shown on said plan; thence extending along same, the two following courses and distances: (1) South 62 degrees 37 minutes West, (crossing the Southwesterly side of County Line Road), 416.87 feet to a point, and (2) South 19 degrees 38 minutes East 149.31 feet to a point, a corner of lands now or formerly of James D. Block, as shown on said plan; thence extending along same, the three following courses and distances: (1) South 65 degrees 51 minutes West 224.64 feet to a point, (2) South 9 degrees 31 minutes East 81.31 feet to a point, and (3) South 30 degrees 26 minutes 30 seconds West (crossing the Northwesterly side of Gulph Creek Road), 142.47 feet to a point on the title line in the bed of Gulph Creek Road (33 feet wide); thence extending along same, South 73 degrees 38 minutes West 638.48 feet to a point, a corner of lands now or formerly of John Mott, as shown on said plan; thence extending along same, the four following courses and distances: (1) North 04 degrees 01 minute 30 seconds West, (crossing the Northwesterly side of Gulph Creek Road) 379 feet to a point, (2) North 16 degrees 18 minutes 18 seconds East 176.89 feet to a point, (3) North 3 degrees 52 minutes 23 seconds West 65 feet to a point, and (4) North 45 degrees 11 minutes 47 seconds West 275.27 feet to a point, in line of lands now formerly of Richard Sylk, as shown on said plan; thence extending along same, the four following courses and distances: (1) North 62 degrees 35 minutes East 486.98 feet to a point, (2) North 27 degrees 25 minutes West 23.57 feet to a point, (3) North 65 degrees 59 minutes East 31.85 feet to a point, and (4) South 81 degrees 9 minutes 30 seconds East 36.66 feet to a point, a corner of lands now or formerly of John Devereaux as shown on said plan; thence extending along same, the two following courses and distances: (1) South 29 degrees 58 minutes East 224.80 feet to a point, and (2) North 59 degrees 29 minutes East 184.83 feet to a point, a corner of land now or formerly of Perry and Jean McRobert, as shown on said plan; thence extending along same, the three following courses and distances: (1) South 32 degrees 01 minute East 150 feet to a point, (2) South 19 degrees 26 minutes East 42.06 feet to a point, and (3) North 55 degrees 21 minutes East 144.01 feet to a point, a corner of lands now or formerly of Thomas E. McDyer, as shown on said plan; thence extending along same, the two following courses and distances: (1) South 20 degrees 15 minutes 30 seconds East 198.49 feet to a point, and (2) North 62 degrees 37 minutes East (crossing the Southwesterly side of County Line Road), 407.82 feet to a point on the title line in the bed of County Line Road (33 feet wide), aforesaid; thence extending along same South 29 degrees 58 minutes East 50 feet to the first mentioned point and place of beginning.

BEING Delaware County Folio Nos. 36-02-01047-00 and 36-02-00932-00.

BEING, in part, part of the same premises which C.G. Berwind, Jr., Thomas B. Morris, Jr. and Francis X. Morrissey, Jr., Trustees under

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ALTA Commitment (6-17-06)

Deed of Trust of Charles G. Berwind dated February 28, 1963 for C.G. Berwind, Jr., etal by Deed dated February 15, 1989, recorded March 23, 1989, in the Office of the Recorder of Deeds of Delaware County, PA, in Volume 655 page 1765, conveyed unto James Charles Schwartzman and Nancy Hankin Schwartzman, husband and wife, in fee.

ALSO BEING, in part, the same premises which John C. Mott and Mary Lou Mott, his wife by Deed dated November 27, 1998, recorded December 14, 1998 in the Office of the Recorder of Deeds of Delaware County, PA, in Volume 1809 page 995, conveyed unto James Charles Schwartzman and Nancy Hankin Schwartzman, his wife, in fee.

AND BEING the same premises which James Charles Schwartzman and Nancy Hankin Schwartzman, husband and wife by Deed dated May 23, 2016, recorded June 29, 2016, in the Office of the Recorder of Deeds of Delaware County, PA, in Volume 5832 page 1794 conveyed unto James Charles Schwartzman and Nancy Hankin Schwartzman, husband and wife, in fee.

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ALTA Commitment (6-17-06)

NOTICES

1. PLEASE BE ADVISED THAT Fidelity National Title Insurance Company ("COMPANY") AND Central Montgomery Abstract Co., Inc. ("AGENT") HAVE NO KNOWLEDGE, TRAINING OR EXPERIENCE IN MATTERS THAT ARE UNRELATED TO TITLE INSURANCE, INCLUDING, BUT NOT LIMITED TO, SUCH MATTERS AS BULK SALE TRANSFERS, BULK SALE CLEARANCE CERTIFICATE REQUIREMENTS (IF APPLICABLE), ZONING/SUBDIVISION, STRUCTURAL REPAIRS, ENVIRONMENTAL, WATER INFILTRATION, WETLANDS, TERMITES OR ONSITE SEWAGE SYSTEMS, AND WE DO NOT INTEND TO, AND CANNOT, PROVIDE SERVICES OR ADVICE TO YOU ON SUCH MATTERS. IF YOU ARE FACED WITH ISSUES REGARDING SUCH MATTERS, YOU SHOULD CONSULT A LAWYER, ENGINEER, ARCHITECT OR OTHER APPROPRIATE CONSULTANT OR PROFESSIONAL OF YOUR CHOICE.

2. ALSO BE ADVISED THAT YOU MAY PURCHASE AT ADDITIONAL COST ENHANCED COVERAGES FROM THE BASIC POLICY OF TITLE INSURANCE. IF YOU WISH AN EXPLANATION OF THE ENHANCED COVERAGES AND THE COST FOR THESE ADDITIONAL COVERAGES, PLEASE CONTACT THE PARTY LISTED BELOW.

3. THE COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF INSURANCE REQUIRES THAT WE SEND THE FOLLOWING NOTICE TO YOU, OUR APPLICANT, PRIOR TO CLOSING. IF APPLICABLE, THE DEPARTMENT FURTHER REQUIRE THAT YOU, THE APPLICANT, FORWARD THIS NOTICE TO THE ULTIMATE CONSUMER IN ADVANCE OF THE DAY OF CLOSING:

   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 CONTACTING THE PARTY LISTED BELOW.

CENTRAL MONTGOMERY ABSTRACT CO., INC.
1904-1906 Swede Road
East Norriton, Pennsylvania 19401
Phone: (610) 279-2975 Fax: (610) 279-5783 E-Mail: george@cmatitle.com

Countersigned at East Norriton, PA
CENTRAL MONTGOMERY ABSTRACT CO., INC.

George J. Willans
George J. Willans, President

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ALTA Commitment (6-17-06)

DV 3711 WW

TITLE/S DEED—Trustees' Covenant - Corporation - Individual. Printed for and Sold by John C. Clark Co., 1328 Walnut St., Phila.

This Indenture Made the 15th day of

FEBRUARY in the year of our Lord one thousand nine hundred and eighty-nine (1989)

Between C.G. BERWIND, JR., THOMAS B. MORRIS, JR., and FRANCIS X. MORRISSEY, JR., TRUSTEES UNDER DEED OF TRUST OF CHARLES G. BERWIND, DATED 2/28/1963 FOR C.G. BERWIND, JR., ETAL

AND

JAMES CHARLES SCHWARTZMAN AND NANCY HANKIN SCHWARTZMAN, his wife

of the other part, **Witnesseth** That the said Grantors

for and in consideration of the sum of ONE MILLION THREE HUNDRED THOUSAND AND NO/100 ($1,300,000.00)

lawful money of the United States of America, unto them, well and truly paid by the said grantees

at and before the sealing and delivery of these presents, the receipt whereof is hereby acknowledged, have granted, bargained, sold, aliened, enfeoffed, released and confirmed and by these presents

do grant, bargain, sell, alien, enfeoff, release and confirm unto the said Grantees, their heirs and assigns,

PREMISES "A"

ALL THAT CERTAIN TRACT of ground, SITUATE in the Township of Radnor, County of Delaware, Pennsylvania, described according to a certain Map thereof made by M.R. & J.B. Yeadon, Civil Engineers and Surveyors, as follows, to wit:

BEGINNING at a point in the title line in the bed of Gulph Creek Road at the distance of ninety-four and twenty-three one-hundredths (94.23) feet measured South seventy-three degrees thirty-eight minutes East along same from a spike therein which spike is at the distance of seven hundred thirty-nine and eighteen one-hundredths (739.18) feet measured South seventy degrees twenty-two minutes West along said title line in the bed of Gulph Creek Road from its intersection with the title line in the bed of County Line Road; thence from the point of beginning along said title line in the bed of Gulph Creek Road, South seventy-three degrees thirty-eight minutes West six hundred thirty-three and forty-eight one hundredths (633.48) feet to a spike; thence leaving Gulph Creek Road, North four degrees one minute thirty seconds West eight hundred sixty-eight and eighty one-hundredths (868.80) feet to a point; thence extending North sixty-two degrees thirty-five minutes East three hundred fifty-four and seventy-two one hundredths (354.72) feet to a stone; thence extending South twenty-nine degrees fifty-eight minutes East two hundred twenty-four and eighty one-hundredths (224.80) feet to a point; thence extending North fifty-nine degrees twenty-nine minutes East one hundred eighty-four and eighty-three one-hundredths (184.83) feet to a stone; thence South thirty-two degrees one minute East one hundred fifty (150) feet to a point; thence extending South nineteen degrees twenty-six minutes East one hundred three and sixty-five one-hundredths (103.65) feet to a point; thence extending South four degrees fifty minutes East three hundred twenty-three and two one-hundredths (323.02) feet to an

(Continued)

BEGINNING at an interior point, which point is at the distance of seven hundred feet measured South fifty-nine degrees, fifty minutes West along the Southeasterly side of a certain Forty feet wide right of way from a point in the center line of County Line Road; thence extending South Sixty-two degrees, thirty-five minutes West sixty-one and thirty-five one-hundredths feet to a point; thence extending North twenty-seven degrees, twenty-five minutes West, twenty-three and fifty-seven one-hundredths feet to a point in the center line of a Thirty feet wide Right of Way; thence extending through the bed of said Right of Way (which right of way is of varying width) the two following courses and distances (1) North sixty-five degrees, fifty-nine minutes East thirty-one and eighty-five one-hundredths feet to a point and (2) South eighty-one degrees, nine minutes thirty seconds East thirty-six and sixty-six one-hundredths feet to the first mentioned point and place of beginning.

UNDER AND SUBJECT to Easement and Rights as granted in Deed Book 2421, page 714.

BEING THE SAME PREMISES which C.G. Bamdad, Jr. and Thomas B. Morris, Jr., Executors under the Will of Ellen M.M. Bamdad a/k/a Ellen M. and Ellen McMichael Bamdad, deceased, by Deed dated the 19th day of August A.D. 1987 and recorded in the Office for the Recording of Deeds in and for the County of Delaware in Deed Book 512 page 1353, granted and conveyed unto C.G. Bamdad, Jr., Albert W. Gilmar and Thomas B. Morris, Jr., Trustees of Trust Under Deed of Charles G. Bamdad, dated 2/28/1963 for C.G. Bamdad, Jr. etal, in fee.

Albert W. Gilmar has been replaced as Trustee by Francis X. Morrissey, Jr.

UNDER AND SUBJECT to the restriction, which shall be perpetual and run with the land, that no buildings shall be constructed on the premises in addition to the existing residence and outbuildings. This restriction, however, shall not prohibit the addition of rooms or wings to the existing residence and outbuildings, the construction of a small functional pool house limited to bathroom facilities and changing rooms, or the repair or reconstruction of any such buildings after damage. If this restriction is violated, the Grantors herein, their successors or assigns, in addition to any other rights and remedies which may be available to them at law or in equity, shall have the right to compel the removal of any building in violation of this restriction, notwithstanding any passage of time or forbearance.

BEING COUNTY PARCEL NUMBER 02-01001700.

Date- MAR 2 3 1989

Transfer Tax in the amount of 1625.00 has been paid on account of Bond

3000.00 State

12651 COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF REVENUE REALTY TRANSFER TAX MAR 23 '89 PB.312 FE 00.00

3000.00 Mary Ann Blair

VOL0655 PG1766

[redacted]

OF New York

On this, the 10th day of February 1989, before me, the undersigned Officer, personally appeared Francis X. Morrissey, Jr., Trustee Under Deed of Trust of Charles G. Barvind dated 2/28/1963 for C.G. Barvind, Jr., etal, known to me (or satisfactorily proven) to be the person described in the foregoing instrument, and acknowledged that he executed the same in the capacity therein stated and for the purposes therein contained.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

Virginia C. Duncan
Notary Public

My Commission Expires:

[Notarial Seal]

VIRGINIA C. DUNCAN
NOTARY PUBLIC, State of New York
No. 31-4522360
Qualified in New York County
Commission Expires March 30, 1989

STATE OF Pennsylvania :

COUNTY OF Philadelphia :

On this, the 6th day of February 1989, before me, the undersigned officer, personally appeared Thomas E. Morris, Jr., Trustee Under Deed of Trust of Charles G. Barwind, dated 3/28/1963 for C.G. Barwind, Jr., etal, known to me (or satisfactorily proven) to be the person described in the foregoing instrument, and acknowledged that he executed the same in the capacity therein stated and for the purposes therein contained.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

Christine Jackson-Tunstall
Notary Public

My Commission Expires:

[Notarial Seal]

NOTARIAL SEAL
Christine Jackson-Tunstall, Notary Public
Philadelphia, Philadelphia County
My Commission Expires September 28, 1991

iron pin; thence extending South nine degrees thirty-one minutes East eighty-one and thirty-one one-hundredths (81.31) feet to an iron pin; thence extending South thirty degrees twenty-six minutes thirty seconds West one hundred forty-two and forty-seven one-hundredths feet (142.47) feet to the first mentioned point and place of beginning.

PREMISES "B"

ALL THAT CERTAIN lot or piece of ground SITUATE in Radnor Township, Delaware County, Pennsylvania and described in accordance to a survey of property of John Tyson made by H.R. and J.B. Yerkes, Civil Engineers and surveyors, Bryn Mawr, Pennsylvania revised April 21st, 1955, as follows, to wit:

BEGINNING at a point in the center line of County Line Road (thirty-three feet wide) which point is measured along the said center line of County Line Road, North Twenty-nine degrees fifty-eight minutes West four hundred two and sixty-eight one-hundredths feet from the intersection of the center line of County Line Road with the center line of Gulph Creek Road, (thirty-three feet wide); thence from the beginning point and leaving the center line of County Line Road, South sixty-two degrees thirty-seven minutes West four hundred sixteen and eighty-seven one-hundredths feet to a point; thence extending South nineteen degrees thirty-eight minutes East one hundred forty-nine and thirty-one one-hundredths feet to an iron pin; thence extending South Sixty-six degrees fifty-one minutes West two hundred twenty-four and sixty-four one-hundredths feet to an iron pin; thence extending North four degrees fifty minutes West three hundred twenty-three and two one-hundredths feet to a point; thence extending North nineteen degrees twenty-six minutes West sixty-one and fifty-nine one-hundredths feet to a point; thence extending North Fifty-five degrees twenty-one minutes East one hundred forty-four and one one-hundredths feet to a point; thence extending South twenty degrees fifteen minutes thirty seconds East one hundred ninety-eight and forty-nine one-hundredths feet to a point; thence extending North sixty-two degrees thirty-seven minutes East four hundred seven and eighty-two one-hundredths feet to a point in the center line of County Line Road, thence extending along said center line, South twenty-nine degrees fifty-eight minutes East fifty and five one-hundredths feet to the point and place of beginning.

PREMISES "C"

ALL THAT CERTAIN lot or piece of ground, situate in the Township of Radnor, County of Delaware, Commonwealth of Pennsylvania, described in accordance with a Map of Property of Joseph M. Weaver, etux, made by Yerkes Associates, Inc., Consulting Engineers and Surveyors, dated October 1, 1971 as follows, to wit:

Together with all and singular the buildings, improvements, passage ways, waters, water-courses, driveways, rights, liberties, hereditaments and appurtenances whatsoever thereunto 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

In law, equity, or otherwise howsoever, of, in, and to the same and every part thereof.

To have and to hold the said lot or piece of ground above described; with the buildings and improvements thereon erected; hereditaments and premises hereby granted, or mentioned and intended so to be, with the appurtenances, unto the said Grantees, their heirs and assigns to and for the only proper use and behoof of the said Grantees, their heirs and assigns forever.

UNDER AND SUBJECT to restrictions as aforesaid.

And the said Grantors, for themselves and their respective heirs, executors, administrators and successors, do severally, and not jointly nor the one for the other nor the act or deed of the other, but each for his or her own acts only, covenant, promise and agree, to and with the said Grantees and assigns, by these presents, that they, the said Grantors,

have not done, committed, or knowingly or willingly suffered to be done or committed, any act, matter or thing whatsoever, whereby the premises hereby granted, or any part thereof, is, are, shall or may be impeached, charged or incumbered, in title, charge, estate, or otherwise howsoever.

In Witness Whereof, the said Grantors hereunto set their hand and seal the day and year first above written.

Sealed and Delivered
in the presence of us:

FRANCIS X. MORRISSEY, JR., TRUSTEE

THOMAS B. MORRIS, JR., TRUSTEE

C.G. BERWIND, JR., TRUSTEE

Commonwealth of Pennsylvania
County of ~~DELAWARE~~ Philadelphia ss:

On this, the 14th day of February 1989, before me the undersigned officer, personally appeared C.G. Berwind, Jr., Trustee Under Deed of Trust of Charles G. Berwind, Dated 2/28/1963 for C.G. Berwind, Jr., et al, known to me (or satisfactorily proven) to be the person described in the foregoing instrument, and acknowledged that he executed the same in the capacity therein stated and for the purposes therein contained.

In Witness Whereof, I have hereunto set my hand and official seal. Mary A. LaRue

NOTARIAL SEAL
MARY A. LaRUE, Notary Public
City of Philadelphia, Phila. County
My Commission Expires July 23, 1991

VOL0655 PG1770

DV# 3711

DEED

C.G. BERWIND, JR., THOMAS B. MORRIS, JR., AND FRANCES X. MORRISSEY, JR., TRUSTEES UNDER DEED OF TRUST OF CHARLES G. BERWIND DATED 2/28/1963 FOR C.G. BERWIND, JR., ETAL

TO

JAMES CHARLES SCHWARTZMAN AND NANCY HANKIN SCHWARTZMAN, HIS WIFE

772A/S John C. Clark Co., Phila. 1988

DEL VAL ABSTRACT COMPANY
198 W JOHNSON HIGHWAY
NORRISTOWN, PA 19401
(215)277-3200

RECORDER OF DEEDS
DELAWARE CO., PA

89 MAR 23 AM 10: 59

16.250-L
13.000-S
20.25sp
29270.25

VOL 0655 PG 1771

The address of the above-named Grantee is
401 Gulph Creek Road
RADNOR, PA. 19087
On behalf of the Grantee

RD BK05832-1794 DT-DEED
2016033503 06/29/2016 09:02:30 AM:1
RCD FEE: $112.50

DELAWARE COUNTY
36-RADNOR $0.00 THOMAS J. JUDGE SR. ROD

Prepared By:
Nicholas J. Caniglia, Esquire
125 Strafford Ave., Suite 110
Wayne, PA 19087
610-688-2626
Attorney I.D. 27968

FOLIO NUMBER: 36-02-01047-00 and 36-02-00932-00

Return To:
Nicholas J. Caniglia, Esquire
P.O. Box 312
Wayne, PA 19087

DEED OF CORRECTION

THIS DEED, made the 23rd day of May, 2016, is made by JAMES CHARLES SCHWARTZMAN and NANCY HANKIN SCHWARTZMAN ("Grantor") and JAMES CHARLES SCHWARTZMAN and NANCY HANKIN SCHWARTZMAN ("Grantee").

WHEREAS, C.G. Berwind, Jr., Thomas B. Morris, Jr., and Francis X. Morrissey, Jr., Trustees Under Deed of Trust of Charles G. Berwind, dated 2/28/1963 for C.G. Berwind, Jr., et al. by Deed dated February 15, 1989 and recorded in the Office of the Recorder of Deeds of Delaware County on March 23, 1989 in Volume 0655 Page 1765, et seq., granted and conveyed to JAMES CHARLES SCHWARTZMAN and NANCY HANKIN SCHWARTZMAN, his wife, all that parcels of land described below with buildings and improvements erected thereon.

* **WHEREAS,** at recording the pages of the Deed were not recorded in the proper sequential order and Grantor now desires to correct said Deed so as to convey the proper descriptions of the certain Premises described herein.

WITNESSETH, that the said Grantor for and in consideration of the sum of **One Dollar ($1.00)** and other good and valuable consideration, the receipt whereof is hereby acknowledged, has conveys and confirms unto the said Grantee the following, as tenants by the entireties,

PREMISES "A"

ALL THAT CERTAIN TRACT of ground situate in the Township of Radnor, County of Delaware, Pennsylvania, described according to a certain Map thereof made by M.R. & J.B. Yerkes, Civil Engineers and Surveyors, as follows, to wit:

BEGINNING at a point in the title line in the bed of Gulph Creek Road at the distance of ninety-four and twenty-three one-hundredths (94.23) feet measured South seventy-three

degrees thirty-eight minutes West along same from a spike therein which spike is at the distance of seven hundred thirty-nine and eighteen one-hundredths (739.18) feet measured South seventy degrees twenty-two minutes West along said title line in the bed of Gulph Creek Road from its intersection with the title line in the bed of County Line Road; thence from the point of beginning along said title line in the bed of Gulph Creek Road, South seventy-three degrees thirty-eight minutes West six hundred thirty-three and forty-eight one hundredths (633.48) feet to a spike; thence leaving Gulph Creek Road, North four degrees one minute thirty seconds West eight hundred sixty-eight and eighty one-hundredths (868.80) feet to a point; thence extending North sixty-two degrees thirty-five minutes East three hundred fifty-four and seventy-two one hundredths (354.72) feet to a stone; thence extending South twenty-nine degrees fifty-eight minutes East two hundred twenty-four and eighty one-hundredths (224.80) feet to a point; thence extending North fifty-nine degrees twenty-nine minutes East one hundred eighty-four and eighty-three one-hundredths (184.83) feet to a stone; thence South thirty-two degrees one minute East one hundred fifty (150) feet to a point; thence extending South nineteen degrees twenty-six minutes East one hundred three and sixty-five one-hundredths (103.65) feet to a point; thence extending South four degrees fifty minutes East three hundred twenty-three and two one-hundredths (23.02) feet to an iron pin; thence extending South nine degrees thirty-one minutes East eighty-one and thirty-one one-hundredths (81.31) feet to an iron pin; thence extending South thirty degrees twenty-six minutes thirty seconds West one hundred forty-two and forty-seven one-hundredths feet (142.47) feet to the first mentioned point and place of beginning.
BEING FOLIO NUMBER 36-02-01047-00

PREMISES "B"

ALL THAT CERTAIN lot or piece of ground situate in Radnor Township, Delaware County, Pennsylvania and described in accordance to a survey of property of John Tyson made by M.R. and J.B. Yerkes, Civil Engineers and surveyors, Bryn Mawr, Pennsylvania revised April 21, 1955, as follows, to wit:

BEGINNING at a point in the center line of County Line Road (thirty-three feet wide) which point is measured along the said center line of County Line Road, North Twenty-nine degrees fifty-eight minutes West four hundred two and sixty-eight one-hundredths feet from the intersection of the center line of County Line Road with the center line of Gulph Creek Road (thirty-three feet wide); thence from the beginning point and leaving the center line of County Line Road, South sixty-two degrees thirty-seven minutes West four hundred sixteen and eighty-seven one-hundredths feet to a point; thence extending South nineteen degrees thirty-eight minutes East one hundred forty-nine and thirty-one one-hundredths feet to an iron pin; thence extending South Sixty-six degrees fifty-one minutes West two hundred twenty-four and sixty-four one-hundredths feet to an iron pin; thence extending North four degrees fifty minutes West three hundred twenty-three and two one-hundredths feet to a point; thence extending North nineteen degrees twenty-six minutes West sixty-one and fifty-nine one-hundredths feet to a point; thence extending North Fifty-five degrees twenty-one minutes East one hundred forty-four and one one-hundredths feet to a point; thence extending South twenty degrees fifteen minutes thirty

seconds East one hundred ninety-eight and forty-nine one-hundredths feet to a point; thence extending North sixty-two degrees thirty-seven minutes East four hundred seven and eighty-two one-hundredths feet to a point in the center line of County Line Road, thence extending along said center line, South twenty-nine degrees fifty-eight minutes East fifty and five one-hundredths feet to the point and place of beginning.
BEING FOLIO NUMBER 36-02-01047-00

PREMISES "C"

ALL THAT CERTAIN lot or piece of ground, situate in the Township of Radnor, County of Delaware, Commonwealth of Pennsylvania, described in accordance with a Map of Property of Joseph M. Weaver, etux, made by Yerkes Associates, Inc., Consulting Engineers and Surveyors, dated October 1, 1971 as follows, to wit:

BEGINNING at an interior point, which point is at the distance of seven hundred feet measured South fifty-nine degrees, fifty minutes West along the Southeasterly side of a certain Forty feet wide right of way from a point in the center line of County Line Road; thence extending South Sixty-two degrees, thirty-five minutes West sixty-one and thirty-five one-hundreths feet to a point; thence extending North twenty-seven degrees twenty-five minutes West, twenty-three and fifty-seven one-hundredths feet to a point in the center line of a Thirty feet wide Right of Way; thence extending through the bed of said Right of Way (which right of way is of varying width) the two following courses and distances (1) North sixty-five degrees, fifty-nine minutes East thirty-one and eighty-five one-hundredths feet to a point and (2) South eighty-one degrees, nine minutes thirty seconds East thirty-six and sixty-six one-hundreths feet to the first mentioned point and place of beginning.
BEING PARCEL No. 2 on said plan.
UNDER AND SUBJECT to Easement and Rights as granted in Deed Book 2421, page 714.
BEING FOLIO NUMBER 36-02-00932-00
0000 County LINE RD
BEING A TRANSFER exempt from realty transfer tax as a Deed of Correction and transfer between spouses.

BEING the same premises which C.G. Berwind, Jr., Thomas B. Morris, Jr., and Francis X. Morrissey, Jr., Trustees Under Deed of Trust of Charles G. Berwind, dated 2/28/1963 for C.G. Berwind, Jr., et al. by Deed dated February 15, 1989 and recorded in the Office of the Recorder of Deeds of Delaware County on March 23, 1989 in Volume 0655 Page 1765, et seq., granted and conveyed to JAMES CHARLES SCHWARTZMAN and NANCY HANKIN SCHWARTZMAN, his wife, in fee.

ALSO BEING the same premises which C.G. Berwind, Jr., and Thomas B. Morris, Jr., Executors of the Will of Ellen McM. Berwind a/k/a Ellen M. and Ellen McMichael Berwind, deceased by Deed dated August 19, 1987 and recorded in the Office of the Recorder of Deeds of Delaware County on September 28, 1987 in Volume 0512 Page 1353, et seq., granted and conveyed unto C.G. Berwind, Jr., Albert W. Gilmer and

Thomas B. Morris, Jr., Trustees Under Deed of Trust of Charles G. Berwind, dated 2/28/1963 for C.G. Berwind, Jr., et al., in fee.

UNDER AND SUBJECT to the restriction, which shall be perpetual and run with the land, that no buildings shall be constructed on the premises in addition to the existing residence and outbuildings. This restriction, however, shall not prohibit the addition of rooms or wings to the existing residence and outbuildings, the construction of a small functional pool house limited to bathroom facilities and changing rooms, or the repair or reconstruction of any such buildings after damage. If this restriction is violated, the Grantors herein, their successors or assigns, in addition to any other rights and remedies which may be available to them at law or in equity, shall have the right to compel the removal of any building in violation of this restriction, notwithstanding any passage of time or forbearance.

TOGETHER with all and singular the buildings, improvements, ways, streets, alleys, passages, waters, water-courses, rights, liberties, privileges, hereditaments and appurtenances, whatsoever unto the hereby granted premises belong, 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.

TO HAVE AND TO HOLD the said lot or piece of ground above described, with the buildings and improvements thereon erected, hereditaments and premises hereby granted, or mentioned and intended so to be, with the appurtenances, unto the said Grantee, his heirs and assigns forever.

IN WITNESS WHEREOF, the party of the first part has hereunto set his hand and seal dated the day and year first above written.

SEALED AND DELIVERED
IN THE PRESENCE OF US:

JAMES CHARLES SCHWARTZMAN

NANCY HANKIN SCHWARTZMAN

STATE OF PENNSYLVANIA :
COUNTY OF Delaware :

On this, the 23rd day of MARCH 2016, before me, the undersigned officer, personally appeared Samuel Schwartzman and Nancy Schwartzman known to me or satisfactorily proven to be the person(s) described in the foregoing, and acknowledged that he/she/they executed the same for the purposes therein contained and desired the same be recorded as such.

HANKIN

NOTARY PUBLIC

COMMONWEALTH OF PENNSYLVANIA
NOTARIAL SEAL
NICHOLAS J. CANIGLIA, Notary Public
Radnor Twp., Delaware County
My Commission Expires April 22, 2018

DEED

JAMES CHARLES SCHWARTZMAN and NANCY HANKIN SCHWARTZMAN

TO

JAMES CHARLES SCHWARTZMAN and NANCY HANKIN SCHWARTZMAN

Premises:
401 Gulph Creek Road
Radnor, PA 19087
0000 County Line Rd.

Prepared By:
Nicholas J. Caniglia, Esquire
P.O. Box 312
125 Strafford Avenue, Suite 110
Wayne, PA 19087
610-688-2626

The address of the above-named Grantee is:
401 Gulph Creek Road
Radnor, PA 19087

Certified By: _____
On behalf of the Grantee

REV-183 EX (2-15)

pennsylvania
DEPARTMENT OF REVENUE
Bureau of Individual Taxes
PO BOX 280603
Harrisburg, PA 17128-0603

REALTY TRANSFER TAX STATEMENT OF VALUE

See reverse for instructions.

RECORDER'S USE ONLY	
State Tax Paid	0
Book Number	5832
Page Number	1794
Date Recorded	6-29-16

Complete each section and file in duplicate with Recorder of Deeds when (1) the full value/consideration is not set forth in the deed, (2) the deed is without consideration or by gift, or (3) a tax exemption is claimed. If more space is needed, please attach additional sheets. A Statement of Value (SOV) is not required if the transfer is wholly exempt from tax based on family relationship or public utility easement. However, it is recommended that a SOV accompany all documents filed for recording.

A. CORRESPONDENT – All inquiries may be directed to the following person:

Name	Telephone Number:
Nicholas J. Caniglia, Esquire	(610) 688-2626

Mailing Address	City	State	ZIP Code
125 Strafford Avenue, Suite 110	Wayne	PA	19087

B. TRANSFER DATA

Date of Acceptance of Document: 05 /23 /2016

Grantor(s)/Lessor(s)	Telephone Number:	Grantee(s)/Lessee(s)	Telephone Number:
Charles & Nancy Schwartzman		Charles & Nancy Schwartzman	

Mailing Address	City	State	ZIP Code
401 Gulph Creek Road	Radnor	PA	19087

Mailing Address	City	State	ZIP Code
401 Gulph Creek Road	Radnor	PA	19087

C. REAL ESTATE LOCATION

Street Address	City, Township, Borough
401 Gulph Creek Road	Radnor Township

County	School District	Tax Parcel Number
Delaware	Radnor	36-02-01047-00

D. VALUATION DATA

Was transaction part of an assignment or relocation? ☐ Y ☒ N

1. Actual Cash Consideration	2. Other Consideration	3. Total Consideration
1.00	+0.00	= 1.00

4. County Assessed Value	5. Common Level Ratio Factor	6. Computed Value
1,133,360.00	X 1.47	= 1,666,039.00

E. EXEMPTION DATA – Refer to instructions for exemption status.

1a. Amount of Exemption Claimed	1b. Percentage of Grantor's Interest in Real Estate	1c. Percentage of Grantor's Interest Conveyed
$ 1,666,039.00	100.00 %	100.00 %

2. Check Appropriate Box Below for Exemption Claimed.

- ☐ Will or intestate succession. _____ (Name of Decedent) _____ (Estate File Number)
- ☐ Transfer to a trust. (Attach complete copy of trust agreement identifying all beneficiaries.)
- ☐ Transfer from a trust. Date of transfer into the trust _____
  If trust was amended attach a copy of original and amended trust.
- ☐ Transfer between principal and agent/straw party. (Attach complete copy of agency/straw party agreement.)
- ☐ Transfers to the commonwealth, the U.S. and instrumentalities by gift, dedication, condemnation or in lieu of condemnation. (If condemnation or in lieu of condemnation, attach copy of resolution.)
- ☐ Transfer from mortgagor to a holder of a mortgage in default. (Attach copy of mortgage and note/assignment.)
- ☒ Corrective or confirmatory deed. (Attach complete copy of the deed to be corrected or confirmed.)
- ☐ Statutory corporate consolidation, merger or division. (Attach copy of articles.)
- ☐ Other (Please explain exemption claimed.) Also a transfer between husband and wife during the marriage

Under penalties of law, I declare that I have examined this statement, including accompanying information, and to the best of my knowledge and belief, it is true, correct and complete.

Signature of Correspondent or Responsible Party _____ Date 6/29/16

PLETE THIS FORM PROPERLY OR ATTACH REQUESTED DOCUMENTATION MAY RESULT

REV-183 EX (2-15)

pennsylvania
DEPARTMENT OF REVENUE
Bureau of Individual Taxes
PO BOX 280603
Harrisburg, PA 17128-0603

REALTY TRANSFER TAX STATEMENT OF VALUE

See reverse for instructions.

RECORDER'S USE ONLY	
State Tax Paid	0.00
Book Number	5832
Page Number	1794
Date Recorded	6/29/16

Complete each section and file in duplicate with Recorder of Deeds when (1) the full value/consideration is not set forth in the deed, (2) the deed is without consideration or by gift, or (3) a tax exemption is claimed. If more space is needed, please attach additional sheets. A Statement of Value (SOV) is not required if the transfer is wholly exempt from tax based on family relationship or public utility easement. However, it is recommended that a SOV accompany all documents filed for recording.

A. CORRESPONDENT – All inquiries may be directed to the following person:

Name			Telephone Number:
Nicholas J. Caniglia, Esquire			(610) 688-2626
Mailing Address	**City**	**State**	**ZIP Code**
125 Strafford Avenue, Suite 110	Wayne	PA	19087

B. TRANSFER DATA

Date of Acceptance of Document	05 /23 /2016		
Grantor(s)/Lessor(s)	**Telephone Number:**	**Grantee(s)/Lessee(s)**	**Telephone Number:**
Charles & Nancy Schwartzman		Charles & Nancy Schwartzman	
Mailing Address		**Mailing Address**	
401 Gulph Creek Road		401 Gulph Creek Road	
City / **State** / **ZIP Code**		**City** / **State** / **ZIP Code**	
Radnor / PA / 19087		Radnor / PA / 19087	

C. REAL ESTATE LOCATION

Street Address	City, Township, Borough	
401 Gulph Creek Road	Radnor Township	
County	**School District**	**Tax Parcel Number**
Delaware	Radnor	36-02-00932-00

D. VALUATION DATA

Was transaction part of an assignment or relocation? ☐ Y ☒ N

1. Actual Cash Consideration	2. Other Consideration	3. Total Consideration
1.00	+0.00	= 1.00
4. County Assessed Value	**5. Common Level Ratio Factor**	**6. Computed Value**
50,000.00	X 1.47	= 73,500.00

E. EXEMPTION DATA – Refer to instructions for exemption status.

1a. Amount of Exemption Claimed	1b. Percentage of Grantor's Interest in Real Estate	1c. Percentage of Grantor's Interest Conveyed
$ 73,500.00	100.00 %	100.00 %

2. Check Appropriate Box Below for Exemption Claimed.

- ☐ Will or intestate succession. _____ (Name of Decedent) _____ (Estate File Number)
- ☐ Transfer to a trust. (Attach complete copy of trust agreement identifying all beneficiaries.)
- ☐ Transfer from a trust. Date of transfer into the trust _____
  If trust was amended attach a copy of original and amended trust.
- ☐ Transfer between principal and agent/straw party. (Attach complete copy of agency/straw party agreement.)
- ☐ Transfers to the commonwealth, the U.S. and instrumentalities by gift, dedication, condemnation or in lieu of condemnation. (If condemnation or in lieu of condemnation, attach copy of resolution.)
- ☐ Transfer from mortgagor to a holder of a mortgage in default. (Attach copy of mortgage and note/assignment.)
- ☒ Corrective or confirmatory deed. (Attach complete copy of the deed to be corrected or confirmed.)
- ☐ Statutory corporate consolidation, merger or division. (Attach copy of articles.)
- ☐ Other (Please explain exemption claimed.) Also a transfer between husband and wife during the marriage

Under penalties of law, I declare that I have examined this statement, including accompanying information, and to the best of my knowledge and belief, it is true, correct and complete.

Signature of Correspondent or Responsible Party _____ Date 6/29/16

FAILURE TO COMPLETE THIS FORM PROPERLY OR ATTACH REQUESTED DOCUMENTATION MAY RESULT IN THE RECORDER'S REFUSAL TO RECORD THE DEED.

20160712013 Book: 5832 Pa
scription: Delaware,PA Document - Book.Page 5832.1797 Page: 8 of 8

REV. 8/25/77

EASEMENT AGREEMENT

THIS EASEMENT AGREEMENT made this 12th day of December, 1977, between ELLEN McM. BERWIND, widow, hereinafter called Grantor and SIDNEY L. LUCE, and ELLEN E. W. LUCE, husband and wife, joint tenants with right of survivorship, hereinafter called Grantees.

WHEREAS, Grantor is the owner of a strip of land fifty feet wide extending to the southwest from County Line Road beginning at a point in the middle line of said County Line Road at the distance of 402.68 feet from the intersection of the middle lines of Gulph Creek Road and County Line Road in Radnor Township, Delaware County, Pennsylvania, which said strip extends from County Line Road to other lands of Grantor, hereinafter referred to as Grantor's Land; and

WHEREAS, Grantees are the owners of an adjoining piece of land to the southeast of Grantor's Land containing approximately 1.336 acres on which Grantees have built a residence, hereinafter referred to as Grantees' Land; and

WHEREAS, Grantees are desirous of having an easement and right-of-way for pedestrian and vehicular ingress and egress from County Line Road across a portion of Grantor's Land to Grantees' Land, and are willing to pay One Hundred Dollars ($100.00) per year to Grantor for, among other things, Grantees' share of taxes on and other expenses of maintaining the land which will be subject to the easement; and

WHEREAS, Grantor is willing to grant to Grantees such easement and right of way; and

WHEREAS, Grantees and Grantor desire and intend to extinguish a prior agreement between Charles G. Berwind, now deceased, and Ellen McM. Berwind, husband and wife, and Sidney L. Luce dated March 5, 1956, hereinafter referred to as the "prior Agreement", which granted to Grantees a similar easement.

NOW THEREFORE, the parties, in consideration of mutual benefits conferred herein and intending to be legally bound hereby, agree as follows:

1. The prior Agreement is hereby terminated, extinguished, discharged and released. Each of the parties hereto agree that they will not at any time hereafter enforce or attempt to enforce such Agreement or any provisions thereof.

2. Grantor hereby grants and conveys to Grantees an easement and right-of-way eighteen (18) feet in width extending between parallel lines, the southeastern line of which is the southeastern boundary of Grantor's Land, from the middle line of County Line Road South 62° 37' 0" West a distance of 180 feet, hereinafter referred to as the "180 foot strip".

3. Grantees agree to pay to the owner or owners of Grantor's Land in proportion to such ownership One Hundred Dollars ($100.00) per year, prorated for any partial year, for as long as said easement exists, payable on the date hereof and on each anniversary date hereafter.

4. The right-of-way, easement, rights and privileges herein granted shall be used only for the purpose of providing such pedestrian and vehicular ingress and egress from County Line Road to Grantees' Land as is properly incidental to the occupancy of Grantees' Land as a residence.

5. Grantees at their expense shall maintain in good condition the 180 foot strip and the black top roadway existing thereon, hereinafter referred to as the "existing roadway"; and Grantees at their expense shall maintain the existing landscaping and plantings on the 180 foot strip (and shall re-landscape and re-plant as necessary) all in order to maintain the pleasing appearance of the 180 foot strip. Should Grantees elect to extinguish this easement by the execution and delivery of the document contemplated by paragraph 9 below, then Grantees at their expense and if requested by Grantor shall promptly remove the existing roadway and promptly restore the 180 foot strip to its unimproved state; provided, however, that Grantees' undertaking to remove and restore hereunder shall apply to the existing roadway only and not to any further roadway constructed by Grantor, and provided further that the undertaking herein provided shall survive the execution, delivery and recording of the document described in paragraph 9 below, but shall in any case be terminated and discharged if Grantor shall not have requested the removal and restoration within thirty (30) days of her receipt of written notice from Grantees (accompanied by a copy of the document so recorded pursuant to paragraph 9) advising that this easement has thus been extinguished.

6. If Grantor desires to construct a roadway to provide access to other lands of Grantor, Grantor may do so, provided that, if such roadway interferes with Grantees' use of

the existing roadway, Grantor shall grant to Grantees use of said roadway and access to said roadway from the point where the existing roadway now enters Grantees' Land. In such case, Grantor shall pay the entire cost of construction of such roadway and Grantees will share the expense of maintaining 180 feet of such roadway in proportion to the number of residences which make use of such roadway.

7. Grantor shall have the right to include the 180 foot strip in any dedication of Grantor's Land to the township.

8. The easement, rights and privileges herein granted shall exist and be effective from the date hereof until such time as the easement terminates or is terminated. Grantor hereby binds herself, her heirs, executors, administrators, successors, and assigns to warrant and forever defend the above-described easement and rights unto Grantees, their heirs, executors, administrators, successors and assigns, against every person whomsoever lawfully claiming or to claim the same or any part hereof.

9. The easement, rights, privileges herein granted shall immediately terminate upon acceptance by the proper township authorities of a dedication to the township of the 180 foot strip for public use pursuant to paragraph 7; or upon the delivery by Grantees to the Recorder of Deeds in and for the County of Delaware, Pennsylvania, of a document in recordable form extinguishing all Grantees' right, title and interest in said easement.

10. The easement, rights, and privileges granted herein are nonexclusive, and Grantor reserves and retains the right to convey similar rights and easements to such other persons as Grantor may deem proper.

11. This easement shall run with the land and this instrument shall be binding on and shall inure to the benefit of the respective heirs, executors, administrators, successors, and assigns of the parties hereto.

12. Should Grantees fail to perform any covenant, undertaking or obligation arising hereunder, Grantor's sole remedy shall be to take such action for damages as the law provides for breach of this Agreement; and the easement created hereby shall remain in full force and effect.

13. Grantor retains, reserves and shall continue to enjoy the use of the property on which the easement is granted for any and all purposes which do not interfere with or prevent the use by Grantees of the within easement.

14. This Agreement shall be recorded in the Office for the Recording of Deeds in and for the County of Delaware, Pennsylvania.

IN WITNESS WHEREOF, the parties have executed this Easement Agreement the day and year first above written.

Ellen McM. Berglind, Grantor

Sidney L. Luce, Grantor

Ellen E. W. Luce, Grantor

COMMONWEALTH OF PENNSYLVANIA :
: SS
COUNTY OF Philadelphia :

On this 22nd day of September, 1977, before me the subscriber, a Notary Public for the Commonwealth of Pennsylvania, residing in the County of Philadelphia, personally appeared ELLEN McM. BERWIND, known to me, or satisfactorily proven, to be the person whose name is subscribed to the within instrument, and acknowledged that she executed same for the purposes therein contained, and consented to the recording thereof.

IN WITNESS WHEREOF, I have hereunto set my hand and official seal.

Eleanor T. [illegible]
Notary Public

My Commission Expires:
ELEANOR T. [illegible]
Notary Pub.
My Com. [illegible]

COMMONWEALTH OF PENNSYLVANIA :
: ss
COUNTY OF Montgomery :

On this 12th day of October, 1977, before me the subscriber, a Notary Public for the Commonwealth of Pennsylvania, residing in the County of personally appeared STUART D. LUCE, and ELLEN H. W. LUCE, known to me, or satisfactorily proven, to be the persons whose names are subscribed to the within instrument, and acknowledged that they executed same for the purposes therein contained, and consented to the recording thereof.

IN WITNESS WHEREOF, I have hereunto set my hand and official seal.

Notary Public

My Commission Expires

REC-310 (1-88)
COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF REVENUE
BUREAU OF COUNTY COLLECTIONS

REALTY TRANSFER TAX AFFIDAVIT OF VALUE

FOR RECORDER'S USE ONLY
BOOK NUMBER 2627
PAGE NUMBER 645
DATE RECORDED 12-15-87

COMPLETE APPLICABLE SECTIONS IN FULL AND FILE IN DUPLICATE WITH RECORDER OF DEEDS WHEN (1) THE FULL CONSIDERATION IS NOT SET FORTH IN THE DEED, (2) THE TRANSFER IS WITHOUT CONSIDERATION OR A GIFT OR (3) A TAX EXEMPTION IS CLAIMED. (REFER SECT. 8, RTT ACT OF DEC. 27, 1951, P. L. 1742 AS AMENDED)

SECTION I
(COMPLETE FOR ALL TRANSACTIONS)

Ellen McM. Berwind — Gulf Creek Road, Radnor, Pennsylvania
GRANTOR (S) — STREET

Sidney L. and Ellen E.W. Luce — 587 County Line Road, Radnor, Pennsylvania 19087
GRANTEE (S) — STREET

LOCATION OF LAND, TENEMENTS AND HEREDITAMENTS:

R.D., STREET & NUMBER OR OTHER DESCRIPTION — NAME OF LOCAL GOVERNMENT — COUNTY

FULL CONSIDERATION $ no cash — HIGHEST ASSESSED VALUE $ not separately assessed
FAIR MARKET VALUE $ 1.00 — REALTY TRANSFER TAX PAID $ None

TAX EXEMPT TRANSACTIONS: IF TRANSFER IS PARTIALLY OR WHOLLY EXEMPT, SHOW AMOUNT EXEMPT.
REASON (S) AND CITE PORTION OF LAW:
Note: the interest in property conferred herewith has no actual monetary worth as the yearly payment by Grantee equals the cost of maintaining the easement and paying the real estate taxes thereon.
IF THIS IS A TRANSFER FROM A STRAW, AGENT OR TRUST AGREEMENT, COMPLETE THE REVERSE SIDE

SECTION II
(COMPLETE ONLY IF PROPERTY WAS SUBJECT TO LIEN OR MORTGAGE AT THE TIME OF TRANSFER)

EXISTING MORTGAGE: $ _____ DISPOSITION _____
MORTGAGEE — ATTORNEY

EXISTING MORTGAGE: $ _____ DISPOSITION _____
MORTGAGEE — ATTORNEY

EXISTING LIEN OR OBLIGATION: $ _____ DISPOSITION _____
LIENHOLDER — ATTORNEY

EXISTING LIEN OR OBLIGATION: $ _____ DISPOSITION _____
LIENHOLDER — ATTORNEY

SECTION III
(COMPLETE ONLY IF TRANSFER IS RESULT OF JUDICIAL SALE)

OFFICIAL CONDUCTING SALE _____ NAME _____ ADDRESS _____
SUCCESSFUL BIDDER _____ NAME _____ ADDRESS _____

	JUDGEMENT PLUS PRIOR LIENS	BID PRICE	HIGHEST ASSESSED VALUE
HIGHEST ASSESSED VALUE			$
JUDGEMENT PLUS INTEREST	$		
BID PRICE		$	
PRIOR RECORDED LIEN	$	$	
PRIOR RECORDED MORTGAGE	$	$	
PRIOR RECORDED MORTGAGE	$	$	
UNPAID REAL ESTATE TAXES	$	$	
WATER RENT DUE	$	$	
SEWAGE RENT DUE	$	$	
ATTORNEY FEES	$	$	
OTHER (COSTS, ETC.)	$	$	
TOTAL	$	$	$

NOTE: CALCULATIONS MUST BE SHOWN IN ALL COLUMNS.

SWORN AND SUBSCRIBED BEFORE ME THIS 15th DAY OF December 1987

MY COMMISSION EXPIRES

ELOISE A. KENDIG
Notary Public, Phila., Phila. County
My Commission Expires Feb. 21, 1988

ALL OF THE INFORMATION ENTERED ON BOTH SIDES OF THIS AFFIDAVIT IS TRUE, FULL AND COMPLETE TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF

Sidney L. Luce

[X] GRANTEE [ ] AGENT FOR GRANTEE
[ ] GRANTOR [ ] AGENT FOR GRANTOR
[ ] STRAW [ ] TRUSTEE

07765

Oct 28 12 37 PM '77

RECORDED in the Office for Recording of Deeds
in and for Del. Co., Pa., in Deed
Book 2627 Page 638.
WITNESS my hand and seal of Office this
28th day of Oct. A.D. 19 77.

James H. Johnston

Recorder of Deeds
Deputy Recorder

BOOK 2627 PAGE 646

DEED — 1102

210

This Indenture, Made the 28th day of March
in the year of our Lord one thousand nine hundred and forty (1940) BETWEEN John Tyrone, of Haverford, County of Delaware and State of Pennsylvania, & Natalie H. Tyrone his wife,
(hereinafter called the Grantors) of the one part,

And Harry Reynolds Emerson, of the City and State of New York
(hereinafter called the Grantee) of the other part,

Witnesseth, That the said Grantors, for and in consideration of the sum of Two Thousand Dollars lawful money of the United States of America unto them well and truly paid by the said Grantee at or before the sealing and delivery hereof, the receipt whereof is hereby acknowledged, have granted bargained and sold, released and confirmed, and by these presents do grant, bargain, sell, release and confirm unto the said Grantee, his Heirs and assigns,

All that certain lot or piece of ground situate in Radnor Township, Delaware County, Pennsylvania, in accordance with a survey thereof made by Milton R. Yerkes, C.E. of Bryn Mawr, Pennsylvania, on March 23rd, 1940 as follows, viz: Beginning at a point in the middle of County Line Road, distant from the intersection of the middle of said County Line Road with the middle of Montrose Avenue (50 feet wide) measured South twenty-nine degrees fifty-eight minutes West along the middle of said County Line Road, two hundred and sixty-six feet (266 ft.) from the said point of intersection; thence from the said point of beginning and extending along the middle of said County Line Road South twenty-nine degrees fifty-eight minutes West one hundred and sixty feet (160 ft.) to a point; thence North thirty-one degrees fifty minutes West one hundred and seventy-five feet (175 ft.) to a point; thence North fifty-eight degrees ten minutes East two hundred and sixty-six feet (266 ft.) to a point in the middle of Montrose Avenue aforesaid; thence along the middle of said Montrose Avenue South thirty-one degrees fifty minutes East one hundred and seventy-five feet (175 ft.) to the point and place of beginning. Containing one acre and one hundredth (1.01) of an acre, be the same more or less.

Being the same premises which Harry Emerson & Albert Barham Tilly, Executors of the Will of Marian Mott, deceased, by Indenture bearing date the twenty-eighth day of April, A.D. 1939, and recorded in the Office for the Recording of Deeds, in and for the County of Delaware, on the fifth day of May A.D. 1939, in Deed Book No. 1014, Page 260, etc. granted and conveyed unto the said John Tyrone & Natalie H. Tyrone his wife, in fee, by the name of Natalie H. Tyrone.

Together with all riparian rights in and to Multa Brook, Subject to the rights of the owners of the upper and lower lands in the use of the waters of said Brook, and also together with all riparian rights and privileges appurtenant to the premises hereby granted. Subject, however, to the limitations as to use and drainage arising on the premises hereby conveyed, for the benefit of the lake located partly on premises conveyed by Harry Emerson Tyrone et al, by Executors under the Will of Marian Mott, Deceased, to the said Harry Emerson by Executors' Deed dated [illegible] and recorded [illegible] in Deed Book [illegible] page [illegible] and also together with the free and [illegible] right, liberty and privilege for the said Grantee, his heirs and assigns, and the owners, tenants and occupiers of the above mentioned premises and Multa Brook Road only

DEED — 1102

Together with all and singular the improvements, ways, streets, alleys, passages, waters, water courses, rights, liberties, privileges, hereditaments and appurtenances whatsoever, unto the hereby granted premises belonging, or 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 the said grantors, as well at law as in equity, of, in, and to the same.

To Have and to Hold the said lot or piece of ground above described hereditaments and premises hereby granted, or mentioned and intended so to be, with the appurtenances, unto the grantee her heirs and assigns, to and for the only and proper use and behoof of the grantee her heirs and assigns forever.

Under and Subject to the above reservations.

And the said grantors for themselves, their heirs, executors and administrators, do covenant, promise and agree, to and with the grantee her heirs and assigns, by these presents, that they the said grantors, their heirs, all and singular the hereditaments and premises hereby granted, or mentioned and intended so to be, with the appurtenances unto the said grantee her heirs and assigns, against them the said grantors, their heirs, and against all and every other person and persons whomsoever lawfully claiming or to claim the same, or any part thereof, by, from or under him, her, them or any of them, shall and will Warrant and forever Defend.

In Witness Whereof, the parties of the first part hereunto set their hands and seals. Dated the day and year first above written.

SEALED AND DELIVERED in presence of us: Wm. Mc Kee

John Tyson (L.S.)

Natalie E. Tyson (L.S.)

Witness as to signatures — Received on the day of the date of the above indenture, of the above named grantee the full consideration money therein above mentioned.

John Tyson
Natalie E. Tyson

On the 28th day of March A.D. 1940 before me, the subscriber, a Notary Public for the Commonwealth of Pennsylvania, residing in the City of Philadelphia personally appeared the above named John Tyson & Natalie E. Tyson, his wife, and in due form of law acknowledged the above indenture to be their and each of their act and deed, and desired the same might be recorded as such.

Witness my hand & Notarial seal the day and year aforesaid.

Wm. Mc Kee
Notary Public

My Commission expires 2/6/1943

The address of the above named grantee is 11 Broadway, New York City

Wm. Mc Kee
On behalf of the grantee

Recorded April 6-1940
Witness my O.R. Clk

DELAWARE COUNTY

RIGHT OF WAY DEED BOOK 1676 page 552

John Tyson and Natalie E. his wife hereinafter called "Grantors" (being the owners of certain lands and property fronting on County Line Road and Gulph Creek Road in Radnor Township, Delaware County, Pennsylvania, and specifically described in Deed from Haven Emerson and Albert Bartram Kelley, Executros of the Will of Marion Mott, decesed to Grantors dated March 28, 1949 and recorded in the Office for the REcordingof Deeds in and f for said Countiin Deed Book No. 110 at page 327, etc.,)

to

Philadelphia Suburan Water Company (a Penna. corp.)

GRANTING the two following described perpetual and exclusive rights of way and easements at any and all time hereafter to lay, relay, install, operate, inspect, maintain, repair, alter, remove, renew and replace through, across and under daid lands and property now of grantors a pipe line and appurtenances (including a blow off drain) for the trasmission of water the first of said rights of way to consist of a strip of ground twenty feet wide extending across said lands and property now of grantors to connect with rights of way of said Philadelphia Suburban Water Company located or to be located in the aforesaid roads adjoining said lands and property of grantors, the center line of said strip to be located as shown on the annexed plan prepared by Albright & Friel, Inc., Consulting Engineers, and dated January 25, 1954, said pipe line to be within the limits of said first right of way and to have a maximum inside diameter of 24 feet and the second of said rights of way to consist of a strip of ground twenty feet wide extending across said lands and property now of grantors from Gulph Creek Road to Gulph Creek to connect with rights of way of said Philadelphia Suburban Water Company located or to be located in said Gulph Creek Road ajoingin said lands and property of grantors, the center line of said strip to be located as shown on the annexed plan aforesaid, for the purpose of said second right of way and have a maximum inside diameter of 4 inches.

TOGETHER with thr right of ingress, egress and regress to and from each of said twenty feet wide strips of ground at any and all times for the purposes of laying, relaying, installing, operating, inspecting, maintaining, repairing, alteering, removing, renewing and replacing said replacing said pipe line and appurtenaces (licluding blow-off drain); and togherther with the right to do in or to said lands what may be required for the full enjoyment of the rights and easements herein granted; but subject to the obligation of said Philadelphia Suburban Water Company, its ucccessors asn assigns, after laying said pipe line and appurtenances (including blow-off drain) and after any subsequent mainteance, repair, alteration, removal, or replacement thereof by it or them, to restore the surface of the ground distrubed by it or them as nearly as practicalbe to its contour prior to such distrubance thereof;

RESERVING, however, to grantors the right to use the ground within the limits of said rights of way easements hereby granted for ingress, egress and regress provided that such use shall not interfere with or obstruct the rights herein granted;

To have and to hold all and singular the rights, liberties, priviledges, rights of way easements above described, with the appurtenances, (including blow-off drain) unto said Philadelphia Suburban WaterCompany, its successors and assigns, to and for the only proper use and behoof of the said Water company, its usccessors and assigns forever.

This grant and all of the covenants herein contained shall inure to the benefit of and shall be binding upon grantors, their and each of their heirs and assigns, and Philadelphia Suburban Water Company, its successors and assigns.

Grantors understand acknowledge that the person securing this grant is withou authority to make any agreement in regard to the subject matter hereof which is not expresses herein and that no such agreement will be binging on said Philadelphia Suburban Water Company, its successors or assigns.

FEE SIMPLE DEED No. 753

This Indenture

Made the 11TH day of JANUARY in the year of our l
one thousand nine hundred and seventy-two (1972) ——
BETWEEN, JOSEPH M. B. WEAVER and MARY PERSONS WEAVER, his wife,

(hereinafter called the Grantors), of the one part,

CHARLES G. BERNIND

(hereinafter called the Grantee), of the other
Witnesseth, That the said Grantors —— for and in consideration of the sum of

Fifteen hundred Dollars ($1500.00)

lawful money of the United States of America, unto ... them... well and truly paid by the Grantee; at or before the sealing and delivery hereof, the receipt whereof is hereby acknowle
have —— granted, bargained and sold, released and confirmed, and by these presents
grant, bargain and sell, release and confirm unto the said Grantee, his heirs
and assigns,

ALL THAT CERTAIN lot or piece of ground, situate in the Township of Radnor, County of Delaware, Commonwealth of Pennsylvania, described in accordance with a Map of Property of Joseph M. Weaver, et ux, made by Yerkes Associates, Inc., Consulting Engineers and Surveyors, dated October 1, 1971 as follows, to wit:

BEGINNING at an interior point, which point is at the intersection Seven hundred feet measured South fifty nine degrees, fifty minutes West along the Southeasterly side of a certain forty foot ... right way from a point in the center line of County Line Road; thence within South sixty two degrees, thirty five minutes West fifty one ... hundred five one-hundredths feet to a point; thence extending North ... seven degrees, twenty five minutes East twenty three and ... one-hundredths feet to a point in the center line of a ... Right of way; thence extending through the bed of said Right of way (which Right of way is of varying width) the two following ... distances (1) North sixty five degrees, fifty nine minutes ... one and eighty five one-hundredths feet to a point and (2) ... one degrees, nine minutes, thirty seconds East thirty six and ... one-hundredths feet to the first mentioned point and place of beginni
BEING Parcel #2 on said Plan.

BEING part of the same premises which Oren H. Persons, Sr. and Alice E. Pers his wife, by Indenture bearing date the 4th day of October A.D., 1957 and recorded Media in the Office for the Recording of Deeds, in and for the County of Delaware, the 17th day of October A.D., 1957 in Deed Book No. 1924 page 85 etc., granted and conveyed unto Mary Persons Weaver, in fee.

UNDER AND SUBJECT to certain Rights of Way now of record.

ALSO UNDER AND SUBJECT to the easement of that portion of the thirty feet wi right of way lying within the above premises, the middle line of which forms the No erly boundary of said premises, for the benefit of the owners, tenants and occupier the premises adjoining to the North, and to the West thereof, to whom the use of th said right of way may be granted.

TOGETHER with the free and common use, right, liberty and privilege of ingre egress and regress over and along the said thirty feet wide right of way, the middl

line of which forms the Northerly boundary line of premises above described; and over and along the said thirty feet wide right of way, the middle line of which is located as follows:

BEGINNING at a point in the middle line of the aforesaid forty feet wide right of way and extending along the middle line of said thirty feet wide right of way South sixty five degrees, fifty nine minutes West, Twenty eight and seventy two one-hundredth; feet to a point in line of land now or late of E. Barron Friel; and over and along said forty feet wide right of way which extends from the hereinbefore described thirty feet wide right of way North fifty nine degrees, fifty minutes East, Seven hundred feet to a point in said middle line of County Line Road, in common with the owners, tenants and occupiers of the other premises bounding thereon, and to which the use thereof may be given.

Date 1-19-72

Transfer Tax

15

Pendens

Together with all and singular the - - -

On the 11th day of [illegible] Anno Domini 19[illegible] before me, the subscriber, a Notary Public for the Commonwealth of Pennsylvania residing in the County of Delaware personally appeared the above-named

JOSEPH M. H. WEAVER and MARY PERSONS WEAVER, his wife,

and in due form of law acknowledged the above INDENTURE to be their and each of their act and deed, and desired the same might be recorded as such.

Witness my hand and Notarial seal the day and year aforesaid.

Notary Public

MY COMMISSION EXPIRES JULY 1973

The address of the above-named Grantee is [illegible]

On behalf of the Grantee

THE TITLE INSURANCE CORPORATION OF PENNSYLVANIA

3877(M)

1-[illegible]-36

DCP

JOSEPH M. H. WEAVER, ET UX

TO

CHARLES G. BERRIND

COUNTY OF DELAWARE PENNSYLVANIA RECEIVED JAN 19 [illegible]

FIELD REGISTRATION DEPT.

REGISTERED IN Radnor Township DELAWARE COUNTY, PA.

Recorder

Prothonotary

731 John F. Clarke, Phila. 7.20

Premises: 5330 Lonely Lane, Radnor Township, Delaware County, Pennsylvania

Recorded in the office for recording of deeds in and for Delaware County, in Deed Book No. 2421 page 717 &c.

Witness my hand and seal of office this nineteenth day of January Anno Domini 1972

Edwin S. Himmann, Recorder of Deeds

Deputy Recorder

1

2421 717

OUTERSPACES, Inc.
715 Temple Rd
Glen Mills, PA 19342

Folio # 36-02-01047-00

STORMWATER CONTROLS AND BEST MANAGEMENT PRACTICES OPERATIONS AND MAINTENANCE AGREEMENT

THIS AGREEMENT, made and entered into this 10th day of March, 200[illegible], by and between James Schwartzman (hereinafter "Landowner"), and RADNOR TOWNSHIP, Delaware County, Pennsylvania.

WITNESSETH

WHEREAS, the Landowner is the owner of certain real property as recorded by deed the land records of Delaware County, Pennsylvania, Deed Book _____ at Page _____, (hereinafter "Property") AKA **401 GULPH CREEK ROAD.**

WHEREAS, the Landowner is proceeding to build and develop the Property; and

WHEREAS, the Stormwater Controls and BMP Operations and Maintenance Plan approved by the Municipality (hereinafter referred to as the "Plan") for the property identified herein, which is attached hereto as Appendix A and made part hereof, as approved by the Municipality, provides for management of stormwater within the confines of the Property through the use of Best Management Practices (BMPs); and

WHEREAS, the Municipality, and the Landowner, his successors and assigns, agree that the health, safety, and welfare of the residents of Radnor Township and the protection and maintenance of water quality require that on-site stormwater Best Management Practices be constructed and maintained on title Property; and

WHEREAS, for the purposes of this agreement, the following definitions shall apply: BMP - "Best Management Practice;" activities, facilities, designs, measures or procedures used to manage stormwater impacts from land development, to protect and maintain water quality and groundwater recharge and to otherwise meet the purposes of the Municipal Stormwater Management Ordinance, including but not limited to infiltration trenches, seepage pits, filter strips, bioretention, wet ponds, permeable paving, rain gardens, grassed swales, forested buffers, sand filters and detention basins.

- Infiltration Trench - A BMP surface structure designed, constructed, and maintained for the purpose of providing infiltration or recharge of stormwater into the soil and/or groundwater aquifer,
- Seepage Pit - An underground BMP structure designed, constructed, and maintained for the purpose of providing infiltration or recharge of stormwater into the soil and/or groundwater aquifer,
- Rain Garden - A BMP overlain with appropriate mulch and suitable vegetation designed, constructed, and maintained for the purpose of providing infiltration or recharge of

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RCD FEE: $66.00
DELAWARE COUNTY
58-RADNOR $0.00

stormwater into the soil and/or underground aquifer, and

WHEREAS, the Municipality requires, through the implementation of the Plan, that stormwater management BMPs as required by said Plan and the Municipal Stormwater Management Ordinance be constructed and adequately operated and maintained by the Landowner, his successors and assigns, and

NOW, THEREFORE, in consideration of the foregoing acknowledgements, the mutual covenants contained herein, and the following terms and conditions, the parties hereto agree as follows:

1. The BMPs shall be constructed by the Landowner in accordance with the plans and specifications identified on the Plan.
2. The Landowner shall operate and maintain the BMP(s) as shown on the Plan in good working order and in a manner acceptable to the Municipality and in accordance with the specific maintenance requirements noted on the Plan.
3. The Landowner hereby grants permission to the Municipality, its authorized agents and employees, to enter upon the property, at reasonable times and upon presentation of proper identification, to inspect the BMP(s) whenever it deems such inspection to be necessary. Whenever possible, the Municipality shall notify the Landowner prior to entering the property.
4. In the event the Landowner fails to operate and maintain the BMP(s) as shown on the Plan in good working order and in a manner acceptable to the Municipality, the Municipality or its representatives may enter upon the Property and take whatever action is deemed necessary to repair and/or maintain said BMP(s). This provision shall not be construed to allow the Municipality to erect any permanent structure on the land of the Landowner. It is expressly understood and agreed that the Municipality is under no obligation to maintain or repair said facilities, and in no event shall this Agreement be construed to impose any such obligation on the Municipality.
5. In the event the Municipality, pursuant to this Agreement, performs work of any nature, or expends any funds in performance of said work for labor, use of equipment, supplies, materials, and the like, the Landowner shall reimburse the Municipality for all expenses (direct and indirect) incurred within 10 days of receipt of invoice from the Municipality.
6. The intent and purpose of this Agreement is to ensure the proper maintenance of the onsite BMP(s) by the Landowner; provided, however, that this Agreement shall not be deemed to create or effect any additional liability of any party for damage alleged to result from or be caused by stormwater runoff.
7. The Landowner, its heirs, executors, administrators, assigns, and other successors in

interests do hereby release Municipality's employees, staff, elected and appointed officials and designated representatives from any and all past, present and future actions, causes of action, demands, claims, damages, loss of services, expenses, compensation, third party actions, suits at law or in equity, including claims or suites for contribution and/or indemnity and all consequential damage on account of or in any way growing out of any and all known and unknown personal injuries and all property damage, including without limitation, any and all claims arising out of construction, presence, existence or maintenance of the BMP(s) by the Landowner or Municipality. In the event that a claim is asserted against the Municipality, its designated representatives, staff, elected or appointed officials or employees, the Landowner will immediately indemnify and hold harmless the said Municipality, its designated representatives, employees, staff, elected and/or appointed officials named from any loss, cost and expense and, any and all claims against them or any of them, for contribution and indemnity by any other person, firm or corporation which arises from, or is related to construction, presence, existence or maintenance of the BMP(s) by the Landowner or Municipality. In the event that any judgment or claim against the Municipality, its designated representatives, employees, staff elected or appointed officials will be allowed by any court of competent jurisdiction, then the Landowner shall pay all costs and expenses relating to said judgment or claim in order that the same be immediately fully satisfied.

8. The Municipality shall make every effort to inspect the BMP(s) at a minimum of once every three years to insure their continued functioning. However, in the event that the Municipality fails, for whatever reason, to perform said inspections the failure to provide such inspection shall in no way be used against the Municipality; the responsibility for the maintenance and operation and repair BMP(s) shall always be the sole responsibility of Landowner hence, it is Landowner's responsibility to properly inspect the BMP at regular intervals to insure its continued and proper functioning.

This Agreement shall be recorded at the Office of the Recorder of Deeds of Delaware County, Pennsylvania, and shall constitute a covenant running with the Property and/or equitable servitude, and shall be binding on the Landowner, his heirs, administrators, executors, and assigns, and any other successors in interests, in perpetuity.

ATTEST:

WITNESS the following signatures and seals:

(SEAL) For the Municipality:

David Bashore, Twp. Manager

(SEAL) For the Landowner:

ATTEST:

(City, Township)

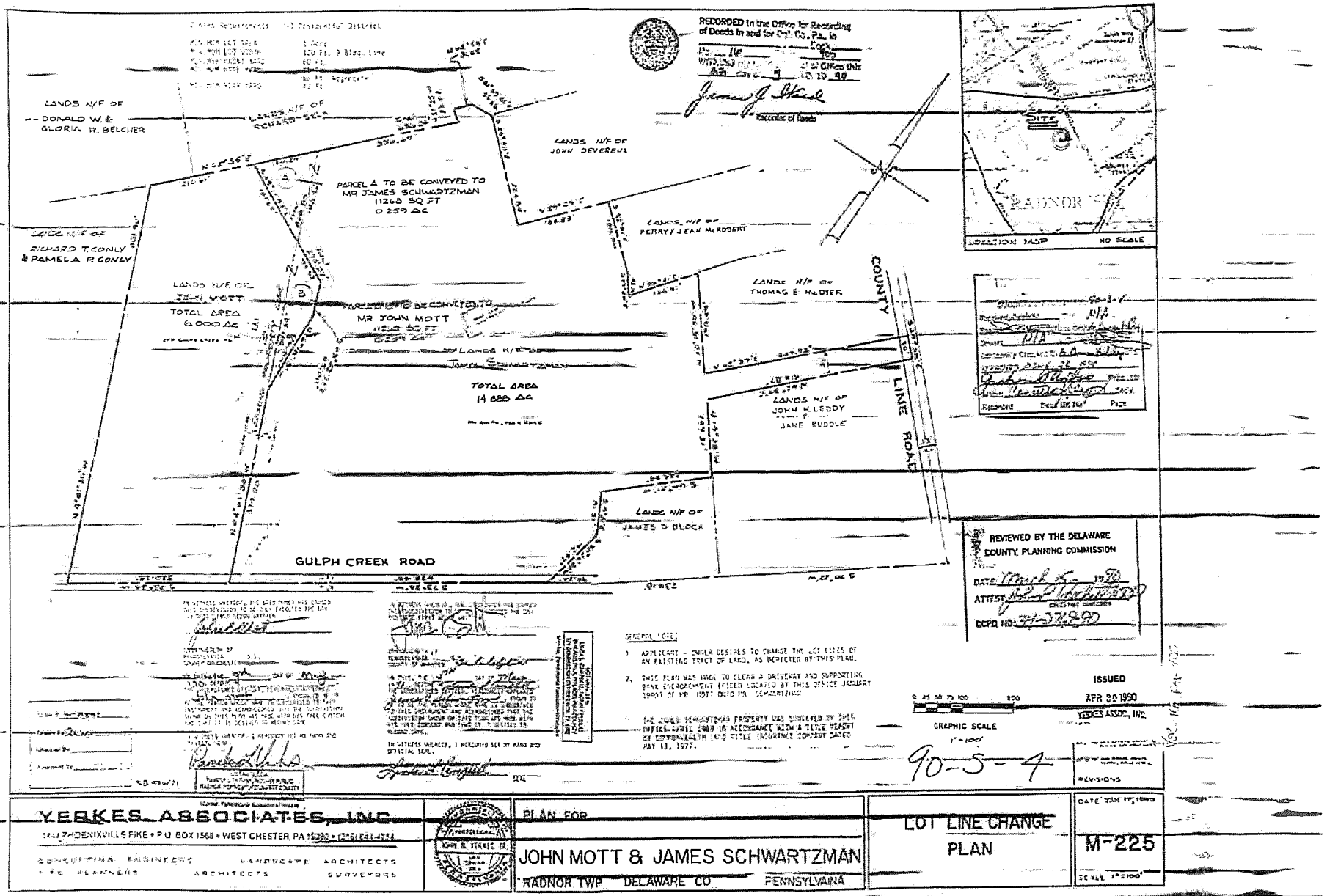
County of DELAWARE, Pennsylvania

I, the undersigned officer, a Notary Public in and for the County and State aforesaid, whose commission expires on the 23rd day of November, 2008, hereby acknowledge, personally appeared , who being duly sworn according to law, deposes and says that he/she is the owner or equitable owner of the property herein described.

GIVEN UNDER MY HAND THIS 9th day of March, 2007.

NOTARY PUBLIC (SEAL)

COMMONWEALTH OF PENNSYLVANIA
Notarial Seal
Linda L. Campbell, Notary Public
City Of Philadelphia, Philadelphia County
My Commission Expires Nov. 23, 2008
Member, Pennsylvania Association Of Notaries


RECORDED In the Office for Recording of Deeds In and for Del. Co., Pa. in
Book 116
Page 100
Witness my hand and the seal of the said Office this 4th day of April A.D. 19 90
James J. Ward
Recorder of Deeds
LANDS N/F OF
DONALD W. & GLORIA R. BELCHER
LANDS N/F OF RICHARD T. CONLY & PAMELA P. CONLY
LANDS N/F OF JOHN DEVEREUX
PARCEL A TO BE CONVEYED TO MR JAMES SCHWARTZMAN
11268 SQ FT
0.259 AC
LANDS N/F OF FERRY J. JEAN McROBERT
LANDS N/F OF THOMAS E. McDIER
LANDS N/F OF JOHN MOTT
TOTAL AREA
6.000 AC
PARCEL B TO BE CONVEYED TO MR JOHN MOTT
11268 SQ FT
0.259 AC
LANDS N/F OF JAMES SCHWARTZMAN
TOTAL AREA
14.888 AC
LANDS N/F OF JOHN H. LEDDY JANE RUDDLE
LANDS N/F OF JAMES D. BLOCK
COUNTY LINE ROAD
GULPH CREEK ROAD
SITE
RADNOR TWP
LOCATION MAP NO SCALE
REVIEWED BY THE DELAWARE COUNTY PLANNING COMMISSION
DATE March 5 19 91
ATTEST
DCPC NO. 91-3789
GENERAL NOTES
1. APPLICANT - UNDER DESIRES TO CHANGE THE LOT LINES OF AN EXISTING TRACT OF LAND, AS INDICATED BY THIS PLAN.
2. THIS PLAN WAS MADE TO CLEAR A DRIVEWAY AND SUPPORTING BANK ENCROACHMENT (FIELD LOCATED BY THIS OFFICE JANUARY 1990) OF MR MOTT ONTO MR SCHWARTZMAN
THE LOTS SCHWARTZMAN PROPERTY WAS SURVEYED BY THIS OFFICE-SURVEY MAP IS ACCORDANCE WITH A TITLE REPORT BY COMMONWEALTH LAND TITLE INSURANCE COMPANY DATED MAY 13, 1977.
ISSUED
APR 30 1990
YERKES ASSOC., INC.
GRAPHIC SCALE
1" = 100'
90-5-4
REVISIONS
YERKES ASSOCIATES, INC.
1141 PHOENIXVILLE PIKE • P.O. BOX 1568 • WEST CHESTER, PA 19380 • (215) 644-4224
CONSULTING ENGINEERS LANDSCAPE ARCHITECTS
SITE PLANNERS ARCHITECTS SURVEYORS
PLAN FOR
JOHN MOTT & JAMES SCHWARTZMAN
RADNOR TWP DELAWARE CO PENNSYLVANIA
LOT LINE CHANGE PLAN
M-225
SCALE 1"=100'

Radnor Township

PROPOSED LEGISLATION

DATE: November 6th, 2017

TO: Radnor Township Board of Commissioners

FROM: Stephen F. Norcini, P.E., Township Engineer SFN

CC: Robert A. Zienkowski, Township Manager
William M. White, Assistant Township Manager/Finance Director
John Rice, Township Solicitor

LEGISLATION: **Ordinance #2017-15** -Establishing Rules and Regulations for The Management of Its Rights-Of-Way; Requiring A Permit Application Fee and Plan for Any Street, Driveway, Or Utility Installation Upon Any Portion of a Township Road or Other Public Road or Right-Of-Way

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LEGISLATIVE HISTORY: Ordinance 2017-15 was introduced to the Board of Commissioners at the regularly scheduled October 23rd, 2017 Board of Commissioners meeting. It is now before the Board of Commissioners for possible adoption.

PURPOSE AND EXPLANATION: As noted in the previous legislative memorandum, the proposed legislation encompasses many benefits to the Township. The benefit most forefront is the fact that due to the utility inspections required by this ordinance, Radnor Township residents and the motoring public will be able to travel roads under utility construction with far less angst. The ordinance formalizes many practices that have been instituted in the last six years, as well as instituting new requirements. A few of the benefits, practices, and requirements are as follows:

- Utilities performing work within the R.O.W of State or Township streets will be required to compensate the Township for inspections services, as part of the permit requirements
- All applicable State requirements (many of which are currently used by the Township) will be required for all work on Township streets, including, but not limited to:
    - Drainage control plan analysis
    - Following Penn DOT Publications 408, 72, PA Code Title 67, Chapters 203, 441, 459
- Proposed telecommunication facilities within State or Township R.O.W. shall meet the requirement of the Zoning Code, Chapter 28
- Compensation to the Township for instituting repairs, should a utility fail to rectify a defect within forty-eight hours
- Required mapping; on paper and GIS
- Utilities will be required to obtain corporate bond with a surety company in the amount of 15% of the estimated project cost
- Violations and enforcement

The ordinance will allow the Township to be compensated for inspection and oversight of the utility work, as well as require more stringent adherence to the specifications, for all utility work within Township and State Rights of Way. The utility work is estimated to continue for the next five to seven years.

Recommendation: *Staff respectfully recommends adoption of Ordinance #2017-15 -Establishing Rules and Regulations for The Management of Its Rights-Of-Way; Requiring A Permit Application Fee and Plan for Any Street, Driveway, Or Utility Installation Upon Any Portion of a Township Road or Other Public Road or Right-Of-Way.*

ORDINANCE NO. 2017-15

AN ORDINANCE OF THE TOWNSHIP OF RADNOR, COUNTY OF DELAWARE, COMMONWEALTH OF PENNSYLVANIA, ESTABLISHING RULES AND REGULATIONS FOR THE MANAGEMENT OF ITS RIGHTS-OF-WAY; REQUIRING A PERMIT APPLICATION FEE AND PLAN FOR ANY STREET, DRIVEWAY, OR UTILITY INSTALLATION UPON ANY PORTION OF A TOWNSHIP ROAD OR OTHER PUBLIC ROAD OR RIGHT-OF-WAY

WHEREAS, Radnor Township is authorized to regulate its streets, rights-of-way and public areas with respect to construction activities, and to grant rights therein for the installation of public and private utilities; and

WHEREAS, the Township has determined that the establishment of new utility or telecommunication facilities in Township or State rights-of-way create traffic hazards; and

WHEREAS, the Township deems it necessary to determine and regulate all encroachments within the Township's right-of-way to insure traffic safety, appropriate stormwater management, and other health, safety and welfare concerns with respect to right-of-way construction.

NOW, THEREFORE, be it hereby ***ORDAINED*** that the Board of Commissioners of Radnor Township does hereby ***ENACT*** an amendment to the Radnor Township Code of Ordinances, repealing Article VI, Street Excavations, Sections 250-17 through 250-34, and replacing it with a new Article VI, **Right of Way Management,** as follows:

SECTION I.

§ 250-17. Right-of-way construction and facilities.

A. No person, firm, corporation or other entity within the Township shall construct a driveway or install a utility or telecommunication facility within a street right-of-way, except as permitted by this section.

B. Permit procedures.

(1) A permit must be acquired from Radnor Township for any work within a Township right-of-way and from the Pennsylvania Department of Transportation (PennDOT) for any work within a State right-of-way where such work involves construction or alteration of a driveway or the installation of a utility, telecommunication facility or other structure.

(2) An application for a driveway permit shall be submitted in the name of the owner or equitable owner of the property.

(3) An application for a road opening permit or right-of-way construction for a utility or telecommunication facility must be submitted in the name of the owner or operator of the facility.

(4) Forms, plans and fees shall be submitted in accordance with regulations and procedures adopted by either Radnor Township or PennDOT for work in Township or State rights-of-way, respectively. The application fees for work within Township rights-of-way shall be specified in the schedule of fees by resolution by the Board of Commissioners.

(5) The Township Engineer may modify the requirements of this ordinance for residential property owners doing normal maintenance, repair or construction in the right of way.

C. Regulations and standards.

(1) This section represents minimum requirements of certain types of activities within Township or State rights-of-way. Activities associated with approved subdivision or land developments shall be subject to any additional requirements of the final plans as approved by Radnor Township and/or PennDOT. Any activity not regulated by the Subdivision and Land Development Ordinance of Radnor Township shall be regulated by the requirements of this Ordinance.

(2) A drainage control plan and analysis shall be submitted whenever an increase in flow of water into a street or into existing drainage facilities will result from the proposed activity. The design of all drainage facilities shall be based on the Rational Method as determined by the PennDOT Design Manual, Part 2, as amended, and the U.S. Department of Commerce, Hydraulic Design Series No. 5, Hydraulic Design of Highway Culverts, as amended.

(3) All construction work, structures, paving and facilities shall conform to the design standards of PennDOT Publications 408 and 72 (Road Construction Standards), as amended. Work shall be done at such time and in such a manner as shall be consistent with the safety of the public. Any work within Township or State rights-of-way shall conform to all requirements and standards of PennDOT, except as otherwise supplemented or modified by this Ordinance. In the event regulations conflict, the most stringent regulations shall apply. If at any time it is found the work is not being done or has not been properly performed, the permittee, upon being notified in writing by either the Township or PennDOT, must immediately take the necessary steps, at its own expense, to replace the work in a condition to conform to such requirements or standards. In case any dispute arises between the permittee and the representative of the owner of the right-of-way, the owner's representative shall have the authority to suspend work until the question at issue can be decided by the Township and/or State.

(4) The following PennDOT provisions shall regulate the occupancy of all Township and State rights-of-way, unless otherwise required by an approved subdivision or land development plan, this Ordinance, or the Township Engineer:

(a) Pennsylvania Code, Title 67 Transportation, Chapter 441 Access and Occupancy of Highways by Driveways and Local Roads, as amended.

(b) Pennsylvania Code, Title 67 Transportation, Chapter 459 Occupancy of Highways by Utilities, as amended.

(5) A traffic control plan must be submitted to either close any portion of a travel lane during construction, during the hours of darkness when no active work is in progress or to detour traffic in order to perform the permitted work. All plans shall conform with § 6123 of the Motor Vehicle Code, as amended, and the applicable provisions of the Pennsylvania Code, Title 67 Transportation, Chapter 203, as amended.

D. Driveway construction requirements.

(1) Driveways shall be located at least 40 feet from street intersections, measured from the centerline of the driveway to the point of intersection of the street ultimate right-of-way lines (extended). When streets of different classifications are involved, driveways shall provide access to the street of lesser classification.

(2) Driveways shall be provided with a stopping area of 20 feet, at a maximum grade of 3%, measured from the edge of cartway. In order to provide access for emergency vehicles, the maximum centerline grade for any portion of the driveway shall not exceed 8% and the maximum change in grade shall not exceed 6%.

(3) Driveways shall be paved for a minimum of 50 feet from the edge of the street or to the ultimate right-of-way, whichever is greater. The pavement construction shall be in accordance with Township-approved construction details.[1] In the event additional width or a supplemental thickness is required by other rules and regulations of the Township or PennDOT, or as may be necessitated by site conditions, these minimum requirements shall be increased appropriately.

(4) Driveways shall have a minimum radius of curvature at the street intersection of 10 feet.

(5) A minimum distance of five feet shall be maintained between the driveway and the side lot lines.

(6) Driveways shall have a minimum turnaround area of 10 feet by 20 feet.

[1] Construction detail is on file and may be seen at the Township office.

(7) A 50-foot clear sight triangle must be provided for all driveways, measured from the point of intersection of the street right-of-way line and edge of the driveway. The site plan shall contain a notation that states that the applicant is required to maintain the area of the clear sight triangle and the Township has the right to enter and perform required maintenance in the area if deemed critical to public welfare.

(8) Sight distances for all driveways shall comply with Pennsylvania Code, Title 67 Transportation, Chapter 441 Access and Occupancy of Highways by Driveways and Local Roads, as amended.

(9) When a sidewalk is proposed across a driveway, a concrete apron shall be installed in accordance with Township-approved construction details.[2] When a curb is proposed along a driveway, depressed curb shall be installed in accordance with the attached construction detail.

(10) A 15-inch RCP culvert, or equivalent size, shall be provided for all driveways. The minimum culvert length shall be 24 feet with flared end sections and end walls. Where an existing roadside drainage swale is too shallow to permit installation of a driveway culvert, a concrete trench box with grate may be utilized upon approval of the Township.

(11) Any associated grading, curb or sidewalk installation located within the street right-of-way shall be in accordance with the design standards of the Township's Subdivision and Land Development Ordinance (Chapter 180), as amended.

E. Telecommunication facilities. All proposed telecommunication facilities within Township or State rights-of-way, shall meet the requirements of the Zoning Code, Chapter 28, of the Township. All new telecommunication facilities shall utilize existing poles, streetlights or other structures within the right-of-way or acquire additional areas adjacent to and outside of the right-of-way, or shall be placed underground.

F. Maintenance period. Upon completion of the work authorized by the permit, the Township shall inspect the work and, when necessary, enforce compliance with the conditions, restrictions and regulations prescribed by the Township. In addition to such inspection, the Township may re-inspect the work not more than two years after its completion and if any settlement of any road surface trench or other defects shall appear in the work contrary to the conditions, restrictions and regulations of the Township, it may enforce compliance therewith. If the applicant shall fail to rectify a defect which presents an immediate or imminent safety or health problem in 48 hours, or any other defect within 30 days after written notice from the Township Engineer to do so, the Township, or its agents, may do the work and impose upon the applicant the costs thereof, together with an additional 20% of the costs, which may be recovered by a civil action in the Court of Common Pleas of Delaware County.

§ 250-18. Standards of service for right-of-way construction.

[2] Construction detail is on file and may be seen at the Township office.

A. Conditions of street occupancy. Facilities and equipment installed or erected by the permitee pursuant to the terms hereof shall be located so as to cause a minimum of interference with the proper use of public rights-of-way and with the rights and reasonable convenience of property owners who own property that adjoins any of said public rights-of-way.

B. Restoration of public rights-of-way. If during the course of permitee's construction, operation, and/or maintenance of its facilities and equipment there occurs a disturbance of any public rights-of-way by permitee, permitee shall, at its expense, replace and restore such public rights-of-way to a condition which existed immediately prior to such disturbance. If permitee excavates the surface of any public rights-of-way, permitee shall be responsible for restoration of the public rights-of-way and its surface within the area affected by the excavation. The Township reserves the right, after providing notice to permitee, to remove and/or repair any work done by permitee which is inadequate. The reasonable cost thereof, including the cost of inspection and supervision, shall be paid by the permitee. All excavations made by permitee in the public rights-of-way shall be properly safeguarded for the prevention of accidents.

C. Trees and shrubbery. The permitee shall notify Township and all affected property owners regarding permitee's need to trim trees or other natural growth upon and overhanging public rights-of-way so as to prevent the branches of such trees from coming in contact with its facilities or equipment. Trimming shall be limited to the area required to clear its facilities or equipment.

D. Safety requirements. All such work in the public rights-of-way shall be performed in accordance with applicable safety codes and technical requirements.

E. Maps. Prior to beginning any construction of facilities, permitee shall provide the Township with a construction schedule for work in the public rights-of-way which schedule shall be updated as changed. Upon completion of initial construction and upon completion of construction of any modification to its facilities, permitee shall provide the Township with a map showing the location of its installed facilities in the public rights-of-way. Such maps shall be provided in both paper form, as well as in an electronic format for placement on the Township's GIS system. Annually thereafter, permitee shall provide a map to the Township showing the location of permitee's facilities in the public rights-of-way on a scale of 150 feet per inch or whatever standard scale the Township adopts for general use.

F. Excavations. Permitee may make excavations in public rights-of-way for any facility subject to obtaining excavation permits from the Township. Prior to doing such work, permitee must apply for, and obtain, appropriate permits from the Township, and give appropriate notices to any other licensees and/or permittees of the Township, and/or other units of government owning or maintaining facilities which may be affected by the proposed excavation.

G. Reservation of the Township public rights-of-way. Nothing in this section shall be construed to prevent the Township or other agency of government or municipal authority

from constructing sewers, grading, paving, repairing and/or altering any street and/or laying down, repairing and/or removing water mains and/or constructing and/or establishing any other public work or improvement. If any of the permitee's facilities or equipment interferes with the construction or repair of any street or public improvement, including construction, repair or removal of a sewer or water main, the permitee's facilities or equipment shall be removed or replaced in the manner the respective Township or other agency of government or municipal authority shall direct. Any and all such removal or replacement shall be at the expense of the permitee. Should permitee fail to remove, adjust or relocate its facilities by the date established by the Township or other agency of government or municipal authority, the Township or other agency of government or municipal authority may cause and/or effect such removal, adjustment or relocation, and the expense thereof shall be paid by permitee, including all reasonable costs and expenses incurred by the Township or other agency of government or municipal authority due to permitee's delay.

§ 250-19. Insurance, indemnification and bonds or other surety for right-of-way construction.

A. Permitee shall save the Township, its agents, employees and elected and appointed officials, harmless from and against all claims, damages, losses and expenses, including reasonable attorney's fees, sustained on account of any suit, judgment, execution, claim or demand whatsoever arising out of the construction, leasing, operation or maintenance of the permitee's equipment, facilities, and services specified by this section, whether or not any act or omission complained of is authorized, allowed and/or prohibited by this section and the rights granted hereunder.

B. Permitee shall obtain and maintain in full force and effect insurance with an insurance company licensed to do business and doing business in the Commonwealth of Pennsylvania and acceptable to the Township. All companies will be required to be rated A-VH or better by A.M. Best or A better by Standard and Poors. permitee shall provide Township with proof of such insurance so required.

C. Permitee shall obtain and maintain in full force and effect, at permitee's sole expense, insurance coverage in the following types and minimum amounts:

Type	Amount
Workers' Compensation and Statutory Employers Liability	$ 100,000/$500,000/$100,000

Commercial General (public) Liability to include coverage for the following where exposure exists:

Premises operations Independent contractors Products/completed operations Personal Injury Contractual liability Explosion, collapse and underground property damage	Combined single limit for bodily injury and property damages $2,000,000 per occurrence or its equivalent

Comprehensive Vehicle insurance coverage for loading and unloading hazards, for:

Owned/leased vehicles Non-owned vehicles Hired vehicles	Combined single limit of bodily injury and property damage $1,000,000 per occurrence or its equivalent

D. The Township shall receive without expense copies of certificates of insurance evidencing coverage stated above.

E. Permitee agrees that with respect to the above-required insurance, all insurance certificates will contain the following required provisions:

(1) Name the Township and its officers as additional insureds.

(2) Provide for 60 days written notice to the Township for cancellation, non- renewal, or material change.

(3) Provide that all provisions of this section concerning liability, duty, and standard of care, including the indemnity provisions, shall be underwritten by contractual coverage sufficient to include such obligations within applicable policies, subject to policy terms and conditions.

F. Companies issuing the insurance policies shall have no recourse against the Township for payment of any premiums or assessments which all are set at the sole risk of the permitee. Insurance policies obtained by permitee shall provide that the issuing company waives all right of recovery by way of subrogation against the Township in connection with any damage covered by these policies.

G. Permitee shall obtain and maintain, at its sole cost and expense, and file with the Township, a corporate surety bond with a surety company authorized to do business in the Commonwealth of Pennsylvania in the amount of 15% of permitee's estimated costs to secure permitee's performance of its obligations and faithful adherence to all requirements of this section.

(1) No action, proceeding or exercise of a right with respect to such bond shall affect the Township's rights to demand full and faithful performance under this section or limit permitee's liability for damages.

(2) The bond shall contain the following endorsement:

> It is hereby understood and agreed that this bond may not be cancelled by the surety nor any intention not to renew be exercised by the surety until 60 days after receipt by the Township of Radnor, by registered mail, of written notice of such intent.

H. All expenses of the above-noted insurance and bond shall be paid by the permitee.

I. The insurance policies mentioned herein shall contain an endorsement stating the following:

> Should any policies of insurance be cancelled or coverages be reduced, before the expiration date of said policies of insurance, the issuer shall deliver 60 days advance written notice to the Township.

J. Neither the provisions of this section nor any insurance accepted by the Township pursuant hereto, nor any damages recovered by the Township thereunder, shall be construed to excuse faithful performance by the permitee and/or limit the liability of the permittee under this section issued hereunder and/or for damages, either to the full amount of the bond or otherwise.

K. Any person violating any provision of this Article shall upon conviction, be fined not less than fine hundred dollars nor more than one thousand dollars, for each day of violation plus court costs and reasonable attorney's fees incurred by the Township.

SECTION II.

Sections 250-17 through 250-34. of Chapter 250, Article VI, of the Radnor Township Code of Ordinances are hereby repealed. Section 250-16. Definitions is saved from repeal.

SECTION III.

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 IV.

Effective Date. This Ordinance shall become effective five (5) days after final enactment.

ENACTED and ***ORDAINED*** this day of , 2017.

RADNOR TOWNSHIP
BOARD OF COMMISSIONERS

Attest: _____
Name: Robert Zienkowski
Title: Township Secretary

By: _____
Name:
Title:

J. LAWRENCE GRIM, JR.
MARY C. EBERLE
JOHN B. RICE
DIANNE C. MAGEE *
DALE EDWARD CAYA
DAVID P. CARO ◆
DANIEL J. PACI ◆ †
JONATHAN J. REISS ◊
GREGORY E. GRIM †
PETER NELSON *
PATRICK M. ARMSTRONG
SEAN M. GRESH
KELLY L. EBERLE *
COLBY S. GRIM
JOEL STEINMAN
MATTHEW E. HOOVER
STEPHEN J. KRAMER
REBECCA A. O'NEILL*†
MICHAEL K. MARTIN
GEORGE K. PATSALOSAVVIS

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

LAW OFFICES
GRIM, BIEHN & THATCHER

A PROFESSIONAL CORPORATION

SUCCESSOR TO
GRIM & GRIM AND BIEHN & THATCHER
ESTABLISHED 1895 AND 1956,
RESPECTIVELY
122ND ANNIVERSARY 1895-2017

www.grimlaw.com

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

(215) 536-1200
FAX (215) 538-9588

(215) 348-2199
FAX (215) 348-2520

October 30, 2017

SENT VIA ELECTRONIC CORRESPONDENCE
Delaware County Daily Times
Attn: Legal Department
500 Mildred Avenue
Primos, PA 19018

Re: Radnor Township –Right-of-Way Ordinance

Dear Legal Department:

Enclosed please find for advertisement one (1) time in the November 1st edition of your newspaper, a Legal Notice for the possible enactment of the above ordinance by the Board of Commissioners of Radnor Township at their meeting on November 13, 2017. Kindly provide proof of publication and your invoice for the advertisement directly to Radnor Township, c/o Robert Zienkowski, 301 Iven Avenue, Wayne, PA 19087. A full copy of the text of the ordinance is enclosed for public inspection. If you have any questions regarding the enclosed, please do not hesitate to contact my office.

Sincerely,

GRIM, BIEHN & THATCHER

By: _____
John B. Rice

JBR/hlp
Enclosure
cc: Jennifer Destefano (w/encl.) – via email
Robert A. Zienkowski (w/encl.) – via email

LEGAL NOTICE

Notice is hereby given that the Board of Commissioners of the Township of Radnor, Delaware County, Pennsylvania, will consider for possible enactment an ordinance, of which this Notice is a summary, establishing rules and regulations for the management of its Rights-of-Way; Requiring a permit application fee and plan for any street, driveway, or utility installation upon any portion of a Township Road or other public road or Right-of-Way.

The Board of Commissioners will hold a public hearing on November 13, 2017, at 6:30 p.m., at the Radnor Township Municipal Building, 301 Iven Avenue, Wayne, PA 19087 to consider the ordinance. Copies of the full text of the proposed ordinance are available at the Township offices, the Delaware County Law Library, and the offices of this newspaper during normal business hours.

RADNOR TOWNSHIP
BOARD OF COMMISSIONERS
301 Iven Avenue
Wayne, PA 19087-5297

ATTEST:

I do hereby certify that this is a true and correct copy of the proposed Ordinance of Radnor Township, being advertised for possible adoption by the Radnor Township Board of Commissioners on November 13, 2017.

John B. Rice, Esquire
Grim, Biehn & Thatcher
Township Solicitor

J. LAWRENCE GRIM, JR.
MARY C. EBERLE
JOHN B. RICE
DIANNE C. MAGEE *
DALE EDWARD CAYA
DAVID P. CARO ◆
DANIEL J. PACI ◆ †
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JOHN FREDERIC GRIM, OF COUNSEL

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October 30, 2017

SENT VIA ELECTRONIC CORRESPONDENCE
Delaware County Daily Times
Attn: Legal Department
500 Mildred Avenue
Primos, PA 19018

Re: Radnor Township –RHM Sewer Authority Ordinance

Dear Legal Department:

Enclosed please find for advertisement one (1) time in the November 1st edition of your newspaper, a Legal Notice for the possible enactment of the above ordinance by the Board of Commissioners of Radnor Township at their meeting on November 13, 2017. Kindly provide proof of publication and your invoice for the advertisement directly to Radnor Township, c/o Robert Zienkowski, 301 Iven Avenue, Wayne, PA 19087. A full copy of the text of the ordinance is enclosed for public inspection. If you have any questions regarding the enclosed, please do not hesitate to contact my office.

Sincerely,

GRIM, BIEHN & THATCHER

By: _____
John B. Rice

JBR/hlp
Enclosure
cc: Jennifer Destefano (w/encl.) – via email
Robert A. Zienkowski (w/encl.) – via email

LEGAL NOTICE

Notice is hereby given that the Board of Commissioners of the Township of Radnor, Delaware County, Pennsylvania, will consider for possible enactment an ordinance, of which this Notice is a summary, adopting and approving an amendment to the Articles of Incorporation of the jointly organized municipal authority known as the "Radnor-Haverford-Marple Sewer Authority" with the Townships of Haverford and Marple, all of Delaware County, Pennsylvania, to add a provision therein extending the term of its existence for an additional fifty years from the date of the approval of the Articles of Amendment.

The Board of Commissioners will hold a public hearing on November 13, 2017, at 6:30 p.m., at the Radnor Township Municipal Building, 301 Iven Avenue, Wayne, PA 19087 to consider the ordinance. Copies of the full text of the proposed ordinance are available at the Township offices, the Delaware County Law Library, and the offices of this newspaper during normal business hours.

RADNOR TOWNSHIP
BOARD OF COMMISSIONERS
301 Iven Avenue
Wayne, PA 19087-5297

ATTEST:

I do hereby certify that this is a true and correct copy of the proposed Ordinance of Radnor Township, being advertised for possible adoption by the Radnor Township Board of Commissioners on November 13, 2017.

John B. Rice, Esquire
Grim, Biehn & Thatcher
Township Solicitor

BOARD OF COMMISSIONERS
OF THE TOWNSHIP OF RADNOR,
DELAWARE COUNTY, PENNSYLVANIA

ORDINANCE NO. 2017-14

AN ORDINANCE ADOPTING AND APPROVING AN AMENDMENT TO THE ARTICLES OF INCORPORATION OF THE JOINTLY-ORGANIZED MUNICIPAL AUTHORITY KNOWN AS THE "RADNOR-HAVERFORD-MARPLE SEWER AUTHORITY" WITH THE TOWNSHIPS OF HAVERFORD AND MARPLE, ALL OF DELAWARE COUNTY, PENNSYLVANIA, TO ADD A PROVISION THEREIN EXTENDING THE TERM OF ITS EXISTENCE FOR AN ADDITIONAL FIFTY YEARS FROM THE DATE OF THE APPROVAL OF THE ARTICLES OF AMENDMENT

WHEREAS, an Amendment to the Articles of Incorporation of the Radnor-Haverford-Marple Sewer Authority (the "Authority") has been proposed by the Board of the Authority, by its Resolution duly adopted on the _____ day of _____, 2017, to add a provision to said Articles extending the term of existence of the Authority for an additional fifty (50) years from the date of approval of the Articles of Amendment; and

WHEREAS, the Township of Radnor is one of the municipalities composing the Authority; and

WHEREAS, the proposed Amendment has been submitted to Radnor Township by the Authority.

NOW, THEREFORE, BE IT ENACTED AND ORDAINED AS FOLLOWS:

Section 1: The Radnor Township Board of Commissioners hereby approves the proposed Amendment to the Articles of Incorporation of the Radnor-Haverford-Marple Sewer Authority as follows:

> "(f) The term of existence of the Authority shall be extended for an additional fifty (50) years until December 19, 2067."

Section 2: All Township officials are authorized to take all action necessary to ensure implementation of and effect the purpose thereof.

Section 3: All ordinances and resolutions, and parts thereof, inconsistent herewith are hereby repealed.

Section 4: The provisions of this Ordinance are severable, and if any clause, sentence, subsection or section hereof shall be adjudged by any court of competent jurisdiction to be illegal, invalid or unconstitutional, such judgment or decision shall not affect, impair or invalidate the remainder but shall be confined in its operation and application to the clause, sentence, subsection or section rendered. It is hereby declared that the intent of the Township Commissioners that this ordinance would have been adopted if such illegal, invalid, or unconstitutional clause, sentence, subsection, or section had not been included therein.

Section 5: This ordinance is effective in accordance with the Radnor Township Home Rule Charter.

ENACTED AND ORDAINED by the Board of Commissioners of the Township of Radnor, Delaware County, Pennsylvania, this _____ day of _____, 2017.

_____

Board of Commissioners

Attest:

_____

Robert Zienkowski
Township Manager

CERTIFICATION

I HEREBY CERTIFY that the foregoing is a true and correct copy of Ordinance No. ____ in respect to the continuation of the Radnor-Haverford-Marple Sewer Authority duly enacted by the majority vote of the all of the members of the Board of Commissioners of the Township of Radnor, Delaware County, Pennsylvania, at a meeting of said Board duly held on _____ ____, 2017, at which time the following members of the Board were present:

, President
Elaine P. Schaefer, Vice President
Richard F. Booker, Commissioner
Lucas A. Clark IV, Commissioner
Donald Curley, Commissioner
James C. Higgins, Commissioner
John C. Nagle, Commissioner

and the voting on said Ordinance was as follows:

For:	Against:
Elaine P. Schaefer	
Richard F. Booker	
Lucas A. Clark IV	
Donald Curley	
James C. Higgins	
John C. Nagle	

and that said Ordinance has been duly advertised and recorded in the Ordinance book of said Township and that the minutes of the said meeting showing how each member of said Board voted have been duly recorded in the official minutes of the Board of Commissioners of the Township of Radnor.

IN WITNESS WHEREOF, I have hereunto set my hand and the seal of the Township of Radnor has been affixed this _____ day of _____, 2017.

(SEAL)

_____
Robert Zienkowski, Township Manager

Approved and filed in the Department of State
on the ___ day of _____, 2017.

_____
Secretary of the Commonwealth

Radnor Township

ORDINANCE AMENDMENT INTRODUCTION

DATE: November 7th, 2017

TO: Radnor Township Board of Commissioners

FROM: Stephen F. Norcini, P.E., Township Engineer

CC: Robert A. Zienkowski, Township Manager
William M. White, Assistant Township Manager/Finance Director
John B. Rice, Township Solicitor

LEGISLATION: Proposed Ordinance Amendment to Chapter 142, Certificates of Occupancy and Chapter 235, Sewers, to Provide for the Elimination of Stormwater into the Township's Sanitary Sewer System

---

LEGISLATIVE HISTORY: This proposed ordinance amendment was previously before the Board of Commissioners but not acted on.

PURPOSE AND EXPLANATION: The Radnor-Haverford-Marple Sewer Authority (RHM) has notified the Township that RHM currently does not have capacity for Radnor Township. This means that the Township cannot allow new connections to the public sewer system. The ramifications of this is that Land Development projects, as well as single homes, will not be able to be connected to the public sewer system, effectively putting a halt on these projects. We currently have projects that are on hold due to this situation.

The issue stems mainly from a trunk line in Springfield Township, that purportedly does not have the capacity to convey additional upstream flows (Radnor Township). This has been an ongoing situation for years, and has now reached critical mass. The Department of Environmental Protection (DEP) wishes (and RHM is recommending) to have the Township require the laterals of homes being sold inspected, to address Inflow & Infiltration (I&I). The idea being that a decrease in I&I will free up capacity for sanitary sewer flows. It is well known that laterals can be a large source of I&I, so the logic is sound. The township currently inspects for sump connections to the sanitary sewer system as part of the Certificate of Occupancy inspection. That being said, there are complications to enacting a program of this type.

The possible issue is the impact, i.e. cost, to our residents selling their home. To have the lateral inspected would entail the resident hiring a plumber or other firm to televise the lateral, the cost of Township inspection, and the greater cost, repairing or replacing the lateral. Newer homes built under today's standards would be less likely to entail replacement of their lateral. Older homes, specifically those with vitrified clay or asbestos cement pipe have a higher probability of repairing or replacing their later.

IMPLEMENTATION SCHEDULE: The amendment before you is solely being introduced. It would appear again before the Board of Commissioners, for possible adoption, in December of 2017.

FISCAL IMPACT: If the Ordinance is adopted, the Township's Fee Schedule would have to be revised to note the inspection and administrative costs required to implement the program.

Enclosure: Draft Ordinance

ORDINANCE 2017-11
RADNOR TOWNSHIP

AN ORDINANCE OF RADNOR TOWNSHIP, DELAWARE COUNTY, PENNSYLVANIA, AMENDING ITS CODE OF ORDINANCES, CHAPTER 142, CERTIFICATES OF OCCUPANCY AND CHAPTER 235, SEWERS TO PROVIDE FOR THE ELIMINATION OF STORMWATER INTO THE TOWNSHIP'S SANITARY SEWER SYSTEM

WHEREAS, the discharge, inflow and infiltration of Storm Water into the sanitary sewer system substantially increases the cost of wastewater treatment to Township residents and is causing pollution of area streams and rivers; and

WHEREAS, the Radnor Township Board of Commissioners desires to prohibit the inflow of Storm Water into the Sanitary Sewer System and seeks to take all necessary and appropriate measures to reduce infiltration into the Sanitary Sewer System; and

WHEREAS, upon recommendation of the Radnor/Haverford/Marple Sewer Authority and the Township Engineer, the Radnor Township Board of Commissioners does hereby **ENACT** and **ORDAIN** as follows:

SECTION 1. Chapter 142, Certificates of Occupancy, Article I, Transfer of Property, Section 142-4.B(1)(c), is hereby amended to read as follows:

(c) Sanitary Sewer Connection. An interior, exterior and lateral inspection shall be required to identify any prohibited stormwater discharges into the sanitary sewer system. The seller or agent of the seller shall contact the Public Works Department of the Township or the Township Engineer to arrange for inspection of the property immediately following the submittal of the application of the Certificate of Occupancy. The determination of prohibited stormwater discharges into the sanitary sewer system and all repairs and corrections shall be made in accordance with Chapter 235, Sewers, Article II, Lateral Connections.

SECTION 2. Chapter 235, Sewers, Article II, Lateral Connections, Section 235-8, maintenance and repair is hereby amended to read as follows:

§235-8.1. Definitions.

When used in this section the following terms shall have the following meaning:

APPLICANT
Any person applying for the Certificate of Occupancy.

PROPERTY
Any real property located within the boundaries of Radnor Township.

SANITARY SEWER SYSTEMS

Shall include piping, lines, pumps and other conveyance facilities of Radnor Township, conveying sanitary sewer for waste water treatment.

SEWER LATERAL

Any pipe, line or sewer, running across or through any public or private property and connecting to a pipe, line or sewer, owned by Radnor Township or any other municipality or municipal authority which has as its purpose the transport of waste water for treatment.

STORM SEWER

Shall include all stormwater, surface water, ground water, roof run-off of subsequent surface drainage.

§235-8.2. Prohibition of stormwater discharge into the sanitary sewer system.

A. It shall be unlawful for any person to discharge any stormwater into the sanitary sewer system, or permit the inflow of stormwater from any property owned by such person into the sanitary sewer system. Any discharge or inflow of stormwater into the sanitary sewer system shall be deemed to have been permitted by the owner of the property upon which or within which such stormwater enters the sanitary sewer system.

B. No person who owns any property serviced by the sanitary sewer system shall connect or permit any sump pump, roof drain, foundation drain, or any other surface water drain of any kind to remain connected to the sanitary sewer system.

C. Each violation of any provision of this Ordinance shall be punishable by a fine of not less than three hundred ($300.00) dollars, nor more than one thousand ($1,000.00) dollars. Each day on which a discharge or connection that violates this Ordinance occurs or exists shall constitute a separate violation of this Ordinance.

§235-8.3. Inspection by designated Township Officials.

A. Radnor Township, by its elected or appointed officials, including the Building Inspector, Code Enforcement Officer and/or any duly authorized agent, may undertake such inspection or tests as deemed necessary and appropriate to determine the condition of any sewer lateral. Any such inspection or test may only take place after notice has been given, in writing, hand delivered or mailed to the owner of the property or to the address of the property in question, at least ten (10) business days in advance.

B. The owner of the affected property shall make all areas to be tested or inspected available to the designated inspector.

C. If, in the sole opinion of the inspector, any illegal stormwater inflow connections are found, or the sewer lateral is determined to be in unsatisfactory condition, the owner will

be informed by mail and requested to repair any damaged lateral or remove any prohibited connections. Such repairs, replacements or corrections must be completed within sixty (60) days of the date that the Township provides notice to the owner of the property.

D. If the owner of the property fails to make such repairs, replacements, or corrections within the sixty (60) day period after the notice, the Township shall issue a citation to the property owner.

§235-8.4. Mandatory Inspection prior to issuance of a Certificate of Occupancy.

A. A Certificate of Occupancy shall be required upon the sale or transfer of ownership of any property in the Township.

B. As a mandatory condition prior to the issuance of a Certificate of Occupancy by the Township, the property owner shall arrange for the inspection of the sanitary sewer lateral.

C. If the results of the inspection indicate any illegal stormwater inflow connection to the sewer lateral and/or if the sewer lateral is found to be in such condition that it needs to be repaired or replaced, then the property owner shall be placed on notice by the Township of the violations and of the need to repair/remove the violations within sixty (60) days.

D. Nothing in this Ordinance shall amend, reduce or remove any other requirements for a Certificate of Occupancy pursuant to other Ordinances or laws applicable to the use, transfer or sale of real property in the Township.

SECTION 3. Repealer. All ordinances or parts of ordinances which are inconsistent herewith are hereby repealed.

SECTION 4. Severability. If any section, paragraph, sub-section, 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 5. Effective Date. This Ordinance shall become in accordance with the Radnor Home Rule Charter.

ENACTED AND ORDAINED this _____ day of _____, A.D. 2017.

RADNOR TOWNSHIP

By: _____
Name:
Title:

ATTEST: _____
Robert A. Zienkowski, Secretary

Radnor Township

PROPOSED LEGISLATION

DATE: November 6, 2017

TO: Radnor Township Board of Commissioners

FROM: Stephen F. Norcini, P.E., Township Engineer

CC: Robert A. Zienkowski, Township Manager
William M. White, Assistant Township Manager & Finance Director
Brian Eury, Cabrini University
Ingrid Cooper, Eastern University

LEGISLATION: **Presentation and Possible Resolution #2017-120**: Authorizing the Grant Applications for Improvements to the King of Prussia Road/Eagle Road/Pine Tree Road Intersection, in partnership with Cabrini University and Eastern University

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LEGISLATIVE HISTORY: This project has not been before the Board of Commissioners previously.

PURPOSE AND EXPLANATION: The intersection of King of Prussia Road, Pine Tree Road, and Eagle Road is the point of considerable congestion. During peak hours, traffic can back up from this intersection to near Berwind Road. This congestion not only affects our residents, but it also affects Cabrini and Eastern Universities. To that end, the Universities approached the Township to partner in improving the intersection, via the use of a grant funding opportunity. The following are highlights of the proposed intersection improvements:

- A dedicated left-hand turn lane for south bound King of Prussia Road on to Pine Tree Road
- A dedicated left-hand turn lane for north bound King of Prussia Road onto Eagle Road
- A dedicated right-hand turn lane for east bound Eagle Road onto south bound King of Prussia Road
- A left-hand turn lane from north bound King of Prussia Road into Cabrini University
- Road widening (along the frontage of Eastern and Cabrini Universities), as well as wearing course overlay
- New traffic signals

The plan set for the proposed project is attached for your convenience. The project is being put forth to be funded at 70% through a Pennsylvania Department of Transportation Multimodal Transportation Fund (MTF) Grant. In addition to Resolution 2017-120 is a letter of funding commitment for the MTF Grant. Pending Board of Commissioners approval of Resolution #2017-120, this letter would be signed by the Township. Both Cabrini University and Eastern University would each be responsible for one third of the required match, along with the Township's one third portion.

IMPLEMENTATION SCHEDULE: Upon approval by the Board of Commissioners, the appropriate funding commitment letter would be signed, and the Resolution attached to the grant applications. The project will still need to go through the Penn DOT approval process, as well as bidding procedure. The actual start of construction would be determined prior to the bidding process.

FISCAL IMPACT: The Township's portion of the grant would be funded from the Capital Improvement Plan (CIP), Traffic Signal Improvements, 005-04-430-48202, in the amounts shown below.

Project Cost:	$1,861,398
MTF Grant:	$1,302,979
30% Match:	$558,149 (to be equally shared by all three parties)
Radnor Township Cost:	**$186,140**

RECOMMENDED ACTION: I respectfully request the Board of Commissioners authorize the submission of the grant application for a Pennsylvania Department of Transportation Multimodal Transportation Fund (MTF) Grant, including the funding commitment letter, in partnership with Cabrini and Eastern Universities, with a total cost to the Township not to exceed $186,140.

MOVEMENT OF LEGISLATION: It is being requested the Board of Commissioners authorize the submission of the grant application.

Enclosures:
Plan Set
Resolution
Funding Letter
Econ Partners Grant Summary

RESOLUTION NO. 2017-120
A RESOLUTION OF RADNOR TOWNSHIP, DELAWARE COUNTY, PENNSYLVANIA, AUTHORIZING THE APPLICATION OF A MULTIMODAL FUNDING GRANT APPLICATION FOR THE CONSTRUCTION OF INTERSECTION IMPROVEMENTS AT KING OF PRUSSIA, EAGLE, AND PINE TREE ROADS

Be it RESOLVED, Radnor Township in Delaware County hereby requests a Multimodal Transportation Fund grant of $1,302,979 from the Pennsylvania Department of Transportation to be used for roadway, signal and pedestrian safety improvements to the intersection of King of Prussia, Eagle, and Pine Tree Roads.

Be it FURTHER RESOLVED, that the Applicant does hereby designate Elaine P. Schaefer, Vice President, Board of Commissioners, and Robert A. Zienkowski, Township Manager and Secretary, as the officials to execute all documents and agreements between Radnor Township and the Pennsylvania Department of Transportation to facilitate and assist in obtaining the requested grant.

I, Robert Zienkowski, duly qualified Secretary of Radnor Township in Delaware County, Pennsylvania, hereby certify that the forgoing is a true and correct copy of a Resolution duly adopted by a majority vote of the Board of Commissioners at a regular meeting held on October 23rd, 2017, and said Resolution has been recorded in the Minutes of Radnor Township and remains in effect as of this date.

IN WITNESS THEREOF, I affix my hand and attach the seal of Radnor Township, this 13th day of November, A.D., 2017

RADNOR TOWNSHIP
DELWARE COUNTY, PA

BY: _____

Name: Elaine P. Schaefer
Title: Vice President

ATTEST: _____

Name: Robert Zienkowski
Title: Township Manager and Secretary

ELAINE P. SCHAEFER
Vice President
JAMES C. HIGGINS, ESQ.
LUCAS A. CLARK, ESQ.
DON CURLEY
JOHN NAGLE
RICHARD F. BOOKER, ESQ.
PHILIP M. AHR

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

November 13, 2017

David J. Bratina
PennDOT Office of Multimodal Transportation
Commonwealth Keystone Building
400 North Street, 8th Floor
Harrisburg, PA 17120-3457

RE: King of Prussia, Pine Tree, and Eagle Roads Intersection Improvements Project, Radnor Township, Delaware County, Pennsylvania

Dear Mr. Bratina,

I am writing to acknowledge the intention of Radnor Township, in Delaware County, to submit an approximately $1,302,979 Multimodal Transportation Fund grant request to complete roadway and pedestrian safety improvements at the intersection of King of Prussia, Pine Tree, and Eagle Roads in Radnor Township, Pennsylvania. Radnor Township is partnering with Cabrini University and Eastern University to complete the project.

Grant funds received from PennDOT will be used to address congestion and multimodal circulation concerns at the intersection of King of Prussia, Pine Tree, and Eagle Roads. The improvements involve the overall enlargement of the intersection, including: the addition of a northbound turn lane from King of Prussia Road; signal improvements; repaving; new signage; and related streetscape and stormwater management enhancements.

Cabrini University, Eastern University and Radnor Township will provide the matching funds for this project. The municipality is committed to providing one third (1/3), up to $186,140, of the $558,419 in matching funds towards the anticipated $1,861,398 in total project costs. Collateral for the municipal match is the Township's taxing authority.

Thank you for your consideration of Radnor's MTF request. Should you have any questions about the project or the municipality's committed match funding, please contact me at (610) 688-5600 or rzienkowski@radnor.org.

Sincerely,

Robert A. Zienkowski
Township Manager and Secretary

Radnor Township Intersection Improvements (KOP, Eagle and Pine Tree Roads)

PennDOT MTF Application

Multimodal Transportation Fund (MTF) Program

The Multimodal Transportation Fund Program supports the development, rehabilitation and enhancement of transportation assets to existing communities, streetscape, lighting, sidewalk enhancement, pedestrian safety, connectivity of transportation assets and transit-oriented development.

Funding to be requested to support the complete scope of improvements at the intersection of King of Prussia, Eagle and Pine Tree Roads, including: the addition of turn lanes off of King of Prussia Road; road widening, signal improvements; repaving; new signage; and related streetscape and stormwater management enhancements. These improvements are currently estimated to cost $1,861,398.

Applicant: Radnor Township **Application Lead:** Cabrini University

Application Deadline: Anticipated mid-December 2017 **Funding Decisions:** Summer – Early Fall 2018

Local Cost Share Requirement: 30% of total project costs (to be provided in thirds by Radnor Township, Eastern University and Cabrini University)

Required Municipal Documents:

- Authorized official resolution
  (see Draft: *Radnor Township KOP_Eagle Roads PennDOT MTF Resolution_11.13.2017.doc*)
- Funding commitment letter identifying source of local matching funds
  (See Draft: *MTF Match Funding Commitment Letter_Radnor Township_KOP_Eagle Roads_November 2017.doc*)
- Most recent audited financial statement for Radnor Township

Possible Funding Scenario:

Assuming full funding of the grant request and equal cost share between the Township, Cabrini University and Eastern University.

PennDOT Multimodal Grant

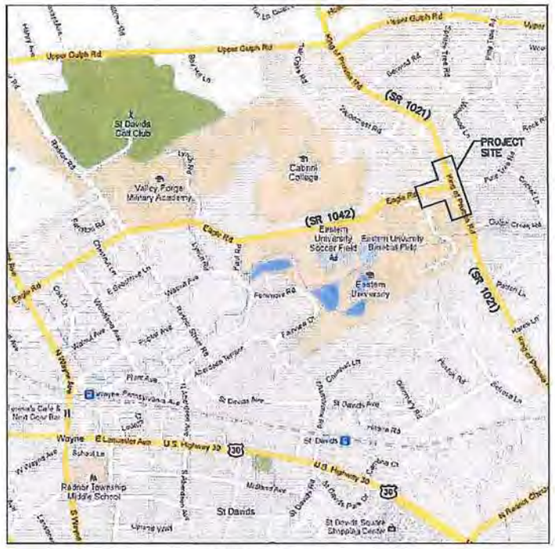
Total Project Cost:	$1,861,398
PennDOT MTF Grant:	$1,302,979
Local Match (30%):	$558,419
Each Party's Total Share:	**$186,140**

INTERSECTION IMPROVEMENTS

FOR

EAGLE ROAD (S.R. 1042) AND KING OF PRUSSIA ROAD (S.R. 1021)

SAINT DAVIDS, PENNSYLVANIA 19087
RADNOR TOWNSHIP, DELAWARE COUNTY



1/0 LOCATION MAP
SCALE: 1"=1000'±

1000 0 1000 3000

Scale: 1" = 1000 ft

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CIVIL DRAWING SCHEDULE

DRAWING NUMBER	DRAWING TITLE	ISSUE DATE	H.O.P. SUBMISSION 11/18/11	H.O.P. RESUBMISSION 05/17/12	H.O.P. RESUBMISSION 08/28/12	H.O.P. RESUBMISSION 03/11/13
CS	COVER SHEET		•	•	•	•
1	PENNDOT CONSTRUCTION PLAN		•	•	•	•
2	EXISTING CONDITIONS & DEMOLITION PLAN		•	•	•	•
3	EXISTING UTILITIES DEMOLITION PLAN		•	•	•	•
4	SOIL EROSION CONTROL PLAN		•	•	•	•
5	SITE DEVELOPMENT PLAN		•	•	•	•
6	ENLARGED INTERSECTION SITE DEVELOPMENT PLAN		•	•	•	•
7	SITE UTILITIES PLAN		•	•	•	•
8	ENLARGED INTERSECTION SITE UTILITIES PLAN		•	•	•	•
9	PAVEMENT MARKING AND SIGNAGE PLAN		•	•	•	•
10	TYPICAL TRAFFIC CONTROL PLANS AND DETAILS		•	•	•	•
11	PENNDOT SITE DETAILS		•	•	•	•
12	PENNDOT STORM SEWER DETAILS		•	•	•	•
13	STORM SEWER PROFILES AND SITE UTILITY DETAILS		•	•	•	•
14	SOIL EROSION CONTROL DETAILS AND NOTES		•	•	•	•
15	REQUIRED RIGHT-OF-WAY PLAN		•	•	•	•
16	SPREAD OF FLOW DRAINAGE AREAS PLAN		•	•	•	•
17	TRUCK TURNING MANEUVERS PLAN				•	•
18	TRUCK TURNING MANEUVERS PLAN				•	•
19	FIRE TRUCK TURNING MANEUVERS PLAN					•

aec
Associated Engineering Consultants Incorporated
455 Devon Park Drive Suite 110 Wayne Pennsylvania 19087 tel 610 688 2360 fax 610 688 4066
Civil | Structural | HVAC | Planning | Electrical | Fire Protection www.aecorp.net

SEAL

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL DAVID C. BRANDT ENGINEER 27452-E PENNSYLVANIA

PROJECT

INTERSECTION IMPROVEMENTS
EAGLE ROAD (S.R. 1042) AND
KING OF PRUSSIA ROAD (S.R. 1021)
SAINT DAVIDS, PENNSYLVANIA 19087
RADNOR TOWNSHIP, DELAWARE COUNTY

DATE	REVISION
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05/17/12	H.O.P. RESUBMISSION
08/28/12	H.O.P. RESUBMISSION
03/11/13	H.O.P. RESUBMISSION

SHEET TITLE

COVER SHEET

DRAWN BY: BJD
CHECKED BY: KRM

SHEET NO.

CS

SHEET NO. 1 OF 20

PROJECT NO. 0124.057
DATE: NOVEMBER 18, 2011

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2/1 PENNDOT CONSTRUCTION PLAN
SCALE: 1"=30'-0"

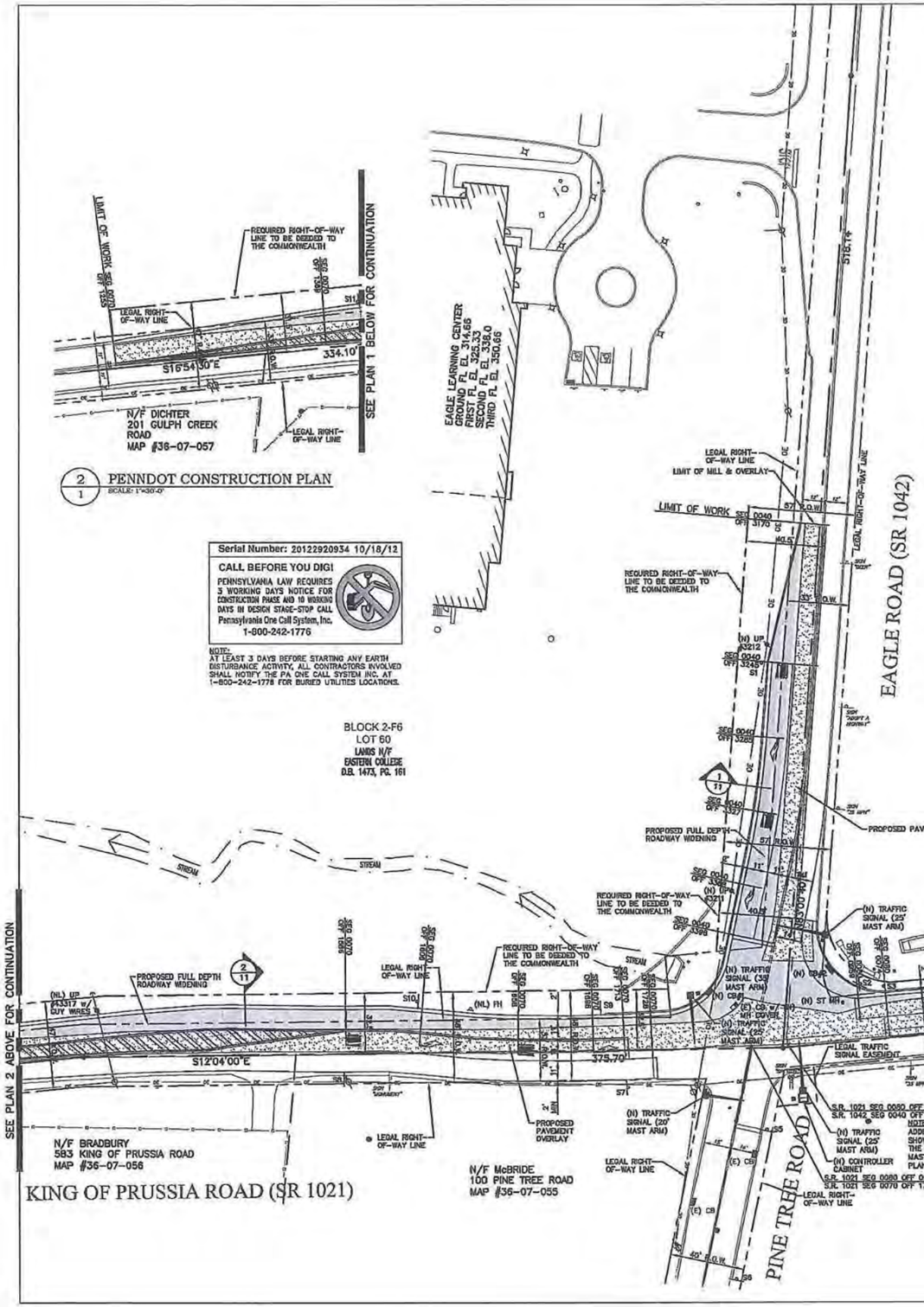
Serial Number: 20122920934 10/18/12

CALL BEFORE YOU DIG!

PENNSYLVANIA LAW REQUIRES 3 WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND 10 WORKING DAYS IN DESIGN STAGE-STOP CALL Pennsylvania One Call System, Inc. 1-800-242-1776

NOTE:
AT LEAST 3 DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITY, ALL CONTRACTORS INVOLVED SHALL NOTIFY THE PA ONE CALL SYSTEM INC. AT 1-800-242-1778 FOR BURIED UTILITIES LOCATIONS.

BLOCK 2-F6
LOT 60
LANDS N/F
EASTERN COLLEGE
D.B. 1473, PG. 161



1/1 PENNDOT CONSTRUCTION PLAN
SCALE: 1"=30'-0"

30 0 30 60
Scale: 1" = 30 ft

3/1 LOCATION MAP
SCALE: 1"=1000'

PAVING LEGEND

FULL DEPTH PAVING (CROSS SLOPE TO MATCH THE EXISTING CROSS SLOPE AND HAVE A MINIMUM SLOPE OF 2%)

PAVEMENT OVERLAY (MILL & OVERLAY WITH SUPERPAVE – SEE PLAN (MINIMUM 2" WIDTH))

GENERAL PENNDOT NOTES:

1. THE POSTED SPEED LIMITS ON SR 1021 AND SR 1042 ARE 35 MPH.
2. THE PERMITTEE IS RESPONSIBLE FOR THE RELOCATION OF ALL UTILITY POLES.
3. THE RESPONSIBILITY FOR ENSURING THAT ALL UTILITY POLES WITHIN THE PROPOSED PAVING ARE RELOCATED OUTSIDE OF PAVED AREAS AND SHOULDERS SHALL BE THAT OF THE PERMITTEE. THE UTILITY POLES MUST BE RELOCATED BEFORE THE START OF ANY PAVING OPERATIONS. THE RELOCATED POLES SHALL BE NO CLOSER THAN 2 FEET BEHIND THE FACE OF CURB OR 4 FEET BEYOND THE EDGE OF PAVING IN UNCURBED AREA.
4. ALL UTILITY RELOCATION PERMITS TAKE PRECEDENCE OVER THE UTILITY RELOCATION POSITIONS SHOWN ON THE HIGHWAY OCCUPANCY PERMIT PLANS.
5. ALL UTILITY RELOCATION MUST BE IN ACCORDANCE WITH PENNDOT DESIGN MANUAL PART 5.
6. ALL WORK PERFORMED WITHIN THE STATE LEGAL RIGHT-OF-WAY MUST BE IN ACCORDANCE WITH PENNDOT PUBLICATION 72M, STANDARDS FOR ROADWAY CONSTRUCTION, RC-04 TO 100M, AS AMENDED.
7. NO UNSUITABLE MATERIAL IS TO BE USED IN ANY PORTION OF THE ROADWAY CONSTRUCTION. REMOVE ANY SUBGRADE THAT CANNOT BE PROPERLY COMPACTED AND THAT IS UNSUITABLE MATERIAL. UNDERCUTTING AND/OR SUBGRADE STABILIZATION MAY BE REQUIRED.
8. SAWLINE LOCATIONS MAY BE ADJUSTED IN THE FIELD AS DEEMED NECESSARY BY PENNDOT REPRESENTATIVE.
9. IF DIRECTED, EITHER MILLING OR AN INTERMEDIATE 19 MM BINDER LEVELING COURSE WILL BE REQUIRED TO ACHIEVE PROFILE PRIOR TO THE WEARING COURSE OVERLAY.
10. ALL SUBSTANDARD OR DAMAGED CURB WITHIN THE LIMITS OF WORK MUST BE REPLACED, AS NECESSARY.
11. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REMOVE ANY DEBRIS AND FLUSH OUT ALL EXISTING AND PROPOSED STORM DRAINAGE FACILITIES WITHIN THE PROJECT LIMITS AT THE COMPLETION OF CONSTRUCTION.
12. ALL INLETS WITHIN THE STATE MAINTAINED RIGHT-OF-WAY MUST HAVE STRUCTURAL STEEL BICYCLE SAFE GRATES.
13. ONLY PRECAST INLET BOXES SUPPLIED BY A MANUFACTURER LISTED IN PENNDOT PUBLICATION 35, BULLETIN 15 WILL BE PERMITTED FOR USE WITHIN THE STATE MAINTAINED RIGHT-OF-WAY.
14. ALL EXISTING PAVEMENT MARKINGS WHICH ARE NO LONGER APPROPRIATE SHALL BE ERADICATED BY THE PERMITTEE. THE PERMITTEE SHALL PLACE ALL REQUIRED NEW PAVEMENT MARKINGS. ERADICATION METHOD MUST BE APPROVED BY A PENNDOT REPRESENTATIVE.
15. ALL PROPOSED PAVEMENT MARKINGS MUST BE HOT THERMOPLASTIC ON BITUMINOUS PAVEMENT, INCLUDING LONG AND SHORT LINES AND PAVEMENT MARKING LEGENDS.
16. THE TRAFFIC SIGNAL PERMIT PLAN TAKES PRECEDENCE OVER THE TRAFFIC SIGNAL MARKING PLAN AT THE VICINITY OF THE INTERSECTION.
17. ALL EXISTING HIGHWAY SIGNS WHICH WILL BE IMPACTED BY THE PROPOSED WIDENING SHALL BE RESET BY THE PERMITTEE AS PART OF THE IMPROVEMENTS INVOLVED WITH THIS HIGHWAY OCCUPANCY PERMIT.
18. ALL PROPOSED ROADWAY PAVEMENT MARKINGS AND SIGNAGE ARE TO BE IN ACCORDANCE WITH PENNDOT PUBLICATION NO. 111M.
19. EXISTING RIGHT-OF-WAY DETERMINED FROM PENNDOT DRAWINGS FOR CONSTRUCTION OF LEG. ROUTE 23041 SECTION 111 IN DELAWARE COUNTY AND PENNDOT SIGNAL PLAN, PERMIT #63-0173, FILE #0173, DATED 3-17-05.
20. THE PERMITTEE SHALL ENSURE THAT THE SIGHT DISTANCE AT THE DRIVEWAYS SERVICING OTHER PROPERTIES OR AT OTHER INTERSECTIONS IS NOT REDUCED AS A RESULT OF THE WORK PERFORMED IN ACCORDANCE WITH THE STATE HIGHWAY OCCUPANCY PERMIT, UNLESS EXISTING AND PROPOSED VALUES EXCEED THE DESIRABLE VALUES SPECIFIED IN THE PENNSYLVANIA CODE, TITLE 67, TRANSPORTATION, CHAPTER 441.8.H.1.

SIGN TABULATION

SIGN	STATE ROUTE	SEGMENT/OFFSET	SERIES	SIZE	DESCRIPTION
S1	SR 1042	0040 / 3245R	R3-8A(LS-R)	30"x30"	LANE USE CONTROL SIGN
S2	SR 1021	0080 / 0060L	R9-3	18"x18"	NO PEDESTRIAN CROSSING
S2	SR 1021	0085 / 0060L	R9-3	18"x18"	NO PEDESTRIAN CROSSING (RELOCATED)
S3	SR 1021	0080 / 0074L	R10-6AL	24"x30"	STOP HERE ON RED
S3	SR 1021	0080 / 0074L	R10-6-1	24"x18"	LEFT LANE PLAQUE
S4	SR 1021	0080 / 0148L	R3-8A(L-SR)	30"x30"	LANE USE CONTROL SIGN
S5	-------	----------	R10-11	24"x30"	NO TURN ON RED ●
S6	-------	----------	W3-3	36"x36"	SIGNAL AHEAD SIGN
S7	SR 1021	0070 / 1713R	R10-6AL	24"x30"	STOP HERE ON RED
S7	SR 1021	0070 / 1713R	R10-6-1	24"x18"	LEFT LANE PLAQUE
S8	SR 1021	0070 / 1565R	R3-8A(L-SR)	30"x30"	LANE USE CONTROL SIGN
S9	SR 1021	0070 / 1701L	R2-1	24"x30"	SPEED LIMIT 35 MPH (RELOCATED)
S10	SR 1021	0070 / 1604L	W11-3	30"x30"	DEER CROSSING (RELOCATED)
S11	SR 1021	0070 / 1389L	W1-3R	30"x30"	RIGHT REVERSE TURN (RELOCATED)
S11	SR 1021	0070 / 1389L	W13-1P	18"x18"	30 MPH ADVISORY SPEED PLAQUE (RELOCATED)

NOTE:
RADNOR TOWNSHIP IS RESPONSIBLE FOR THE MAINTENANCE OF THE SIGNS.

aec
Associated Engineering Consultants Incorporated
450 Downs Park Drive Suite 110 Wayne Pennsylvania 19087 tel 610 688-3000 fax 610 688-4800
www.aecorp.net
Civil | Structural | HVAC | Plumbing | Electrical | Fire Protection

SEAL

COMMONWEALTH OF PENNSYLVANIA
PROFESSIONAL
DAVID C. BRANDT
ENGINEER
27452-E
PENNSYLVANIA

PROJECT

INTERSECTION IMPROVEMENTS

EAGLE ROAD (S.R. 1042) AND
KING OF PRUSSIA ROAD (S.R. 1021)
SAINT DAVIDS, PENNSYLVANIA 19087
RADNOR TOWNSHIP, DELAWARE COUNTY

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03/11/13	H.O.P. RESUBMISSION

SHEET TITLE

PENNDOT CONSTRUCTION PLAN

DRAWN BY: BJD
CHECKED BY: KRM

SHEET NO. 1
SHEET NO. 2 OF 19

PROJECT NO. 0124.057
DATE: NOVEMBER 18, 2011

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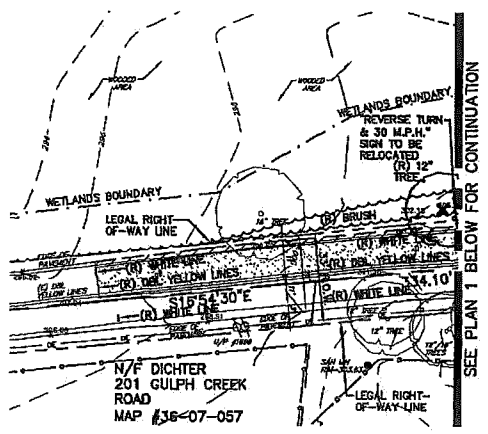
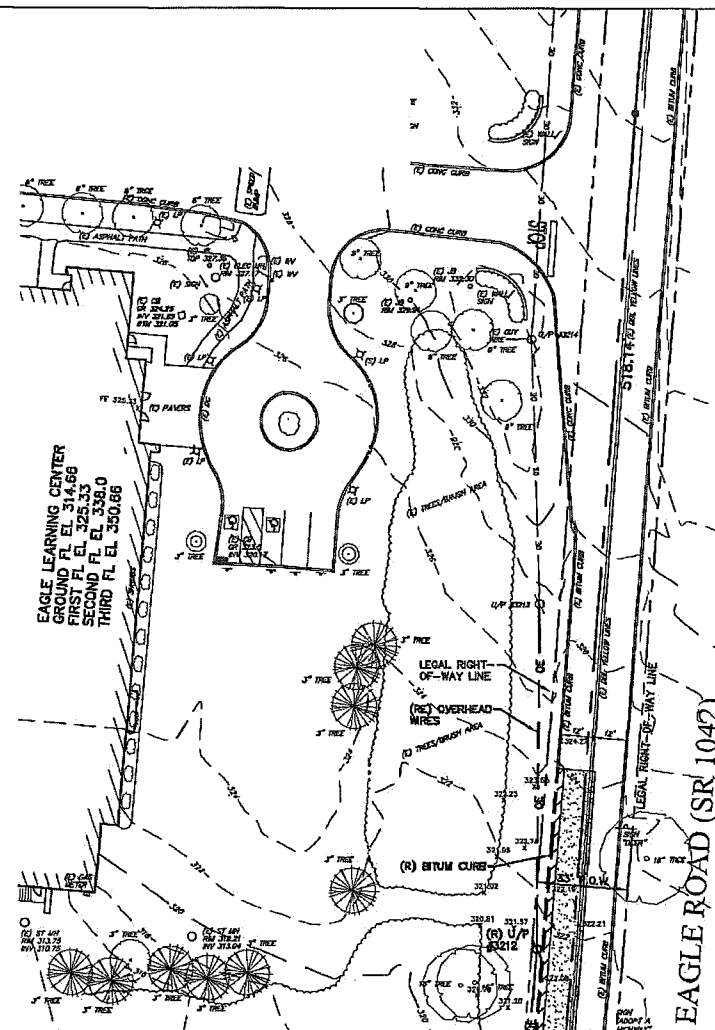
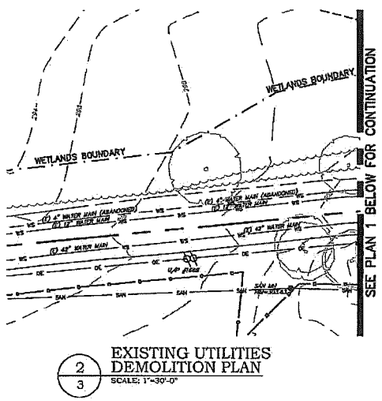
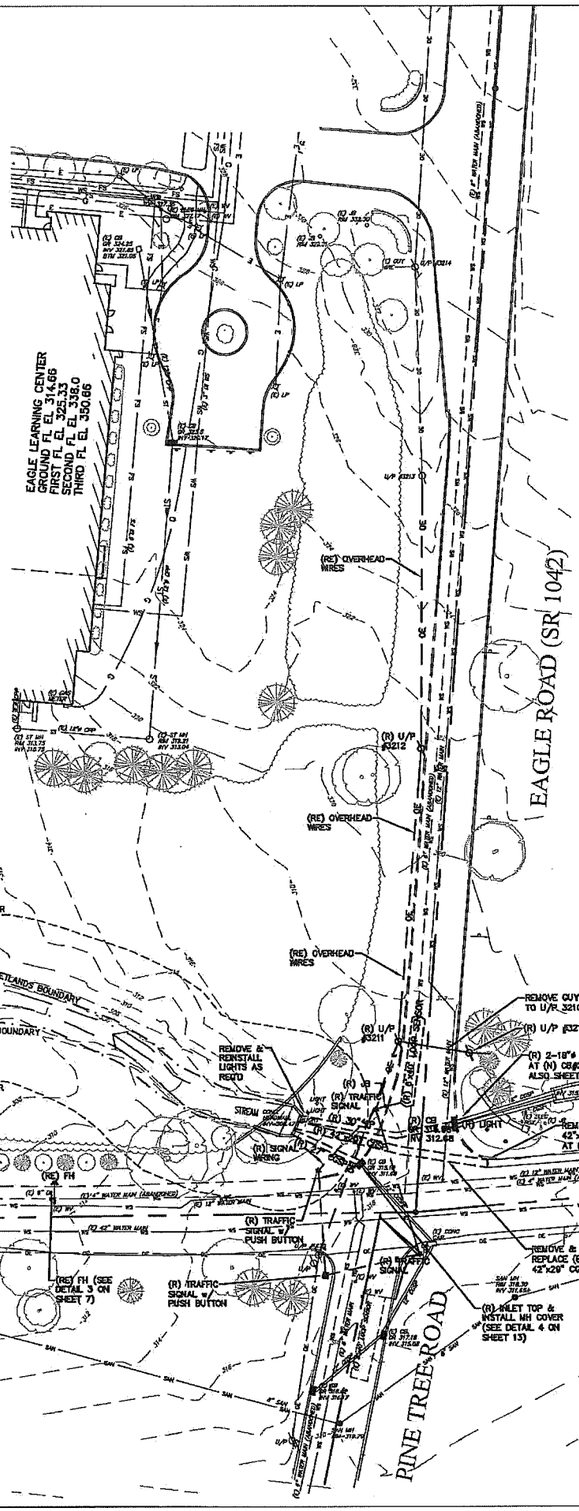


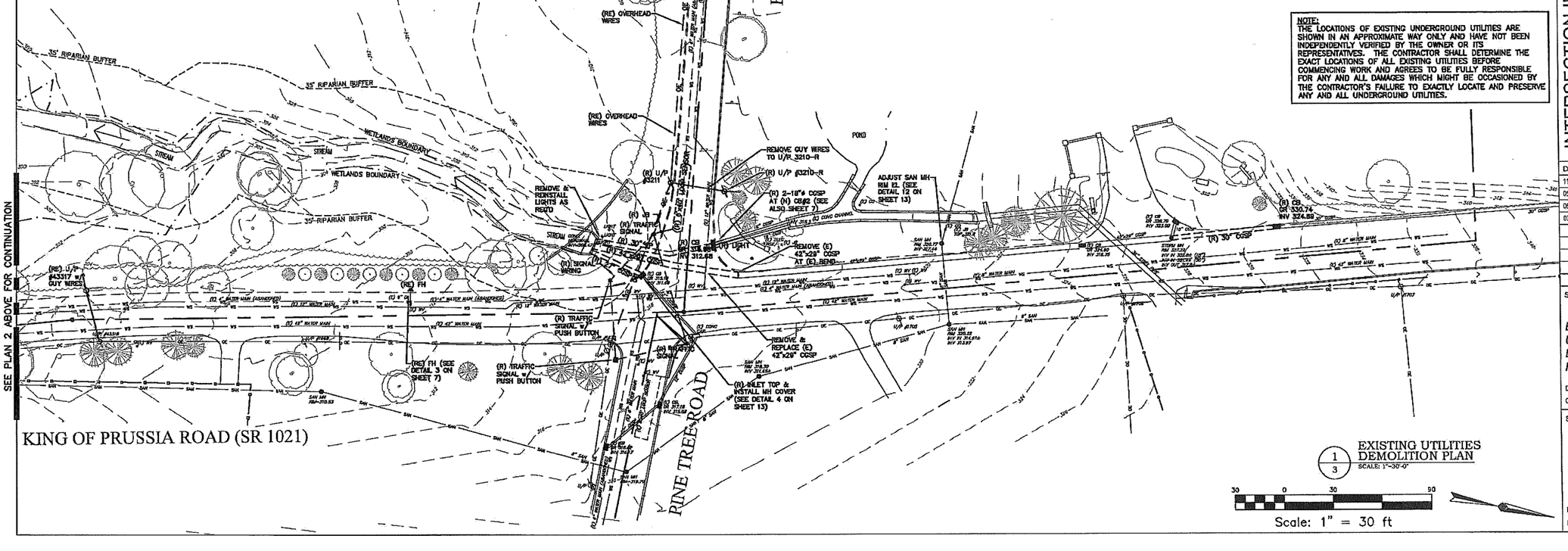
2/2 EXISTING CONDITIONS & DEMOLITION PLAN
SCALE: 1"=30'-0"


EAGLE LEARNING CENTER
GROUND FL EL 314.66
FIRST FL EL 325.33
SECOND FL EL 338.0
THIRD FL EL 350.66
LEGAL RIGHT-OF-WAY LINE
(R) BITUM CURB
(RE) OVERHEAD WIRES
(R) CONC CURB
(R) TREE/BRUSH AREA
(R) U/P #3211
(R) U/P #3210
(R) LP
(R) FENCE
(R) SIGN
(R) CONC CURB
(R) BRUSH
(R) TREE/BRUSH AREA
(R) U/P #3214
(R) LP
(R) CONC CURB
(R) BRUSH
(R) TREE/BRUSH AREA
(R) LP
(R) FENCE



2/3 EXISTING UTILITIES DEMOLITION PLAN
SCALE: 1"=30'-0"





1/3 EXISTING UTILITIES DEMOLITION PLAN
SCALE: 1"=30'-0"

30 0 30 60
Scale: 1" = 30 ft

Serial Number: 20122920934 10/18/12

CALL BEFORE YOU DIG!

PENNSYLVANIA LAW REQUIRES 3 WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND 10 WORKING DAYS IN DESIGN STAGE-STOP CALL Pennsylvania One Call System, Inc. **1-800-242-1776**

NOTE:
AT LEAST 3 DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITY, ALL CONTRACTORS INVOLVED SHALL NOTIFY THE PA ONE CALL SYSTEM INC. AT 1-800-242-1776 FOR BURIED UTILITIES LOCATIONS.

LEGEND

	EXISTING TO REMAIN	EXISTING TO BE DEMOLISHED
STORM SEWER		
SANITARY SEWER	SAN	
WATER SERVICE	WS	
WATER SERVICE (ABANDONED)	WS	
ELECTRIC SERVICE	E	E
OVERHEAD ELECTRIC	OE	OE
CATCH BASIN & INLET		
MANHOLE		
HEADWALL		
CLEAN OUT OR VALVE		
UTILITY POLE		
TRAFFIC SIGNAL		
FIRE HYDRANT		

ABBREVIATIONS

(E)	EXISTING
(R)	REMOVE
(RE)	RELOCATE EXISTING
(N)	NEW
(NL)	NEW LOCATION (OF EXISTING)

NOTE:
THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVES. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATIONS OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

aec
Associated Engineering Consultants Incorporated
400 Dresher Park Drive Suite 110 Wayne Pennsylvania 19087 tel 610 688 2900 fax 610 688 4400
www.aecorg.net
Civil | Structural | HVAC | Plumbing | Electrical | Fire Protection

SEAL

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL DAVID C. BRANDT ENGINEER 27452-E

PROJECT

INTERSECTION IMPROVEMENTS

EAGLE ROAD (S.R. 1042) AND
KING OF PRUSSIA ROAD (S.R. 1021)
SAINT DAVIDS, PENNSYLVANIA 19087
RADNOR TOWNSHIP, DELAWARE COUNTY

DATE	REVISION
11/18/11	H.O.P. SUBMISSION
05/17/12	H.O.P. RESUBMISSION
09/28/12	H.O.P. RESUBMISSION
03/11/13	H.O.P. RESUBMISSION

SHEET TITLE

EXISTING UTILITIES DEMOLITION PLAN

DRAWN BY: BJD
CHECKED BY: KRM

SHEET NO.

3

SHEET NO. 4 OF 19

PROJECT NO. 0124.057
DATE: NOVEMBER 18, 2011

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CONSTRUCTION SEQUENCE:

IN GENERAL:

A. All earth disturbance activities shall proceed in accordance with the following sequence. Each stage shall be completed before any following stage is initiated. Clearing and grubbing shall be limited only to those areas described in each stage.

B. At least 7 days before starting any earth disturbance activities, the Contractor shall invite all subcontractors involved in those activities, the Owner, the Civil Engineer, and all appropriate municipal officials to an on-site pre-construction meeting.

C. Township engineer shall be notified 48 hours prior to the start of earthmoving activities.

D. Figure numbers referenced herein refer to PennDOT's Maintenance and Protection of Traffic during construction in PennDOT Publication 213, "Work Zone Traffic Control Guidelines", as amended April 1, 2010, and Title 67 PA Code, Chapter 212, "Official Traffic Control Devices", dated February 4, 2005 or most current.

E. Removal and replacement of the storm pipes shall be performed only when the weather forecast predicts at least 72 hours of rain-free weather.

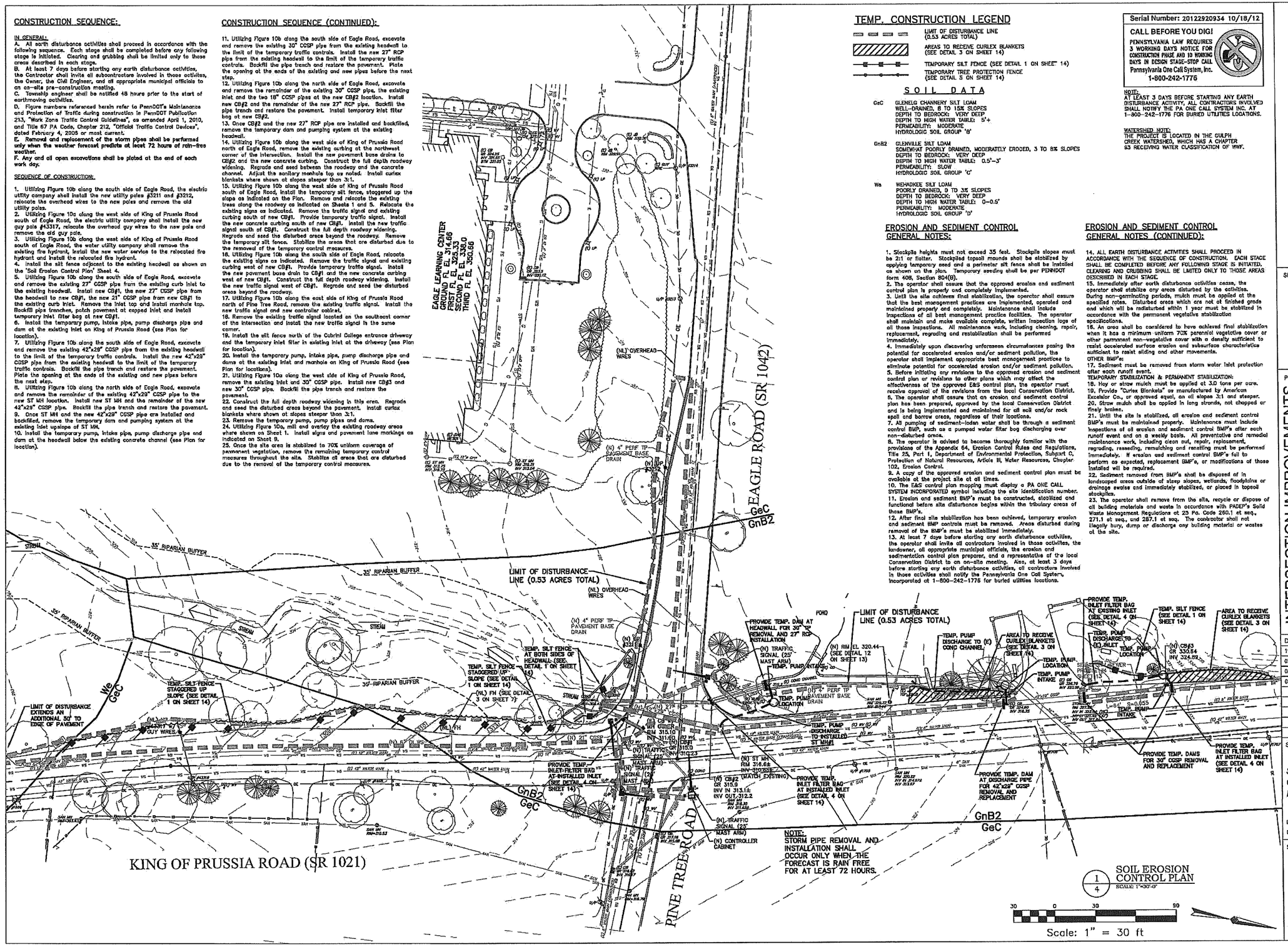
F. Any and all open excavations shall be plated at the end of each work day.

SEQUENCE OF CONSTRUCTION:

1. Utilizing Figure 10b along the south side of Eagle Road, the electric utility company shall install the new utility poles #3211 and #3212, relocate the overhead wires to the new poles and remove the old utility poles.
2. Utilizing Figure 10a along the west side of King of Prussia Road south of Eagle Road, the electric utility company shall install the new guy pole #43317, relocate the overhead guy wires to the new pole and remove the old guy pole.
3. Utilizing Figure 10b along the west side of King of Prussia Road south of Eagle Road, the water utility company shall remove the existing fire hydrant, install the new water service to the relocated fire hydrant and install the relocated fire hydrant.
4. Install the silt fence adjacent to the existing headwall as shown on the "Soil Erosion Control Plan" Sheet 4.
5. Utilizing Figure 10b along the south side of Eagle Road, excavate and remove the existing 27" CSSP pipe from the existing curb inlet to the existing headwall. Install new CB#1, the new 27" CSSP pipe from the headwall to new CB#1, the new 21" CSSP pipe from new CB#1 to the existing curb inlet. Remove the inlet top and install manhole top. Backfill pipe trenches, patch pavement at capped inlet and install temporary inlet filter bag at new CB#1.
6. Install the temporary pump, intake pipe, pump discharge pipe and dam at the existing inlet on King of Prussia Road (see Plan for location).
7. Utilizing Figure 10b along the south side of Eagle Road, excavate and remove the existing 42"x29" CSSP pipe from the existing headwall to the limit of the temporary traffic controls. Install the new 42"x29" CSSP pipe from the existing headwall to the limit of the temporary traffic controls. Backfill the pipe trench and restore the pavement. Plate the opening at the ends of the existing and new pipes before the next step.
8. Utilizing Figure 10b along the north side of Eagle Road, excavate and remove the remainder of the existing 42"x29" CSSP pipe to the new ST MH location. Install new ST MH and the remainder of the new 42"x29" CSSP pipe. Backfill the pipe trench and restore the pavement.
9. Once ST MH and the new 42"x29" CSSP pipe are installed and backfilled, remove the temporary dam and pumping system at the existing inlet upslope of ST MH.
10. Install the temporary pump, intake pipe, pump discharge pipe and dam at the headwall below the existing concrete channel (see Plan for location).

CONSTRUCTION SEQUENCE (CONTINUED):

11. Utilizing Figure 10b along the south side of Eagle Road, excavate and remove the existing 30" CSSP pipe from the existing headwall to the limit of the temporary traffic controls. Install the new 27" RCP pipe from the existing headwall to the limit of the temporary traffic controls. Backfill the pipe trench and restore the pavement. Plate the opening at the ends of the existing and new pipes before the next step.
12. Utilizing Figure 10b along the north side of Eagle Road, excavate and remove the remainder of the existing 30" CSSP pipe, the existing inlet and the two 18" CSSP pipes at the new CB#2 location. Install new CB#2 and the remainder of the new 27" RCP pipe. Backfill the pipe trench and restore the pavement. Install temporary inlet filter bag at new CB#2.
13. Once CB#2 and the new 27" RCP pipe are installed and backfilled, remove the temporary dam and pumping system at the existing headwall.
14. Utilizing Figure 10b along the west side of King of Prussia Road north of Eagle Road, remove the existing curbing at the northwest corner of the intersection. Install the new pavement base drains to CB#2 and the new concrete curbing. Construct the full depth roadway widening. Regrade and seed between the roadway and the concrete channel. Adjust the sanitary manhole top as noted. Install curlex blankets where shown at slopes steeper than 3:1.
15. Utilizing Figure 10b along the west side of King of Prussia Road south of Eagle Road, install the temporary silt fence, staggered up the slope as indicated on the Plan. Remove and relocate the existing trees along the roadway as indicated on Sheets 1 and 5. Relocate the existing signs as indicated. Remove the traffic signal and existing curbing south of new CB#1. Provide temporary traffic signal. Install the new concrete curbing south of new CB#1. Install the new traffic signal south of CB#1. Construct the full depth roadway widening. Regrade and seed the disturbed areas beyond the roadway. Remove the temporary silt fence. Stabilize the areas that are disturbed due to the removal of the temporary control measures.
16. Utilizing Figure 10b along the south side of Eagle Road, relocate the existing signs as indicated. Remove the traffic signal and existing curbing west of new CB#1. Provide temporary traffic signal. Install the new pavement base drain to CB#1 and the new concrete curbing west of new CB#1. Construct the full depth roadway widening. Install the new traffic signal west of CB#1. Regrade and seed the disturbed areas beyond the roadway.
17. Utilizing Figure 10b along the east side of King of Prussia Road north of Pine Tree Road, remove the existing traffic signal. Install the new traffic signal and new controller cabinet.
18. Remove the existing traffic signal located on the southeast corner of the intersection and install the new traffic signal in the same corner.
19. Install the silt fence north of the Cabrini College entrance driveway and the temporary inlet filter in existing inlet at the driveway (see Plan for location).
20. Install the temporary pump, intake pipe, pump discharge pipe and dams at the existing inlet and manhole on King of Prussia Road (see Plan for locations).
21. Utilizing Figure 10a along the west side of King of Prussia Road, remove the existing inlet and 30" CSSP pipe. Install new CB#3 and new 30" CSSP pipe. Backfill the pipe trench and restore the pavement.
22. Construct the full depth roadway widening in this area. Regrade and seed the disturbed areas beyond the pavement. Install curlex blankets where shown at slopes steeper than 3:1.
23. Remove the temporary pump, pump pipes and dams.
24. Utilizing Figure 10a, mill and overlay the existing roadway areas where shown on Sheet 1. Install signs and pavement lane markings as indicated on Sheet 9.
25. Once the site area is stabilized to 70% uniform coverage of permanent vegetation, remove the remaining temporary control measures throughout the site. Stabilize all areas that are disturbed due to the removal of the temporary control measures.



1/4 SOIL EROSION CONTROL PLAN
SCALE 1"=30'-0"

30 0 30 90
Scale: 1" = 30 ft

TEMP. CONSTRUCTION LEGEND

- LIMIT OF DISTURBANCE LINE (0.53 ACRES TOTAL)
- AREAS TO RECEIVE CURLEX BLANKETS (SEE DETAIL 3 ON SHEET 14)
- TEMPORARY SILT FENCE (SEE DETAIL 1 ON SHEET 14)
- TEMPORARY TREE PROTECTION FENCE (SEE DETAIL 5 ON SHEET 14)

SOIL DATA

GeC — GLENELG CHANNERY SILT LOAM
WELL-DRAINED, 8 TO 15% SLOPES
DEPTH TO BEDROCK: VERY DEEP
DEPTH TO HIGH WATER TABLE: 5'+
PERMEABILITY: MODERATE
HYDROLOGIC SOIL GROUP 'B'

GnB2 — GLENVILLE SILT LOAM
SOMEWHAT POORLY DRAINED, MODERATELY ERODED, 3 TO 8% SLOPES
DEPTH TO BEDROCK: VERY DEEP
DEPTH TO HIGH WATER TABLE: 0.5'-3'
PERMEABILITY: SLOW
HYDROLOGIC SOIL GROUP 'C'

We — WEHADKEE SILT LOAM
POORLY DRAINED, 0 TO 3% SLOPES
DEPTH TO BEDROCK: VERY DEEP
DEPTH TO HIGH WATER TABLE: 0-0.5'
PERMEABILITY: MODERATE
HYDROLOGIC SOIL GROUP 'D'

EROSION AND SEDIMENT CONTROL GENERAL NOTES:

1. Stockpile heights must not exceed 35 feet. Stockpile slopes must be 2:1 or flatter. Stockpiled topsoil mounds shall be stabilized by applying temporary seed and a perimeter silt fence shall be installed as shown on the plan. Temporary seeding shall be per PENNDOT form 408, Section 804(B).
2. The operator shall assure that the approved erosion and sediment control plan is properly and completely implemented.
3. Until the site achieves final stabilization, the operator shall assure that the best management practices are implemented, operated and maintained properly and completely. Maintenance shall include inspections of all best management practice facilities. The operator shall maintain and make available complete, written inspection logs of all those inspections. All maintenance work, including cleaning, repair, replacement, regrading and restabilization shall be performed immediately.
4. Immediately upon discovering unforeseen circumstances posing the potential for accelerated erosion and/or sediment pollution, the operator shall implement appropriate best management practices to eliminate potential for accelerated erosion and/or sediment pollution.
5. Before initiating any revisions to the approved erosion and sediment control plan or revisions to other plans which may affect the effectiveness of the approved E&S control plan, the operator must receive approval of the revisions from the local Conservation District.
6. The operator shall assure that an erosion and sediment control plan has been prepared, approved by the local Conservation District and is being implemented and maintained for all soil and/or rock spoil and borrow areas, regardless of their locations.
7. All pumping of sediment-laden water shall be through a sediment control BMP, such as a pumped water filter bag discharging over non-disturbed areas.
8. The operator is advised to become thoroughly familiar with the provisions of the Appendix 64, Erosion Control Rules and Regulations, Title 25, Part I, Department of Environmental Protection, Subpart C, Protection of Natural Resources, Article II, Water Resources, Chapter 102, Erosion Control.
9. A copy of the approved erosion and sediment control plan must be available at the project site at all times.
10. The E&S control plan mapping must display a PA ONE CALL SYSTEM INCORPORATED symbol including the site identification number.
11. Erosion and sediment BMP's must be constructed, stabilized and functional before site disturbance begins within the tributary areas of those BMP's.
12. After final site stabilization has been achieved, temporary erosion and sediment BMP controls must be removed. Areas disturbed during removal of the BMP's must be stabilized immediately.
13. At least 7 days before starting any earth disturbance activities, the operator shall invite all contractors involved in those activities, the landowner, all appropriate municipal officials, the erosion and sedimentation control plan preparer, and a representative of the local Conservation District to an on-site meeting. Also, at least 3 days before starting any earth disturbance activities, all contractors involved in those activities shall notify the Pennsylvania One Call System, Incorporated at 1-800-242-1776 for buried utilities locations.

EROSION AND SEDIMENT CONTROL GENERAL NOTES (CONTINUED):

14. ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE SEQUENCE OF CONSTRUCTION. EACH STAGE SHALL BE COMPLETED BEFORE ANY FOLLOWING STAGE IS INITIATED. CLEARING AND GRUBBING SHALL BE LIMITED ONLY TO THOSE AREAS DESCRIBED IN EACH STAGE.
15. Immediately after earth disturbance activities cease, the operator shall stabilize any areas disturbed by the activities. During non-germinating periods, mulch must be applied at the specified rates. Disturbed areas which are not at finished grade and which will be redisturbed within 1 year must be stabilized in accordance with the permanent vegetative stabilization specifications.
16. An area shall be considered to have achieved final stabilization when it has a minimum uniform 70% perennial vegetative cover or other permanent non-vegetative cover with a density sufficient to resist accelerated surface erosion and subsurface characteristics sufficient to resist sliding and other movements.

OTHER BMP's:

17. Sediment must be removed from storm water inlet protection after each runoff event.

TEMPORARY STABILIZATION & PERMANENT STABILIZATION:

18. Hay or straw mulch must be applied at 3.0 tons per acre.
19. Provide "Curlex Blankets" as manufactured by American Excelsior Co., or approved equal, on all slopes 3:1 and steeper.
20. Straw mulch shall be applied in long strands, not chopped or finely broken.
21. Until the site is stabilized, all erosion and sediment control BMP's must be maintained properly. Maintenance must include inspections of all erosion and sediment control BMP's after each runoff event and on a weekly basis. All preventative and remedial maintenance work, including clean out, repair, replacement, regrading, reseeding, remulching and renetting must be performed immediately. If erosion and sediment control BMP's fail to perform as expected, replacement BMP's, or modifications of those installed will be required.
22. Sediment removed from BMP's shall be disposed of in landscaped areas outside of steep slopes, wetlands, floodplains or drainage swales and immediately stabilized, or placed in topsoil stockpiles.
23. The operator shall remove from the site, recycle or dispose of all building materials and waste in accordances with PADEP's Solid Waste Management Regulations at 25 Pa. Code 260.1 et seq., 271.1 et seq., and 287.1 et seq. The contractor shall not illegally bury, dump or discharge any building material or wastes at the site.

Serial Number: 20122920934 10/18/12

CALL BEFORE YOU DIG!

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Pennsylvania One Call System, Inc.
1-800-242-1776

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WATERSHED NOTE:
THE PROJECT IS LOCATED IN THE GULPH CREEK WATERSHED, WHICH HAS A CHAPTER 93 RECEIVING WATER CLASSIFICATION OF WWF.

Associated Engineering Consultants Incorporated
400 Dresher Park Drive Suite 113 Wayne Pennsylvania 19087 tel 610 993-2990 fax 610 806-4566 www.aecorp.net
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SEAL

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL DAVID C. BRANDT ENGINEER 27452-E

PROJECT

INTERSECTION IMPROVEMENTS

EAGLE ROAD (S.R. 1042) AND
KING OF PRUSSIA ROAD (S.R. 1021)

SAINT DAVIDS, PENNSYLVANIA 19087
RADNOR TOWNSHIP, DELAWARE COUNTY

DATE	REVISION
11/19/11	H.O.P. SUBMISSION
05/17/12	H.O.P. RESUBMISSION
08/28/12	H.O.P. RESUBMISSION
03/11/13	H.O.P. RESUBMISSION

SHEET TITLE

SOIL EROSION CONTROL PLAN

DRAWN BY: BJD
CHECKED BY: KRM

SHEET NO.

4

SHEET NO. 5 OF 19

PROJECT NO. 0124.057
DATE: NOVEMBER 18, 2011

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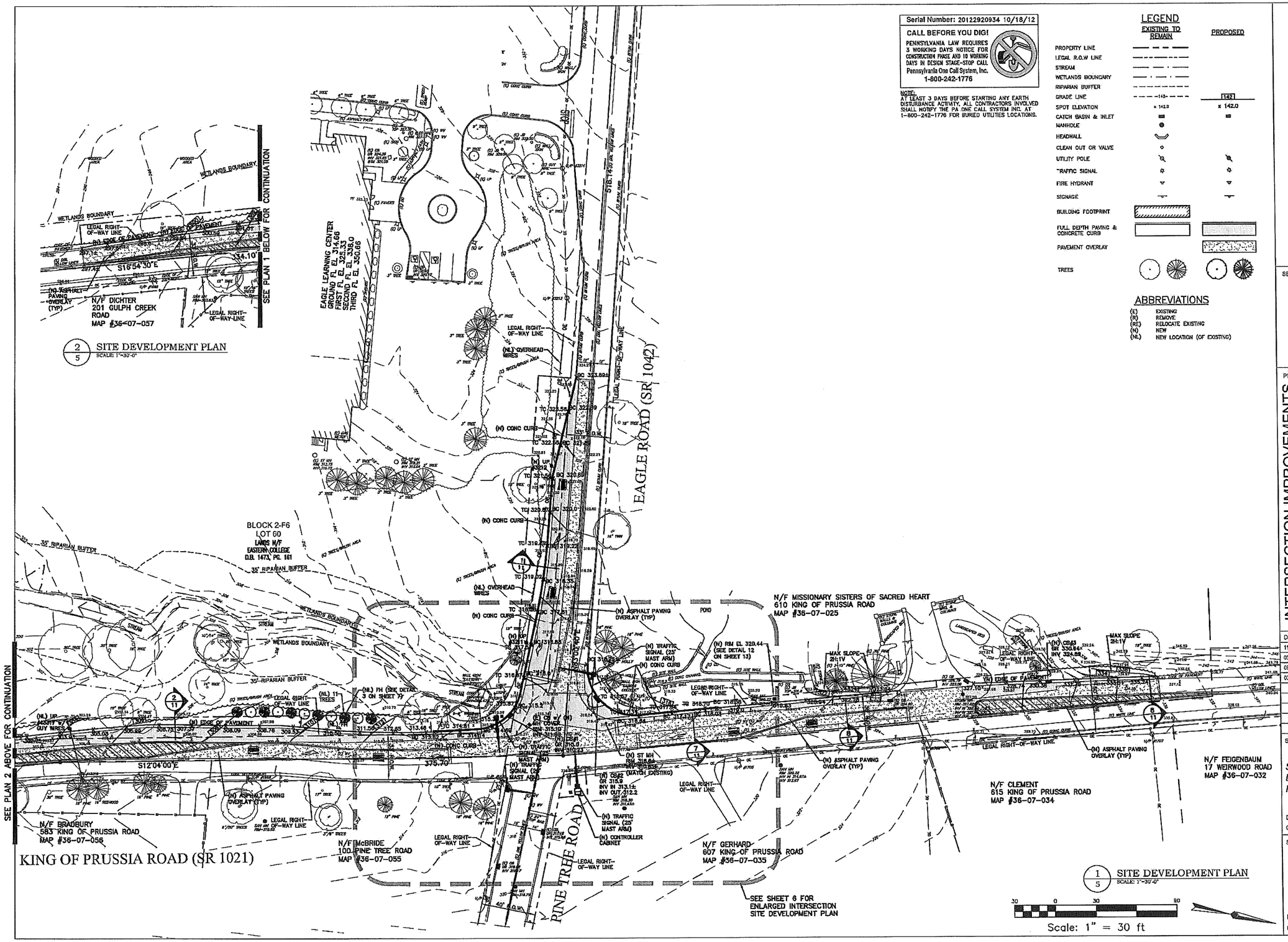
2/5 SITE DEVELOPMENT PLAN
SCALE: 1"=30'-0"



1/5 SITE DEVELOPMENT PLAN
SCALE: 1"=30'-0"

30 0 30 90
Scale: 1" = 30 ft

Serial Number: 20122920934 10/18/12

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LEGEND

	EXISTING TO REMAIN	PROPOSED
PROPERTY LINE		
LEGAL R.O.W LINE		
STREAM		
WETLANDS BOUNDARY		
RIPARIAN BUFFER		
GRADE LINE	-142-	142
SPOT ELEVATION	x 142.9	x 142.0
CATCH BASIN & INLET		
MANHOLE		
HEADWALL		
CLEAN OUT OR VALVE		
UTILITY POLE		
TRAFFIC SIGNAL		
FIRE HYDRANT		
SIGNAGE		
BUILDING FOOTPRINT		
FULL DEPTH PAVING & CONCRETE CURB		
PAVEMENT OVERLAY		
TREES		

ABBREVIATIONS

(E)	EXISTING
(R)	REMOVE
(RE)	RELOCATE EXISTING
(N)	NEW
(NL)	NEW LOCATION (OF EXISTING)

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SEAL
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PROJECT

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KING OF PRUSSIA ROAD (S.R. 1021)
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RADNOR TOWNSHIP, DELAWARE COUNTY

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03/11/13	H.O.P. RESUBMISSION

SHEET TITLE
SITE DEVELOPMENT PLAN

DRAWN BY: BJD
CHECKED BY: KRM

SHEET NO.
5
SHEET NO. 5 OF 19

PROJECT NO. 0124.057
DATE: NOVEMBER 18, 2011

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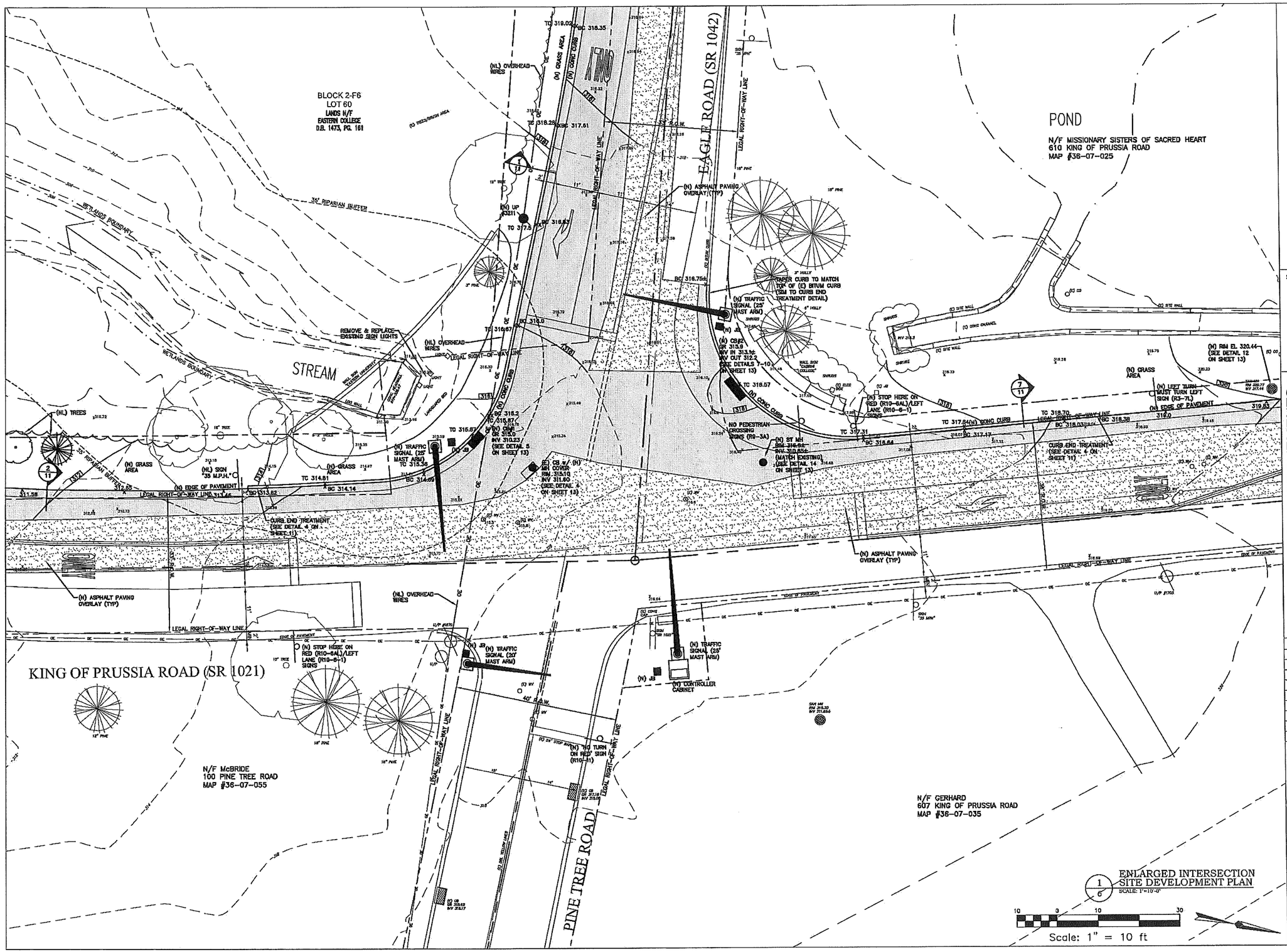
EAGLE ROAD (SR 1042)
KING OF PRUSSIA ROAD (SR 1021)
PINE TREE ROAD
STREAM
POND
BLOCK 2-F6
LOT 60
LANDS N/F
EASTERN COLLEGE
D.B. 1473, PG. 161
N/F MISSIONARY SISTERS OF SACRED HEART
610 KING OF PRUSSIA ROAD
MAP #36-07-025
N/F McBRIDE
100 PINE TREE ROAD
MAP #36-07-055
N/F GERHARD
607 KING OF PRUSSIA ROAD
MAP #36-07-035
WETLANDS BOUNDARY
35' RIPARIAN BUFFER
LEGAL RIGHT-OF-WAY LINE
(N) ASPHALT PAVING OVERLAY (TYP)
(N) TRAFFIC SIGNAL (25' MAST ARM)
(N) TRAFFIC SIGNAL (30' MAST ARM)
(N) CONTROLLER CABINET
(N) STOP HERE ON RED (R10-6AL)/LEFT LANE (R10-6-1) SIGNS
NO PEDESTRIAN CROSSING SIGNS (R9-3A)
(N) NO TURN ON RED SIGN (R10-11)
(N) LEFT TURN MUST TURN LEFT SIGN (R3-7L)
(N) EDGE OF PAVEMENT
CURB END TREATMENT (SEE DETAIL 4 ON SHEET 11)
REMOVE & REPLACE EXISTING SIGN LIGHTS
(N) GRASS AREA
(NL) OVERHEAD WIRES
(NL) TREES
(NL) SIGN "35 M.P.H."
(N) UP #3211
(N) ST MH RIM 316.62 INV 310.82 (MATCH EXISTING) (SEE DETAIL 14 ON SHEET 13)
(E) CB w/ (N) GRATE RIM 315.10 INV 311.60 (SEE DETAIL 4 ON SHEET 13)
(N) CB# RIM 315.0 INV 310.23 (SEE DETAIL 5 ON SHEET 13)
(N) CB#2 RIM 315.9 INV IN 313.16 INV OUT 312.2 (SEE DETAILS 7-10 ON SHEET 13)
(N) RIM EL 320.44 (SEE DETAIL 12 ON SHEET 13)
TAPER CURB TO MATCH TOP OF (E) BITUM CURB (SEE CURB END TREATMENT DETAIL)
(N) CONC CHANNEL
(N) SITE WALL
(N) CONC CURB
(N) SIDEWALK
(N) ASPHALT PAVING OVERLAY (TYP)
(N) CONC
(N) JB
(N) INLET
(N) SMH
(N) CB
(N) HW
(N) MH
(N) SIGN
(N) INLET

Serial Number: 20122920934 10/18/12

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LEGEND

	EXISTING TO REMAIN	PROPOSED
STORM SEWER		
SANITARY SEWER	SAN	
WATER SERVICE	WS	
WATER SERVICE (ABANDONED)	WS	
ELECTRIC SERVICE	E	
OVERHEAD ELECTRIC	OE	OE
CATCH BASIN & INLET		
MANHOLE		
HEADWALL		
CLEAN OUT OR VALVE		
UTILITY POLE		
TRAFFIC SIGNAL		
FIRE HYDRANT		

ABBREVIATIONS

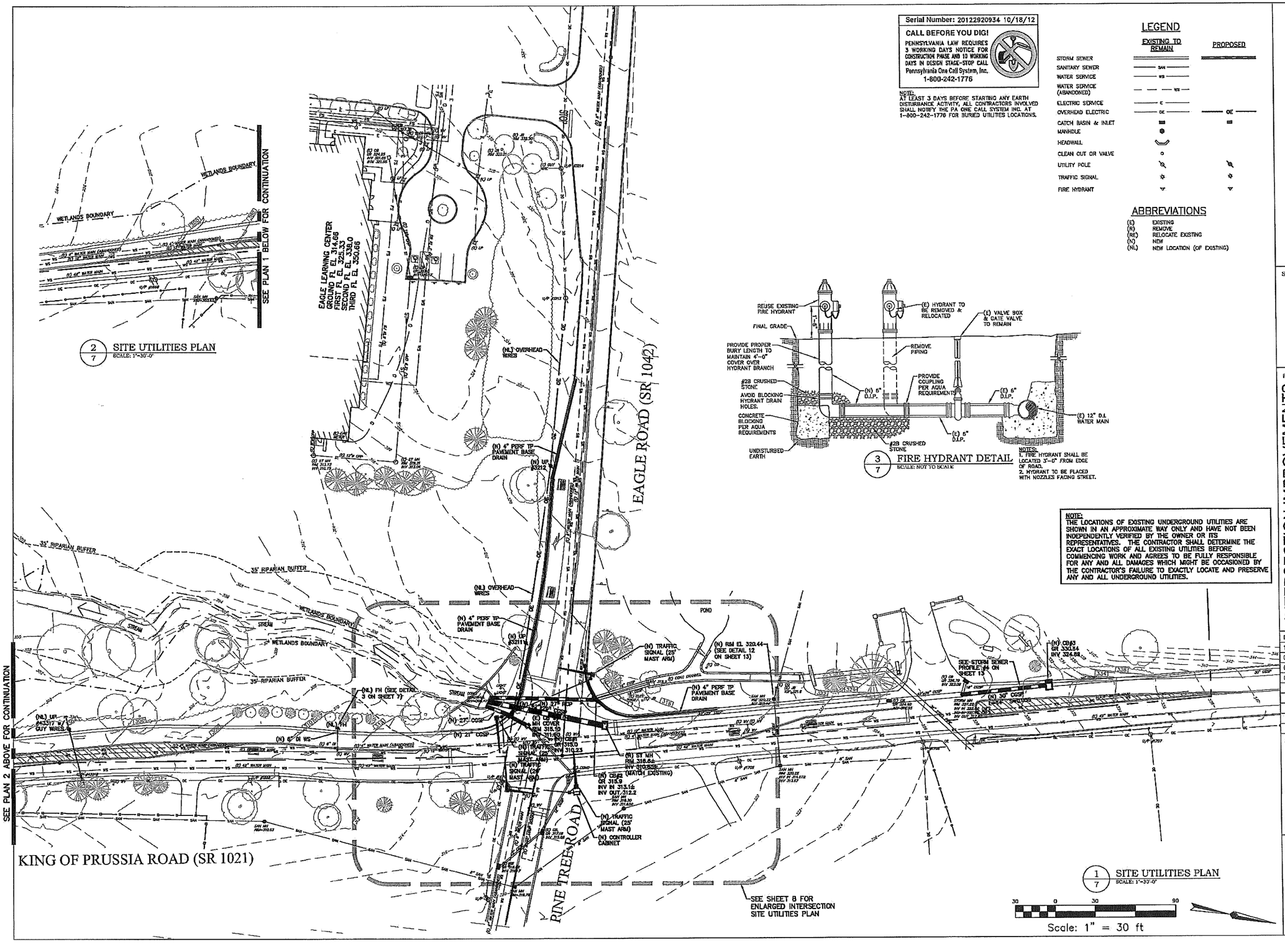
(E)	EXISTING
(R)	REMOVE
(RE)	RELOCATE EXISTING
(N)	NEW
(NL)	NEW LOCATION (OF EXISTING)

2/7 SITE UTILITIES PLAN
SCALE: 1"=30'-0"

3/7 FIRE HYDRANT DETAIL
SCALE: NOT TO SCALE

NOTES:
1. FIRE HYDRANT SHALL BE LOCATED 3'-0" FROM EDGE OF ROAD.
2. HYDRANT TO BE PLACED WITH NOZZLES FACING STREET.

NOTE:
THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVES. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATIONS OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.



1/7 SITE UTILITIES PLAN
SCALE: 1"=30'-0"

30 0 30 90
Scale: 1" = 30 ft

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PROJECT

INTERSECTION IMPROVEMENTS

EAGLE ROAD (S.R. 1042) AND
KING OF PRUSSIA ROAD (S.R. 1021)
SAINT DAVIDS, PENNSYLVANIA 19087
RADNOR TOWNSHIP, DELAWARE COUNTY

DATE	REVISION
1/19/11	H.O.P. SUBMISSION
05/17/12	H.O.P. RESUBMISSION
09/28/12	H.O.P. RESUBMISSION
03/11/13	H.O.P. RESUBMISSION

SHEET TITLE

SITE UTILITIES PLAN

DRAWN BY: BJD
CHECKED BY: KRM

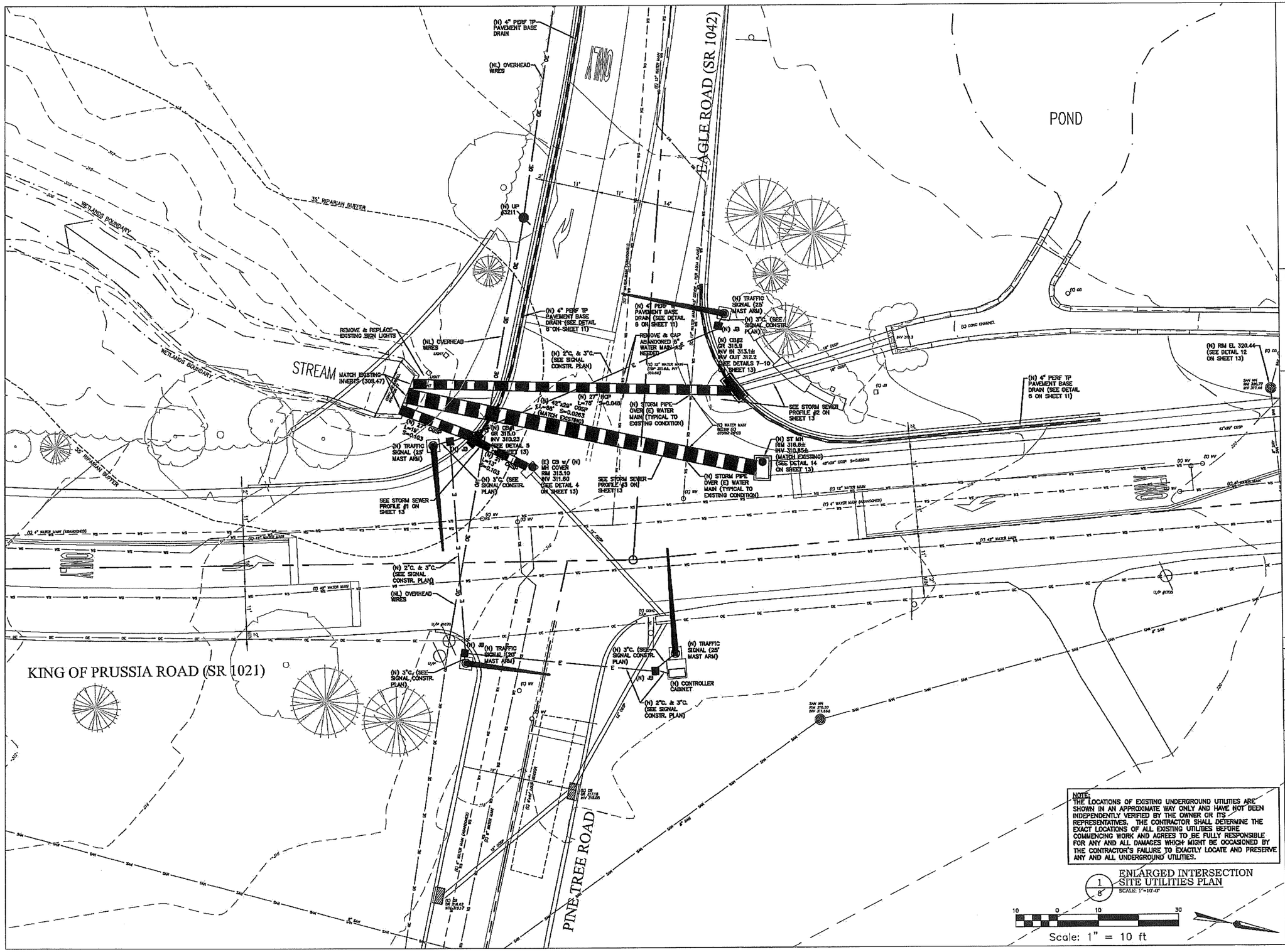
SHEET NO.

7

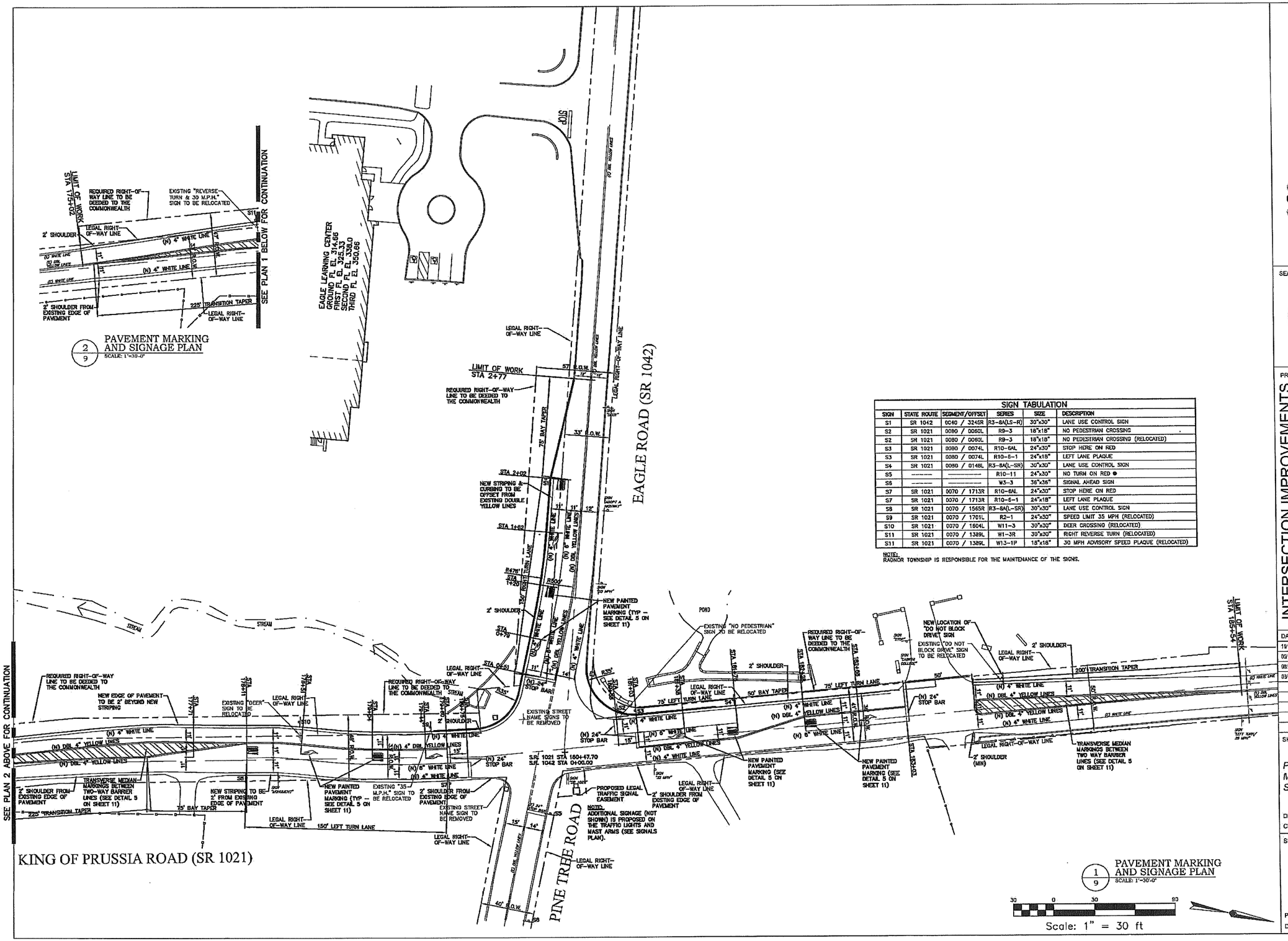
SHEET NO. 8 OF 19

PROJECT NO. 0124.057
DATE: NOVEMBER 18, 2011

Project Projects\0124.057\000-Design\Plan Set\Site Plan.dwg 3/6/2013 8:38:42 PM


EAGLE ROAD (SR 1042)
POND
STREAM
WETLANDS BOUNDARY
35' RIPARIAN BUFFER
KING OF PRUSSIA ROAD (SR 1021)
PINE TREE ROAD
(N) 4" PERF TP PAVEMENT BASE DRAIN
(NL) OVERHEAD WIRES
(N) UP #3211
REMOVE & REPLACE EXISTING SIGN LIGHTS
MATCH EXISTING INVERTS (308.47)
(N) 2"C. & 3"C. (SEE SIGNAL CONSTR. PLAN)
(N) 4" PERF TP PAVEMENT BASE DRAIN (SEE DETAIL 6 ON SHEET 11)
REMOVE & CAP ABANDONED 8" WATER MAIN AS NEEDED
(N) 27" RCP L=78' S=0.048
(N) 42"x29" RCP L=84± S=0.0263 (MATCH EXISTING)
(N) STORM PIPE OVER (E) WATER MAIN (TYPICAL TO EXISTING CONDITION)
(N) 27" CCSP S=0.103
(N) CB#1 ON 315.0 INV 310.23 (SEE DETAIL 5 ON SHEET 13)
(N) TRAFFIC SIGNAL (25' MAST ARM)
(N) 3"C. (SEE SIGNAL CONSTR. PLAN)
(N) J3
(N) CB#2 GR 313.8 INV IN 313.1± INV OUT 312.2 (SEE DETAILS 7-10 ON SHEET 13)
SEE STORM SEWER PROFILE #2 ON SHEET 13
(N) RIM EL 320.44 (SEE DETAIL 12 ON SHEET 13)
(N) 4" PERF TP PAVEMENT BASE DRAIN (SEE DETAIL 6 ON SHEET 11)
(N) ST MH RIM 316.8± INV 310.85± (MATCH EXISTING) (SEE DETAIL 14 ON SHEET 13)
(N) STORM PIPE OVER (E) WATER MAIN (TYPICAL TO EXISTING CONDITION)
(E) CB w/ (N) MH COVER RIM 315.10 INV 311.60 (SEE DETAIL 4 ON SHEET 13)
SEE STORM SEWER PROFILE #3 ON SHEET 13
SEE STORM SEWER PROFILE #1 ON SHEET 13
(N) 3"C. & 3"C. (SEE SIGNAL CONSTR. PLAN)
(N) TRAFFIC SIGNAL (25' MAST ARM)
(N) CONTROLLER CABINET
(N) 2"C. & 3"C. (SEE SIGNAL CONSTR. PLAN)
(E) 12" WATER MAIN
(E) 4" WATER MAIN (ABANDONED)
(E) 42" WATER MAIN
(E) 8" WATER MAIN
(E) 8" STORM MAIN
(E) CONC CHANNEL
(E) RCP
(E) CCSP
(E) INLET
(E) MH
(E) SAN MH
(E) SAN
(E) WV
(E) SW
(E) OC
(E) UP
(E) LIGHT
(E) J3
(E) J8
(E) J9
(E) J10
(E) J11
(E) J12
(E) J13
(E) J14
(E) J15
(E) J16
(E) J17
(E) J18
(E) J19
(E) J20
(E) J21
(E) J22
(E) J23
(E) J24
(E) J25
(E) J26
(E) J27
(E)

2/9 PAVEMENT MARKING AND SIGNAGE PLAN
SCALE: 1"=30'-0"



1/9 PAVEMENT MARKING AND SIGNAGE PLAN
SCALE: 1"=30'-0"

Scale: 1" = 30 ft

SIGN TABULATION

SIGN	STATE ROUTE	SEGMENT/OFFSET	SERIES	SIZE	DESCRIPTION
S1	SR 1042	0040 / 3245R	R3-8A(LS-R)	30"x30"	LANE USE CONTROL SIGN
S2	SR 1021	0080 / 0060L	R9-3	18"x18"	NO PEDESTRIAN CROSSING
S2	SR 1021	0080 / 0060L	R9-3	18"x18"	NO PEDESTRIAN CROSSING (RELOCATED)
S3	SR 1021	0080 / 0074L	R10-6AL	24"x30"	STOP HERE ON RED
S3	SR 1021	0080 / 0074L	R10-6-1	24"x18"	LEFT LANE PLAQUE
S4	SR 1021	0080 / 0148L	R3-8A(L-SR)	30"x30"	LANE USE CONTROL SIGN
S5	———	———	R10-11	24"x30"	NO TURN ON RED ●
S6	———	———	W5-3	36"x36"	SIGNAL AHEAD SIGN
S7	SR 1021	0070 / 1713R	R10-6AL	24"x30"	STOP HERE ON RED
S7	SR 1021	0070 / 1713R	R10-6-1	24"x18"	LEFT LANE PLAQUE
S8	SR 1021	0070 / 1565R	R3-8A(L-SR)	30"x30"	LANE USE CONTROL SIGN
S9	SR 1021	0070 / 1701L	R2-1	24"x30"	SPEED LIMIT 35 MPH (RELOCATED)
S10	SR 1021	0070 / 1604L	W11-3	30"x30"	DEER CROSSING (RELOCATED)
S11	SR 1021	0070 / 1389L	W1-3R	30"x30"	RIGHT REVERSE TURN (RELOCATED)
S11	SR 1021	0070 / 1389L	W13-1P	18"x18"	30 MPH ADVISORY SPEED PLAQUE (RELOCATED)

NOTE:
RADNOR TOWNSHIP IS RESPONSIBLE FOR THE MAINTENANCE OF THE SIGNS.

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PROJECT

INTERSECTION IMPROVEMENTS

EAGLE ROAD (S.R. 1042) AND
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SHEET TITLE

PAVEMENT MARKING AND SIGNAGE PLAN

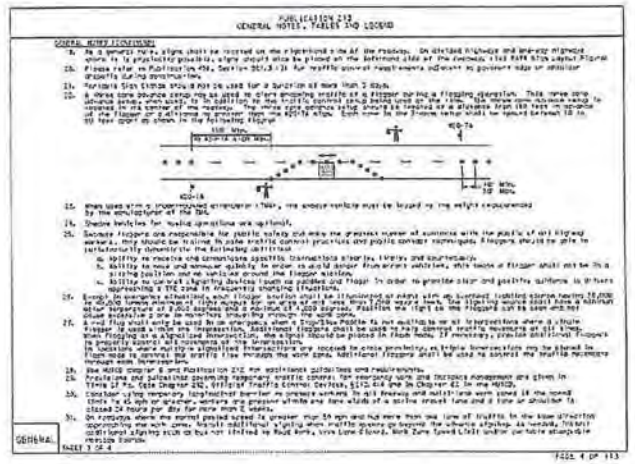
DRAWN BY: BJD
CHECKED BY: KRM

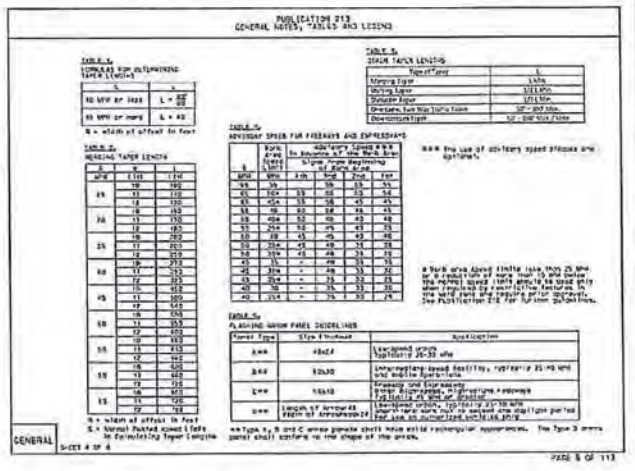
SHEET NO.

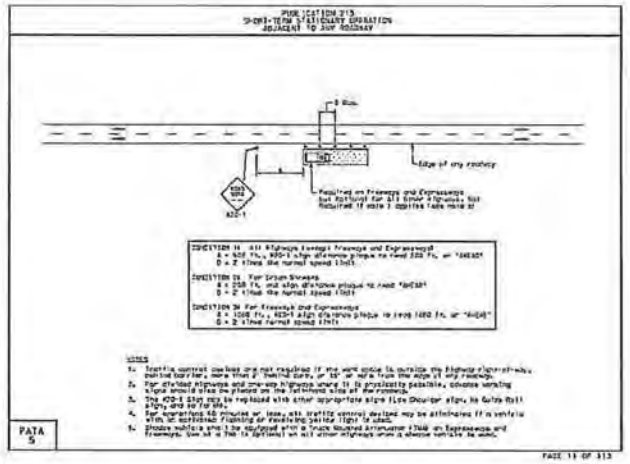
9

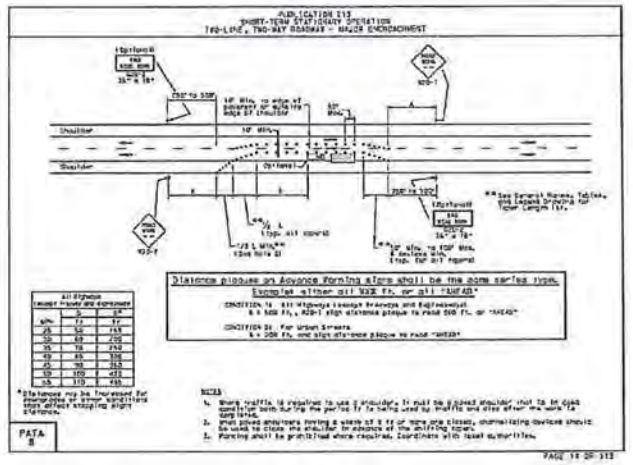
SHEET NO. 10 OF 19

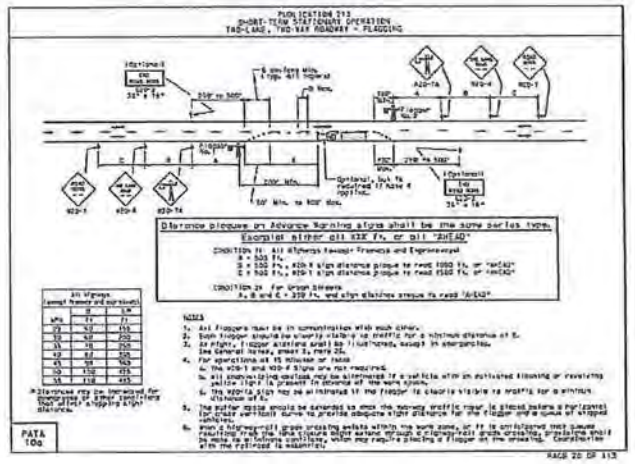
PROJECT NO. 0124.057
DATE: NOVEMBER 18, 2011

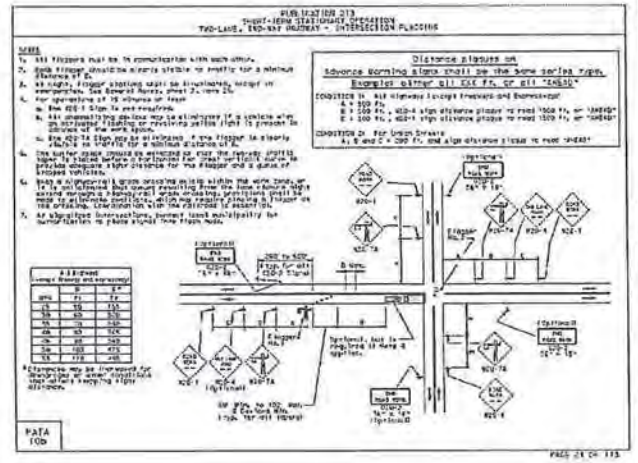


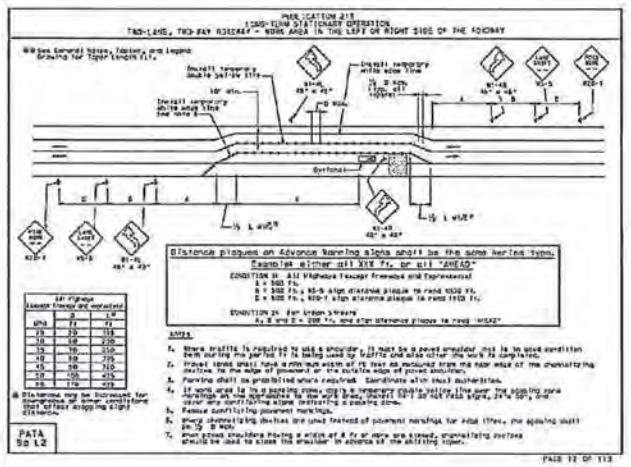


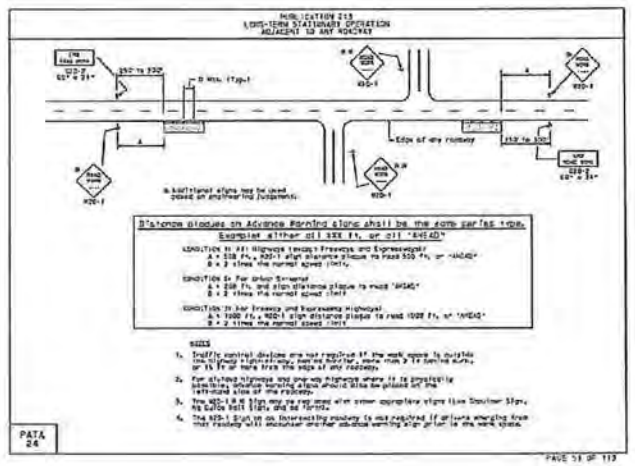


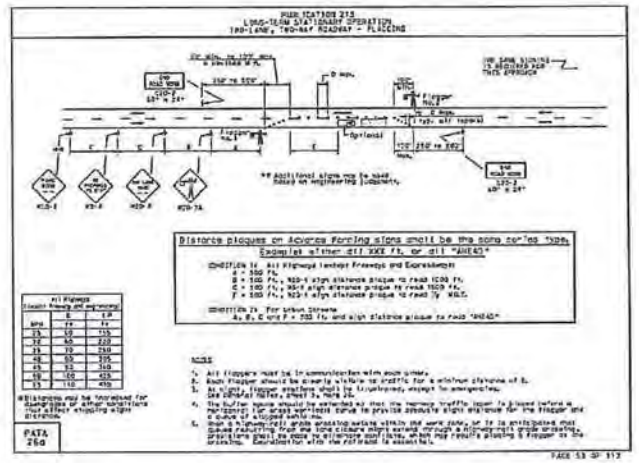


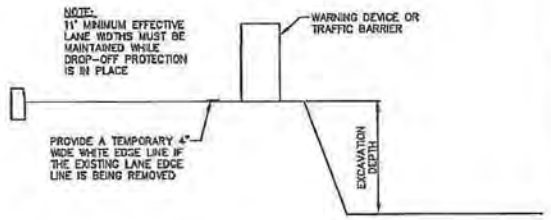












1/10 PAVEMENT DROP-OFF/SAFETY SLOPE PROTECTION DETAIL
SCALE: NOT TO SCALE

NOTES:
1. Maintenance and Protection of Traffic during construction shall be in accordance with applicable figures PATA 5, 8, 10a, 10b, Sal.2, 24, and 26a in PennDOT Publication 213, "Work Zone Traffic Control Guidelines", as amended April 1, 2010, and Title 67 PA Code, Chapter 212, "Official Traffic Control Devices", dated February 4, 2008 or most current.
2. No traffic restrictions or lane closures are permitted between the hours of 6:00AM to 9:00AM and 3:00PM to 6:00PM, Monday through Friday and legal holidays.
3. The contractor must notify the District 6-0 Traffic Management Center (TMC) two (2) days in advance of any proposed lane or shoulder restrictions or road closures, and fifteen (15) minutes prior to the start of work. The contractor must notify the TMC when the road is restored to normal operation. The TMC phone number is (610) 205-6934.
4. The contractor must notify Gene Blaum of the District 6-0 Press Office at (610) 205-6800 two (2) weeks in advance of any significant lane closures of detours.
5. The local municipality must be notified when a signalized intersection falls within the work zone. A signalized intersection must not be flagged without the municipality placing the signal on flash.
6. The contractor shall limit disruption to pedestrian facilities during the proposed construction and at provide alternative pedestrian routes when extended disruption to the pedestrian facilities cannot be avoided.
7. Access to all driveways must be maintained at all times.
8. All workers shall wear safety apparel as set forth in Title 23 of the Code of Federal Regulations (CFR) Part 634 effective November 24, 2008.

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27492-E

PROJECT

INTERSECTION IMPROVEMENTS

EAGLE ROAD (S.R. 1042) AND
KING OF PRUSSIA ROAD (S.R. 1021)

SAINT DAVIDS, PENNSYLVANIA 19087
RADNOR TOWNSHIP, DELAWARE COUNTY

DATE	REVISION
11/16/11	H.O.P. SUBMISSION
02/17/12	H.O.P. RESUBMISSION
08/28/12	H.O.P. RESUBMISSION
03/11/13	H.O.P. RESUBMISSION

SHEET TITLE

TYPICAL TRAFFIC CONTROL PLANS AND DETAILS

DRAWN BY: BJD
CHECKED BY: KRM

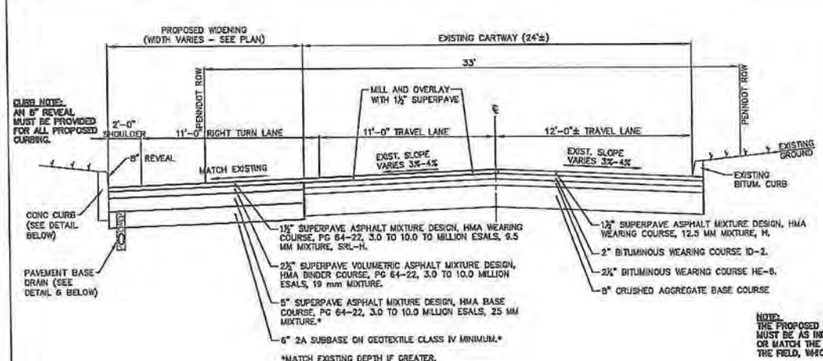
SHEET NO.

10

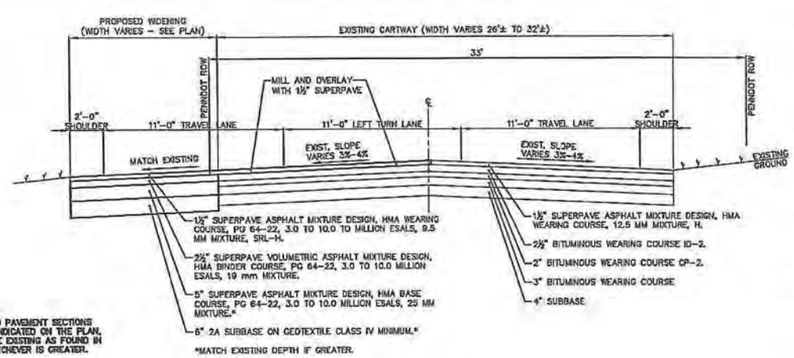
SHEET NO. 11 OF 10

PROJECT NO. 0124.057
DATE: NOVEMBER 18, 2011

H:\AEC_Projects\2012\0124.057 - Work Zone Traffic Control Details.dgn 3/7/2012 11:50:06 PM

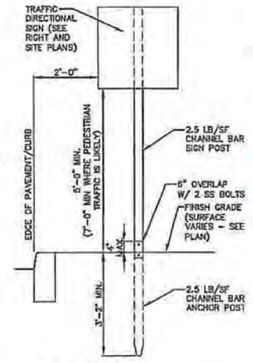


1/11 S.R. 1042 SECTION
SCALE: H: 1/4"=1'-0"; V: 1/2"=1'-0"

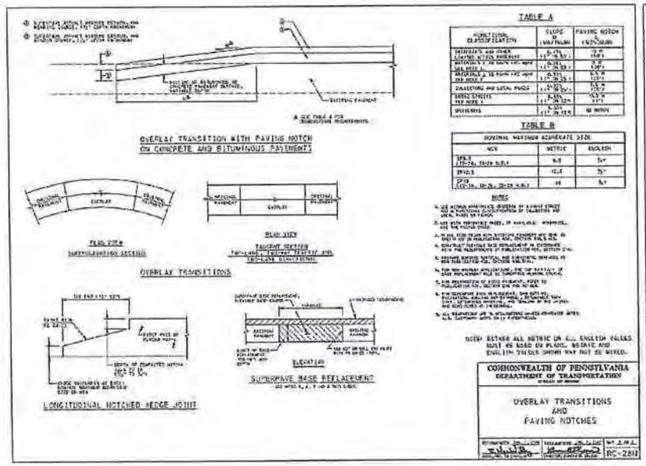


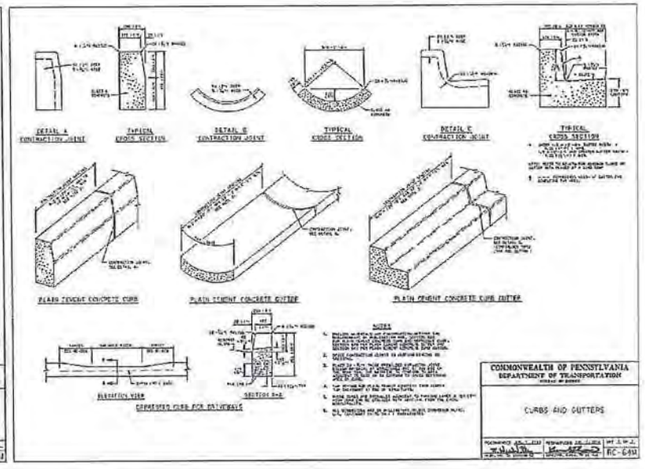
NOTE:
THE PROPOSED PAVEMENT SECTIONS MUST BE AS INDICATED ON THE PLAN, OR MATCH THE EXISTING AS FOUND IN THE FIELD, WHICHEVER IS GREATER.

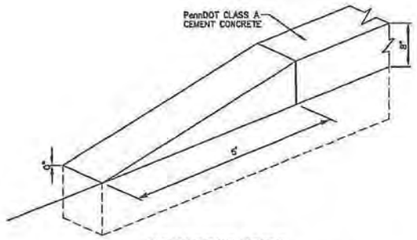
2/11 S.R. 1021 SECTION
SCALE: H: 1/4"=1'-0"; V: 1/2"=1'-0"



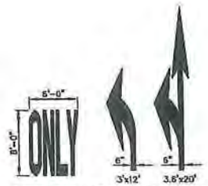
3/11 TYPICAL SIGN POST DETAIL
SCALE: 1/2"=1'-0"





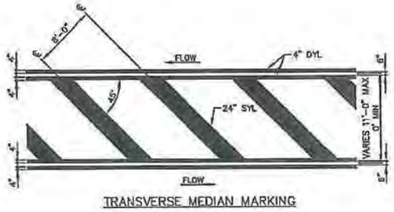


4/11 CONCRETE CURB END TREATMENT DETAIL
SCALE: NOT TO SCALE

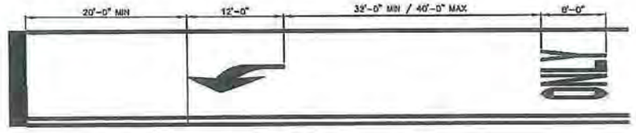


PAVEMENT LEGENDS/FLOW ARROWS

NOTES:
1. STANDARD LETTERS ARE 6' HIGH AND 16" WIDE.
2. VERTICAL LETTER STROKES ARE 4" WIDE. HORIZONTAL STROKES ARE 16" HIGH.
3. SPACE 4" (MIN.) BETWEEN LETTERS OR AS OTHERWISE SHOWN (OPTICAL SPACING MAY BE USED).

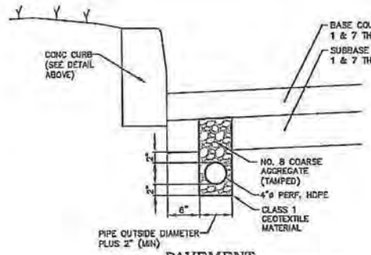


TRANSVERSE MEDIAN MARKING

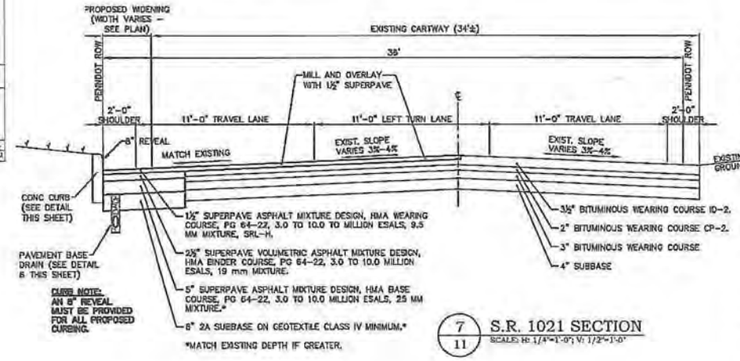


PAVEMENT LEGEND SPACING

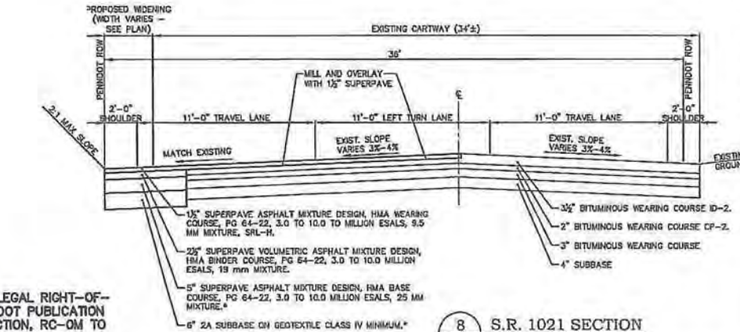
5/11 PAINTED PAVEMENT MARKINGS
SCALE: 1/8"=1'-0"



6/11 PAVEMENT BASE DRAIN SECTION
SCALE: 1"=1'-0"



7/11 S.R. 1021 SECTION
SCALE: H: 1/4"=1'-0"; V: 1/2"=1'-0"



8/11 S.R. 1021 SECTION
SCALE: H: 1/4"=1'-0"; V: 1/2"=1'-0"

NOTE:
ALL WORK PERFORMED WITHIN THE STATE LEGAL RIGHT-OF-WAY MUST BE IN ACCORDANCE WITH PENNDOT PUBLICATION 72M, STANDARDS FOR ROADWAY CONSTRUCTION, RC-0M TO 100M, AS AMENDED.

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PROJECT
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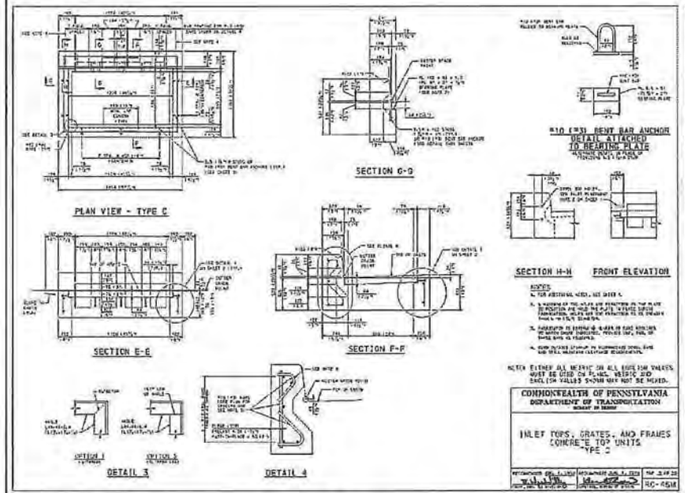
03/11/13	H.O.P. RESUBMISSION

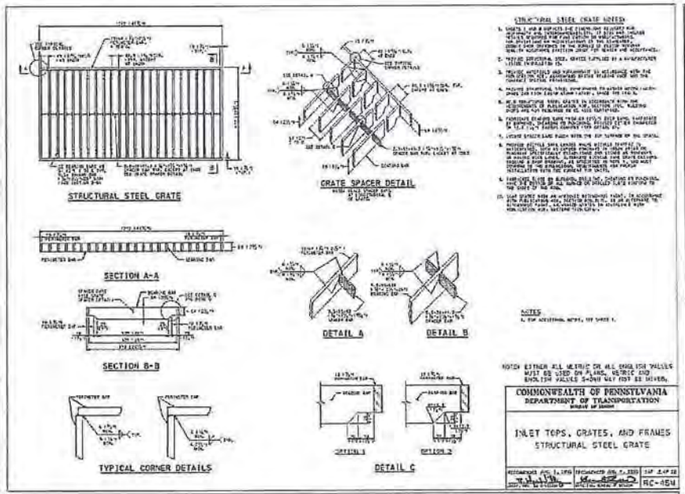
SHEET TITLE
PENNDOT SITE DETAILS

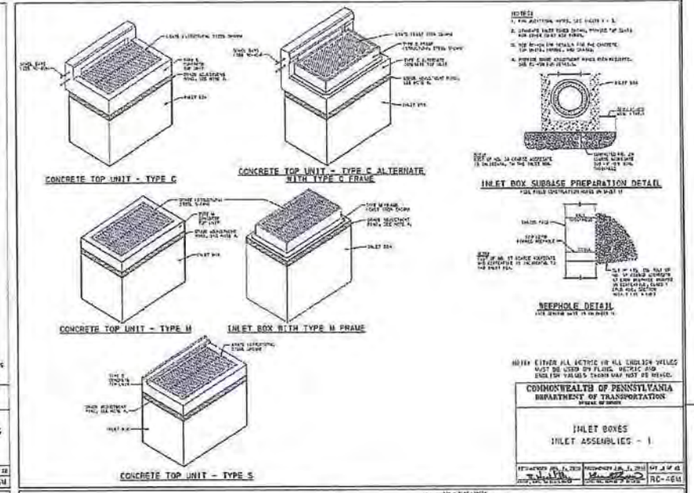
DRAWN BY: BJD
CHECKED BY: KRM

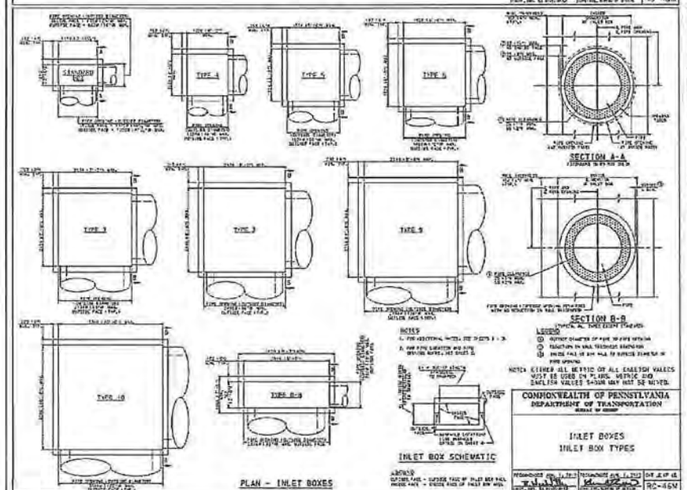
SHEET NO.
11
SHEET NO. 12 OF 19

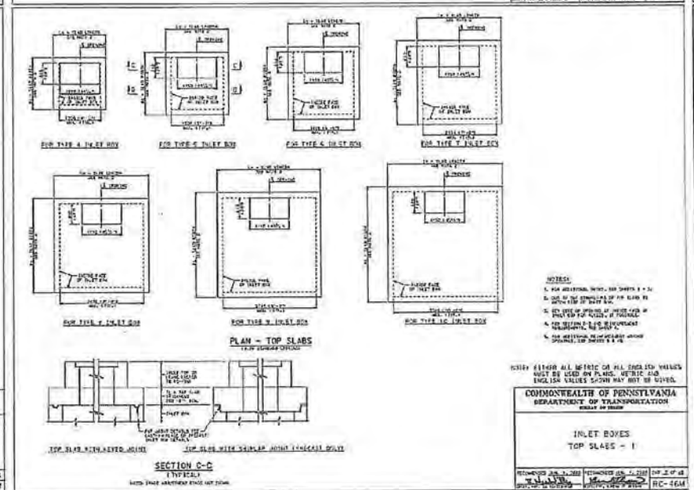
PROJECT NO. 0124.057
DATE: NOVEMBER 18, 2011

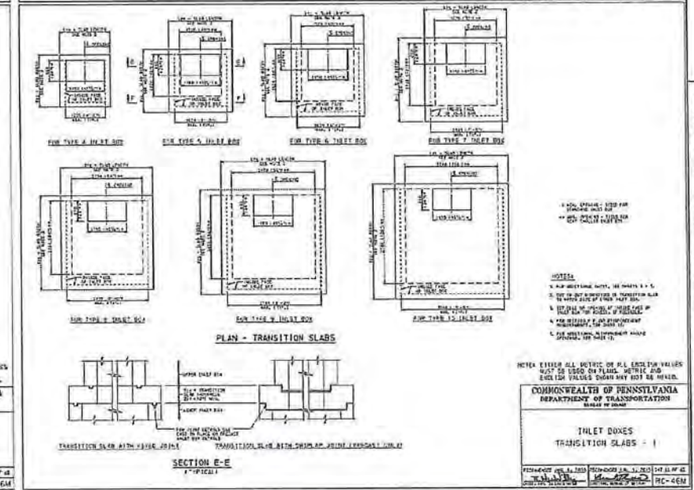


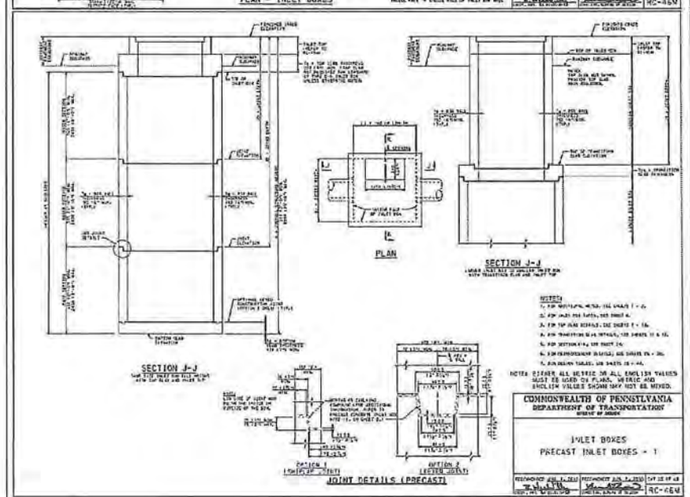


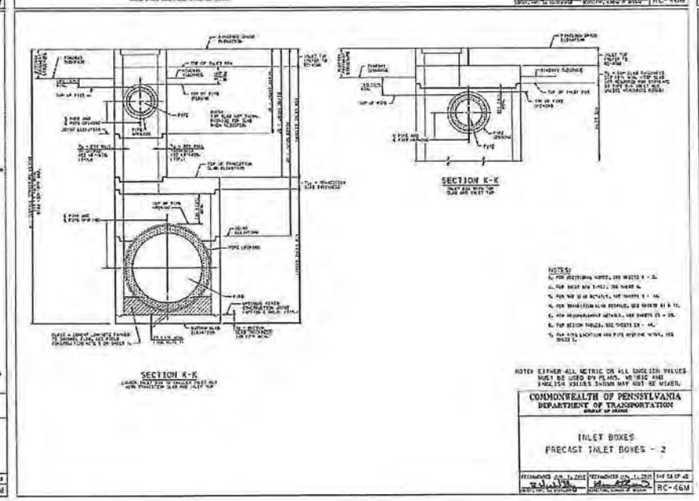


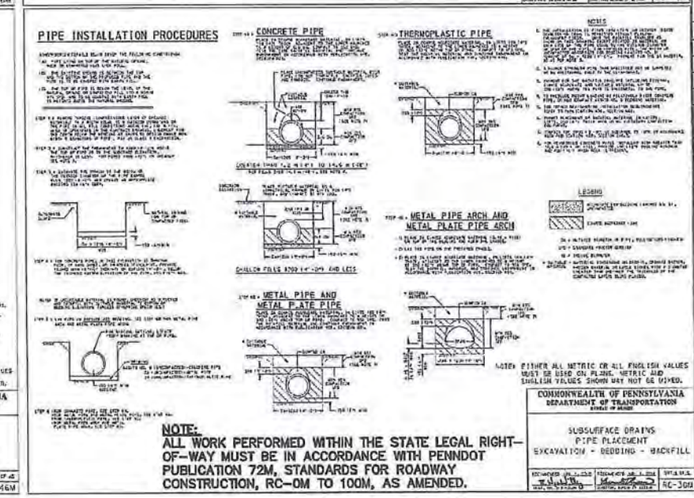












NOTE:
ALL WORK PERFORMED WITHIN THE STATE LEGAL RIGHT-OF-WAY MUST BE IN ACCORDANCE WITH PENNDOT PUBLICATION 72M, STANDARDS FOR ROADWAY CONSTRUCTION, RC-0M TO 100M, AS AMENDED.

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27452-E
PENNSYLVANIA

PROJECT

INTERSECTION IMPROVEMENTS

EAGLE ROAD (S.R. 1042) AND
KING OF PRUSSIA ROAD (S.R. 1021)
SAINT DAVIDS, PENNSYLVANIA 19087
RADNOR TOWNSHIP, DELAWARE COUNTY

DATE	REVISION
11/19/11	H.O.P. SUBMISSION
05/17/12	H.O.P. RESUBMISSION
08/28/12	H.O.P. RESUBMISSION
03/11/13	H.O.P. RESUBMISSION

SHEET TITLE

PENNDOT STORM SEWER DETAILS

DRAWN BY: BJD
CHECKED BY: KRM

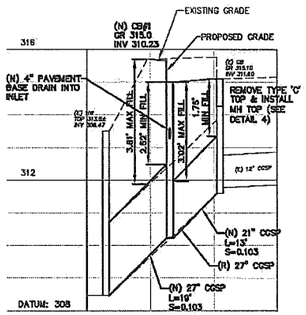
SHEET NO.

12

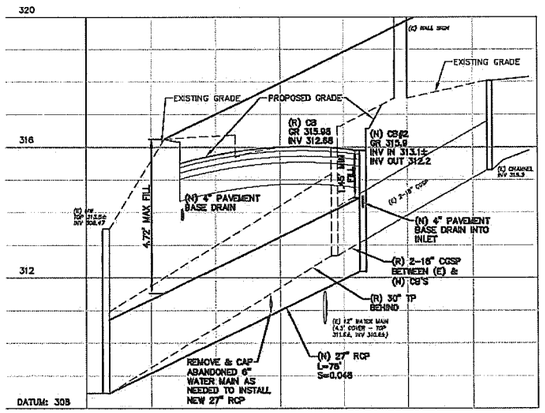
SHEET NO. 13 OF 19

PROJECT NO. 0124.057
DATE: NOVEMBER 18, 2011

I:\aec_Projects\0124.057\Dwg\12 Penndot Utility Details.dwg, 3/6/2013 1:56:16 PM



1 / 13 STORM SEWER PROFILE #1
SCALE: H: 1"=20'; V: 1"=2'



2 / 13 STORM SEWER PROFILE #2
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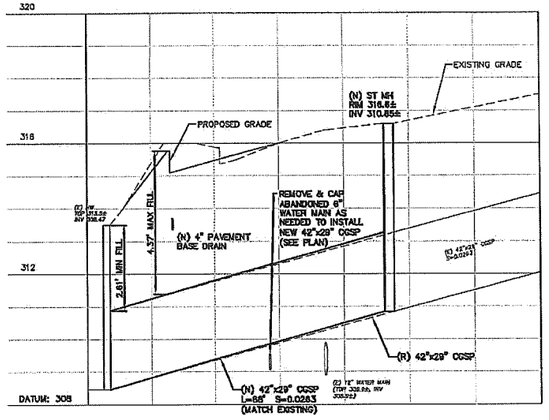
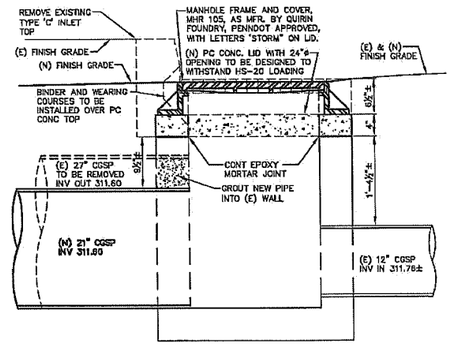


3 / 13 STORM SEWER PROFILE #3
SCALE: H: 1"=20'; V: 1"=2'

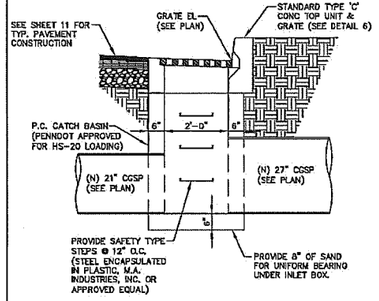


4 / 13 TYPE 'C' CATCH BASIN MODIFICATION DETAIL
SCALE: 1"=1'-0"

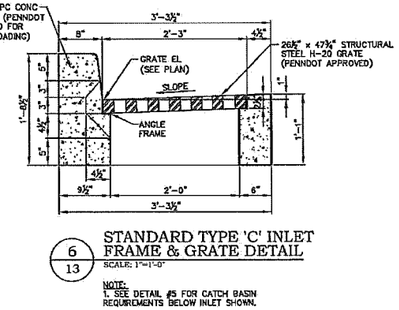
INLET & CATCH BASIN SCHEDULE

C.B. NO.	INLET BOX MIN. SIZE	INLET BOX DETAIL	GRATE SIZE	FRAME & GRATE DETAIL	FRAME & GRATE MFR.	FRAME & GRATE CAT. NO.	REMARKS
CB#1	24"x43 1/4"	5	25⅞"x47⅜"	9	CAMPBELL	TYPE 'C'	
CB#2	24"x72"	7-10	25⅞"x74½"	11	CAMPBELL	TYPE 'C'	
CB#3	48"x78"	16	26⅝"x47⅜"	15	CAMPBELL	TYPE 'S'	

NOTE:
1. FOR CB LOCATIONS, SEE PLAN DRAWINGS.

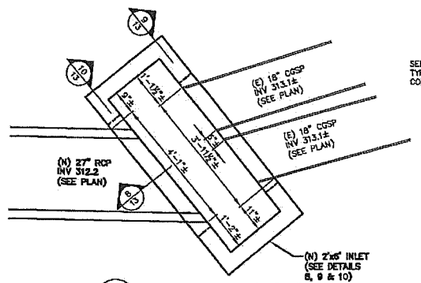


5 / 13 CATCH BASIN #1 SECTION
SCALE: 1/2"=1'-0"

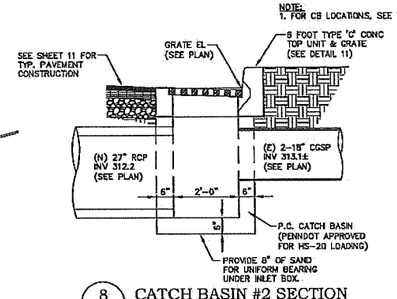


6 / 13 STANDARD TYPE 'C' INLET FRAME & GRATE DETAIL
SCALE: 1"=1'-0"

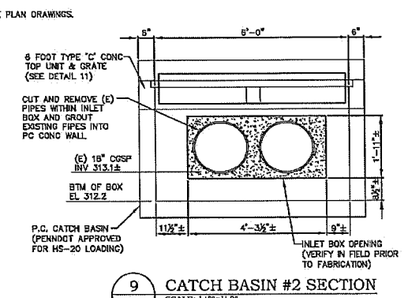
NOTE:
1. SEE DETAIL #5 FOR CATCH BASIN REQUIREMENTS BELOW INLET SHOWN.



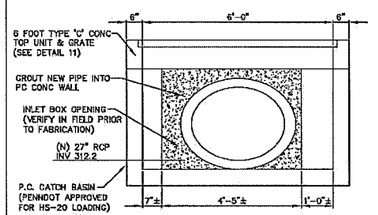
7 / 13 CATCH BASIN #2 PLAN
SCALE: 1/2"=1'-0"



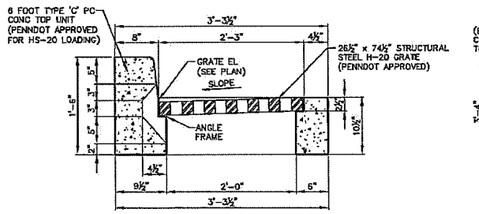
8 / 13 CATCH BASIN #2 SECTION
SCALE: 1/2"=1'-0"



9 / 13 CATCH BASIN #2 SECTION
SCALE: 1/2"=1'-0"

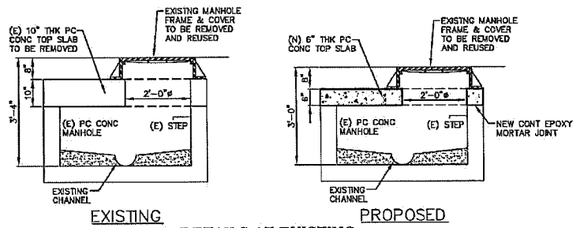


10 / 13 CATCH BASIN #2 SECTION
SCALE: 1/2"=1'-0"

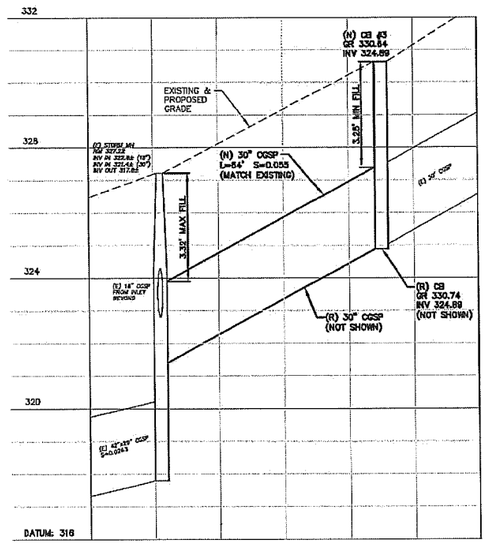


11 / 13 6 FOOT TYPE 'C' INLET FRAME & GRATE DETAIL
SCALE: 1"=1'-0"

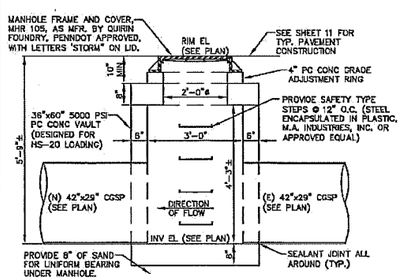
NOTE:
1. SEE DETAILS #7-10 FOR CATCH BASIN REQUIREMENTS BELOW INLET SHOWN.



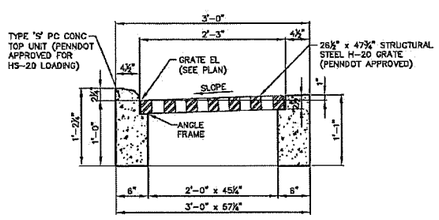
12 / 13 DETAILS AT EXISTING SANITARY MANHOLE
SCALE: 1/2"=1'-0"



13 / 13 STORM SEWER PROFILE #4
SCALE: H: 1"=20'; V: 1"=2'

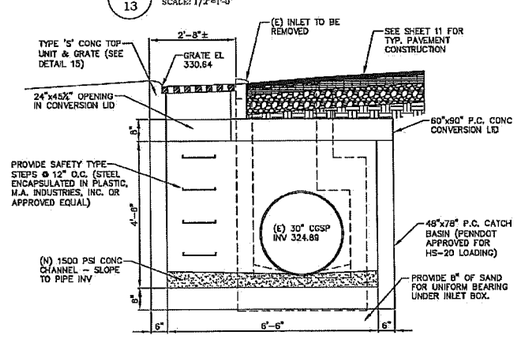


14 / 13 STORM MANHOLE DETAIL
SCALE: 1/2"=1'-0"



15 / 13 TYPE 'S' INLET FRAME & GRATE DETAIL
SCALE: 1"=1'-0"

NOTE:
1. SEE DETAIL #__ FOR CATCH BASIN REQUIREMENTS BELOW INLET SHOWN.



16 / 13 CATCH BASIN #3 SECTION
SCALE: 1/2"=1'-0"

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DAVID C. BRANDT
ENGINEER
27452-E

PROJECT

INTERSECTION IMPROVEMENTS

EAGLE ROAD (S.R. 1042) AND
KING OF PRUSSIA ROAD (S.R. 1021)
SAINT DAVIDS, PENNSYLVANIA 19087
RADNOR TOWNSHIP, DELAWARE COUNTY

DATE	REVISION
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05/17/12	H.O.P. RESUBMISSION
08/28/12	H.O.P. RESUBMISSION
03/11/13	H.O.P. RESUBMISSION

SHEET TITLE

STORM SEWER PROFILES AND SITE UTILITY DETAILS

DRAWN BY: BJD
CHECKED BY: KRM

SHEET NO.

13

SHEET NO. 14 OF 19

PROJECT NO. 0124.057
DATE: NOVEMBER 18, 2011

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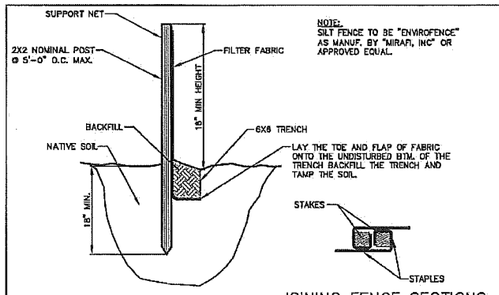
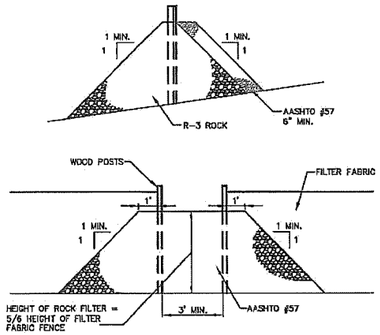


1/14 SILT FENCE DETAIL
SCALE: NOT TO SCALE

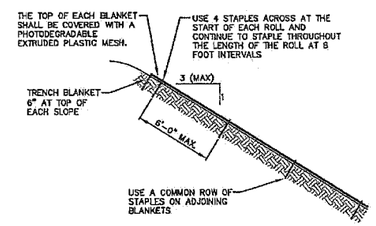
(LOCATION SHOWN THUS ——— ON SHEET 3)

NOTES:
1. SILT FENCE SHALL NOT BE REMOVED UNTIL A 70% UNIFORM COVERAGE OF PERMANENT VEGETATION IS ESTABLISHED.
2. SEDIMENT MUST BE REMOVED WHERE ACCUMULATIONS REACH 1/2 THE ABOVE GROUND HEIGHT OF SILT FENCING.
3. LOCATION SHOWN THUS ——■——■——■—— ON PLAN.



2/14 ROCK FILTER OUTLET
SCALE: NOT TO SCALE

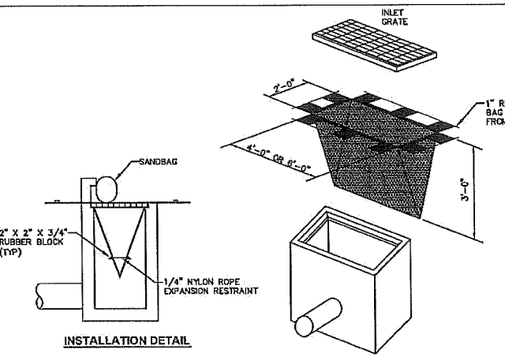
NOTE:
TO BE INSTALLED WHERE SILT FENCE HAS BEEN OVERSTRESSED BY SEDIMENT BUILD UP.



3/14 TYPICAL CURLEX BLANKET INSTALLATION DETAIL
SCALE: NOT TO SCALE

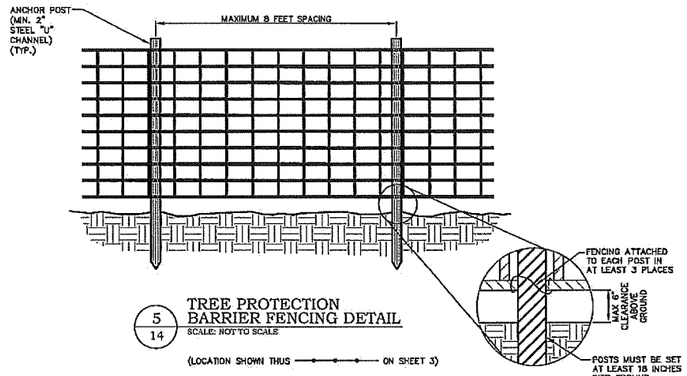
(LOCATION SHOWN THUS ▨ ON SHEET 3)

NOTES:
1. PROVIDE CURLEX BLANKET AS MANUFACTURED BY AMERICAN EXCELSIOR COMPANY, OR APPROVED EQUAL.
2. INSTALL ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.
3. EACH EDGE OF FABRIC IS TO OVERLAP 6" MIN.
4. ALL STAPLES SHALL BE MADE OF WIRE, 0.091" IN DIAMETER OR GREATER, "U" SHAPED WITH LEGS 6" IN LENGTH AND A 1" CROWN.



4/14 TEMPORARY ROADWAY TYPE 'C' INLET FILTER BAG DETAIL
SCALE: NOT TO SCALE

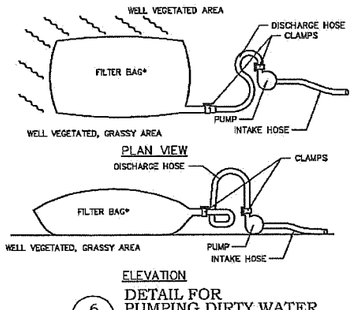
NOTES:
1. INSPECT INLET FILTER BAG AFTER EACH RUNOFF EVENT. MAINTAIN AS REQUIRED TO ENSURE PROPER FUNCTIONING OF THE BAG.
2. REMOVE ACCUMULATED SEDIMENT/DEBRIS WHEN THE INLET FILTER REACHES ONE-HALF MAXIMUM CAPACITY.
3. REPLACE FILTER BAG IF RIPPED OR TORN.
4. USE SANDBAGS AT TYPE C INLET CURB OPENINGS TO PREVENT BYPASS FLOW.
5. REMOVE AND PROPERLY DISPOSE OF INLET FILTER BAG WHEN NO LONGER NEEDED.



5/14 TREE PROTECTION BARRIER FENCING DETAIL
SCALE: NOT TO SCALE

(LOCATION SHOWN THUS ——•——•—— ON SHEET 3)

NOTES:
1. PROTECTION BARRIER SHALL BE 4 FEET HIGH, CONSTRUCTED OF DURABLE AND HIGHLY VISIBLE MATERIAL (PLASTIC ORANGE CONSTRUCTION FENCE AND SNOW FENCE MAY BE USED).
2. PROTECTION BARRIERS SHALL BE MAINTAINED THROUGHOUT THE DURATION OF THE WORK AT THE SITE.
3. ADDITIONAL WARNING SIGNS SHOULD ALSO BE PLACED ON THE FENCING AND IN APPROPRIATE AREAS NEAR THE WORK ZONE.
4. TREE PROTECTION FENCE SHALL BE INSPECTED & MAINTAINED BY THE CONTRACTOR AT THE END OF EVERY DAY FOR THE DURATION OF THE PROJECT. THE FENCE SHALL BE REPAIRED WHERE NECESSARY.



6/14 DETAIL FOR PUMPING DIRTY WATER
SCALE: NOT TO SCALE

FILTER BAG NOTES:
1. FILTER BAGS SHALL BE MADE FROM NON-WOVEN GEOTEXTILE MATERIAL SEWN WITH HIGH STRENGTH, DOUBLE STITCHED "J" TYPE SEAMS. THEY SHALL BE CAPABLE OF TRAPPING PARTICLES LARGER THAN 150 MICRONS.
2. A SUITABLE MEANS OF ACCESSING THE BAG WITH MACHINERY REQUIRED FOR DISPOSAL PURPOSES MUST BE PROVIDED. FILTER BAGS SHALL BE REPLACED WHEN THEY BECOME HALF FULL. SPARE BAGS SHALL BE KEPT AVAILABLE FOR REPLACEMENT OF THOSE THAT HAVE FAILED OR ARE FILLED.
3. BAGS SHALL BE LOCATED IN A WELL-VEGETATED (GRASSY) AREA, AND DISCHARGE ONTO STABLE, EROSION RESISTANT AREAS. WHERE THIS IS NOT POSSIBLE, A GEOTEXTILE FLOW PATH SHALL BE PROVIDED. GEOTEXTILE TO BE MIRAMAT EROSION CONTROL/REVEGETATION MAT, STYLE TM8 AS MANUFACTURED BY TC MIRAFI, INC., OR APPROVED EQUAL. INSTALL AS PER MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS. BAGS SHALL NOT BE PLACED ON SLOPES GREATER THAN 5%.
4. THE PUMP DISCHARGE HOSE SHALL BE INSERTED INTO THE BAGS IN THE MANNER SPECIFIED BY THE MANUFACTURER AND SECURELY CLAMPED.
5. THE PUMPING RATE SHALL BE NO GREATER THAN 750 GPM OR HALF THE MAXIMUM SPECIFIED BY THE MANUFACTURER, WHICHEVER IS LESS. PUMP INTAKES SHOULD BE FLOATING AND SCREENED.
6. FILTER BAGS SHALL BE INSPECTED DAILY. IF ANY PROBLEM IS DETECTED, PUMPING SHALL CEASE IMMEDIATELY AND NOT RESUME UNTIL THE PROBLEM IS CORRECTED.
7. INSTALL PUMP AT FIRST SIGN OF PONDING WATER.

FILL MATERIAL NOTES:

If the site will need to import or export material from the site, the responsibility for performing environmental due diligence and determination of clean fill will rest with the General Contractor.

DEFINITIONS:

Clean Fill is defined as: Uncontaminated, non-water soluble, non-decomposable, inert, solid material. The term includes soil, rock, stone, dredged material, used asphalt, and brick, block or concrete from construction and demolition activities that is separate from other waste and is recognizable as such. The term does not include materials placed in or on the waters of the Commonwealth unless otherwise authorized. (The term "used asphalt" does not include milled asphalt or asphalt that has been processed for re-use).

Clean Fill affected by a spill or release of a regulated substance: Fill materials affected by a spill or release of a regulated substance still qualifies as clean fill provided the testing reveals that the fill material contains concentrations of regulated substances that are below the residential limits in Tables FP-1a and FP-1b found in the Department's policy "Management of Fill".

Any person placing clean fill that has been affected by a spill or release of a regulated substance must use form FP-001 to certify the origin of the fill material and the results of the analytical testing to qualify the material as clean fill. Form FP-001 must be retained by the owner of the property receiving the fill. A copy of Form FP-001 can be found at the end of these instructions.

Environmental due diligence: The applicant must perform environmental due diligence to determine if the fill materials associated with the project qualify as clean fill. Environmental due diligence is defined as: Investigative techniques, including, but not limited to, visual property inspections, electronic data base searches, review of property ownership, review of property use history, Sanborn maps, environmental questionnaires, transaction screens, analytical testing, environmental assessments or audits. **Analytical testing is not a required part of due diligence unless visual inspection and/or review of the past land use of the property indicates that the fill may have been subjected to a spill or release of regulated substance.** If the fill may have been affected by a spill or release of a regulated substance, it must be tested to determine if it qualifies as clean fill. Testing should be performed in accordance with Appendix A of the Department's policy "Management of Fill".

NOTE:
Fill material that does not qualify as clean fill is regulated fill. Regulated fill is waste and must be managed in accordance with the Department's municipal or residual waste regulations based on 25 Pa. Code Chapters 287 Residual Waste Management or 271 Municipal Waste Management, whichever is applicable. These regulations are available on-line at www.pacode.com.

UTILITY LINE TRENCH EXCAVATION

1. Limit advanced clearing and grubbing operations to a distance equal to two times the length of the pipe installation that can be completed in one day.
2. Work crews and equipment for trenching, pipe installation and backfilling shall be self-contained and separate from clearing, grubbing, site restoration and stabilization operations.
3. All soil excavated from the trench shall be placed on the uphill side of the trench.
4. Limit daily trench excavation to the length of pipe placement and backfilling that can be completed that same day.
5. Water which accumulates in the open trench shall be completely removed by pumping before pipe placement and/or backfilling begins. Water removed from the trench shall be pumped through a filtration device.
6. On the day following pipe placement and backfilling, the disturbed area shall be graded to final contours and appropriate temporary erosion and sediment pollution control measures/facilities shall be installed. Stabilization shall be done immediately after the backfilling is complete.

EROSION AND SEDIMENTATION CONTROL CONSTRUCTION NOTES:

1. SILT FENCE: Silt fences shall be installed downslope of all areas to be disturbed before any work begins. Silt fence shall be installed as near as possible to the locations shown on the plan. Installation shall be as follows:
   a. Silt fencing must be installed parallel to existing contours or constructed level alignments. Both ends of each fence section must be extended at least 8 feet upslope at 45 degrees to the main fence alignment.
   b. Dig a 6" deep trench along the upslope side of the fence line.
   c. Install fence posts 18" below the ground surface at 8' maximum intervals on a slight angle toward the anticipated runoff source.
   d. Stretch and fasten filter fabric to the upslope side of the support stakes. Wherever reinforced fabric fence is installed, the reinforcement mesh shall be fastened to the stakes prior to the fabric.
   e. At fabric ends, both ends should be wrapped around the support stake and stapled. If the fabric comes already attached to the stakes, the end stakes shall be held together while the fabric is wrapped around the stakes at least one revolution prior to driving the stakes.
   f. The bottom of the fence shall be anchored by placing the fabric in the bottom of the trench, and backfilling and compacting the fill material in the trench.
   g. Guy wires shall be attached to reinforced silt fence. An acceptable alternative is to stake straw bales on the downslope side of the fence.
   h. Silt fence shall be inspected weekly and after each runoff event. Needed repairs shall be performed immediately after the inspection. Damaged fences shall be immediately replaced. Rock filter outlets shall be installed where fences have become overstressed due to sediment build up.
2. Stormwater inlets must be protected until the tributary areas are stabilized.
3. STRUCTURAL AND CONSTRUCTION FILL: In all areas where structural or construction fill is to be placed, "grubbing" shall be carried out prior to placing any fill. All trees, brush and other vegetation within the construction fill areas shall be removed from the site.
4. DUST CONTROL: To minimize dust generation on-site, the contractor shall wet construction traffic routes and staging areas.
5. TEMPORARY VEGETATION BY SITE CONTRACTOR: Upon completion of an earth disturbance activity or any phase of an earth disturbance activity, the site shall be immediately seeded, mulched or otherwise protected from accelerated erosion and sedimentation. Temporary seeding shall be as follows:
   1. Lime shall be evenly broadcast @ 190 lbs/1,000 sq. ft. (or as per soil test).
   2. 10-25-25 Basic Fertilizer shall be evenly broadcast at the rate of 25 lbs/1,000 sq. ft.
   3. Seed with annual ryegrass at a rate of 1 lb/1,000 sq. ft.

   If the season prevents the establishment of a temporary vegetative cover, the disturbed areas will be mulched with straw, or equivalent material, at a rate of 140 pounds per 1000 square feet. Mulch should be applied regardless of the time of year.
6. EXISTING ROADWAY CLEANING: Contractor shall maintain a clean approach to the site. If the dirt and/or debris builds up on existing asphalt surfaces, the site contractor shall professionally clean that surface to the satisfaction of the authority having jurisdiction.
7. Inlet protection shall be applied, as detailed on the plan, to every inlet which has been constructed to the roadway subbase elevation.
8. Pollutants such as fuels, lubricants, bitumens, raw sewage and other harmful materials shall not be discharged into or near rivers, streams and impoundments or into natural or manmade channels leading thereto.

PERMANENT VEGETATION BY CONTRACTOR:

GRADING AND SUB-SOIL PREPARATION

All areas that will receive permanent vegetation, such as, but not limited to, turf and planting beds, shall be prepared in the following manner:

A. Sub soils shall be native material free from any construction debris, stones larger than 3", organic material such as wood or dead plants larger than 2" in diameter. Any additional fill soil material brought onto site must be inspected by owner for suitability.
B. Where Sub soils are backfilled or constructed in depths greater than 2 feet, each 2 foot lift shall be compacted to minimize subsidence.
C. Sub grade to be graded to within 5" of contours called for on plan, to provide proper drainage and be free of standing water.
D. Sub soils to be scarified and loosened to relieve surface compaction prior to placement of topsoil.
E. After approval of subsoil grading, no additional equipment or vehicles may be driven on the area approved, except for equipment used in landscape operations. Any compaction or depressions must be corrected to reestablish proper sub grade as previously approved, prior to installation of topsoil and plant material.

TOPSOIL APPLICATION AND TREATMENT:

A. After topsoil (6" minimum thickness) is graded to the proper elevations, the following materials shall be applied and tilled (mixed) into the top 4" of the surface:
   1. Lime shall be evenly broadcast @ 190 lbs/1,000 sq. ft. (or as per soil test).
   2. Soil Conditioner shall be evenly broadcast @ 50 lbs/1,000 sq. ft.
   3. 10-25-25 Basic Fertilizer shall be evenly broadcast at the rate of 25 lbs/1,000 sq. ft.
   4. Soil Amendment (Axis or Isolite) is evenly mixed into the top 4" of the field surface.
B. After incorporation of the above materials, the topsoil shall be re-firmed by dry-rolling (topsoil moisture content must be near zero percent) with a five (5) ton roller on a dual flotation tired agricultural tractor.
C. The surface grades shall be surveyed and any undulations or irregularities resulting from operations and soil structuring shall be corrected.
D. Any stones larger than 2 inches in any dimension, shall be removed from the top 3" utilizing a mechanical rock picker.
E. Final grading shall be accomplished utilizing an automatic draft sensing hydraulic land plane attached to a flotation tired agricultural tractor.
F. Cultivate and restructure the topsoil to a depth of 3-4". Grade tolerance shall be held to 1/4" per foot.
G. Cultivate and till the soil to a depth of 4-8" (depth may be limited by subsurface conditions).
H. Re-grade, re-firm and rake the soil surface. This is a smoothing and leveling operation to establish the final crown contours and elevations.
I. Final stone pick the surface of any stones larger than 1" in any dimension.

SEEDING AND MULCHING:

A. Only Flotation Tire Equipment will be permitted after final grade approval.
B. Drill seeding shall be accomplished by utilizing a 4' wide seeder constructed with 16 rows of steel shoers spaced 3" or less on center and capable of placing seed 1/4" into the surface at a rate of 8 lbs. per 1000 square feet.
C. Seed shall be Vilanova Mixture Lot No. L304-4-PSVSH-2, as supplied by Fisher and Son Co., Inc. 237 King Street, Malvern, PA 19355
D. Mulching – The Contractor shall mulch all newly seeded areas with salt hay, at the rate of 140 pounds per 1,000 square feet in accordance with DEP specifications.
E. Provide manufacturer's fabric and straw combination to all seeded areas on banks 3 to 1 or steeper and where potential erosion may take place.

MAINTENANCE:

A. Seeded lawn maintenance shall be for not less than 60 days after substantial completion.
   a. If seeded in fall and not given full 60 days of maintenance, or if not considered acceptable at that time, continue maintenance the following spring until acceptable lawn is established.
B. Maintain lawns by watering, fertilizing, weeding, mowing, trimming and other operations such as rolling, regrading and replanting, as required, to establish a smooth, acceptable lawn; free of eroded or bare areas.
C. When seeding is completed, including maintenance, Owner will make an inspection to determine acceptability.
D. When it becomes necessary, the Owner shall inform the Contractor of unsatisfactory conditions of erosion and sediment devices, at such time the Contractor shall improve the conditions of said devices to meet with the approval of the Owner.
E. Should unforeseen erosive conditions develop during construction the Contractor shall take action to remedy such conditions and to prevent damage to adjacent properties as a result of increased runoff and/or sediment displacement.
F. Seeded areas that have been washed away shall be filled and graded as necessary and then reseeded. This procedure shall be repeated after each storm or until no more signs of erosion are evident.

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PROJECT

EASTERN UNIVERSITY
PROPOSED STUDENT UNION BUILDING
1300 EAGLE ROAD
SAINT DAVIDS, PENNSYLVANIA 19087
RADNOR TOWNSHIP, DELAWARE COUNTY

DATE	REVISION
11/18/11	H.O.P. SUBMISSION
05/17/12	H.O.P. RESUBMISSION
08/28/12	H.O.P. RESUBMISSION
03/11/13	H.O.P. RESUBMISSION

SHEET TITLE

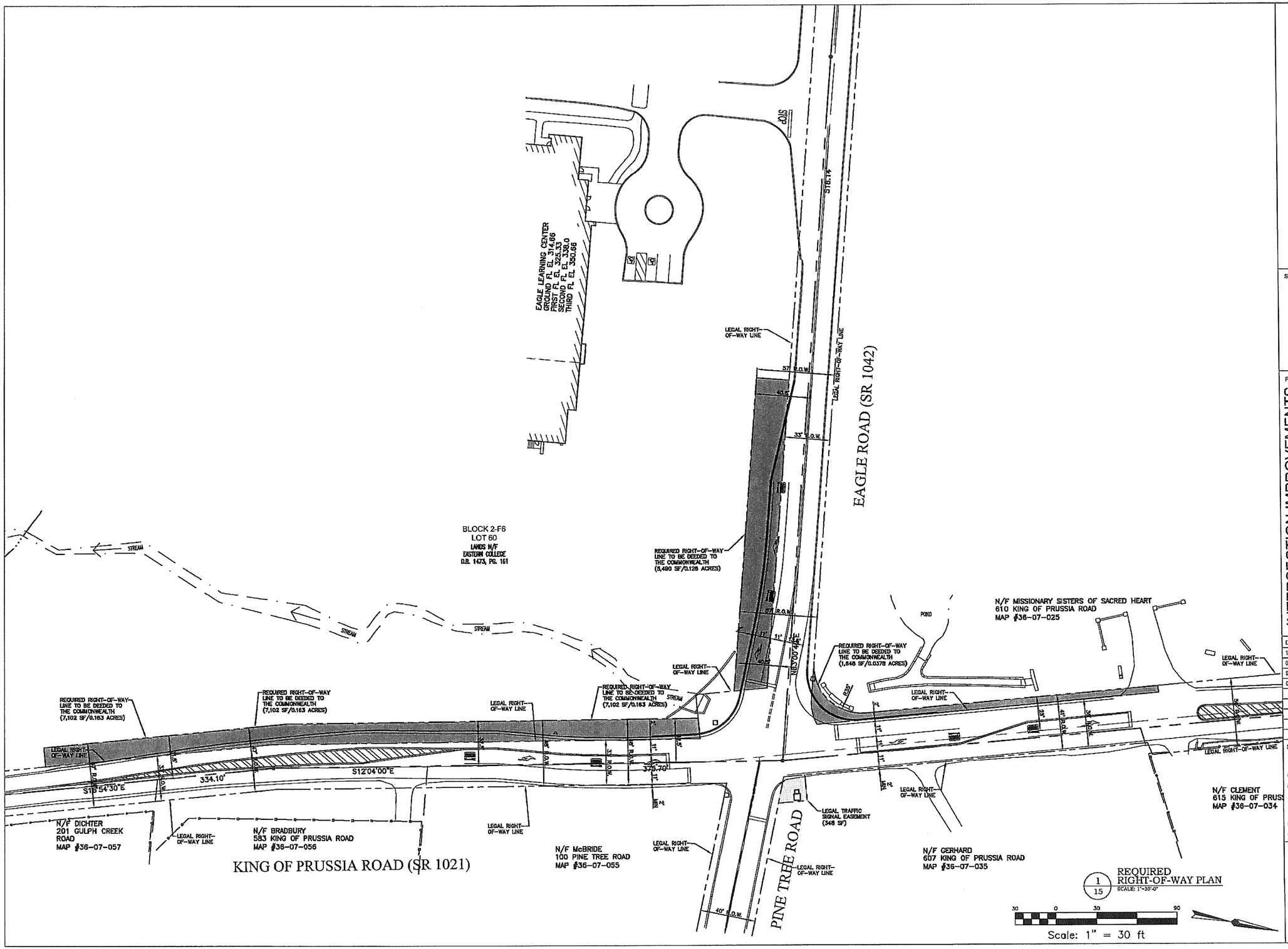
SOIL EROSION CONTROL DETAILS AND NOTES

DRAWN BY: BJD
CHECKED BY: KRM

SHEET NO.
14
SHEET NO. 15 OF 19

PROJECT NO. 0124.051
DATE: SEPTEMBER 13, 2010

H:\Work_Progress\0124.051\Dwg\14 erosion control detailsdwg, 9/6/2013 11:51:17 PM



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PROJECT

INTERSECTION IMPROVEMENTS

EAGLE ROAD (S.R. 1042) AND
KING OF PRUSSIA ROAD (S.R. 1021)

SAINT DAVIDS, PENNSYLVANIA 19087
RADNOR TOWNSHIP, DELAWARE COUNTY

DATE	REVISION
11/18/11	H.O.P. SUBMISSION
05/17/12	H.O.P. RESUBMISSION
09/28/12	H.O.P. RESUBMISSION
03/11/13	H.O.P. RESUBMISSION

SHEET TITLE

REQUIRED RIGHT-OF-WAY PLAN

DRAWN BY: BJD
CHECKED BY: KRM

SHEET NO.

15

SHEET NO. 15 OF 19

PROJECT NO. 0124.057
DATE: NOVEMBER 18, 2011

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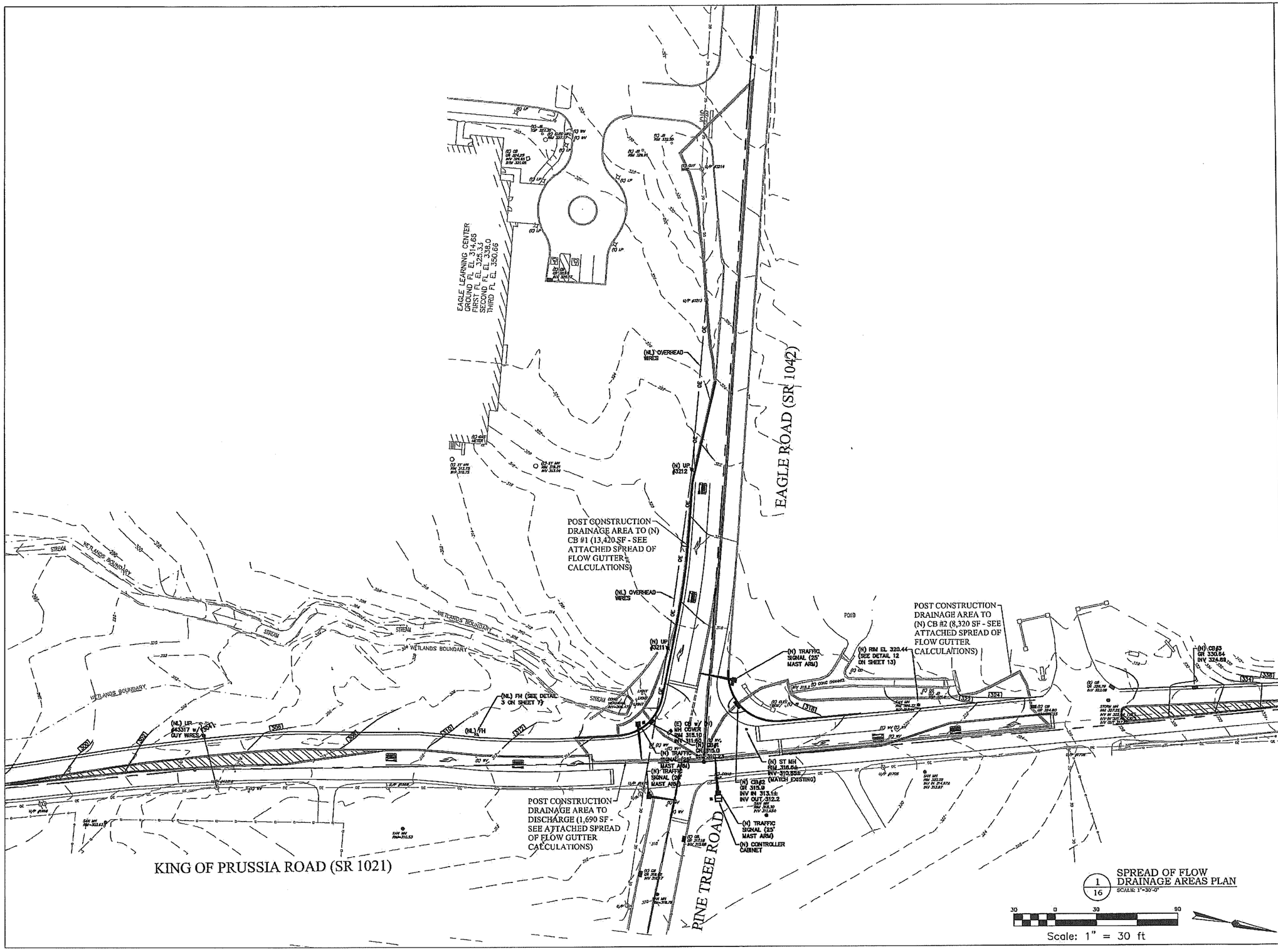

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PROJECT

INTERSECTION IMPROVEMENTS

EAGLE ROAD (S.R. 1042) AND
KING OF PRUSSIA ROAD (S.R. 1021)

SAINT DAVIDS, PENNSYLVANIA 19087
RADNOR TOWNSHIP, DELAWARE COUNTY

DATE	REVISION
11/18/11	H.O.P. SUBMISSION
05/17/12	H.O.P. RESUBMISSION
08/28/12	H.O.P. RESUBMISSION
03/11/13	H.O.P. RESUBMISSION

SHEET TITLE

SPREAD OF FLOW DRAINAGE AREAS PLAN

DRAWN BY: BJD
CHECKED BY: KRM

SHEET NO.

16

SHEET NO. 17 OF 19

PROJECT NO. 0124.057
DATE: NOVEMBER 18, 2011

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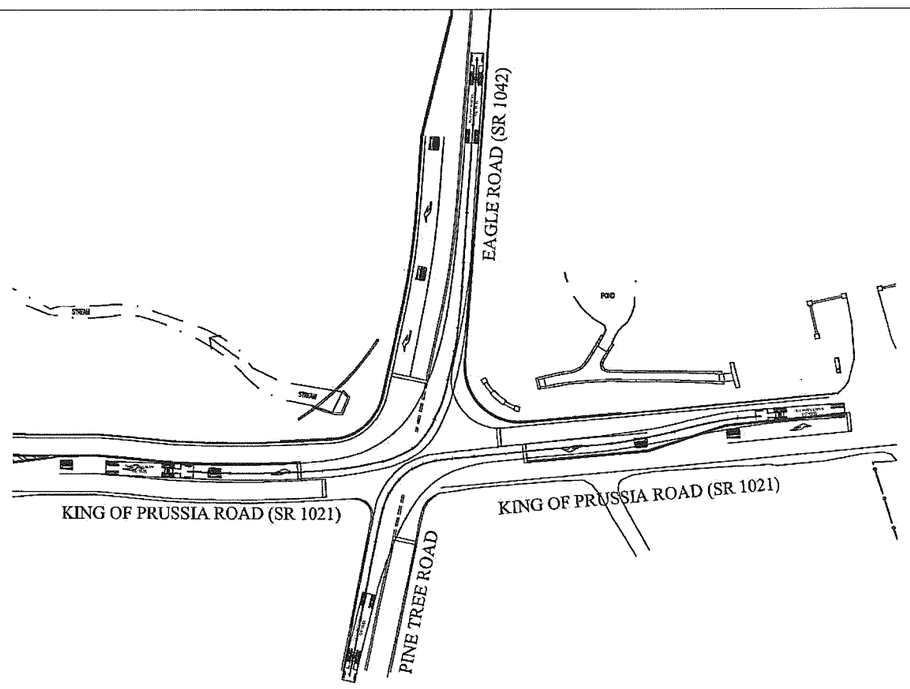

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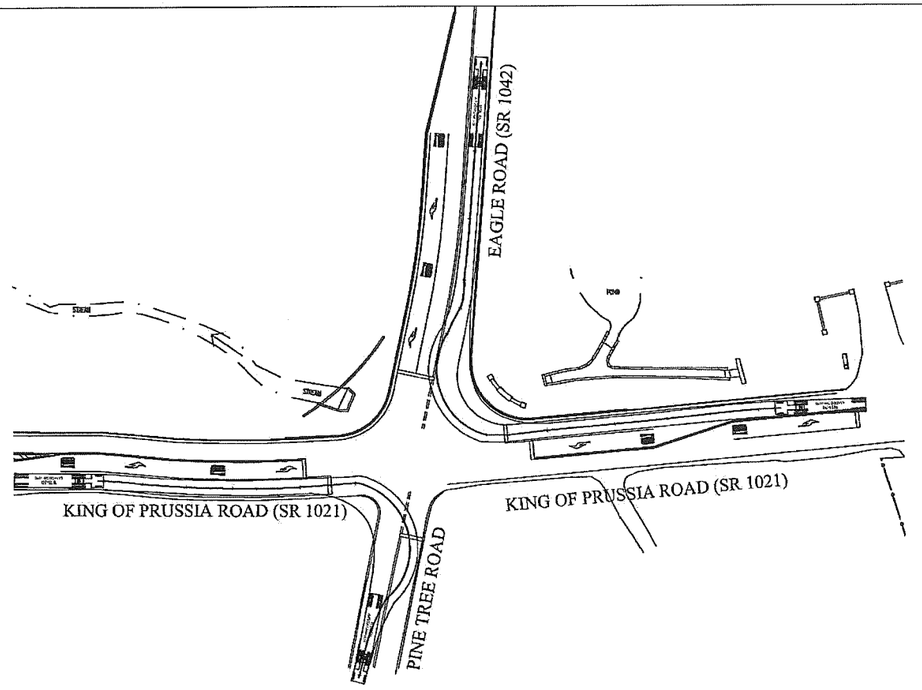

3/17 S.R. 1021 RIGHT TURN MANEUVERS PLAN
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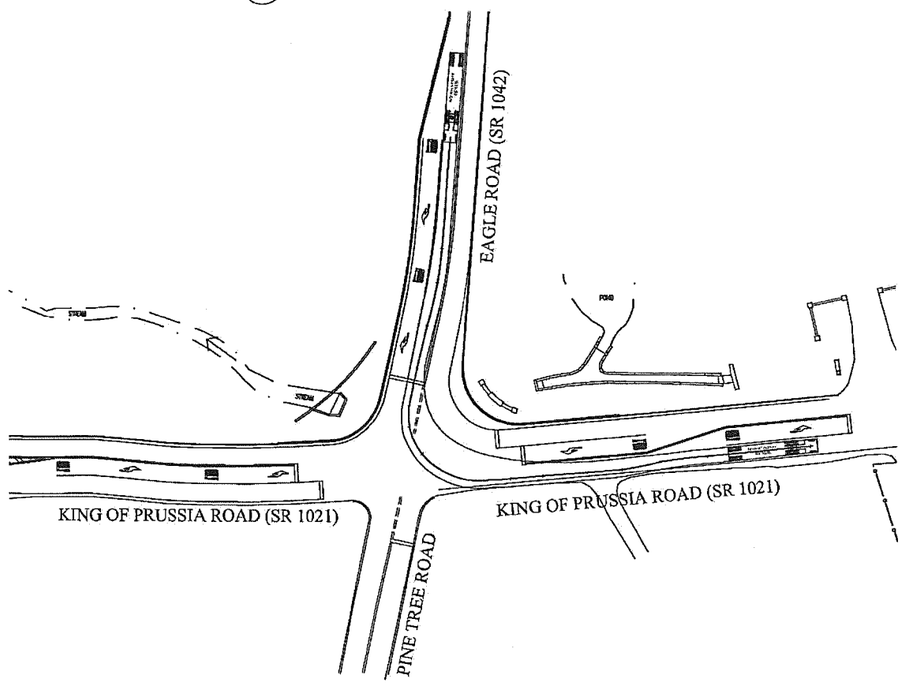

2/17 S.R. 1042 LEFT TURN MANEUVERS PLAN
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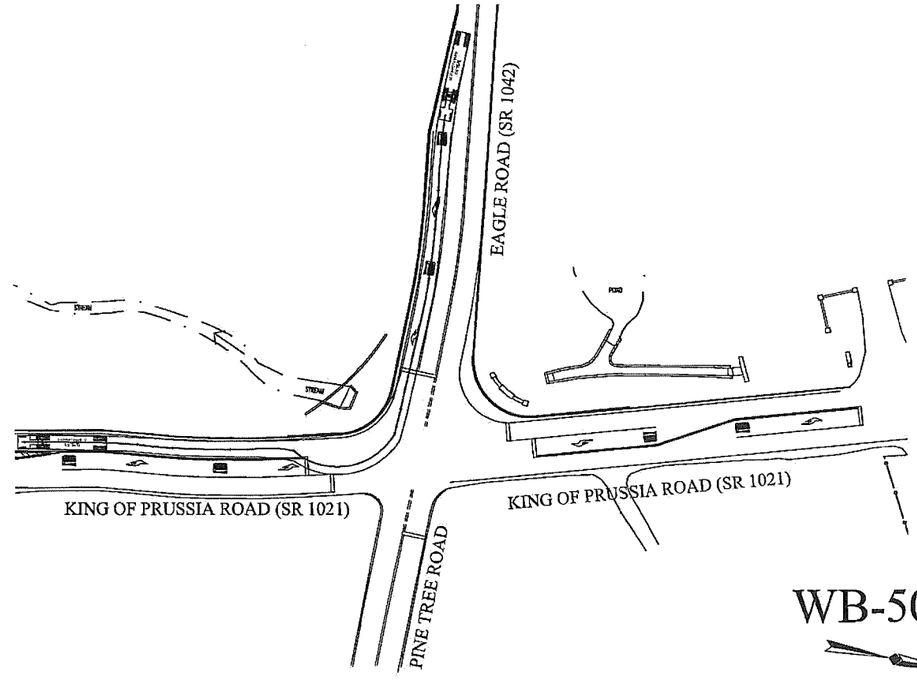

4/17 S.R. 1042 RIGHT TURN MANEUVERS PLAN
SCALE: 1"=40'-0"

WB-50

40 0 40 120
Scale: 1" = 40 ft

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PROJECT
INTERSECTION IMPROVEMENTS
EAGLE ROAD (S.R. 1042) AND
KING OF PRUSSIA ROAD (S.R. 1021)
SAINT DAVIDS, PENNSYLVANIA 19087
RADNOR TOWNSHIP, DELAWARE COUNTY

DATE	REVISION
08/26/12	H.O.P. RESUBMISSION
03/11/13	H.O.P. RESUBMISSION

SHEET TITLE
TRUCK TURNING MANEUVERS PLAN

DRAWN BY: BJD
CHECKED BY: KRM

SHEET NO.
17
SHEET NO. 18 OF 19

PROJECT NO. 0124.057
DATE: NOVEMBER 18, 2011

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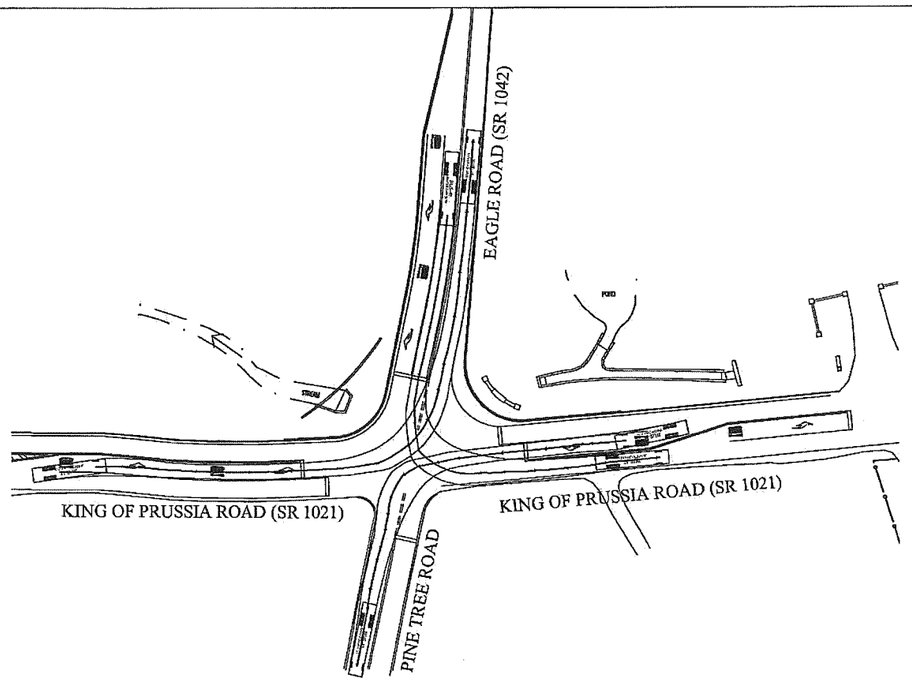

1/18 45' BUS LEFT TURN MANEUVERS PLAN
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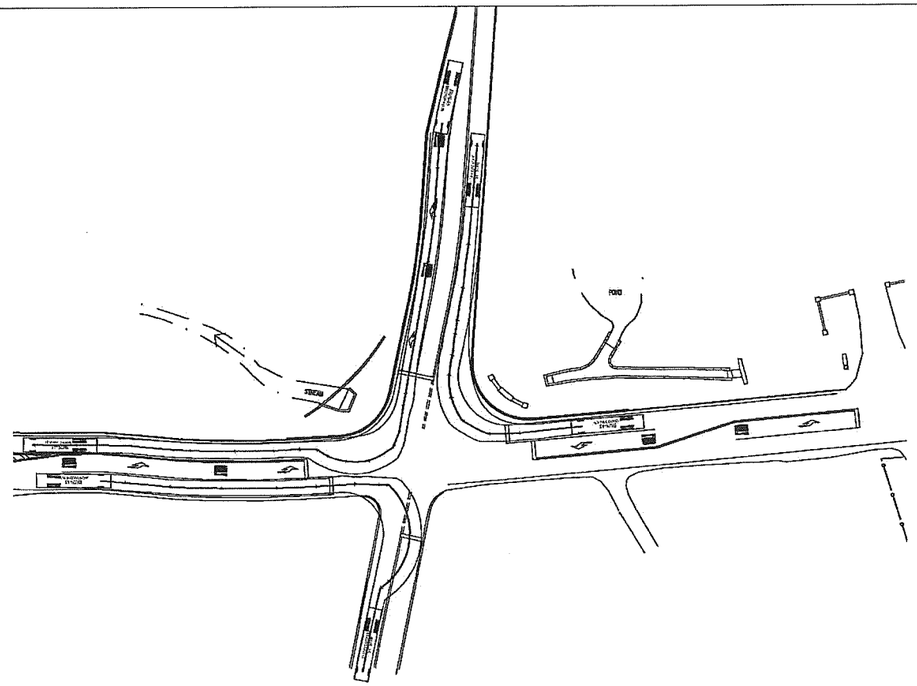

3/18 45' BUS RIGHT TURN MANEUVERS PLAN
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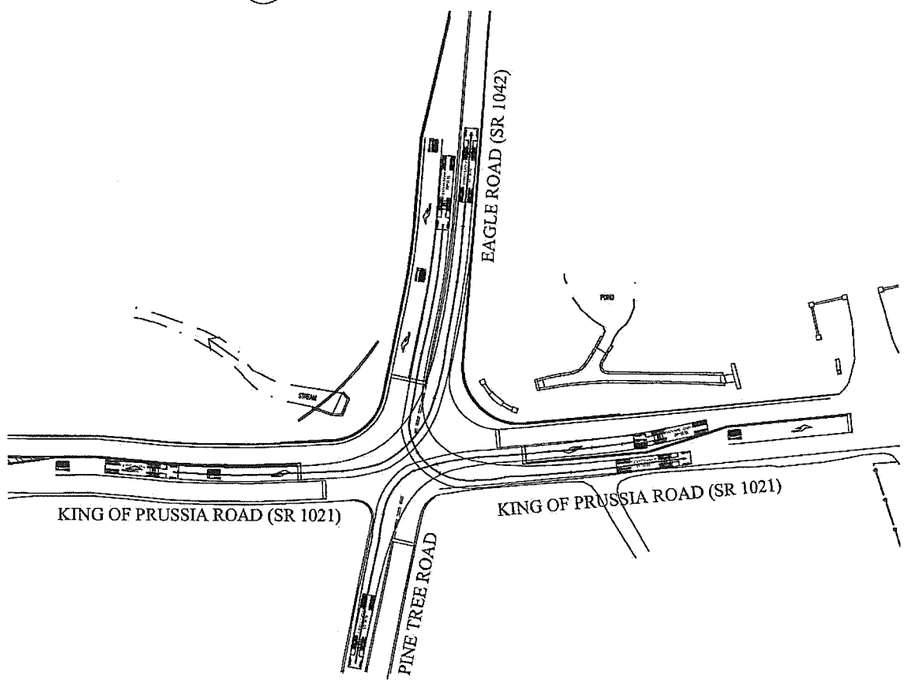

2/18 WB-40 LEFT TURN MANEUVERS PLAN
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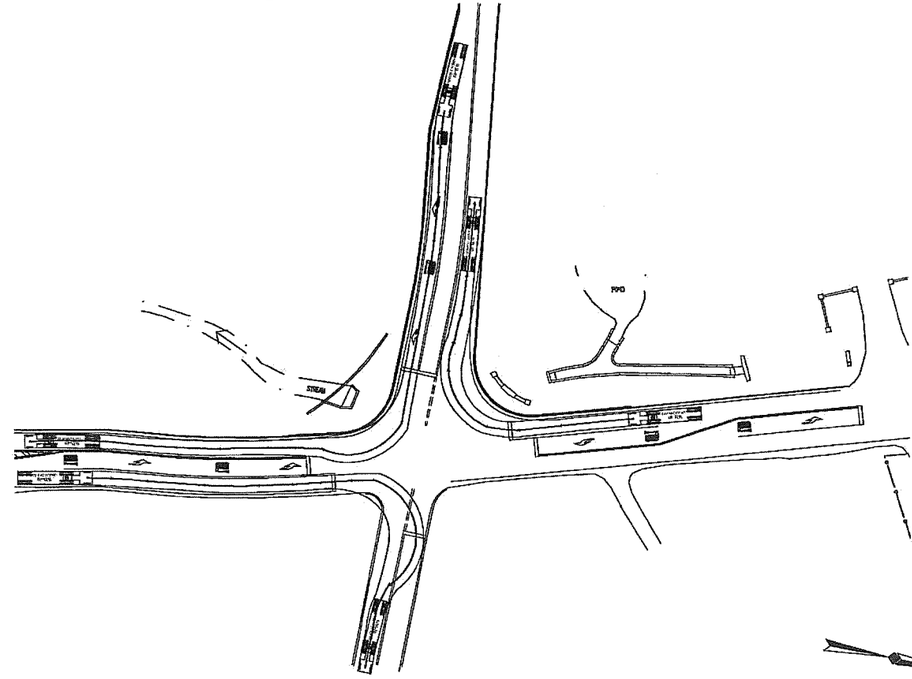

4/18 WB-40 RIGHT TURN MANEUVERS PLAN
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PROJECT

INTERSECTION IMPROVEMENTS

EAGLE ROAD (S.R. 1042) AND
KING OF PRUSSIA ROAD (S.R. 1021)

SAINT DAVIDS, PENNSYLVANIA 19087
RADNOR TOWNSHIP, DELAWARE COUNTY

DATE	REVISION
08/28/12	H.O.P. RESUBMISSION
03/11/13	H.O.P. RESUBMISSION

SHEET TITLE

TRUCK TURNING MANEUVERS PLAN

DRAWN BY: BJD
CHECKED BY: KRM

SHEET NO.

18

SHEET NO. 18 OF 18

PROJECT NO. 0124.057
DATE: NOVEMBER 18, 2011

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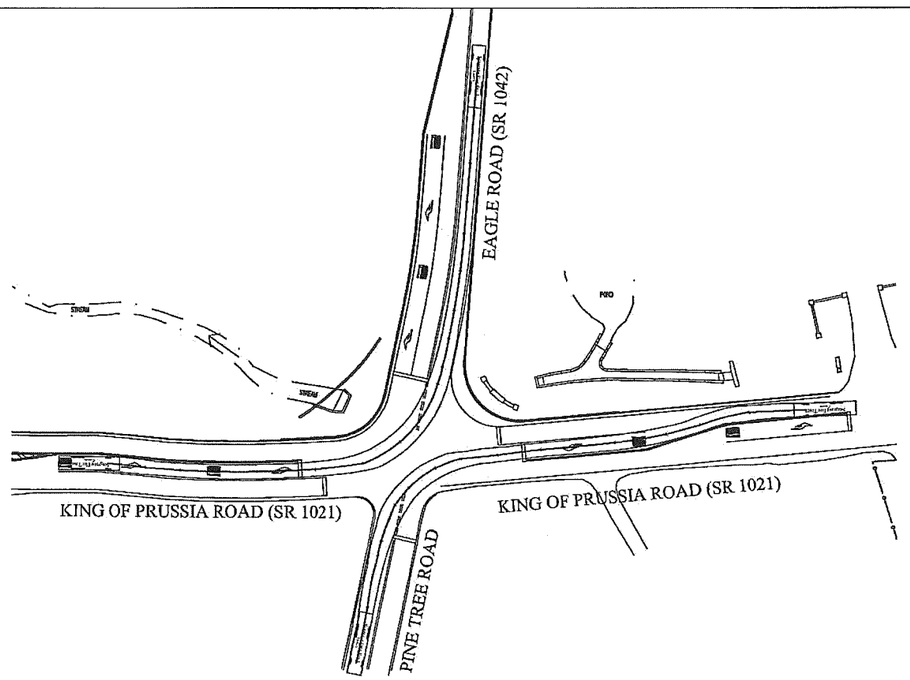

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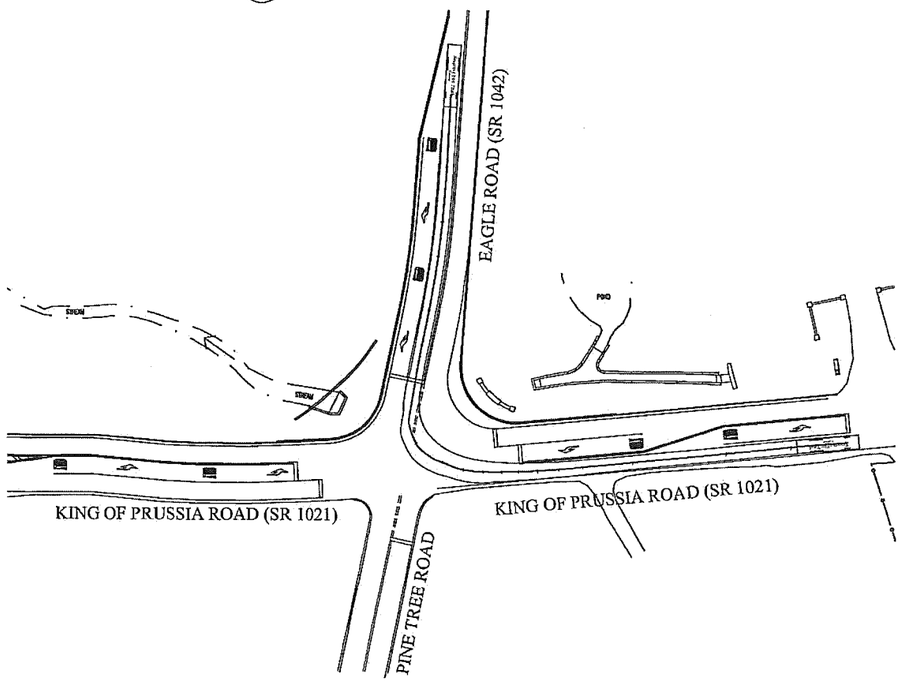

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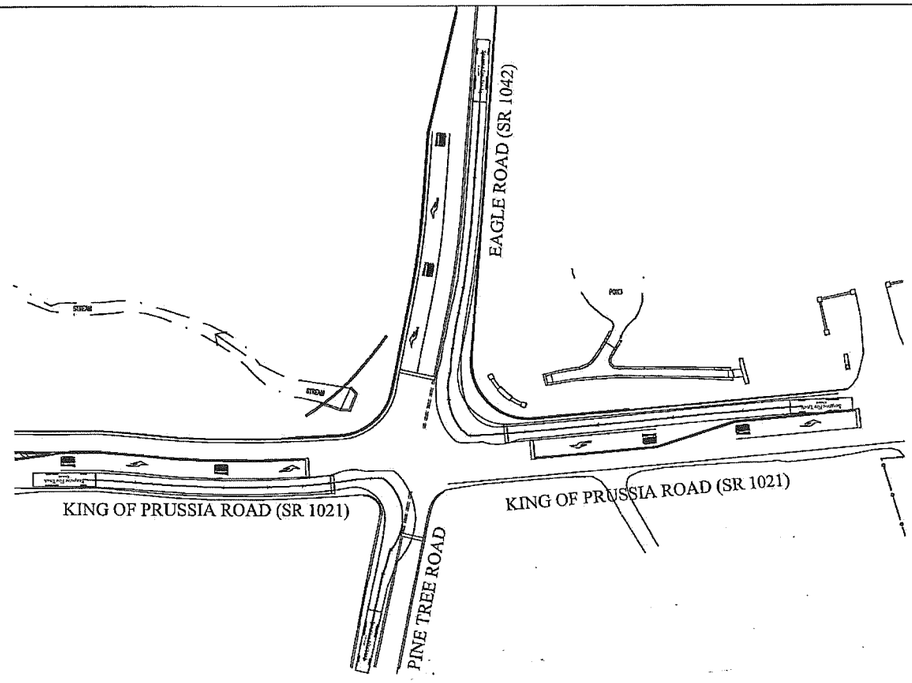

3/19 S.R. 1021 RIGHT TURN MANEUVERS PLAN
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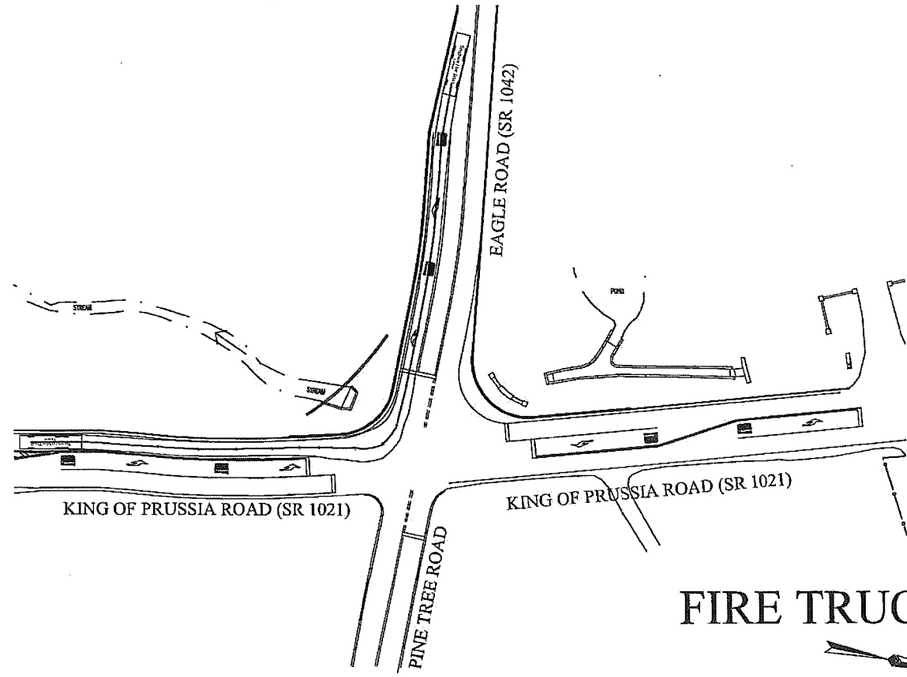

4/19 S.R. 1042 RIGHT TURN MANEUVERS PLAN
SCALE: 1"=40'-0"

FIRE TRUCK

-40 0 40 120
Scale: 1" = 40 ft

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INTERSECTION IMPROVEMENTS
EAGLE ROAD (S.R. 1042) AND
KING OF PRUSSIA ROAD (S.R. 1021)
SAINT DAVIDS, PENNSYLVANIA 19087
RADNOR TOWNSHIP, DELAWARE COUNTY

DATE	REVISION
03/19/13	H.O.P. RESUBMISSION

SHEET TITLE
FIRE TRUCK TURNING MANEUVERS PLAN

DRAWN BY: BJD
CHECKED BY: KRM

SHEET NO.
19
SHEET NO. 20 OF 20

PROJECT NO. 0124.057
DATE: NOVEMBER 18, 2011

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RESOLUTION NO. 2017-__
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.

      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. Provide 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, last revised May 4, 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 $251,907 in park and recreation fees based on a total square footage of 304,696 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 , 2017.

RADNOR TOWNSHIP

By: _____
Name:
Title:

ATTEST:_____

Gannett Fleming

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

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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.

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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

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

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:

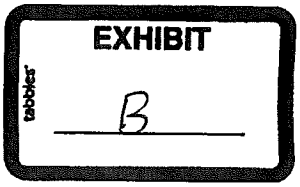
Biomed Realty Trust, Inc. proposes to redevelop the site at 145 King of Prussia Road to provide additional office space. The site currently contains 427,109 square feet of office/research and development space (177,233 sf is currently vacant). The proposed design includes the removal of the existing 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

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.

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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.

RETTEW
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:

Applicant:	BMR – 145 King of Prussia Road, L.P.
Requested Action/Use:	Preliminary Land Development Plan Review
Zoning District:	Planned Laboratory - Office District
Location and Size:	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.
Proposed Use:	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.

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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,

Steve Gabriel

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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SAUL EWING
ARNSTEIN
& LEHR LLP

David J. Falcone
Phone: (610) 251-5752
Fax: (610) 722-3270
David.Falcone@saul.com
www.saul.com

October 23, 2017

VIA ELECTRONIC MAIL

Radnor Township
301 Iven Avenue
Wayne, PA 19087
Attention: Steven Norcini

Re: ***Trustees of the University of Pennsylvania as Owner and Operator of the University of Pennsylvania Health System***
BMR – 145 King of Prussia Road, LP
Preliminary Land Development Plan - Number: 2014-D-02

Dear Steve:

As you know, I represent the Trustees of the University of Pennsylvania as Owner and Operator of the University of Pennsylvania Health System ("UPHS"). On August 26, 2015 UPHS issued a letter to Radnor Township (the "Township") confirming an open-ended extension to the pending Land Development Application, number 2014-D-02 (the "Application") with respect to the development of the property located at 145 King of Prussia Road (the "Property"). Please be advised that UPHS has authorized me to request that the Application be placed on the next possible agenda for consideration and approval by the Board of Commissioners.

Upon review of the file, it appears that the Application has already been reviewed by the Planning Commission. In addition, we are in receipt of a proposed resolution (along with designated conditions of approval) for Preliminary Land Development Approval. It is our understanding that the approval of the Application will be consistent with the foregoing information.

Please accept this letter as a formal request to place the Application on the Board's next available agenda and, once scheduled, please advise as to the date upon which the Application will be heard. Should you have any questions, please feel free to contact me.

1200 Liberty Ridge Drive, Suite 200 • Wayne, PA 19087-5569 • Phone: (610) 251-5050 • Fax: (610) 651-5930
DELAWARE FLORIDA ILLINOIS MARYLAND MASSACHUSETTS NEW JERSEY NEW YORK PENNSYLVANIA WASHINGTON, DC
A DELAWARE LIMITED LIABILITY PARTNERSHIP

Very truly yours,

David J. Falcone

c: John Rice, Esquire
Mr. Kevin Kochanski
Roger Phillips, P.E.
Mr. Kevin Mahoney
Mr. Pat Dorris
Lee Dobkin, Esquire
Michael Kissinger, P.E.
Eric Swanson, AIA

Saul Ewing LLP

David J. Falcone
Phone: (610) 251-5752
Fax: (610) 722-3270
dfalcone@saul.com
www.saul.com

August 26, 2015

Via Electronic Mail
Radnor Township
301 Iven Avenue
Wayne, PA 19087
Attention: Susan Jones

Re: Trustees of the University of Pennsylvania as Owner and Operator of the University of Pennsylvania Health System
BMR – 145 King of Prussia Road, LP
Number: 2014-D-02
Preliminary Land Development Plan

Dear Sue:

I represent the Trustees of the University of Pennsylvania as Owner and Operator of the University of Pennsylvania Health System ("UPHS"). On May 29, 2015, UPHS acquired fee simple title from BMR – 145 King of Prussia Road, LP ("BMR") to the property located at 145 King of Prussia Road. As you are aware there is a presently pending Land Development Application, number 2014-D-02 (the "LDA"), awaiting further action from the Township's Board of Commissioners (the "BOC"). On June 11, 2015, counsel for BMR granted the BOC an extension of time before the BOC would be required to take action on the LDA. Specifically, the BOC was granted an extension of time to act upon the LDA until the date that is ninety (90) days from the date UPHS "notifies the Township that it wishes to proceed with the [LDA]".

Please accept this letter as confirmation of the existing open-ended extension. Please note that UPHS has not notified the Township of UPHS's intention to proceed with the LDA and accordingly the ninety (90) clock has not yet begun to run. Therefore, no action will be required from the BOC with respect to the LDA.

The Township's records should be updated to reflect the Trustees of the University of Pennsylvania as Owner and Operator of the University of Pennsylvania Health System as the new applicant pursuant to the LDA. In addition, please be advised that all future correspondence with respect to the LDA should be sent to UPHS's and my attention.

To facilitate the transition from BMR to UPHS we respectfully request that you provide an accounting as of today's date of the escrow being held with respect to the LDA. BMR and UPHS have agreed that all costs incurred as of today's date shall be the obligation of BMR and all costs incurred after today's date shall be the obligation of UPHS. To the extent the escrow needs to be replenished, please advise as to the amount required by the Township.

Thank you for your continued attention to this matter. If you have any questions, please don't hesitate to call.

Very truly yours,

David J. Falcone

cc: Mr. Kevin Mahoney
Kristine S. Pyzyna, Esquire
Nicholas J. Caniglia, Esquire
Kevin Kochanski, RLA, CZO
Steven Norcini, P.E.
Roger Philips, P.E
John Rice, Esquire
Erik Williams, Esquire

Gannett Fleming

100 Years

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.

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

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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.

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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

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

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.

Gannett Fleming
100 Years

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:

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Plans Prepared By: Nave Newell
Dated: 09/03/2014, revised 03/17/2015

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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

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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

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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

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

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.

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.

Nave Newell
Where Ideas Get Down to Earth

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 McMahon 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.

4. We have revised the plans to depict the steep slope areas, as requested. In 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. In 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.

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.

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.

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,

D. Alexander Tweedie, PE

DAT/jih
Enclosures

cc via email: Michael Devine - BioMed Realty Trust, Inc.
George J. Kroculick, 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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Gannett Fleming
100 Years of Excellence Delivered As Promised

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.

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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

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

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.

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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

Gannett Fleming
100 Years
of Excellency Delivered As Promised

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.

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.

printed on recycled paper

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

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

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.

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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.
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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.

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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.

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    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.

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

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.

Nave Newell
Where Ideas Get Down to Earth

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)

I. *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.

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 planset 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

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/jih
Enclosures

K:\07Proj_BioMed-Only\07011.03\RevResp\Township\Norcini_Ltr_15-01-30.doc

McMAHON
TRANSPORTATION ENGINEERS & PLANNERS

McMAHON ASSOCIATES, INC.
840 Springdale Drive | Exton, PA 19341
p 610-594-9995 | f 610-594-9565
mcmahonassociates.com

PRINCIPALS
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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.

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. <u>Project Overview Comments</u>

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.

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, 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 #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.***

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.

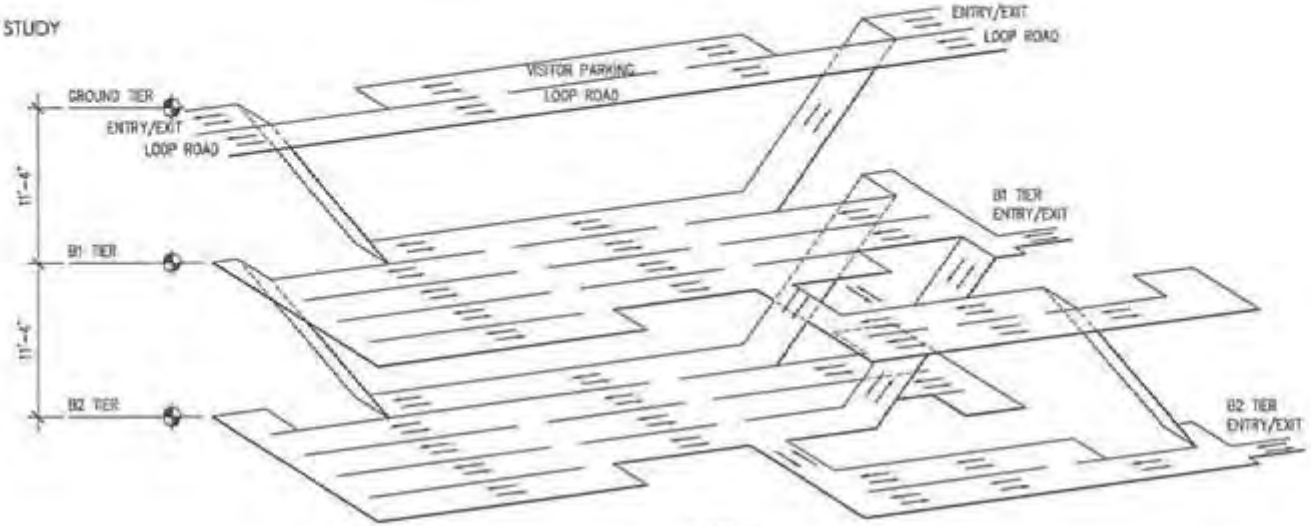
Please feel free to contact me with any questions at (610) 594-9995 or jwichner@mcmahonassociates.com.

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

NTS

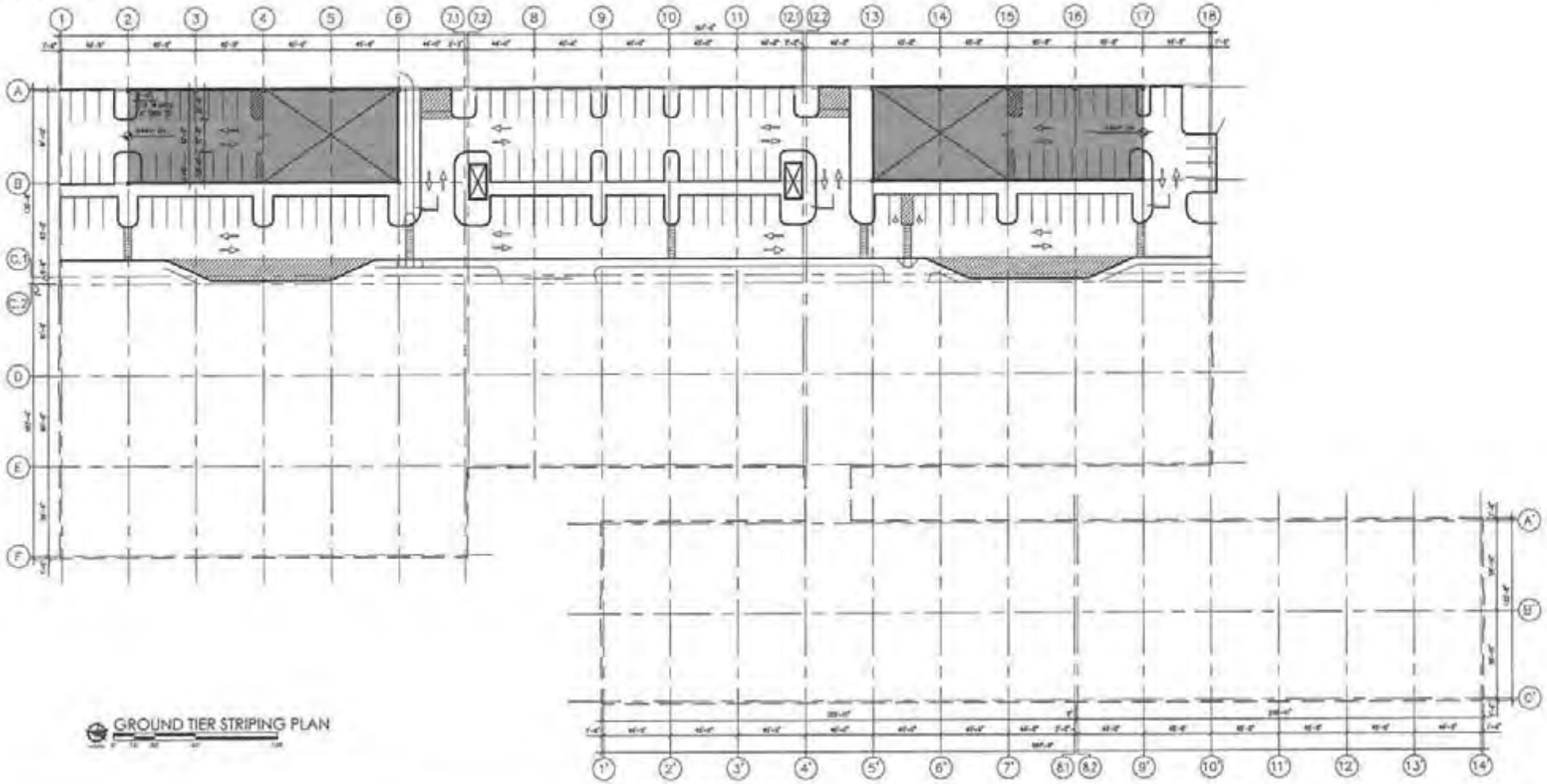
BIO-MED

PARKING FEASIBILITY STUDY

Radnor, Pennsylvania

01.26.2015

OPTION 1C



GROUND TIER STRIPING PLAN

TimHaahs

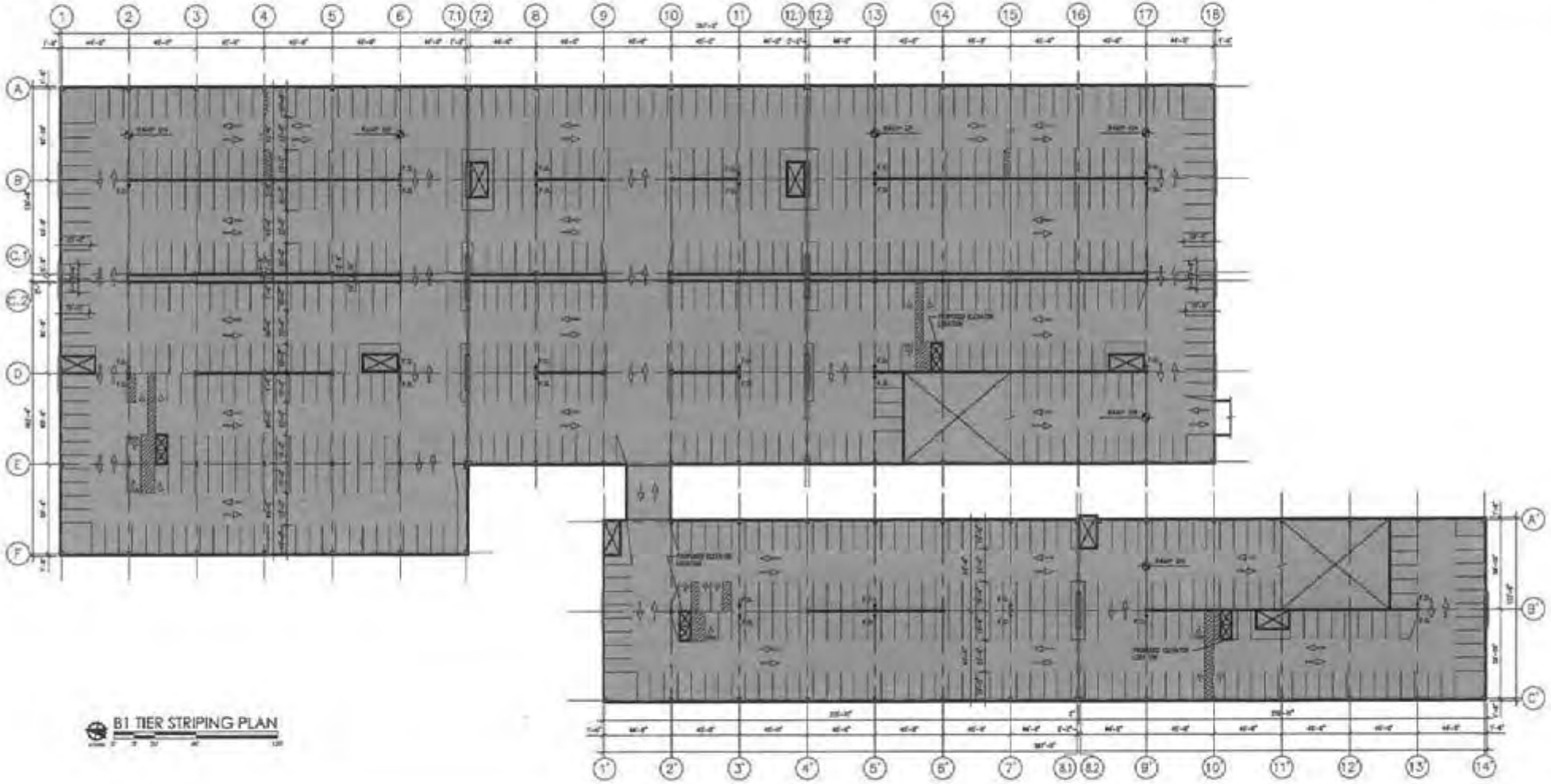
BIO-MED

PARKING FEASIBILITY STUDY

Radnor, Pennsylvania

01.26.2015

OPTION 1C



B1 TIER STRIPING PLAN

TimHaahs

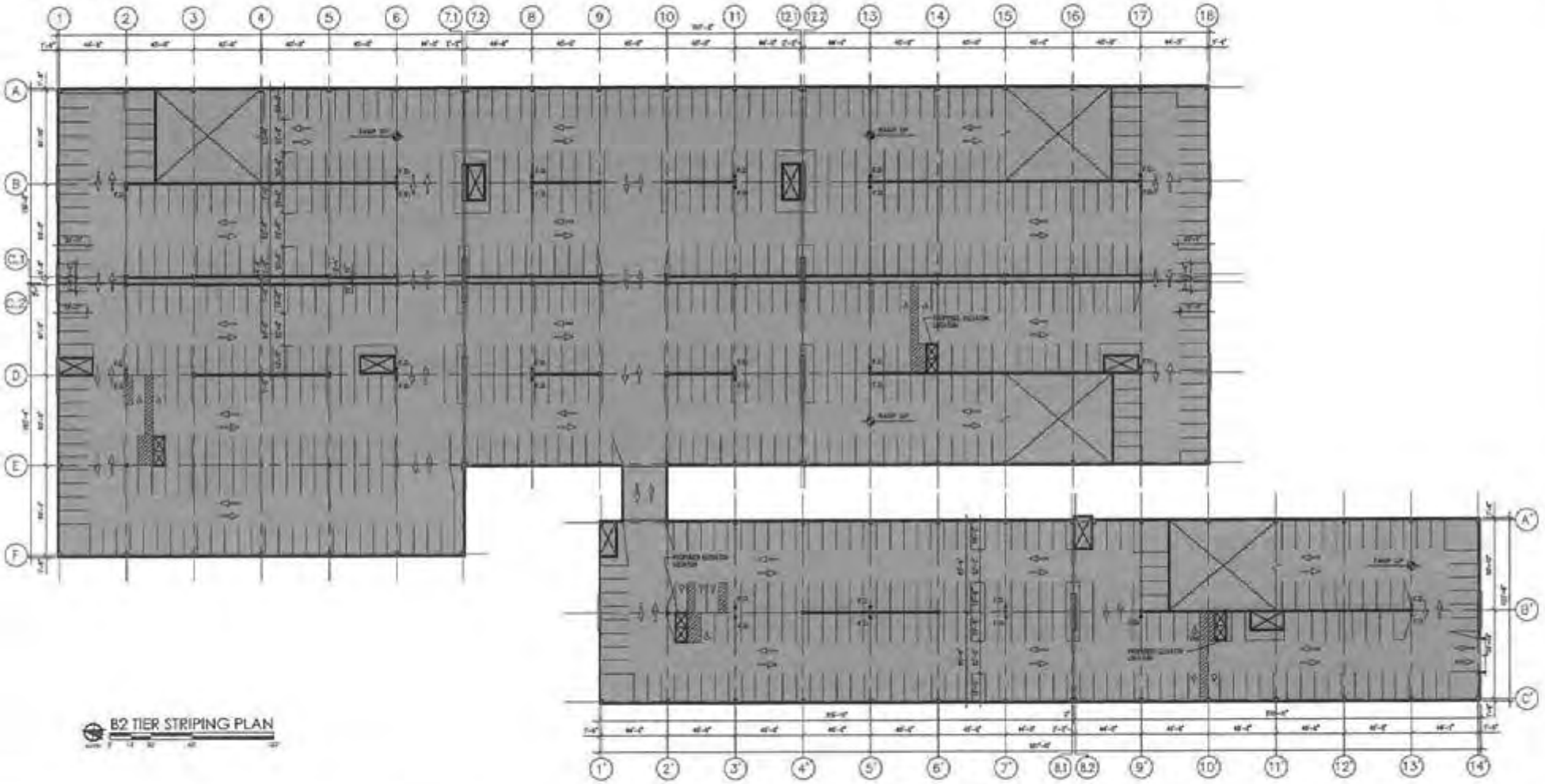
BIO-MED

PARKING FEASIBILITY STUDY

Radnor, Pennsylvania

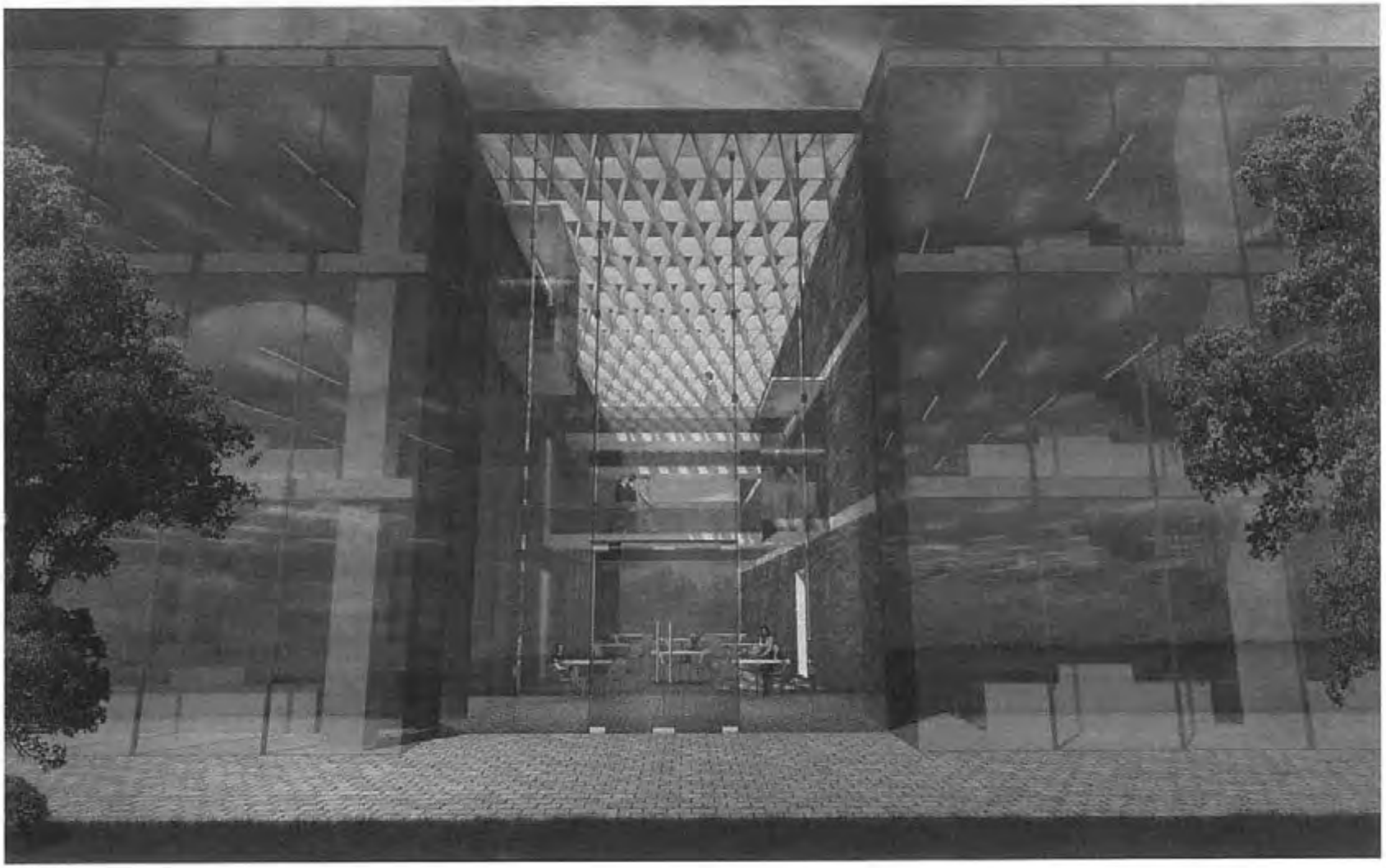
01.26.2015

OPTION 1C

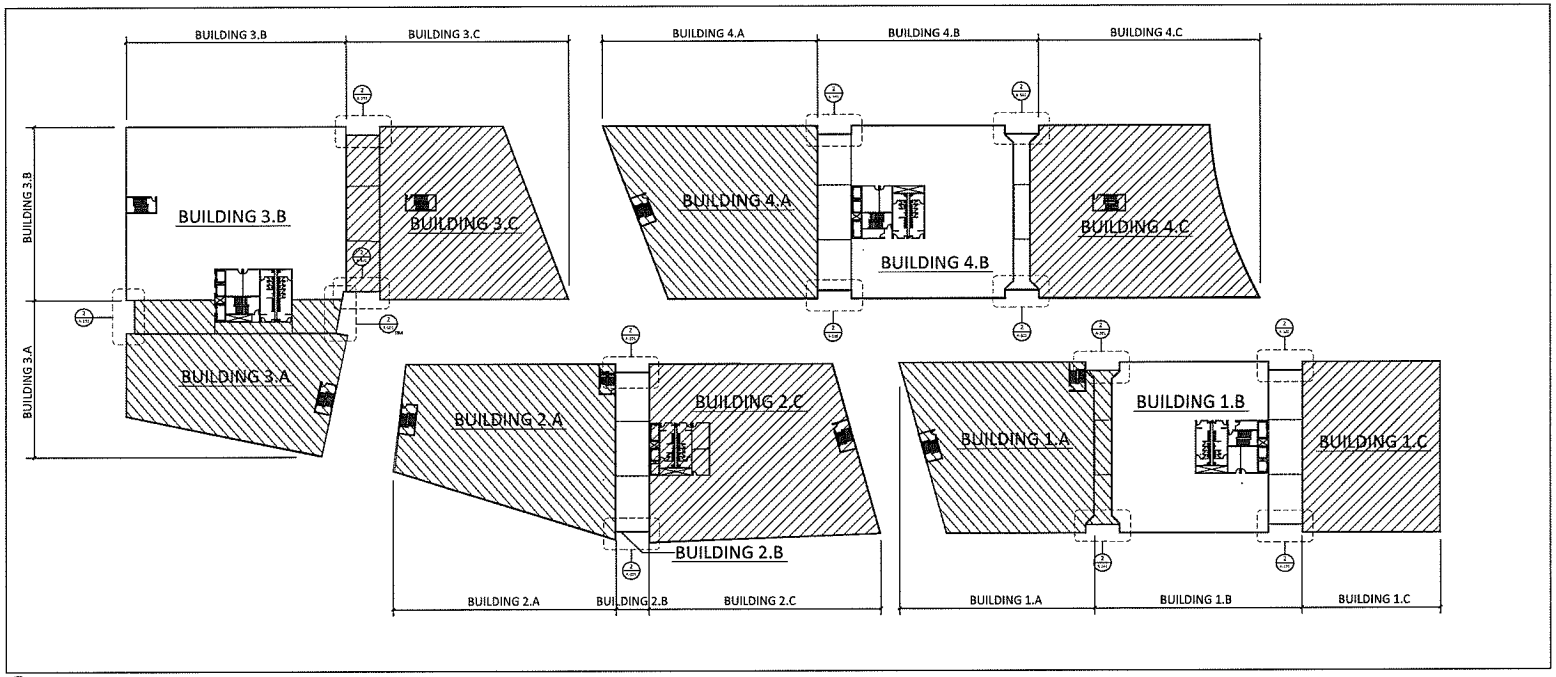


B2 TIER STRIPING PLAN

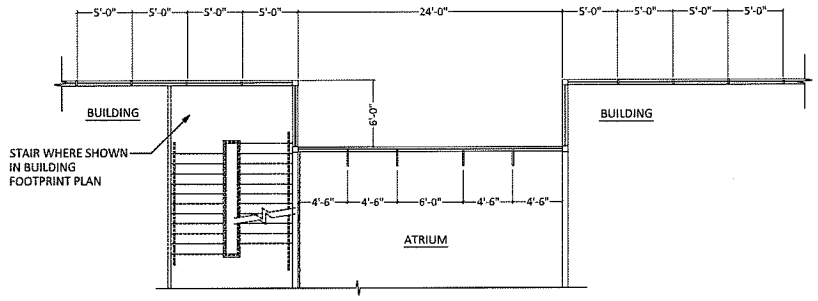
TimHaahs



Atrium View



1 BUILDING FOOTPRINT PLAN
1" = 100'-0" SCALE: NOT TO SCALE



2 TYPICAL NICHE DETAIL
1" = 1'-0" SCALE: 1/4"=1'-0"

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BioMed Realty
Radnor Park
145 King of Prussia Rd
Radnor, PA

Project No. 08.164.044

NOT FOR CONSTRUCTION

copyright date: 10.01.15

No.	Date	Description
01	01.30.2015	TOWN

REVISIONS

No.	Date	Description

NORTH

ARCHITECTURAL
BUILDING FOOTPRINT
PLAN

A-101.00

PIERCE, CANIGLIA & TAYLOR
ATTORNEYS AT LAW
125 STRAFFORD AVENUE - SUITE 110
P. O. BOX 312
WAYNE, PENNSYLVANIA 19087

JAMES M. PIERCE
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(610) 688-2626
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(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.

Gannett Fleming

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 of 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.

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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.

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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] **886 PAX** Norristown High Speed Line[2]	**12,594 PAX** Crystal City Station **13,057 PAX** Silver Spring Station
Peak Hour Frequency of trains (in minutes)	**24-28 min** Paoli/Thorndale Line **8-11 min** Norristown High Speed Line	**6-12 min** Crystal City Station **3-10 min** Silver Spring Station
Off-Peak Frequency of trains (in minutes)	**30 min** Paoli/Thorndale Line **30 min** Norristown High Speed Line	**6-12 min** Crystal City Station **3-10 min** Silver Spring Station

PAX= passengers; Site N: Crystal City Station (Blue/Yellow Line); Site K: Silver Spring Station (Red Line)
[1]Source
[2]Source: 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	M L	I	2	2	--	--	--	4
Crystal City	A D	I	2	2	2	2	--	8
Dunn-Loring	N H	O	--	1	--	--	--	1
Eisenhower Avenue		I	--	--	--	--	1	1
Farragut West	P Q	C	2	--	--	--	--	2
Friendship Heights	B F	I	2	2	--	1	--	5
Gallery Place		C	--	2	--	--	--	2
Grosvenor		O	--	4	--	--	--	4
King Street	J G	I	2	--	--	--	--	2
New Carrollton	O	O	1	--	--	--	--	1
Silver Spring	E K C	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			
Metrorail	63%	21%	8%
Metrobus & Other Transit	12%	9%	3%
Auto	21%	66%	89%
Walk & Other	5%	6%	0%
Residential Sites			
Metrorail	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

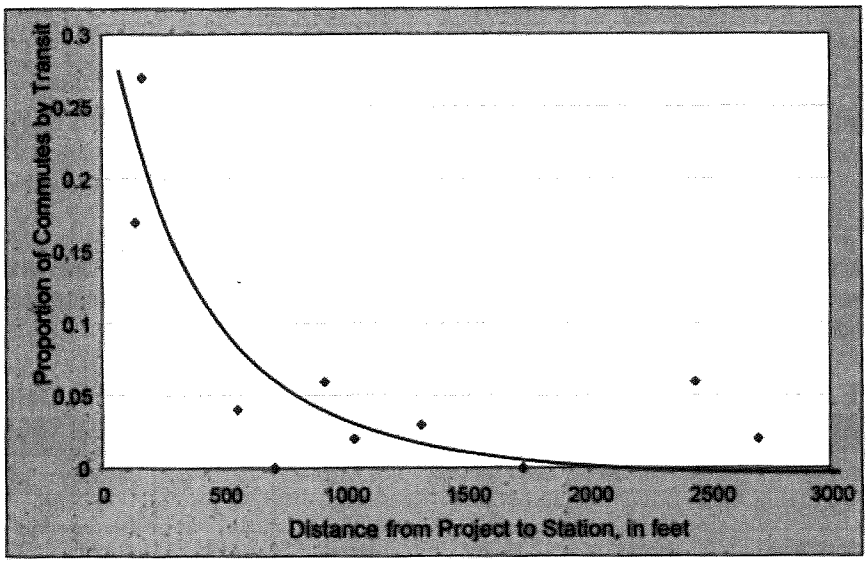
Office Site	ITE SITE	Number of Surveys Distributed	Distance from Station (feet)	Square Footage (1,000s)	Occupancy Rate (%)	Parking Spaces	Estimated Response Rate (%)	Number of Interviews
Ballston Station Area								
3 Ballston Plaza	M L	932	2,000	303	87	753	15	10
Ballston One		267	1,900	230	--	450	5	N/A
Court House Station Area	A D							
2100-2200 Clarendon Blvd.		850	0	584	--	1681[4]	47	61
Courthouse Tower		500	450	165[2]	--	430	4	15
Crystal City Station Area	N H							
Crystal Park IV		1227	2,600[1]	484	89	1,122	6	35
Crystal Square 2		851	850	412	--	1,899[5]	15	60
Farragut West Station Area	P Q							
1634 I Street		138	0	69	100	0	51	53
1701 Pennsylvania Avenue		275	1,000	190	90	N/A[6]	32	18
Friendship Heights Station Area	B F							
2 Wisconsin Circle		800	100	235	90	301	11	32
Chevy Chase Plaza		400	700	163	--	225	6	N/A
King Street Station Area	J G							
333 John Carlyle		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	O							
8400 Corporate Drive		550	3,000	149	--	503	7	17
Silver Spring Station Area	E K C							
8380 Colesville Road		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 TFD[1] reduction		**654**	**62**	**746**	**122**	**552**	**674**

[1]TFD=Transit Friendly Development as indicated in ITE; this is commonly referred to as a Transit Oriented Development (TOD)

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

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 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.

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 BioMed 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 Coughlin

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 ft^2. 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,

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

Kaplin | Stewart
Attorneys at Law

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 SALDO[1]. 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.*

Kaplin Stewart Meloff Reiter & Stein, PC
Union Meeting Corporate Center
910 Harvest Drive, P.O. Box 3037
Blue Bell, PA 19422-0765
610-260-6000 tel

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 Plans[2].

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 complaint parking design[4]. 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 requirements[5]. 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

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

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

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SECRETARY

LINDA F. HILL
DIRECTOR

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.

DCPD

DELAWARE COUNTY PLANNING DEPARTMENT

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

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

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:

550,451 sq. ft. ÷ 4,000 sq. ft. = 138
138 x $3,307 = $456,366

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

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.

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.

Gannett Fleming

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 of 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.

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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.

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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: 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 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.

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 DF'Us 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

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KENNETH J. ZITARELLI
SECRETARY
LINDA F. HILL
DIRECTOR

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.

If you have any questions concerning the information required, please contact me at 484.250.5186.

Sincerely,

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)		
Section A: Project Information		
	Section A.1. The Project Name is completed	
	Section A.2. The Brief Project Description is completed	
Section B: Client Information		
	Client Information is completed	
Section C: Site Information		
	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	
Section D: Project Consultant Information		
	Project Consultant Information is completed	

Section E: Availability of Drinking Water Supply		
	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	
Section F: Project Narrative		
	The Project Narrative is attached	
	All information required in the module directions has been addressed	
Section G: Proposed Wastewater Disposal Facilities		
	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	

Section G: Proposed Wastewater Disposal Facilities		
	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.	
Section H: Alternative Sewage Facilities Analysis		
	The Alternative Sewage Facilities Analysis is attached	
	All information required in the module directions has been addressed	
Section I: Compliance with Water Quality Standards and Effluent Limitations		
	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	
Section J: Chapter 94 Consistency Determination		
	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: Chapter 94 Consistency Determination		
	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	
Section K: Treatment and Disposal Options		
	For proposed treatment facilities, the appropriate box is checked indicating the selected Treatment and Disposal Option	
Section L: Permeability Testing		
	The Permeability Testing information is attached	
Section M: Preliminary Hydrogeologic Study		
	The Preliminary Hydrogeologic Study is attached	
	The Preliminary Hydrogeologic Study is signed and sealed by a Professional Geologist	
Section N: Detailed Hydrogeologic Study		
	The Detailed Hydrogeologic Study is attached	
	The Detailed Hydrogeologic Study is signed and sealed by a Professional Geologist	
Section O: Sewage Management		
	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: Sewage Management		
	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	
Section P: Public Notification Requirement		
	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	
Section Q: False Swearing Statements		
	The planning module preparer's false swearing statement is completed and signed	
Section R: Planning Module Review Fee		
	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	

Completeness Checklist		
	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

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 Histand 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 Permitee'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 arithmatic 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	DESCRIPTION
001	**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

PARAMETER	MONTHLY AVERAGE RATE (GPD)	PEAK DAILY RATE (GPD)	DAILY MAXIMUM (µCi/mL)
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:

Parameter	Sample Location	Measurement Frequency	Sample Type
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 ≤ 6°C or manual sampling of at least one sample per hour, composited and maintained at ≤ 6°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 Permitee 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 Permitee. 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 Permitee has achieved compliance with Federal and local pretreatment limits.

4. If Permitee 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 Permitee's manufacturing process ceases to involve a pollutant parameter listed in Part I a principal or executive officer of Permitee 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. Permitee 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 Permitee is not required to resample if:

   a. The Control Authority performs sampling at the Permitee at a frequency of at least once per month.

   b. The Control Authority performs sampling at the Permitee 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 Permitee 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 abatements.

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 Permitee to take corrective steps to achieve compliance. These penalties do not relieve Permitee 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 Permitee 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 Permitee.

Within fifteen (15) days from DELCORA's notice of failure to fulfill any condition of the Permit, Permitee shall provide both DELCORA and PWD with an explanation of the failure. Within thirty (30) days Permitee 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, Permitee 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 Permitee 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 Permitee 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 Permitee 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 Permitee shall indemnify and defend DELCORA and PWD or the claim of confidentiality shall be deemed waived.

K. Dilution

The Permitee 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 Permitee'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 Permitee, 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 Permitee 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

Nave Newell
Where Ideas Get Down to Earth

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).

If you have any questions regarding this submission, please contact me at (610)265-8323 or via email at atweedie@navenewell.net.

Respectfully submitted,

D. Alexander Tweedie, PE

DAT/jih
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.

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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

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 610-265-8323

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 Existing	Utilities Proposed	Environmental Characteristics
☐ Zoning Change	☐ Sketch	☑ Public Sewerage	☑ Public Sewerage	
☑ Land Development	☑ Preliminary	☐ Private Sewerage	☐ Private Sewerage	☐ Wetlands
☐ Subdivision	☐ Final	☑ Public Water	☑ Public Water	☐ Floodplain
☐ PRD	☐ Tentative	☐ Private Water	☐ Private Water	☐ Steep Slopes

Zoning District PLO

Tax Map # 36 / 15 / 22

Tax Folio # 36 / 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	26.99	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

Official's Signature

9/8/2014
Date

FOR DCPD USE ONLY

Review Fee: Check #_____ Amount $_____ Date Received_____

Applications with <u>original</u> 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 propposed) 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

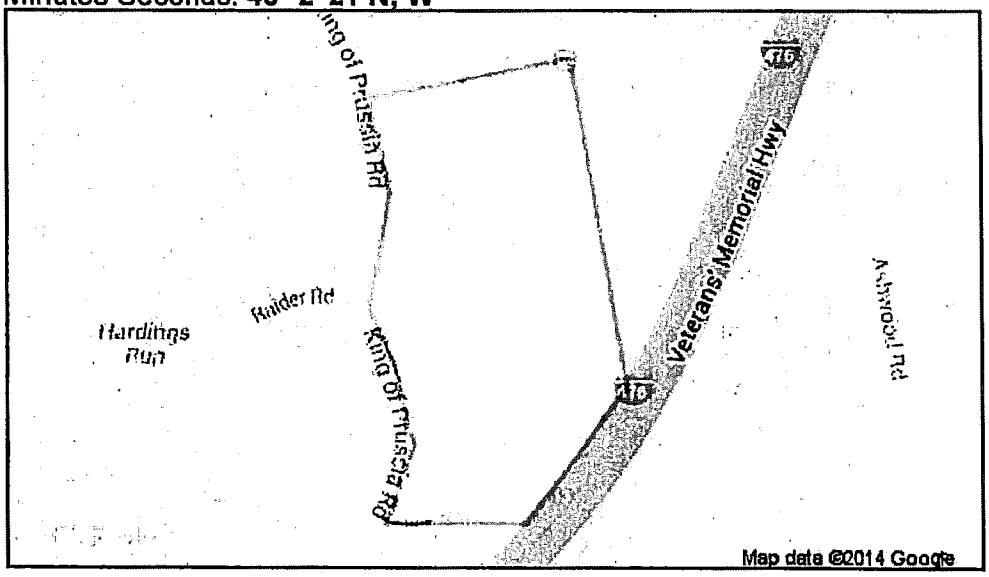
Municipality (must be same as in 2.b.)

Telephone #

PNDI Project Environmental Review Receipt Project Search ID: 20140714459232

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 jursidictional 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.

5. ADDITIONAL INFORMATION

The PNDI environmental review website is a **preliminary** screening tool. There are often delays in updating species status classifications. Because the proposed status represents the best available information regarding the conservation status of the species, state jurisdictional agency staff give the proposed statuses at least the same consideration as the current legal status. If surveys or further information reveal that a threatened and endangered and/or special concern species and resources exist in your project area, contact the appropriate jurisdictional agency/agencies immediately to identify and resolve any impacts.

For a list of species known to occur in the county where your project is located, please see the species lists by county found on the PA Natural Heritage Program (PNHP) home page (www.naturalheritage.state.pa.us). Also note that the PNDI Environmental Review Tool only contains information about species occurrences that have actually been reported to the PNHP.

6. AGENCY CONTACT INFORMATION

PA Department of Conservation and Natural Resources
Bureau of Forestry, Ecological Services Section
400 Market Street, PO Box 8552, Harrisburg, PA. 17105-8552
Fax:(717) 772-0271

U.S. Fish and Wildlife Service
Endangered Species Section
315 South Allen Street, Suite 322, State College, PA. 16801-4851
NO Faxes Please.

PA Fish and Boat Commission
Division of Environmental Services
450 Robinson Lane, Bellefonte, PA. 16823-7437
NO Faxes Please

PA Game Commission
Bureau of Wildlife Habitat Management
Division of Environmental Planning and Habitat Protection
2001 Elmerton Avenue, Harrisburg, PA. 17110-9797
Fax:(717) 787-6957

7. PROJECT CONTACT INFORMATION

Name: Maria T. Goman
Company/Business Name: Nave Newell, Inc.
Address: 900 W. Valley Rd., Suite 1100
City, State, Zip: Wayne, PA 19087
Phone:(610) 265-5323 Fax:(610) 265-4299
Email: mgoman@navenewell.net

8. CERTIFICATION

I certify that ALL of the project information contained in this receipt (including project location, project size/configuration, project type, answers to questions) is true, accurate and complete. In addition, if the project type, location, size or configuration changes, or if the answers to any questions that were asked during this online review change, I agree to re-do the online environmental review.

Maria T. Goman
applicant/project proponent signature

7/14/14
date

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 where calculated as follows:

EXISTING FLOW: 54,066 ft^2 x 0.1 gal/ft^2 = 5,407 gpd
PROPOSED FLOW:
LAB USE 30,613 ft^2 x 0.35 gal/ft^2 = 10,715 gpd
OFFICE USE 71,432 ft^2 x 0.1 gal/ft^2 = 7,143 gpd
TOTAL = 17,858 gpd
NET INCREASE 17,858 – 5,407 = 12,451 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.

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WATER STANDARDS AND FACILITY REGULATION

DEP Code # 1-23013-219-3J

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 9/2/08
2. Date review completed by agency. _____

SECTION C. AGENCY REVIEW (See Section C of instructions)

Yes	No		
☑	☐	1.	Is there a municipal comprehensive plan adopted under the Municipalities Planning Code (53 P.S. 10101, *et seq.*)?
☑	☐	2.	Is this proposal consistent with the comprehensive plan for land use?
			If no, describe the inconsistencies _____
☑	☐	3.	Is this proposal consistent with the use, development, and protection of water resources?
			If no, describe the inconsistencies _____
☑	☐	4.	Is this proposal consistent with municipal land use planning relative to Prime Agricultural Land Preservation?
☐	☑	5.	Does this project propose encroachments, obstructions, or dams that will affect wetlands?
			If yes, describe impacts _____
☐	☑	6.	Will any known historical or archaeological resources be impacted by this project?
			If yes, describe impacts _____
☐	☑	7.	Will any known endangered or threatened species of plant or animal be impacted by this project?
			If yes, describe impacts _____
☑	☐	8.	Is there a municipal zoning ordinance?
☑	☐	9.	Is this proposal consistent with the ordinance?
			If no, describe the inconsistencies _____
☐	☑	10.	Does the proposal require a change or variance to an existing comprehensive plan or zoning ordinance?
☑	☐	11.	Have all applicable zoning approvals been obtained?
☑	☐	12.	Is there a municipal subdivision and land development ordinance?

SECTION C. AGENCY REVIEW (continued)

Yes	No		
☑	☐	13.	Is this proposal consistent with the ordinance? If no, describe the inconsistencies _____
☑	☐	14.	Is this plan consistent with the municipal Act 537 Official Sewage Facilities Plan? If no, describe the inconsistencies _____
☐	☑	15.	Are there any wastewater disposal needs in the area adjacent to this proposal that should be considered by the municipality? If yes, describe _____
☐	☑	16.	Has a waiver of the sewage facilities planning requirements been requested for the residual tract of this subdivision?
☐	☐		If yes, is the proposed waiver consistent with applicable ordinances?

17. Name, title and signature of planning agency staff member completing this section:

Name: Daniel E Malloy

Title: Township Engineer

Signature: Daniel E Malloy

Date: 6/9/09

Name of Municipal Planning Agency: Radnor Township Planning Comm.

Address 301 Iven Ave, Wayne PA 19087

Telephone Number: 610 688 5600

SECTION D. ADDITIONAL COMMENTS (See Section D of instructions)

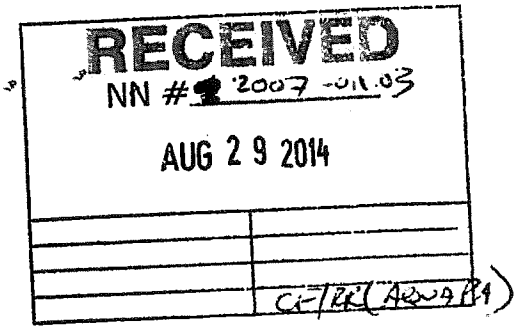
This Component does not limit municipal planning agencies from making additional comments concerning the relevancy of the proposed plan to other plans or ordinances. If additional comments are desired, attach additional sheets.

The planning agency must complete this Component within 60 days.

This component and any additional comments are to be returned to the project sponsor.

AQUA

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

ALTA Commitment (6-17-06) - TIRBOP & STG modifications (4-1-07)

COMMITMENT FOR TITLE INSURANCE
Issued by

stewart
title guaranty company

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:

Authorized Signature
Stewart Title Guaranty Company - Wayne, PA

stewart
title guaranty company

Senior Chairman of the Board

Chairman of the Board

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/> .

stewart
title guaranty company

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

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

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 Southwesterly comer 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

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

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.

stewart title guaranty company

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

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

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: CHICAGO TITLE INSURANCE COMPANY
1601 MARKET STREET
SUITE 2550
PHILADELPHIA, PA 19103

8100 00402

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

WL2155 .0376

authorized officers, with its corporate seal hereunto affixed, the day and year first above written.

WYETH-AYERST PHARMACEUTICALS INC.

ATTEST:

William P. Kelly, Assistant Secretary
(Corporate Seal)

By: Steven A. Tasher, Vice-President

1,200,000.00
800,000.00

RADNOR TWP RTT 600000.00
RADNOR TWP RTT 600000.00
PA TRANS TAX 800000.00
TOTAL 2000000.00
CHECK 800000.00

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF REVENUE
REALTY TRANSFER TAX
#2 CHECK 800000.00
33CL 3426 04-11-01 11:23TH

CHECK 1200000.00
ITEM 3
04-11-01 WED #2 MARY 3426 11:23TH

VOL 2155 PG 0379

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.

02155 0380

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 southwesterly 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.

464845-1

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.

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 PA.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 PA.D.O.T., said point being located the five following courses and distances along said lands of PA.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 TrustCorn 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.

VOL 2155 :: 0384

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 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 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

State of New Jersey :
:ss
County of Morris :

On this, the 6th day of April, 2001, before me, a Notary Public in and for the State and County aforesaid, the undersigned officer, personally appeared Steven A. Tasher and William P. Kelly who acknowledged themselves to be the Vice-President and Assistant Secretary, respectively, of WYETH-AYERST PHARMACEUTICALS INC., a corporation, and that they as such Vice-President and Assistant Secretary, respectively, being authorized to do so, executed the foregoing instrument for the purposes therein contained by signing the name of the corporation by themselves as Vice President and Assistant Secretary, respectively.

IN WITNESS WHEREOF, I have hereunto set my hand and official seal.

NOTARY PUBLIC

My Commission Expires:

JEAN P. PASSMORE
A Notary Public of New Jersey
My Commission Expires Oct. 20, 2004

The address of the above named Grantee is:

Radnor Properties-145 KOP, L.P.
The Rubenstein Company, L.P.
4100 One Commerce Square
2005 Market Street
Philadelphia, Pennsylvania 19103-7041

On behalf of the Grantee.

VOL 2155 0386

12. Facts disclosed in Survey by Yerkes Associates, Inc. dated 11/8/00 and issued 12/1/00.

VOL 2155 PG 0387

RECORDER OF DEEDS
DELAWARE CO., PA.

022166 DEED 2001 APR 11 PM 3:12

dk 3/13/21

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

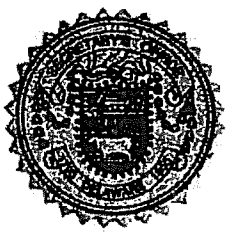
#8100-00402

VOL 2155 PG 0388

Delaware

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.



Harriet Smith Windsor

Harriet Smith Windsor, Secretary of State

3370563 8100

040612911

AUTHENTICATION: 3310330

DATE: 08-23-04

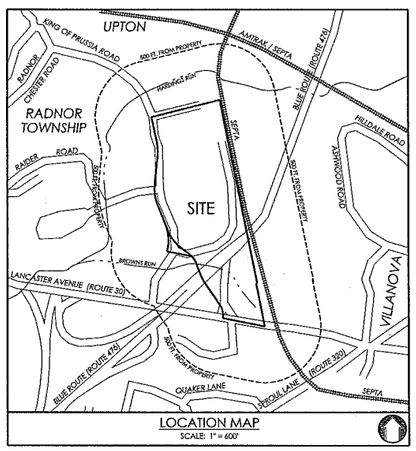
PRELIMINARY LAND DEVELOPMENT PLAN
FOR

145 KING OF PRUSSIA ROAD

SITUATED IN
RADNOR TOWNSHIP,
DELAWARE COUNTY, PENNSYLVANIA

PLAN INDEX

RELATION	NO.	DESCRIPTION	START DATE	REVISION DATE
1 OF 35	C0.0	TITLE SHEET	SEPTEMBER 3, 2014	MARCH 17, 2015
2 OF 35	C1.0	BOUNDARY PLAN	SEPTEMBER 3, 2014	MARCH 17, 2015
3 OF 35	C2.1	EXISTING FEATURES / DEMOLITION PLAN	SEPTEMBER 3, 2014	MARCH 17, 2015
4 OF 35	C2.2	EXISTING FEATURES / DEMOLITION PLAN	SEPTEMBER 3, 2014	MARCH 17, 2015
5 OF 35	C3.0	COMPOSITE SITE PLAN	SEPTEMBER 3, 2014	MARCH 17, 2015
6 OF 35	C3.1	SITE PLAN	SEPTEMBER 3, 2014	MARCH 17, 2015
7 OF 35	C3.2	SITE PLAN	SEPTEMBER 3, 2014	MARCH 17, 2015
8 OF 35	C3.3	ROUTE 30 INTERSECTION IMPROVEMENT PLAN	MARCH 17, 2015	---
9 OF 35	C3.4	TRUCK TURNING EXHIBIT	JANUARY 30, 2015	MARCH 17, 2015
10 OF 35	C3.5	TRUCK TURNING EXHIBIT	JANUARY 30, 2015	MARCH 17, 2015
11 OF 35	C4.1	GRADING PLAN	SEPTEMBER 3, 2014	MARCH 17, 2015
12 OF 35	C4.2	GRADING PLAN	SEPTEMBER 3, 2014	MARCH 17, 2015
13 OF 35	C5.1	UTILITY PLAN	SEPTEMBER 3, 2014	MARCH 17, 2015
14 OF 35	C5.2	UTILITY PLAN	SEPTEMBER 3, 2014	MARCH 17, 2015
15 OF 35	C6.1	UTILITY PROFILES	---	---
16 OF 35	C6.2	UTILITY PROFILES	---	---
17 OF 35	C6.3	UTILITY PROFILES	---	---
18 OF 35	C6.4	UTILITY PROFILES	---	---
19 OF 35	C7.1	CONSTRUCTION DETAIL SHEET	SEPTEMBER 3, 2014	MARCH 17, 2015
20 OF 35	C7.2	CONSTRUCTION DETAIL SHEET	SEPTEMBER 3, 2014	MARCH 17, 2015
21 OF 35	C7.3	CONSTRUCTION DETAIL SHEET	SEPTEMBER 3, 2014	MARCH 17, 2015
22 OF 35	C7.4	CONSTRUCTION DETAIL SHEET	SEPTEMBER 3, 2014	MARCH 17, 2015
23 OF 35	C7.5	CONSTRUCTION DETAIL SHEET	SEPTEMBER 3, 2014	MARCH 17, 2015
24 OF 35	C8.1	CONCEPTUAL EROSION & SEDIMENTATION CONTROL PLAN	SEPTEMBER 3, 2014	MARCH 17, 2015
25 OF 35	C8.2	CONCEPTUAL EROSION & SEDIMENTATION CONTROL PLAN	SEPTEMBER 3, 2014	MARCH 17, 2015
26 OF 35	C8.3	EROSION & SEDIMENTATION CONTROL DETAIL SHEET	SEPTEMBER 3, 2014	MARCH 17, 2015
27 OF 35	C8.4	EROSION & SEDIMENTATION CONTROL DETAIL SHEET	SEPTEMBER 3, 2014	MARCH 17, 2015
28 OF 35	C9.1	LANDSCAPE PLAN	SEPTEMBER 3, 2014	MARCH 17, 2015
29 OF 35	C9.2	LANDSCAPE PLAN	SEPTEMBER 3, 2014	MARCH 17, 2015
30 OF 35	C9.3	LIGHTING PLAN	SEPTEMBER 3, 2014	MARCH 17, 2015
31 OF 35	C9.4	LIGHTING PLAN	SEPTEMBER 3, 2014	MARCH 17, 2015
32 OF 35	C9.5	LANDSCAPE & LIGHTING DETAIL SHEET	SEPTEMBER 3, 2014	MARCH 17, 2015
33 OF 35	C10.1	PCSM PLAN	---	---
34 OF 35	C10.2	PCSM DETAIL SHEET	SEPTEMBER 3, 2014	MARCH 17, 2015
35 OF 35	C10.3	PCSM DETAIL SHEET	SEPTEMBER 3, 2014	MARCH 17, 2015



LOCATION MAP
SCALE: 1" = 600'

WAIVERS REQUESTED

1. SECTION 255-20.N(5)(d)(4) - TO PERMIT THE USE OF ITE TRIP GENERATION RATES.
2. SECTION 255-27.C(1) - TO PERMIT A 44ft WIDE CARTWAY ALONG KING OF PRUSSIA ROAD.
3. SECTION 255-27.H. - TO PERMIT AN INTERSECTION WHICH IS NOT A 90 DEGREE ALIGNMENT.
4. SECTION 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.
5. SECTION 255-29.A(12)(b) - TO PERMIT A 22ft DRIVE AISLE IN AREAS WITHOUT PARKING TO MAINTAIN A ROADSIDE VEGETATIVE DRAINAGE SWALE.

OWNER / APPLICANT

BMR-145 KING OF PRUSSIA ROAD, L.P.
145 KING OF PRUSSIA ROAD
RADNOR, PENNSYLVANIA 19087
ATTN: MICHAEL DEVINE
TEL: 610-647-9590

CONSULTANTS

ARCHITECT

BAM ARCHITECTURE STUDIO
SECOND FLOOR
415 WEST BROADWAY
NEW YORK, NEW YORK 10012
ATTN: ROSS COLE, AIA/MFA
TEL: 646-522-5550

CIVIL ENGINEER

NAVE NEWELL, INC.
900 WEST VALLEY ROAD
SUITE 1100
WAYNE, PENNSYLVANIA 19087
ATTN: TIMOTHY J. BRENNAN, PE
TEL: 610-265-8323

PARKING FACILITY

TIM HAAHS & ASSOCIATES, INC.
550 TOWNSHIP LINE ROAD
SUITE 100
BLUE BELL, PENNSYLVANIA 19422
ATTN: CHRIS GRAY, PE
TEL: 484-342-0500

SURVEYOR

NAVE NEWELL, INC.
900 WEST VALLEY ROAD
SUITE 1100
WAYNE, PENNSYLVANIA 19087
ATTN: JAMES S. CONLOW, PLS
TEL: 610-265-8323

TRAFFIC

McMAHON ASSOCIATES, INC.
840 HAMILTON STREET
SUITE 203
ALLENTOWN, PENNSYLVANIA 18101
ATTN: JOHN R. WICHNER, PE, PTOE
TEL: 610-628-2994

CERTIFICATE OF OWNERSHIP AND ACKNOWLEDGEMENT OF PLAN

ON THIS, THE _____ DAY OF _____, 20___, BEFORE ME, THE

UNDERSIGNED OFFICER, PERSONALLY APPEARED _____,

(NAME OF OWNER)

WHO BEING DULY SWORN ACCORDING TO LAW, DEPOSES AND SAYS THAT HE/SHE IS THE OWNER AND/OR EQUITABLE OWNER OF THE PROPERTY SHOWN ON THIS PLAN, AND THAT HE/SHE ACKNOWLEDGES THE SAME TO BE HIS/HER ACT AND PLAN AND DESIRES THE SAME BE RECORDED AS SUCH ACCORDING TO LAW.

WITNESS MY HAND AND SEAL THE DAY AND DATE ABOVE WRITTEN.

MY COMMISSION EXPIRES:

_____ _____
(NOTARY PUBLIC OR OTHER OFFICER)

Nave NEWELL
Where Ideas Get Down to Earth
900 West Valley Road • Suite 1100
Wayne, PA 19087-1830
p: 610.265.8323 f: 610.265.8399
www.navenewell.com

date:	no.	description	chk'd	by
1/30/15	1	REVISED PER TOWNSHIP REVIEW LETTERS	DAT	DWN
3/17/15	2	REVISED PER SURFACE PARKING ELIMINATION	DAT	DWN

SEAL:
TIMOTHY J. BRENNAN
Professional Engineer
Pennsylvania License No. 46158-E

DRAWING NAME: TITLE SHEET

145 KING OF PRUSSIA ROAD

LOCATION: RADNOR TOWNSHIP, DELAWARE COUNTY, PENNSYLVANIA

project no.	drawn by:
2007-011.03	DWN
date:	chk'd by:
9/3/14	DAT
scale:	approv. by:
AS NOTED	TJB

sheet no.
C0.0
1 of 35

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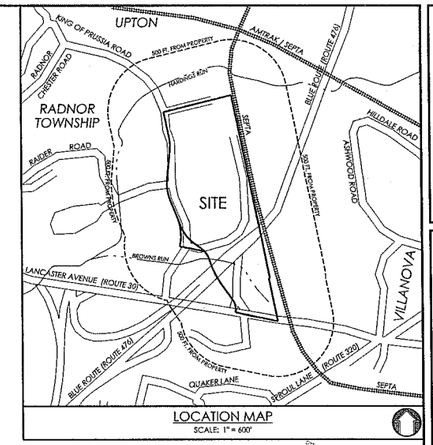
SITE DATA

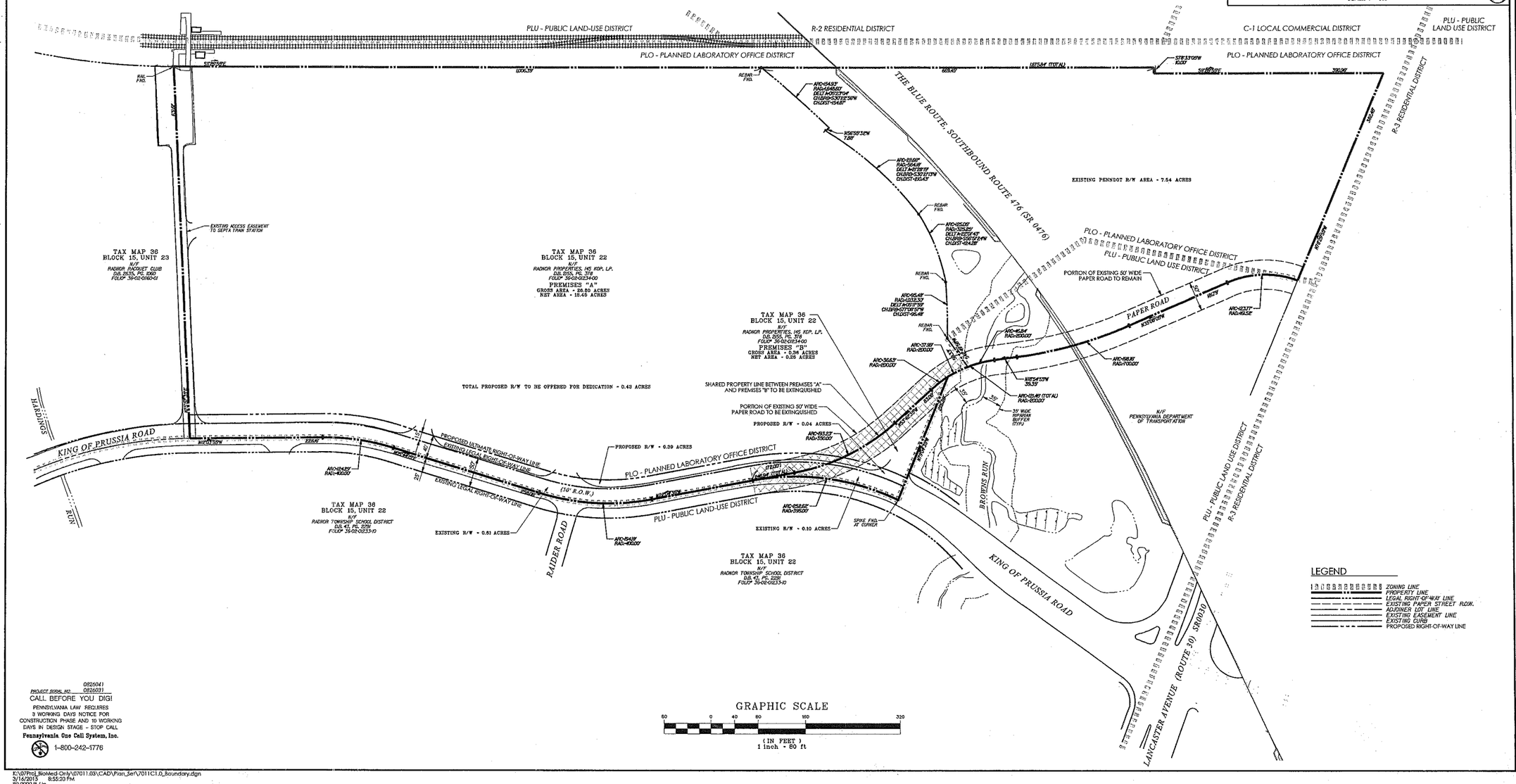
OWNER / APPLICANT:
BMR-145 KING OF PRUSSIA ROAD, L.P.
145 KING OF PRUSSIA ROAD
RADNOR, PENNSYLVANIA 19087
ATTN: MICHAEL DEVINE
TEL: 610-647-9590

	PREMISES "A"	PREMISES "B"
TAX MAP:	36	36
BLOCK:	15	15
UNIT:	22	22
DEED BOOK:	2155	2155
PAGE:	378	378
FOLIO NO.:	36-02-01234-00	36-02-01234-00
GROSS AREA:	26.60 ACRES	0.36 ACRES
NET AREA:	18.45 ACRES	0.26 ACRES

COMBINED GROSS AREA: 26.96 ACRES
COMBINED NET AREA (EX. LEGAL R.O.W.): 18.71 ACRES
COMBINED NET AREA (PROP. ULTIMATE R.O.W.): 18.28 ACRES



LOCATION MAP
SCALE: 1" = 600'



GRAPHIC SCALE
60 0 40 80 160 320
(IN FEET)
1 inch = 80 ft

LEGEND
- ZONING LINE
- PROPERTY LINE
- LEGAL RIGHT-OF-WAY LINE
- EXISTING PAPER STREET R.O.W.
- ADJOINER LOT LINE
- EXISTING EASEMENT LINE
- EXISTING CURB
- PROPOSED RIGHT-OF-WAY LINE

0826041
PROJECT SERIAL NO: 0826031
CALL BEFORE YOU DIG!
PENNSYLVANIA LAW REQUIRES 3 WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND 10 WORKING DAYS IN DESIGN STAGE - STOP CALL
Pennsylvania One Call System, Inc.
1-800-242-1776

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USER: BKelly

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REVISIONS				
date:	no.	description	chk'd	by
1/30/15	1	REVISED PER TOWNSHIP REVIEW LETTERS	DAT	DWN
3/17/15	2	REVISED PER SURFACE PARKING ELIMINATION	DAT	DWN

SEAL:
TIMOTHY J. BRENNAN
PROFESSIONAL ENGINEER
No. 49156-E
TIMOTHY J. BRENNAN
Professional Engineer
Pennsylvania License No. 49156-E

DRAWING NAME: BOUNDARY PLAN
145 KING OF PRUSSIA ROAD
LOCATION: RADNOR TOWNSHIP, DELAWARE COUNTY, PENNSYLVANIA

project no. 2007-011.03	drawn by: DWN
date: 9/3/14	chk'd by: DAT
scale: 1" = 80'	approv. by: TJB
sheet no. C1.0	

2 of 35

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SOILS LEGEND

SOILS INFORMATION OBTAINED FROM THE USDA-NRCS WEB SOIL SURVEY.
DATE OF SURVEY AREA DATA IS DECEMBER 14, 2013. THE FOLLOWING SITE SPECIFIC SOIL CLASSIFICATIONS ARE NOT LISTED AS HYDRIC SOILS.

GnB2 GLENVILLE SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED
Me MADE LAND, SCHIST AND GNEISS MATERIALS

KEY MAP
SCALE: 1" = 800'

GENERAL NOTES:

1. THIS PLAN IS BASED ON A SURVEY CONDUCTED IN THE FIELD BY NAVE NEWELL, INC. COMPLETED ON MAY 1, 2007.
2. THIS SURVEY IS NOT BASED ON A REPORT OF TITLE AND IS SUBJECT TO ANY FINDINGS THAT EITHER BURDEN OR BENEFIT THE SUBJECT PROPERTY THAT A COMPLETE REPORT OF TITLE WOULD DISCLOSE. NO DOCUMENTS OTHER THAN AS NOTED ON THE SURVEY WERE REVIEWED IN THE COURSE OF COMPLETING THIS SURVEY.
3. THIS SURVEY REPRESENTS CONDITIONS AS OF THE DATE OF THE SURVEY EXCEPT SUCH IMPROVEMENTS OR EASEMENTS, IF ANY, THAT MAY BE LOCATED BELOW THE SURFACE OF THE LANDS, ON THE SURFACE OF THE LANDS OR ABOVE THE SURFACE OF THE LANDS AND NOT VISIBLE.
4. TITLE TO THE SUBJECT PROPERTY IS FILED IN THE DELAWARE COUNTY COURT HOUSE IN DEED BOOK 2155 PAGE 378. SUBJECT PROPERTY IS KNOWN AS TAX MAP 36, BLOCK 15, UNIT 22 IN THE TOWNSHIP OF RADNOR, DELAWARE COUNTY, PENNSYLVANIA.
5. BEARING BASIS FOR THE SURVEY IS THE PENNSYLVANIA STATE COORDINATE SYSTEM, SOUTH ZONE AS DERIVED FROM GPS OBSERVATIONS. THE BEARINGS BASIS IS ROTATED 00°15'55" COUNTER CLOCKWISE FROM DEED BEARING FOR THE WESTERLY PROPERTY LINE FOR TAXMAP 37, BLOCK 15, UNIT 22, PREMISES "A".
6. PROPERTY FALLS WITHIN ZONE "X" (AREAS OF OUTSIDE THE 500 YEAR FLOODPLAIN) AS DEPICTED ON THE FEDERAL EMERGENCY AGENCY FLOOD INSURANCE MAP, MAP NO. 42091C0335E, PANEL 357 OF 451 AND MAP NO. 42045C0003 D, PANEL 3 OF 72, TOWNSHIP OF RADNOR, DELAWARE COUNTY, PENNSYLVANIA, DATED SEPTEMBER 30, 1993.
7. LOCATIONS OF EXISTING UTILITIES AS SHOWN HEREIN HAVE BEEN DEVELOPED FROM EXISTING UTILITY RECORDS, PLANS BY OTHERS AND/OR ABOVE GROUND EXAMINATION OF SITE. THE COMPLETENESS OR ACCURACIES OF THE LOCATIONS ARE NOT GUARANTEED. SHOULD ANY NEW CONSTRUCTION BE PROPOSED, THE CONTRACTOR MUST VERIFY LOCATIONS AND DEPTHS OF ALL UTILITIES BEFORE START OF WORK.
8. PURSUANT TO ACT 199 "PENNSYLVANIA ONE CALL INC." WAS PLACED ON DECEMBER 22, 2006 AND ASSIGNED SERIAL NO. 0826031 AND 0826041. INFORMATION THEREBY OBTAINED WAS USED TO ILLUSTRATE EXISTING UTILITIES.
9. UNIT AND BLOCK NUMBERS REFER TO THE OFFICIAL TAX MAPS OF THE TOWNSHIP OF RADNOR, DELAWARE COUNTY, PENNSYLVANIA.
10. PLANIMETRICS AND TOPOGRAPHY WERE TAKEN FROM AERIAL MAPPING PROVIDED BY MID-ATLANTIC PHOTOGRAMMETRIC SERVICES, INC., RECEIVED ON APRIL 24, 2007, DATE OF FLIGHT MARCH 27, 2007. THE TOPOGRAPHY AS SHOWN HAS BEEN PRODUCED TO MEET ASPRS INTERIM STANDARDS FOR A CLASS 2 MAP, AT 50 SCALE MAPPING. ACCURACY OF CONTOURS IN AREAS WHERE THE GROUND IS OBSCURED IS NOT GUARANTEED AND MUST BE FIELD VERIFIED PRIOR TO BEING USED FOR DESIGN OR ENGINEERING PURPOSES.
11. PLAN AND SURVEY HAS BEEN PREPARED IN ACCORDANCE WITH THE ACT OF MAY 23, 1945 (P.L. 913, NO. 367) KNOWN AS THE PROFESSIONAL ENGINEERS REGISTRATION LAW.
12. ALL STEEP SLOPES WITHIN PROPERTY LIMITS ARE MAN-MADE AND EXCLUDED PER ZONING ORDINANCE 280-112.1
13. ALL SOILS ON SITE ARE Me - MADE LAND, SCHIST AND GNEISS MATERIALS, HSG:B
14. SITE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE THE DECONNECTION, ABANDONMENT, RELOCATION AND/OR REMOVAL OF ALL APPLICABLE ONSITE UTILITIES. IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL REGULATIONS AS WELL AS ANY REQUIREMENTS FROM THE RELEVENT UTILITY COMPANY.
15. ALL DEMOLITION SHALL BE PERFORMED BY A QUALIFIED, LICENSED CONTRACTOR IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL REGULATIONS.
16. THIS PLAN IS NOT INTENDED TO DEPICT ALL FACETS AND ITEMS TO BE ADDRESSED DURING THE COURSE OF DEMOLITION ACTIVITIES. THIS PLAN IS INTENDED TO REPRESENT ON THE READILY VISIBLE, EXISTING IMPROVEMENTS ONSITE. CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE SITE CONDITION PRIOR TO FINALIZING HIS BID AND PROVIDE ALL NECESSARY DEMOLITION SERVICES REQUIRED TO COMPLETE THE SCOPE OF WORK OUTLINED ON THESE DRAWINGS. UPON INITIATION OF DEMOLITION, CONTRACTOR SHALL ADVISE THE ENGINEER OF RECORD IMMEDIATELY, SHOULD CONFLICTS ARISE IN THE FIELD.
17. 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.

REFERENCE PLANS:

1. OFFICIAL TAX MAPS FOR RADNOR TOWNSHIP, DELAWARE COUNTY, PA..
2. PLAN ENTITLED "ALTA/ACSM LAND TITLE SURVEY PLAN FOR RADNOR PROPERTIES ASSOCIATES - II, L.P." SHEETS 1 AND 2 OF 2. PREPARED BY YERKES ASSOCIATES INC., DATED NOVEMBER 6, 2000. LAST REVISED APRIL 2, 2001.

RADNOR TOWNSHIP UTILITY LIST:

AT & T LOCAL SERVICES ADDRESS: 2315 SALEM RD A10 CONYERS, GA. 33013 CONTACT: JOHN WARFIELD PHONE: (302) 299-0061	
RADNOR TOWNSHIP ADDRESS: 301 IVEN AVENUE WAYNE, PA 19087 CONTACT: WILLIAM R. HAGEN EMAIL: whagen@radnor.org	
AQUA PENNSYLVANIA ADDRESS: 762 LANCASTER AVENUE BRYN MAWR, PA. 190103489 CONTACT: THOMAS WADDY EMAIL: TBWaddy@aquaamerica.com	
XO COMMUNICATIONS, INC. ADDRESS: C/O DE-TECH INC 120 PEARL ST. CRESTLINE, OH 44827 CONTACT: ROBERT FREED	
COMCAST CABLE COMMUNICATIONS ADDRESS: 110 SPRINGBROOKE BLVD ASTON, PA 19014 CONTACT: DAVE GUEST	
PECO ENERGY ADDRESS: 3628 HORIZON DR KING OF PRUSSIA, PA. 19406 CONTACT: WAYNE VINCENT EMAIL: wvincent@stus.net	
ABOVENET COMMUNICATIONS INC ADDRESS: 337 CIRCLE OF PROGRESS DR POTTSTOWN, PA. 19464 CONTACT: BILL HOWELLS PHONE: (610) 721-0907	
WILLTEL COMMUNICATIONS LLC ADDRESS: TC11, ONE TECHNOLOGY CENTER TULSA, OK 74103 CONTACT: SCOTT JIRIK EMAIL: call.before.you.dig@willtel.com	
VERIZON PENNSYLVANIA INC ADDRESS: 900 RACE STREET, 6TH FLOOR PHILADELPHIA, PA. 19107 CONTACT: ERNESTINE DRAPER EMAIL: ernestine.j.draper@verizon.com	

EXISTING BUILDINGS

RESEARCH BUILDING	228,887 GSF
BUILDING 1	78,880 GSF
BUILDING 2	65,276 GSF
BUILDING 3	54,066 GSF

GRAPHIC SCALE
40 0 20 40 80 160
(IN FEET)
1 inch = 40 ft

EXISTING FEATURES SHOWN WITHIN THIS BOUNDARY WILL BE DEMOLISHED

TAX MAP 36
BLOCK 15, UNIT 22
N/F
RADNOR PROPERTIES, 145 KOP, L.P.
D.B. 2155, PG. 378
FOLIO# 36-02-01234-00
PREMISES "A"

TAX MAP 36
BLOCK 15, UNIT 22
N/F
RADNOR TOWNSHIP SCHOOL DISTRICT
D.B. 43, PG. 2291
FOLIO# 36-02-01233-10

TAX MAP 36
BLOCK 15, UNIT 22
N/F
RADNOR PROPERTIES, 145 KOP, L.P.
D.B. 2155, PG. 378
FOLIO# 36-02-01234-00
PREMISES "B"

THE BLUE ROUTE, SOUTHBOUND ROUTE 476 (SR 0476)

KING OF PRUSSIA ROAD (50' R.O.W.)

MATCH TO SHEET C2.2

LEGEND

PROPERTY LINE
LEGAL RIGHT-OF-WAY LINE
ADJOINER LOT LINE
EXISTING EASEMENT LINE
EXISTING BUILDING
EXISTING MAJOR CONTOUR
EXISTING MINOR CONTOUR
EXISTING SPOT ELEVATION
EXISTING BRUSHLINE
EXISTING TREELINE
EXISTING TREE
EXISTING EDGE OF ROAD / PAVEMENT
EXISTING CURB
EXISTING FENCE
EXISTING GUIDERAIL
EXISTING SIGN
EXISTING LAMP POST / LIGHT STANDARD
EXISTING RETAINING WALL
EXISTING SANITARY SEWER WITH MANHOLE
EXISTING STORM SEWER WITH MANHOLE
EXISTING STORM INLET
EXISTING WATER MAIN WITH VALVE
EXISTING FIRE HYDRANT
EXISTING UNDERGROUND ELECTRIC WITH MANHOLE
EXISTING ELECTRIC METER BOX
EXISTING UTILITY POLE / GUY WIRE
EXISTING OVERHEAD WIRE
EXISTING UNDERGROUND TELEPHONE WITH MANHOLE
EXISTING GAS MAIN WITH VALVE
EXISTING TRAFFIC SIGNAL
PROPOSED EXTENTS OF PROJECT DEMOLITION
EXEMPT STEEP SLOPES 14%-20%
EXEMPT STEEP SLOPES 20%+

0826041
PROJECT SERIAL NO. 0826031
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1-800-242-1776

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Wayne, PA 19087-1820
p: 610.964.8000 f: 610.964.8299
www.navenewell.com

date:	no	description	chkd	by
1/30/15	1	REVISED PER TOWNSHIP COMMENT LETTERS	DAT	DWN
3/17/15	2	REVISED PER SURFACE PARKING ELIMINATION	DAT	DWN

SEAL:
TIMOTHY J. BRENNAN
Professional Engineer
Pennsylvania License No. 46106-E

DRAWING NAME: EXISTING FEATURES / DEMOLITION PLAN

145 KING OF PRUSSIA ROAD

LOCATION: RADNOR TOWNSHIP, DELAWARE COUNTY, PENNSYLVANIA

project no.	drawn by:
2007-011.03	DWN
date:	chkd by:
9/3/14	DAT
scale:	approv. by:
1" = 40'	TJB

sheet no.
C2.1
3 of 35

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EXISTING FEATURES SHOWN WITHIN THIS BOUNDARY WILL BE DEMOLISHED

MATCH TO SHEET C2.1

TAX MAP 36
BLOCK 15, UNIT 23
N/F
RADNOR RACQUET CLUB
D.B. 2835, PG. 1980
FOLIO# 36-02-01180-01

TAX MAP 36
BLOCK 15, UNIT 22
N/F
RADNOR PROPERTIES, 145 KOP, LP.
D.B. 2152, PG. 378
FOLIO# 36-03-01234-80
PREMISES "A"

TAX MAP 36
BLOCK 15, UNIT 22
N/F
RADNOR TOWNSHIP SCHOOL DISTRICT
D.B. 43, PG. 2291
FOLIO# 36-02-01233-10

KING OF PRUSSIA ROAD
(50' R.O.W.)

RAIDER ROAD

LEGAL RIGHT-OF-WAY LINE

SOILS BOUNDARY LINE

GnB2 HSG: C

Me HSG: B

LEGEND

- PROPERTY LINE
- LEGAL RIGHT-OF-WAY LINE
- ADJOINER LOT LINE
- EXISTING EASEMENT LINE
- EXISTING BUILDING
- 420 EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- x369 EXISTING SPOT ELEVATION
- EXISTING BRUSHLINE
- EXISTING TREELINE
- EXISTING TREE
- EXISTING EDGE OF ROAD / PAVEMENT
- EXISTING CURB
- EXISTING FENCE
- EXISTING GUIDERAIL
- EXISTING SIGN
- EXISTING LAMP POST / LIGHT STANDARD
- EXISTING RETAINING WALL
- SS EXISTING SANITARY SEWER WITH MANHOLE
- EXISTING STORM SEWER WITH MANHOLE
- EXISTING STORM INLET
- W EXISTING WATER MAIN WITH VALVE
- EXISTING FIRE HYDRANT
- UGE EXISTING UNDERGROUND ELECTRIC WITH MANHOLE
- EXISTING ELECTRIC METER BOX
- EXISTING UTILITY POLE / GUY WIRE
- EXISTING OVERHEAD WIRE
- UGT EXISTING UNDERGROUND TELEPHONE WITH MANHOLE
- C EXISTING GAS MAIN WITH VALVE
- EXISTING TRAFFIC SIGNAL
- PROPOSED EXTENTS OF PROJECT DEMOLITION
- EXEMPT STEEP SLOPES 14%-20%
- EXEMPT STEEP SLOPES 20%+

SOILS LEGEND

SOILS INFORMATION OBTAINED FROM THE USDA-NRCS WEB SOIL SURVEY.
DATE OF SURVEY AREA DATA IS DECEMBER 14, 2013. THE FOLLOWING SITE SPECIFIC SOIL CLASSIFICATIONS ARE NOT LISTED AS HYDRIC SOILS.

GnB2	GLENVILLE SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED
Me	MADE LAND, SCHIST AND GNEISS MATERIALS

GRAPHIC SCALE
40 0 20 40 80
(IN FEET)
1 inch = 40 ft

KEY MAP
SCALE: 1" = 800'

0826041
PROJECT SERIAL NO. 0826041
CALL BEFORE YOU DIG!
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Wayne, PA 19087-1830
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www.navenewell.com

date:	no.	description	chkd	by
1/30/15	1	REVISED PER TOWNSHIP COMMENT LETTERS	DAT	DWN
3/17/15	2	REVISED PER SURFACE PARKING ELIMINATION	DAT	DWN

SEAL: Commonwealth of Pennsylvania — TIMOTHY J. BRENNAN — No. 46138-E

TIMOTHY J. BRENNAN
Professional Engineer
Pennsylvania License No. 46138-E

DRAWING NAME: EXISTING FEATURES / DEMOLITION PLAN

145 KING OF PRUSSIA ROAD

LOCATION: RADNOR TOWNSHIP, DELAWARE COUNTY, PENNSYLVANIA

project no. 2007-011.03	drawn by: DWN
date: 9/3/14	chk'd by: DAT
scale: 1" = 40'	approv. by: TJB
sheet no. C2.2	

4 of 35

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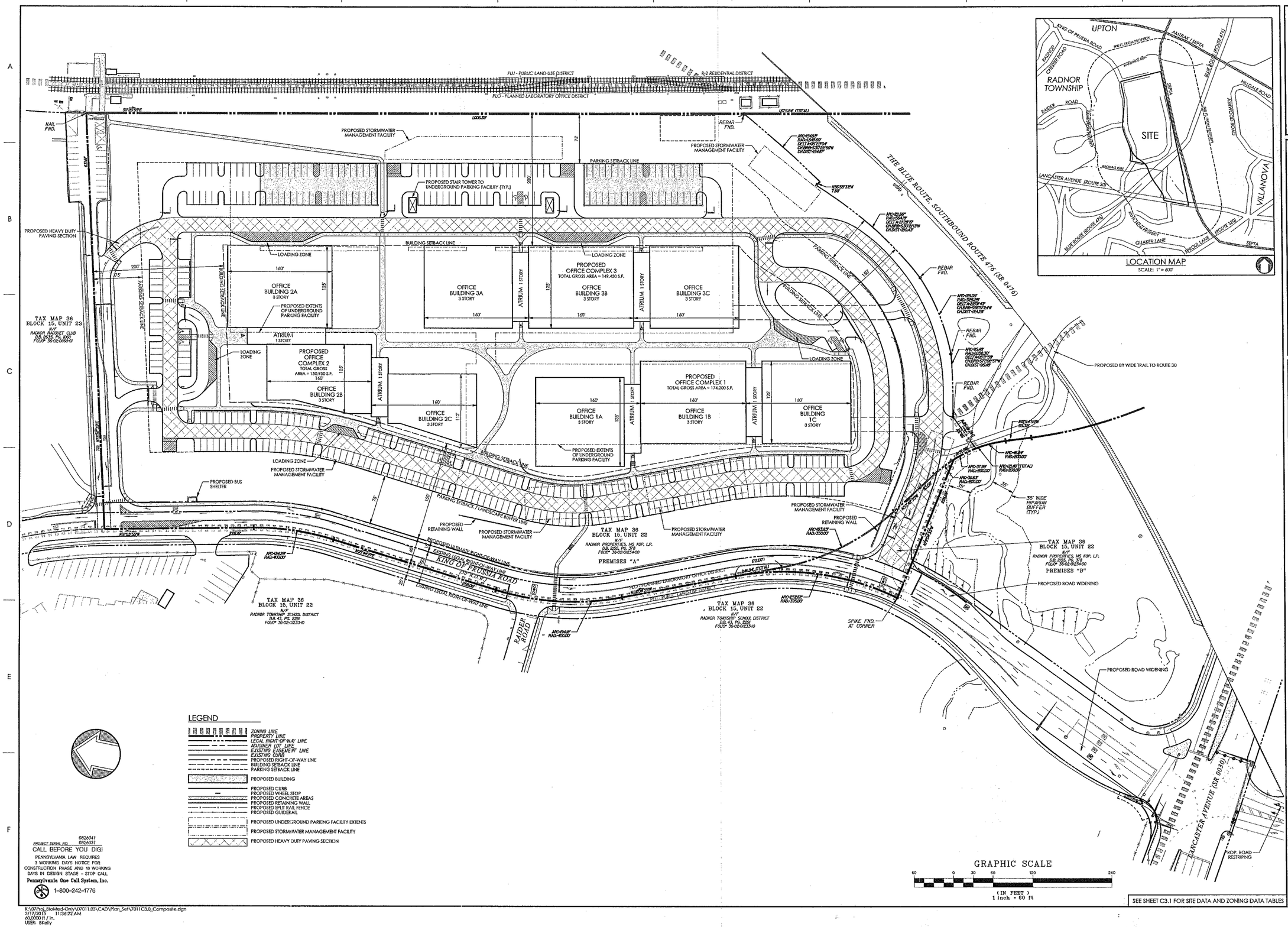

LEGEND

- ZONING LINE
- PROPERTY LINE
- LEGAL RIGHT-OF-WAY LINE
- ADJOINER LOT LINE
- EXISTING EASEMENT LINE
- EXISTING CURB
- PROPOSED RIGHT-OF-WAY LINE
- BUILDING SETBACK LINE
- PARKING SETBACK LINE
- PROPOSED BUILDING
- PROPOSED CURB
- PROPOSED WHEEL STOP
- PROPOSED CONCRETE AREAS
- PROPOSED RETAINING WALL
- PROPOSED SPLIT RAIL FENCE
- PROPOSED GUIDERAIL
- PROPOSED UNDERGROUND PARKING FACILITY EXTENTS
- PROPOSED STORMWATER MANAGEMENT FACILITY
- PROPOSED HEAVY DUTY PAVING SECTION

GRAPHIC SCALE

60 0 30 60 120 240

(IN FEET)
1 inch = 60 ft

PROJECT SERIAL NO. 0826041 0826051

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date:	no.	description	chk'd by
1/30/15	1	REVISED PER TOWNSHIP COMMENT LETTERS	DAT DWN
3/17/15	2	REVISED PER SURFACE PARKING ELIMINATION	DAT DWN

REVISIONS

SEAL:

TIMOTHY J. BRENNAN
Pennsylvania License No. 46138-E

DRAWING NAME: COMPOSITE SITE PLAN

145 KING OF PRUSSIA ROAD

LOCATION: RADNOR TOWNSHIP, DELAWARE COUNTY, PENNSYLVANIA

project no.	drawn by:
2007-011.03	DWN
date:	chk'd by:
9/3/14	DAT
scale:	approv. by:
1" = 60'	TJB

sheet no.

C3.0

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PLU - PUBLIC LAND-USE DISTRICT

R-2 RESIDENTIAL DISTRICT

PLO - PLANNED LABORATORY OFFICE DISTRICT

MATCH TO SHEET C3.2

S11°26'55"E 1,006.39'

PROPOSED STORMWATER MANAGEMENT FACILITY

PROPOSED STAIR TOWER TO PROPOSED UNDERGROUND PARKING FACILITY

PROPOSED DUMPSTER PAD

SEE SHEET C7.1, CONSTRUCTION DETAIL SHEET, FOR FURTHER INFORMATION PERTAINING TO THE PROPOSED UNDERGROUND PARKING FACILITY

PARKING SETBACK LINE

4" SYL.

4" SWL

4" SBL @ 45°, 4'C. TO C.

R1-1, STOP SIGN

24" SYL @ 45°, 4'C. TO C.

BUILDING SETBACK LINE

PROPOSED LOADING AREA

OFFICE BUILDING 3A
3 STORY
GROSS AREA = 31,500 S.F.
GROUND FLOOR AREA = 10,500 S.F.

ATRIUM 1 STORY
GROUND FLOOR AREA = 2,650 S.F.

PROPOSED OFFICE COMPLEX 3
TOTAL GROSS AREA = 149,450 S.F.
TOTAL GROUND FLOOR AREA = 53,350 S.F.

OFFICE BUILDING 3B
3 STORY
GROSS AREA = 60,900 S.F.
GROUND FLOOR AREA = 20,300 S.F.

OFFICE BUILDING 3C
3 STORY
GROSS AREA = 51,750 S.F.
GROUND FLOOR AREA = 17,250 S.F.

R6-6, BEGIN ONE WAY SIGN

PROPOSED OFFICE COMPLEX 1
TOTAL GROSS AREA = 174,200 S.F.
TOTAL GROUND FLOOR AREA = 61,600 S.F.

OFFICE BUILDING 1B
3 STORY
GROSS AREA = 60,900 S.F.
GROUND FLOOR AREA = 20,300 S.F.

OFFICE BUILDING 1C
3 STORY
GROSS AREA = 51,750 S.F.
GROUND FLOOR AREA = 17,250 S.F.

PROPOSED EXTENTS OF UNDERGROUND PARKING FACILITY

R6-7, END ONE WAY SIGN

4" SBL @ 45°, 4' C. TO C. TYPE 2 RAMP

ADA PARKING SYMBOL (TYP.)

R1-1, STOP SIGN

PROPOSED WHEEL STOP (TYP.)

PROPOSED STORMWATER MANAGEMENT FACILITY

RAISED CROSSWALK 24" SYL @ 45°, 4' C. TO C.

PARKING SETBACK / LANDSCAPE BUFFER LINE

R=510.16'

TAX MAP 36
BLOCK 15, UNIT 22
N/F
RADNOR PROPERTIES, 145 KOP, LP.
D.B. 2155, PG. 378
FOLIO# 36-02-01234-00

PREMISES "A"

PROPOSED ULTIMATE RIGHT-OF-WAY LINE

EXISTING LEGAL RIGHT-OF-WAY LINE

KING OF PRUSSIA ROAD (T.R. 72.00')

50' R.O.W.

246.84' (TOTAL)

N82°04'35"W

LEGAL RIGHT-OF-WAY LINE

TAX MAP 36
BLOCK 15, UNIT 22
N/F
RADNOR TOWNSHIP SCHOOL DISTRICT
D.B. 43, PG. 229
FOLIO# 36-02-01233-10

ARC=193.23'
RAD.=350.00'
275' CLEAR SIGHT DISTANCE LINE

ARC=252.62'
RAD.=395.00'

ADA CROSSWALK

TYPE 2 RAMP

PROPOSED SIGNALIZED INTERSECTION

SPIKE FND. AT CORNER

275' CLEAR SIGHT DISTANCE LINE

PROPOSED RETAINING WALL

PROPOSED STORMWATER MANAGEMENT FACILITY

PROP. 24" WIDE STOP BAR (TYP.)

PROPOSED SPLIT RAIL FENCE

PROPOSED DUMPSTER PAD

PROPOSED UNDERGROUND TUNNEL TO PARKING FACILITY LEVEL P2

200' CLEAR SIGHT DISTANCE LINE

TAX MAP 36
BLOCK 15, UNIT 22
N/F
RADNOR PROPERTIES, 145 KOP, LP.
D.B. 2155, PG. 378
FOLIO# 36-02-01234-00

PREMISES "B"

PROPOSED RIGHT-HAND TURN LANE

4" DYL

EXISTING LEGAL RIGHT-OF-WAY LINE

PLO - PLANNED LABORATORY OFFICE DISTRICT

FLU - PUBLIC LAND-USE DISTRICT

EISENHEL ACCESS DRIVE

PROP. EDGE OF PAVING

PROP TRAIL TO ROUTE 30

PROP. LIMITS OF EXIST. GRAVEL ACCESS DRIVE

N18°54'55"W 39.35'

ARC=46.84'
RAD.=200.00'

ARC=37.99'
RAD.=200.00'

ARC=121.46' (TOTAL)
RAD.=200.00'

ADA CROSSWALK

ARC=36.63'
RAD.=200.00'

35' WIDE RIPARIAN BUFFER (TYP.)

N15°42'35"W

N19°04'35"W

THE BLUE ROUTE, SOUTHBOUND ROUTE 476 (SR 0476)

LEGAL RIGHT-OF-WAY LINE

ARC=154.93'
RAD.=1,848.60'
DELTA=05°23'04"
CH.BRG=S30°22'56"W
CH.DIST=154.87'

N56°55'32"W 7.88'

REBAR FND.

1,675.84' (TOTAL)

207' CLEAR SIGHT DISTANCE LINE

ARC=211.66'
RAD.=564.18'
DELTA=01°28'19"
CH.BRG=S30°21'13"W
CH.DIST=210.43'

TYPE 2 RAMP

FLUSH ADA CROSSWALK

TYPE 4A RAMP

R1-1, STOP SIGN

PROPOSED UNDERGROUND TUNNEL TO PARKING FACILITY LEVEL P1

TYPE 4A RAMP

REBAR FND.

ADA CROSSWALK

R1-1, STOP SIGN

R5-1, DO NOT ENTER SIGN

ARC=125.05'
RAD.=325.25'
DELTA=22°01'43"
CH.BRG=S56°51'24"W
CH.DIST=124.28'

TYPE 4A RAMP

R3-2, NO LEFT TURN SIGN

ARC=95.48'
RAD.=1,032.30'
DELTA=05°17'59"
CH.BRG=S77°39'57"W
CH.DIST=95.48'

REBAR FND.

TYPE 4A RAMP

ADA CROSSWALK

4" SWL

R1-1, STOP SIGN

TYPE 4A RAMP

TYPE 2 RAMP

24" SWL @ 45°, 4' C. TO C.

4" SWL

4" SYL

4" SBL

4" DASHED SWL

4" DYL

R=469'

R=20'

R=15'

R=5'

22'

24'

60'

75'

50'

200'

GENERAL NOTES:

1. TRACT BOUNDARY INFORMATION BASED ON DEEDS OF RECORD AND A FIELD SURVEY PERFORMED BY NAVE NEWELL, INC., COMPLETED MAY 1, 2007.
2. TOPOGRAPHY BASED ON AN AERIAL SURVEY AND MAPPING PERFORMED BY MID-ATLANTIC PHOTOGRAMMETRIC SERVICES, INC., COMPLETED MARCH 27, 2007 AND FIELD VERIFICATION BY NAVE NEWELL, INC., ON MAY 1, 2007.
3. PROPERTY FALLS WITHIN ZONE "X" AREAS OF 500 FLOODPLAIN, AS DEPICTED ON THE FEDERAL EMERGENCY MANAGEMENT AGENCY'S FLOOD INSURANCE RATE MAP, MAP NO. 42091C0357E, PANELS 0707 451 AND MAP NO. 42045C0003 D, PANEL 3 OF 72, FOR TOWNSHIP OF RADNOR, DELAWARE COUNTY, PENNSYLVANIA, DATED SEPTEMBER 30, 1992.
4. ALL EXISTING FEATURES ARE TO REMAIN UNLESS OTHERWISE NOTED.
5. PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE TO MAKE SURE THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION AND/OR FABRICATION SHALL BEGIN UNTIL THE CONTRACTOR HAS RECEIVED AND THOROUGHLY REVIEWED ALL PLANS AND OTHER DOCUMENTS BY ALL OF THE PERMITTING AUTHORITIES.
6. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE REQUIREMENTS AND STANDARDS OF THE LOCAL GOVERNING AUTHORITY.
7. THE PROPERTY SURVEY SHALL BE CONSIDERED A PART OF THESE PLANS.
8. ALL DIMENSIONS SHOWN ON THESE PLANS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES EXIST PRIOR TO PROCEEDING WITH CONSTRUCTION. FOR NECESSARY PLAN CHANGES, NO EXTRA COMPENSATION SHALL BE PAID TO THE CONTRACTOR FOR WORK PERFORMED WHERE DUE TO DIMENSIONAL OR GRADE DISCREPANCIES SHOWN INCORRECT ON THESE PLANS IF SUCH NOTIFICATION HAS NOT BEEN GIVEN. ANY SCALED DIMENSIONS FROM THIS PLAN SHALL NOT BE USED FOR CONSTRUCTION WITHOUT CONFIRMATION BY NAVE NEWELL, INC.
9. SOIL TESTING SHALL BE PERFORMED BY CONTRACTOR IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS.
10. CONTRACTOR TO INSTALL CURBING IN COMPLIANCE WITH THE LATEST REVISED A.D.A. REGULATIONS.
11. ALL CURB RADII ARE 5.0', UNLESS OTHERWISE NOTED.
12. ALL SIGNAGE ON THE FACILITY MUST BE COMPLIANT WITH ALL APPLICABLE ENVIRONMENTAL PERFORMANCE STANDARDS FOR COMMERCIAL USES.
13. THE PROPOSED BUILDING(S) SHALL BE SERVED BY PUBLIC SEWER, PROVIDED BY RMA SEWER AUTHORITY. ALL SANITARY SEWER CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE RULES, REGULATIONS AND SPECIFICATIONS OF THE MUNICIPALITY AND THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION. IT SHALL BE THE RESPONSIBILITY OF THE DEVELOPER FOR THE PAYMENT OF ALL APPLICABLE TAPPING, PERMIT, AND REVIEW FEES, ASSOCIATED WITH SANITARY SEWER SERVICE.
14. IF THE PROPOSED WASTEWATER DISCHARGE WILL CONTAIN ANY NON-DOMESTIC SEWAGE, DETAILS SHALL BE SUBMITTED TO THE MUNICIPALITY AND GOVERNING COUNTY HEALTH DEPARTMENT FOR REVIEW AND APPROVAL.
15. THE PROPOSED BUILDING(S) SHALL BE SERVED BY PUBLIC WATER, PROVIDED BY AQUA PA. ALL WATER CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE RULES, REGULATIONS AND SPECIFICATIONS OF THE MUNICIPALITY, THE GOVERNING WATER AUTHORITY, AND THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION. IT SHALL BE THE RESPONSIBILITY OF THE DEVELOPER FOR THE PAYMENT OF ALL APPLICABLE TAPPING, PERMIT, AND REVIEW FEES, ASSOCIATED WITH THE WATER SERVICE.
16. PERMANENT MARKERS AND MONUMENTS SHALL BE INSTALLED UPON THE COMPLETION OF FINAL GRADING. ALL LOT CORNERS, EASEMENTS AND RIGHTS-OF-WAY SHALL BE PINNED AND/OR MONUMENTED IN ACCORDANCE WITH THE SUBDIVISION PLANS.
17. THE STORMWATER CONVEYANCE SYSTEM AND STORMWATER MANAGEMENT FACILITIES ARE A PERMANENT AND PERPETUAL PART OF THE DRAINAGE SYSTEM. THE ALTERATION AND/OR REMOVAL OF ANY FACILITY IS PROHIBITED, WITHOUT APPROVAL OF THE MUNICIPALITY. MAINTENANCE OF SAID FACILITIES SHALL BE IN ACCORDANCE WITH THE POST CONSTRUCTION STORMWATER MANAGEMENT PLAN AND OPERATION AND MAINTENANCE SCHEDULE.
18. THE PROJECT WILL REQUIRE A "GENERAL NPDES PERMIT" FROM THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION. THE PROJECT WILL REQUIRE EROSION AND SEDIMENTATION PLAN APPROVAL FROM THE DELAWARE COUNTY CONSERVATION DISTRICT.
19. THE APPLICANT SHALL INSTALL TRAFFIC ADAPTIVE SIGNAL COORDINATION AT THE FOLLOWING INTERSECTIONS, SUBJECT TO PENNDOT REVIEW AND APPROVAL
   1. ROUTE 30 & 1-476/KING OF PRUSSIA ROAD
   2. ROUTE 30 & 1-476 SOUTHBOUND RAMPS
   3. ROUTE 30 & RADNOR-CHESTER ROAD
   4. KING OF PRUSSIA ROAD & RADNOR-CHESTER ROAD
   5. KING OF PRUSSIA ROAD & MATSONFORD ROAD
   6. MATSONFORD ROAD & SOUTH CENTENNIAL DRIVE
   7. MATSONFORD ROAD & NORTH CENTENNIAL DRIVE
   8. KING OF PRUSSIA ROAD & RAIDER ROAD
   9. KING OF PRUSSIA ROAD & SOUTHERN BIOMED DRIVEWAY

SITE DATA

OWNER / APPLICANT:
BMR-145 KING OF PRUSSIA ROAD, L.P.
145 KING OF PRUSSIA ROAD
RADNOR, PENNSYLVANIA 19087
ATTN: MICHAEL DEVINE
TEL: 610-647-9590

	PREMISES "A"	PREMISES "B"
TAX MAP:	36	36
BLOCK:	15	15
UNIT:	22	22
DEED BOOK:	2155	2155
PAGE:	378	378
FOLIO NO.:	36-02-01234-00	36-02-01234-00
GROSS AREA:	26.60 ACRES	0.36 ACRES
NET AREA:	18.45 ACRES	0.26 ACRES

COMBINED GROSS AREA:	26.96 ACRES
COMBINED NET AREA (EX. LEGAL R.O.W.):	18.71 ACRES
COMBINED NET AREA (PROP. ULTIMATE R.O.W.):	18.28 ACRES

ZONING DATA

PLO - PLANNED LABORATORY-OFFICE DISTRICT

	REQUIRED	PROVIDED
MIN. LOT AREA	10 ACRES	26.96 GROSS ACRES 18.28 NET ACRES
MIN. LOT WIDTH	300'	1,250'
MAX. BUILDING COVERAGE	30%	14.4% *
MIN. LANDSCAPE AREA COVERAGE	45%	47.3% **
BUILDING PLACEMENT FROM STREET RIGHT-OF-WAY FROM SIDE OR REAR YARD	150' 200'	150' 200'
PARKING PLACEMENT FROM STREET RIGHT-OF-WAY OR PROPERTY LINE	75'	75'
BUILDING SIZE AND SPACING MAX. LENGTH MAX. DEPTH MIN. DISTANCE BETWEEN BUILDINGS MAX. BUILDING WIDTH ALONG FRONTAGE	160' 160' 45' 80%	135' 160' 50' 73.4% ***
MAX. BUILDING HEIGHT	3 STORIES OR 38'	3 STORIES OR 38'

PARK AND RECREATIONAL LAND REQUIREMENT (PER §255-43.1.B(2))
THE OWNER/APPLICANT WILL PROVIDE A FEE IN LIEU OF FOR THIS REQUIREMENT PER THE GUIDELINES OF §255-43.1.E(2). THE FEE FOR NON-RESIDENTIAL SUBDIVISIONS OR LAND DEVELOPMENTS SHALL BE $3.307 PER 4,000 S.F. OF BUILDING AREA.
TOTAL FEE = 168,800 S.F. / 4,000 S.F. = 43 x $3.307 = $142,201

PARKING CALCULATIONS:

PROPOSED	GROSS AREA
COMPLEX 1	174,200 S.F.
COMPLEX 2	180,950 S.F.
COMPLEX 3	149,450 S.F.
TOTAL	474,600 S.F.

TOTAL GROSS AREA =	474,600 S.F.
TOTAL NET AREA (80%) =	379,680 S.F.

PARKING REQUIREMENTS:	379,680 S.F.
(1 SPACE / 200 S.F. FOR THE FIRST 50,000 S.F.)	- 50,000 S.F. / 200 = 250 SPACES
(1 SPACE / 300 S.F. FOR THE REMAINING S.F.)	329,680 S.F. / 300 =1,099 SPACES
TOTAL SPACES REQUIRED =	1,349 SPACES

PROPOSED SURFACE PARKING	335 SPACES (8 ADA SPACES)
PROPOSED SUB-SURFACE PARKING LEVEL P1	670 SPACES (13 ADA SPACES)
PROPOSED SUB-SURFACE PARKING LEVEL P2	683 SPACES (11 ADA SPACES)
TOTAL SPACES PROPOSED =	**1,688 SPACES (32 ADA SPACES)**

* BUILDING COVERAGE = 168,800 S.F. / 43,560 S.F. / 26.96 AC = 14.4%

** LANDSCAPE COVERAGE = (BUILDING: 168,800 S.F.
+ SIDEWALKS: 38,303 S.F.
+ DRIVEWAY: 202,904 S.F.
+ CURBS/WALLS: 8,828 S.F.
+ ELEVATOR: 592 S.F.) / 43,560 S.F. =
9.4287 AC / 18.28 AC = .527
1-.527 = .473 = 47.3%

*** MAX. BUILDING WIDTH ALONG FRONTAGE = 950' / 1,294' = 73.4%

LEGEND

- ZONING LINE
- PROPERTY LINE
- LEGAL RIGHT-OF-WAY LINE
- ADJOINER LOT LINE
- EXISTING EASEMENT LINE
- EXISTING BUILDING
- EXISTING EDGE OF ROAD / PAVEMENT
- EXISTING CURB
- EXISTING FENCE
- EXISTING GUIDERAIL
- EXISTING SIGN
- EXISTING RETAINING WALL
- PROPOSED RIGHT-OF-WAY LINE
- BUILDING SETBACK LINE
- PARKING SETBACK LINE
- PROPOSED EASEMENT LINE
- PROPOSED BUILDING
- PROPOSED CURB
- PROPOSED WHEEL STOP
- PROPOSED CONCRETE
- PROPOSED RETAINING WALL
- PROPOSED SPLIT RAIL FENCE
- PROPOSED GUIDERAIL
- PROPOSED SIGN
- PROPOSED PARKING CALLOUT
- PROPOSED UNDERGROUND PARKING FACILITY EXTENTS
- PROPOSED SIGNALIZED INTERSECTION
- PROPOSED CROSSWALK
- PROPOSED 24" WIDE STOP BAR
- DYL PROPOSED DOUBLE YELLOW LINE
- SYL PROPOSED SINGLE YELLOW LINE
- SWL PROPOSED SINGLE WHITE LINE
- SBL PROPOSED SINGLE BLUE LINE
- PROPOSED BUILDING ENTRANCE LOCATION
- PROPOSED STORMWATER MANAGEMENT FACILITY

0826041
PROJECT SERIAL NO. 0826031

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USER: BKelly

GRAPHIC SCALE
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(IN FEET)
1 inch = 40 ft

KEY MAP
SCALE: 1" = 800'

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date:	no.	description	check	by
1/30/15	1	REVISED PER TOWNSHIP COMMENT LETTERS	DAT	DWN
3/17/15	2	REVISED PER SURFACE PARKING ELIMINATION	DAT	DWN

REVISIONS

SEAL: TIMOTHY J. BRENNAN, Professional Engineer, Commonwealth of Pennsylvania, No. 46158-E

TIMOTHY J. BRENNAN
Professional Engineer
No. 46158-E

DRAWING NAME: SITE PLAN

145 KING OF PRUSSIA ROAD

LOCATION: RADNOR TOWNSHIP, DELAWARE COUNTY, PENNSYLVANIA

project no.	drawn by:
2007-011.03	DWN
date:	chk'd by:
9/3/14	DAT
scale:	approv. by:
1" = 40'	TJB
sheet no.	
C3.1	

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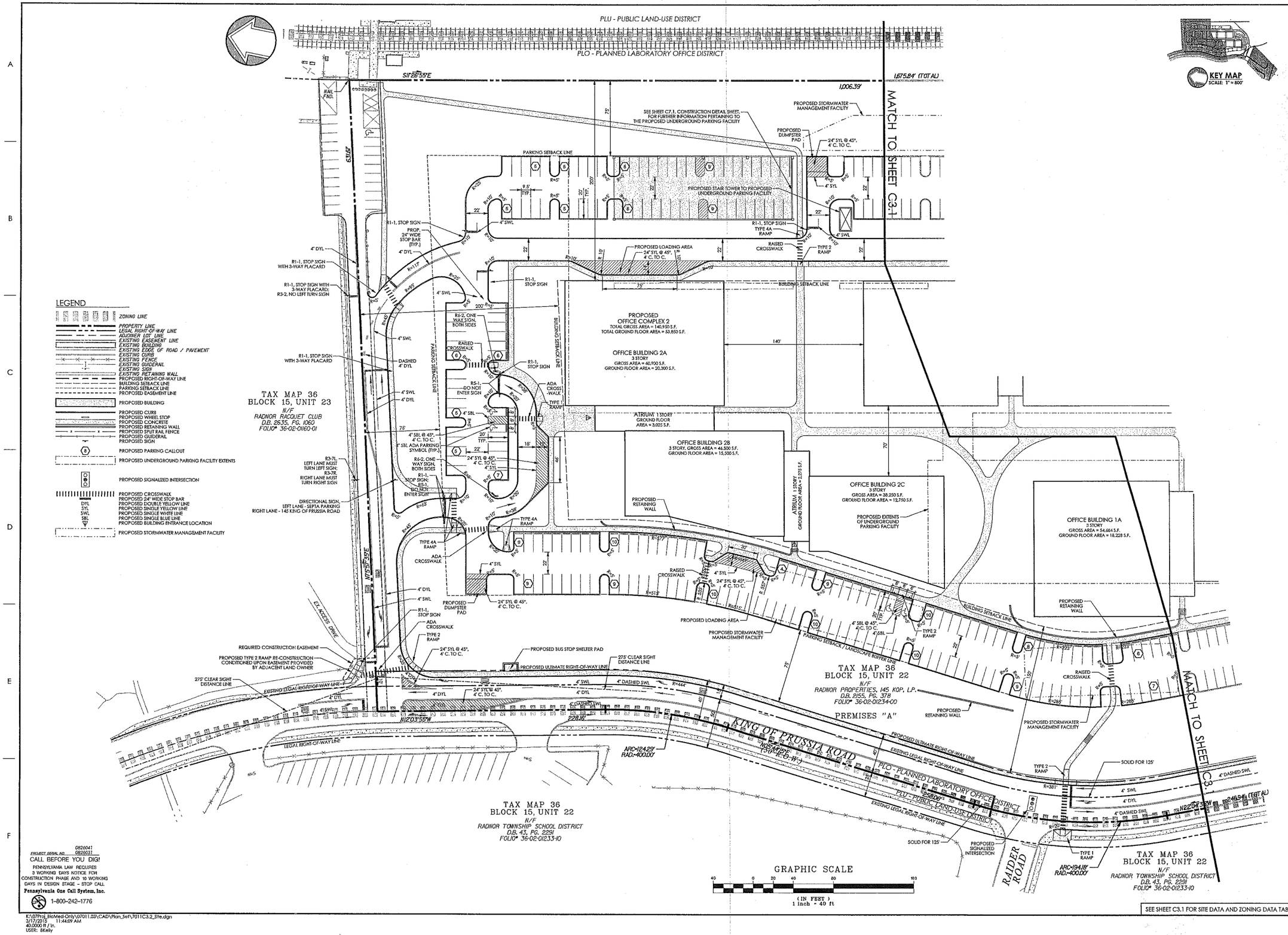

SEE SHEET C3.1 FOR SITE DATA AND ZONING DATA TABLES

0826041
PROJECT SERIAL NO. 0826031
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date:	no.	description	chkd by
1/30/15	1	REVISED PER TOWNSHIP COMMENT LETTERS	DAT
3/17/15	2	REVISED PER SURFACE PARKING ELIMINATION	DAT

REVISIONS

SEAL:
TIMOTHY J. BRENNAN
PROFESSIONAL ENGINEER
No. 46138-E
TIMOTHY J. BRENNAN
Professional Engineer
Pennsylvania No. 46138-E

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DRAWING NAME: SITE PLAN

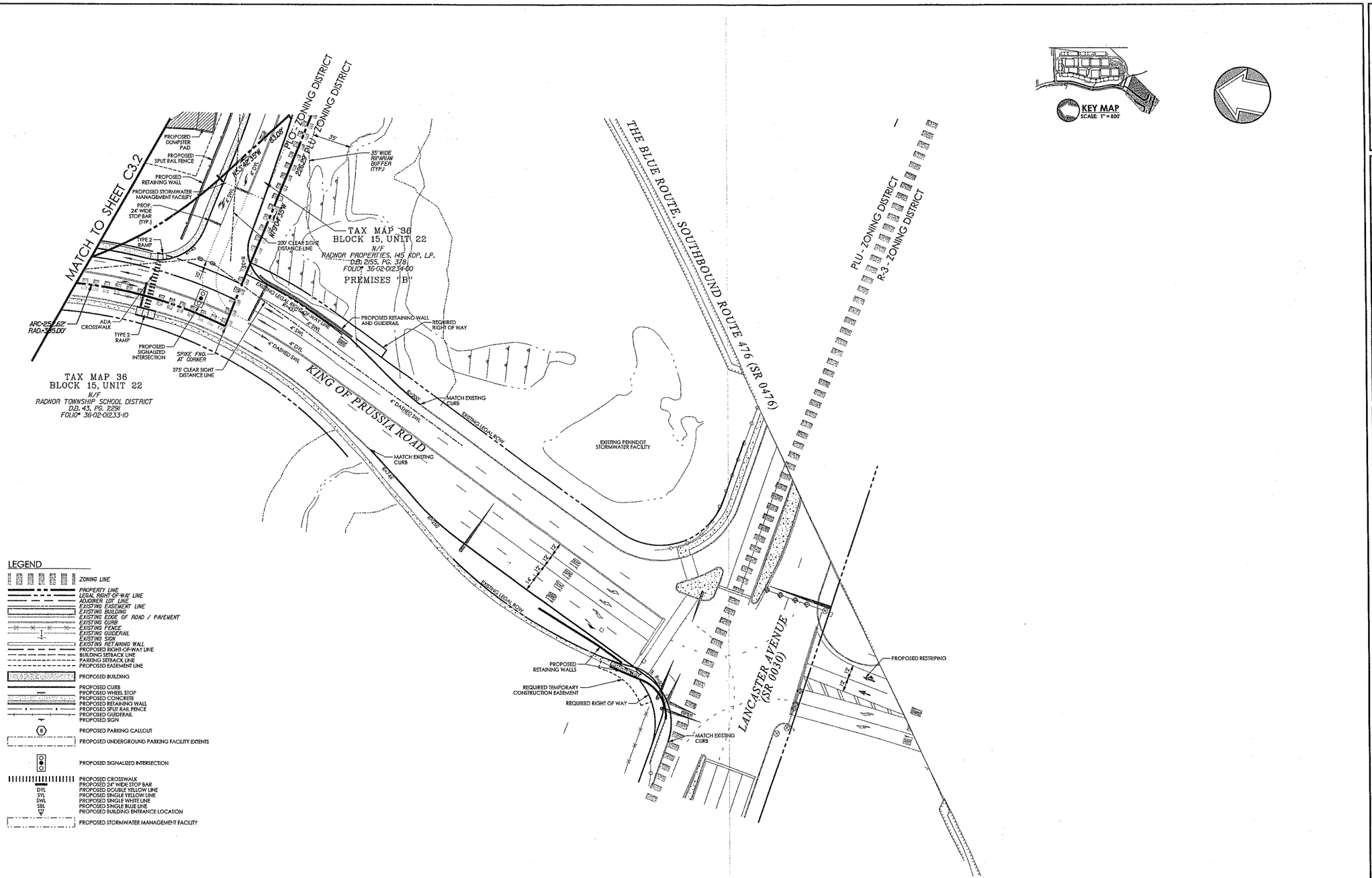
145 KING OF PRUSSIA ROAD

LOCATION: RADNOR TOWNSHIP, DELAWARE COUNTY, PENNSYLVANIA

project no.	drawn by:
2007-011.03	DWN
date:	chkd by:
9/3/14	DAT
scale:	approv. by:
1" = 40'	TJB

sheet no.

C3.2



LEGEND

- ZONING LINE
- PROPERTY LINE
- LEGAL RIGHT-OF-WAY LINE
- ADJOINER LOT LINE
- EXISTING EASEMENT LINE
- EXISTING BUILDING
- EXISTING EDGE OF ROAD / PAVEMENT
- EXISTING CURB
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- EXISTING GUIDERAIL
- EXISTING SIGN
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- SWL PROPOSED SINGLE WHITE LINE
- SBL PROPOSED SINGLE BLUE LINE
- PROPOSED BUILDING ENTRANCE LOCATION
- PROPOSED STORMWATER MANAGEMENT FACILITY

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 ft

PROJECT SERIAL NO. 0826041 0826031

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SEAL: PROFESSIONAL ENGINEER TIMOTHY J. BRENNAN No. 46138-E

TIMOTHY J. BRENNAN
Professional Engineer
Pennsylvania License No. 46138-E

DRAWING NAME: ROUTE 30 INTERSECTION IMPROVEMENT PLAN

145 KING OF PRUSSIA ROAD

LOCATION: RADNOR TOWNSHIP, DELAWARE COUNTY, PENNSYLVANIA

project no.	drawn by:
2007-011.03	DWN
date:	chk'd by:
3/17/15	DAT
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sheet no.

C3.3

8 of 35

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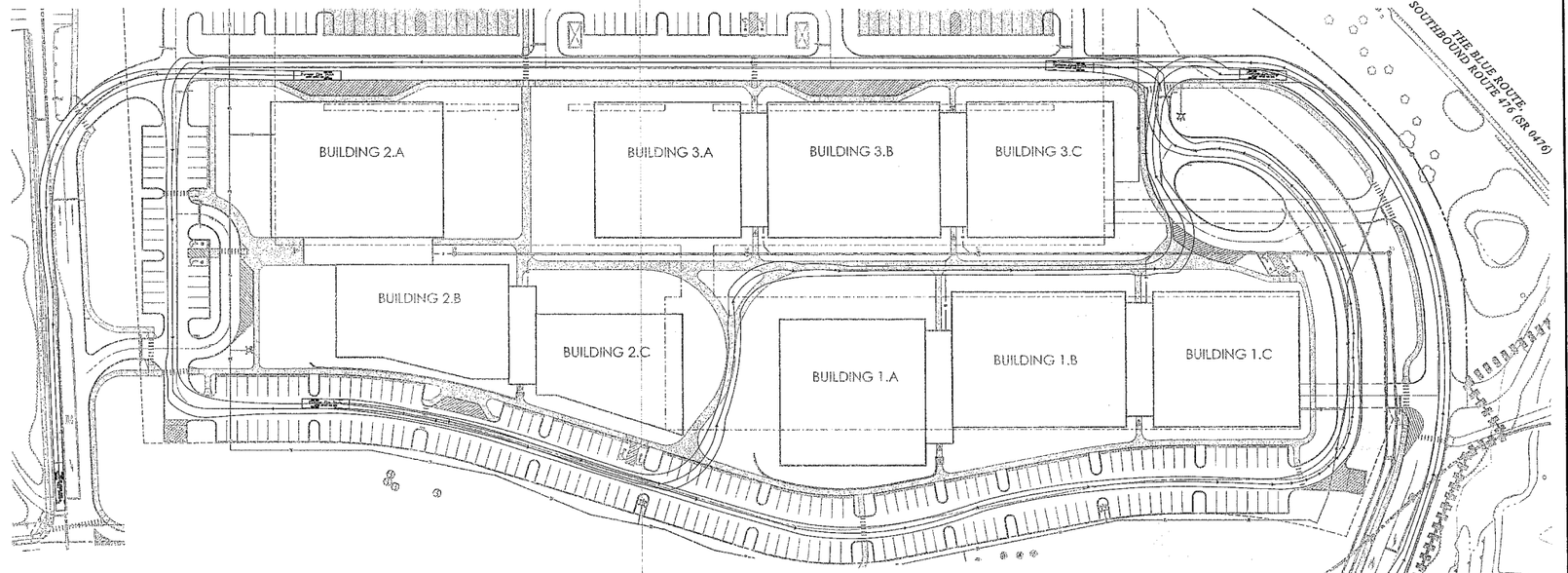

EXHIBIT 1: FIRE TRUCK TURNING PATH THROUGH SITE

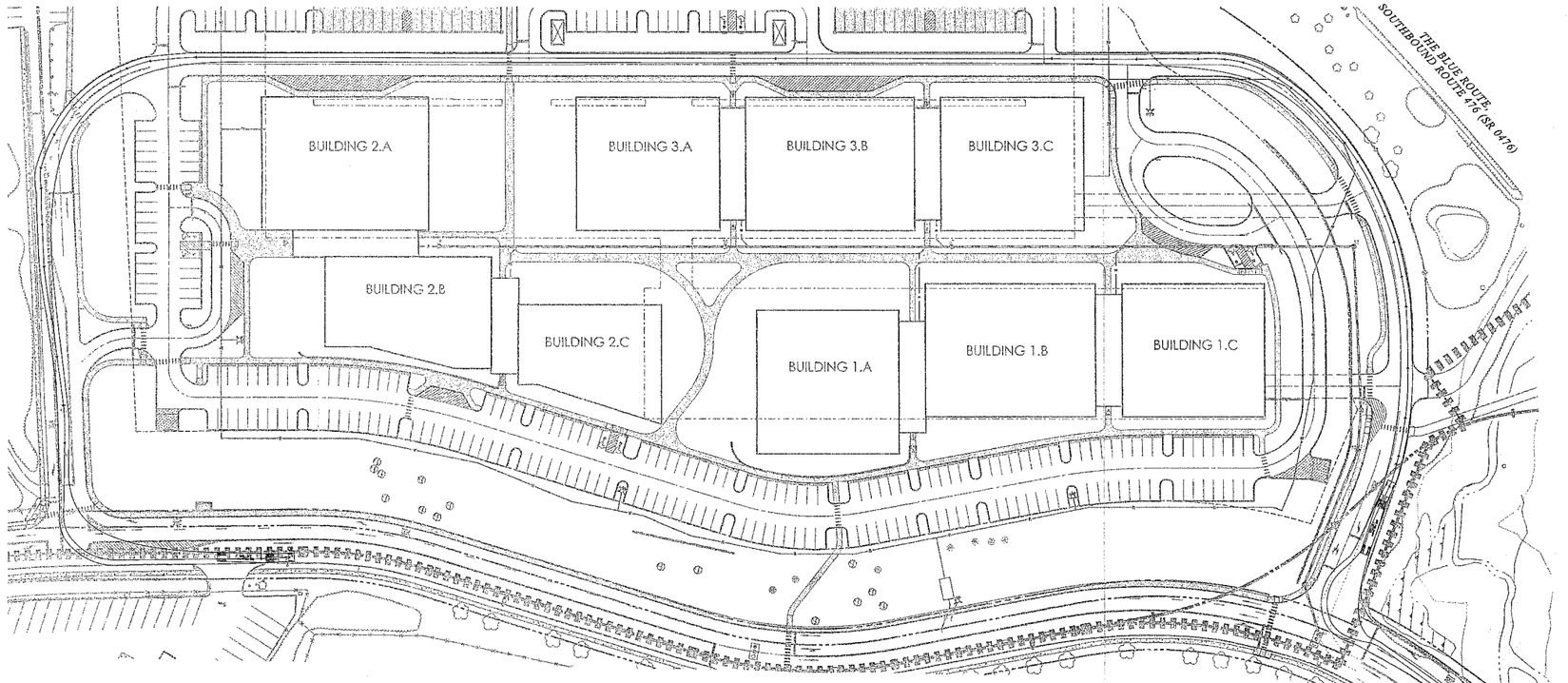

EXHIBIT 2: WB-67 TURNING PATH THROUGH LOADING AREA

GRAPHIC SCALE
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(IN FEET)
1 inch = 60 ft

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3/17/15	1	REVISED PER SURFACE PARKING ELIMINATION	DAT	OGY

SEAL:

TIMOTHY J. BRENNAN
Professional Engineer
Pennsylvania License No. 46138-E

DRAWING NAME: TRUCK TURNING EXHIBIT

145 KING OF PRUSSIA ROAD

LOCATION: RADNOR TOWNSHIP, DELAWARE COUNTY, PENNSYLVANIA

project no. 2007-011.03	drawn by: OGY
date: 1/30/15	chk'd by: DAT
scale: 1" = 60'	approv. by: TJB
sheet no. C3.4	

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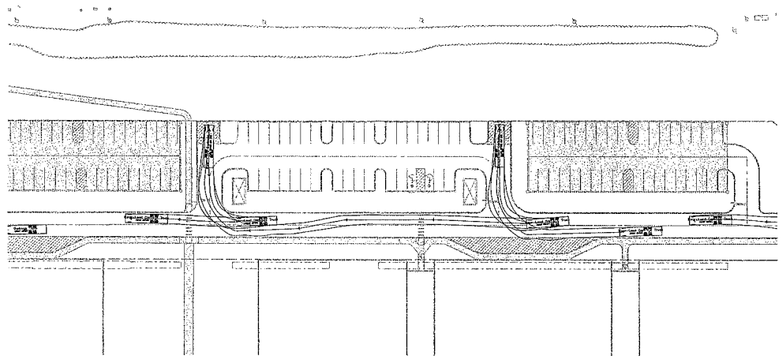
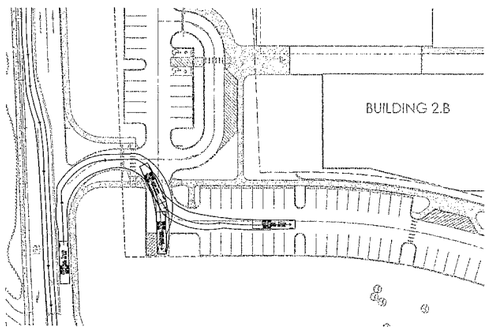




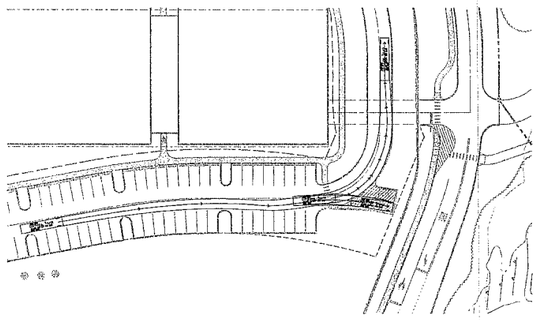
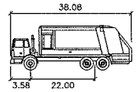
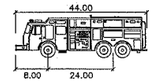


EXHIBIT 3: TRASH TRUCK TURNING PATH THROUGH DUMPSTER AREAS



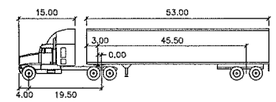
Garbage Truck

	feet
Width	: 8.00
Track	: 8.00
Lock to Lock Time	: 6.0
Steering Angle	: 27.4



Pumper Fire Truck

	feet
Width	: 8.50
Track	: 8.50
Lock to Lock Time	: 6.0
Steering Angle	: 37.8



WB-67

	feet		
Tractor Width	: 8.00	Lock to Lock Time	: 6.0
Trailer Width	: 8.50	Steering Angle	: 28.4
Tractor Track	: 8.00	Articulating Angle	: 75.0
Trailer Track	: 8.50		

VEHICLE DATA

GRAPHIC SCALE

60 0 30 60 120 240

(IN FEET)
1 inch = 60 ft

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USER: oyearwood

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date:	no.	description	chkd by
3/17/15	1	REVISED PER SURFACE PARKING ELIMINATION	DAT OGY

REVISIONS

SEAL:

TIMOTHY J. BRENNAN
Professional Engineer
Pennsylvania License No. 46139-E

DRAWING NAME: TRUCK TURNING EXHIBIT

145 KING OF PRUSSIA ROAD

LOCATION: RADNOR TOWNSHIP, DELAWARE COUNTY, PENNSYLVANIA

project no.: 2007-011.03	drawn by: OGY
date: 1/30/15	chk'd by: DAT
scale: 1" = 60'	approv. by: TJB
sheet no.: C3.5	

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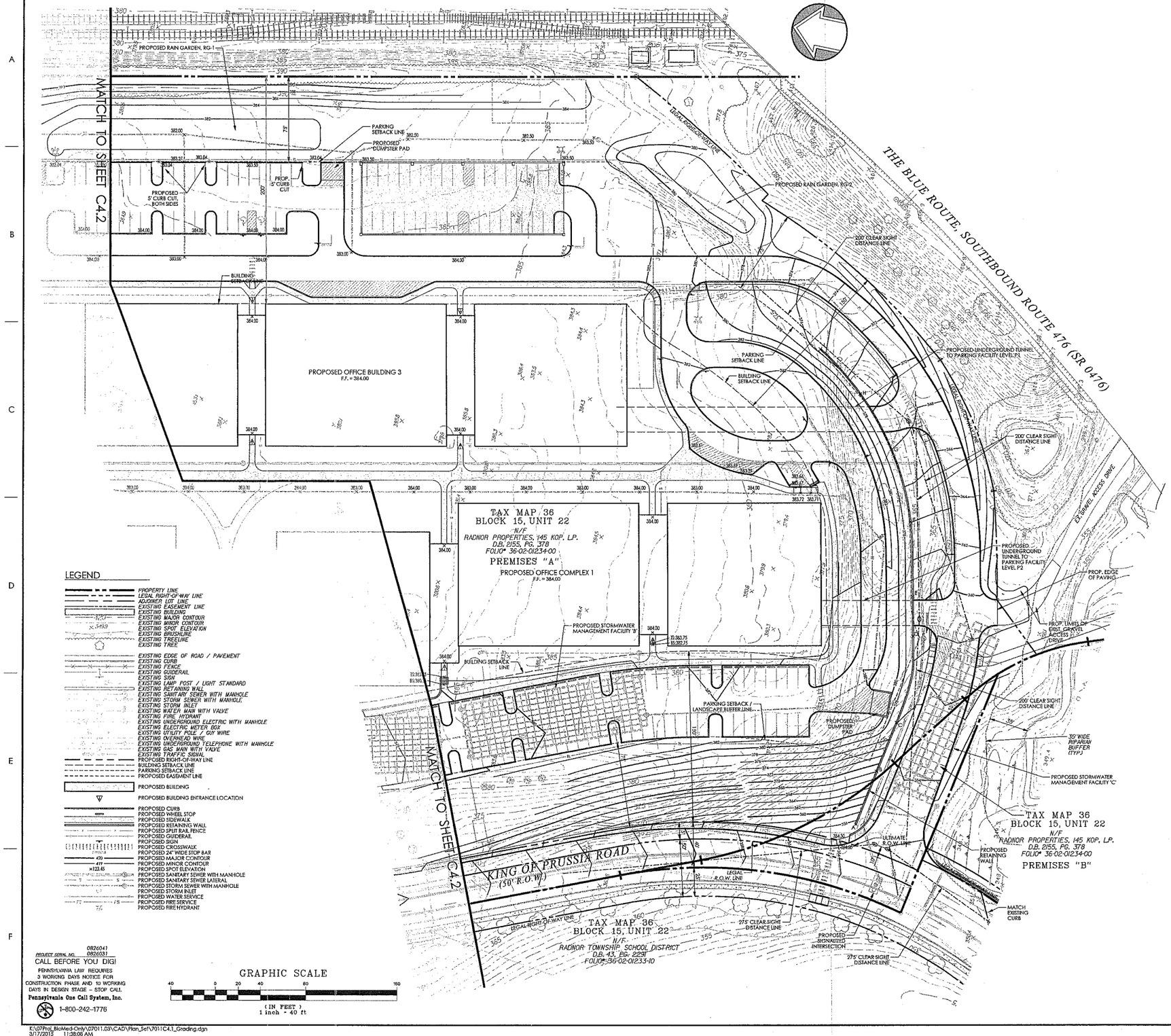

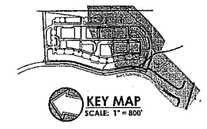

CONSTRUCTION NOTES:

1. SITE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DISCONNECTION OF ALL UTILITIES ON SITE THAT ARE TO BE REMOVED.
2. ALL DEMOLITION TO BE PERFORMED BY A QUALIFIED, LICENSED CONTRACTOR IN ACCORDANCE WITH ALL APPLICABLE TOWNSHIP, STATE, & FEDERAL REGULATIONS.
3. THIS PLAN IS NOT INTENDED TO DEPICT ALL FACETS AND ITEMS TO BE ADDRESSED DURING THE COURSE OF DEMOLITION ACTIVITIES. THIS PLAN IS INTENDED TO REPRESENT ONLY THE READILY VISIBLE, EXISTING IMPROVEMENTS ON SITE. CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE SITE CONDITION PRIOR FINALIZING HIS BID AND PROVIDE ALL NECESSARY DEMOLITION SERVICES REQUIRED TO COMPLETE THE SCOPE OF WORK OUTLINED ON THESE DRAWINGS. UPON INITIATION OF DEMOLITION, CONTRACTOR SHALL ADVISE ENGINEER OF RECORD IMMEDIATELY SHOULD CONFLICTS ARISE IN THE FIELD.
4. ALL UTILITIES SHALL BE DISCONNECTED, ABANDONED AND/OR REMOVED IN ACCORDANCE WITH ALL APPLICABLE TOWNSHIP, STATE, & FEDERAL REGULATIONS.
5. LOCATION OF ALL UTILITIES ARE APPROXIMATE AND BASED ON INFORMATION PROVIDED BY THE RESPECTIVE UTILITY COMPANIES AND PROPERTY OWNER.
6. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE SITE AND VERIFY EXISTING SITE CONDITIONS TO HIS SATISFACTION.
7. CONTRACTOR TO MEET WITH THE OWNER(S) ON JOB SITE TO IDENTIFY EQUIPMENT, SIGNS, AND ITEMS TO BE REMOVED OR RETAINED PRIOR TO THE START OF DEMOLITION.
8. PRIOR TO STARTING CONSTRUCTION, ALL UTILITY SERVICES IN THE AREA ARE TO BE LOCATED. THE USER NOTIFIED AND MEASURES TAKEN TO PROTECT THE LINES IN ACCORDANCE WITH PA ACT 287, AS AMENDED. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONTACT PA "ONE-CALL" AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION OR DEMOLITION ONSITE.
9. ALL UTILITIES AND STRUCTURES WITHIN PUBLIC RIGHTS-OF-WAY SHALL REMAIN UNLESS OTHERWISE NOTED.
10. ANY UTILITIES DAMAGED DURING DEMOLITION AND CONSTRUCTION SHALL BE REPAIRED AND/OR REPLACED IN KIND BY THE CONTRACTOR AT HIS OWN EXPENSE. UTILITY REMOVAL, ABANDONMENT, AND/OR RELOCATION SHALL BE IN ACCORDANCE WITH REQUIREMENTS FROM THE RELEVANT UTILITY COMPANY.
11. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY UTILITY "ONE-CALL" NUMBER 72 HOURS PRIOR TO ANY EXCAVATION/DEMOLITION ON THIS SITE. CONTRACTOR SHALL ALSO NOTIFY LOCAL WATER AND SEWER DEPARTMENTS TO MARK OUT THEIR UTILITIES.
12. SITE GRADING SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND REPLACING ALL SOFT, YIELDING OR UNSUITABLE MATERIALS AND REPLACING WITH SUITABLE MATERIALS. ALL EXCAVATED OR FILLED AREAS SHALL BE COMPACTED TO 95% OF MODIFIED PROCTOR MAXIMUM DENSITY PER A.S.T.M. TEST D-1557. MOISTURE CONTENT AT THE TIME OF PLACEMENT SHALL BE NO MORE THAN 2% ABOVE OR 3% BELOW OPTIMUM. CONTRACTOR SHALL SUBMIT A COMPACTION REPORT, PREPARED BY A QUALIFIED SOILS ENGINEER, REGISTERED WITH THE STATE WHERE THE WORK IS PERFORMED, VERIFYING THAT ALL FILLED AREAS AND SUBGRADE AREAS WITHIN THE BUILDING PAD AREA AND AREAS TO BE PAVED HAVE BEEN COMPACTED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS.
13. WATER SERVICE MATERIALS SHALL BE AS NOTED BY MEP ENGINEER. SERVICE SIZE SHALL BE DETERMINED BY THE ARCHITECT AND SHALL BE INSTALLED WITH 48" MINIMUM COVER OR BELOW THE FROST LINE, WHICHEVER IS GREATER. CONTRACTOR'S PRICE FOR WATER SERVICE SHALL INCLUDE ALL FEES AND APPURTENANCES REQUIRED BY THE UTILITY TO PROVIDE A COMPLETE WORKING SERVICE.
14. CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF EXISTING TOPOGRAPHIC INFORMATION AND UTILITY INVERT ELEVATION PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION. ANY DISCREPANCIES THAT MAY AFFECT THE PUBLIC SAFETY OR PROJECT COST MUST BE IDENTIFIED IMMEDIATELY TO THE ENGINEER IN WRITING. PROCEEDING WITH CONSTRUCTION WITH DESIGN DISCREPANCIES IS DONE SO AT THE CONTRACTOR'S OWN RISK.
15. CONSTRUCTION SHALL COMMENCE BEGINNING AT THE LOWEST INVERT (POINT OF CONNECTION) AND PROGRESS UP GRADIENT. INTERFACE POINTS (CROSSINGS) WITH EXISTING UNDERGROUND INSTALLATIONS SHALL BE FIELD VERIFIED BY TEST PIT PRIOR TO COMMENCEMENT OF CONSTRUCTION.
16. REFER TO SITE PLAN FOR ADDITIONAL NOTES.
17. IN CASE OF DISCREPANCIES BETWEEN PLANS, THE SITE PLAN WILL SUPERSEDE IN ALL CASES. NOTIFY ENGINEER OF RECORD OF ANY CONFLICT.
18. SUBBASE MATERIAL FOR SIDEWALKS, OR ASPHALT SHALL BE FREE OF ORGANICS AND OTHER UNSUITABLE MATERIALS. SHOULD SUBBASE BE DEEMED UNSUITABLE, SUBBASE IS TO BE REMOVED AND FILLED WITH APPROVED FILL MATERIAL AND COMPACTED TO 95% OPTIMUM DENSITY (AS DETERMINED BY MODIFIED PROCTOR METHOD).
19. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT BUILDING UTILITY CONNECTION LOCATIONS. SERVICE SIZE TO BE DETERMINED BY ARCHITECT.
20. CONTRACTOR TO CONFIRM THE HORIZONTAL LOCATION AND VERTICAL ELEVATION OF UTILITIES BEING CROSSED OR CONNECTED TO, PRIOR TO CONSTRUCTION. THE ENGINEER SHALL BE INFORMED IN WRITING OF ANY DISCREPANCIES OR CLEARANCE ISSUES PRIOR TO PROCEEDING WITH CONSTRUCTION.
21. ALL ON-SITE STORM WATER PIPING SHALL BE HDPE. ALL RING OF PRUSSIA ROAD STORM WATER PIPING SHALL BE REINFORCED CONCRETE PIPE, (RCP).
22. CLEAN OUTS AND CURB BOXES WITHIN THE PAVED AREAS MUST HAVE TRAFFIC LOADING FRAMES AND COVERS.
23. ALL INLET GRATES SHALL BE BICYCLE SAFE GRATES.
24. CONTRACTOR TO ENSURE COMPLIANCE WITH A.D.A. REGULATIONS.
25. CONTRACTOR TO UTILIZE APPROPRIATE CONSTRUCTION TECHNIQUES TO PROTECT THE PROPOSED INFILTRATION PRACTICE OF THE STORMWATER BASIN. UNDER NO CIRCUMSTANCE IS THE INFILTRATION AREA TO BE COMPACTED, ROLLED, OR HAVE HEAVY EQUIPMENT OPERATING WITHIN THE EXCAVATED PERIMETER.
26. ALL BUILDINGS AND ASSOCIATED UTILITY CONNECTIONS, AS SHOWN, HAVE BEEN BASED UPON SCHEMATIC ARCHITECTURAL PLANS. CONTRACTOR SHALL REFER TO ARCHITECT'S FINAL PLANS FOR EXACT BUILDING DIMENSIONS AND UTILITY CONNECTION POINTS FOR SIZING.
27. PLAN AND SURVEY HAS BEEN PREPARED IN ACCORDANCE WITH THE ACT OF MAY 23, 1945 (P.L. 913, NO. 367) KNOWN AS THE PROFESSIONAL ENGINEERS REGISTRATION LAW.
28. ALL STEEP SLOPES WITHIN THE PROPERTY LIMITS ARE MAN-MADE AND EXCLUDED PER Z.O. 280-1121.
29. ALL STORM DRAINAGE AND STORMWATER MANAGEMENT FACILITIES ARE TO BE OWNED AND MAINTAINED BY THE PROPERTY OWNER.
30. PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE TO MAKE SURE THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION AND/OR FABRICATION SHALL BEGIN UNTIL THE CONTRACTOR HAS RECEIVED AND THOROUGHLY REVIEWED ALL PLANS AND OTHER DOCUMENTS BY ALL OF THE PERMITTING AUTHORITIES
31. SITE CLEARING SHALL INCLUDE THE LOCATION AND REMOVAL OF ALL UNDERGROUND TANKS, PIPES, VALVES, ETC.
32. ALL EXCAVATED UNSUITABLE MATERIAL MUST BE TRANSPORTED TO AN APPROVED DISPOSAL LOCATION.
33. CONTRACTOR IS RESPONSIBLE FOR ALL SHORING REQUIRED DURING EXCAVATION AND SHALL BE PERFORMED IN ACCORDANCE WITH CURRENT OSHA STANDARDS, AS WELL AS ADDITIONAL PROVISIONS TO ASSURE STABILITY OF CONTIGUOUS STRUCTURES, AS FIELD CONDITIONS DICTATE.
34. LOCATIONS OF EXISTING UTILITIES DEPICTED HEREON HAVE BEEN DEVELOPED FROM EXISTING UTILITY RECORDS, PLANS BY OTHERS, AND/OR GROUND EXAMINATION OF SITE. COMPLETENESS OR ACCURACY OF THE LOCATIONS OF SAID UTILITIES IS NOT GUARANTEED.
35. ALL UTILITIES AND STRUCTURES WITHIN PUBLIC RIGHTS-OF-WAY OR EASEMENTS SHALL REMAIN UNLESS OTHERWISE NOTED.
36. CONTRACTOR SHALL ADHERE TO ALL SAFETY REGULATIONS AS REQUIRED BY "OSHA", THE PROPERTY OWNER, OR ANY LOCAL, STATE & FEDERAL AUTHORITY.
37. CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF EXISTING TOPOGRAPHY INFORMATION AND UTILITY INVERT ELEVATIONS, PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION. ANY DISCREPANCIES THAT MAY AFFECT PUBLIC SAFETY AND/OR PROJECT COST MUST BE INDENTIFIED IMMEDIATELY TO THE ENGINEER OF RECORD IN WRITING. PROCEEDING WITH CONSTRUCTION WITH DESIGN DISCREPANCIES IS DONE SO AT THE CONTRACTOR'S OWN RISK.
38. CONSTRUCTION OF PROPOSED UTILITIES SHALL COMMENCE AT THE LOWEST INVERT (POINT OF CONNECTION) AND PROGRESS UP GRADIENT. INTERFACE POINTS (CROSSINGS) WITH EXISTING UNDERGROUND INSTALLATIONS SHALL BE FIELD VERIFIED BY TEST PIT PRIOR TO COMMENCEMENT OF CONSTRUCTION.
39. A GRADING AND E&S CONTROL PLAN MUST BE SUBMITTED AND APPROVED PRIOR TO THE ISSUANCE OF ANY BUILDING PERMITS. ANY REVISION TO SIZE OR LOCATION OF INDIVIDUAL STRUCTURES OR OTHER FEATURES WILL BE ADDRESSED AT THAT TIME, AND FINAL APPROVAL OF THE STORMWATER MANAGEMENT PLAN WILL BE REQUIRED AS PART OF THE GRADING PERMIT PROCESS.

WALL ELEVATION SCHEDULE

SPOT LOCATION	TOP OF WALL ELEVATION	BOTTOM OF WALL ELEVATION
A	355.0	354.0
B	368.0	354.5
C	376.0	356.0
D	376.0	359.0
E	376.0	360.5
F	376.0	364.0
G	376.0	368.0
H	376.0	371.0
I	375.5	375.0

LEGEND

- PROPERTY LINE
- LEGAL RIGHT-OF-WAY LINE
- ADJOINER LOT LINE
- EXISTING EASEMENT LINE
- EXISTING BUILDING
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- EXISTING SPOT ELEVATION
- EXISTING BRUSHLINE
- EXISTING TREELINE
- EXISTING TREE
- EXISTING EDGE OF ROAD / PAVEMENT
- EXISTING CURB
- EXISTING FENCE
- EXISTING GUIDERAIL
- EXISTING SIGN
- EXISTING LAMP POST / LIGHT STANDARD
- EXISTING RETAINING WALL
- EXISTING SANITARY SEWER WITH MANHOLE
- EXISTING STORM SEWER WITH MANHOLE
- EXISTING STORM INLET
- EXISTING WATER MAIN WITH VALVE
- EXISTING FIRE HYDRANT
- EXISTING UNDERGROUND ELECTRIC WITH MANHOLE
- EXISTING ELECTRIC METER BOX
- EXISTING UTILITY POLE / GUY WIRE
- EXISTING OVERHEAD WIRE
- EXISTING UNDERGROUND TELEPHONE WITH MANHOLE
- EXISTING GAS MAIN WITH VALVE
- EXISTING TRAFFIC SIGNAL
- PROPOSED RIGHT-OF-WAY LINE
- BUILDING SETBACK LINE
- PARKING SETBACK LINE
- PROPOSED EASEMENT LINE
- PROPOSED BUILDING
- PROPOSED BUILDING ENTRANCE LOCATION
- PROPOSED CURB
- PROPOSED WHEEL STOP
- PROPOSED SIDEWALK
- PROPOSED RETAINING WALL
- PROPOSED SPLIT RAIL FENCE
- PROPOSED GUIDERAIL
- PROPOSED SIGN
- PROPOSED CROSSWALK
- PROPOSED 24" WIDE STOP BAR
- 420 PROPOSED MAJOR CONTOUR
- 419 PROPOSED MINOR CONTOUR
- x123.45 PROPOSED SPOT ELEVATION
- PROPOSED SANITARY SEWER WITH MANHOLE
- PROPOSED SANITARY SEWER LATERAL
- PROPOSED STORM SEWER WITH MANHOLE
- PROPOSED STORM INLET
- PROPOSED WATER SERVICE
- PROPOSED FIRE SERVICE
- PROPOSED FIRE HYDRANT

0826041
PROJECT SERIAL NO. 0826031

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GRAPHIC SCALE
40 0 20 40 80 160
(IN FEET)
1 inch = 40 ft

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no.	description	date	chkd by
1	REVISED PER TOWNSHIP COMMENT LETTERS	1/30/15	DAT
2	REVISED PER SURFACE PARKING ELIMINATION	3/17/15	DAT

REVISIONS

SEAL: COMMONWEALTH OF PENNSYLVANIA — TIMOTHY J. BRENNAN — No. 46284-E — REGISTERED PROFESSIONAL ENGINEER

TIMOTHY J. BRENNAN
Professional Engineer No. 46284-E

DRAWING NAME: GRADING PLAN

145 KING OF PRUSSIA ROAD

LOCATION: RADNOR TOWNSHIP, DELAWARE COUNTY, PENNSYLVANIA

project no.	2007-011.03
drawn by:	DWN
date:	9/3/14
chkd by:	DAT
scale:	1" = 40'
approv. by:	TJB

sheet no.

C4.1

11 of 35

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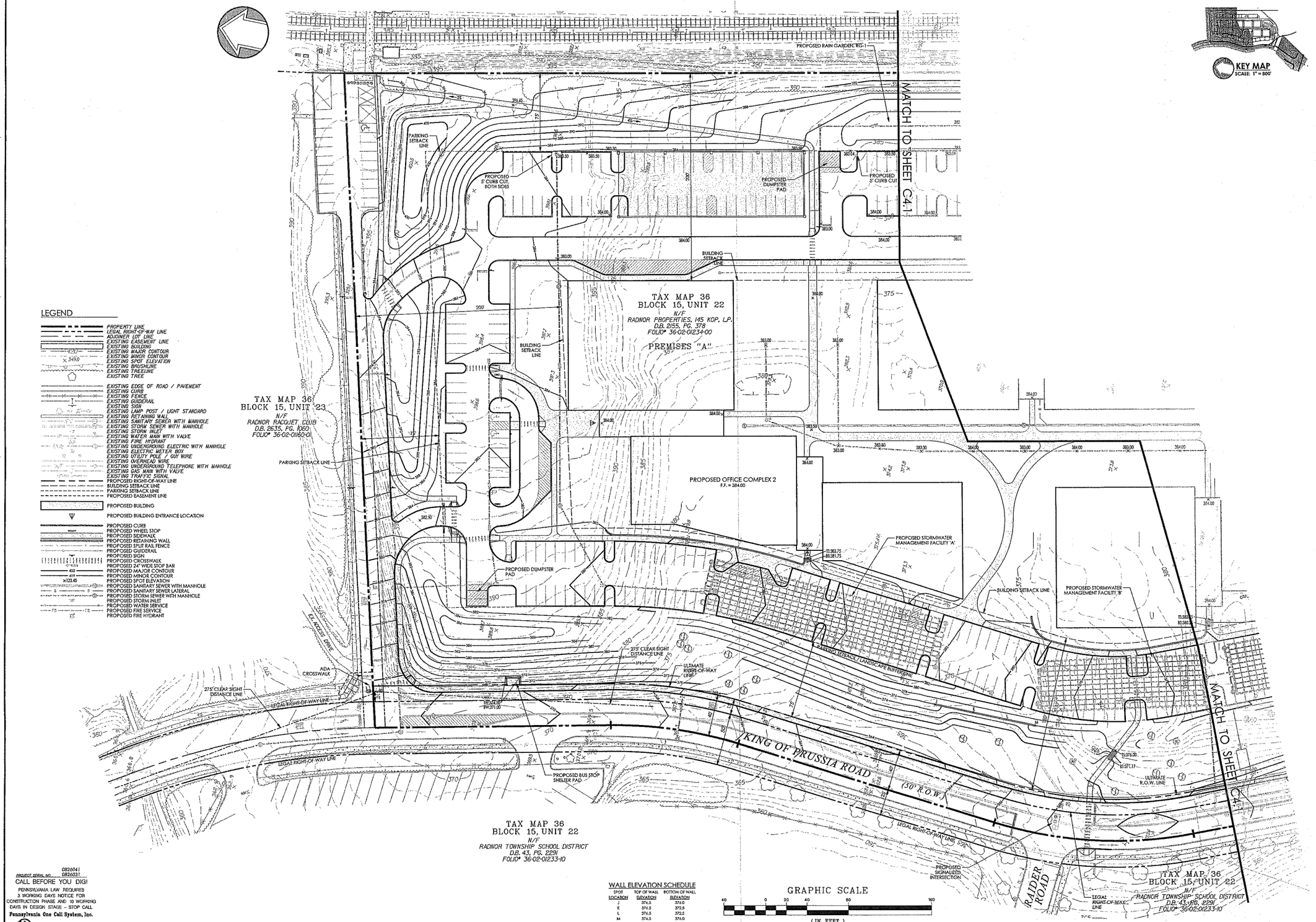

KEY MAP
SCALE: 1" = 800'

LEGEND

- PROPERTY LINE
- LEGAL RIGHT-OF-WAY LINE
- ADJOINER LOT LINE
- EXISTING EASEMENT LINE
- EXISTING BUILDING
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
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PROJECT SERIAL NO. 082604 / 082603

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1-800-242-1776

WALL ELEVATION SCHEDULE

SPOT LOCATION	TOP OF WALL ELEVATION	BOTTOM OF WALL ELEVATION
J	376.5	374.0
K	376.5	372.5
L	376.5	372.5
M	376.5	374.0

GRAPHIC SCALE
40 0 20 40 80 160
(IN FEET)
1 inch = 40 ft

SEE SHEET C4.1 FOR CONSTRUCTION NOTES

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no.	description	date	chkd by
1	REVISED PER TOWNSHIP COMMENT LETTERS	1/20/15	DAT
2	REVISED PER SURFACE PARKING ELIMINATION	3/17/15	DWN

REVISIONS

SEAL

TIMOTHY J. BRENNAN
Professional Engineer
No. 46138-E

DRAWING NAME: GRADING PLAN

145 KING OF PRUSSIA ROAD

LOCATION: RADNOR TOWNSHIP, DELAWARE COUNTY, PENNSYLVANIA

project no.	drawn by:
2007-011.03	DWN
date:	chkd by:
9/3/14	DAT
scale:	approv. by:
1" = 40'	TJB

sheet no.
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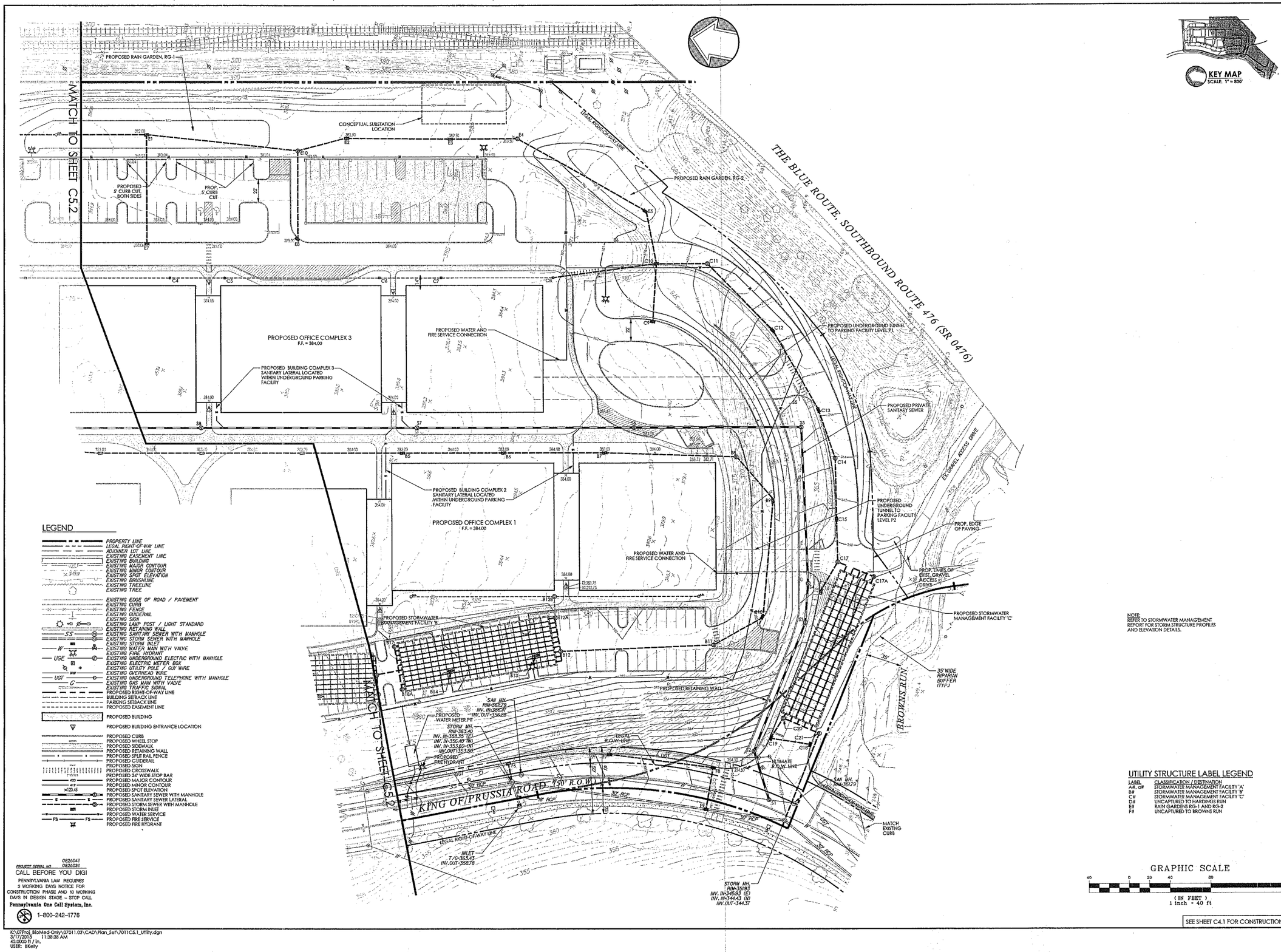

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NOTE: REFER TO STORMWATER MANAGEMENT REPORT FOR STORM STRUCTURE PROFILES AND ELEVATION DETAILS.

UTILITY STRUCTURE LABEL LEGEND

LABEL	CLASSIFICATION / DESTINATION
A#, a#	STORMWATER MANAGEMENT FACILITY 'A'
B#	STORMWATER MANAGEMENT FACILITY 'B'
C#	STORMWATER MANAGEMENT FACILITY 'C'
D#	UNCAPTURED TO HARDINGS RUN
E#	RAIN GARDENS RG-1 AND RG-2
F#	UNCAPTURED TO BROWNS RUN

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 ft

SEE SHEET C4.1 FOR CONSTRUCTION NOTES

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1/30/15	1	REVISED PER TOWNSHIP COMMENT LETTERS	DAT
3/17/15	2	REVISED PER SURFACE PARKING ELIMINATION	DAT

SEAL:

TIMOTHY J. BRENNAN
Professional Engineer
Pennsylvania License No. 46139-E

DRAWING NAME: UTILITY PLAN

145 KING OF PRUSSIA ROAD

LOCATION: RADNOR TOWNSHIP, DELAWARE COUNTY, PENNSYLVANIA

project no.	drawn by:
2007-011.03	DWN
date:	chk'd by:
9/3/14	DAT
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1" = 40'	TJB

sheet no.

C5.1

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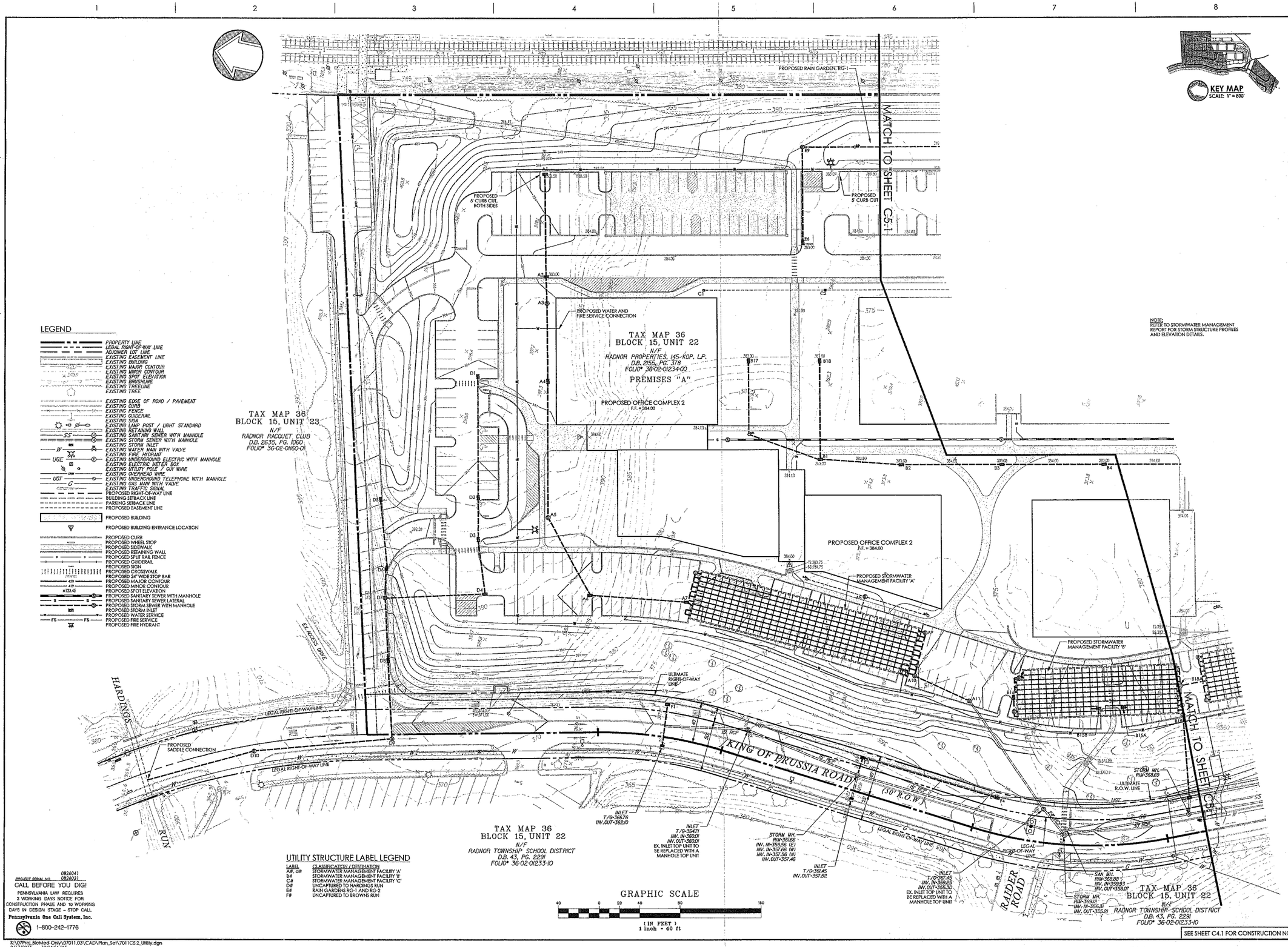

KEY MAP
SCALE: 1" = 800'

NOTE:
REFER TO STORMWATER MANAGEMENT REPORT FOR STORM STRUCTURE PROFILES AND ELEVATION DETAILS.

LEGEND

- PROPERTY LINE
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UTILITY STRUCTURE LABEL LEGEND

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C#	STORMWATER MANAGEMENT FACILITY 'C'
D#	UNCAPTURED TO HARDINGS RUN
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SEAL:
TIMOTHY J. BRENNAN
PROFESSIONAL ENGINEER
PA 041814
TIMOTHY J. BRENNAN
Professional Engineer No. 41814-E
Pennsylvania License No. 66106-E

DRAWING NAME: UTILITY PLAN

145 KING OF PRUSSIA ROAD

LOCATION: RADNOR TOWNSHIP, DELAWARE COUNTY, PENNSYLVANIA

project no.	drawn by:
2007-011.03	DWN
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1" = 40'	TJB

sheet no.
C5.2
14 of 35

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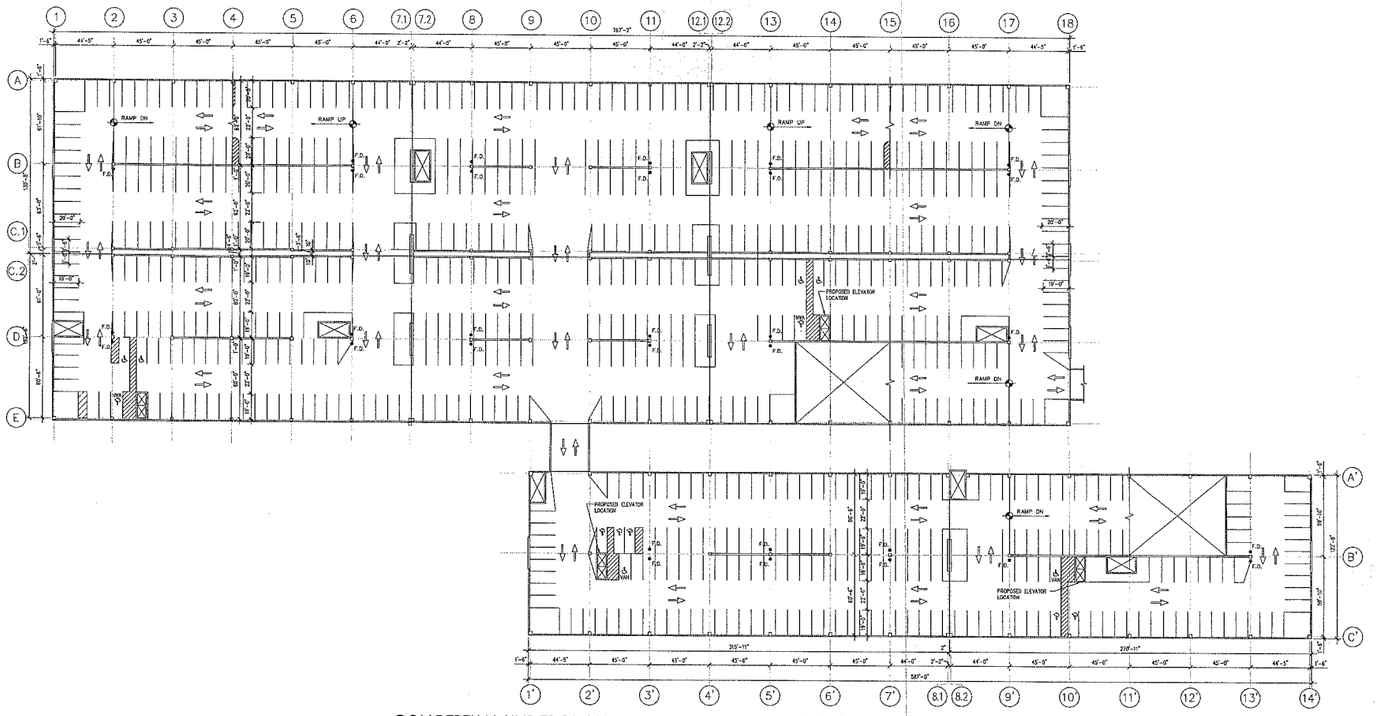
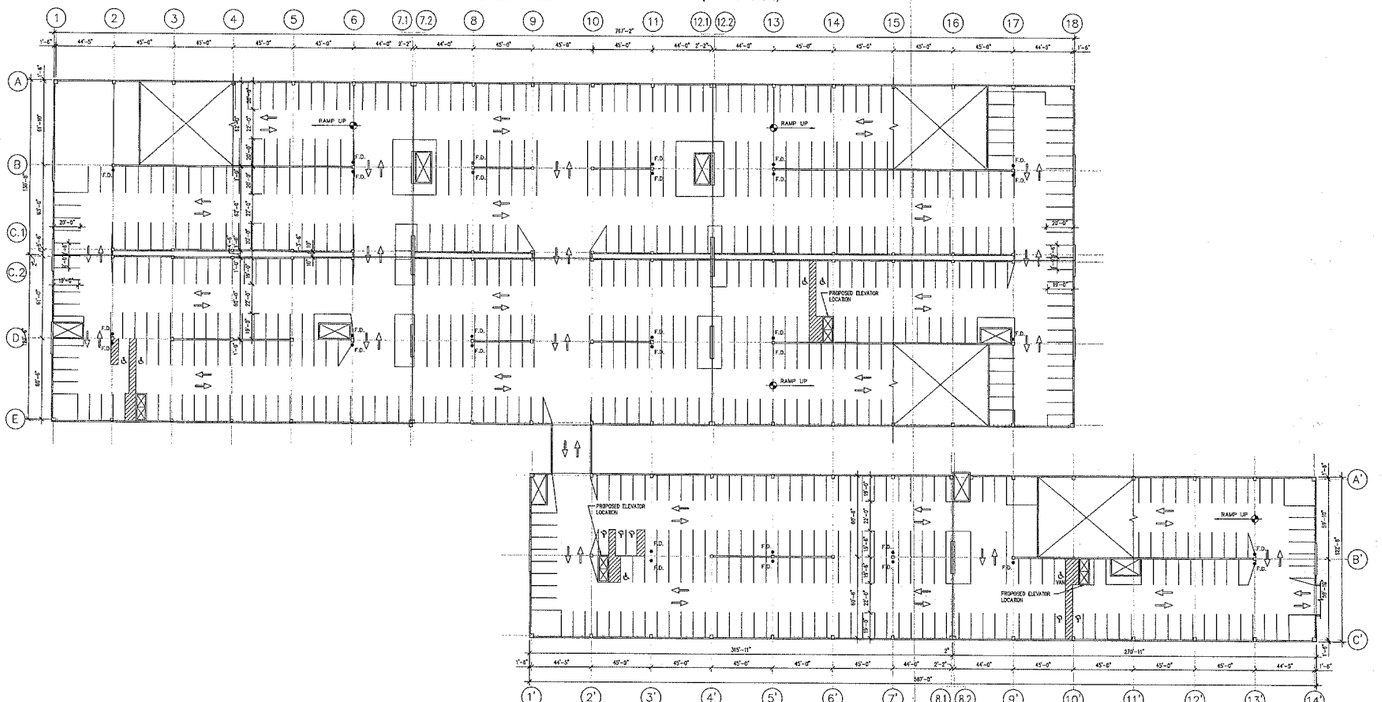


CONCEPTUAL UNDERGROUND PARKING FACILITY - LEVEL P1

TOTAL PROPOSED LEVEL P1 PARKING = 670 SPACES (13 ADA SPACES)



CONCEPTUAL UNDERGROUND PARKING FACILITY - LEVEL P2

TOTAL PROPOSED LEVEL P2 PARKING = 680 SPACES (11 ADA SPACES)

NOTE:

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.

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft

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date:	no.	description	chkd	by
1/30/15	1	REVISED PER TOWNSHIP COMMENT LETTERS	DAT	DWN
3/17/15	2	REVISED PER SURFACE PARKING ELIMINATION	DAT	DWN

REVISIONS

SEAL:

TIMOTHY J. BRENNAN
Professional Engineer
Pennsylvania License No. 46038-E

DRAWING NAME: CONSTRUCTION DETAIL SHEET

145 KING OF PRUSSIA ROAD

LOCATION: RADNOR TOWNSHIP, DELAWARE COUNTY, PENNSYLVANIA

project no. 2007-011.03	drawn by: DWN
date: 9/3/14	chkd by: DAT
scale: 1" = 50'	approv. by: TJB
sheet no. C7.1	

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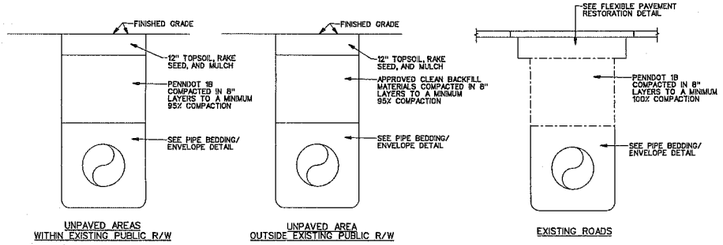


UNPAVED AREAS WITHIN EXISTING PUBLIC R/W

UNPAVED AREA OUTSIDE EXISTING PUBLIC R/W

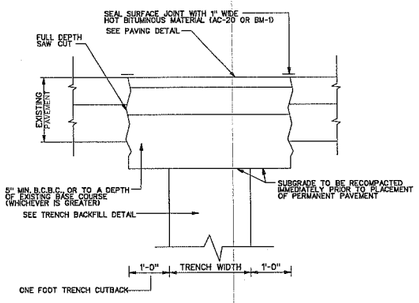
EXISTING ROADS

NOTES:

1. TRENCH COMPACTION TO BE TESTED, AT THE CONTRACTOR'S EXPENSE, IN ACCORDANCE WITH PENNDOT PUB 408.
2. CLEAN FILL MUST BE APPROVED BY THE CITY'S ENGINEER PRIOR TO PLACEMENT IN THE TRENCH.
3. AREAS AROUND MANHOLES AND OTHER APPURTENANCES SHALL BE HAND COMPACTED AS DIRECTED BY THE CITY'S ENGINEER.

TRENCH BACKFILL

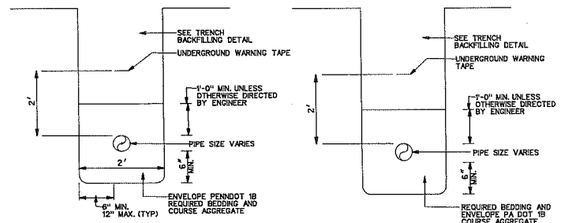
N.T.S.



NOTE:
EXPOSED VERTICAL AND HORIZONTAL SURFACES SHALL BE PREPARED AS STATED IN PENNDOT PUB 408, SECT. 401.3(f)

FLEXIBLE PAVEMENT RESTORATION

N.T.S.



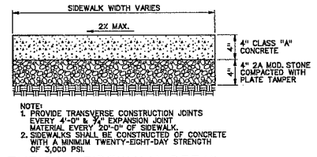
STANDARD PIPE BEDDING- WATER SERVICE

STANDARD PIPE BEDDING- SANITARY LATERAL

NOTES:
1. REQUIRED BEDDING FOR PVC LATERALS SHALL BE PENNDOT 1B.

PIPE BEDDING/ENVELOPE DETAIL

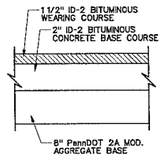
N.T.S.



NOTE:
1. PROVIDE TRANSVERSE CONSTRUCTION JOINTS EVERY 4'-0" & ¾" EXPANSION JOINT MATERIAL EVERY 20'-0" OF SIDEWALK.
2. SIDEWALKS SHALL BE CONSTRUCTED OF CONCRETE WITH A MINIMUM TWENTY-EIGHT-DAY STRENGTH OF 3,000 PSI.

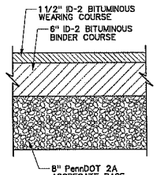
TYPICAL SIDEWALK DETAIL

N.T.S.



TYPICAL ON-SITE LIGHT DUTY PAVING SECTION

N.T.S.

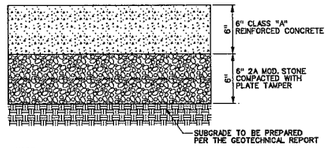


TYPICAL ON-SITE HEAVY DUTY PAVING SECTION

N.T.S.

TYPICAL PAVING SECTION NOTES

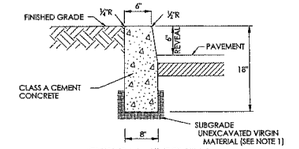
1. PAVEMENT SECTION TO BE INSTALLED AND SUBBASE PREPARED PER GEOTECHNICAL ENGINEER'S RECOMMENDATIONS.
2. THE PAVEMENT SECTION SHOULD BE PLACED ON A SUBGRADE THAT IS UNIFORMLY MOISTURE CONDITIONED, COMPACTED, AND PROOF-ROLLED, PER THE GEOTECHNICAL ENGINEER'S RECOMMENDATIONS.
3. SUBGRADE SOILS SHOULD BE CHECKED FOR ADEQUATE MOISTURE CONTENT AND BE IN A STABLE, NON-PUMPING CONDITION AT THE TIME THE AGGREGATE BASE MATERIALS ARE PLACED AND COMPACTED. CORRECTION OF MOISTURE CONTENT DEVIANCES SHOULD OCCUR PRIOR TO BASE PLACEMENT.
4. AGGREGATE BASE MATERIALS SHOULD BE COMPACTED TO AT LEAST 98 PERCENT OF THE MAXIMUM DRY DENSITY AS DETERMINED BY STANDARD PROCTOR.
5. ADEQUATE DRAINAGE (BOTH SURFACE AND SUBSURFACE) SHOULD BE PROVIDED SUCH THAT THE SUBGRADE SOILS AND AGGREGATE BASE MATERIALS ARE NOT ALLOWED TO BECOME WET.



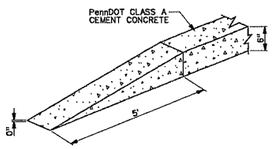
NOTE:
1. PROVIDE TRANSVERSE CONSTRUCTION JOINTS EVERY 10'-0" & 3/4" EXPANSION JOINT MATERIAL EVERY 20'-0"
2. CONCRETE LOADING AREA SHALL BE CONSTRUCTED OF CONCRETE WITH A MINIMUM TWENTY-EIGHT-DAY STRENGTH OF 4,500 PSI

CONCRETE DUMPSTER PAD DETAIL

N.T.S.

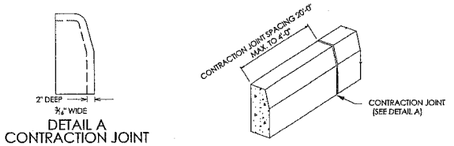


TYPICAL 6" REVEAL



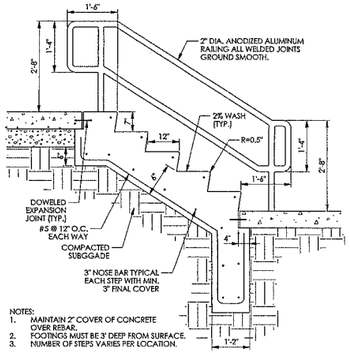
CURB END TREATMENT DETAIL

N.T.S.



DETAIL A
CONTRACTION JOINT

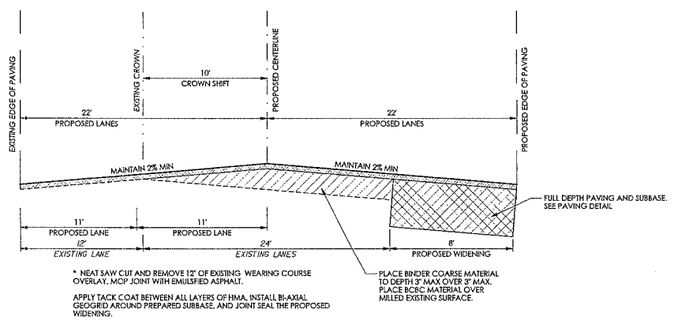
NOTES:
1. ANY EXCAVATION BELOW DESIRED GRADE DUE TO OVER EXCAVATION OR WET SOIL CONDITIONS SHALL BE BACKFILLED WITH ¾" CLEAN CRUSHED STONE. ALL SUBGRADES SHALL BE APPROVED BY THE TOWNSHIP ENGINEER PRIOR TO PLACEMENT OF CURB.
2. CURB SHALL BE TEMPORARILY BACKFILLED TO FINISHED GRADE WITH SOIL BEHIND AND STONE ON THE ROAD SIDE AS SOON AS IT HAS ATTAINED SUFFICIENT SUPPORTING STRENGTH OR WITHIN 24 HOURS OF POURING (WHICHEVER IS LESS).
3. WHEN NEW CURB IS INSTALLED ALONG AN EXISTING PAVED AREA, THE EXISTING PAVEMENT SHALL BE CUT 2 FEET IN FRONT OF THE NEW CURB FACE IN A STRAIGHT LINE AT A 45 DEGREE ANGLE WITH A CUTTING WHEEL OR PNEUMATIC HAMMER. THE NEW PAVEMENT SHALL BE TACKED AND SUTTED TO THE EXISTING PAVEMENT, IN ACCORDANCE WITH PAVEMENT WIDENING DETAIL.
4. THE GENERAL CONTRACTOR OR OWNER IS RESPONSIBLE FOR MAINTAINING ALL CURBS UNTIL FORMALLY ACCEPTED BY THE TOWNSHIP. ALL CURB THAT IS BROKEN, CRACKED, OR OUT OF ALIGNMENT SHALL BE REPLACED PRIOR TO FINAL PAVING AND/OR ACCEPTANCE. CURB REPLACEMENT SHALL BE FROM EXPANSION JOINT TO EXPANSION JOINT ONLY.
5. SPACE CONTRACTION JOINTS IN UNIFORM LENGTHS OR SECTIONS.
6. PLACE ¾"-4-INCH PREMOLDED EXPANSION JOINT FILLER MATERIAL AT STRUCTURES AND AT THE END OF THE WORK DAY. CUT MATERIAL TO CONFORM TO AREA ADJACENT TO CURB OR TO CONFORM TO CROSS SECTIONAL AREA OF CURB.
7. PROVIDE MATERIALS AND CONSTRUCTION MEETING THE REQUIREMENTS OF PENNDOT PUBLICATION 408.



NOTES:
1. MAINTAIN 2" COVER OF CONCRETE OVER REBAR.
2. FOOTINGS MUST BE 3' DEEP FROM SURFACE.
3. NUMBER OF STEPS VARIES PER LOCATION.

TYPICAL CONCRETE STEP DETAIL

N.T.S.

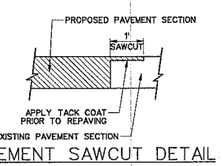


* NEAT SAW CUT AND REMOVE 12" OF EXISTING WEARING COURSE OVERLAY, MOP JOINT WITH EMULSIFIED ASPHALT.

APPLY TACK COAT BETWEEN ALL LAYERS OF HMA. INSTALL BI-AXIAL GEOGRID AROUND PREPARED SUBBASE, AND JOINT SEAL THE PROPOSED WIDENING.

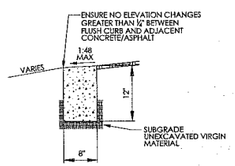
KING OF PRUSSIA ROAD WIDENING DETAIL

N.T.S.



PAVEMENT SAWCUT DETAIL

N.T.S.



FLUSH CURB

N.T.S.

CONCRETE CURB

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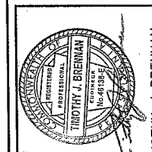
no.	description	date:	ck'd	by
1	REVISED PER TOWNSHIP COMMENT LETTERS	1/30/15	DAT	DWN
2	REVISED PER SURFACE PARKING ELIMINATION	3/17/15	DAT	DWN

REVISIONS



DRAWING NAME: CONSTRUCTION DETAIL SHEET

145 KING OF PRUSSIA ROAD

LOCATION: RADNOR TOWNSHIP, DELAWARE COUNTY, PENNSYLVANIA

project no.	drawn by:
2007-011.03	LRL
date:	ck'd by:
9/3/14	DAT
scale:	approv. by:
AS NOTED	TJB

sheet no.

C7.2

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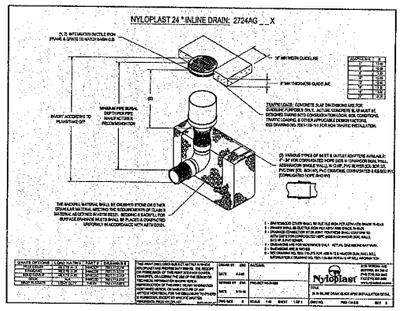
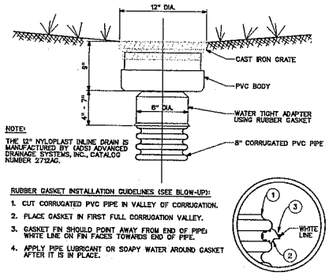


24" INLINE DRAIN DETAIL

N.T.S.



12" INLINE DRAIN DETAIL

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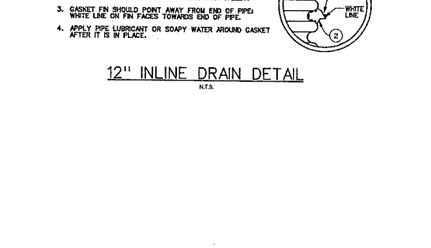


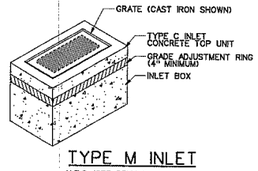
NOTE: ALL HYDRANTS SHALL CONFORM TO AQUA, PA INC., STANDARDS OR APPROVED EQUAL.

TYPICAL FIRE HYDRANT INSTALLATION

N.T.S.

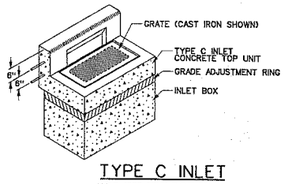
HEAVY DUTY CAST IRON MANHOLE FRAME AND SELF-SEALING COVER

N.T.S.



TYPE M INLET

N.T.S. (SEE PENN. D.O.T. RC-34)



TYPE C INLET

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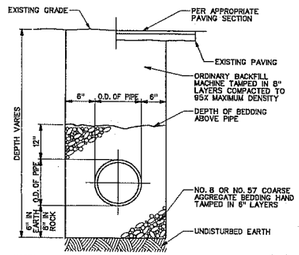
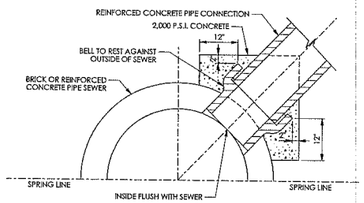


NOTES:
1. CONTRACTOR TO PROVIDE UNIFORM GRADE FROM EDGE OF EXISTING PAVING TO EDGE OF R.O.W..
2. DETAIL FOR PIPE 4" AND LARGER.

STORM PIPE TRENCH DETAIL

N.T.S.



SADDLE CONNECTION DETAIL

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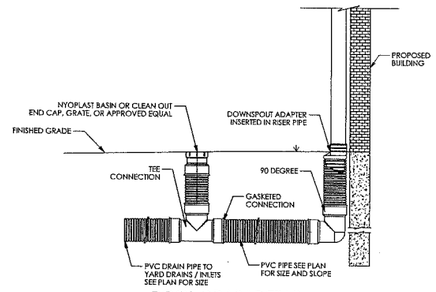

ROOF DRAIN DETAIL

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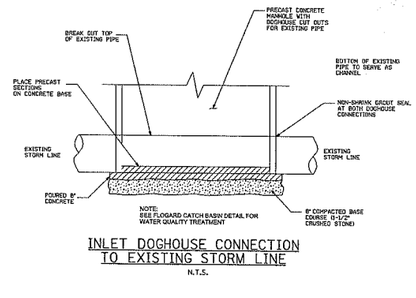
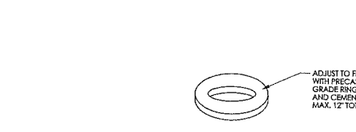


INLET DOGHOUSE CONNECTION TO EXISTING STORM LINE

N.T.S.



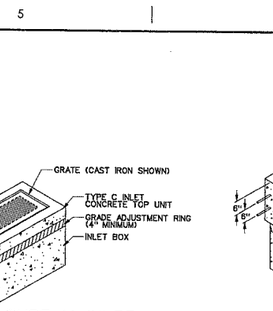
PRECAST MANHOLE HEIGHT	TOP STEEL REQUIREMENTS	BOTTOM STEEL REQUIREMENTS
0'-0" TO 30'-0"	#4 BARS AT 6" C TO C OR 0.33 IN²/FT WWF 6" MAX. SPACING	#4 BARS AT 12" C TO C OR 0.16 IN²/FT WWF 6" MAX. SPACING
> 30'-0" TO 60'-0"	#5 BARS AT 6" C TO C OR 0.56 IN²/FT WWF 6" MAX. SPACING	#4 BARS AT 6" C TO C OR 0.27 IN²/FT WWF 6" MAX. SPACING

STEEL TABLE

NOTES:
1. CAST-IN-PLACE MANHOLES, MEETING THE REQUIREMENTS OF PUB. 408, SEC. 714, AND PENNDOT RC-39M, MAY BE SUBSTITUTED FOR PRECAST MANHOLES.
2. PROVIDE WELDED WIRE FABRIC MEETING THE REQUIREMENTS OF PUB. 408, SEC. 709.2.
3. PROVIDE 12" MINIMUM HORIZONTAL CLEARANCE BETWEEN OPENINGS LOCATED AT THE SAME DEPTH. LOCATE PIPES NOT AT THE SAME DEPTH VERTICALLY AT LEAST ONE HALF THE MAXIMUM OPENING DIAMETER APART.
4. ALL PRECAST REINFORCED CONCRETE CIRCULAR MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH ASTM-C478M.

STANDARD PRECAST MANHOLE

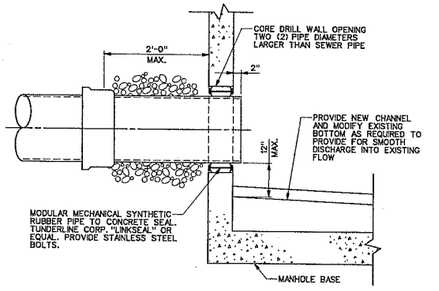
FOR PIPES 30" INSIDE DIAMETER AND LESS.
N.T.S. (SEE PENNDOT RC-39M)



MANHOLE STEPS NOTES:

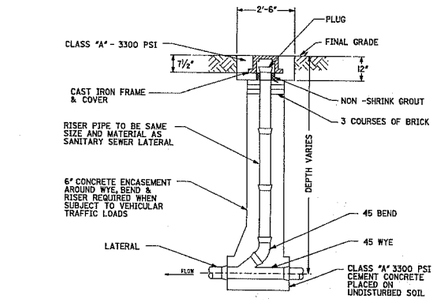
A. PROVIDE MANHOLE STEPS MEETING THE REQUIREMENTS OF PUBLICATION 408, SECTION 605.2(c). ALTERNATE CONFIGURATIONS AND DIMENSIONS, AS APPROVED BY THE ENGINEER, MAY BE USED.
B. PROVIDE MINIMUM 1" SECTION DIMENSION FOR METAL STEPS. PROVIDE MINIMUM 3" SECTION DIMENSION FOR NON-DETERIORATING MATERIAL STEPS.
C. MECHANICAL ANCHOR REQUIRED FOR INSTALLATION OF STEPS WITHOUT HOOKS.

TYPICAL STEP CONFIGURATION-MANHOLE STEPS
SEE NOTE A



PIPE CONNECTION TO AN EXISTING MANHOLE

N.T.S.



NOTES: 1. VERTICAL PIPE OF CLEAN-OUT SHALL BE PLUGGED WITH APPROVED WATER TIGHT PLUG AS DIRECTED BY THE ENGINEER.
2. CLEAN-OUTS ARE REQUIRED EVERY 50 +/-, FOR 4" LATERALS, EVERY 100 FT. FOR 6" LATERALS, AND AT EVERY 90° CHANGE OF DIRECTION.

CLEAN-OUT DETAIL

N.T.S.

Nave Newell
Where Ideas Get Down to Earth
900 West Valley Road, Suite 1100
Wayne, PA 19087-1830
p: 610.265.6323 f: 610.265.4399
www.navenewell.com

date:	rev	description	chkd	by
1/30/15	1	REVISED PER TOWNSHIP COMMENT LETTERS	DAT	DWN
3/17/15	2	REVISED PER SURFACE PARKING ELIMINATION	DAT	DWN

REVISIONS

SEAL

TIMOTHY J. BRENNAN
ENGINEER
No. 46134-E
PROFESSIONAL

TIMOTHY J. BRENNAN
Professional Engineer
Pennsylvania License No. 46139-E

DRAWING NAME: CONSTRUCTION DETAIL SHEET

145 KING OF PRUSSIA ROAD

LOCATION: RADNOR TOWNSHIP, DELAWARE COUNTY, PENNSYLVANIA

project no.	2007-011.03	drawn by:	LRL
date:	9/3/14	chk'd by:	DAT
scale:	AS NOTED	approv. by:	TJB

sheet no. C7.3

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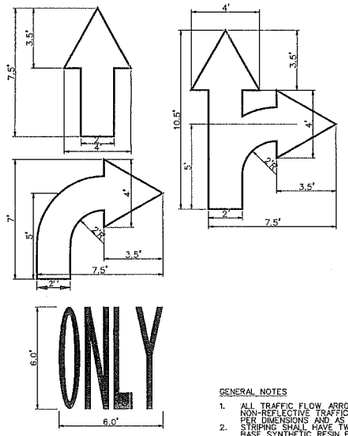
K:\07Proj_BioMed-Only\07011.03\CAD\Plan_Set\7011C7.3_Details.dgn
3/16/2015 8:59:43 PM
1.0000 ft / in.
USER: BKelly

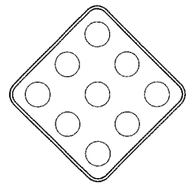


GENERAL NOTES

1. ALL TRAFFIC FLOW ARROWS TO BE SOLID WHITE NON-REFLECTIVE TRAFFIC PAINT OR THERMOPLASTIC AS PER DIMENSIONS AND AS SPECIFIED ON PROJECT PLANS. STRIPING SHALL HAVE TWO COATS OF PAINT, ALKYD BASE SYNTHETIC RESIN FED SPEC TTP-115 TYPE 1 OR APPROVED EQUAL. IF ONE COAT IS USED, IT SHALL BE COMPATIBLE WITH STRIPING COMPOUND.
2.

LANE INDICATION ARROWS

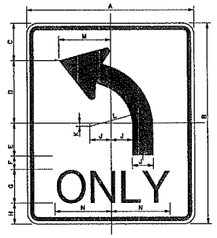
N.T.S.



COLOR: BACKGROUND (W16-1) YELLOW (REFLECTORIZED)

OBJECT MARKER (OM1-1)

N.T.S. (REFER TO PennDOT PUB. 236M)

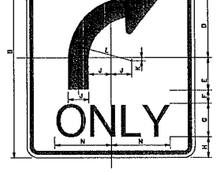


COLOR: LEGEND ARROW AND BORDER - BLACK (NON-REFLECTORIZED)
BACKGROUND - WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS - INCHES													MAR-GIN	BOR-DER	BLANK STD
A x B	C	D	E	F	G	H	J	K	L	M	N	GN	DER	STD
30 x 36	8.8	11.2	5.6	2.6	6	3.8	3.8	0.8	9.5	9.1	10.1	0.6	0.8	B5-3630

LEFT TURN SIGN (R3-5L)

N.T.S. (REFER TO PennDOT PUB. 236)



COLOR: LEGEND AND BORDER - BLACK (NON-REFLECTORIZED)
BACKGROUND - WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS - INCHES													MAR-GIN	BOR-DER	BLANK STD
A x B	C	D	E	F	G	H	J	K	L	M	N	GN	DER	STD
30 x 36	8.8	11.2	5.6	2.6	6	3.8	3.8	0.8	9.5	9.1	10.1	0.6	0.8	B5-3630

RIGHT TURN SIGN (R3-5R)

N.T.S. (REFER TO PennDOT PUB. 236)

SIGN SIZE A x B	DIMENSIONS - IN								MAR-GIN	BOR-DER	BLANK STD.
	C	D	E	F	G	H	J				
24" x 30"	3.4	6C	2.6	6D	9.2	7.4	8.1	0.4	0.6		B5-3024
30" x 36"	4.3	7C	3.2	7D	10.8	8.7	9.5	0.5	0.8		B5-3630
36" x 48"	5.4	10C	3.5	10D	15.5	12.3	13.4	0.6	0.8		B5-4836

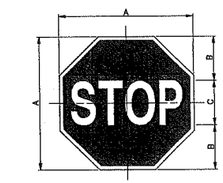
COLOR:

LEGEND AND BORDER:
BLACK (NON-REFLECTORIZED)

BACKGROUND:
WHITE (REFLECTORIZED)

BEGIN ONE WAY SIGN (R6-6)

N.T.S. (REFER TO PennDOT PUB. 236)



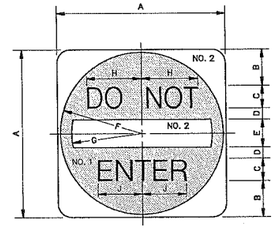
COLOR: LEGEND AND BORDER - WHITE (REFLECTORIZED)
BACKGROUND - RED (REFLECTORIZED)

SIGN SIZE A x A	DIMENSIONS B	C	C	BOR-DER	BLANK STD
24 x 24	8	6	10	0.6	B1-24
30 x 30	10	10	12.6	0.8	B1-30
36 x 36	12	12	15	0.8	B1-36
48 x 48	16	16	20	1.2	B1-48

* Reduce spacing 40%

STOP SIGN (R1-1)

N.T.S. (REFER TO PENNDOT PUB. 236)

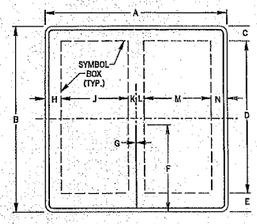


COLOR: NO. 1 LEGEND WHITE (REFLECTORIZED)
NO. 2 BACKGROUND RED (REFLECTORIZED)
BACKGROUND WHITE (REFLECTORIZED)

SIGN SIZE A x A	DIMENSIONS - INCHES B	C	D	E	F	G	H	J	BLANK STD.
30 x 30	6.8	4	1.9	5	14.6	12.4	9.9	7.8	B3-30
36 x 36	7.8	5	2.4	6	17.8	15	12.4	9.8	B3-36
48 x 48	11	6	3	8	23.8	20	14.9	11.8	B3-48

DO NOT ENTER SIGN (R5-1)

N.T.S. (REFER TO PENNDOT PUB. 236)



SIGN SIZE A x B (SYM. COMB.)	DIMENSIONS - IN C	D	E	F	G	H	J	K	L	M	N	MAR-GIN	BOR-DER	BLANK STD.
30" x 30" (L-S, S-R, L-R)	2.4	24.6	3	14	0.8	2.6	10.9	1.5	1.5	10.9	2.6	0.4	0.8	B3-30
30" x 30" (L-LS, L-SR, S-RR)	2.4	24.6	3	14	0.8	2.1	10.9	0.8	0	14.8	1.4	0.4	0.8	B3-30
30" x 30" (LS-R, SR-R)	2.4	24.6	3	14	0.8	1.4	14.8	0	0.8	10.9	2.1	0.4	0.8	B3-30
36" x 30" (LR-L)	2.4	24.6	3	14	0.8	2.8	14.8	2.2	2.2	10.9	3.1	0.4	0.8	B5-3630
36" x 30" (L-LSR)	2.4	24.6	3	14	0.8	2.6	10.9	1.9	0	18	2.6	0.4	0.8	B5-3630

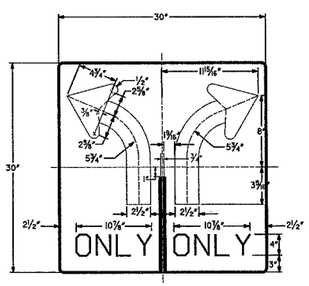
COLOR:

LEGEND, ARROWS AND BORDER:
BLACK (NON-REFLECTORIZED)

BACKGROUND:
WHITE (REFLECTORIZED)

LANE USE CONTROL (TWO LANES) (R3-8A (L-R))

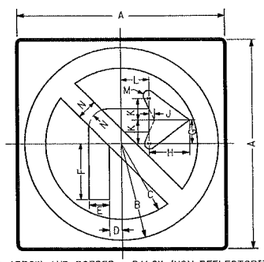
N.T.S. (REFER TO PennDOT PUB. 236)



COLOR: LEGEND AND BORDER BLACK(NON-REFLECTORIZED)
BACKGROUND WHITE (REFLECTORIZED)

LANE USE CONTROL (R3-8LR)

N.T.S. (REFER TO PENNDOT PUB. 67)

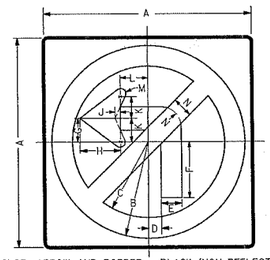


COLOR: ARROW AND BORDER - BALCK (NON-REFLECTORIZED)
CIRCLE AND DIAGONAL - RED (REFLECTORIZED)
BACKGROUND - WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS A	B	C	D	E	F	G	H	J	K	L	M	N	MAR-GIN	BOR-DER
24" X 24"	24"	10½"	8½"	1½"	2½"	6½"	2¾"	5⅛"	⅜"	2⅞"	2⅞"	½"	2"	⅜"	⅝"
30" X 30"	30"	13⅛"	10⅝"	1⅞"	3⅛"	8⅛"	3⅞"	6⅜"	½"	3⅝"	3⅛"	⅝"	2½"	½"	¾"
36" X 36"	36"	15¾"	12¾"	2¼"	3¾"	9¾"	4⅛"	7⅝"	⅝"	4⅝"	3⅝"	¾"	3"	⅝"	⅞"
48" X 48"	48"	21"	17"	3"	5"	13"	5½"	10⅛"	¾"	5¾"	4⅞"	1"	4"	¾"	1¼"

NO RIGHT TURN SIGN (R3-1)

N.T.S. (REFER TO PENNDOT PUB. 67)



COLOR: ARROW AND BORDER - BLACK (NON-REFLECTORIZED)
CIRCLE AND DIAGONAL - RED (REFLECTORIZED)
BACKGROUND - WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS A	B	C	D	E	F	G	H	J	K	L	M	N	MAR-GIN	BOR-DER
24" X 24"	24"	10½"	8½"	1½"	2½"	6½"	2¾"	5⅛"	⅜"	2⅞"	2⅞"	½"	2"	⅜"	⅝"
30" X 30"	30"	13⅛"	10⅝"	1⅞"	3⅛"	8⅛"	3⅞"	6⅜"	½"	3⅝"	3⅛"	⅝"	2½"	½"	¾"
36" X 36"	36"	15¾"	12¾"	2¼"	3¾"	9¾"	4⅛"	7⅝"	⅝"	4⅝"	3⅝"	¾"	3"	⅝"	⅞"
48" X 48"	48"	21"	17"	3"	5"	13"	5½"	10⅛"	¾"	5¾"	4⅞"	1"	4"	¾"	1¼"

NO LEFT TURN SIGN (R3-2)

N.T.S. (REFER TO PENNDOT PUB. 67)

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p: 610.265.8225 f: 610.964.9299
www.navenewell.com

date:	no.	description	ck'd	by
1/30/15	1	REVISED PER TOWNSHIP COMMENT LETTERS	DAT	DWN
3/17/15	2	REVISED PER SURFACE PARKING ELIMINATION	DAT	DWN

REVISIONS

SEAL:

TIMOTHY J. BRENNAN
Professional Engineer
Pennsylvania License No. 46126-E

DRAWING NAME: CONSTRUCTION DETAIL SHEET

145 KING OF PRUSSIA ROAD

LOCATION: RADNOR TOWNSHIP, DELAWARE COUNTY, PENNSYLVANIA

project no.	drawn by:
2007-011.03	LRL
date:	chk'd by:
9/3/14	DAT
scale:	approv. by:
AS NOTED	TJB

sheet no.

C7.4

22 of 35

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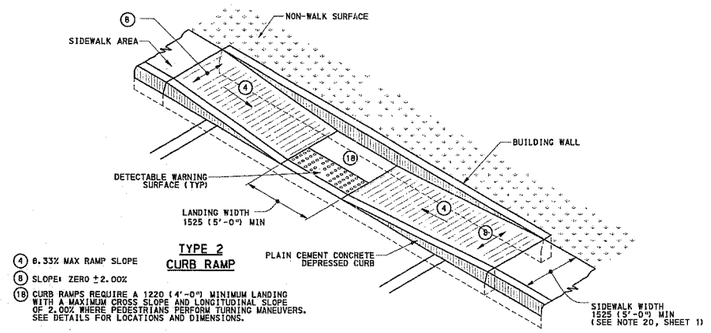
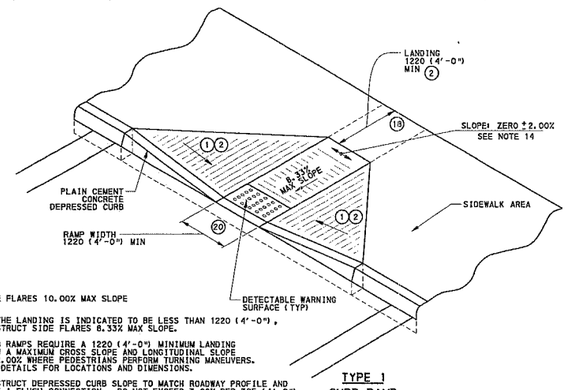


TYPE 2
CURB RAMP

(4) 8.33% MAX RAMP SLOPE

(8) SLOPE: ZERO ± 2.00%

(18) CURB RAMPS REQUIRE A 1220 (4'-0") MINIMUM LANDING WITH A MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00% WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SEE DETAILS FOR LOCATIONS AND DIMENSIONS.



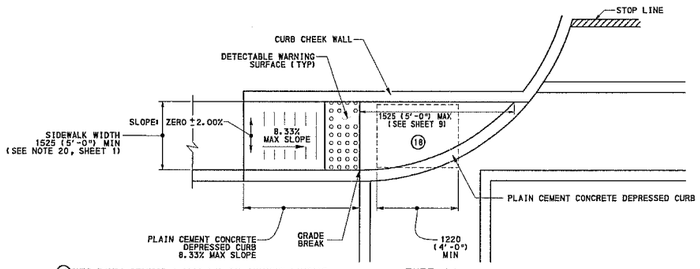
(1) SIDE FLARES 10.00% MAX SLOPE

(2) IF THE LANDING IS INDICATED TO BE LESS THAN 1220 (4'-0"), CONSTRUCT SIDE FLARES 8.33% MAX SLOPE.

(18) CURB RAMPS REQUIRE A 1220 (4'-0") MINIMUM LANDING WITH A MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00% WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SEE DETAILS FOR LOCATIONS AND DIMENSIONS.

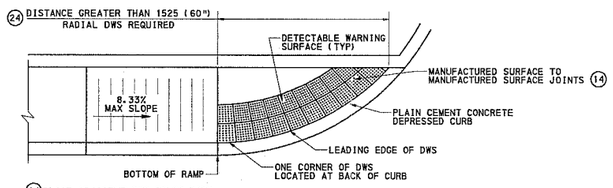
(20) CONSTRUCT DEPRESSED CURB SLOPE TO MATCH ROADWAY PROFILE AND HAVE A FLUSH CONNECTION. DO NOT EXCEED 3.00% PER 305 (1'-0") CROSS SLOPE RATE OF CHANGE WHEN TRANSITIONING FROM LEVEL LANDING TO ROADWAY PROFILE. A TECHNICALLY INFEASIBLE FORM IS REQUIRED WHEN RAMP CROSS SLOPE EXCEEDS 2.00%.

TYPE 1
CURB RAMP



(18) CURB RAMPS REQUIRE A 1220 (4'-0") MINIMUM LANDING WITH A MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00% WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SEE DETAILS FOR LOCATIONS AND DIMENSIONS.

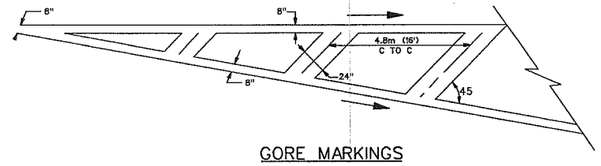
TYPE 1A
CURB RAMP



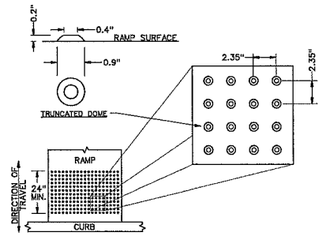
(14) PLACE ADJACENT DWS TILES WITH MANUFACTURED SURFACE TO MANUFACTURED SURFACE. CUT TILES ALONG THE PERIMETER ONLY.

(24) LOCATE ONE CORNER OF THE DWS AT THE BACK OF CURB. NO OTHER POINT ON THE LEADING EDGE OF THE DWS MAY BE MORE THAN 1525 (60") AWAY FROM THE BACK OF CURB.

DETECTABLE WARNING SURFACE (DWS)
ON CURVED SURFACES

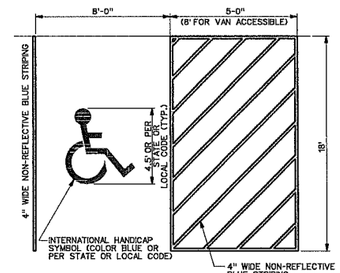


GORE MARKINGS
N.T.S.

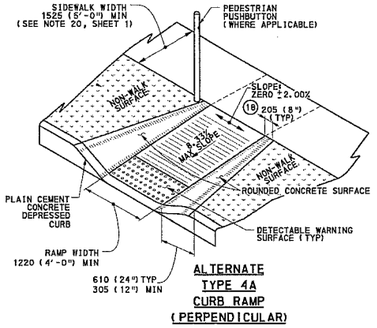


NOTES:
1. DETECTABLE WARNING SURFACES MUST MEET THE REQUIREMENTS OF THE ADA.
2. IF A WALK CROSSES OR ADJOINS A VEHICULAR WAY, AND THE WALKING SURFACES ARE NOT SEPARATED BY CURBS, RAILINGS, OR OTHER ELEMENTS BETWEEN THE PEDESTRIAN AREAS AND VEHICULAR AREAS, THE BOUNDARY BETWEEN THE AREAS SHALL BE DEFINED BY A CONTINUOS DETECTABLE WARNING SURFACE.
3. DETECTABLE WARNING SURFACES SHALL BE LOCATED SO THAT THE EDGE NEAREST THE CURB LINE IS 6" MINIMUM AND 8" MAXIMUM FROM THE CURB LINE.
4. DETECTABLE WARNING SURFACE SHALL EXTEND 24" MINIMUM IN THE DIRECTION OF TRAVEL AND THE FULL WIDTH OF THE RAMP.
5. DETECTABLE WARNING SURFACES SHALL CONTRAST VISUALLY WITH ADJACENT WALKING SURFACES EITHER LIGHT-ON-DARK, OR DARK-ON-LIGHT.
6. DETECTABLE WARNING SURFACES TO BE CHARCOAL GREY IN COLOR.

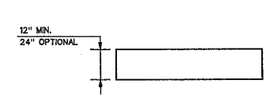
DETECTABLE WARNING SURFACE FOR
ACCESSIBLE ROUTES
N.T.S.



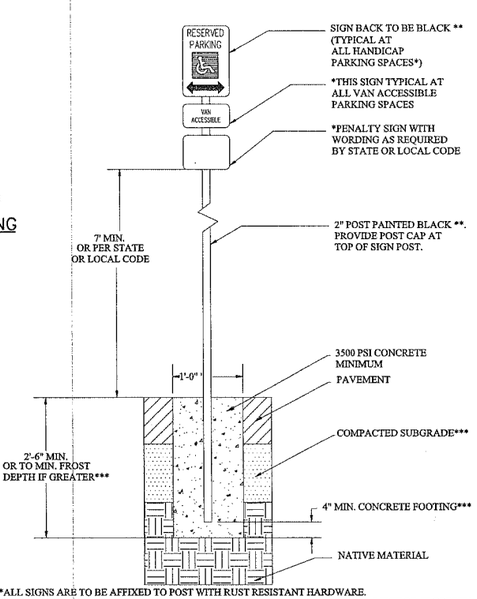
ACCESSIBLE PARKING PAINTED MARKING
N.T.S



ALTERNATE
TYPE 4A
CURB RAMP
(PERPENDICULAR)

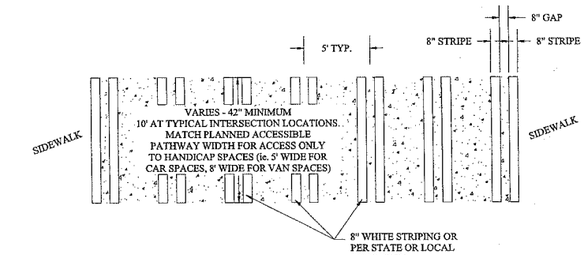


STOP LINE
N.T.S.



*ALL SIGNS ARE TO BE AFFIXED TO POST WITH RUST RESISTANT HARDWARE.
** OR: TO CONFORM TO ARCHITECTURAL DESIGN CRITERIA FOR A SPECIFIC PROJECT OR PROPERTY.
***OR: PER GEOTECHNICAL REPORT OR STRUCTURAL ENGINEERING RECOMMENDATIONS.

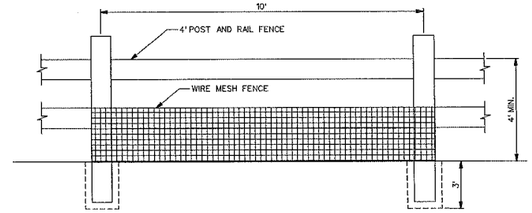
HANDICAP SIGN ASSEMBLY - NO BOLLARD
N.T.S.



GENERAL NOTES

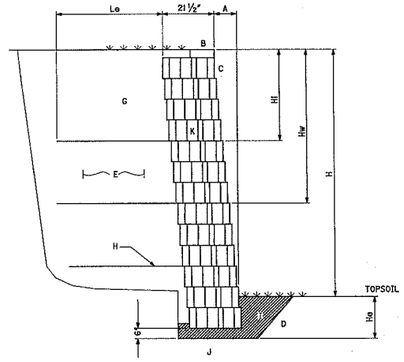
1. LADDER BARS SHALL BE 5'-0" CENTER TO CENTER, BEGINNING AT THE MARKED CENTERLINE OF THE ROADWAY.
2. STRIPING TO BE 90.0 WHITE REFLECTIVE TRAFFIC PAINT OR THERMOPLASTIC AS SPECIFIED ON PROJECT PLANS.
3. STRIPING SHALL HAVE TWO COATS OF PAINT, ALKYD BASE SYNTHETIC RESIN, FED SPEC TT-P-115 TYPE II OR APPROVED EQUAL. IF SEAL COAT IS USED, IT SHALL BE COMPATIBLE WITH STRIPING COMPOUND.

PAINTED CROSSWALK
N.T.S.



NOTE:
1. POSTS TO BE SET IN CONCRETE BASE. WIRE MESH SHOULD BE PLACED ON THE OUTSIDE OF THE FENCE TO TOP OF BOTTOM RAIL. THE WIRE MESH SHALL BE TWELVE (12) GAUGE WIRE.

WOOD FENCE DETAIL
N.T.S.



A. SETBACK = 1" PER 8"
B. KEYSTONE CAP UNIT 4"H X 18"W X 10 1/2"D
C. KEYSTONE STANDARD UNIT 8"H X 18"W X 21 1/2"D
D. VARIES APPROX. (1) 8" COURSE PER 6'-0" VERTICAL H
E. COMPACTED REINFORCED BACKFILL ZONE
F. RETAINED BACKFILL
G. FAILURE PLANES TO BE ANALYZED
H. GEOGRID ATTACHED TO FIBERGLASS PINS AT UNIT
I. BASE LEVELING PAD
J. FOUNDATION SOIL
K. CORE FILL

NOTE:
1. Le, H, Hw, Ha TO BE DETERMINED ACCORDING TO SOIL SUITABILITY.
2. THIS IS A TYPICAL DETAIL. SHOP DRAWINGS ARE REQUIRED BY CONTRACTOR.

TYPICAL KEYSTONE WALL DETAIL
N.T.S.

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no.	date	description	ckd'd	by
1	1/30/15	REVISED PER TOWNSHIP COMMENT LETTERS	DAT	DWN
2	3/17/15	REVISED PER SURFACE PARKING ELIMINATION	DAT	DWN

REVISIONS

SEAL

TIMOTHY J. BRENNAN
Professional Engineer
Pennsylvania License No. 46138-E

DRAWING NAME: CONSTRUCTION DETAIL SHEET

145 KING OF PRUSSIA ROAD

LOCATION: RADNOR TOWNSHIP, DELAWARE COUNTY, PENNSYLVANIA

project no. 2007-011.03	drawn by: LRL
date: 9/3/14	chk'd by: DAT
scale: AS NOTED	approv. by: TJB

sheet no. C7.5

23 of 35

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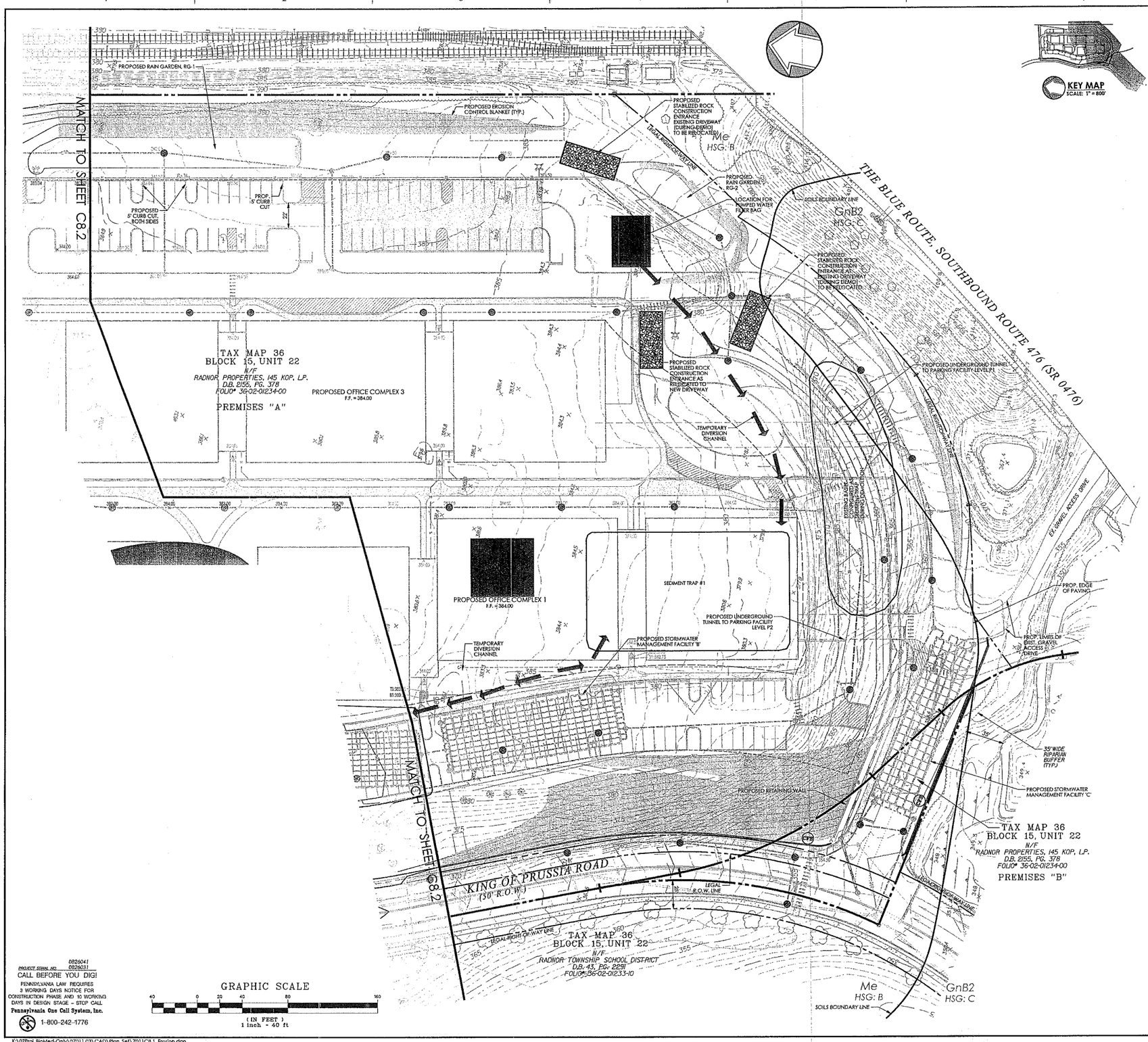

LEGEND

- PROPERTY LINE
- LEGAL RIGHT-OF-WAY LINE
- ADJOINER LOT LINE
- EXISTING EASEMENT LINE
- EXISTING BUILDING
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- EXISTING SPOT ELEVATION
- EXISTING BRUSHLINE
- EXISTING TREELINE
- EXISTING TREE
- EXISTING EDGE OF ROAD / PAVEMENT
- EXISTING CURB
- EXISTING FENCE
- EXISTING GUIDERAIL
- EXISTING SIGN
- EXISTING LAMP POST / LIGHT STANDARD
- EXISTING RETAINING WALL
- EXISTING SANITARY SEWER WITH MANHOLE
- EXISTING STORM SEWER WITH MANHOLE
- EXISTING STORM INLET
- EXISTING WATER MAIN WITH VALVE
- EXISTING FIRE HYDRANT
- EXISTING UNDERGROUND ELECTRIC WITH MANHOLE
- EXISTING ELECTRIC METER BOX
- EXISTING UTILITY POLE / GUY WIRE
- EXISTING OVERHEAD WIRE
- EXISTING UNDERGROUND TELEPHONE WITH MANHOLE
- EXISTING GAS MAIN WITH VALVE
- EXISTING TRAFFIC SIGNAL
- PROPOSED RIGHT-OF-WAY LINE
- BUILDING SETBACK LINE
- PARKING SETBACK LINE
- PROPOSED EASEMENT LINE
- PROPOSED BUILDING
- PROPOSED BUILDING ENTRANCE LOCATION
- PROPOSED GREEN ROOF EXTENTS
- PROPOSED CURB
- PROPOSED WHEEL STOP
- PROPOSED SIDEWALK
- PROPOSED RETAINING WALL
- PROPOSED SPUR RAIL FENCE
- PROPOSED GUIDERAIL
- PROPOSED SIGN
- PROPOSED CROSSWALK
- PROPOSED 24" WIDE STOP BAR
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- PROPOSED SPOT ELEVATION
- PROPOSED SANITARY SEWER WITH MANHOLE
- PROPOSED SANITARY SEWER LATERAL
- PROPOSED STORM SEWER WITH MANHOLE
- PROPOSED STORM INLET
- PROPOSED WATER SERVICE
- PROPOSED FIRE SERVICE
- PROPOSED FIRE HYDRANT
- LOD — LOD — LOD — LIMIT OF DISTURBANCE LINE
- IP — PROPOSED INLET PROTECTION
- SF2 — PROPOSED 80' SILT FENCE
- SSF — PROPOSED SUPER SILT FENCE
- PROPOSED TREE PROTECTION FENCE
- CE — PROPOSED STABILIZED CONSTRUCTION ENTRANCE
- PROPOSED EROSION CONTROL BLANKET
- PROPOSED TEMPORARY SOIL STOCKPILE
- CFS — PROPOSED COMPOST FILTER SOCK
- TEMPORARY MAJOR CONTOUR
- TEMPORARY MINOR CONTOUR

GRAPHIC SCALE
40 0 20 40 80 160
(IN FEET)
1 inch = 40 ft

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date:	no.	description	chkd by
1/20/15	1	REVISED PER TOWNSHIP COMMENT LETTERS	DAT DWN
3/17/15	2	REVISED PER SURFACE PARKING ELIMINATION	DAT DWN

REVISIONS

SEAL

TIMOTHY J. BRENNAN
Professional Engineer
Commonwealth of Pennsylvania No. 46138-E

DRAWING NAME: CONCEPTUAL EROSION & SEDIMENTATION CONTROL PLAN

145 KING OF PRUSSIA ROAD

LOCATION: RADNOR TOWNSHIP, DELAWARE COUNTY, PENNSYLVANIA

project no. 2007-011.03	drawn by: DWN
date: 9/3/14	chk'd by: DAT
scale: 1" = 40'	approv. by: TJB

sheet no. C8.1

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LEGEND

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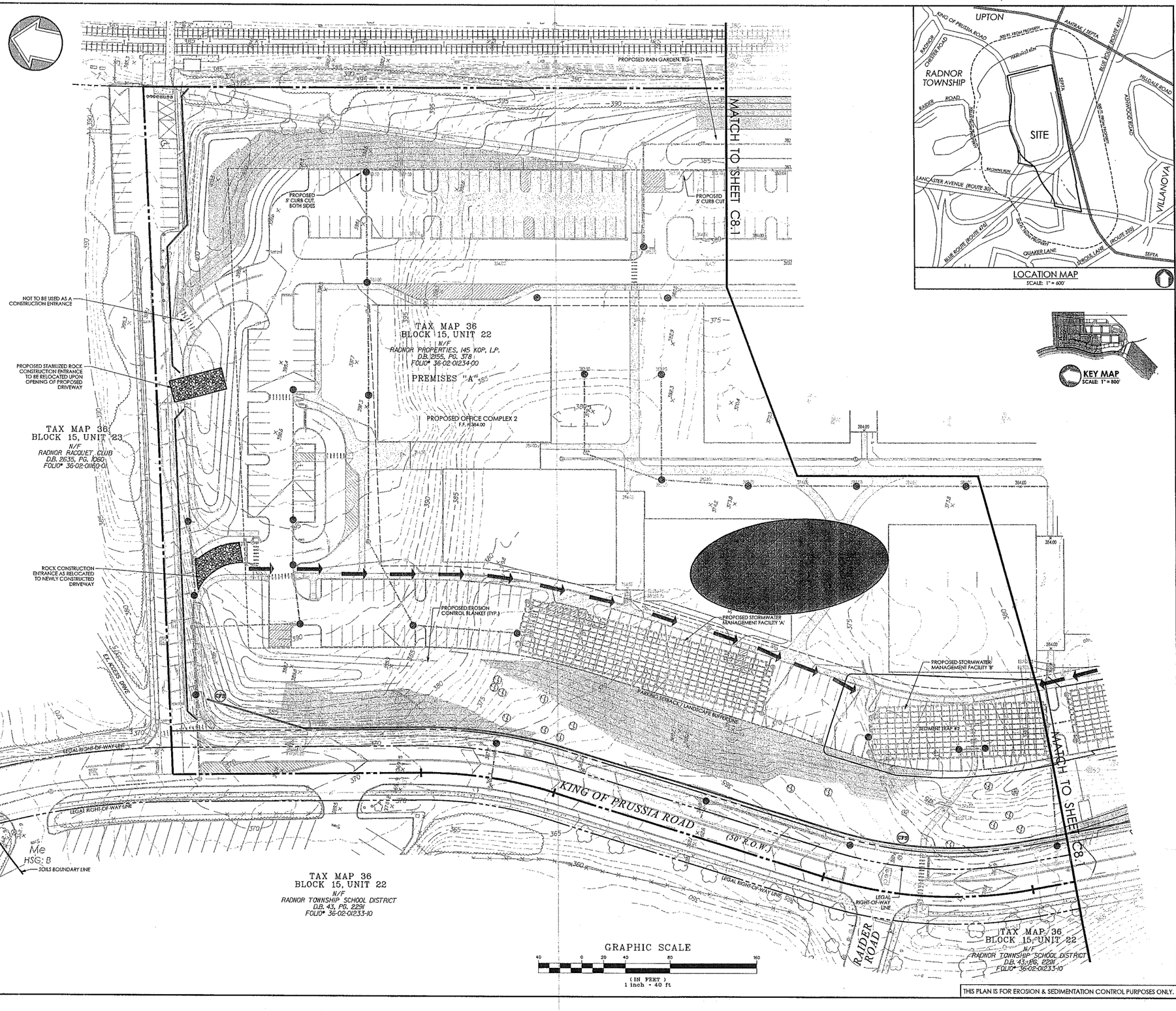
- (CE) PROPOSED STABILIZED CONSTRUCTION ENTRANCE
- PROPOSED EROSION CONTROL BLANKET
- PROPOSED TEMPORARY SOIL STOCKPILE
- (CFS) PROPOSED COMPOST FILTER SOCK
- TEMPORARY MAJOR CONTOUR
- TEMPORARY MINOR CONTOUR



LOCATION MAP
SCALE: 1" = 600'

KEY MAP
SCALE: 1" = 800'

GRAPHIC SCALE
40 0 20 40 80 160
(IN FEET)
1 inch = 40 ft

THIS PLAN IS FOR EROSION & SEDIMENTATION CONTROL PURPOSES ONLY.

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1/30/15	1	REVISED PER TOWNSHIP COMMENT LETTERS	DAT DWN
3/17/15	2	REVISED PER SURFACE PARKING ELIMINATION	DAT DWN

REVISIONS

SEAL:

TIMOTHY J. BRENNAN
Project Engineer
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DRAWING NAME: EROSION & SEDIMENTATION CONTROL PLAN

145 KING OF PRUSSIA ROAD

LOCATION: RADNOR TOWNSHIP, DELAWARE COUNTY, PENNSYLVANIA

project no. 2007-011.03	drawn by: DWN
date: 9/3/14	chkd by: DAT
scale: 1" = 40'	approv. by: TJB

sheet no.

C8.2

GENERAL CONSERVATION NOTES AND SPECIFICATIONS

INTENT OF CONSERVATION PROGRAM: THE INTENT OF THIS PROGRAM IS TO PREVENT ACCELERATED EROSION OF THE EXPOSED SITE SOILS DURING THE CONSTRUCTION AND PERMANENT LIFE PERIODS OF THE DEVELOPMENT. THE PROGRAM REQUIRES RETENTION OF ALL SEDIMENTS ON THE CONSTRUCTION SITE TO MINIMIZE THE IMPACT OF DEVELOPMENT ON EXISTING STREAMS AND ADJACENT PROPERTY OWNERS. THESE OBJECTIVES WILL BE ACHIEVED BY MINIMIZING THE EXPOSURE TIME OF POTENTIALLY EROSIVE SOILS TO RUNOFF AND INSTALLATION OF THE TEMPORARY CONSTRUCTION. THE INTENT OF THIS PROGRAM SHOULD BE UNDERSTOOD AND IMPLEMENTED THROUGHOUT THE ENTIRE DEVELOPMENT. THE VARIOUS CONSTRUCTION TRADES SHOULD BE APPRAISED OF THIS PROGRAM AND DIRECTED TO PREVENT UNDUE DISTURBANCE OF PREPARED AND PROTECTED SURFACES.

SURFACE STABILIZATION CRITERIA: ALL DENUDED SOIL SURFACES, INCLUDING SOIL STOCKPILES, ARE SUBJECT TO EROSION AND SHALL BE STABILIZED EITHER TEMPORARILY OR PERMANENTLY, IMMEDIATELY DURING NON-GERMINATION PERIODS, MULCH MUST BE APPLIED AT RECOMMENDED RATES. CRUSHED STONE ON PAVEMENT SUBGRADES IS CONSIDERED ADEQUATE PROTECTION. ALL DISTURBED ZONES AND VEGETATED REGIONS SHALL BE STABILIZED, PREFERABLY WITH A PERMANENT TREATMENT AS FOLLOWS:

SEEDING & MULCHING SPECIFICATIONS

TEMPORARY: SEEDING SHALL BE COMMON RYE GRASS APPLIED AT 45 LBS. PER ACRE. LIMING TO BE APPLIED AT 1 TON/ACRE. 60-30-60 FERTILIZER TO BE APPLIED AT 1000 LBS/ACRE. HAY OR STRAW MULCH TO BE APPLIED AT 3 TONS/ACRE

PERMANENT: SEEDING SHALL BE 15% KENTUCKY BLUEGRASS, 35% KENTUCKY 31 FESCUE, 25% CHEWINGS FESCUE, 15% PERENNIAL RYE GRASS, AND 10% RECLEANED REDTOP AT A RATE OF 60 LBS. PER ACRE. LIMING TO BE APPLIED AT 3 TON/ACRE. 10-20-20 FERTILIZER TO BE APPLIED AT 1000 LBS/ACRE. HAY OR STRAW MULCH TO BE APPLIED AT 3 TONS/ACRE.

THE NON-GERMINATING PERIODS ARE BETWEEN 6/15 THROUGH 8/15 AND 9/30 THROUGH 4/15. AREAS DISTURBED DURING THESE PERIODS MUST BE LIMED, FERTILIZED, SEEDED AND MULCHED IMMEDIATELY FOLLOWING THE END OF THOSE PERIODS. TOPSOIL TAKEN FROM CONSTRUCTION AREAS SHALL BE SEEDED WITH VEGETATIVE COVER AND STOCKPILES FOR RE-USE IN FINISH GRADING. THERE IS TO BE NO EARTH DISTURBANCE OR VEGETATIVE CLEARING IN AREAS OUTSIDE OF THE DELINEATED AREAS TO BE DISTURBED.

MAINTENANCE PROGRAM FOR TEMPORARY SEDIMENTATION CONTROLS STRUCTURES

MAINTENANCE OF ALL TEMPORARY SEDIMENTATION CONTROL STRUCTURES SHALL BE THE RESPONSIBILITY OF THE DEVELOPER AS STATED BELOW:

1. SEDIMENT MUST BE REMOVED WHEN ACCUMULATIONS REACH ONE-HALF THE ABOVE-GROUND HEIGHT OF SILT FENCING AND COMPOST FILTER SOCKS.
2. SEDIMENT MUST BE REMOVED FROM SEDIMENT TRAPS WHEN THE SEDIMENT REACHES THE DESIGNATED CLEANOUT ELEVATION.
3. SEDIMENT MUST BE REMOVED FROM ROCK FILTERS WHEN COLLECTED SEDIMENT BEGINS TO AFFECT THE FILTERS FUNCTION IN THE FLOW.
4. SEDIMENT REMOVED FROM THE FACILITIES MAY BE REINCORPORATED INTO THE SITE'S EARTHWORK AS FILL OR TAKEN TO A SAFE, APPROVED LOCATION. UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENTATION CONTROLS MUST BE MAINTAINED PROPERLY. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL CONTROLS AFTER EACH STORM EVENT AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE, REGRADING, RESEEDING, REMULCHING AND RENETTING MUST BE PERFORMED IMMEDIATELY.

MAINTENANCE OF TEMPORARY SEDIMENTATION CONTROL STRUCTURES

MAINTENANCE OF ALL TEMPORARY SEDIMENTATION CONTROL STRUCTURES SHALL BE IN ACCORDANCE WITH THESE PLANS AND THE "EROSION AND CONTROL CONTROL NARRATIVE." INSPECTION AND MAINTENANCE OF ALL FACILITIES SHALL BE MADE AFTER EACH RAIN STORM EVENT AND ON A WEEKLY BASIS.

SEDIMENT DISPOSAL:

SILT REMOVED FROM TEMPORARY SEDIMENT CONTROL STRUCTURES SHALL BE DISPOSED OF ON-SITE IN LANDSCAPED AREAS LOCATED OUTSIDE OF FLOOD PLAINS, WETLANDS, STEEP SLOPES, AND DRAINAGE SWALES. AREAS OF SEDIMENT DISPOSAL SHALL BE CONSIDERED C.V.A.

DUST CONTROL:

DUST AND OTHER PARTICULATES SHALL BE KEPT WITHIN TOLERABLE LIMITS BY USING WATER. APPLICATION SHALL BE AS NEEDED OR AS DIRECTED BY THE TOWNSHIP ENGINEER OR THE CONSERVATION DISTRICT.

CRITICAL VEGETATION AREAS (C.V.A.):

CRITICAL VEGETATION AREAS ARE TO BE GRADED, HYDROSEEDED AND MULCHED WITHIN 10 DAYS OF THE BEGINNING OF EXCAVATION. IN GENERAL, CRITICAL VEGETATION AREAS ARE DEFINED AS CUT SLOPES STEEPER THAN 3:1, ALL FILL SLOPES STEEPER THAN 4:1 AND IN ALL DRAINAGE SWALES.

SOIL EROSION AND SEDIMENTATION CONTROL NOTES

1. ALL EARTH DISTURBANCES, INCLUDING CLEARING AND GRUBBING AS WELL AS CUTS AND FILLS SHALL BE DONE IN ACCORDANCE WITH THE APPROVED E&S PLAN. A COPY OF THE APPROVED DRAWINGS (STAMPED, SIGNED AND DATED BY THE REVIEWING AGENCY) MUST BE AVAILABLE AT THE PROJECT SITE AT ALL TIMES. THE REVIEWING AGENCY SHALL BE NOTIFIED OF ANY CHANGES TO THE APPROVED PLAN PRIOR TO IMPLEMENTATION OF THOSE CHANGES. THE REVIEWING AGENCY MAY REQUIRE A WRITTEN SUBMITTAL OF THOSE CHANGES FOR REVIEW AND APPROVAL AT ITS DISCRETION.
2. AT LEAST 7 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, INCLUDING CLEARING AND GRUBBING, THE OWNER AND/OR OPERATOR SHALL INVITE ALL CONTRACTORS, THE LANDOWNER, APPROPRIATE MUNICIPAL OFFICIALS, THE E&S PLAN PREPARER, THE PCSM PLAN PREPARER, THE LICENSED PROFESSIONAL RESPONSIBLE FOR OVERSIGHT OF CRITICAL STAGES OF IMPLEMENTATION OF THE PCSM PLAN, AND A REPRESENTATIVE FROM THE LOCAL CONSERVATION DISTRICT TO AN ON-SITE PRECONSTRUCTION MEETING.
3. AT LEAST 3 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, OR EXPANDING INTO AN AREA PREVIOUSLY UNMARKED, THE PENNSYLVANIA ONE CALL SYSTEM INC. SHALL BE NOTIFIED AT 1-800-242-1776 FOR THE LOCATION OF EXISTING UNDERGROUND UTILITIES.
4. ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE SEQUENCE PROVIDED ON THE PLAN DRAWINGS. DEVIATION FROM THAT SEQUENCE MUST BE APPROVED IN WRITING FROM THE LOCAL CONSERVATION DISTRICT OR BY THE DEPARTMENT PRIOR TO IMPLEMENTATION.
5. AREAS TO BE FILLED ARE TO BE CLEARED, GRUBBED, AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS AND OTHER OBJECTIONABLE MATERIAL.
6. CLEARING, GRUBBING, AND TOPSOIL STRIPPING SHALL BE LIMITED TO THOSE AREAS DESCRIBED IN EACH STAGE OF THE CONSTRUCTION SEQUENCE. GENERAL SITE CLEARING, GRUBBING AND TOPSOIL STRIPPING MAY NOT COMMENCE IN ANY STAGE OR PHASE OF THE PROJECT UNTIL THE E&S BMPS SPECIFIED BY THE BMP SEQUENCE FOR THAT STAGE OR PHASE HAVE BEEN INSTALLED AND ARE FUNCTIONING AS DESCRIBED IN THE E&S PLAN.
7. AT NO TIME SHALL CONSTRUCTION VEHICLES BE ALLOWED TO ENTER AREAS OUTSIDE THE LIMIT OF DISTURBANCE BOUNDARIES SHOWN ON THE PLAN MAPS. THESE AREAS MUST BE CLEARLY MARKED AND FENCED OFF BEFORE CLEARING AND GRUBBING OPERATIONS BEGIN.
8. TOPSOIL REQUIRED FOR THE ESTABLISHMENT OF VEGETATION SHALL BE STOCKPILED AT THE LOCATION(S) SHOWN ON THE PLAN DRAWINGS ONLY IN THE AMOUNT NECESSARY TO COMPLETE THE FINISH GRADING OF ALL EXPOSED AREAS THAT ARE TO BE STABILIZED BY VEGETATION. EACH STOCKPILE SHALL BE PROTECTED IN THE MANNER SHOWN ON THE PLAN DRAWINGS. STOCKPILE SLOPES SHALL BE 2H:1V OR FLATTER.
9. IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE OPERATOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES TO MINIMIZE THE POTENTIAL FOR EROSION AND SEDIMENT POLLUTION AND NOTIFY THE LOCAL CONSERVATION DISTRICT AND THE REGIONAL OFFICE OF THE DEPARTMENT.
10. ALL BUILDING MATERIALS AND WASTES SHALL BE REMOVED FROM THE SITE AND RECYCLED OR DISPOSED OF IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 260.1 AND 287.1 ET. SEQ. NO BUILDING MATERIALS OR WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURNED, BURIED, DUMPED, OR DISCHARGED AT THE SITE.
11. ALL OFF-SITE WASTE AND BORROW AREAS MUST HAVE AN E&S PLAN APPROVED BY THE LOCAL CONSERVATION DISTRICT OR THE DEPARTMENT FULLY IMPLEMENTED PRIOR TO BEING ACTIVATED.
12. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ANY MATERIAL BROUGHT ON SITE IS CLEAN FILL. FORM FP-001 MUST BE RETAINED BY THE PROPERTY OWNER FOR ANY FILL MATERIAL AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE BUT QUALIFYING AS CLEAN FILL DUE TO ANALYTICAL TESTING.
13. ALL PUMPING OF WATER FROM ANY WORK AREA SHALL BE DONE ACCORDING TO THE PROCEDURE DESCRIBED IN THIS PLAN, OVER UNDISTURBED VEGETATED AREAS.
14. VEHICLES AND EQUIPMENT MAY ONLY ENTER AND EXIT AT DESIGNATED CONSTRUCTION ENTRANCES.
15. UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENT BMPS SHALL BE MAINTAINED PROPERLY. MAINTENANCE SHALL INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENT BMPS AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, REMULCHING AND RENETTING MUST BE PERFORMED IMMEDIATELY. IF THESE BMPS FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMPS, OR MODIFICATIONS OF THOSE INSTALLED WILL BE REQUIRED.
16. A LOG SHOWING DATES THAT EAS BMPS WERE INSPECTED AS WELL AS ANY DEFICIENCIES FOUND AND THE DATE THEY WERE CORRECTED SHALL BE MAINTAINED ON THE SITE AND BE MADE AVAILABLE TO REGULATORY AGENCY OFFICIALS AT THE TIME OF INSPECTION.
17. SEDIMENT TRACKED ONTO ANY PUBLIC ROADWAY OR SIDEWALK SHALL BE RETURNED TO THE CONSTRUCTION SITE BY THE END OF EACH WORK DAY AND DISPOSED IN THE MANNER DESCRIBED IN THIS PLAN. IN NO CASE SHALL THE SEDIMENT BE WASHED, SHOVELED, OR SWEPT INTO ANY ROADSIDE DITCH, STORM SEWER, OR SURFACE WATER.
18. ALL SEDIMENT REMOVED FROM BMPS SHALL BE DISPOSED OF IN THE MANNER DESCIBED ON THE PLAN DRAWINGS.
19. AREAS WHICH ARE TO BE TOPSOILED SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 3 TO 5 INCHES -- 6 TO 12 INCHES ON COMPACTED SOILS -- PRIOR TO PLACEMENT OF TOPSOIL. AREAS TO BE VEGETATED SHALL HAVE A MINIMUM 4 INCHES OF TOPSOIL IN PLACE PRIOR TO SEEDING AND MULCHING. FILL OUTSLOPES SHALL HAVE A MINIMUM OF 2 INCHES OF TOPSOIL.
20. ALL FILLS SHALL BE COMPACTED AS REQUIRED TO REDUCE EROSION, SLIPPAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED PROBLEMS. FILL INTENDED TO SUPPORT BUILDINGS, STRUCTURES AND CONDUITS, ETC. SHALL BE COMPACTED IN ACCORDANCE WITH LOCAL REQUIREMENTS OR CODES, OR PER DIRECTION OF LICENSED GEOTECHNICAL SPECIALIST FOR PROJECT.
21. ALL EARTHEN FILLS SHALL BE PLACED IN COMPACTED LAYERS NOT TO EXCEED 9 INCHES IN THICKNESS.

SOIL EROSION AND SEDIMENTATION CONTROL NOTES (CONTINUED)

22. FILL MATERIALS SHALL BE FREE OF FROZEN PARTICLES, BRUSH, ROOTS, SOD, OR OTHER FOREIGN OR OBJECTIONABLE MATERIALS THAT WOULD INTERFERE WITH OR PREVENT CONSTRUCTION OF SATISFACTORY FILLS.
23. FROZEN MATERIALS OR SOFT, MUCKY, OR HIGHLY COMPRESSIBLE MATERIALS SHALL NOT BE INCORPORATED INTO FILLS.
24. FILL SHALL NOT BE PLACED ON SATURATED OR FROZEN SURFACES.
25. SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE HANDLED IN ACCORDANCE WITH THE STANDARD AND SPECIFICATION FOR SUBSURFACE DRAIN OR OTHER APPROVED METHOD.
26. ALL GRADED AREAS SHALL BE PERMANENTLY STABILIZED IMMEDIATELY UPON REACHING FINISHED GRADE. CUT SLOPES IN COMPETENT BEDROCK AND ROCK FILLS NEED NOT BE VEGETATED. SEEDED AREAS WITHIN 50 FEET OF A SURFACE WATER, OR AS OTHERWISE SHOWN ON THE PLAN DRAWINGS, SHALL BE BLANKETED ACCORDING TO THE STANDARDS OF THIS PLAN.
27. IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITIES CEASE IN ANY AREA OR SUBAREA OF THE PROJECT, THE OPERATOR SHALL STABILIZE ALL DISTURBED AREAS. DURING NON-GERMINATING MONTHS, MULCH OR PROTECTIVE BLANKETING SHALL BE APPLIED AS DESCRIBED IN THE PLAN. AREAS NOT AT FINISHED GRADE, WHICH WILL BE REACTIVATED WITHIN 1 YEAR, MAY BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY STABILIZATION SPECIFICATIONS. THOSE AREAS WHICH WILL NOT BE REACTIVATED WITHIN 1 YEAR SHALL BE STABILIZED IN ACCORDANCE WITH THE PERMANENT STABILIZATION SPECIFICATIONS.
28. PERMANENT STABILIZATION IS DEFINED AS A MINIMUM UNIFORM, PERENNIAL 70% VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED EROSION. CUT AND FILL SLOPES SHALL BE CAPABLE OF RESISTING FAILURE DUE TO SLUMPING, SLIDING, OR OTHER MOVEMENTS.
29. E&S BMPS SHALL REMAIN FUNCTIONAL AS SUCH UNTIL ALL AREAS TRIBUTARY TO THEM ARE PERMANENTLY STABILIZED OR UNTIL THEY ARE REPLACED BY ANOTHER BMP APPROVED BY THE LOCAL CONSERVATION DISTRICT OR THE DEPARTMENT.
30. UPON COMPLETION OF ALL EARTH DISTURBANCE ACTIVITIES AND PERMANENT STABILIZATION OF ALL DISTURBED AREAS, THE OWNER AND/OR OPERATOR SHALL CONTACT THE LOCAL CONSERVATION DISTRICT FOR AN INSPECTION PRIOR TO REMOVAL/CONVERSION OF THE E&S BMPS.
31. AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENT BMPS MUST BE REMOVED OR CONVERTED TO PERMANENT POST CONSTRUCTION STORMWATER MANAGEMENT BMPS. AREAS DISTURBED DURING REMOVAL OR CONVERSION OF THE BMPS SHALL BE STABILIZED IMMEDIATELY. IN ORDER TO ENSURE RAPID REVEGETATION OF DISTURBED AREAS, SUCH REMOVAL/CONVERSIONS ARE TO BE DONE ONLY DURING THE GERMINATING SEASON.
32. UPON COMPLETION OF ALL EARTH DISTURBANCE ACTIVITIES AND PERMANENT STABILIZATION OF ALL DISTURBED AREAS, THE OWNER AND/OR OPERATOR SHALL CONTACT THE LOCAL CONSERVATION DISTRICT TO SCHEDULE A FINAL INSPECTION.
33. FAILURE TO CORRECTLY INSTALL E&S BMPS, FAILURE TO PREVENT SEDIMENT-LADEN RUNOFF FROM LEAVING THE CONSTRUCTION SITE OR FAILURE TO TAKE IMMEDIATE CORRECTIVE ACTION TO RESOLVE FAILURE OF E&S BMPS MAY RESULT IN ADMINISTRATIVE, CIVIL, AND/OR CRIMINAL PENALTIES BEING INSTITUTED BY THE DEPARTMENT AS DEFINED IN SECTION 602 OF THE PENNSYLVANIA CLEAN STREAMS LAW. THE CLEAN STREAMS LAW PROVIDES FOR UP TO $10,000 PER DAY IN CIVIL PENALTIES, UP TO $10,000 IN SUMMARY CRIMINAL PENALTIES, AND UP TO $25,000 IN MISDEMEANOR CRIMINAL PENALTIES FOR EACH VIOLATION.
34. CONCRETE WASH WATER SHALL BE HANDLED IN THE MANNER DESCRIBED ON THE PLAN DRAWINGS. IN NO CASE SHALL IT BE ALLOWED TO ENTER ANY SURFACE WATERS OR GROUNDWATER SYSTEMS.
35. ALL CHANNELS SHALL BE KEPT FREE OF OBSTRUCTIONS INCLUDING BUT NOT LIMITED TO FILL, ROCKS, LEAVES, WOODY DEBRIS, ACCUMULATED SEDIMENT, EXCESS VEGETATION, AND CONSTRUCTION MATERIAL/WASTE.
36. UNDERGROUND UTILITIES CUTTING THROUGH ANY ACTIVE CHANNEL SHALL BE IMMEDIATELY BACKFILLED AND THE CHANNEL RESTORED TO ITS ORIGINAL CROSS-SECTION AND PROTECTIVE LINING. ANY BASE FLOW WITHIN THE CHANNEL SHALL BE CONVEYED PAST THE WORK AREA IN THE MANNER DESCRIBED IN THIS PLAN UNTIL SUCH RESTORATION IS COMPLETE.
37. CHANNELS HAVING RIPRAP, RENO MATTRESS, OR GABION LININGS MUST BE SUFFICIENTLY OVER-EXCAVATED SO THAT THE DESIGN DIMENSIONS WILL BE PROVIDED AFTER PLACEMENT OF THE PROTECTIVE LINING.
38. SEDIMENT BASINS AND/OR TRAPS SHALL BE KEPT FREE OF ALL CONSTRUCTION WASTE, WASH WATER, AND OTHER DEBRIS HAVING POTENTIAL TO CLOG THE BASIN/TRAP OUTLET STRUCTURES AND/OR POLLUTE THE SURFACE WATERS.
39. SEDIMENT BASINS SHALL BE PROTECTED FROM UNAUTHORIZED ACTS BY THIRD PARTIES.
40. ANY DAMAGE THAT OCCURS IN WHOLE OR IN PART AS A RESULT OF BASIN OR TRAP DISCHARGE SHALL BE IMMEDIATELY REPAIRED BY THE PERMITTEE IN A PERMANENT MANNER SATISFACTORY TO THE MUNICIPALITY, LOCAL CONSERVATION DISTRICT, AND THE OWNER OF THE DAMAGED PROPERTY.
41. UPON REQUEST, THE APPLICANT OR HIS CONTRACTOR SHALL PROVIDE AN AS-BUILT (RECORD DRAWING) FOR ANY SEDIMENT BASIN OR TRAP TO THE MUNICIPAL INSPECTOR, LOCAL CONSERVATION DISTRICT OR THE DEPARTMENT.
42. EROSION CONTROL BLANKETING SHALL BE INSTALLED ON ALL SLOPES 3H:1V OR STEEPER WITHIN 50 FEET OF A SURFACE WATER AND ON ALL OTHER DISTURBED AREAS SPECIFIED ON THE PLAN MAPS AND/OR DETAIL SHEETS.
43. FILL MATERIAL FOR EMBANKMENTS SHALL BE FREE OF ROOTS, OR OTHER WOODY VEGETATION, ORGANIC MATERIAL, LARGE STONES, AND OTHER OBJECTIONABLE MATERIALS. THE EMBANKMENT SHALL BE COMPACTED PER DIRECTION OF LICENSED GEOTECHNICAL SPECIALIST FOR PROJECT.

GENERAL NOTES FOR UTILITY CONSTRUCTION

1. EXCAVATED MATERIAL SHOULD BE STAGED ON THE UPSTREAM SIDE OF A TRENCH.
2. THE DAILY EXTENT OF TRENCHING SHOULD NOT EXCEED WHAT CAN BE BACKFILLED AND STABILIZED IN ONE WORKING DAY.
3. EROSION CONTROL BLANKET SHOULD BE PLACED OVER DISTURBED AREAS (NOT INCLUDING AREAS OF PROPOSED ROADWAYS; DURING CONSTRUCTION ACTIVITIES).

MAINTENANCE PROGRAM FOR PERMANENT STORMWATER MANAGEMENT FACILITIES

MAINTENANCE OF ALL PERMANENT STORMWATER MANAGEMENT BMPS SHALL BE THE RESPONSIBILITY OF THE PROJECT OWNER:

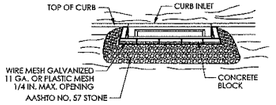
1. THE BMPS SHOULD BE INSPECTED, CLEARED OF DEBRIS TWICE A YEAR AND MOWED ONCE A YEAR IN MID- TO LATE APRIL TO ELIMINATE WOODY PLANT GROWTH.
2. THE BMPS SHALL BE PHYSICALLY INSPECTED ONCE ANNUALLY BY THE OWNER FOR STRUCTURAL DAMAGE OR EROSION, AND VISUALLY INSPECTED AFTER EACH MAJOR STORM EVENT. RESTORATION OF DISTURBED BASINS SHALL BE COMPLETED IMMEDIATELY FOLLOWING DISTURBANCE USING A WETLAND MEADOW MIX.
3. THE OWNER SHALL CONSULT A LICENSED ENGINEER IN THE EVENT OF A MALFUNCTION OF THE STORMWATER MANAGEMENT FACILITIES OR PERSISTENT EROSION PROBLEMS.
4. THE TOWNSHIP SHALL BE PERMITTED TO INSPECT THE STORMWATER MANAGEMENT BMPS AS NECESSARY TO ENSURE THE HEALTH AND SAFETY OF ITS RESIDENTS.

145 KING OF PRUSSIA ROAD SEQUENCE OF CONSTRUCTION

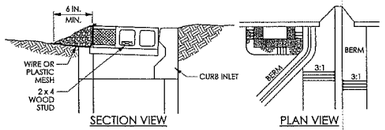
1. PRIOR TO START OF CONSTRUCTION, SCHEDULE A PRECONSTRUCTION MEETING WITH REPRESENTATIVES OF THE DELAWARE COUNTY CONSERVATION DISTRICT, RADNOR TOWNSHIP, SITE CONTRACTOR, ENGINEER / DESIGNER, AND PROJECT OWNER.
2. INSTALL TEMPORARY EROSION CONTROLS AS SHOWN ON PLAN AS FOLLOWS:
   A. PLACE 32" COMPOST FILTER SOCK ALONG KING OF PRUSSIA ROAD FRONTAGE.
   B. CONFIGURE EXISTING DETENTION BASIN AS A SEDIMENT TRAP.
   C. INSTALL ROCK CONSTRUCTION ENTRANCE AS SHOWN.
3. PERFORM DEMOLITION OF EXISTING BUILDINGS AND PARKING AREAS THAT ARE TO BE REMOVED.
4. START BULK EARTHWORK ACTIVITIES THAT INVOLVE EXCAVATION OF MATERIAL FROM NORTHERN PART OF SITE TOWARD SOUTHERLY PORTION OF SITE AS WELL AS REMOVAL OF MATERIAL FROM SITE TO MAKE WAY FOR UNDERGROUND PARKING FACILITY. ALL WORK IS TO BE SUPERVISED BY A LICENSED GEOTECHNICAL PROFESSIONAL.
5. START DEMOLITION AND RE-CONSTRUCTION OF SOUTHERLY ACCESS ROAD AS FOLLOWS:
   A. REMOVE EXISTING PAVING AND CURB AS REQUIRED.
   B. CONSTRUCT PROPOSED SEDIMENT TRAP 1 IN FOOT PRINT OF BUILING 1 AS EMBANKMENT TRAP. DISMANTLE EXISTING BASIN / SEDIMENT TRAP AS ORIGINALLY CONFIGURED AND OUTFALL PIPES.
   C. CONSTRUCT STORMWATER MANAGEMENT SYSTEM "C" AND ASSOCIATED STORM DRAINS FROM C10 TO C21 AND CONNECTION TO EXISTING STORM DRAIN. INSTALL TEMPORARY INLET PROTECTION AS SHOWN.
   D. INSTALL SANITARY SEWER EXTENSION FROM S-1 TO S-4.
   E. START CONSTRUCTION OF PROPOSED RETAINING WALL UPON REMOVAL OF EXISTING BASIN. INSTALL UNDERGROUND ACCESS TUNNELS FOR UNDERGROUND PARKING GARAGE.
   F. GRADE AND INSTALL CURB, BASE AND BINDER COURSE FOR SOUTHERLY ACCESS ROAD.
   G. INSTALL TEMPORARY DIVERSION CHANNELS TO SEDIMENT TRAP 1.
6. CONCURRENT WITH STEP 5, INSTALL WIDENING FOR NORTHERLY ACCESS ROAD. INSTALL STORM DRAIN FROM DS TO D10.
7. START CONSTRUCTION OF BUILDINGS 3 AND 4 SUBSURFACE PARKING. INSURE ALL SEDIMENT LADEN WATER FROM EXCAVATION IS CONVEYED TO A SEDIMENT REMOVAL FACILITY.
8. INSTALL STORM WATER MANAGEMENT SYSTEMS "A" AND "B". INSTALL OUTFALL PIPES TO EXISTING STORM DRAINS IN KING OF PRUSSIA ROAD. INSTALL STORM DRAINS FROM A5 TO A7 AND ALL STORM DRAINAGE TRIBUTARY TO STORMWATER MANAGEMENT SYSTEMS "A" AND "B". INSTALL TEMPORARY INLET PROTECTION AS SHOWN. INSURE ALL SEDIMENT LADEN WATER FROM EXCAVATION IS CONVEYED TO A SEDIMENT REMOVAL FACILITY.
9. GRADE KING OF PRUSSIA ROAD WIDENING. INSTALL STORM DRAINS FROM F1 TO F9. INSTALL CURB, BASE AND BINDER COURSE. INSTALL TEMPORARY INLET PROTECTION AS SHOWN. INSURE ALL SEDIMENT LADEN WATER FROM EXCAVATION IS CONVEYED TO A SEDIMENT REMOVAL FACILITY.
10. ROUGH GRADE PARKING AREAS ALONG KING OF PRUSSIA ROAD. INSTALL CURB, BASE AND BINDER COURSE. FINAL GRADE AND STABILIZE SLOPE ALONG KING OF PRUSSIA ROAD.
11. GRADE PARKING AREAS ALONG EASTERLY AND NORTHERLY SIDES OF SITE INSTALL STORM DRAINS FROM A1 TO A5 AND D1 TO D7. INSTALL TEMPORARY INLET PROTECTION AS SHOWN. GRADE EXCAVATIONS FOR RAIN GARDENS RG-1 AND RG-2.
12. INSTALL CURB, BASE, AND BINDER COURSE FOR ALL REMAINING PARKING AREAS.
13. UPON STABILIZATION OF ALL PROPOSED VEGETATED AREAS, INSTALL STONE AND SOIL MEDIA FOR RAIN GARDENS 1 AND 2.
14. UPON COMPLETE STABILIZATION OF SITE AND CESSATION OF CONSTRUCTION ACTIVITIES, REMOVE ALL TEMPORARY EROSION CONTROLS.

STANDARD CONSTRUCTION DETAIL #3-1
ROCK CONSTRUCTION ENTRANCE

NOT TO SCALE



FRONT VIEW



SECTION VIEW PLAN VIEW

NOTES:

MAXIMUM DRAINAGE AREA = 1 ACRE.

INLET PROTECTION SHALL NOT BE REQUIRED FOR INLET TRIBUTARY TO SEDIMENT BASIN OR TRAP. BERMS SHALL BE REQUIRED FOR ALL INSTALLATIONS.

ROLLED EARTHEN BERM SHALL BE PROVIDED AND MAINTAINED IMMEDIATELY DOWN GRADIENT OF THE PROTECTED INLET UNTIL ROADWAY IS STONED. ROAD SUBBASE BERM SHALL BE MAINTAINED UNTIL ROADWAY IS PAVED. SIX INCH MINIMUM HEIGHT ASPHALT BERM SHALL BE MAINTAINED UNTIL ROADWAY SURFACE RECEIVES FINAL COAT.

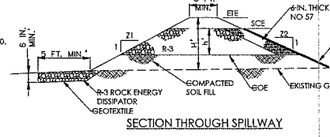
SEDIMENT SHALL BE REMOVED WHEN IT REACHES HALF THE HEIGHT OF THE STONE. DAMAGED OR CLOGGED INSTALLATIONS SHALL BE REPLACED IMMEDIATELY.

FOR SYSTEMS DISCHARGING TO HQ OR EV SURFACE WATER, A 6 INCH THICK COMPOST LAYER SHALL BE SECURELY ANCHORED ON OUTSIDE AND OVER TOP OF STONE.

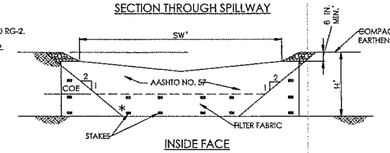
DO NOT USE ON MAJOR PAVED ROADWAYS WHERE PONDING MAY CAUSE TRAFFIC HAZARDS.

STANDARD CONSTRUCTION DETAIL #4-17
STONE AND CONCRETE BLOCK INLET PROTECTION - TYPE C INLET

NOT TO SCALE



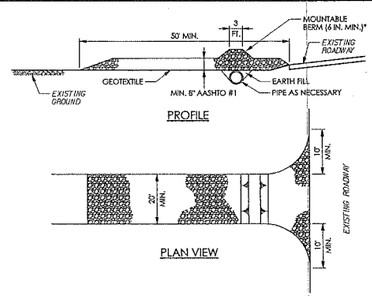
SECTION THROUGH SPILLWAY



INSIDE FACE

EMBANKMENT SEDIMENT TRAP DETAIL

NOT TO SCALE



PROFILE

PLAN VIEW

* MOUNTABLE BERM USED TO PROVIDE PROPER COVER FOR PIPE

NOTES:

REMOVE TOPSOIL PRIOR TO INSTALLATION OF ROCK CONSTRUCTION ENTRANCE. EXTEND ROCK OVER FULL WIDTH OF ENTRANCE.

RUNOFF SHALL BE DIVERTED FROM ROADWAY TO A SUITABLE SEDIMENT REMOVAL BMP PRIOR TO ENTERING ROCK CONSTRUCTION ENTRANCE.

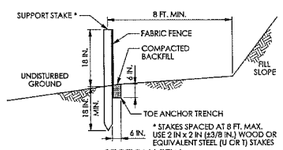
MOUNTABLE BERM SHALL BE INSTALLED WHEREVER OPTIONAL CULVERT PIPE IS USED AND PROPER PIPE COVER AS SPECIFIED BY MANUFACTURER IS NOT OTHERWISE PROVIDED. PIPE SHALL BE SIZED APPROPRIATELY FOR SIZE OF DITCH BEING CROSSED.

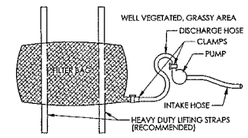
MAINTENANCE: ROCK CONSTRUCTION ENTRANCE THICKNESS SHALL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK. A STOCKPILE SHALL BE MAINTAINED ON SITE FOR THIS PURPOSE. ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE IMMEDIATELY. IF EXCESSIVE AMOUNTS OF SEDIMENT ARE BEING DEPOSITED ON ROADWAYS, EXTEND LENGTH OF ROCK CONSTRUCTION ENTRANCE BY 50 FOOT INCREMENTS UNTIL CONDITION IS ALLEVIATED OR INSTALL WASH RACK. WASHING THE ROADWAY OR SWEEPING THE DEPOSITS INTO ROADWAY DITCHES, SEWERS, CULVERTS, OR OTHER DRAINAGE COURSES IS NOT ACCEPTABLE.

STANDARD CONSTRUCTION DETAIL #4-7
STANDARD SILT FENCE (18" HIGH)

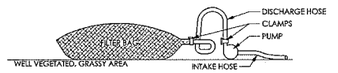
NOT TO SCALE

JOINING FENCE SECTIONS


SUPPORT STAKE *



PLAN VIEW



ELEVATION VIEW

NOTES:

LOW VOLUME FILTER BAGS SHALL BE MADE FROM NON-WOVEN GEOTEXTILE MATERIAL SEWN WITH HIGH STRENGTH, DOUBLE STITCHED "J" TYPE SEAMS. THEY SHALL BE CAPABLE OF TRAPPING PARTICLES LARGER THAN 150 MICRONS. HIGH VOLUME FILTER BAGS SHALL BE MADE FROM WOVEN GEOTEXTILES THAT MEET THE FOLLOWING STANDARDS:

PROPERTY	TEST METHOD	MINIMUM STANDARD
AVG. WIDE WIDTH STRENGTH	ASTM D-4884	40 LB/IN
GRAB TENSILE	ASTM D-4632	205 LB
PUNCTURE	ASTM D-4833	110 LB
MULTEN BURST	ASTM D-3786	350 PSI
UV RESISTANCE	ASTM D-4355	70%
AOS % RETAINED	ASTM D-4751	80 SIEVE

A SUITABLE MEANS OF ACCESSING THE BAG WITH MACHINERY REQUIRED FOR DISPOSAL PURPOSES SHALL BE PROVIDED. FILTER BAGS SHALL BE REPLACED WHEN THEY BECOME 1/2 FULL OF SEDIMENT. SPARE BAGS SHALL BE KEPT AVAILABLE FOR REPLACEMENT OF THOSE THAT HAVE FAILED OR ARE FILLED. BAGS SHALL BE PLACED ON STRAPS TO FACILITATE REMOVAL UNLESS BAGS COME WITH LIFTING STRAPS ALREADY ATTACHED.

BAGS SHALL BE LOCATED IN WELL-VEGETATED (GRASSY) AREA, AND DISCHARGE ONTO STABLE, EROSION RESISTANT AREAS. WHERE THIS IS NOT POSSIBLE, A GEOTEXTILE UNDERLAYMENT AND FLOW PATH SHALL BE PROVIDED. BAGS MAY BE PLACED ON FILTER ECHIE TO INCREASE DISCHARGE CAPACITY. BAGS SHALL NOT BE PLACED ON SLOPES GREATER THAN 5%. FOR SLOPES EXCEEDING 5%, CLEAN ROCK OR OTHER NON-ERODIBLE AND NON-POLLUTING MATERIAL MAY BE PLACED UNDER THE BAG TO REDUCE SLOPE STEEPNESS.

NO DOWNSLOPE SEDIMENT BARRIER IS REQUIRED FOR MOST INSTALLATIONS. COMPOST BERM OR COMPOST FILTER SOCK SHALL BE INSTALLED BELOW BAGS LOCATED IN HQ OR EV WATERSHEDS, WITHIN 50 FEET OF ANY RECEIVING SURFACE WATER OR WHERE GRASSY AREA IS NOT AVAILABLE.

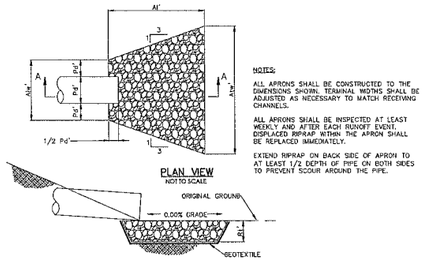
THE PUMP DISCHARGE HOSE SHALL BE INSERTED INTO THE BAGS IN THE MANNER SPECIFIED BY THE MANUFACTURER AND SECURELY CLAMPED. A PIECE OF PVC PIPE IS RECOMMENDED FOR THIS PURPOSE.

THE PUMPING RATE SHALL BE NO GREATER THAN 750 GPM OR 1/2 THE MAXIMUM SPECIFIED BY THE MANUFACTURER, WHICHEVER IS LESS. PUMP INTAKES SHALL BE FLOATING AND SCREENED.

FILTER BAGS SHALL BE INSPECTED DAILY. IF ANY PROBLEM IS DETECTED, PUMPING SHALL CEASE IMMEDIATELY AND NOT RESUME UNTIL THE PROBLEM IS CORRECTED.

STANDARD CONSTRUCTION DETAIL #3-16
PUMPED WATER FILTER BAG

NOT TO SCALE



PLAN VIEW
NOT TO SCALE

NOTES:

ALL APRONS SHALL BE CONSTRUCTED TO THE DIMENSIONS SHOWN. TERMINAL WIDTHS SHALL BE ADJUSTED AS NECESSARY TO MATCH RECEIVING CHANNELS.

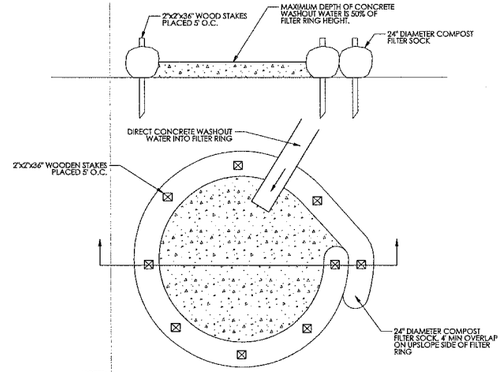
ALL APRONS SHALL BE INSPECTED AT LEAST WEEKLY AND AFTER EACH RUNOFF EVENT. DISPLACED RIPRAP WITHIN THE APRON SHALL BE REPLACED IMMEDIATELY.

EXTEND RIPRAP ON BACK SIDE OF APRON TO AT LEAST 1/2 DEPTH OF PIPE ON BOTH SIDES TO PREVENT SCOUR AROUND THE PIPE.

SECTION A–A

STANDARD CONSTRUCTION DETAIL #9-2
RIP RAP APRON AT PIPE OUTLET
NO FLARED ENDWALL

NOT TO SCALE



NOTES:
1. A SUITABLE IMPERVIOUS GEOMEMBRANE SHALL BE PLACED AT THE LOCATION OF THE WASHOUT PRIOR TO INSTALLING THE SOCKS.
2. INSTALL ON FLAT GRADE FOR OPTIMUM PERFORMANCE.
3. 18" DIAMETER FILTER SOCKS MAY BE STACKED ONTO DOUBLE 24" DIAMETER SOCKS IN PYRAMIDAL CONFIGURATION FOR ADDED HEIGHT.
4. MAINTENANCE: ALL CONCRETE WASHOUT FACILITIES SHOULD BE INSPECTED DAILY. DAMAGED OR LEAKING WASHOUTS SHOULD BE DEACTIVATED AND REPAIRED OR REPLACED IMMEDIATELY. WHEN WASHOUT MATERIAL REACHES 50% CAPACITY OF FILTERING HEIGHT, STOP USAGE OF THAT RING. WHEN STABLE, BREAK UP CONCRETE WASHOUT MATERIAL AND DISPOSE OF APPROPRIATELY. PLASTIC LINERS SHOULD BE REPLACED WITH EACH CLEANING OF THE WASHOUT FACILITY.

CONTROLLED NON-DISCHARGE CONCRETE WASH OUT

N.T.S.

THIS PLAN IS FOR EROSION & SEDIMENTATION CONTROL PURPOSES ONLY.

Nave Newell
Where Ideas Get Down to Earth
950 West Valley Road - Suite 1100
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www.navenewell.com

date:	no.	description	cmkd by
		REVISIONS	
1/30/15	1	REVISED PER TOWNSHIP COMMENT LETTERS	DAT
3/17/15	2	REVISED PER SURFACE PARKING ELIMINATION	DAT

SEAL:
TIMOTHY J. BRENNAN
Professional Engineer
Pennsylvania License No. 46128-E

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DRAWING NAME: EROSION & SEDIMENTATION CONTROL DETAIL SHEET

145 KING OF PRUSSIA ROAD

LOCATION: RADNOR TOWNSHIP, DELAWARE COUNTY, PENNSYLVANIA

project no. 2007-011.03	drawn by: LRL
date: 9/3/14	cmkd by: DAT
scale: AS NOTED	approv. by: TJB
sheet no. C8.4	

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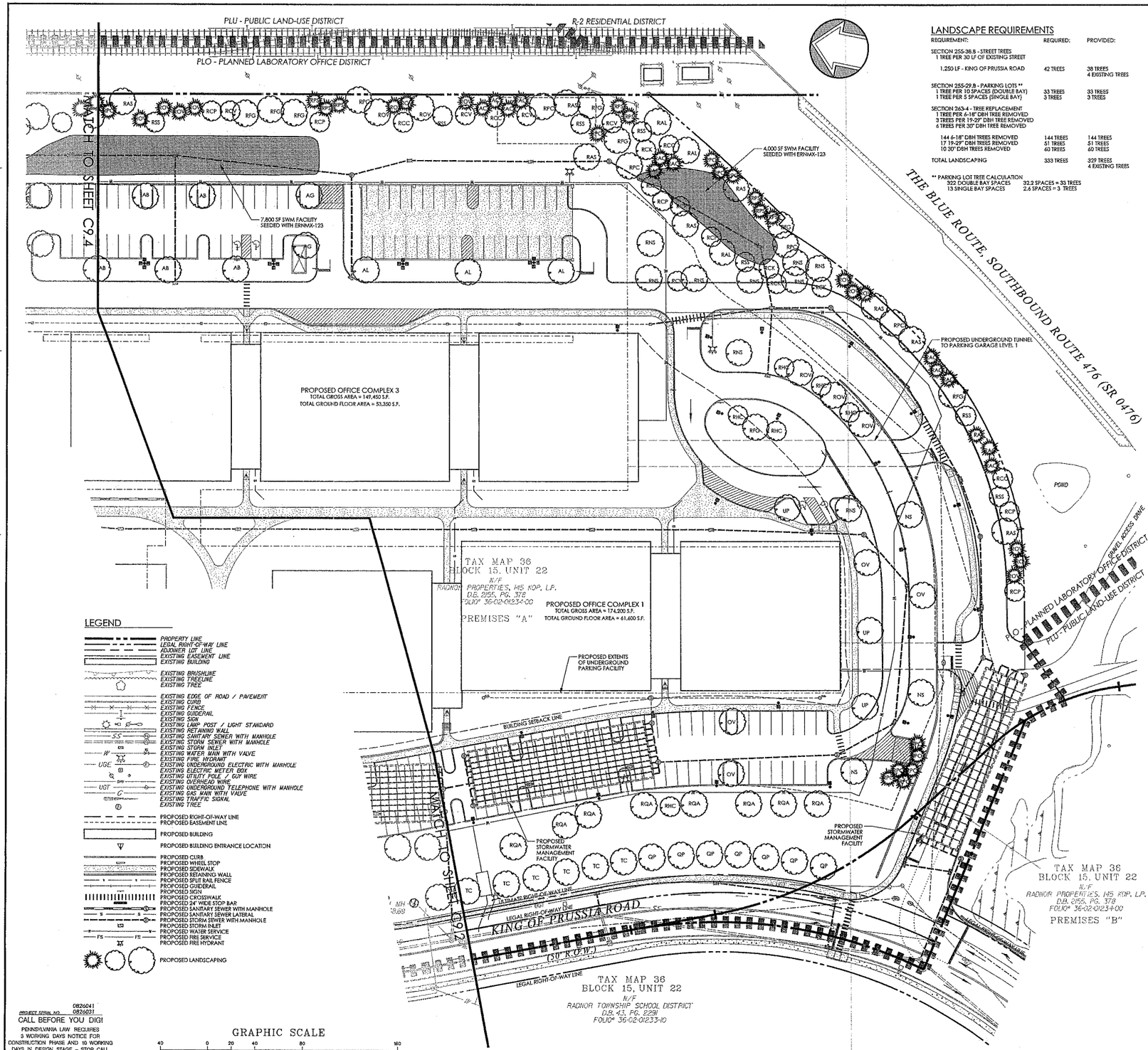

LANDSCAPE REQUIREMENTS

REQUIREMENT:	REQUIRED:	PROVIDED:
SECTION 255-38.B. - STREET TREES 1 TREE PER 30 LF OF EXISTING STREET		
1,250 LF - KING OF PRUSSIA ROAD	42 TREES	38 TREES 4 EXISTING TREES
SECTION 255-29.B - PARKING LOTS ** 1 TREE PER 10 SPACES (DOUBLE BAY) 1 TREE PER 5 SPACES (SINGLE BAY)	33 TREES 3 TREES	33 TREES 3 TREES
SECTION 263-4 - TREE REPLACEMENT 1 TREE PER 6-18" DBH TREE REMOVED 3 TREES PER 19-29" DBH TREE REMOVED 6 TREES PER 30" DBH TREE REMOVED		
144 6-18" DBH TREES REMOVED 17 19-29" DBH TREES REMOVED 10 30" DBH TREES REMOVED	144 TREES 51 TREES 60 TREES	144 TREES 51 TREES 60 TREES
TOTAL LANDSCAPING	333 TREES	329 TREES 4 EXISTING TREES

** PARKING LOT TREE CALCULATION
322 DOUBLE BAY SPACES — 32.2 SPACES = 33 TREES
13 SINGLE BAY SPACES — 2.6 SPACES = 3 TREES

KEY MAP
SCALE: 1" = 800'

LANDSCAPE SCHEDULE

QUANT.	SYM.	SCIENTIFIC NAME (COMMON NAME)	HEIGHT	SPREAD	ROOT	COMMENTS
STREET TREES						
5	GB	GINKGO BILOBA 'AUTUMN GOLD' (AUTUMN GOLD GINKGO)	10'-12'	2.5" CAL.	B&B	MALE ONLY
5	PA	PLATANUS x ACERIFOLIA 'YARWOOD' (LONDON PLANETREE)	10'-12'	2.5" CAL.	B&B	--
7	QP	QUERCUS PHELLOS (WILLOW OAK)	10'-12'	2.5" CAL.	B&B	--
7	TC	TILIA CORDATA 'GREENSPIRE' (GREENSPIRE EUROPEAN LINDEN)	10'-12'	2.5" CAL.	B&B	--
7	ZS	ZELKOVA SERRATA 'VILLAGE GREEN' (VILLAGE GREEN ZELKOVA)	10'-12'	2.5" CAL.	B&B	--
7	AR	ACER RUBRUM 'OCTOBER GLORY' (OCTOBER GLORY RED MAPLE)	10'-12'	2.5" CAL.	B&B	--
PARKING LOT TREES						
5	AB	ACER BUERGERIANUM 'STREETWISE' (TRIDENT MAPLE)	8-10'	2.5" CAL.	B&B	SINGLE STEM
4	AG	ACER GINNALA 'RED RHAPSODY' (AMUR MAPLE)	8-10'	2.5" CAL.	B&B	SINGLE STEM
6	AL	AMELANCHIER LAEVIS 'CUMULUS' (CUMULUS SERVICEBERRY)	8-10'	2.5" CAL.	B&B	SINGLE STEM
10	OV	OSTRYA VIRGINIANA (AMERICAN HOPHORNBEAM)	10'-12'	2.5" CAL.	B&B	--
7	UP	ULMUS PARVIFOLIA 'DYNASTY' (LACEBARK ELM)	10'-12'	2.5" CAL.	B&B	--
4	NS	NYSSA SYLVATICA (BLACK TUPELO)	10'-12'	2.5" CAL.	B&B	--
REPLACEMENT TREES						
25	RAS	ACER SACCHARUM 'GREEN MOUNTAIN' (GREEN MOUNTAIN SUGAR MAPLE)	10'-12'	2.5" CAL.	B&B	--
21	RFG	FAGUS GRANDIFOLIA (AMERICAN BEECH)	10'-12'	2.5" CAL.	B&B	--
12	RAL	LIQUIDAMBAR STYRACIFLUA (SWEETGUM)	10'-12'	2.5" CAL.	B&B	--
21	ROV	LIRIODENDRON TULIPIFERA (TULIPTREE)	10'-12'	2.5" CAL.	B&B	--
7	RPC	QUERCUS PALUSTRIS (PIN OAK)	10'-12'	2.5" CAL.	B&B	--
18	RNS	NYSSA SYLVATICA (BLACK TUPELO)	10'-12'	2.5" CAL.	B&B	--
16	RQA	QUERCUS ACUTISSIMA (SAWTOOTH OAK)	10'-12'	2.5" CAL.	B&B	--
17	RAC	ABIES CONCOLOR (WHITE FIR)	8-10'	2.5" CAL.	B&B	MATURE HT > 15'
16	RPS	PINUS STROBUS (WHITE PINE)	8-10'	2.5" CAL.	B&B	MATURE HT > 15'
11	ROV	PSEUDOTSUGA MENZIESSI (DOUGLAS FIR)	8-10'	2.5" CAL.	B&B	MATURE HT > 15'
17	RPO	PICEA OMORIKA (SERBIAN SPRUCE)	8-10'	2.5" CAL.	B&B	MATURE HT > 15'
7	RCC	CERCIS CANADENSIS 'FOREST PANSY' (FOREST PANSY REDBUD)	8-10'	2.5" CAL.	B&B	--
14	RCV	CHIONANTHUS VIRGINICUS (WHITE FRINGE TREE)	8-10'	2.5" CAL.	B&B	--
9	RHC	HALESIA CAROLINA (CAROLINA SILVERBELL)	8-10'	2.5" CAL.	B&B	--
17	RCK	CORNUS KOUSA 'SATOMI' (SATOMI CHINESE DOGWOOD)	8-10'	2.5" CAL.	B&B	--
12	RSS	AMELANCHIER CANADENSIS 'AUTUMN BRILLIANCE' (SHADBLOW SERVICEBERRY)	8-10'	2.5" CAL.	B&B	--
13	RCP	CRATAEGUS PHAENOPYRUM 'PRINCETON SENTRY' (WASHINGTON HAWTHORN)	8-10'	2.5" CAL.	B&B	--
STORMWATER PLANTINGS						
ERNMX-123 NATIVE UPLAND WILDLIFE FORAGE AND COVER MEADOW MIX 30.5% BIG BLUESTEM, 'PRAIRIE VIEW'-IN ECOTYPE (ANDROPOGON GERARDII, 'PRAIRIE VIEW'-IN ECOTYPE 23% SWITCHGRASS, 'SHAWNEE' 15% VIRGINIA WILDRYE, PA ECOTYPE 10% COASTAL PANICGRASS, 'ATLANTIC'-VA ECOTYPE 5% PARTRIDGE PEA, PA ECOTYPE 5% BLACKEYED SUSAN, COASTAL PLAIN NC ECOTYPE 2% OXEYE SUNFLOWER, PA ECOTYPE 2% SHOWY TICKTREFOIL, PA ECOTYPE 1% PLAINS COREOPSIS 0.5% PANICLEDLEAF TICKTREFOIL, 'GRANT'-WI ECOTYPE			SEEDING RATE: 20 LB PER ACRE 11,800 SF OF AREA = 5.5 LB		

LEGEND

- PROPERTY LINE
- LEGAL RIGHT-OF-WAY LINE
- ADJOINER LOT LINE
- EXISTING EASEMENT LINE
- EXISTING BUILDING
- EXISTING BRUSHLINE
- EXISTING TREELINE
- EXISTING TREE
- EXISTING EDGE OF ROAD / PAVEMENT
- EXISTING CURB
- EXISTING FENCE
- EXISTING GUIDERAIL
- EXISTING SIGN
- EXISTING LAMP POST / LIGHT STANDARD
- EXISTING RETAINING WALL
- EXISTING SANITARY SEWER WITH MANHOLE
- EXISTING STORM SEWER WITH MANHOLE
- EXISTING STORM INLET
- EXISTING WATER MAIN WITH VALVE
- EXISTING FIRE HYDRANT
- EXISTING UNDERGROUND ELECTRIC WITH MANHOLE
- EXISTING ELECTRIC METER BOX
- EXISTING UTILITY POLE / GUY WIRE
- EXISTING OVERHEAD WIRE
- EXISTING UNDERGROUND TELEPHONE WITH MANHOLE
- EXISTING GAS MAIN WITH VALVE
- EXISTING TRAFFIC SIGNAL
- EXISTING TREE
- PROPOSED RIGHT-OF-WAY LINE
- PROPOSED EASEMENT LINE
- PROPOSED BUILDING
- PROPOSED BUILDING ENTRANCE LOCATION
- PROPOSED CURB
- PROPOSED WHEELSTOP
- PROPOSED SIDEWALK
- PROPOSED RETAINING WALL
- PROPOSED SPLIT RAIL FENCE
- PROPOSED GUIDERAIL
- PROPOSED SIGN
- PROPOSED CROSSWALK
- PROPOSED 24" WIDE STOP BAR
- PROPOSED SANITARY SEWER WITH MANHOLE
- PROPOSED SANITARY SEWER LATERAL
- PROPOSED STORM SEWER WITH MANHOLE
- PROPOSED STORM INLET
- PROPOSED WATER SERVICE
- PROPOSED FIRE SERVICE
- PROPOSED FIRE HYDRANT
- PROPOSED LANDSCAPING

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1 inch = 40 ft

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3/17/15	2	REVISED PER SURFACE PARKING ELIMINATION	DAT	MES

SEAL:
COMMONWEALTH OF PENNSYLVANIA — MICHAEL E. SHOMPER — REGISTERED LANDSCAPE ARCHITECT

DRAWING NAME: LANDSCAPE PLAN

145 KING OF PRUSSIA ROAD

LOCATION: RADNOR TOWNSHIP, DELAWARE COUNTY, PENNSYLVANIA

NOTES

1. ALL PLANT MATERIALS SHALL MEET THE STANDARDS OF THE AMERICAN STANDARD FOR NURSERY STOCK BY THE AMERICAN NURSERY AND LANDSCAPE ASSOCIATION (2004).
2. ALL PLANT MATERIALS SHALL BE GUARANTEED FOR A PERIOD OF 24 MONTHS FROM THE DAY OF FINAL APPROVAL OF THE LANDSCAPE INSTALLATION BY THE TOWNSHIP LANDSCAPE ARCHITECT. ANY PLANT MATERIAL 25% OR MORE OF WHICH IS DEAD SHALL BE CONSIDERED DEAD. A TREE SHALL BE CONSIDERED DEAD WHEN THE MAIN LEADER HAS DIED OR 25% OF THE CROWN IS DEAD. ANY DEAD PLANT MATERIAL SHALL BE REPLACED AND INSTALLED ACCORDING TO THE APPROVED PLANTING PRACTICES.
3. THIS PLAN IS FOR LANDSCAPING ONLY. ALL SITE IMPROVEMENTS INCLUDING, BUT NOT LIMITED TO, BUILDING LOCATIONS, CURBING, SIDEWALK, UTILITIES, AND THEIR ANCILLARY APPURTENANCES, ARE SHOWN FOR INFORMATION PURPOSES ONLY AND ARE SUBJECT TO MODIFICATION AND REVISION. CONTRACTOR SHALL REFER TO THE SITE PLAN, GRADING PLAN, AND UTILITY PLANS, AND THEIR RELATED DETAIL SHEETS, FOR ALL SITE IMPROVEMENTS OTHER THAN LANDSCAPING.
4. UNLESS OTHERWISE NOTED, ALL DISTURBED AREAS SHALL BE SEEDED.
5. THERE SHALL BE NO SUBSTITUTES FOR SPECIFIED PLANTS, WITHOUT WRITTEN AUTHORIZATION FROM LANDSCAPE ARCHITECT.
6. A MINIMUM OF 4" OF SCREENED TOP SOIL MUST BE PLACED IN ALL PLANTING AREAS.
7. ALL TREES IN PROXIMITY TO PEDESTRIAN WALKING PATHS SHALL BE CLEAR TO A MINIMUM OF 7' IN ACCORDANCE WITH 2010 ADA STANDARDS OR LATER REVISION.
9. PLANTS WITH KNOWN TOXICITY TO HUMANS ARE PROHIBITED. LANDSCAPE ARCHITECT TO BE NOTIFIED IMMEDIATELY SHOULD ANY PLANT BE IDENTIFIED AS TOXIC.

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2007-011.03	JMD
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9/3/14	DAT
scale:	approv. by:
1" = 40'	TJB

sheet no.

C9.1

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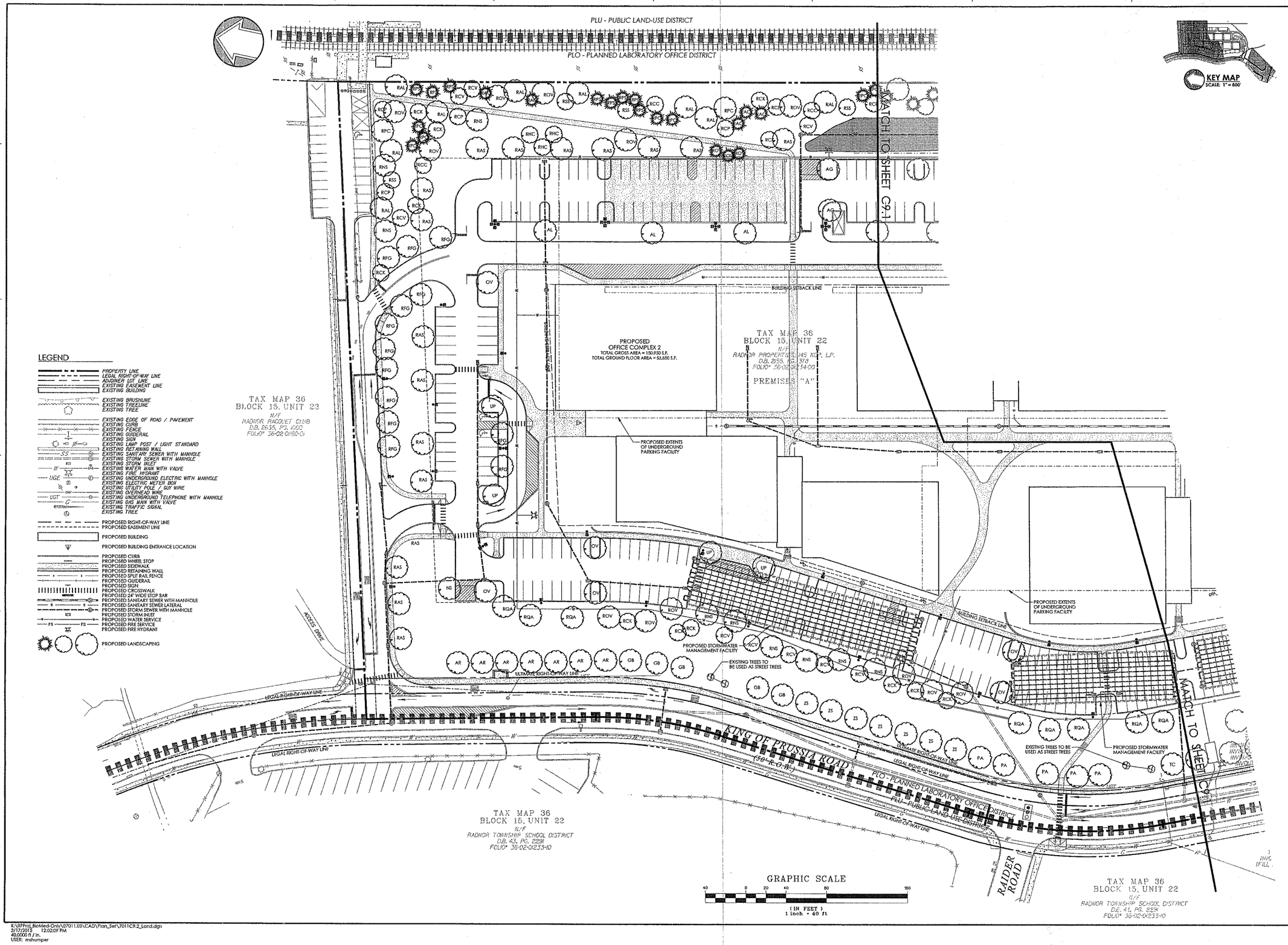

LEGEND

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- PROPOSED FIRE SERVICE
- PROPOSED FIRE HYDRANT
- PROPOSED LANDSCAPING

KEY MAP
SCALE: 1" = 800'

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SEAL:

DRAWING NAME: LANDSCAPE PLAN

145 KING OF PRUSSIA ROAD

LOCATION: RADNOR TOWNSHIP, DELAWARE COUNTY, PENNSYLVANIA

project no.	drawn by:
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9/3/14	DAT
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1" = 40'	TJB
sheet no.	
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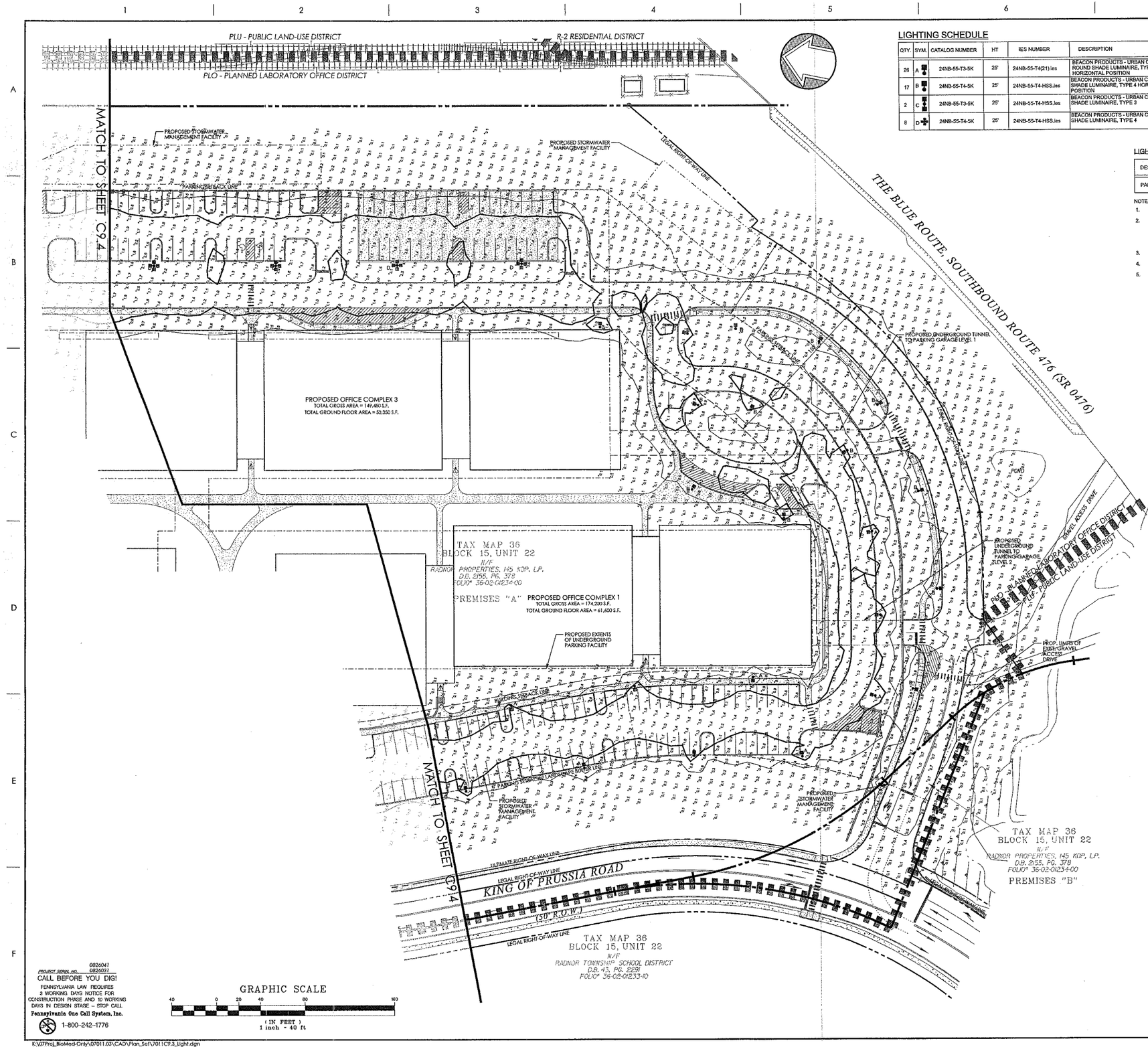


LIGHTING SCHEDULE

QTY.	SYM.	CATALOG NUMBER	HT	IES NUMBER	DESCRIPTION	LAMP	WATTS	LLF
26	A	24NB-55-T3-5K	25'	24NB-55-T4(21)ies	BEACON PRODUCTS - URBAN CAP-21 ROUND SHADE LUMINAIRE, TYPE 3 HORIZONTAL POSITION	24 NICHIA LEDS	55 WATTS	.55
17	B	24NB-55-T4-5K	25'	24NB-55-T4-HSS.ies	BEACON PRODUCTS - URBAN CAP-21 ROUND SHADE LUMINAIRE, TYPE 4 HORIZONTAL POSITION	24 NICHIA LEDS	55 WATTS	.95
2	C	24NB-55-T3-5K	25'	24NB-55-T4-HSS.ies	BEACON PRODUCTS - URBAN CAP-21 ROUND SHADE LUMINAIRE, TYPE 3	24 NICHIA LEDS	110 WATTS	.95
8	D	24NB-55-T4-5K	25'	24NB-55-T4-HSS.ies	BEACON PRODUCTS - URBAN CAP-21 ROUND SHADE LUMINAIRE, TYPE 4	24 NICHIA LEDS	220 WATTS	.95

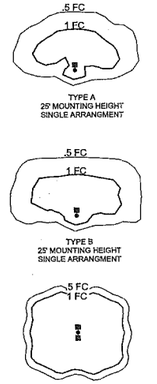
LIGHTING STATISTICS

DESCRIPTION	AVERAGE	MAXIMUM	MINIMUM	MAX/MIN	AVE/MIN
PARKING LOT AREAS	1.2 FC	4.4 FC	.3 FC	14.7 :1	4:1

NOTES:

1. CALCULATED FOOTCANDLES ARE AT GROUND LEVEL.
2. THIS PLAN IS FOR LIGHTING PURPOSES ONLY. ALL SITE IMPROVEMENTS INCLUDING, BUT NOT LIMITED TO, BUILDING LOCATIONS, CURBING, SIDEWALKS, UTILITIES, AND THEIR ANCILLARY APPURTENANCES, ARE SHOWN FOR INFORMATION PURPOSES ONLY AND ARE SUBJECT TO MODIFICATION AND REVISION. CONTRACTOR SHALL REFER TO THE SITE PLAN AND CONSTRUCTION IMPROVEMENTS PLAN, AND THEIR RELATED DETAIL SHEETS, FOR ALL SITE IMPROVEMENTS OTHER THAN LANDSCAPING AND LIGHTING.
3. BUILDING LIGHTING IS NOT SHOWN ON THIS PLAN, REFER TO ARCHITECTURAL PLANS.
4. NO SUBSTITUTIONS SHALL BE PERMITTED WITHOUT WRITTEN AUTHORIZATION FROM NAVE NEWELL.
5. VEGETATION SHALL BE MAINTAINED TO ENSURE GROWTH DOES NOT IMPACT THE PROPOSED LIGHTING LEVELS IN THE PARKING LOTS AND DRIVE AISLES.

LIGHTING ISOLINES



TYPE A
25' MOUNTING HEIGHT
SINGLE ARRANGMENT

TYPE B
25' MOUNTING HEIGHT
SINGLE ARRANGMENT

TYPE C
25' MOUNTING HEIGHT
DOUBLE HEAD ARRANGMENT

TYPE D
25' MOUNTING HEIGHT
QUAD HEAD ARRANGMENT

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1 inch = 40 ft

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2	REVISED PER SURFACE PARKING ELIMINATION	3/17/15	DAT	MES

REVISIONS

SEAL:

DRAWING NAME: LIGHTING PLAN

145 KING OF PRUSSIA ROAD

LOCATION: RADNOR TOWNSHIP, DELAWARE COUNTY, PENNSYLVANIA

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2007-011.03	HPS
date: 9/3/14	chk'd by: DAT
scale: 1" = 40'	approv. by: TJB
sheet no. C9.3	

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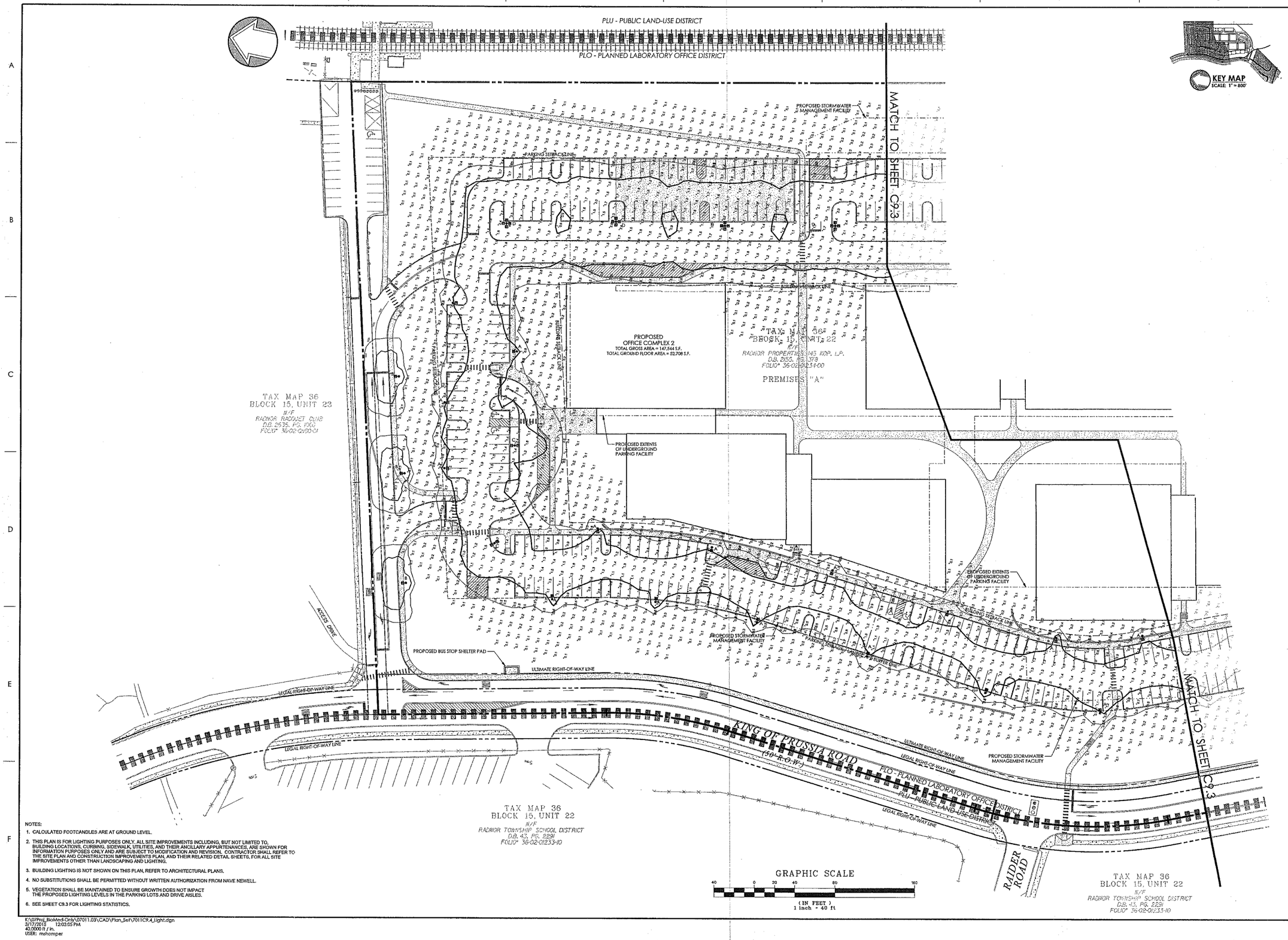

NOTES:

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5. VEGETATION SHALL BE MAINTAINED TO ENSURE GROWTH DOES NOT IMPACT THE PROPOSED LIGHTING LEVELS IN THE PARKING LOTS AND DRIVE AISLES.
6. SEE SHEET C9.3 FOR LIGHTING STATISTICS.

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SEAL:

DRAWING NAME: LIGHTING PLAN

145 KING OF PRUSSIA ROAD

LOCATION: RADNOR TOWNSHIP, DELAWARE COUNTY, PENNSYLVANIA

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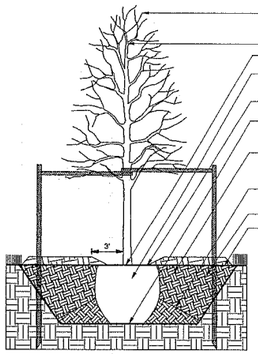
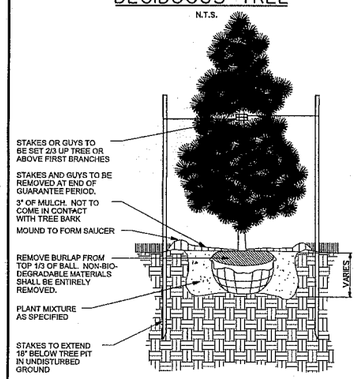


NOTES:

1. CONTRACTOR SHALL ENSURE THE HIGHEST TREE ROOT FLARE IS LOCATED PRIOR TO EXCAVATING. CONTRACTOR SHALL EXCAVATE PIT TO A DEPTH THAT ENSURES THE HIGHEST ROOT FLARE IS FLUSH WITH EXISTING GRADE. TREES PLANTED LOW OR HIGH WILL BE REJECTED.
2. PRIOR TO PLANTING, THE CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT IN WRITING IF SOIL CONDITIONS ARE DEEMED BY CONTRACTOR TO BE DETRIMENTAL TO PLANT GROWTH.
3. CONTRACTOR SHALL VERIFY TREE PIT IS FREE DRAINING AND NOTIFY LANDSCAPE ARCHITECT IF IT IS NOT.
4. CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT OF BELOW-GRADE OBSTRUCTIONS PRIOR TO PLANTING.
5. THE TRUNK OF THE TREE SHALL NOT BE USED AS A LEVER IN POSITIONING OR MOVING THE TREE.
6. CONTRACTOR SHALL REMOVE TREE WRAP AND/OR SHIPPING MATERIALS FROM TREE ONCE PLANTING IS COMPLETE.
7. REFER TO DETAIL "DECIDUOUS TREE STAKING" FOR TREE STAKING.
8. TREES PLANTED IN PROXIMITY TO AN ADA ACCESSIBLE ROUTE SHALL BE LIMBED TO PROVIDE A 80" VERTICAL CLEARANCE. CONTRACTOR SHALL CONFIRM TREES WHICH MUST MEET THIS REQUIREMENT WITH LANDSCAPE ARCHITECT.

DECIDUOUS TREE

N.T.S.

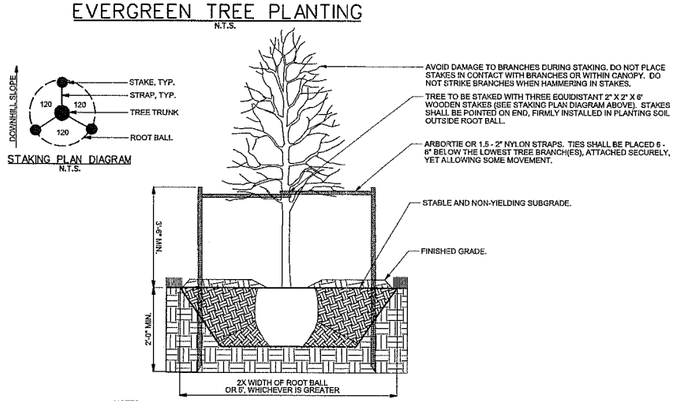


NOTES:

1. TREE SHALL BEAR SAME RELATION TO FINISHED GRADE AS IT BORE TO PREVIOUS GRADE.
2. PRUNE TO THIN AND SHAPE TREE CANOPY. DO NOT PRUNE CENTRAL LEADER.
3. SET STAKES VERTICAL AND AT SAME HEIGHT.

EVERGREEN TREE PLANTING

N.T.S.



STAKING PLAN DIAGRAM

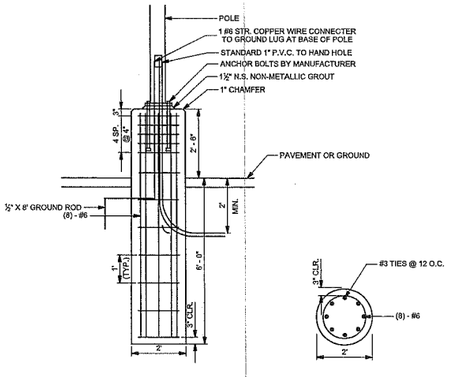
N.T.S.

NOTES:

1. SEE DETAIL, "DECIDUOUS TREE" FOR MORE DETAIL ON GENERAL PLANTING.
2. STAKES SHALL EACH HAVE SEPARATE NYLON STRAPS/ARBORTIES.
3. MAINTENANCE AND REMOVAL OF STAKES AND TIES SHALL BE INCLUDED IN THIS OPERATION. REMOVAL SHALL OCCUR AT END OF GUARANTEE PERIOD.

TREE STAKING

N.T.S.



FOUNDATION

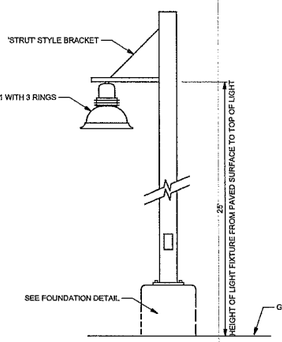
BOLT PATTERN

LIGHT POLE DETAIL

N.T.S.

NOTES:

1. FOUNDATION IS DESIGNED FOR A 20' (MAX.) TALL LIGHTING POLE.
2. CONCRETE - ACI318 28 DAY STREGTH 3,500 PSI, AIR ENTRAINED
3. REINFORCING - ASTM A615 60 KSI
4. ANCHOR BOLTS - ATSM A36, SIZE BY MANUFACTORER
5. SOIL - ALLOWABLE SOIL BEARING PRESSURE 2,000 PSF LATERAL BEARING = 150 PSF/FT
6. CONTRACTOR SHALL VERIFY SOIL CONDITIONS.



LIGHT POLE

GENERAL PLANTING

SUBMITTALS:
Topsoil - A soil analysis report shall be submitted and show the percentage of each constituent, pH, and other pertinent soil characteristics. Recommendations should include quantities of each soil amendment and fertilizer required to achieve optimum soil conditions.

Planting Schedule - All plant material shall be planted no earlier than April 15 and may continue through June 15 or begin September 1 but continue no later than October 15. Do not install plant materials when temperatures are below 35 degrees Fahrenheit or above 90 degrees Fahrenheit.

Maintenance - Written instructions for the owner's maintenance of landscaping, including initial maintenance recommendations, 12 months, and long term recommendations must be submitted prior to acceptance of landscaping.

QUALITY ASSURANCE:

General - All material must comply with American Association of Nursery new standards applicable to landscaping. Material must be provided as indicated with no substitutions permitted. Plant material provided must comply with ANSI Z60.1.

Inspection - The engineer/landscape architect retains the right to inspect planting materials at any time for compliance with the contract documents. Regarding, but not limited, to talent defects, and lack of protection of maintenance, and may reject defective material. Rejected material must be immediately removed and disposed off the site. Contractor shall schedule plant inspection with engineer/landscape architect prior to installation of all plant materials.

DELIVERY, STORAGE, AND HANDLING:

Packaged Materials - Material must be delivered in original unopened containers displaying weight, guaranteed chemical analysis, and manufacturer's name or furnish in bulk with appropriate certificates and protected from deterioration.

Sod - Delivery of sod shall be timed so that it will be installed within 24 hours after delivery. Sod shall be protected against drying and breakage.

Ground Cover and Plants - Delivery shall be scheduled to avoid on site storage. If planting does not occur on same day as delivery, store in location protected from sun and weather. All trees and shrubs shall not be pruned before delivery in order to prevent shock. Stock must be covered for protection during transportation. Stock shall be bound to protect branches, bark, and overall shape during transport. Any balled and burlapped stock must be freshly dug unless otherwise approved. Stock must not be dropped. Stock must be delivered only after soil has been prepared. Harvest scheduling with delivery in quantities suitably timed for immediate planting upon arrival. If planting cannot be accomplished immediately, provide shade, protect from wind, protect balls or roots from drying by covering at all times with moist saw dust, wood chips, shredded bark or other similar mulching material. All plant material shall be suitably watered during on site storage.

PROJECT CONDITIONS:

Work Coordination - All work shall be scheduled and coordinated with work occurring in other sections and local seasons. All underground utilities must be located so to avoid damage and injury. The contractor shall be responsible for all repairs to any utility damages associated with excavation and planting.

Sequencing - Final grades must be established before planting trees and shrubs. Lawns may then be planted unless otherwise approved. Earlier plantings must be protected from later planting operations and repairs made to any resulting damage or inconsistencies.

WARRANTIES:

General - Warranties shall be in addition to, and not a limitation of, other rights the owner may have against the contractor under the contract documents.

Lawns - Warrant lawns until turf exhibits vigorous growth for twelve (12) months.

Trees and Shrubs - Warrant trees and shrubs for twenty-four (24) months after final approval by Township Landscape Architect. Warranty shall cover death, and unsatisfactory growth, neglect, and/or acts of God. If completion of landscaping work is materially delayed beyond the date of substantial completion, provide warranty commencing on date of acceptance by the project Engineer/landscape architect.

Unsatisfactory Material - Replace unsatisfactory material with matching, healthy, vigorous plants. Plant only during next occurring planting season. At the direction of the project engineer/ landscape architect, either replace materials exhibiting poor quality, marginal condition or extend the warranty covering such materials for one full growing season. Any plant material of which 25% or more is dead shall be considered dead. A tree shall be considered dead when the main leader has died or if 25% of the crown is dead. Another inspection will be conducted at the end of the extended warranty period(s), if any, to determine acceptance or rejection. Only one replacement will be required at the end of the warranty period, except for losses or replacements due to failure to comply with specified requirements.

MAINTENANCE:

Lawns - Maintain lawns from immediately after planting until an acceptable lawn is established. At the end of the maintenance period, sodded lawns shall be uniform in texture, density and color; substantially weed-free, without gaps or bare spots and with vigorous growth of proper species and variety. Water regularly and at such times and rates as necessary for optimum growth and to avoid wilting, puddling, runoff, or erosion. Mow grass at regular intervals to maintain a maximum height of 1-1/2 inches. Do not cut more than 1/3 of grass blade at any one mowing. Trim edges and clip by hand where necessary. Immediately remove clippings after mowing and trimming. Fertilize after one month of growth and apply 1/2 pound of available nitrogen per 1000 square feet. Control the growth of weeds by applying herbicides in accordance with manufacturer's instructions. Remedy any damage resulting from use of herbicides. Regrade and replant areas to correct rutted, damaged, or improperly graded areas.

Trees and Shrubs - Maintain trees and shrubs from immediately after planting through the warranty period. Provide all maintenance necessary to achieve healthy plant growth such as watering regularly and on a timely basis, and remove weeds, replace mulch, and restore eroded watering basin around trunks if needed. Adjust stakes and guys to provide proper support and replant trees and shrubs to vertical position if necessary. Renew wrappings if damaged. Apply insecticides or fungicides if necessary to prevent or correct insect infestation and disease.

Ground Cover and Small Plants - Maintain ground cover and small plants from immediately after planting through the warranty period. Provide the following maintenance necessary to achieve healthy plant growth; water regularly and on a timely basis, remove weeds and replace mulch if needed, and spray as required to keep ground cover and small plants free of insects and disease.

PRODUCTS:

TOPSOIL:

Topsoil at Site - Verify suitability and quantity of topsoil stockpiled at site. If sufficient quantities of suitable topsoil are not available at site, provide topsoil from approved off site sources. Fertile agricultural soil, typical for locality, capable of sustaining vigorous plant growth and taken from a drained site; free of subsoil, rocks larger than 2 inches in diameter, clay, toxic matter, plants, weeds, and roots.

SOIL AMENDMENTS:

Lime - Pulverized dolomitic limestone containing not less than 85 percent total carbonates with a minimum of 20 percent magnesium carbonates; minimum 90 percent passing a 10-mesh sieve and minimum 50 percent passing a 100-mesh sieve.

Humus - Shall be decomposed organic matter; pH suitable for intended use.

Sand - Shall be clean washed sand free of toxic materials.

Perlite - Horticultural perlite of soil amendment grade.

Commercial Fertilizer - Granular, commercial grade, pH neutral, comprised of both slow and fast release elements and containing the following minimum content of available plant nutrients:

- Trees and shrubs - 5% total nitrogen, 10% phosphoric acid, 5% soluble potash.
- Ground cover and plants - 3% total nitrogen, 10% phosphoric acid, 5% soluble potash.
- Lawns - Available nitrogen content as required to provide 1 pound per 1000 square feet at normal application rate, minimum 4% phosphoric acid, and minimum 2% soluble potash.

SEEDING

Apply seed at a rate of 4 lbs. per 1000 square feet evenly in two intersecting directions. Rake in slightly. Do not seed areas in excess of that which can be mulched on same day. Do not sow immediately following rain, when ground is too dry, or during windy periods. Roll seeded area with roller not exceeding 100 lbs. Immediately following seeding and compacting, apply even layer of hay mulch. Maintain clear of shrubs and trees. Apply water with a fine spray immediately after area has been mulched. Saturate to 4 inches of soil.

SEED SPECIFICATIONS

Turf Mixture:
15% Kentucky Bluegrass
35% Kentucky 31 Fescue
25% Chewings Fescue
15% Perennial Rye Grass
10% Reclaimed Redtop

HYDROSEEDING

Apply seeding slurry with a hydraulic seeder at a rate of 4 lbs of seed per 1000 square feet evenly in two intersecting directions. Do not hydroseed area in excess of that which can be mulched on same day. Immediately following seeding, apply even layer of hay mulch. Maintain clear of shrubs and trees. Apply water with a fine spray immediately after area has been mulched. Saturate to 4 inches of soil.

SEED PROTECTION

Cover seeded slopes where grade exceeds 1' in 5' or greater with erosion fabric. Roll fabric onto slopes without stretching or pulling. Lay fabric smoothly on surface, bury top end of each section in 6 inch deep excavated topsoil trench. Provide 12 inch overlap of adjacent rolls. Backfill trench and rake smooth, level with adjacent soil. Secure outside edges and overlaps at 36 inch intervals with stakes. Lightly dress slopes with topsoil to ensure close contact between fabric and soil. At sides of ditches, lay fabric taps in direction of water flow. Lap ends and edges minimum 6 inches.

SPECIFICATIONS

TREES AND SHRUBS:

General - Provide nursery or plantation grown stock conforming to the American Standard for Nursery Stock. All vegetation shall be nursery grown, well-branched and uniformly sound, vigorous, healthy, and free from disease, sun-scald, windburn, abrasion, and harmful insects or insect eggs. Deciduous trees and shrubs shall be symmetrically developed and uniform habit of growth, with straight trunks or stems, and free from objectionable disfigurements. Coniferous evergreen trees and shrubs shall have well-developed symmetrical canopies with uniform spread of branches for each
particular species or variety. Provide stock complying in all respect with ANSI Z60.1 and in sizes indicated, measured in accordance with ANSI Z60.1. Larger sizes with larger roots and root containment may be furnished, if approved by the landscape architect. Do not spread or compress branches when measuring. Measure main body
of branches; do not measure extreme tip to tips of single branches. Pruning to size is not acceptable. Shade and flowering trees, deciduous, shrubs, and coniferous evergreens shall be balled and burlapped (B&B).

PLANTS:

General - Provide field-grown or acclimatized container-grown plants from a commercial nursery, healthy, vigorous, of sizes indicated and in accordance with ANSI Z60.1, Section 6, "Young Plants".

GRASS MATERIALS:

Sod - Provide viable (not dormant) certified turf grass complying with ASPA specifications for thickness, size, strength, moisture content, mowed height, time between harvest and transplanting, thatch, disease, nematodes, insects, and weeds.
Sod type shall be Kentucky bluegrass (Poa pratensis).

Miscellaneous Landscape Material:

Decorative Mulch - Shall be free of harmful materials, suitable for top dressing of plantings, and consisting of double shredded hardwood.

Antidesiccant - is a film - forming emulsion, permeable to transpiration yet retarding to excessive moisture loss.

Staking and Guying Materials - Stakes shall be pressure - preservative treated lumber of sizes indicated; sound, straight, and free of splits and knots larger than ¼ of the least nominal dimension of the piece. Sharpen end and chamfer sides of driven end to prevent splitting from off-center hammer strikes. The wire will be a galvanized mild steel wire, minimum 12 gauge; provide double strands. Hosing will be rubber or plastic garden hose, and the turnbuckles shall be aluminum, galvanized steel, or similar.

PLANTING SOIL:

Soil Mix - Provide planting soil mix, consisting of topsoil and amendments as recommended by soils analysis laboratory report.

Mixing - Mix topsoil and amendments thoroughly to provide uniform mixture, using a drum-type mechanical mixer, powered rotary tiller, or other means acceptable to the landscape architect.

EXECUTION:

PREPARATION:

Layout - Lay out planting locations, mark with stakes, adjust locations if requested, and obtain the landscape architect's approval of locations before proceeding with installation.

Preparation of Planting Soil - Prior to mixing in drum - type mixer or during tillage operations, clean topsoil of sticks, stones, clay lumps, vegetable matter, and other objectionable objects. Pit and trench backfill: mix planting soil and stockpile at site, ready for use as backfill. For planting beds and lawns, either mix planting soil before placing or uniformly spread fertilizer in and soil amendments on surface of in - place topsoil and till thoroughly before planting.

Preparation for Planting Lawns - Prepare only those areas that will be planted presently. Allow for seed thickness in areas to be seeded. For preparation of stripped areas, till subgrade to a depth of at least 4 inches. Place topsoil in two approximately equal lifts, working first lift into subgrade before placing second lift. Spread second lift to comply with finished lines, grades, and elevations required after allowing for settlement. To prepare for unchanged grades, prepare yet unstripped areas as follows: remove existing vegetation including grasses and dispose of off site. Till soil to a depth of at least 6 inches. Clean topsoil of sticks, stones, clay, lumps, vegetable matter, and other objectionable objects. Fine-grade, roll, rake, and drag lawn areas cutting down high spots and filling low spots, leaving a smooth, even surface of fine-textured soil complying with required grades. If dry, water full depth of topsoil thoroughly but not excessively and allow surface moisture to dry before planting. Just before planting, correct any lawn areas that have been eroded, rutted, or settled.

Preparation of Planting Beds - Till planting bed area to a depth of at least 6 inches, clear, and add soil amendments necessary to achieve optimum growing conditions and till thoroughly.

Excavation for Trees and Shrubs - Pits, beds, and trenches: Excavate with sides vertical, bottom flat but with high center for drainage. Deglaze sides and loosen bottoms. Minimum dimensions for individual pits:

Diameter:
- Ball or root spreads up to 2 feet: 1-1/2 times root spread.
- Ball or root spreads 2 to 4 feet: 1-1/2 times root spread.
- Ball or root spreads over 4 feet: Root ball dia. plus eighteen (18") inches.

All excavated subsoil from the site shall be mixed with appropriate volumes of soil amendments as recommended by soils analysis laboratory report as indicated on plans prior use as planting backfill.

PLANTING TREES AND SHRUBS:
Balled and Burlapped Stock - Set plants in excavation with top of ball to match adjacent finished grade. Add soil as required under ball to achieve plumb. Remove burlap from top and top 1/3 of ball; retain burlap on bottom of ball. Place backfill in 3 to 4 inch thick layers. Work each layer by hand to compact backfill and eliminate voids. Maintain plumb during backfilling. When backfilling is approximately 2/3 complete, saturate backfill with water and repeat until suitably filled and compacted. Remainder of backfill and water again, provide earth watering basin saucer, as indicated on the plans, and water stock.

Container - Grown Plant - Immediately before placing, remove container, or can. Set and plumb plants. Place initial backfill and remove sides of container, taking care to avoid damage to root system.

Basin - Form earthen watering basin around excavation area with backfill holding at least 2-1/2 gallons for shrubs and 5 gallons for trees. Apply mulch.

Antidesiccant - Spray - apply, covering all portions of plant in accordance with manufacturer's instructions. If in full leaf, spray deciduous trees or shrubs at nursery just before transportation, and 2 weeks after transplanting.

Pruning - Remove dead or broken branches. Prune to retain typical growth habit of plants with as much height and spread as practical. Make cuts with sharp instruments and flush with trunk or adjacent branch. Do not remove leaders from trees.

STAKING AND GUYING OF TREES:
Protection of Tree Trunks - Inspect and, if necessary, replace trees showing signs of physical damage or insect infestation. Guy and stake trees the same day as planting. Refer to drawings and schedule for guying and staking requirements.

SODDING NEW LAWNS:
Laying - Do not lay dried or broken sod: Use only fresh, properly protect sod. Lay first and subsequent parallel rows in a straight line with tightly butted joints. Do not overlay sod or leave voids. Stagger lateral joints. When each section is laid, lightly roll the entire area to ensure contact between sod and subgrade. Water sod immediately after planting to thoroughly wet the pad and subgrade immediately beneath. During first week, maintain soil continually moist to depth of 4 inches by watering daily or more often, absent adequate rainfall.

MISCELLANEOUS MATERIALS:

Decorative Mulch - Apply a uniform three inch (3") thick layer of double shredded hardwood mulch in the following areas: Individual planting pits and planting beds. During the maintenance and warranty period, the contractor is required to apply new mulch as necessary due to erosion, settling or as required by the landscape architect.

GENERAL NOTE:

It is agreed that the professional services of the design professional do not extend to or include the review or site observation of the contractor's work or reinforcing, unless otherwise specified and agreed. It is further agreed that the owner will hold harmless, indemnify and defend the design professional from any claim or suit whatsoever arising from the contractor's performance or the failure of the contractor's work to conform to the design intent and the contract documents.

Nave NEWELL
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date:	no.	description	ck'd by
1/30/15	1	REVISED PER TOWNSHIP COMMENT LETTERS	DAT MES
3/17/15	2	REVISED PER SURFACE PARKING ELIMINATION	DAT MES

REVISIONS

SEAL:

DRAWING NAME: LANDSCAPE AND LIGHTING DETAIL SHEET

145 KING OF PRUSSIA ROAD

LOCATION: RADNOR TOWNSHIP, DELAWARE COUNTY, PENNSYLVANIA

project no.	drawn by:
2007-011.03	JMD
date:	ck'd by:
9/3/14	JMD
scale:	approv. by:
AS NOTED	PEL

sheet no.

C9.5

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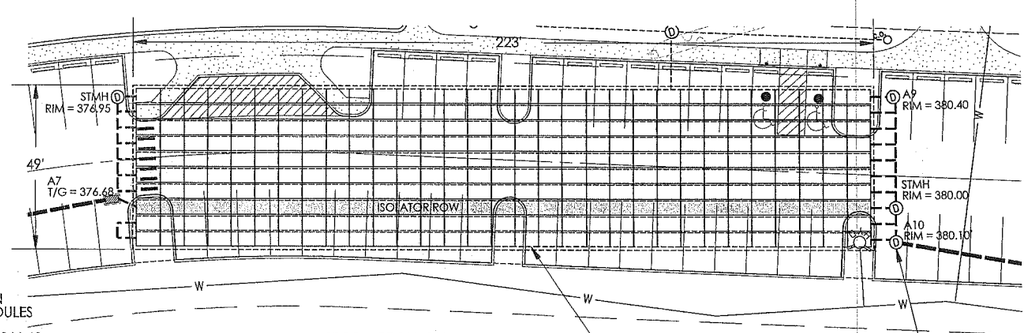


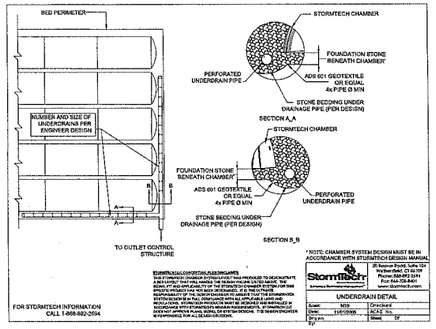
PROPOSED UNDERGROUND DETENTION
SYSTEM 'A' STORMTECH SC740 310 MODULES

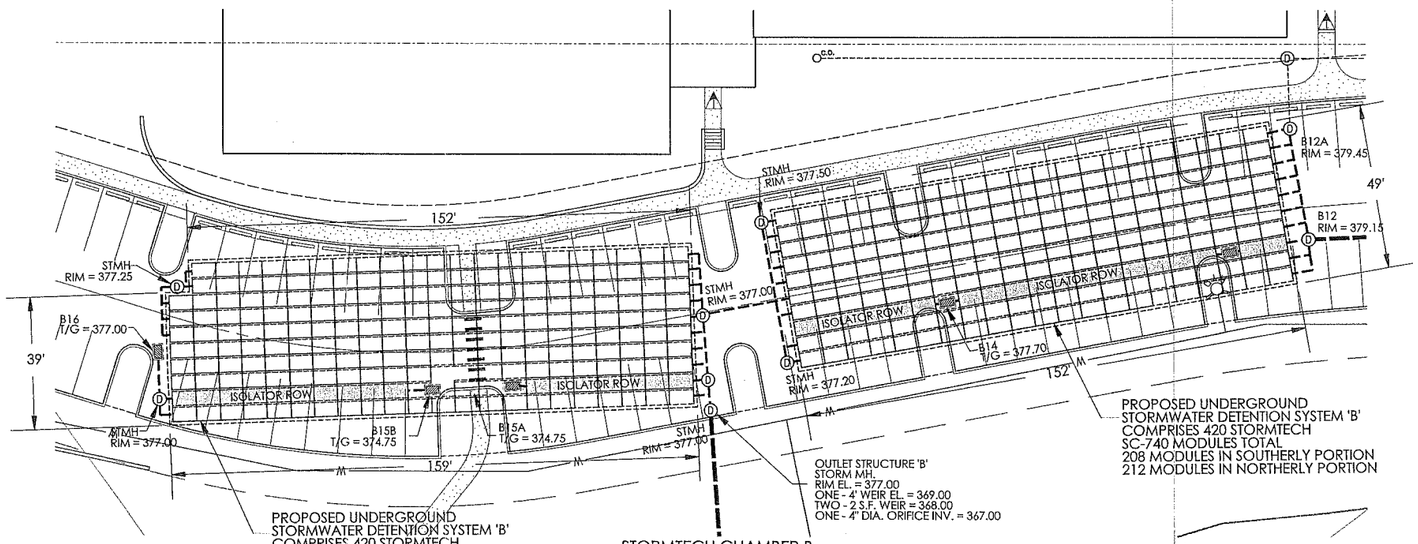
BOTTOM OF STONE EL.	366.42
BOTTOM OF SC740 CHAMBER EL.	367.00
TOP OF SC740 CHAMBER	369.50
TOP STONE EL.	370.00

STORMTECH CHAMBER A
SCALE: 1"=20'
GRAPHIC SCALE
20 0 10 20 40 80
(IN FEET)
1 inch = 20 ft

PROPOSED UNDERGROUND
STORMWATER DETENTION SYSTEM 'A'
COMPRISES 310 STORMTECH
SC-740 MODULES

OUTLET STRUCTURE 'A'
STORM MH.
RIM EL. = 380.10
ONE - 4' WEIR EL. = 369.00
ONE - 2 S.F. WEIR = 368.00
ONE - 4" DIA. ORIFICE INV. = 367.00





PROPOSED UNDERGROUND
STORMWATER DETENTION SYSTEM 'B'
COMPRISES 420 STORMTECH
SC-740 MODULES TOTAL
208 MODULES IN SOUTHERLY PORTION
212 MODULES IN NORTHERLY PORTION

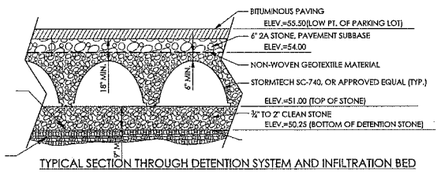
OUTLET STRUCTURE 'B'
STORM MH.
RIM EL. = 377.00
ONE - 4' WEIR EL. = 369.00
TWO - 4" DIA. ORIFICE INV. = 367.00

PROPOSED UNDERGROUND
STORMWATER DETENTION SYSTEM 'B'
COMPRISES 420 STORMTECH
SC-740 MODULES TOTAL
208 MODULES IN SOUTHERLY PORTION
212 MODULES IN NORTHERLY PORTION

STORMTECH CHAMBER B
SCALE:1"=20'
GRAPHIC SCALE
20 0 10 20 40 80
(IN FEET)
1 inch = 20 ft

PROPOSED UNDERGROUND DETENTION
SYSTEM 'B' STORMTECH SC740 420 MODULES

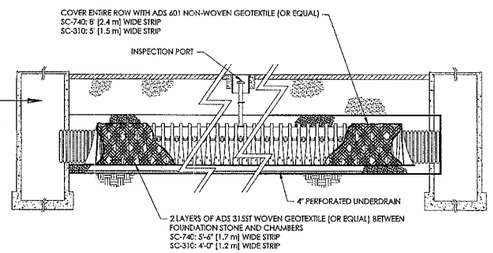
BOTTOM OF STONE EL.	366.42
BOTTOM OF SC740 CHAMBER EL.	367.00
TOP OF SC740 CHAMBER	369.50
TOP STONE EL.	370.00



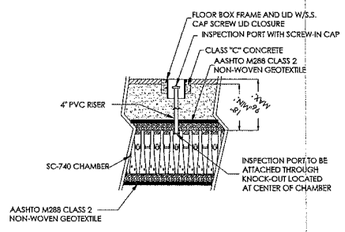
TYPICAL SECTION THROUGH DETENTION SYSTEM AND INFILTRATION BED

TYPICAL SECTION THROUGH DETENTION SYSTEM
N.T.S.

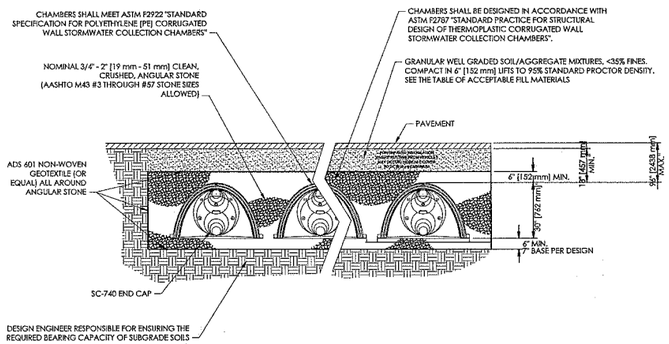
PROVIDE SUMP OF 24" FOR STRUCTURES AT ISOLATOR ROW EQUIP STRUCTURE WITH WEIR WALL TO THE 100 YEAR HIGHWATER ELEVATION



TYPICAL SECTION: SC-740 ISOLATOR ROW
N.T.S.



TYPICAL SECTION: SC-740 INSPECTION PORT
N.T.S.



NOTES:

1. THE INSTALLED CHAMBER SYSTEM SHALL PROVIDE THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS SECTION 12.12 FOR EARTH AND LIVE LOADS WITH CONSIDERATION FOR IMPACT AND MULTIPLE VEHICLE PRESENCE.

TYPICAL SECTION: SC-740 CROSS SECTION
N.T.S.

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date:	no.	description	ckd'd	by
		REVISIONS		
1/30/15	1	REVISED PER TOWNSHIP COMMENT LETTERS	DAT	DWN
3/17/15	2	REVISED PER SURFACE PARKING ELIMINATION	DAT	DWN

SEAL: COMMONWEALTH OF PENNSYLVANIA — TIMOTHY J. BRENNAN — Professional Engineer

TIMOTHY J. BRENNAN
For Nave Newell, Inc.
Pennsylvania License No. 46138-E

DRAWING NAME: PCSM DETAIL SHEET

145 KING OF PRUSSIA ROAD

LOCATION: RADNOR TOWNSHIP, DELAWARE COUNTY, PENNSYLVANIA

project no.	drawn by:
2007-011.03	LRL
date:	ck'd by:
9/3/14	DAT
scale:	approv. by:
AS NOTED	TJB
sheet no.	

C10.2

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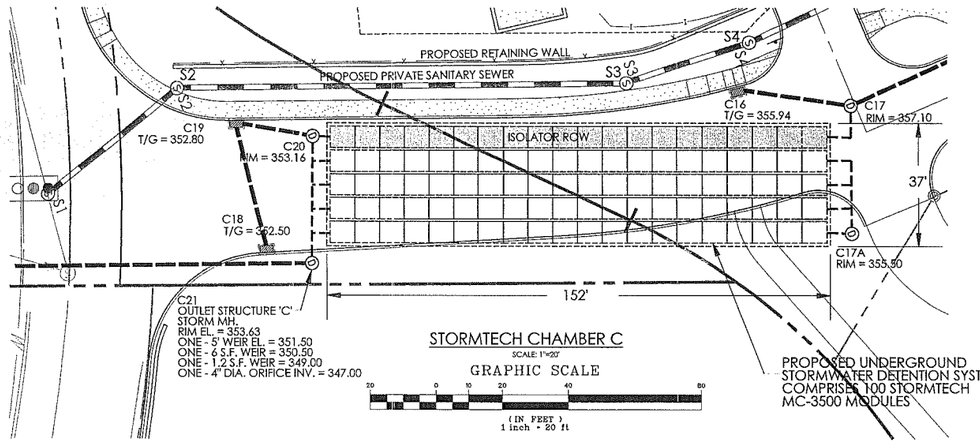


STORMTECH CHAMBER C

SCALE: 1"=20'

GRAPHIC SCALE

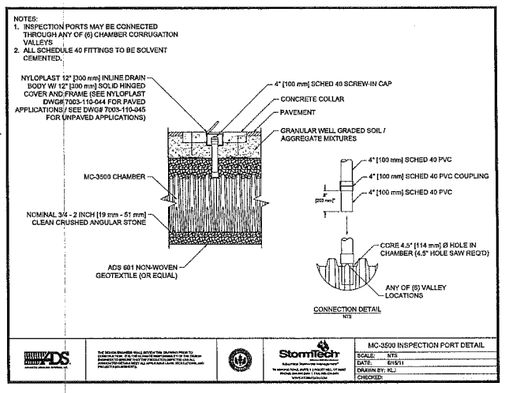
20 0 10 20 40 80

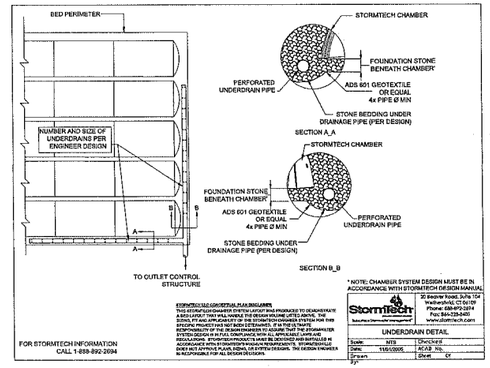
(IN FEET)
1 inch = 20 ft

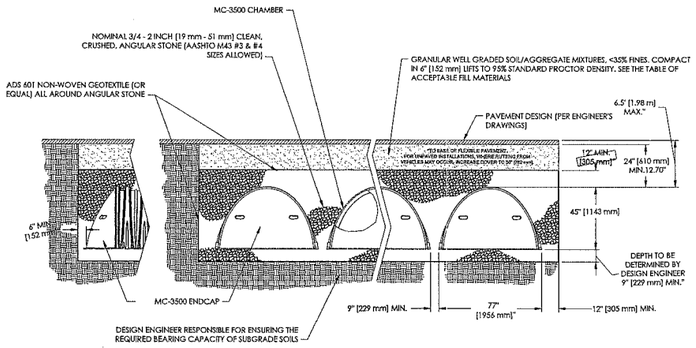
PROPOSED UNDERGROUND STORMWATER DETENTION SYSTEM 'C' COMPRISES 100 STORMTECH MC-3500 MODULES

PROPOSED UNDERGROUND DETENTION SYSTEM 'C' STORMTECH MC3500 100 MODULES

BOTTOM OF STONE EL.	346.25
BOTTOM OF SC740 CHAMBER EL.	347.00
TOP OF SC740 CHAMBER	350.75
TOP STONE EL.	351.75





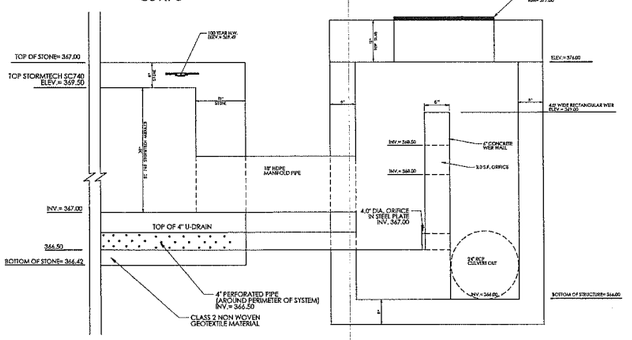


NOTES:

1. THE INSTALLED CHAMBER SYSTEM SHALL PROVIDE THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS SECTION 12.12 FOR EARTH AND LIVE LOADS, WITH CONSIDERATION FOR IMPACT AND MULTIPLE VEHICLE PRESENCES.
2. PERIMETER STONE MUST ALWAYS BE BROUGHT UP EVENLY WITH BACKFILL OF BED. PERIMETER STONE MUST EXTEND HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH STRAIGHT OR SLOPED SIDEWALLS.
3. CHAMBERS SHALL MEET ASTM F 2418 "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
4. CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".

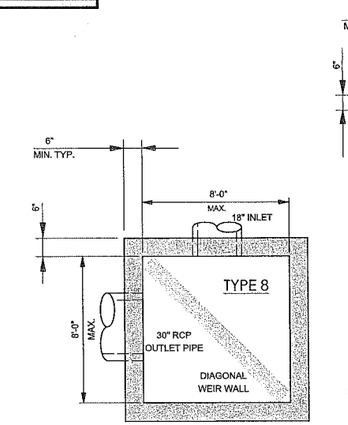
TYPICAL SECTION: MC-3500 CROSS SECTION

N.T.S.



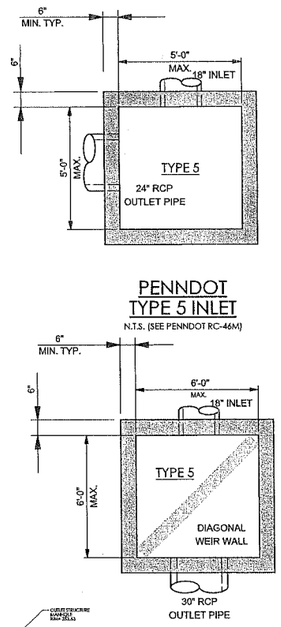
UNDERGROUND STORMWATER MANAGEMENT SYSTEM
N.T.S.

OUTLET STRUCTURE SYSTEM A (PADOT TYPE 5 BOX)
N.T.S.



PENNDOT TYPE 8 INLET

N.T.S. (SEE PENNDOT RC-46M)

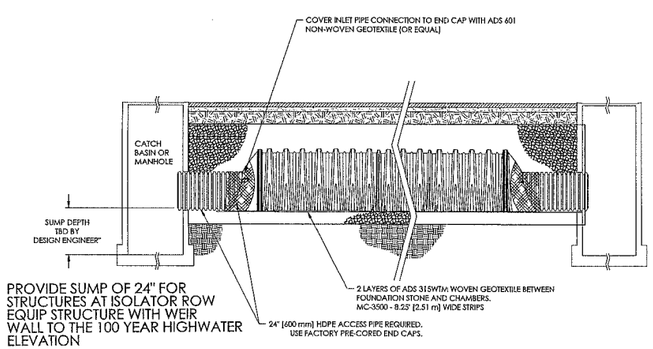


PENNDOT TYPE 5 INLET

N.T.S. (SEE PENNDOT RC-46M)

PENNDOT TYPE 6 INLET

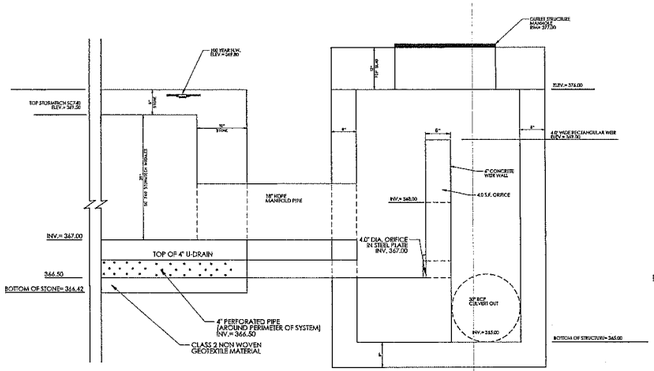
N.T.S. (SEE PENNDOT RC-46M)



PROVIDE SUMP OF 24" FOR STRUCTURES AT ISOLATOR ROW EQUIP STRUCTURE WITH WEIR WALL TO THE 100 YEAR HIGHWATER ELEVATION

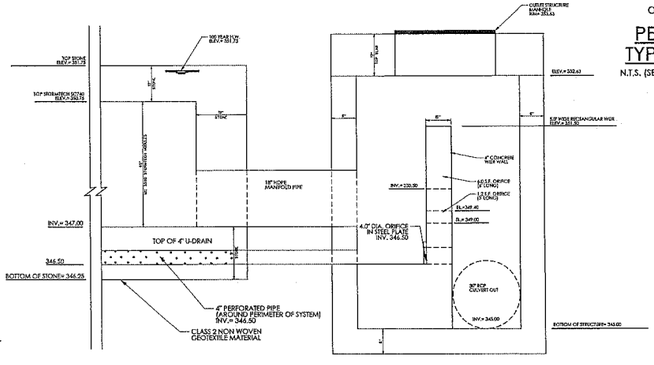
TYPICAL SECTION: MC-3500 ISOLATOR ROW PROFILE

N.T.S.



UNDERGROUND STORMWATER MANAGEMENT SYSTEM
N.T.S.

OUTLET STRUCTURE SYSTEM B (PADOT TYPE 6 BOX)
N.T.S.



UNDERGROUND STORMWATER MANAGEMENT SYSTEM
N.T.S.

OUTLET STRUCTURE SYSTEM C (PADOT TYPE 8 BOX)
N.T.S.

no.	description	date	chk'd by
1	REVISED PER TOWNSHIP COMMENT LETTERS	7/30/15	DAT DWN
2	REVISED PER SURFACE PARKING ELIMINATION	3/17/15	DAT DWN

REVISIONS

Nave Newell
Where Ideas Get Down to Earth
900 West Valley Road • Suite 1100
Wayne, PA 19087-1830
p: 610-225-1900 f: 610-225-1999
www.navenewell.com

SEAL: TIMOTHY J. BRENNAN, PROFESSIONAL ENGINEER, COMMONWEALTH OF PENNSYLVANIA

TIMOTHY J. BRENNAN
Professional Engineer
Pennsylvania License No. 46138-E

DRAWING NAME: PCSM DETAIL SHEET

LOCATION: RADNOR TOWNSHIP, DELAWARE COUNTY, PENNSYLVANIA

145 KING OF PRUSSIA ROAD

project no.	drawn by:
2007-011.03	LRL
date:	chk'd by:
9/3/14	DAT
scale:	approv. by:
AS NOTED	TJB
sheet no.	
C10.3	

35 of 35

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ORDINANCE NO. 2016-13

AN ORDINANCE OF RADNOR TOWNSHIP, DELAWARE COUNTY, PENNSYLVANIA, AMENDING CHAPTER 280 ZONING, ARTICLE XV, PLO PLANNED LABORATORY-OFFICE DISTRICT, SECTIONS 280-62, 280-63 AND 280-64, BY PROVIDING FOR ADDITIONAL USES IN THE PLO PLANNED LABORATORY-OFFICE DISTRICT INCLUDING MIXED USE DEVELOPMENTS; PROVIDING FOR REVISED DIMENSIONAL REQUIREMENTS FOR MIXED USE DEVELOPMENTS INCLUDING FINANCIAL SUBDIVISIONS AND PROVIDING FOR ADDITIONAL ACCESSORY USES

SECTION 1. Chapter 280, Article XV, Sections 280-62, 280-63 and 280-64 are hereby revised to read as follows:

Section 280-62 Purpose; application of regulations

A. PLO Planned Laboratory-Office Districts are designed primarily to provide for selected modern laboratory, office establishments and other compatible uses which:

   (1) Provide for attractive large-site, low-lot-coverage development in areas where traditional business development would be inappropriate.

   (2) Strengthen and diversify the Township's tax base.

   (3) Are compatible with the character of the surrounding areas.

   (4) Increase the effectiveness of the zoning district by providing the capability for a mixture of complementary uses.

   (5) Decrease the negative external effects of parking and traffic on surrounding areas by providing the capability for a mixture of complementary uses.

B. PLO Districts may be established and developed only in accordance with the special provisions of § 280-132 and subject to the regulations of this article and any other pertinent provisions of this chapter.

C. In PLO Planned Laboratory-Office Districts, the regulations contained in this chapter shall apply.

Section 280-63 Use regulations

A building or unified group of buildings may be erected or used and a lot may be used or occupied for any of the following purposes:

A. Forty percent (40%) to one-hundred percent (100%) of the gross floor area may be used or occupied for the following:

(1) Scientific or industrial research, testing or experimental laboratory or similar establishment for research or product development, provided that there is no commercial production or storage of any commodity or substance except for storage necessary for scientific research.

(2) Office Building, including medical, dental, professional and sales.

B. Subject to the requirements of § 280-64.G., up to sixty percent (60%) of the gross floor area may be used or occupied for the following:

(1) Hotel, including extended stay, which may contain restaurant and banquet space. Hotel pools and indoor health/fitness/recreation centers shall be for the use of hotel guests only.

(2) Skilled nursing and/or Senior Assisted Living facility.

(3) Senior Independent living facility.

(4) Ambulatory care facility - a health care facility or a distinct part of a health care facility which provides preventative, diagnostic, and treatment services to persons who come to the facility to receive services and depart from the facility on the same day, excluding medical and dental office uses. All land development plans proposing an Ambulatory care facility shall be limited to no smaller than 969 square feet per patient position yielding 103 patient positions per 100,000 square feet of gross floor area.

C. Notwithstanding the minimum lot size of Section 280-64.A., properties with a total site area of less than 10 acres may be used or occupied as follows and may not be combined with any other principal use.

(1) Skilled nursing, Senior Independent Living, and/or Senior Assisted Living facility, excluding Drug and Alcohol Rehabilitation facilities.

(2) Hotel, including extended stay, which may contain restaurant and banquet space. Hotel pools and indoor health/fitness/recreation centers shall be for the use of hotel guests only.

D. Accessory uses, which may include:

(1) Storage within a completely enclosed building in conjunction with a permitted use.

(2) A cafeteria or other service facility located within the building and operated for the exclusive use of the occupants of the building. An accessory cafeteria may include outdoor dining as permitted by § 280-115.3B. [Amended 4-8-2013 by Ord. No. 2012-09]

(3) A recreational area for occupants.

(4) Living quarters for watchmen, caretakers or similar employees.

(5) A parking structure, when constructed as an accessory structure for the purpose of eliminating allowable surface parking. Parking structures may be located wholly or partly within the principal building, attached to and made a part of the principal building, or constructed as a detached accessory structure. Parking spaces within structures may be reduced to not less than nine feet in width by 19 feet in depth, exclusive of aisles, for each motor vehicle.

(6) Restaurant accessory to a permitted principal use not including existing non-conforming uses. Outdoor dining is permitted in accordance with § 280-115.3 B.

Section 280-64 Area and height regulations

A. Lot area and width. Every lot on which a building or combination of buildings is hereafter erected or used shall have a lot area of not less than 10 acres, and such lot shall not be less than 300 feet at the building line.

B. Building area. 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 with Chapter 255, Subdivision of Land. Landscaped areas shall include nonimpervious areas devoted to stormwater management, required buffer areas, and landscaping for parking facilities.

C. Building placement. No building or accessory structure shall be located less than one hundred and fifty (150) feet from a street right-of-way line nor less than two hundred (200) feet from a side or rear property line and no surface parking area, driveway, service or interior roadway, with the exception of approved areas for vehicular access, shall be located less than 75 feet from a street right-of-way or other property line.

D. Building size and spacing.

(1) Except for a Mixed Use development permitted under § 280-64.G., 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°.

(2) The distance at the closest point between any two buildings or group of attached buildings, including accessory structures, shall not be less than 45 feet.

(3) In no case shall the width of buildings or accessory structures or the aggregate widths of buildings or accessory structures fronting on a street on the same lot exceed 80% of the width of a lot.

E. Height regulations. Except for a Mixed Use development permitted under § 280-64.G., no building or accessory structure shall exceed three stories or 38 feet in height.

F. Riparian buffer setback: 35 feet

G. Mixed Use - A building or unified group of buildings may include the uses specified in § 280-63.A. and B. and no other, subject to the following conditions:

(1) The minimum gross floor area of the B. uses shall be 30% of the Total Site Area. The maximum medical or dental office use shall be 30% of the gross floor area of the Total Site Area. Ambulatory Care facility uses shall be combined with a minimum 15% of gross floor area of the Total Site Area of one or more of the uses described in § 280-63.B.1, 2 or 3.

(2) No building shall exceed 85 feet in height. Buildings in excess of three stories or 38 feet in height are subject to the following requirements:

Building Height (Tallest building on site)	Maximum Building Area (%)	Maximum Lot Coverage (%)	Set Back to Street ROW Line (ft)	Set Back to Side and Rear Property Line Adjacent to Residential Zoning District (ft)	Set Back to Side and Rear Property Line Adjacent to Non - Residential Zoning District (ft)	Set Back to Side and Rear Property Line Abutting Railway (ft) and Limited Access Highway
less than or equal to 55’	29	50	100	200	50	25
greater than 55’ but less than or equal to 85’	28	45	100	200	50	25

(3) The gross floor area for all buildings on lots/properties existing as of the date of this ordinance shall not exceed 25,500 square feet per acre of Total Site Area.

(4) A parking garage or parking structure may have a height of up to 55 feet so long as such parking garage or parking structure does not exceed the height of any building on the site.

(5) All other accessory structures shall not exceed 45 feet in height as long as the accessory structure does not exceed the height of any other building on the site.

(6) Financial Subdivision - In connection with development of a Mixed Use within the PLO District, individual lots may be created for purposes of financing and/or conveyancing. Such individual lots shall not be required to comply on an individual basis with the dimensional requirements of this Article, provided that the site and uses comply with such requirements on an overall basis, and further provided that the deeds conveying such separate lots contain covenants requiring the purchasers to, at all times, operate and maintain such lots in good order and repair and in a clean and sanitary condition; that cross-easements for parking areas and all appurtenant ways, pedestrian access, and utilities shall be maintained between such lots; and that such covenants shall be subject to the approval of the Township. The purchaser of any such lot shall execute and file with the Township a written covenant agreeing to the forgoing conditions prior to purchasing.

(7) In the event that development requires an expansion of the right of way; setbacks shall be measured from the proposed right of way line.

(8) The greatest dimension in length or depth of a building (as specified in § 280.64.D) may be up to 350 feet provided that: (a) the façade is constructed of brick, stone, architectural concrete, architectural metal work, or articulated glass; (b) is constructed with vertical and horizontal articulation and; (c) is approved by the Township.

(9) The Total Site Area for a Mixed Use development must be greater than or equal to 10 acres. Total Site Area is the gross area of a lot or lots as described in the deeds or from an actual survey but excluding the area of any public or private street or rights of way as of the date of this ordinance.

(10) All Mixed Use developments shall submit a Transportation Impact and Mitigation Report to the Township as part of the land development application. The Transportation Impact and Mitigation Report shall address the following components for the proposed development:

(a) A description of all improvements proposed along the frontage of the property including curbs, sidewalks, drainage, and utility additions or extensions proposed as a result of the project.

(b) A description of all improvements to adjacent intersections or intersections within a 1/2 mile of the proposed project designed to mitigate the impact of the proposed development transportation at full build-out of the site.

(c) A description of all off-site transportation improvements proposed by the developer or a description of proposed improvements to existing public

transportation facilities including existing rail lines adjacent to or within ½ mile to the site.

(d) A description of transportation improvements proposed to be constructed by the applicant as recommended in the Township's Comprehensive Plan.

(11) No land development application shall be accepted or processed by the Township without the submission of the foregoing Transportation Impact and Mitigation Report.

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 , 2017.

RADNOR TOWNSHIP

By: _____
Name:
Title:

ATTEST: _____
Robert A. Zienkowski, Secretary

Commissioner Booker proposes to amend the first sentence of Chapter 280 Zoning, Article XV, PLO, Section 280-63 (A) to read as follows (new language **bold** and underlined): "Scientific or industrial research, testing or experimental laboratory or similar establishment for research or product development **(but excluding medical/dental offices for the provision of any type of treatments)**, provided that there is no commercial production or storage of any commodity . . . . "

11.6.17

RESOLUTION NO. 2017-129

A RESOLUTION OF RADNOR TOWNSHIP, DELAWARE COUNTY, PENNSYLVANIA, EXERCISING ITS MUNICIPAL OPTION TO PROHIBIT THE LOCATION OF CATEGORY 4 LICENSED SLOT MACHINE FACILITIES WITHIN RADNOR TOWNSHIP PURSUANT TO ACT 42 OF 2017

WHEREAS, Governor Tom Wolf approved Act 42 of 2017, on October 30, 2017, legalizing online gambling portals for casinos and airports, allowing for ten mini-casino sites known as category 4 licensed facilities for slot machines awarded through auctions, permitting video gaming terminals at truck stops, and regulating fantasy sports betting; and

WHEREAS, Section 1305.1 (A.1) of Act 42 expressly permits municipalities the option to prohibit the location of category 4 licensed facilities under the Act within their boundaries by delivering a resolution of the municipality's governing body to the Pennsylvania Gaming Control Board no later than December 31, 2017; and

WHEREAS, the Board of Commissioners of Radnor Township desires to exercise the municipal option permitted under Act 42 to prohibit the location of category 4 licensed facilities within Radnor Township.

NOW, THEREFORE, BE IT RESOLVED, that the Board of Commissioners of Radnor Township does hereby prohibit the location of category 4 licensed facilities within Radnor Township in accordance with Act 42 of 2017, and further authorizes the delivery of this resolution to the Pennsylvania Gaming Control Board.

SO RESOLVED, at a duly convened meeting of the Board of Commissioners of Radnor Township conducted on this ___ day of November, 2017**.**

RADNOR TOWNSHIP BOARD OF COMMISSIONERS

_____

Name:
Title:

ATTEST:_____
Name: Robert A. Zienkowski
Title: Township Manager/Secretary

New Business

Request for Consideration to set a Special Meeting Date to discuss the Sewer Fund & Park and Open Space Fund