LAMB | McERLANE PC

ATTORNEYS AT LAW

Vincent M. Pompo
Voice 610-430-8000
Fax 610-692-6210
vpompo@lambmcerlane.com

September 30, 2016

Chester County Planning Commission
601 Westtown Road, Suite 270
P.O. Box 2747
West Chester, PA 19380-0990

Recorder of Deeds of Chester County
313 W. Market Street, Suite 3302
P.O. Box 2748
West Chester, PA 19380-0991

2016 SEP 30 PM 2:53
RECORDER OF DEEDS
CHESTER COUNTY, PA

Re: Exton Square Mall Grocery Store
Preliminary/ Final Land Development Plans
Prepared by Bohler Engineering
(10/19/2015)(Last Revised 07/13/2016)
West Whiteland Township, Chester County, Pennsylvania

Ladies and Gentlemen:

Please be advised that this office serves as Solicitor to the Board of Supervisors of West Whiteland Township, and I am writing in my capacity as Solicitor for West Whiteland Township.

The above-referenced final land development plan was duly approved by the Board of Supervisors of West Whiteland Township on March 9, 2016.

Please be advised that we are aware that the time period for filing the final land development plan with the Recorder of Deeds of Chester County has lapsed. We are writing to advise that West Whiteland Township does not have any objection to the plan being recorded at this time and does hereby waive the ninety-day requirement.

If you have any questions, please do not hesitate to contact me at (610) 430-8000.

Very truly yours,

LAMB MCERLANE PC

By: _____
Vincent M. Pompo

VMP: tlk

cc: Board of Supervisors
Mimi Gleason, Township Manager

Unofficial Copy

DOC # 11500444 09/30/201602:52 PM
Receipt #:16-33935
Rec Fee: $858.00
Chester County, Recorder of Deeds

11500444 B: 20031 P: 1 SDP
09/30/201602:52 PM Page 1 of 44
LAMB MCERLANE

11520444 B: 20931 P: 1 SDP
10/30/2016 02:57:26 PM
Page 1 of 2
CHESTER COUNTY

RECORDER OF DEEDS
CHESTER COUNTY, PA
2016 SEP 30 PM 2:57

EXTON SQUARE MALL GROCERY STORE
PRELIMINARY/FINAL LAND DEVELOPMENT PLANS

SITUATED IN:

POTTSTOWN PIKE (S.R. 0100) & LINCOLN HIGHWAY (U.S. BUSINESS ROUTE 30)
TAX MAP PARCELS 41-5-85, 41-5-86, & 41-5-90 & 41-5-89
WEST WHITELAND TOWNSHIP
CHESTER COUNTY, PENNSYLVANIA

260 EXTON SQUARE MALL

41-5-90, 41-5-89 ✓

OWNER/ APPLICANT:

PR EXTON SQUARE PROPERTY LP

THE BELLEVUE 200 SOUTH BROAD STREET
PHILADELPHIA PA 19102

CURRENT OWNER
EXTON SQUARE, INC ✓
41-5-85/41-5-86 ✓

WAIVERS AS APPROVED BY THE WEST WHITELAND TOWNSHIP BOARD OF SUPERVISORS ON 03/09/2016

1. A WAIVER IS GRANTED FROM SECTION 270-20 OF THE STORMWATER MANAGEMENT ORDINANCE REQUIRING INFILTRATION OF A VOLUME OF STORMWATER NOT LESS THAN THE EQUIVALENT OF ONE (1) INCH OF RUNOFF FROM ALL PROPOSED IMPERVIOUS SURFACES, PURSUANT TO COMMENT #1E OF THE SSM GROUP ("SSM") REVIEW DATED FEBRUARY 16, 2016.
2. A WAIVER IS GRANTED FROM SECTION 281-33.C(6)(C) OF THE S/LDO SUCH THAT NO PLANT GROWTH DIAGRAMS NEED BE PROVIDED, PURSUANT TO COMMENT #16 OF THE THEURKAUF DESIGN AND PLANNING ("THEURKAUF") REVIEW DATED DECEMBER 28, 2015.
3. A WAIVER IS GRANTED FROM SECTION 281-35.E OF THE S/LDO SUCH THAT NO PERIMETER BUFFER IS REQUIRED AT THIS TIME ALONG WITH NORTHERN SIDE OF THE TRACT, PROVIDED THAT LANDSCAPING SATISFACTORY TO THE TOWNSHIP WILL BE PROVIDED AT THIS LOCATION AS PART OF THE FUTURE PHASES OF DEVELOPMENT, PURSUANT TO COMMENT #3 OF THE THEURKAUF REVIEW DATED FEBRUARY 16, 2016.
4. A WAIVER IS GRANTED FROM SECTION 281-35.F OF THE S/LDO TO ALLOW THE BASIN LANDSCAPING AS SHOWN, PURSUANT TO COMMENT #4 OF THE THEURKAUF REVIEW DATED FEBRUARY 16, 2016.
5. A PARTIAL WAIVER IS GRANTED FROM SECTION 281-37.B(4) OF THE S/LDO TO ALLOW THREE (3) PARKING LOT ISLANDS WITHOUT SHADE TREES IN ORDER TO AVOID CONFLICTS WITH SIDEWALKS AND LIGHTING, PURSUANT TO COMMENT #10 OF THE THEURKAUF REVIEW DATED FEBRUARY 16, 2016.
6. A WAIVER IS GRANTED FROM SECTION 281-37.C OF THE S/LDO TO ALLOW SMALLER TREES OVER THE SUBSURFACE BASIN AS SHOWN ON THE PLAN, PURSUANT TO COMMENT #11 OF THE THEURKAUF REVIEW DATED FEBRUARY 16, 2016.

CONDITIONS OF DECISION & ORDER FOR CONDITIONAL USE AS APPROVED BY THE BOARD OF SUPERVISORS ON 10/14/2015

1. THE PLAN SHALL BE REVISED TO DEMONSTRATE COMPLIANCE WITH ALL CONDITIONS SET FORTH IN THIS DECISION.
2. THE APPLICANT SHALL RESOLVE ALL REMAINING CONSULTANT CONCERNS TO THE SATISFACTION OF THE TOWNSHIP IN THE COURSE OF THE LAND DEVELOPMENT REVIEW PROCESS, PARTICULARLY INCLUDING BUT NOT LIMITED TO THE STORMWATER MANAGEMENT ISSUES DESCRIBED IN THE SSM GROUP REVIEW DATED SEPTEMBER 9, 2015 (EXHIBIT B-6) AND THE CLEAR-SIGHT CONCERN DESCRIBED IN THE TRAFFIC PLANNING AND DESIGN, INC. ("TPD") REVIEW DATED SEPTEMBER 9, 2015 (EXHIBIT B-8).
3. THE APPLICANT SHALL PROVIDE AN OPAQUE ENCLOSURE FOR THE LOADING AREA TO MITIGATE THE VISUAL IMPACT UPON BOTH THE ADJACENT CLASS II HISTORIC RESOURCE (MALVERN FEDERAL BANK BUILDING, HISTORIC SITE #302) AND THE STREETSCAPE GENERALLY.
4. THE LAND DEVELOPMENT PLAN SHALL CLEARLY INDICATE THE EXISTING AND PROPOSED LOT CONFIGURATIONS IN ORDER TO ALLOW THE REVIEW AND APPROVAL OF THE SUBDIVISION NECESSARY TO ACCOMMODATE THE DEVELOPMENT.
5. THE APPLICANT SHALL EXECUTE AND PROVIDE TO THE TOWNSHIP A RECORDABLE, NOTARIZED COPY OF A MEMORANDUM CONTAINING A METES AND BOUNDS DESCRIPTION OF THE PROPERTY IN QUESTION AND STIPULATING THE TERMS AND CONDITIONS OF THIS APPROVAL AND SHALL CONSENT TO THE RECORDING BY THE TOWNSHIP IN THE OFFICE OF THE RECORDER OF DEEDS OF CHESTER COUNTY WITHIN SIXTY (60) DAYS FOLLOWING THE DATE OF THIS DECISION AND ORDER.
6. WITHIN 30 DAYS OF THE DATE OF THIS DECISION AND ORDER, THE APPLICANT SHALL PAY IN FULL ALL FEES CHARGED BY TOWNSHIP CONSULTANTS FOR REVIEW OF THE CONDITIONAL USE APPLICATION AND PLANS AND PREPARATION OF THIS DECISION AND ORDER.
7. THE APPLICANT SHALL EXPRESS TO THE BOARD IN WRITING DELIVERED TO THE TOWNSHIP ADMINISTRATIVE OFFICES WITHIN 10 DAYS OF THE APPLICANT'S RECEIPT OF THIS DECISION ITS FULL AND COMPLETE CONSENT TO THE CONDITIONS SPECIFIED HEREIN ABOVE OR THE APPLICATION FOR CONDITIONAL USE APPROVAL IS DENIED; THE BOARD EXPRESSLY FINDING AND CONCLUDING THAT THE APPLICATION, IN THE ABSENCE OF COMPLIANCE WITH THE SAID CONDITIONS, IS INCONSISTENT WITH THE STANDARDS, CRITERIA, PURPOSES AND POLICIES CODIFIED IN CODE §325-124.C.

BOARD OF SUPERVISORS APPROVAL

APPROVED BY THE BOARD OF SUPERVISORS OF WEST WHITELAND TOWNSHIP THIS 9 DAY OF January 20 17

RECORDED IN THE OFFICE OF THE RECORDER OF DEEDS, CHESTER COUNTY, PENNSYLVANIA IN THE PLAN BOOK ____ PAGE ___ ON THE _____ DAY OF _____ 20____.

PLANNING COMMISSION APPROVAL

REVIEWED BY THE WEST WHITELAND TOWNSHIP PLANNING COMMISSION ON THE 19 DAY OF January 20 17

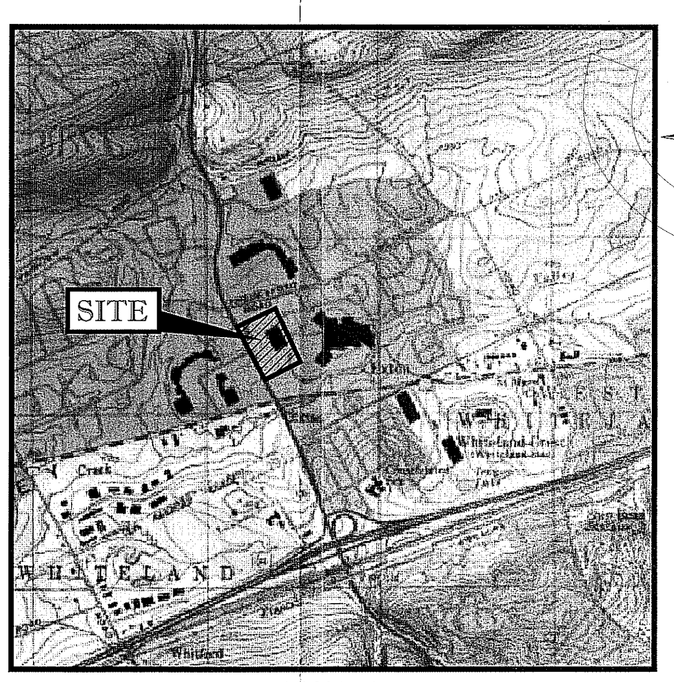
CHESTER COUNTY PLANNING COMMISSION

REVIEWED BY THE CHESTER COUNTY PLANNING COMMISSION THIS _____ DAY OF 11-13-2015 20____.

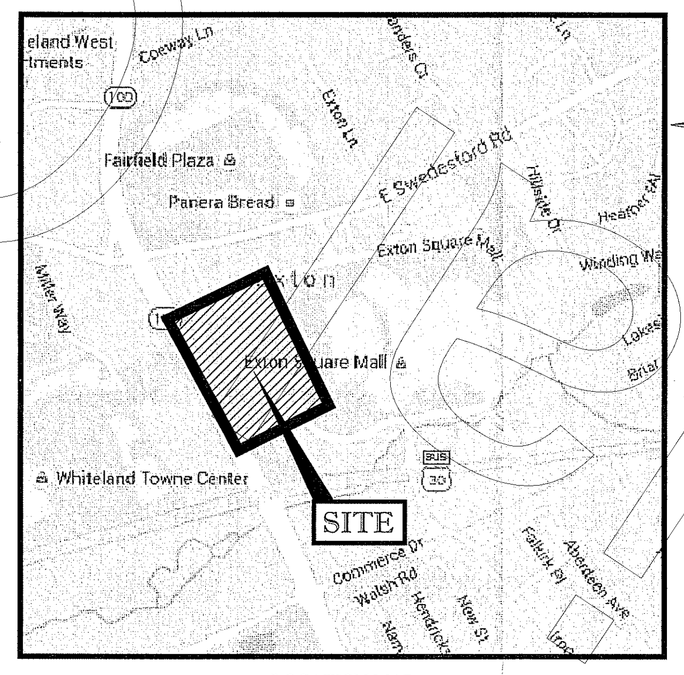
_____ WHO ACKNOWLEDGED HIMSELF (HERSELF) TO BE THE _____ OF THE _____

CHAIRMAN SECRETARY

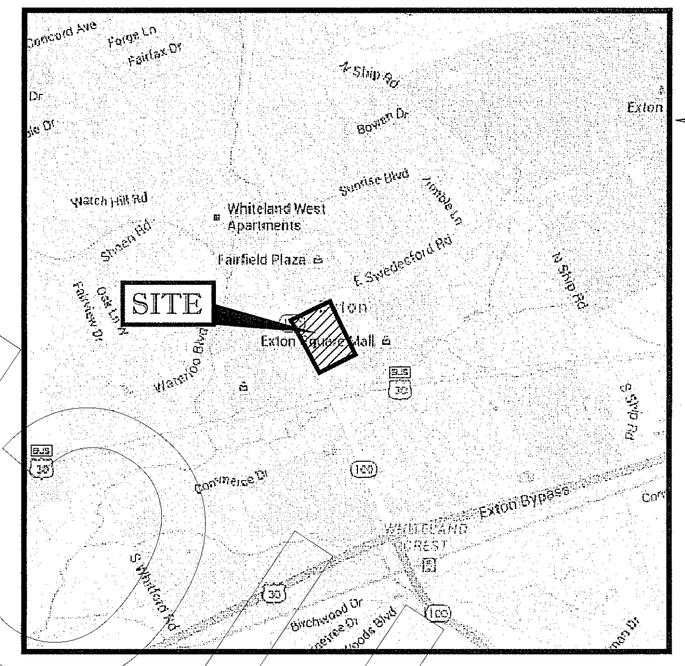
Land Dev ID: PROJ-4196
Plan Number: SD-10-15-12787
Plan Number: LD-10-15-12788



USGS MAP
(DOWNINGTOWN & MALVERN QUAD)
1"=2,000'
1,000' 0 2,000'



LOCATION MAP
1"=800'
1,000' 0 2,000'



VICINITY MAP
1"=2,000'
1,000' 0 2,000'

CERTIFICATION OF OWNER

PR EXTON SQUARE PROPERTY L.P., A DELAWARE LIMITED PARTNERSHIP

BY: XGP LLC, ITS SOLE GENERAL PARTNER
BY: PR EXTON LIMITED PARTNERSHIP, ITS SOLE MEMBER
BY: PR EXTON, LLC, ITS SOLE GENERAL PARTNER
BY: PREIT ASSOCIATES, L.P., ITS SOLE MEMBER
BY: PENNSYLVANIA REAL ESTATE INVESTMENT TRUST, ITS SOLE GENERAL PARTNER

BY: _____
NAME: BRUCE GOLDMAN
ITS: EXECUTIVE VICE PRESIDENT
C.THE ACKNOWLEDGEMENT IS -

COMMONWEALTH OF PENNSYLVANIA)
)SS:
COUNTY OF PHILADELPHIA)

ON August 15th, 2016 BEFORE ME, A NOTARY PUBLIC IN AND FOR SUCH COUNTY AND COMMONWEALTH, PERSONALLY APPEARED BRUCE GOLDMAN TO ME PERSONALLY KNOWN, WHO, BEING BY ME DULY SWORN, DID SAY THAT HE IS THE EXECUTIVE VICE PRESIDENT OF PENNSYLVANIA REAL ESTATE INVESTMENT TRUST, THE SOLE GENERAL PARTNER OF PREIT ASSOCIATES, L.P., THE SOLE MEMBER OF PR EXTON, LLC, THE SOLE GENERAL PARTNER OF PR EXTON LIMITED PARTNERSHIP, THE SOLE MEMBER OF XGP LLC, THE SOLE GENERAL PARTNER OF PR EXTON SQUARE PROPERTY L.P., A DELAWARE LIMITED PARTNERSHIP, AND THAT SUCH INSTRUMENT WAS SIGNED IN BEHALF OF SUCH ENTITY BY AUTHORITY OF ITS PARTNERS AND MEMBERS AND SUCH PERSON ACKNOWLEDGED SUCH INSTRUMENT TO BE THE FREE ACT AND DEED OF SUCH ENTITY.

IN WITNESS WHEREOF, I HAVE HEREUNTO SET MY HAND AND AFFIXED MY SEAL THE DAY AND YEAR LAST ABOVE WRITTEN.

[NOTARY SEAL] Erin J. Quann
NOTARY PUBLIC

MY COMMISSION EXPIRES:
June 20, 2019

COMMONWEALTH OF PENNSYLVANIA
NOTARIAL SEAL
Erin J. Quann, Notary Public
City of Philadelphia, Philadelphia County
My commission expires June 20, 2019

RECORDER OF DEEDS

PREPARED BY

BOHLER ENGINEERING

1515 MARKET STREET, SUITE 920
PHILADELPHIA PA 19102

LIST OF DRAWINGS

SHEET	DESCRIPTION
1	COVER SHEET
2	OVERALL TRACT PLAN
3	SUBDIVISION PLAN
4	OVERALL SITE PLAN
5-7	SITE PLANS
8	PROJECT NOTES
9	OVERALL EXISTING CONDITIONS PLAN
10-12	EXISTING CONDITIONS PLANS
13	OVERALL GRADING PLAN
14-16	GRADING PLANS
17	OVERALL UTILITY PLAN
18-20	UTILITY PLANS
21-22	STORM SEWER PROFILES
23	OVERALL SOIL EROSION & SEDIMENT POLLUTION CONTROL PLAN
24	PHASE I SOIL EROSION & SEDIMENT POLLUTION CONTROL PLAN
25	PHASE I E&S AND PCSWM NOTES
26	PHASE I SOIL EROSION & SEDIMENT POLLUTION CONTROL DETAILS
27	OVERALL LANDSCAPE PLAN
28-30	LANDSCAPE PLANS
31	LIGHTING PLAN
32	LIGHTING DETAILS
33	LANDSCAPE DETAILS
34-36	DETAILS
37	TRUCK CIRCULATION PLAN
38	OVERALL POST-CONSTRUCTION STORMWATER MANAGEMENT PLAN
39	PHASE I POST-CONSTRUCTION STORMWATER MANAGEMENT PLAN
40	PHASE I POST-CONSTRUCTION STORMWATER MANAGEMENT DETAILS
41	PRE DEVELOPMENT DRAINAGE AREA PLAN
42	POST DEVELOPMENT DRAINAGE AREA PLAN
43	INLET DRAINAGE AREA PLAN

REVISION ACKNOWLEDGEMENT :

(PER WEST WHITELAND TOWNSHIP ORD. 270-32.A.3)

I ACKNOWLEDGE THAT ANY REVISION TO THE APPROVED SWM SITE PLAN SHALL BE SUBMITTED TO AND APPROVED BY THE TOWNSHIP AND A REVISED EROSION AND SEDIMENT CONTROL PLAN SHALL BE SUBMITTED TO, AND APPROVED BY, THE CHESTER COUNTY CONSERVATION DISTRICT OR TOWNSHIP (AS APPLICABLE) FOR A DETERMINATION OF ADEQUACY PRIOR TO CONSTRUCTION OF THE REVISED FEATURES.

APPLICANT DATE 8/15/16

SWM SITE PLAN CERTIFICATION :

(PER WEST WHITELAND TOWNSHIP ORD. 270-32.A.4)

I, CORNELIUS BROWN, P.E., ON THIS DATE 8/15/16, HEREBY CERTIFY THAT THE SWM SITE PLAN MEETS ALL DESIGN STANDARDS AND CRITERIA OF CHAPTER 270 OF THE WEST WHITELAND TOWNSHIP CODE OF ORDINANCES, STORMWATER MANAGEMENT.

CORNELIUS BROWN, P.E. (PA LIC #075317) 8/15/16 DATE

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL CORNELIUS BROWN ENGINEER PE075317

SURVEYOR'S CERTIFICATE

I HEREBY CERTIFY THAT I, JAMES F. HENRY, AM A REGISTERED PROFESSIONAL LAND SURVEYOR, LICENSED IN COMPLIANCE WITH THE LAWS OF THE COMMONWEALTH OF PENNSYLVANIA; THAT THIS IS A TRUE AND ACCURATE SURVEY MADE ON THE GROUND COMPLETED BY ME ON THE 7 DAY OF April 20 16 THAT ALL THE MARKERS SHOWN THEREON ACTUALLY EXIST; THAT THEIR LOCATION, SIZE, TYPE AND MATERIAL ARE ACCURATELY SHOWN; AND THAT NO ENCROACHMENTS, RIGHTS-OF-WAY, OR EASEMENTS EXIST, EXCEPT AS SHOWN HEREIN.

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JAMES F. HENRY LAND SURVEYOR SU056807

SURVEYOR SIGNATURE 8/15/16 DATE SU056807 LICENSE NUMBER

UPI Nos. 41-5-85; 41-5-86; 41-5-90 & 41-5-89

BOHLER ENGINEERING
SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN PERMITTING SERVICES TRANSPORTATION SERVICES
◆ NEW ENGLAND ◆ LEHIGH VALLEY, PA ◆ CENTRAL VIRGINIA
◆ BOSTON, MA ◆ SOUTHEASTERN, PA ◆ RALEIGH, NC
◆ NEW YORK METRO ◆ PHILADELPHIA, PA ◆ CHARLOTTE, NC
◆ NEW YORK, NY ◆ BALTIMORE, MD ◆ TAMPA, FL
◆ NEW JERSEY ◆ SOUTHERN MARYLAND ◆ SOUTH FLORIDA

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REVISIONS

REV	DATE	COMMENT	BY
2	12/14/15	GENERAL REVS	MAB
3	01/05/16	GENERAL REVS	DTL
4	01/15/16	PER CCCD COMMENTS	DTL
5	01/29/16	PER COMMENTS	DTL
6	03/03/16	PER CCCD COMMENTS	ACF
7	04/06/16	GENERAL REVS	DTL
8	04/21/16	GENERAL REVS	DTL
9	06/06/16	PER RECORD PLAN	DTL
10	07/13/16	GENERAL REVISIONS	DTL

CALL BEFORE YOU DIG!

PENNSYLVANIA LAW REQUIRES 3 WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND 10 WORKING DAYS IN DESIGN STAGE - STOP CALL

PA1 1-800-242-1776

POCS SERIAL NUMBER 20150911340

PROJECT No.:	PP140558
DRAWN BY:	J.P.W.
CHECKED BY:	M.J.
DATE:	2015.10.19
SCALE:	AS NOTED
CAD I.D.:	PP140558DETAILS-10

PROJECT:

PRELIMINARY/FINAL LAND DEVELOPMENT PLANS

FOR

PR EXTON SQUARE PROPERTY LP

EXTON SQUARE MALL GROCERY STORE

260 EXTON SQUARE MALL
WEST WHITELAND TOWNSHIP
CHESTER COUNTY, PA

BOHLER ENGINEERING
1515 MARKET STREET, SUITE 920
PHILADELPHIA, PENNSYLVANIA 19102
Phone: (267) 402-3400
Fax: (267) 402-3401
www.BohlerEngineering.com

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL CORNELIUS BROWN ENGINEER PE075317

SHEET TITLE:

COVER SHEET
(RECORD PLAN: 1 OF 8)

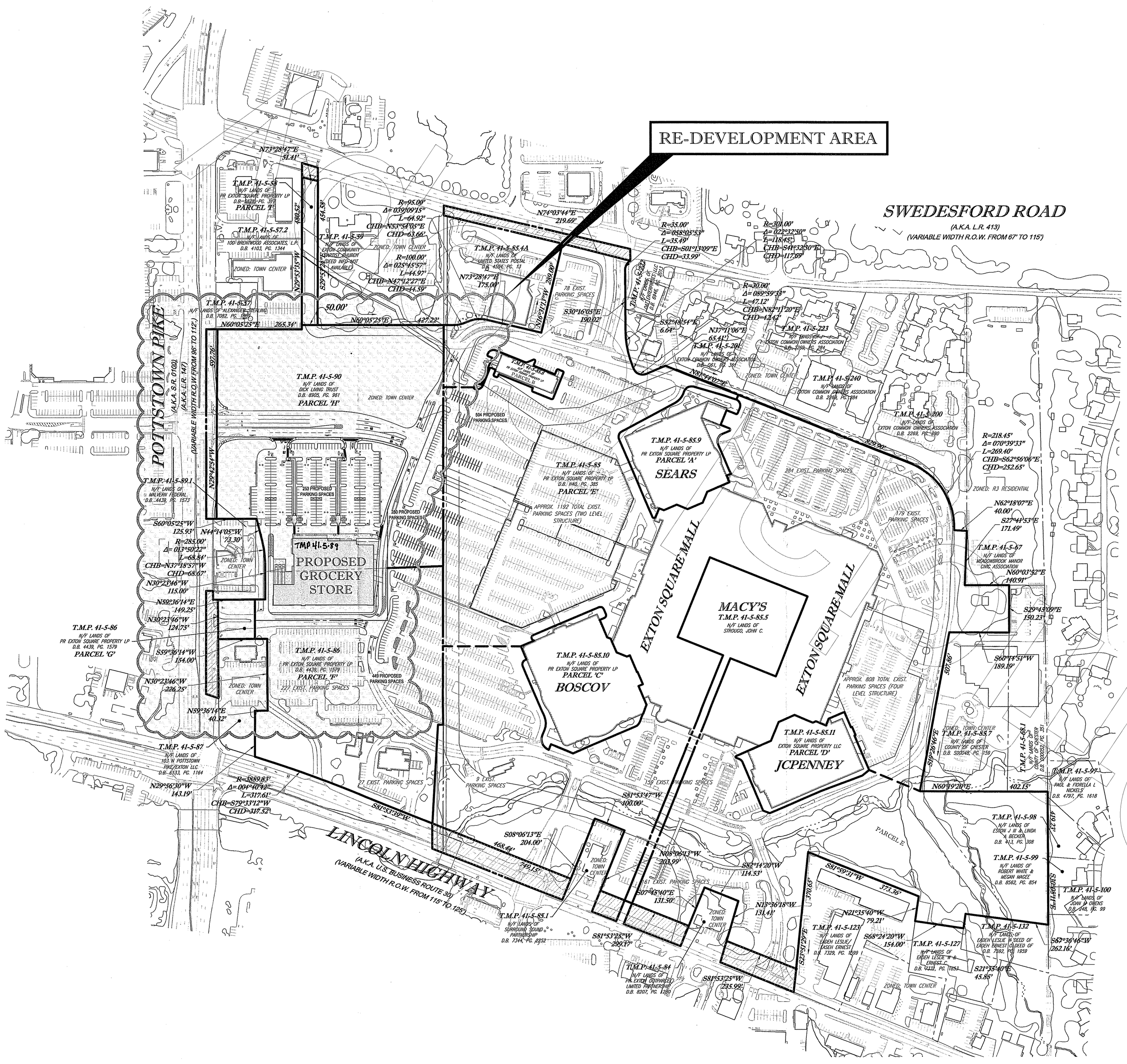
SHEET NUMBER: 1 OF 43

REVISION 10

P:\DL R:\PP140558_CAD\LAND DEV\REV-10\PP140558DETAILS-10-----LAYOUT: 01-COVER

11509444 B: 20031 P: 1 SDP
09/29/2016 02:54 PM
Page 3 of 44

RECORDER OF DEEDS
CHESTER COUNTY, PA
2016 SEP 30 PM 2:57



SITE PLAN GENERAL NOTES

1. THE FOLLOWING DOCUMENTS ARE INCORPORATED BY REFERENCE AS PART OF THIS SITE PLAN:

   A.) CONTROL POINT ASSOCIATES, INC.
   1600 MANOR DRIVE, SUITE 210
   CHALFONT, PA 18914
   ENTITLED: BOUNDARY & TOPOGRAPHIC SURVEY
   PREPARED FOR: EXTON SQUARE MALL
   FILE No. CP14375
   SHEETS: 1-2 OF 2
   DATED: 5-26-2015; LAST REVISED 10-1-2015

   B.) YERKES ASSOCIATES, INC.
   1444 PHOENIXVILLE PIKE, P.O. BOX 1568
   WEST CHESTER, PA 19380
   ENTITLED: ALTA/ACSM LAND TITLE SURVEY
   PREPARED FOR: EXTON SQUARE, INC.
   FILE No. C-41-05-85
   SHEETS: 1-13 OF 13
   DATED: 10-26-2001; LAST REVISED 11-27-2001

2. THE PROPOSED GROCERY STORE LOT WILL INCLUDE A NEW LEASED BUILDING, PARKING LOT AND OTHER COMMON AREAS THAT WILL BE SUBJECT TO THE COREA, WHICH GOVERNS THE CONSTRUCTION, OPERATION, AND RECIPROCAL EASEMENTS OF THE SHOPPING CENTER SITE.

3. SEE SHEET 8 ("PROJECT NOTES") FOR ADDITIONAL NOTES

LINE LEGEND

- PROPERTY LINE
- LEGAL RIGHT-OF-WAY LINE
- EXIST. EASEMENT LINE
- EXIST. ZONING BOUNDARY
- EXIST. CURB
- EXIST. VEGETATION
- PROP. FLUSH CURB
- PROP. CURB
- PROP. WOOD GUIDERAIL
- FEE SIMPLE R.O.W.

150 75 37.5 0 150
1"=150'

BOHLER ENGINEERING
LAND SURVEYING SITE CIVIL AND CONSULTING ENGINEERING LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN PLANNING SERVICES PERMITTING SERVICES TRANSPORTATION SERVICES
PHILADELPHIA, PA · LEHIGH VALLEY, PA · NEW JERSEY · NEW YORK METRO · NEW YORK, NY · UPSTATE NEW YORK · NEW ENGLAND
NORTHERN VIRGINIA · CENTRAL VIRGINIA · RALEIGH, NC · CHARLOTTE, NC · TAMPA, FL · SOUTH FLORIDA · REHOBOTH BEACH, DE · SOUTHERN MARYLAND

THE INFORMATION, DESIGN AND CONCEPTS CONTAINED IN THESE PLANS ARE PROTECTED BY ANY AND ALL MEANS UNDER COPYRIGHT LAWS AND SHALL NOT BE USED FOR ANY PURPOSE WITHOUT PRIOR WRITTEN AUTHORIZATION FROM BOHLER ENGINEERING. ONLY THE ORIGINAL SIGNED AND SEALED PLANS SHALL BE RELIED UPON FOR CONSTRUCTION PURPOSES.
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REVISIONS

REV	DATE	COMMENT	BY
2	12/14/15	GENERAL REVS	MAB
3	01/05/16	GENERAL REVS	DTL
4	01/15/16	PER CCCD COMMENTS	DTL
5	01/29/16	PER COMMENTS	DTL
6	03/03/16	PER CCCD COMMENTS	ACF
7	04/06/16	GENERAL REVS	DTL
8	04/21/16	GENERAL REVS	DTL
9	06/06/16	PER RECORD PLAN	DTL
10	07/13/16	GENERAL REVISIONS	DTL

CALL BEFORE YOU DIG!

PENNSYLVANIA LAW REQUIRES 3 WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND 10 WORKING DAYS IN DESIGN STAGE - STOP CALL

PA1 1-800-242-1776

POCS SERIAL NUMBER 20150911340

PROJECT No.: PP140558
DRAWN BY: J.P.W.
CHECKED BY: M.J.
DATE: 2015.10.19
SCALE: 1"=150'
CAD I.D.: PP140558BASE-10

PROJECT:

PRELIMINARY/FINAL LAND DEVELOPMENT PLANS

FOR

PR EXTON SQUARE PROPERTY LP

EXTON SQUARE MALL GROCERY STORE

260 EXTON SQUARE MALL
WEST WHITELAND TOWNSHIP
CHESTER COUNTY, PA

BOHLER ENGINEERING
1515 MARKET STREET, SUITE 920
PHILADELPHIA, PENNSYLVANIA 19102
Phone: (267) 402-3400
Fax: (267) 402-3401
www.BohlerEngineering.com

COMMONWEALTH OF PENNSYLVANIA
CORNELIUS F. BROWN
PROFESSIONAL ENGINEER
PRINTED NAME: CORNELIUS F. BROWN
DATE: 10/7/16
PENNSYLVANIA LICENSE NO. PE 063317

SHEET TITLE:

OVERALL TRACT PLAN
(RECORD PLAN: 2 OF 8)

SHEET NUMBER:

2
OF 43

REVISION 10

R:\14PP140558_CAD\LAND DEV\REV\-10\PP140558BASE-10.---LAYOUT: 02-OVRLTRACT

11509044 B: 29031 P: 1 - 52
03/30/2016 02:02 PM
Page 1 of 52

RECORDER OF DEEDS
CHESTER COUNTY, PA
2016 SEP 30 PM 2:57

POTTSTOWN PIKE (A.K.A. S.R. 0100) (A.K.A. L.R. 147) (VARIABLE WIDTH R.O.W. FROM 86' TO 112')

LINCOLN HIGHWAY (A.K.A. U.S. BUSINESS ROUTE 30) (VARIABLE WIDTH R.O.W. FROM 115' TO 125')

EXTON SQUARE MALL

PROPOSED GROCERY STORE

PROPOSED LOT AREA=6.27 AC.

PROPOSED PARCEL 'H' AREA=7.21 AC.

PROPOSED PARCEL 'I' AREA=7.58 AC.

TMP 41-5-89

T.M.P. 41-5-89.1 N/F LANDS OF MALVERN FEDERAL D.B. 4439, PG. 1527

T.M.P. 41-5-58 N/F LANDS OF PR EXTON SQUARE PROPERTY LP D.B. 5628, PG. 379 PARCEL 'J'

T.M.P. 41-5-57.2 N/F LANDS OF 100 BRENTWOOD ASSOCIATES, L.P. D.B. 4103, PG. 1344

T.M.P. 41-5-57 N/F LANDS OF ALEXANDER J. STERLING D.B. 7092, PG. 1209

T.M.P. 41-5-90 N/F LANDS OF DICK LIVING TRUST D.B. 8905, PG. 961 PARCEL 'H'

T.M.P. 41-5-89 N/F LANDS OF EXTON COMMUNITY BAPTIST CHURCH (DEED INFO NOT AVAILABLE)

T.M.P. 41-5-85.4A N/F LANDS OF UNITED STATES POSTAL D.B. 4324, PG. 13

T.M.P. 41-5-22 N/F LANDS OF JAMES REED LLC D.B. 6966, PG. 1613

T.M.P. 41-5-85.4 N/F LANDS OF PR EXTON SQUARE PROPERTY LP

T.M.P. 41-5-85.9 N/F LANDS OF PR EXTON SQUARE PROPERTY LP PARCEL 'A' SEARS

T.M.P. 41-5-85 N/F LANDS OF PR EXTON SQUARE PROPERTY LP D.B. 1140, PG. 325 PARCEL 'E'

T.M.P. 41-5-85.5 N/F LANDS OF STROUCO, JOHN C. MACY'S

T.M.P. 41-5-85.10 N/F LANDS OF PR EXTON SQUARE PROPERTY LP PARCEL 'C' BOSCOV

T.M.P. 41-5-85.11 N/F LANDS OF EXTON SQUARE PROPERTY LLC PARCEL 'D' JCPENNEY

T.M.P. 41-5-86 N/F LANDS OF PR EXTON SQUARE PROPERTY LP D.B. 4439, PG. 1579 PARCEL 'F'

T.M.P. 41-5-86 N/F LANDS OF PR EXTON SQUARE PROPERTY LP D.B. 4439, PG. 1579 PARCEL 'G'

T.M.P. 41-5-87 N/F LANDS OF 103 W POTSTOWN PIKE/EXTON LLC D.B. 8133, PG. 1164

T.M.P. 41-5-85.1 N/F LANDS OF SURROUND SOUND PARTNERSHIP D.B. 7344, PG. 2252

T.M.P. 41-5-84 N/F LANDS OF PA EXTON CHINESE LIMITED PARTNERSHIP D.B. 8207, PG. 1280

T.M.P. 41-5-223 N/F LANDS OF EXTON COMMON OWNERS ASSOCIATION D.B. 2169, PG. 184

T.M.P. 41-5-240 N/F LANDS OF EXTON COMMON OWNERS ASSOCIATION D.B. 2268, PG. 184

T.M.P. 41-5-201 N/F LANDS OF EXTON COMMON OWNERS ASSOCIATION D.B. 001, PG. 36

T.M.P. 41-5-200 N/F LANDS OF EXTON COMMON OWNERS ASSOCIATION D.B. 2268, PG. 230

T.M.P. 41-5-67 N/F LANDS OF MEADOWBROOK MANOR CIVIC ASSOCIATION

T.M.P. 41-5-68.1 N/F LANDS OF COUNTY OF CHESTER D.B. 5008, PG. 159

T.M.P. 41-5-97 N/F LANDS OF PAUL & FIORELLA L HICKLE D.B. 4797, PG. 1618

T.M.P. 41-5-98 N/F LANDS OF ESTON J III & LINDA A BECKER D.B. 413, PG. 308

T.M.P. 41-5-99 N/F LANDS OF ROBERT WHITE & MEGAN MAGEE D.B. 8562, PG. 854

T.M.P. 41-5-100 N/F LANDS OF JOHN & CHERYL D.B. 248, PG. 99

T.M.P. 41-5-132 N/F LANDS OF EADEN LESLIE W DEED OF EADEN ERNEST D.B. 7592, PG. 1959

T.M.P. 41-5-123 N/F LANDS OF EADEN LESLIE/ EADEN ERNEST D.B. 7329, PG. 1599

T.M.P. 41-5-127 N/F LANDS OF EADEN LESLIE W & ERNEST C D.B. 7311, PG. 1851

N73°28'47"E 51.41'

N74°03'44"E 219.69'

S29°57'29"E 654.38'

N29°57'57"W 490.52'

S30°16'05"E 190.02'

N73°28'47"E 175.00'

N16°31'13"W 200.00'

S52°48'54"E 6.64'

N37°11'06"E 65.41'

N8°14'07"E

S20°50'25"E 706.67'

S8°28'45"E 124.06'

S29°56'43"E 350.04'

S58°00'55"E 175.71'

S29°52'52"E 499.72'

S26°46'52"E 310.05'

S81°53'42"W 100.00'

S08°06'13"E 204.00'

468.44'

749.15'

N08°06'13"W 203.99'

S07°45'40"E 131.50'

S82°14'20"W 114.53'

N13°36'18"W 131.41'

S81°53'25"W 299.17'

S81°53'25"W 235.99'

S25°51'29"E 370.65'

S81°59'31"W 373.36'

N21°35'40"W 79.21'

S68°24'20"W 154.00'

S21°35'40"E 45.85'

S62°30'46"W 262.16'

S14°32'39"E 449.32'

S60°04'52"W 418.03'

S29°56'30"E 58.54'

S58°22'08"W 16.00'

S89°36'14"W 154.00'

N30°23'46"W 226.25'

N59°36'14"E 40.32'

R=3889.83' Δ=004°40'42" L=317.61' CHB=S79°33'12"W CHD=317.52'

S29°56'30"W 143.19'

280.71' S81°53'39"W

N29°56'30"W 66.21'

N30°23'46"W 124.75'

N59°36'14"E 149.25'

S30°23'46"E 115.00'

S60°05'25"W 125.93'

N44°14'05"W 73.30'

R=285.00' Δ=013°50'22" L=68.84' CHB=N37°18'57"W CHD=68.67'

N30°23'46"W 115.00'

115.47'

38.53'

S60°05'25"W 265.34'

N60°05'25"E 427.22'

14.03'

448.13'

N60°25'01"E 113.92'

N60°13'26"E 100.00'

N60°17'05"E 158.20'

N61°00'13"E 75.82'

R=95.00' Δ=039°09'15" L=64.92' CHB=N53°59'01"E CHD=63.66'

R=100.00' Δ=025°45'57" L=44.97' CHB=N47°12'27"E CHD=44.59'

R=500.00' Δ=016°14'13" L=141.69' CHB=N72°39'16"E CHD=141.22'

R=25.00' Δ=090°43'50" L=39.59' CHB=S53°51'41"E CHD=35.58'

R=750.00' Δ=003°54'35" L=51.18' CHB=S10°27'02"E CHD=51.17'

R=35.00' Δ=058°05'53" L=35.49' CHB=S01°13'09"E CHD=33.99'

R=301.00' Δ=022°32'50" L=118.45' CHB=S41°32'50"E CHD=117.69'

R=30.00' Δ=089°59'59" L=47.12' CHB=N82°11'20"E CHD=42.43'

R=218.45' Δ=070°39'33" L=269.40' CHB=S62°56'06"E CHD=252.65'

S62°18'07"E 40.00'

S27°41'53"E 171.49'

N60°03'52"E 140.91'

S29°45'09"E 150.23'

S60°14'51"W 189.19'

S09°26'46"E 507.86'

N60°19'20"E 402.15'

N62°19'20"E 402.15'

OVERALL TRACT

150 75 37.5 0 150

1"=150'

PROP. GROCERY STORE LOT (AREA=6.27 AC.)

80 40 20 0 80

1"= 80'

SITE PLAN GENERAL NOTES

1. THE FOLLOWING DOCUMENTS ARE INCORPORATED BY REFERENCE AS PART OF THIS SITE PLAN:

A.) CONTROL: POINT ASSOCIATES, INC.
1600 MANOR DRIVE, SUITE 210
CHALFONT, PA 18914
ENTITLED: BOUNDARY & TOPOGRAPHIC SURVEY
PREPARED FOR: EXTON SQUARE MALL
FILE No. CP14375
SHEETS: 1-2 OF 2
DATED: 5-26-2015; LAST REVISED 10-1-2015

B.) YERKES ASSOCIATES, INC.
1444 PHOENIXVILLE PIKE, P.O. BOX 1568
WEST CHESTER, PA 19380
ENTITLED: ALTA/ACSM LAND TITLE SURVEY
PREPARED FOR: EXTON SQUARE, INC.
FILE No. C-41-05-85
SHEETS: 1-13 OF 13
DATED: 10-28-2001; LAST REVISED 11-27-2001

2. THE PROPOSED GROCERY STORE LOT WILL INCLUDE A NEW LEASED BUILDING, PARKING LOT AND OTHER COMMON AREAS THAT WILL BE SUBJECT TO THE COREA, WHICH GOVERNS THE CONSTRUCTION, OPERATION, AND RECIPROCAL EASEMENTS OF THE SHOPPING CENTER SITE.

3. SEE SHEET 8 ("PROJECT NOTES") FOR ADDITIONAL NOTES

LINE LEGEND

- PROPERTY LINE
- LEGAL RIGHT-OF-WAY LINE
- PROPOSED LOT LINE

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BOHLER ENGINEERING

SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING ARCHITECTURE LANDSCAPE ARCHITECTURE
PERMITTING SERVICES TRANSPORTATION CONSULTANTS

- UPSTATE NEW YORK
- NEW ENGLAND
- LEHIGH VALLEY
- NEW YORK METRO
- NEW YORK, NY
- NEW JERSEY
- NORTHERN VIRGINIA
- CENTRAL VIRGINIA
- RICHMOND, VA
- CHARLOTTE, NC
- TAMPA, FL
- FLORIDA
- PHILADELPHIA, PA
- LEHIGH VALLEY, PA
- HARRISBURG, PA
- REHOBOTH BEACH, DE
- BALTIMORE, MD
- MARYLAND

THE INFORMATION, IDEAS AND DESIGNS OF THESE PLANS ARE PROPRIETARY AND SHALL NOTBE USED OR DISCLOSED FOR ANY PURPOSE WITHOUT PRIOR WRITTEN AUTHORIZATION FROM BOHLER ENGINEERING. ONLY PERSONS OR ENTITIES WHO HAVE BEEN AUTHORIZED IN WRITING BY BOHLER ENGINEERING SHALL BE ENTITLED TO USE THE INFORMATION CONTAINED IN THESE PLANS.

REVISIONS

REV	DATE	COMMENT	BY
2	12/14/15	GENERAL REVS	MAB
3	01/05/16	GENERAL REVS	DTL
4	01/15/16	PER CCCD COMMENTS	DTL
5	01/29/16	PER COMMENTS	DTL
6	03/03/16	PER CCCD COMMENTS	ACF
7	04/06/16	GENERAL REVS	DTL
8	04/21/16	GENERAL REVS	DTL
9	06/08/16	PER RECORD PLAN	DTL
10	07/13/16	GENERAL REVISIONS	DTL

CALL BEFORE YOU DIG!

PENNSYLVANIA LAW REQUIRES 3 WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND 10 WORKING DAYS IN DESIGN STAGE - STOP CALL

PA1 ONE CALL — 1-800-242-1776 — POCS SERIAL NUMBER 20150911340

PROJECT No.:	PP140558
DRAWN BY:	J.P.W.
CHECKED BY:	M.J.
DATE:	2015.10.19
SCALE:	1"=150'
CAD I.D.:	PP140558BASE-10

PROJECT:

PRELIMINARY/FINAL LAND DEVELOPMENT PLANS

FOR

PR EXTON SQUARE PROPERTY LP

EXTON SQUARE MALL GROCERY STORE

260 EXTON SQUARE MALL
WEST WHITELAND TOWNSHIP
CHESTER COUNTY, PA

BOHLER ENGINEERING
1515 MARKET STREET, SUITE 920
PHILADELPHIA, PENNSYLVANIA 19102
Phone: (267) 402-3400
Fax: (267) 402-3401
www.BohlerEngineering.com

COMMONWEALTH OF PENNSYLVANIA — CORNELIUS BROWN — PROFESSIONAL ENGINEER — PENNSYLVANIA LICENSE NO. PE075317

SHEET TITLE:

SUBDIVISION PLAN
(RECORD PLAN: 3 OF 8)

SHEET NUMBER:

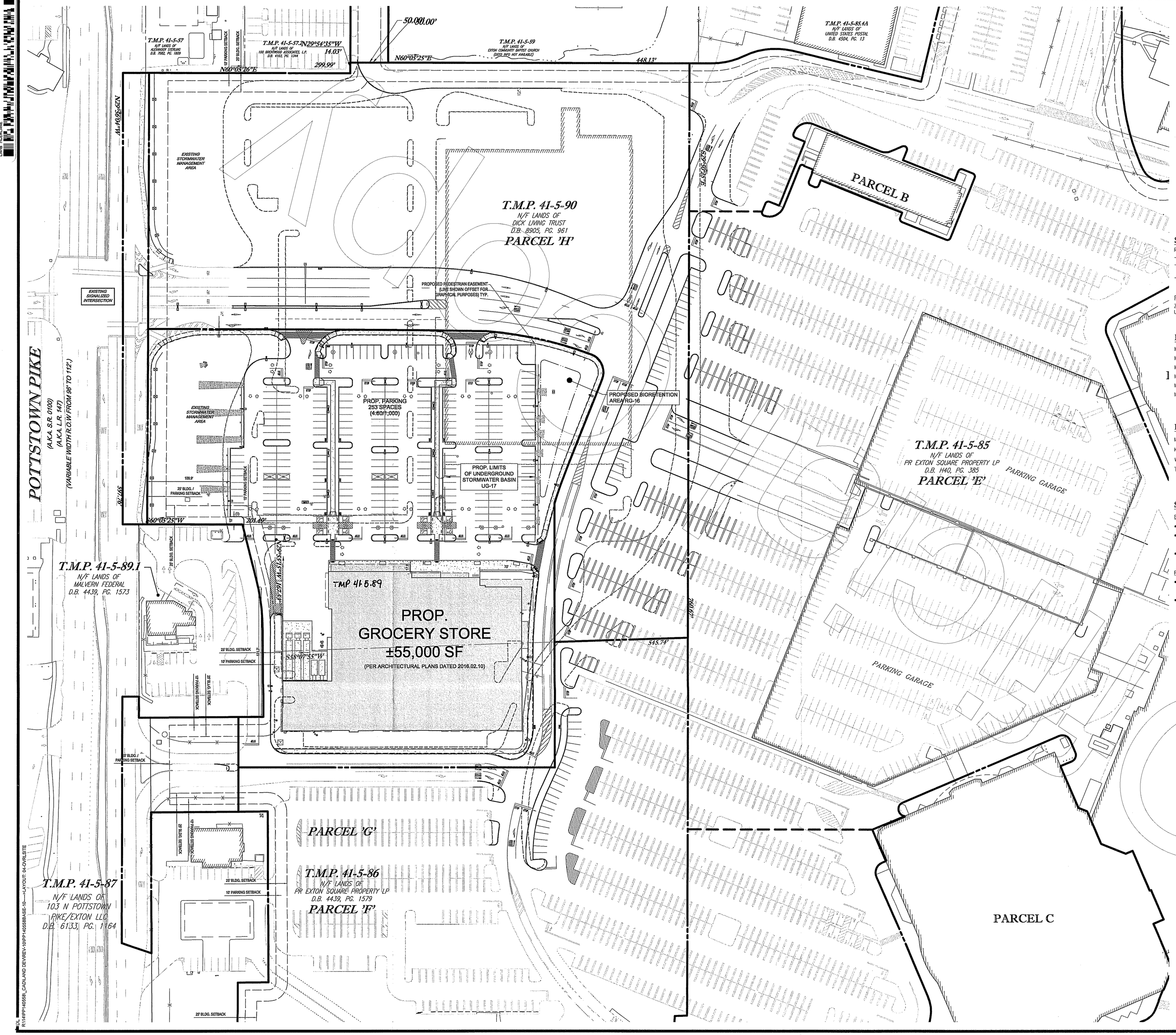
3
OF 43

REVISION 10

DWG: R:\14PP140558_CAD\LAND DEV\REV-10\PP140558BASE-10—LAYOUT 03-SUB DIV

11580444 B: 20031 P: 1 SDP
09/30/2016 02:52 PM
Page 5 of 44

RECORDER OF DEEDS
CHESTER COUNTY PA
2016 SEP 30 PM 2:57



SITE PLAN GENERAL NOTES

1. THE FOLLOWING DOCUMENTS ARE INCORPORATED BY REFERENCE AS PART OF THIS SITE PLAN:

A.) CONTROL POINT ASSOCIATES, INC.
1600 MANOR DRIVE, SUITE 210
CHALFONT, PA 18914
ENTITLED: BOUNDARY & TOPOGRAPHIC SURVEY
PREPARED FOR: EXTON SQUARE MALL
FILE No. CP14375
SHEETS: 1-2 OF 2
DATED: 5-26-2015; LAST REVISED 10-1-2015

B.) YERKES ASSOCIATES, INC.
1444 PHOENIXVILLE PIKE, P.O. BOX 1568
WEST CHESTER, PA 19380
ENTITLED: ALTA/ACSM LAND TITLE SURVEY
PREPARED FOR: EXTON SQUARE, INC.
FILE No. C-41-05-85
SHEETS: 1-13 OF 13
DATED: 10-26-2001; LAST REVISED 11-27-2001

2. SEE SHEET 8 ("PROJECT NOTES") FOR ADDITIONAL NOTES

SITE DESIGN REQUIREMENTS

REQUIREMENTS TAKEN FROM:
- THE WEST WHITELAND TOWNSHIP ZONING ORDINANCE, ENACTED 12/08/1998, AS AMENDED.
- THE WEST WHITELAND TOWNSHIP SUBDIVISION AND LAND DEVELOPMENT ORDINANCE, ENACTED 11/26/1991. AS AMENDED.
- ORDINANCE NO. 409 – THE STORMWATER MANAGEMENT ORDINANCE FOR TOWNSHIP OF WEST WHITELAND, CHESTER COUNTY, PA

REQUIREMENTS
ZONED: TC, TOWN CENTER MIXED USE
USE: RETAIL (PERMITTED BY RIGHT)

BULK REQUIREMENTS	REQUIRED	EXISTING	(OVERALL TRACT) PROVIDED	(PROP. GROCERY STORE) PROVIDED
MINIMUM LOT AREA:	2 ACRES	86.7 ACRES	86.7 ACRES	6.3 ACRES
MINIMUM LOT WIDTH:	250 FT.	>250 FT.	>250 FT.	>250 FT.
MINIMUM LOT FRONTAGE:	250 FT.	>250 FT.	>250 FT.	>250 FT.
MINIMUM LOT DEPTH:	150 FT.	>150 FT.	>150 FT.	>150 FT.
MAXIMUM IMPERVIOUS COVERAGE:	70%	82.2%	78.5%	73.8%
MAXIMUM BUILDING HEIGHT:	60 FT.	40 FT.	40 FT.	40 FT.

PARKING REQUIREMENTS (5/1000)	EXISTING REQUIRED	EXISTING PROVIDED	PROPOSED REQUIRED	PROPOSED PROVIDED
MALL (GLA 922,821 SF)	4614	4173 (4.52)	4614	4359 (4.72)
K-MART (GLA 87,200 SF)	436	692 (7.94)	–	–
WHOLE FOODS (GLA 55,000 SF)	–	–	275	253 (4.60)
TOTAL REQUIRED	5050	4865 (4.82)	4448	4612 (4.72)

SETBACK REQUIREMENTS	REQUIRED	PROVIDED (GROCERY STORE)
BUILDING SETBACKS		
• PA ROUTE 100 & US ROUTE 30 R.O.W.	25 FT.	25 FT.
• PERIMETER OF TRACT WHERE ADJOINING PROPERTY IS IN TOWN CENTER DISTRICT	25 FT.	25 FT.
• PRIVATE CARTWAYS, DRIVE AISLES AND PATRON/RESIDENT PARKING AREAS	15 FT.	15 FT.
PARKING SETBACK		
• PA ROUTE 100 & US ROUTE 30 R.O.W. ALONG PROPERTY LINES WHERE ADJOINING	25 FT.	109 FT.
• PROPERTY IS IN TOWN CENTER DISTRICT	10 FT.	10 FT.

LEGEND
- PROPERTY LINE
- LEGAL RIGHT-OF-WAY LINE
- EXIST. CURB
- EXIST. FENCE
- EXIST. CURB (TO BE REMOVED)
- EXIST. BUILDING
- EXIST. BUILDING (TO BE REMOVED)
- PROP. FLUSH CURB
- PROP. CURB
- PROP. WOOD GUIDERAIL
- PROP. 5' CURB CUT
- PROP. RIP-RAP

60 30 15 0 60
1" = 60'

BOHLER ENGINEERING
SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING • LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN • PERMITTING SERVICES • TRANSPORTATION SERVICES
◆ PHILADELPHIA, PA ◆ NORTHERN VIRGINIA
◆ UPSTATE NEW YORK ◆ LEHIGH VALLEY, PA ◆ CENTRAL VIRGINIA
◆ NEW ENGLAND ◆ NEW YORK METRO ◆ RALEIGH, NC
◆ NEW YORK METRO ◆ NEW JERSEY ◆ CHARLOTTE, NC
◆ REHOBOTH BEACH, DE ◆ ATLANTA, GA
◆ SOUTHERN MARYLAND ◆ SOUTH FLORIDA
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REVISIONS

REV	DATE	COMMENT	BY
2	12/14/15	GENERAL REVS	MAB
3	01/05/16	GENERAL REVS	DTL
4	01/15/16	PER CCCD COMMENTS	DTL
5	01/29/16	PER COMMENTS	DTL
6	03/03/16	PER CCCD COMMENTS	ACF
7	04/06/16	GENERAL REVS	DTL
8	04/21/16	GENERAL REVS	DTL
9	06/06/16	PER RECORD PLAN	DTL
10	07/13/16	GENERAL REVISIONS	DTL

CALL BEFORE YOU DIG!
PENNSYLVANIA LAW REQUIRES 3 WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND 10 WORKING DAYS IN DESIGN STAGE - STOP CALL
PA 1 CALL, INC. 1-800-242-1776
POCS SERIAL NUMBER 20150911340

PROJECT No.: PP140558
DRAWN BY: J.P.W.
CHECKED BY: M.J.
DATE: 2015.10.19
SCALE: 1"=60'
CAD I.D.: PP140558BASE-10

PROJECT:

PRELIMINARY/FINAL LAND DEVELOPMENT PLANS
FOR
PR EXTON SQUARE PROPERTY LP
EXTON SQUARE MALL GROCERY STORE

260 EXTON SQUARE MALL
WEST WHITELAND TOWNSHIP
CHESTER COUNTY, PA

BOHLER ENGINEERING
1515 MARKET STREET, SUITE 920
PHILADELPHIA, PENNSYLVANIA 19102
Phone: (267) 402-3400
Fax: (267) 402-3401
www.BohlerEngineering.com

COMMONWEALTH OF PENNSYLVANIA
CORNELIUS BROWN
PROFESSIONAL ENGINEER
PENNSYLVANIA LICENSE NO. PE075317

SHEET TITLE:
OVERALL SITE PLAN
(RECORD PLAN: 4 OF 8)

SHEET NUMBER:
4
OF 43

REVISION 10

R:\14\PP140558_CAD\LAND DEVREV-10\PP140558BASE-10.—>LAYOUT: 04-OVRLSITE

11508444 B: 20031 P: 1 SRP
2016 SEP 30 PM 2:58
Page 5 of 43

RECORDER OF DEEDS
CHESTER COUNTY, PA
2016 SEP 30 PM 2:58

T.M.P. 41-5-57
N/F LANDS OF
ALEXANDER STERLING
D.B. 7082, PG. 1809

T.M.P. 41-5-57.2
N/F LANDS OF
100 BRENTWOOD ASSOCIATES, L.P.
D.B. 4103, PG. 1344

T.M.P. 41-5-59
N/F LANDS OF
EXTON COMMUNITY BAPTIST CHURCH
(DEED INFO NOT AVAILABLE)

T.M.P. 41-5-90
N/F LANDS OF
DICK LIVING TRUST
D.B. 8905, PG. 961
PARCEL 'H'

POTTSTOWN PIKE
(A.K.A. S.R. 0100)
(A.K.A. L.R. 147)
(VARIABLE WIDTH R.O.W FROM 99' TO 112')

PROPOSED POST AND RAIL FENCE TO MATCH EXISTING FENCE SURROUNDING MALL PROPERTY (REFER TO DETAIL ON SHEET 34)

EXIST. STORMWATER MANAGEMENT AREA (TO BE MODIFIED)

PROP. 6' WIDE CONC. SIDEWALK

PROP. STABILIZED GRASS AREA

PROP. OVERHEAD LANE CONTROL SIGN (REFER TO TRAFFIC ENGINEER DESIGN PLANS)

REFER TO HOP PLANS FOR FOR CURB RAMP INFO AT S.R. 0100 ENTRANCE (BY OTHERS)

PROP. 8' WIDE STAMPED ASPHALT PEDESTRIAN CROSSING

PROP. TYPE 2 CURB RAMP

PROP. TYPE 1A CURB RAMP

PROP. 5' CURB CUT

PROP. "KEEP RIGHT" SIGN (24"x30") & AND OBJECT MARKER (12"x36")

PROP. "KEEP RIGHT" SIGN (24"x30") & OBJECT MARKER (12"x36")

PROP. "LEFT TURN" & "RIGHT TURN" SIGNS (30"x36")

PROP. "LEFT TURN" SIGN (30"x36")

PROP. PAINTED STRIPING (TYP.)

PROP. PARKING STRIPING (MATCH EXIST. STYLE) (TYP)

PROP. "STOP" SIGN (30"x30") & ALL WAY PLAQUE (18"x6")

PROPOSED "STOP" SIGN (24"x24") & PAINTED STOP BAR (TYP)

PROPOSED PEDESTRIAN EASEMENT (LINE SHOWN OFFSET FOR GRAPHICAL PURPOSES) TYP.

EXIST. HYDRANT AND VALVE TO BE RESET

SEE SHEET (B)

KEY MAP
1"=400'
200' 0 400'

LINE LEGEND

- PROPERTY LINE
- LEGAL RIGHT-OF-WAY LINE
- PROP. EASEMENT
- EXIST. CURB
- EXIST. FENCE
- EXIST. VEGETATION
- PROP. FLUSH CURB
- PROP. CONCRETE CURB
- PROP. WOOD GUIDERAIL
- PROP. HEAVY DUTY ASPHALT
- PROP. STAMPED ASPHALT
- PROP. CONCRETE
- PROP. 5' CURB CUT
- PROP. RIP-RAP

SYMBOL LEGEND

EXIST. INLET	PROP. STORM INLET
EXIST. MANHOLE	PROP. MANHOLE
EXIST. FIRE HYDRANT	PROP. ROOFDRAIN
EXIST. WATER VALVE	PROP. CLEANOUT
EXIST. UNKNOWN VALVE	PROP. SIGN
EXIST. SIGN	PROP. FIRE HYDRANT
EXIST. LIGHT POLE	PROP. A.D.A. PARKING SYMBOL
EXIST. CLEANOUT	PROP. PARKING COUNT
EXIST. PARKING COUNT	PROP. BOLLARD
EXIST. CONCRETE MONUMENT	PROP. CART CORRAL
EXIST. UTILITY POLE	PROP. AREA LIGHT
EXIST. TRAFFIC SIGNAL POLE	PROP. TRANSFORMER
EXIST. SOLID WHITE LINE	PROP. TRENCH DRAIN
EXIST. SOLID YELLOW LINE	WHITE/4" PAVE STRIPING COLOR & WIDTH
EXIST. DOUBLE YELLOW LINE	
EXIST. DEPRESSED CURB	

SITE PLAN GENERAL NOTES

1. THE FOLLOWING DOCUMENTS ARE INCORPORATED BY REFERENCE AS PART OF THIS SITE PLAN:

   A.) CONTROL POINT ASSOCIATES, INC.
   1600 MANOR DRIVE, SUITE 210
   CHALFONT, PA 18914
   ENTITLED: BOUNDARY & TOPOGRAPHIC SURVEY
   PREPARED FOR: EXTON SQUARE MALL
   FILE No. CP14375
   SHEETS: 1-2 OF 2
   DATED: 5-26-2015; LAST REVISED 10-1-2015

   B.) YERKES ASSOCIATES, INC.
   1444 PHOENIXVILLE PIKE, P.O. BOX 1568
   WEST CHESTER, PA 19380
   ENTITLED: ALTA/ACSM LAND TITLE SURVEY
   PREPARED FOR: EXTON SQUARE, INC.
   FILE No. C-41-05-85
   SHEETS: 1-13 OF 13
   DATED: 10-26-2001; LAST REVISED 11-27-2001

2. SEE SHEET 8 ("PROJECT NOTES") FOR ADDITIONAL NOTES

30 15 7.5 0 30
1"=30'

PRELIMINARY NOT FOR CONSTRUCTION

BOHLER ENGINEERING
SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
SUSTAINABLE DESIGN
LANDSCAPE ARCHITECTURE
PROGRAM MANAGEMENT
PERMITTING SERVICES
TRANSPORTATION SERVICES
◆ UPSTATE NEW YORK
◆ LONG ISLAND, NY
◆ SOUTHEASTERN, PA
◆ NEW YORK METRO
◆ BALTIMORE, MD
◆ NEW JERSEY
◆ NORTHERN VIRGINIA
◆ RICHMOND, VIRGINIA
◆ RALEIGH, NC
◆ CHARLOTTE, NC
◆ TAMPA, FL
◆ SOUTH FLORIDA
◆ SOUTHERN MARYLAND

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REVISIONS

REV	DATE	COMMENT	BY
2	12/14/15	GENERAL REVS	MAB
3	01/05/16	GENERAL REVS	DTL
4	01/15/16	PER CCCD COMMENTS	DTL
5	01/29/16	PER COMMENTS	DTL
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7	04/06/16	GENERAL REVS	DTL
8	04/21/16	GENERAL REVS	DTL
9	06/06/16	PER RECORD PLAN	DTL
10	07/13/16	GENERAL REVISIONS	DTL

CALL BEFORE YOU DIG!

PENNSYLVANIA LAW REQUIRES
3 WORKING DAYS NOTICE FOR
CONSTRUCTION PHASE AND 10
WORKING DAYS IN DESIGN
STAGE - STOP CALL

PA1 (ONE CALL, INC.)
1-800-242-1776

POCS SERIAL NUMBER
20150911340

PROJECT No.: PP140558
DRAWN BY: J.P.W.
CHECKED BY: M.J.
DATE: 2015.10.19
SCALE: 1"=30'
CAD I.D.: PP140558BASE-10

PROJECT:

PRELIMINARY/FINAL LAND DEVELOPMENT PLANS

FOR

PR EXTON SQUARE PROPERTY LP

EXTON SQUARE MALL GROCERY STORE

260 EXTON SQUARE MALL
WEST WHITELAND TOWNSHIP
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COMMONWEALTH OF PENNSYLVANIA
C. BROWN
CORNELIUS BROWN
NOTARIAL SEAL
PROFESSIONAL ENGINEER
PENNSYLVANIA LICENSE NO. PE075317

SHEET TITLE:

SITE PLAN
(A)
(RECORD PLAN: 5 OF 8)

SHEET NUMBER:

5
OF 43

REVISION 10

DL
R:\14\PP140558_CADLAND DEV\REV.10\PP140558BASE-10-----LAYOUT-05-SITE

11500444 B: 28031 Pg: 1 SUP
RECORDED ON
09/30/2016 02:58:58 PM
CHESTER COUNTY, PA

SEE SHEET (A)

RECORDER OF DEEDS
CHESTER COUNTY, PA
2016 SEP 30 PM 2:58

POTTSTOWN PIKE
(A.K.A. S.R. 0100)
(A.K.A. L.R. 147)
(VARIABLE WIDTH R.O.W FROM 86' TO 112')

PROP. PARKING
253 SPACES
(4.60/1,000)

PROP.
BIORETENTION
AREA

PROP.
UNDERGROUND
DETENTION BASIN

PROP.
GROCERY STORE
±55,000 SF
(PER ARCHITECTURAL PLANS DATED 2016.02.10)

T.M.P. 41-5-89
N/F LANDS OF
DICK LIVING TRUST
D.B. 8905, PG. 961
PARCEL 'H'

T.M.P. 41-5-89.1
N/F LANDS OF
MALVERN FEDERAL
D.B. 4439, PG. 1573

EXIST. STORMWATER
MANAGEMENT AREA
(TO BE MODIFIED)

PROPOSED POST AND RAIL
FENCE TO MATCH EXISTING
FENCE SURROUNDING MALL
PROPERTY (REFER TO DETAIL
ON SHEET 34)

PROP. OVERHEAD LANE CONTROL SIGN
(REFER TO TRAFFIC ENGINEER DESIGN PLANS)

PROP. PAINTED
STRIPING (TYP.)

PROPOSED PEDESTRIAN EASEMENT
(LINE SHOWN OFFSET FOR
GRAPHICAL PURPOSES) TYP.

PROPOSED "STOP" SIGN
(24"x24") & PAINTED
STOP BAR (TYP)

PROP. 6' WIDE CONC. SIDEWALK

PROP. 6' WIDE STAMPED
ASPHALT PEDESTRIAN
CROSSING

PROP. TYPE 2
CURB RAMP

PROP. TYPE 1A
CURB RAMP

PROP. 5'
CURB CUT

PROP. 5' CONCRETE
CURB TAPER

PROP. TYPE 1
CURB RAMP

PROP. GUIDE RAIL (TYP)

PROP. 6' WIDE
CONC. SIDEWALK

PROP. 5'
CURB CUT

PROPOSED "RESERVED PARKING"
& VAN ACCESSIBLE SIGNS W/
CONCRETE BOLLARD (8 TYP.)

PROP. PEDESTRIAN CROSSING
SIGN WITH DOWNWARD
DIAGONAL ARROW

PROP. 4'x 6' TREE PIT (TYP.)
(SEE ARCHITECTURAL PLANS)

PROP. 6' WIDE
STAMPED ASPHALT
PEDESTRIAN CROSSING

PROP. "NO PARKING-FIRE LANE"
(DOUBLE SIDED) & PEDESTRIAN
CROSSING YIELD SIGNS

PROP. "NO PARKING-FIRE LANE"
DOUBLE SIDED & PEDESTRIAN
CROSSING WITH DOWNWARD
DIAGONAL ARROW SIGNS

PROP. HEAVY DUTY
ASPHALT PAVING

PROP. BOLLARD (TYP.)

PROP. DOOR LOCATION (TYP.)

PROP. PLANTER (TYP.)
(SEE ARCHITECTURAL
PLANS)

PROP. CANOPY
(TYP.)

NOTE: ROOF DRAINAGE SHALL TIE
INTO PROP. UNDERGROUND BASIN

PROP. CANOPY
(TO BE FURNISHED AT
LANDLORD'S DISCRETION)
(TYP.)

PROP. ROOF
TERRACE
(SEE ARCHITECTURAL
PLANS)

PROP. BICYCLE RACKS
(INVERTED U-TYPE)
(SEE ARCHITECTURAL PLANS)

PROP. CONCRETE SIDEWALK

PROP. "STOP"
SIGN (30"x30")

PROP. "STOP"
SIGN (30"x36") &
ALL WAY PLAQUE
(18"x6")

PROP. "KEEP RIGHT" SIGN (24"x30")
& AND OBJECT MARKER (12"x36")

PROP. "LEFT TURN" &
"RIGHT TURN" SIGNS
(30"x36")

PROP. 6' WIDE STAMPED ASPHALT
PEDESTRIAN CROSSING

PROP. TYPE 2
CURB RAMPS

PROP. 6' WIDE
STAMPED ASPHALT
PEDESTRIAN CROSSING

PROP. 5' CONCRETE
CURB TAPER

PROP. 6' CONCRETE
CURB TAPER

PROP. TYPE 1
CURB RAMP

PROP. 5' CURB CUT

PROP. GUIDE RAIL

PROP. TYPE 2
CURB RAMP

PROP. 6' WIDE
STAMPED ASPHALT
PEDESTRIAN CROSSING

PROP. "STOP" SIGN
(30"x30") & ALL WAY
PLAQUE (18"x6")

PROP. "KEEP RIGHT" SIGN (24"x30")
& OBJECT MARKER (12"x36")

PROP. "STOP"
SIGN (30"x30")

PROP. "STOP"
SIGN (30"x36") &
ALL WAY PLAQUE
(18"x6")

PROP. TYPE 1
CURB RAMP

PROP. 8' WIDE
STAMPED ASPHALT
PEDESTRIAN CROSSING

PROP. PEDESTRIAN CROSSING
SIGN WITH DOWNWARD
DIAGONAL ARROW

PROP. TYPE 2
CURB RAMP

PROP. 5' CURB CUT

PROP. 5'
CURB CUT

PROP. 5' CONCRETE
CURB TAPER

PROP. TYPE 1
CURB RAMP

PROP. 5'
CURB CUT

PROP. 6' WIDE CONC. SIDEWALK

PROP. 6' WIDE CONC. SIDEWALK

PROP. 5'
CURB CUT

PROP. 5'
CURB CUT

PROP. 5'
CURB CUT

PROP. 5'
CURB CUT

PROP. 5'
CURB CUT

PROP. GUIDE RAIL

PROP. 5'
CURB CUT

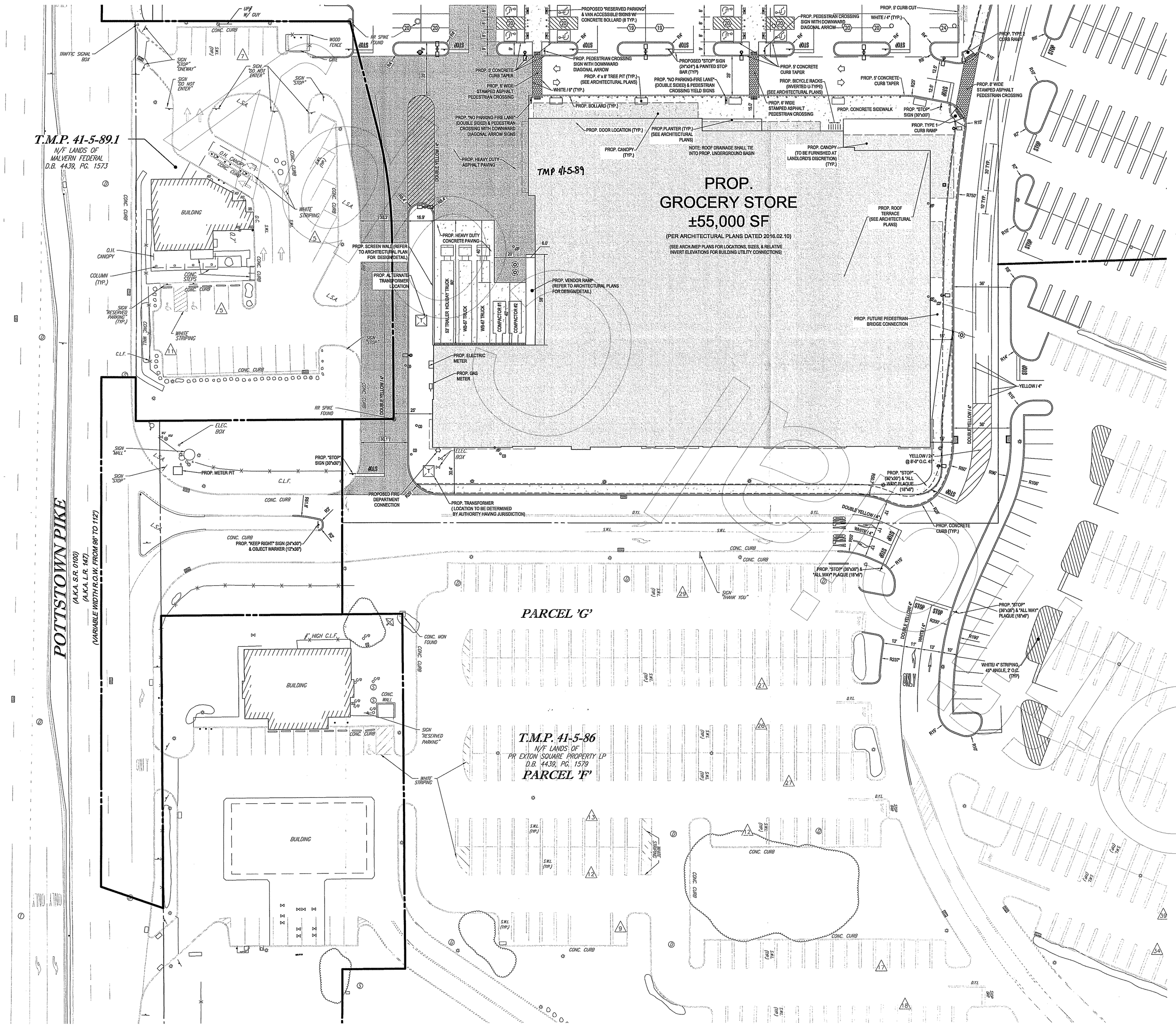
PROP. 5'
CURB CUT

PROP. 5'
CURB CUT

PROP. 5'
CURB CUT

PROP. 5'
CURB CUT

SEE SHEET (B)


T.M.P. 41-5-89.1
N/F LANDS OF
MALVERN FEDERAL
D.B. 4439, PG. 1573
TMP 41-5-89
PROP.
GROCERY STORE
±55,000 SF
(PER ARCHITECTURAL PLANS DATED 2016.02.10)
(SEE ARCH./MEP PLANS FOR LOCATIONS, SIZES, & RELATIVE INVERT ELEVATIONS FOR BUILDING UTILITY CONNECTIONS)
POTTSTOWN PIKE
(A.K.A. S.R. 0100)
(A.K.A. L.R. 147)
(VARIABLE WIDTH R.O.W. FROM 96' TO 112')
PARCEL 'G'
T.M.P. 41-5-86
N/F LANDS OF
PR EXTON SQUARE PROPERTY LP
D.B. 4439, PG. 1579
PARCEL 'F'
PROP. 5' CONCRETE CURB TAPER
PROP. 5' WIDE STAMPED ASPHALT PEDESTRIAN CROSSING
PROP. 'NO PARKING-FIRE LANE' (DOUBLE SIDED) & PEDESTRIAN CROSSING WITH DOWNWARD DIAGONAL ARROW SIGNS
PROP. HEAVY DUTY ASPHALT PAVING
PROP. HEAVY DUTY CONCRETE PAVING
PROP. SCREEN WALL (REFER TO ARCHITECTURAL PLAN FOR DESIGN DETAIL)
PROP. ALTERNATE TRANSFORMER LOCATION
PROP. VENDOR RAMP (REFER TO ARCHITECTURAL PLANS FOR DESIGN DETAIL)
PROP. ELECTRIC METER
PROP. GAS METER
PROP. TRANSFORMER (LOCATION TO BE DETERMINED BY AUTHORITY HAVING JURISDICTION)
PROPOSED FIRE DEPARTMENT CONNECTION
PROPOSED "RESERVED PARKING" & VAN ACCESSIBLE SIGNS W/ CONCRETE BOLLARD (8 TYP.)
PROP. PEDESTRIAN CROSSING SIGN WITH DOWNWARD DIAGONAL ARROW
PROP. 4' x 8' TREE PIT (TYP.) (SEE ARCHITECTURAL PLANS)
PROPOSED "STOP" SIGN (24"x24") & PAINTED STOP BAR (TYP.)
PROP. 'NO PARKING-FIRE LANE' (DOUBLE SIDED) & PEDESTRIAN CROSSING YIELD SIGNS
PROP. BOLLARD (TYP.)
PROP. DOOR LOCATION (TYP.)
PROP. PLANTER (TYP.) (SEE ARCHITECTURAL PLANS)
PROP. CANOPY (TYP.)
NOTE: ROOF DRAINAGE SHALL TIE INTO PROP. UNDERGROUND BASIN
PROP. CANOPY (TO BE FURNISHED AT LANDLORD'S DISCRETION) (TYP.)
PROP. ROOF TERRACE (SEE ARCHITECTURAL PLANS)
PROP. FUTURE PEDESTRIAN BRIDGE CONNECTION
PROP. 5' CURB CUT
PROP. PEDESTRIAN CROSSING SIGN WITH DOWNWARD DIAGONAL ARROW
PROP. 5' CONCRETE CURB TAPER
PROP. BICYCLE RACKS (INVERTED U-TYPE) (SEE ARCHITECTURAL PLANS)
PROP. 5' CONCRETE CURB TAPER
PROP. 6' WIDE STAMPED ASPHALT PEDESTRIAN CROSSING
PROP. CONCRETE SIDEWALK
PROP. 'STOP' SIGN (30"x30")
PROP. TYPE I CURB RAMP
PROP. TYPE II CURB RAMP
PROP. 6' WIDE STAMPED ASPHALT PEDESTRIAN CROSSING
PROP. CONCRETE CURB (TYP.)
PROP. 'STOP' (30"x30") & "ALL WAY" PLAQUE (18"x6")
WHITE/4" STRIPING, 45° ANGLE, 2' O.C. (TYP.)
PROP. METER PIT
PROP. 'KEEP RIGHT' SIGN (24"x30") & OBJECT MARKER (12"x36")
SIGN "THANK YOU"
EXIST. BUILDING
EXIST. CANOPY
EXIST. COLUMN (TYP.)
EXIST. CONC. STEPS
EXIST. CONC. WALL
EXIST. WHITE STRIPING
EXIST. SIGN "RESERVED PARKING" (TYP.)
EXIST. SIGN "STOP"
EXIST. SIGN "ONEWAY"
EXIST. SIGN "DO NOT ENTER"
EXIST. TRAFFIC SIGNAL BOX
EXIST. WOOD FENCE
EXIST. GATE
EXIST. CHAIN LINK FENCE
EXIST. CONC. CURB
EXIST. CONC. MON FOUND
EXIST. IRR SPRIKE FOUND
EXIST. ELEC. BOX
EXIST. C.L.F.
EXIST. HIGH C.L.F.
EXIST. L.S.A.
EXIST. DOUBLE YELLOW 4"
EXIST. SIGN "STOP" (30"x30")
EXIST. SIGN "ALL WAY" PLAQUE (18"x6")
EXIST. SIGN "RESERVED PARKING"
EXIST. WHITE STRIPING
EXIST. CONC. MON FOUND
EXIST. CONC. CURB
EXIST. BUILDING
EXIST. CONC. PAD
EXIST. CONC. CURB
EXIST. SIGN "RESERVED PARKING"
EXIST. WHITE STRIPING
EXIST. BUILDING
EXIST. CONC. CURB
EXIST. S.W.L. (TYP.)
EXIST. CROSSING DRIVE
EXIST. CONC. CURB
EXIST. S.W.L. (TYP.)
EXIST. CONC. CURB
EXIST. D.Y.L.
EXIST. S.W.L.
EXIST. CONC. CURB
EXIST. (4U) TYP.
EXIST. 5' WIDE STAMPED ASPHALT PEDESTRIAN CROSSING
EXIST. 'STOP' SIGN (30"x30")
EXIST. 'STOP' (30"x30") & "ALL WAY" PLAQUE (18"x6")
EXIST. DOUBLE YELLOW 4"
EXIST. WHITE 4"
EXIST. 'STOP' SIGN (30"x30")
EXIST. 'STOP' (30"x30") & "ALL WAY" PLAQUE (18"x6")
EXIST. WHITE/4" STRIPING, 45° ANGLE, 2' O.C. (TYP.)
EXIST. 'STOP' (30"x30") & "ALL WAY" PLAQUE (18"x6")
EXIST. DOUBLE YELLOW 4"
EXIST. WHITE 4"
EXIST. 'STOP' (30"x30") & "ALL WAY" PLAQUE (18"x6")
EXIST. WHITE/4" STRIPING, 45° ANGLE, 2' O.C. (TYP.)

11508444 B: 20031 P: 1 SDP
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CHESTER COUNTY RECORDER OF DEEDS

SITE PLAN GENERAL NOTES

CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH THE NOTES AND SPECIFICATIONS CONTAINED HEREIN. CONTRACTOR IS RESPONSIBLE TO ENSURE THAT ALL SUBCONTRACTORS FULLY AND COMPLETELY CONFORM TO AND COMPLY WITH THESE REQUIREMENTS.

1. THE FOLLOWING DOCUMENTS ARE INCORPORATED BY REFERENCE AS PART OF THIS SITE PLAN:

A.) CONTROL POINT ASSOCIATES, INC.
1600 MANOR DRIVE, SUITE 210
CHALFONT, PA 18914
ENTITLED: BOUNDARY & TOPOGRAPHIC SURVEY
PREPARED FOR: EXTON SQUARE MALL
FILE No. CP14375
SHEETS: 1-2 OF 2
DATED: 5-26-2015; LAST REVISED 10-1-2015

B.) YERKES ASSOCIATES, INC.
1444 PHOENIXVILLE PIKE, P.O. BOX 1568
WEST CHESTER, PA 19380
ENTITLED: ALTA/ACSM LAND TITLE SURVEY
PREPARED FOR: EXTON SQUARE, INC.
FILE No. C-41-05-85
SHEETS: 1-13 OF 13
DATED: 10-26-2001; LAST REVISED 11-27-2001

C.) WHITESTONE ASSOCIATES, INC.
1600 MANOR DRIVE
CHALFONT, PA 18914
ENTITLED: REPORT OF STORMWATER MANAGEMENT AREA EVALUATION
PREPARED FOR: EXTON SQUARE MALL
FILE No. CP15134640.000
SHEETS: 1-28 OF 28
DATED: 9-21-2015

D.) EARTH ENGINEERING INCORPORATED
115 W GERMANTOWN PIKE, SUITE 200
EAST NORRITON, PA 19403
ENTITLED: ALTA/ACSM LAND TITLE SURVEY
PREPARED FOR: MR. BRUCE AUERBACH, PREIT SERVICES, LLC
FILE No. 28109.00
SHEETS: 1-67 OF 67
DATED: 8-20-2015

E.) 505 ARCHITECTURE
508 WEST 5TH STREET, SUITE 250
CHARLOTTE, NC 28202
ENTITLED: WHOLE FOODS MARKET AT EXTON SQUARE
PREPARED FOR: MR. BRUCE AUERBACH, PREIT SERVICES, LLC
FILE NO. 709105
DATED: 02-10-2016

2. ALL ACCESSIBLE ADA PARKING SPACES MUST BE CONSTRUCTED TO MEET, AT A MINIMUM, THE MORE STRINGENT OF THE REQUIREMENTS OF THE "AMERICANS WITH DISABILITIES ACT" (ADA) CODE (42 U.S.C. § 12101 et seq. AND 42 U.S.C. § 4151 et seq.) OR THE REQUIREMENTS OF THE JURISDICTION WHERE ANY PROJECT IS TO BE CONSTRUCTED AND ALL AMENDMENTS TO BOTH WHICH ARE IN EFFECT WHEN THESE PLANS ARE COMPLETED. IT SHALL BE THE RESPONSIBILITY OF THE OWNER TO COMPLY WITH ALL APPLICABLE ADA REQUIREMENTS FOR SITE ACCESS AND ACCESS TO PUBLIC WAYS WHETHER SHOWN ON THESE PLANS OR NOT. IT SHALL BE THE OWNER'S RESPONSIBILITY TO CONSTRUCT SAID FACILITIES AND TO MAINTAIN SAID FACILITIES IN GOOD CONDITION.

3. PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION OR FABRICATION SHALL BEGIN UNTIL THE CONTRACTOR HAS RECEIVED AND THOROUGHLY REVIEWED THE COMMENTS TO ALL PLANS AND OTHER DOCUMENTS REVIEWED AND APPROVED BY THE PERMITTING AUTHORITIES AND CONFIRMED THAT ALL NECESSARY OR REQUIRED PERMITS HAVE BEEN OBTAINED. CONTRACTOR MUST HAVE COPIES OF ALL PERMITS AND APPROVALS ON SITE AT ALL TIMES.

4. THE OWNER/CONTRACTOR MUST BE FAMILIAR WITH AND RESPONSIBLE FOR THE PROCUREMENT OF ANY AND ALL CERTIFICATIONS REQUIRED FOR THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY.

5. ALL WORK MUST BE PERFORMED IN ACCORDANCE WITH THESE PLANS,, SPECIFICATIONS AND CONDITIONS OF APPROVAL, AND ALL APPLICABLE REQUIREMENTS, RULES, REGULATIONS, STATUTORY REQUIREMENTS, CODES, LAWS AND STANDARDS OF ALL GOVERNMENTAL ENTITIES WITH JURISDICTION OVER THIS PROJECT.

6. THE GEOTECHNICAL REPORT AND RECOMMENDATIONS SET FORTH HEREIN ARE A PART OF THE REQUIRED CONSTRUCTION DOCUMENTS AND, IN CASE OF CONFLICT, DISCREPANCY OR AMBIGUITY, THE MORE STRINGENT REQUIREMENTS AND/OR RECOMMENDATIONS CONTAINED IN THE PLANS AND THE GEOTECHNICAL REPORT AND RECOMMENDATIONS SHALL TAKE PRECEDENCE UNLESS SPECIFICALLY NOTED OTHERWISE ON THE PLANS. THE CONTRACTOR MUST NOTIFY THE ENGINEER, IN WRITING, OF ANY SUCH CONFLICT, DISCREPANCY OR AMBIGUITY BETWEEN THE GEOTECHNICAL REPORT AND PLANS AND SPECIFICATIONS PRIOR TO PROCEEDING WITH ANY FURTHER WORK.

7. THESE PLANS ARE BASED ON INFORMATION PROVIDED TO BOHLER ENGINEERING BY THE OWNER AND OTHERS PRIOR TO THE TIME OF PLAN PREPARATION. CONTRACTOR MUST FIELD VERIFY EXISTING CONDITIONS AND NOTIFY BOHLER ENGINEERING, IN WRITING, IMMEDIATELY IF ACTUAL SITE CONDITIONS DIFFER FROM THOSE SHOWN ON THE PLAN, OR IF THE PROPOSED WORK CONFLICTS WITH ANY OTHER SITE FEATURES.

8. ALL DIMENSIONS SHOWN ON THE PLANS MUST BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR MUST NOTIFY ENGINEER, IN WRITING, IF ANY CONFLICTS, DISCREPANCIES, OR AMBIGUITIES EXIST PRIOR TO PROCEEDING WITH CONSTRUCTION. NO EXTRA COMPENSATION WILL BE PAID TO THE CONTRACTOR FOR WORK WHICH HAS TO BE REDONE OR REPAIRED DUE TO DIMENSIONS OR GRADES SHOWN INCORRECTLY ON THESE PLANS PRIOR TO CONTRACTOR GIVING ENGINEER WRITTEN NOTIFICATION OF SAME AND ENGINEER, THEREAFTER, PROVIDING CONTRACTOR WITH WRITTEN AUTHORIZATION TO PROCEED WITH SUCH ADDITIONAL WORK.

9. CONTRACTOR MUST REFER TO THE ARCHITECTURAL/BUILDING PLANS "OF RECORD" FOR EXACT LOCATIONS AND DIMENSIONS OF ENTRY/EXIT POINTS, ELEVATIONS, PRECISE BUILDING DIMENSIONS, AND EXACT BUILDING UTILITY LOCATIONS.

10. PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR MUST COORDINATE THE BUILDING LAYOUT BY CAREFUL REVIEW OF THE LATEST CIVIL PLANS AND THE LATEST ARCHITECTURAL PLANS (INCLUDING, BUT NOT LIMITED TO, STRUCTURAL, MECHANICAL, ELECTRICAL, PLUMBING AND FIRE SUPPRESSION PLAN, WHERE APPLICABLE). CONTRACTOR MUST IMMEDIATELY NOTIFY OWNER, ARCHITECT AND BOHLER ENGINEERING, IN WRITING, OF ANY CONFLICTS, DISCREPANCIES OR AMBIGUITIES WHICH EXIST.

11. NO DEBRIS SHALL BE BURIED ON THIS SITE. ALL DEBRIS SHALL BE DISPOSED OF OFF-SITE IN ACCORDANCE WITH ALL APPLICABLE TOWNSHIP, COUNTY, STATE, AND FEDERAL LAWS AND REQUIREMENTS.

12. THE CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING WHEN SHORING IS REQUIRED AND FOR INSTALLING ALL SHORING REQUIRED DURING EXCAVATION (TO BE PERFORMED IN ACCORDANCE WITH CURRENT OSHA STANDARDS) AND ANY ADDITIONAL PRECAUTIONS TO BE TAKEN TO ASSURE THE STABILITY OF ADJACENT, NEARBY AND CONTIGUOUS STRUCTURES AND PROPERTIES.

13. THE CONTRACTOR IS TO EXERCISE EXTREME CARE WHEN PERFORMING ANY WORK ACTIVITIES ADJACENT TO PAVEMENT, STRUCTURES, ETC. WHICH ARE TO REMAIN EITHER FOR AN INITIAL PHASE OF THE PROJECT OR AS PART OF THE FINAL CONDITION. CONTRACTOR IS RESPONSIBLE FOR TAKING ALL APPROPRIATE MEASURES REQUIRED TO ENSURE THE STRUCTURAL STABILITY OF SIDEWALKS AND PAVEMENT, UTILITIES, BUILDINGS, AND INFRASTRUCTURE WHICH ARE TO REMAIN, AND TO PROVIDE A SAFE WORK AREA FOR THIRD PARTIES, PEDESTRIANS AND ANYONE INVOLVED WITH THE PROJECT.

14. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGE DONE TO ANY NEW OR EXISTING CONSTRUCTION OR PROPERTY DURING THE COURSE OF CONSTRUCTION, INCLUDING BUT NOT LIMITED TO DRAINAGE, UTILITIES, PAVEMENT, STRIPING, CURB, ETC. AND SHALL BEAR ALL COSTS ASSOCIATED WITH SAME TO INCLUDE, BUT NOT BE LIMITED TO, REDESIGN, RE-SURVEY, REPERMITTING AND CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR AND MUST REPLACE ALL SIGNS, INTERCONNECTION CABLE, WIRING CONDUITS, AND ANY UNDERGROUND ACCESSORY EQUIPMENT DAMAGED DURING CONSTRUCTION AND MUST BEAR ALL COSTS ASSOCIATED WITH SAME. THE REPAIR OF ANY SUCH NEW OR EXISTING CONSTRUCTION OR PROPERTY MUST RESTORE SUCH CONSTRUCTION OR PROPERTY TO A CONDITION EQUIVALENT TO OR BETTER THAN THE CONDITIONS PRIOR TO COMMENCEMENT OF THE CONSTRUCTION, AND IN CONFORMANCE WITH APPLICABLE CODES, LAWS RULES, REGULATIONS, STATUTORY REQUIREMENTS AND STATUTES. CONTRACTOR MUST BEAR ALL COSTS ASSOCIATED WITH SAME. CONTRACTOR IS RESPONSIBLE TO DOCUMENT ALL EXISTING DAMAGE AND TO NOTIFY THE OWNER AND THE CONSTRUCTION MANAGER PRIOR TO THE START OF CONSTRUCTION.

15. ALL CONCRETE MUST BE AIR ENTRAINED AND HAVE THE MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI AT 28 DAYS UNLESS OTHERWISE NOTED ON THE PLANS, DETAILS AND/OR GEOTECHNICAL REPORT.

16. THE ENGINEER IS NOT RESPONSIBLE FOR CONSTRUCTION METHODS, MEANS, TECHNIQUES OR PROCEDURES, GENERALLY OR FOR THE CONSTRUCTION MEANS, METHODS, TECHNIQUES OR PROCEDURES FOR COMPLETION OF THE WORK DEPICTED BOTH ON THESE PLANS, AND FOR ANY CONFLICTS/SCOPE REVISIONS WHICH RESULT FROM SAME. CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE METHODS/MEANS FOR COMPLETION OF THE WORK PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.

17. THE ENGINEER OF RECORD IS NOT RESPONSIBLE FOR JOB SITE SAFETY. THE ENGINEER OF RECORD HAS NOT BEEN RETAINED TO PERFORM OR BE RESPONSIBLE FOR JOB SITE SAFETY, SAME BEING WHOLLY OUTSIDE OF ENGINEER'S SERVICES AS RELATED TO THE PROJECT. THE ENGINEER OF RECORD IS NOT RESPONSIBLE TO IDENTIFY OR REPORT ANY JOB SITE SAFETY ISSUES, AT ANY TIME.

18. ALL CONTRACTORS MUST CARRY THE SPECIFIED STATUTORY WORKER'S COMPENSATION INSURANCE, EMPLOYER'S LIABILITY INSURANCE AND LIMITS OF COMMERCIAL GENERAL LIABILITY INSURANCE (CGL). ALL CONTRACTORS MUST HAVE THEIR CGL POLICIES ENDORSED TO NAME BOHLER ENGINEERING, AND ITS PAST, PRESENT AND FUTURE OWNERS, OFFICERS, DIRECTORS, PARTNERS, SHAREHOLDERS, MEMBERS, PRINCIPALS, COMMISSIONERS, AGENTS, SERVANTS, EMPLOYEES, AFFILIATES, SUBSIDIARIES, AND RELATED ENTITIES, AND ITS SUBCONTRACTORS AND SUBCONSULTANTS AS ADDITIONAL NAMED INSUREDS AND TO PROVIDE CONTRACTUAL LIABILITY COVERAGE SUFFICIENT TO INSURE THIS HOLD HARMLESS AND INDEMNITY OBLIGATIONS ASSUMED BY THE CONTRACTORS. ALL CONTRACTORS MUST FURNISH BOHLER ENGINEERING WITH CERTIFICATIONS OF INSURANCE AS EVIDENCE OF THE REQUIRED INSURANCE PRIOR TO COMMENCING WORK AND UPON RENEWAL OF EACH POLICY DURING THE ENTIRE PERIOD OF CONSTRUCTION AND FOR ONE YEAR AFTER THE COMPLETION OF CONSTRUCTION. IN ADDITION, ALL CONTRACTORS WILL, TO THE FULLEST EXTENT PERMITTED UNDER THE LAW, INDEMNIFY, DEFEND AND HOLD HARMLESS BOHLER ENGINEERING AND ITS PAST, PRESENT AND FUTURE OWNERS, OFFICERS, DIRECTORS, PARTNERS, SHAREHOLDERS, MEMBERS, PRINCIPALS, COMMISSIONERS, AGENTS, SERVANTS, EMPLOYEES, AFFILIATES, SUBSIDIARIES AND RELATED ENTITIES, AND ITS SUBCONTRACTORS AND SUBCONSULTANTS FROM AND AGAINST ANY DAMAGES, INJURIES, CLAIMS, ACTIONS, PENALTIES, EXPENSES, PUNITIVE DAMAGES, TORT DAMAGES, STATUTORY CLAIMS, STATUTORY CAUSES OF ACTION, LOSSES, CAUSES OF ACTION, LIABILITIES OR COSTS, INCLUDING, BUT NOT LIMITED TO, REASONABLE ATTORNEYS' FEES AND DEFENSE COSTS, ARISING OUT OF OR IN ANY WAY CONNECTED WITH OR TO THE PROJECT, INCLUDING ALL CLAIMS BY EMPLOYEES OF THE CONTRACTORS, ALL CLAIMS BY THIRD PARTIES AND ALL CLAIMS RELATED TO THE PROJECT. CONTRACTOR MUST NOTIFY ENGINEER, IN WRITING, AT LEAST THIRTY (30) DAYS PRIOR TO ANY TERMINATION, SUSPENSION OR CHANGE OF ITS INSURANCE HEREUNDER.

19. BOHLER ENGINEERING WILL REVIEW OR TAKE OTHER APPROPRIATE ACTION ON THE CONTRACTOR SUBMITTALS, SUCH AS SHOP DRAWINGS, PRODUCT DATA, SAMPLES, AND OTHER DATA, WHICH THE CONTRACTOR IS REQUIRED TO SUBMIT, BUT ONLY FOR THE LIMITED PURPOSE OF CHECKING FOR CONFORMANCE WITH THE DESIGN INTENT AND THE INFORMATION SHOWN IN THE CONSTRUCTION CONTRACT DOCUMENTS. CONSTRUCTION MEANS AND/OR METHODS AND/OR TECHNIQUES OR PROCEDURES, COORDINATION OF THE WORK WITH OTHER TRADES, AND CONSTRUCTION SAFETY PRECAUTIONS ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND BOHLER HAS NO RESPONSIBILITY OR LIABILITY FOR SAME HEREUNDER. BOHLER ENGINEERING'S SHOP DRAWING REVIEW WILL BE CONDUCTED WITH REASONABLE PROMPTNESS WHILE ALLOWING SUFFICIENT TIME TO PERMIT ADEQUATE REVIEW. REVIEW OF A SPECIFIC ITEM MUST NOT INDICATE THAT BOHLER ENGINEERING HAS REVIEWED THE ENTIRE ASSEMBLY OF WHICH THE ITEM IS A COMPONENT. BOHLER ENGINEERING WILL NOT BE RESPONSIBLE FOR ANY DEVIATIONS FROM THE CONSTRUCTION DOCUMENTS NOT PROMPTLY AND KNOWINGLY BROUGHT TO ITS ATTENTION, IN WRITING, BY THE CONTRACTOR. BOHLER ENGINEERING WILL NOT BE REQUIRED TO REVIEW PARTIAL SUBMISSIONS OR THOSE FOR WHICH SUBMISSIONS OF CORRELATED ITEMS HAVE NOT BEEN RECEIVED.

20. NEITHER THE PROFESSIONAL ACTIVITIES OF BOHLER ENGINEERING, NOR THE PRESENCE OF BOHLER ENGINEERING AND/OR ITS PAST, PRESENT AND FUTURE OWNERS, OFFICERS, DIRECTORS, PARTNERS, SHAREHOLDERS, MEMBERS, PRINCIPALS, COMMISSIONERS, AGENTS, SERVANTS, EMPLOYEES, AFFILIATES, SUBSIDIARIES, AND RELATED ENTITIES, AND ITS SUBCONTRACTORS AND SUBCONSULTANTS AT A CONSTRUCTION/PROJECT SITE, SHALL RELIEVE THE GENERAL CONTRACTOR OF ITS OBLIGATIONS, DUTIES AND RESPONSIBILITIES INCLUDING, BUT NOT LIMITED TO, CONSTRUCTION MEANS, METHODS, SEQUENCE, TECHNIQUES OR PROCEDURES NECESSARY FOR PERFORMING, OVERSEEING, SUPERINTENDING AND COORDINATING THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND COMPLIANCE ANY HEALTH OR SAFETY PRECAUTIONS REQUIRED BY ANY REGULATORY AGENCIES WITH JURISDICTION OVER THE PROJECT AND/OR PROPERTY. BOHLER ENGINEERING AND ITS PERSONNEL HAVE NO AUTHORITY TO EXERCISE ANY CONTROL OVER ANY CONSTRUCTION CONTRACTOR OR ITS EMPLOYEES IN CONNECTION WITH THEIR WORK OR ANY HEALTH OR SAFETY PROGRAMS OR PROCEDURES. THE GENERAL CONTRACTOR IS SOLELY RESPONSIBLE FOR JOB SITE SAFETY. BOHLER ENGINEERING SHALL BE INDEMNIFIED BY THE GENERAL CONTRACTOR AND MUST BE NAMED AN ADDITIONAL INSURED UNDER THE GENERAL CONTRACTOR'S POLICIES OF GENERAL LIABILITY INSURANCE AS DESCRIBED ABOVE FOR JOB SITE SAFETY.

21. IF THE CONTRACTOR DEVIATES FROM THE PLANS AND SPECIFICATIONS, INCLUDING THE NOTES CONTAINED HEREIN, WITHOUT FIRST OBTAINING THE PRIOR WRITTEN AUTHORIZATION OF THE ENGINEER FOR SUCH DEVIATIONS, THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE PAYMENT OF ALL COSTS INCURRED IN CORRECTING ANY WORK DONE WHICH DEVIATES FROM THE PLANS, ALL FINES AND/OR PENALTIES ASSESSED WITH RESPECT THERETO AND ALL COMPENSATORY OR PUNITIVE DAMAGES RESULTING THEREFROM AND, FURTHER, SHALL DEFEND, INDEMNIFY AND HOLD HARMLESS THE ENGINEER, TO THE FULLEST EXTENT PERMITTED UNDER THE LAW, IN ACCORDANCE WITH THESE NOTES HEREIN, FOR AND FROM ALL FEES, ATTORNEYS' FEES, DAMAGES, COSTS, JUDGMENTS, PENALTIES AND THE LIKE RELATED TO SAME.

22. CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE AND PROTECTION OF TRAFFIC PLAN FOR ALL WORK THAT AFFECTS PUBLIC TRAVEL EITHER IN THE R.O.W. OR ON SITE. THE COST FOR THIS ITEM MUST BE INCLUDED IN THE CONTRACTOR'S PRICE.

23. TRAFFIC CONTROL SIGNS MUST BE POSTED ON PENNDOT-APPROVED BREAKAWAY POSTS IN ACCORDANCE WITH THE MOST RECENT VERSION OF THE TC-8700 SERIES IN PENNDOT PUBLICATION 111M.

24. ALL PROPOSED PEDESTRIAN FACILITIES REFLECTED ON THESE PLANS SHALL BE CONSTRUCTED TO COMPLY WITH THE FOLLOWING STANDARDS:

I. PENNDOT DESIGN MANUAL 2, CHAPTER 6.
II. PENNDOT STANDARDS FOR ROADWAY CONSTRUCTION, PUBLICATION 72M, RC-67M.
III. U.S. ACCESS BOARD, PUBLIC RIGHT OF WAY ACCESSIBILITY GUIDELINES (PROWAG) AND ADA ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES (ADAAG).

25. ALL TRAFFIC CONTROL SIGNS SHALL BE POSTED IN ACCORDANCE WITH THE 2009 MUTCD AND THE MOST RECENT VERSION OF PENNDOT PUBLICATION 236M,"HANDBOOK OF APPROVED SIGNS."

26. ALL CURB RAMPS WILL BE CONSTRUCTED IN COMPLIANCE WITH THE MOST RECENT VERSION OF PENNDOT STANDARDS FOR ROADWAY CONSTRUCTION,PUBLICATION 72M,RC-67M, AND PENNDOT DESIGN MANUAL 2, CHAPTER 6.

27. ALL SIGNING AND PAVEMENT STRIPING MUST CONFORM TO MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES OR LOCALLY APPROVED SUPPLEMENT.

28. ENGINEER IS NOT RESPONSIBLE FOR ANY INJURY OR DAMAGES RESULTING FROM CONTRACTOR'S FAILURE TO BUILD OR CONSTRUCT IN STRICT ACCORDANCE WITH THE APPROVED PLANS. IF CONTRACTOR AND/OR OWNER FAIL TO BUILD OR CONSTRUCT IN STRICT ACCORDANCE WITH APPROVED PLANS, SAME SHALL SEVERALLY INDEMNIFY AND HOLD ENGINEER HARMLESS FOR ALL INJURIES AND DAMAGES THAT ENGINEER SUFFERS AND COSTS THAT ENGINEER INCURS.

29. OWNER MUST MAINTAIN AND PRESERVE ALL PHYSICAL SITE FEATURES AND DESIGN FEATURES DEPICTED ON THE PLANS AND RELATED DOCUMENTS. IN STRICT ACCORDANCE WITH THE APPROVED PLAN(S) AND DESIGN AND, FURTHER ENGINEER IS NOT RESPONSIBLE FOR ANY FAILURE TO SO MAINTAIN OR PRESERVE SITE AND/OR DESIGN FEATURES, IF OWNER FAILS TO MAINTAIN AND/OR PRESERVE ALL PHYSICAL SITE FEATURES AND/OR DESIGN FEATURES DEPICTED ON THE PLANS AND RELATED DOCUMENTS, OWNER AGREES TO INDEMNIFY AND HOLD ENGINEER HARMLESS FOR ALL INJURIES AND DAMAGES THAT ENGINEER SUFFERS AND COSTS THAT ENGINEER INCURS AS A RESULT OF SAID FAILURE.

30. ALL DIMENSIONS MUST BE TO FACE OF CURB, EDGE OF PAVEMENT, OR EDGE OF BUILDING, UNLESS NOTED OTHERWISE.

31. ALL CONSTRUCTION AND MATERIALS MUST COMPLY WITH AND CONFORM TO APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS, LAWS, ORDINANCES, RULES AND CODES, AND ALL APPLICABLE OSHA REQUIREMENTS.

32. CONTRACTOR AND OWNER MUST INSTALL ALL ELEMENTS AND COMPONENTS IN STRICT COMPLIANCE WITH AND ACCORDANCE WITH MANUFACTURER'S STANDARDS AND RECOMMENDED INSTALLATION CRITERIA AND SPECIFICATIONS. IF CONTRACTOR AND/OR OWNER FAIL TO DO SO, THEY AGREE TO JOINTLY AND SEVERALLY INDEMNIFY AND HOLD ENGINEER HARMLESS FOR ALL INJURIES AND DAMAGES THAT ENGINEER SUFFERS AND COSTS THAT ENGINEER INCURS AS A RESULT OF SAID FAILURE.

33. AS CONTAINED IN THESE DRAWINGS AND ASSOCIATED APPLICATION DOCUMENTS PREPARED BY THE SIGNATORY PROFESSIONAL ENGINEER, THE USE OF THIS SEAL AND/OR CERTIFICATION CONSTITUTES AN EXPRESSION OF "PROFESSIONAL OPINION" REGARDING THE INFORMATION WHICH IS THE SUBJECT OF THE UNDERSIGNED PROFESSIONAL KNOWLEDGE OR BELIEF AND IN ACCORDANCE WITH COMMON ACCEPTED PROCEDURE CONSISTENT WITH THE APPLICABLE STANDARDS OF PRACTICE, AND DOES NOT CONSTITUTE A WARRANTY OR GUARANTEE, EITHER EXPRESSED OR IMPLIED.

34. ELEVATIONS ARE BASED ON NAVD 88 (GEOID DERIVED) PER GPS OBSERVATIONS ON KEYNET VRS NETWORK.

35. IF EVIDENCE OF ARCHEOLOGICAL RESOURCES IS DISCOVERED DURING CONSTRUCTION, THE TOWNSHIP SHALL BE NOTIFIED AND REPRESENTATIVES OF THE TOWNSHIP HISTORICAL COMMISSION SHALL BE GIVEN THE OPPORTUNITY TO PHOTOGRAPH SAID ARCHAEOLOGICAL RESOURCES IN SITU AND SHALL BE PERMITTED TO REMOVE SAID ARCHAEOLOGICAL RESOURCES IN CONFORMANCE WITH APPLICABLE LAW.

36. ALL PROPOSED CURB RAMPS ARE FIVE (5) FEET UNLESS NOTED OTHERWISE.

37. THE DEVELOPER SHALL BE RESPONSIBLE FOR INSTALLATION OF ALL STREET MONUMENTS, BOUNDARY PINS AND/OR MONUMENTS AND LOT CORNER PINS INDICATED ON THE PLANS. ALL MARKERS MUST BE INSTALLED PRIOR TO CLOSE OUT OF THE PROJECT WITH WEST WHITELAND TOWNSHIP.

38. A BUILDING PERMIT IS REQUIRED FOR ALL PROPOSED RETAINING WALLS. DETAILED DRAWINGS AND DETAILS AND, IF APPLICABLE, CALCULATIONS SEALED BY A PENNSYLVANIA PROFESSIONAL ENGINEER SHALL BE SUBMITTED TO WEST WHITELAND TOWNSHIP AS PART OF THE BUILDING PERMIT APPLICATION.

39. THE TOWNSHIP AND THE TOWNSHIP'S TRAFFIC CONSULTANT SHALL BE COPIED ON ALL CORRESPONDENCE RELATED TO THE PENNDOT HIGHWAY OCCUPANCY PERMIT PLAN REVIEW AND APPROVALS

REFERENCES

1. MAP #41 OF THE OFFICIAL MAPS OF CHESTER COUNTY, WEST WHITELAND TOWNSHIP, COMMONWEALTH OF PENNSYLVANIA.

2. MAP ENTITLED "NATIONAL FLOOD INSURANCE PROGRAM, FIRM, FLOOD INSURANCE RATE MAP, CHESTER COUNTY, PENNSYLVANIA (ALL JURISDICTIONS), PANEL 150 OF 380", MAP NUMBER 42029C0150F, MAP REVISED: SEPTEMBER 29, 2006.

3. MAP ENTITLED "ALTA/ACSM LAND TITLE SURVEY, EXTON SQUARE, INC., WEST WHITELAND TOWNSHIP, CHESTER COUNTY, PENNSYLVANIA," PREPARED BY YERKES ASSOCIATES, INC., DATED OCTOBER 26, 2001, REVISED 11-27-01, SHEET 1 OF 13.

4. MAP ENTITLED "EXPANSION PLAN OF EXTON SQUARE MALL," PREPARED BY YERKES ASSOCIATES, INC., DATED NOVEMBER 21, 1995, REVISED 10/29/97, SHEET 1 OF 9.

5. MAP ENTITLED "WATER LINE EXTENSION CONTRACT NO. 2, WEST WHITELAND TOWNSHIP, CHESTER CO., PA" PREPARED BY ROY F. WESTON, INC., DATED 1-21-75, REVISED 6-5-75, DRG. NO 103, SHEETS 1 THROUGH 3 OF 3.

6. MAP SHOWING THE APPROXIMATE LOCATION OF BUCKEYE PIPELINE.

7. MAPS PROVIDED BY VERIZON SHOWING UNDERGROUND TELEPHONE LINE LOCATIONS.

8. MAP ENTITLED "MASTER LOCATORS PLAN, PLAN PREPARED FOR: EXTON SQUARE, INC. A SUBSIDIARY OF THE ROUSE COMPANY, WEST WHITELAND TOWNSHIP, CHESTER COUNTY, PENNSYLVANIA UTILITY PLAN", PREPARED BY YERKES ASSOCIATES, INC, DATED APRIL 4, 1998, SHEETS UT-1, UT-2 & UT-3.

DEMOLITION NOTES

1. THIS PLAN REFERENCES DOCUMENTS AND INFORMATION BY:

A.) CONTROL POINT ASSOCIATES, INC.
1600 MANOR DRIVE, SUITE 210
CHALFONT, PA 18914
ENTITLED: BOUNDARY & TOPOGRAPHIC SURVEY
PREPARED FOR: EXTON SQUARE MALL
FILE No. CP14375
SHEETS: 1-2 OF 2
DATED: 10-1-2015

B.) YERKES ASSOCIATES, INC.
1444 PHOENIXVILLE PIKE, P.O. BOX 1568
WEST CHESTER, PA 19380
ENTITLED: ALTA/ACSM LAND TITLE SURVEY
PREPARED FOR: EXTON SQUARE, INC.
FILE No. C-41-05-85
SHEETS: 1-13 OF 13
DATED: 10-26-2001; LAST REVISED 11-27-2001

2. CONTRACTOR SHALL PERFORM ALL WORK IN ACCORDANCE WITH THE REQUIREMENTS OF THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970, (29 U.S.C. 651 et seq.), AS AMENDED AND ANY MODIFICATIONS, AMENDMENTS OR REVISIONS TO SAME.

3. BOHLER ENGINEERING HAS NO CONTRACTUAL, LEGAL, OR OTHER RESPONSIBILITY FOR JOB SITE SAFETY OR JOB SITE SUPERVISION, OR ANYTHING RELATED TO SAME.

4. THE DEMOLITION PLAN IS INTENDED TO PROVIDE GENERAL INFORMATION, ONLY, REGARDING ITEMS TO BE DEMOLISHED AND/OR REMOVED. THE CONTRACTOR MUST ALSO REVIEW THE OTHER SITE PLAN DRAWINGS AND INCLUDE IN DEMOLITION ACTIVITIES ALL INCIDENTAL WORK NECESSARY FOR THE CONSTRUCTION OF THE NEW SITE IMPROVEMENTS.

5. CONTRACTOR MUST RAISE ANY QUESTIONS CONCERNING THE ACCURACY OR INTENT OF THESE PLANS OR SPECIFICATIONS, CONCERNS REGARDING THE APPLICABLE SAFETY STANDARDS, OR THE SAFETY OF THE CONTRACTOR OR THIRD PARTIES IN PERFORMING THE WORK ON THIS PROJECT, WITH BOHLER ENGINEERING, IN WRITING, AND RESPONDED TO BY BOHLER, IN WRITING, PRIOR TO THE INITIATION OF ANY SITE ACTIVITY AND ANY DEMOLITION ACTIVITY. ALL DEMOLITION ACTIVITIES MUST BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THESE PLANS AND SPECIFICATIONS AND ALL APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS, RULES, REQUIREMENTS, STATUTES, ORDINANCES AND CODES.

6. PRIOR TO STARTING ANY DEMOLITION, CONTRACTOR IS RESPONSIBLE FOR/TO:

A. OBTAINING ALL REQUIRED PERMITS AND MAINTAINING THE SAME ON SITE FOR REVIEW BY THE ENGINEER AND OTHER PUBLIC AGENCIES HAVING JURISDICTION THROUGHOUT THE DURATION OF THE PROJECT, SITE WORK AND DEMOLITION WORK.

7. ALL DEMOLITION ACTIVITIES ARE TO BE PERFORMED IN ACCORDANCE WITH THESE PLANS, SPECIFICATIONS, AND REFERENCED DOCUMENTS AS WELL AS ALL FEDERAL, STATE AND LOCAL REGULATIONS. ANY DISCREPANCIES OR DEVIATIONS SHALL BE IDENTIFIED BY THE CONTRACTOR TO THE ENGINEER IN WRITING FOR RESOLUTION PRIOR TO INITIATION OF ACTIVITY.

8. PRIOR TO STARTING ANY DEMOLITION CONTRACTOR IS RESPONSIBLE FOR/TO:

A. ENSURE COPIES OF ALL PERMITS AND APPROVALS ARE ON SITE FOR REVIEW.

B. THE REQUIRED SOIL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IN PLACE PRIOR TO SITE DISTURBANCE.

C. ALL UTILITIES AND SERVICES, INCLUDING BUT NOT LIMITED TO GAS, WATER, ELECTRIC, SANITARY AND STORM SEWER, TELEPHONE, CABLE, FIBER OPTIC CABLE, ETC. WITHIN THE LIMITS OF DISTURBANCE, SHALL BE VERTICALLY AND HORIZONTALLY LOCATED. THE CONTRACTOR SHALL USE AND COMPLY WITH THE REQUIREMENTS OF THE APPLICABLE UTILITY NOTIFICATION SYSTEM TO LOCATE ALL THE UNDERGROUND UTILITIES.

D. PROTECT AND MAINTAIN IN OPERATION, ALL ACTIVE SYSTEMS THAT ARE NOT BEING REMOVED DURING ALL DEMOLITION ACTIVITIES.

E. FAMILIARIZE THEMSELVES WITH THE APPLICABLE UTILITY SERVICE PROVIDER REQUIREMENT AND IS RESPONSIBLE FOR ALL COORDINATION REGARDING UTILITY DEMOLITION AS IDENTIFIED OR REQUIRED FOR PROJECT. THE CONTRACTOR SHALL PROVIDE THE OWNER WRITTEN NOTIFICATION THAT THE EXISTING UTILITIES AND SERVICES HAVE BEEN TERMINATED AND ABANDONED IN ACCORDANCE WITH JURISDICTION AND UTILITY COMPANY REQUIREMENTS.

F. COORDINATION WITH UTILITY COMPANIES REGARDING WORKING "OFF-PEAK" HOURS OR ON WEEKENDS AS MAY BE REQUIRED TO MINIMIZE THE IMPACT ON THE AFFECTED PARTIES.

G. A COMPLETE INSPECTION FOR CONTAMINANTS, BY A LICENSED ENVIRONMENTAL TESTING AGENCY, OF ALL BUILDINGS AND/OR STRUCTURES TO BE REMOVED SHALL BE DONE IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL ENVIRONMENTAL REGULATIONS. ALL CONTAMINATED SHALL BE REMOVED AND DISPOSED OF BY A FEDERALLY LICENSED CONTRACTOR IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS. ALL ENVIRONMENTAL WORK INCLUDING HAZARDOUS MATERIAL, SOILS, ASBESTOS, OR OTHER REFERENCED OR IMPLIED HEREIN IS SOLELY THE RESPONSIBILITY OF TH

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CHESTER COUNTY, PA
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RECORDER OF DEEDS
CHESTER COUNTY, PA
2016 SEP 30 PM 2:58

N

W E

S

POTTSTOWN PIKE
(A.K.A. S.R. 0100)
(A.K.A. L.R. 1417)
VARIABLE WIDTH R.O.W. (FROM 66'-TO-142')

T.M.P. 41-5-57
N/F LANDS OF
ALEXANDER STERLING
DB. 7062, PG. 1605

T.M.P. 41-5-57.2
N/F LANDS OF
HSL BENSENVILLE DEVCO, L.L.C.
D.B. 8761, PG. 1241

T.M.P. 41-5-59
N/F LANDS OF
EXTON COMMUNITY BAPTIST CHURCH
(FKA SEVENTH-DAY ADVENTIST)

MASONRY BUILDING
T.M.P. 41-5-85.4A
N/F LANDS OF
UNITED STATES POSTAL
D.B. 4504, PG. 13

1 STORY MASONRY BLDG.

N60°05'25"E 50.00'

N60°05'25"E 248.13'

N60°05'25"E 14.07'

IRON PIN w/CAP FOUND

CONC. MON. FOUND

10' WIDE PHILADELPHIA ELECTRIC EASEMENT

T.M.P. 41-5-90
N/F LANDS OF
DICK LIVING TRUST
D.B. 8905, PG. 961
PARCEL 'H'

1 STORY MASONRY BUILDING
"K-MART"
BUILDING FOOT PRINT AREA = 99,513± S.F.
(TBR)

1 STORY MASONRY BUILDING
POST OFFICE
B.F.E. = 319.0
GYPSUM = 10,962± S.F.
PARCEL B

STEPS

CtA

UudB

CtB

SIGN (TBR)

MH (TBR)
RIM=315.73

MH (TBR)
RIM=315.03

UP
#54549
(TO BE RELOCATED)

UP
#989150
(TO BE RELOCATED)

313

N40°05'45"W

20'-WIDE WATER LINE EASEMENT

T.M.P. 41-5-89.1
N/F LANDS OF
MALVERN FEDERAL
D.B. 4439, PG. 1573

BUILDING

O.H. CANOPY

COLUMN (TYP.)

CONC. STEPS

S58°07'53"W 205.49'

RR SPIKE FOUND

40'-WIDE ROAD/DRIVEWAY EASEMENT

LIMITS OF EXISTING UNDERGROUND INFILTRATION STORMWATER BASIN (TBR) -EQUIVALENT STORAGE VOLUME TO BE INSTALLED AS PART OF RE-DEVELOPMENT

S60°05'25"W

CONC. MON. FOUND

PARCEL 'G'

LIMITS OF EXISTING UNDERGROUND STORMWATER BASIN

T.M.P. 41-5-86
N/F LANDS OF
PR EXTON SQUARE PROPERTY LP
D.B. 4439, PG. 1579
PARCEL 'F'

C.L.F. (TBR)

50' WIDE TEPPCO PIPE LINE EASEMENT (FORMERLY ALLEGHENY PIPELINE)

"SEARS"
PARCEL

T.M.P. 41-5-85
N/F LANDS OF
PR EXTON SQUARE PROPERTY LP
D.B. 1140, PG. 385
PARCEL 'E'

PARKING GARAGE

O.H. CANOPY

COLUMN (TYP.)

50' WIDE BUCKEYE PIPE LINE EASEMENT (FORMERLY LAUREL PIPE LINE)

"BOSCOV'S"
PARCEL C

LINE LEGEND

- PROPERTY LINE
- LEGAL RIGHT-OF-WAY LINE
- EXIST. EASEMENT LINE
- EXIST. CURB
- EXIST. FENCE
- EXIST. OVERHEAD WIRE
- EXIST. STORM SEWER PIPE
- EXIST. SANITARY SEWER PIPE
- EXIST. GAS PIPE
- EXIST. VEGETATION
- SOILS DELINEATION LINE
- LIMIT OF DISTURBANCE
- SAWCUT LINE
- EXIST. ASPHALT PAVING (TO BE REMOVED/REPLACED)

UTILITIES:

THE FOLLOWING COMPANIES WERE NOTIFIED BY PENNSYLVANIA ONE CALL SYSTEM, INC. (1-800-242-1776) AND REQUESTED TO MARK OUT UNDERGROUND FACILITIES AFFECTING AND SERVICING THIS SITE. THE UNDERGROUND UTILITY INFORMATION SHOWN HEREON IS BASED UPON THE UTILITY COMPANIES RESPONSE TO THIS REQUEST.
SERIAL NUMBER(S): 20150911340

UTILITY COMPANY	PHONE NUMBER
AQUA PENNSYLVANIA, INC.	610-525-1400
BUCKEYE PIPELINE CORP.	800-441-2375
COMCAST CABLE COMMUNICATIONS, INC.	215-918-3137
ENTERPRISE PRODUCTS	607-936-1014
LEVEL 3	720-888-0165
PECO	610-292-8057
VERIZON	(215) 657-9260
WEST WHITELAND TOWNSHIP	610-363-9525

SOIL DESCRIPTIONS

SOIL	DESCRIPTION
CtA	- CONESTOGA SILT LOAM, 0 TO 3% SLOPES
CtB	- CONESTOGA SILT LOAM, 3 TO 8% SLOPES
UudB	- URBAN LAND-UDORTHENTS, LIMESTONE COMPLEX, 0 TO 8% SLOPES

60 30 15 0 60
1"= 60'

BOHLER ENGINEERING
SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN TRANSPORTATION SERVICES
PROGRAM MANAGEMENT
◆ PHILADELPHIA, PA
◆ UPSTATE NEW YORK
◆ NEW ENGLAND
◆ LEHIGH VALLEY, PA
◆ NEW YORK METRO
◆ REHOBOTH BEACH, DE
◆ NEW YORK, NY
◆ BALTIMORE, MD
◆ NEW JERSEY
◆ NORTHERN VIRGINIA
◆ CENTRAL VIRGINIA
◆ RALEIGH, NC
◆ CHARLOTTE, NC
◆ TAMPA, FL
◆ SOUTH FLORIDA
◆ SOUTHERN MARYLAND
THESE DRAWINGS ARE THE PROPERTY AND COPYRIGHT OF BOHLER ENGINEERING AND SHALL NOT BE REPRODUCED OR USED IN WHOLE OR IN PART WITHOUT THE WRITTEN AUTHORIZATION FROM BOHLER ENGINEERING. ONLY APPROVED, SIGNED AND SEALED PLANS SHALL BE UTILIZED FOR CONSTRUCTION PURPOSES.
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REVISIONS

REV	DATE	COMMENT	BY
2	12/14/15	GENERAL REVS	MAB
3	01/05/16	GENERAL REVS	DTL
4	01/15/16	PER CCCD COMMENTS	DTL
5	01/29/16	PER COMMENTS	DTL
6	03/03/16	PER CCCD COMMENTS	ACF
7	04/06/16	GENERAL REVS	DTL
8	04/21/16	GENERAL REVS	DTL
9	06/06/16	PER RECORD PLAN	DTL
10	07/13/16	GENERAL REVISIONS	DTL

CALL BEFORE YOU DIG!

PENNSYLVANIA LAW REQUIRES 3 WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND 10 WORKING DAYS IN DESIGN STAGE - STOP CALL

PA1 DIGITAL INC.
1-800-242-1776

POCS SERIAL NUMBER
20150911340

PROJECT No.: PP140558
DRAWN BY: J.P.W.
CHECKED BY: M.J.
DATE: 2015.10.19
SCALE: 1"=60'
CAD I.D.: PP140558BASE-10

PROJECT:

PRELIMINARY/FINAL LAND DEVELOPMENT PLANS

FOR

PR EXTON SQUARE PROPERTY LP

EXTON SQUARE MALL GROCERY STORE

260 EXTON SQUARE MALL
WEST WHITELAND TOWNSHIP
CHESTER COUNTY, PA

BOHLER ENGINEERING
1515 MARKET STREET, SUITE 920
PHILADELPHIA, PENNSYLVANIA 19102
Phone: (267) 402-3400
Fax: (267) 402-3401
www.BohlerEngineering.com

COMMONWEALTH OF PENNSYLVANIA
CORNELIUS BROWN
PROFESSIONAL ENGINEER
PROJECT MANAGER
PROFESSIONAL ENGINEER
PENNSYLVANIA LICENSE NO. PE078317

SHEET TITLE:

OVERALL EXISTING CONDITIONS PLAN

SHEET NUMBER:

9
OF 43

REVISION 10

DWL: P:\PP140558_CADD\LAND DEVREV\+RPP140558BASE-10-—LAYOUT: 09-OVRLEXIST

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RECORDER OF DEEDS
CHESTER COUNTY, PA
2016 SEP 30 PM 2:58

T.M.P. 41-5-57
N/F LANDS OF
ALEXANDER STERLING
D.B. 9082, PG. 1809

T.M.P. 41-5-57.2
N/F LANDS OF
100, BRENTWOOD ASSOCIATES, L.P.
D.B. 4103, PG. 1344

T.M.P. 41-5-59
N/F LANDS OF
EXTON COMMUNITY BAPTIST CHURCH
(DEED INFO NOT AVAILABLE)

T.M.P. 41-5-90
N/F LANDS OF
DICK LIVING TRUST
D.B. 8905, PG. 961
PARCEL 'H'

CtA
CtB
UudB
UudB

POTTSTOWN PIKE
(A.K.A. S.R. 0100)
(A.K.A. L.R. 147)
(VARIABLE WIDTH R.O.W. FROM 98' TO 112')

1 STORY
MASONRY BUILDING
"K-MART"
BUILDING EGDT FRONT AREA = 99,513± S.F.
(TBR)

10' WIDE PHILADELPHIA ELECTRIC EASEMENT

EXIST. PIPE TO BE ABANDONED IN PLACE

OUTFLOW PIPE OPENING TO BE BLOCKED & PIPE ABANDONED IN PLACE

SEE SHEET (B)

KEY MAP
1"=400'
200' 0 400'

LINE LEGEND

- PROPERTY LINE
- LEGAL RIGHT-OF-WAY LINE
- EXIST. EASEMENT LINE
- EXIST. CURB
- EXIST. FENCE
- EXIST. OVERHEAD WIRE
- EXIST. STORM SEWER PIPE
- EXIST. SANITARY SEWER PIPE
- EXIST. GAS PIPE
- EXIST. VEGETATION
- SOILS DELINEATION LINE
- LIMIT OF DISTURBANCE
- SAWCUT LINE
- EXIST. ASPHALT PAVING (TO BE REMOVED/REPLACED)

SYMBOL LEGEND

- EXIST. INLET
- EXIST. MANHOLE
- EXIST. FIRE HYDRANT
- EXIST. WATER VALVE
- EXIST. UNKNOWN VALVE
- EXIST. SIGN
- EXIST. LIGHT POLE
- EXIST. CLEANOUT
- EXIST. PARKING COUNT
- EXIST. CONCRETE MONUMENT
- EXIST. TREE
- EXIST. UTILITY POLE
- EXIST. TRAFFIC SIGNAL POLE
- EXIST. SPOT ELEVATION
- EXIST. TOP OF CURB ELEVATION
- EXIST. GUTTER ELEVATION
- EXIST. TOP OF WALL ELEVATION
- EXIST. FINISHED FLOOR ELEVATION
- L.S.A. EXIST. LANDSCAPED AREA
- S.W.L. EXIST. SOLID WHITE LINE
- S.Y.L. EXIST. SOLID YELLOW LINE
- D.Y.L. EXIST. DOUBLE YELLOW LINE
- D.C. EXIST. DEPRESSED CURB
- CtB SOILS TYPE
- (TBR) ITEM TO BE REMOVED

UTILITIES:

THE FOLLOWING COMPANIES WERE NOTIFIED BY PENNSYLVANIA ONE CALL SYSTEM, INC. (1-800-242-1776) AND REQUESTED TO MARK OUT UNDERGROUND FACILITIES AFFECTING AND SERVICING THIS SITE. THE UNDERGROUND UTILITY INFORMATION SHOWN HEREON IS BASED UPON THE UTILITY COMPANIES RESPONSE TO THIS REQUEST.
SERIAL NUMBER(S): 20150911340

UTILITY COMPANY	PHONE NUMBER
AQUA PENNSYLVANIA, INC.	610-525-1400
BUCKEYE PIPELINE CORP.	800-441-2375
COMCAST CABLE COMMUNICATIONS, INC.	215-918-3137
ENTERPRISE PRODUCTS	607-936-1014
LEVEL 3	720-888-0165
PECO	610-292-8057
VERIZON	(215) 657-9260
WEST WHITELAND TOWNSHIP	610-363-9525

SOIL DESCRIPTIONS

SOIL	DESCRIPTION
CtA	- CONESTOGA SILT LOAM, 0 TO 3% SLOPES
CtB	- CONESTOGA SILT LOAM, 3 TO 8% SLOPES
UudB	- URBAN LAND-UDORTHENTS, LIMESTONE COMPLEX, 0 TO 8% SLOPES

30 15 7.5 0 30
1"=30'

PRELIMINARY
NOT FOR CONSTRUCTION

BOHLER ENGINEERING
SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN PERMITTING SERVICES TRANSPORTATION SERVICES
UPSTATE NEW YORK: PHILADELPHIA, PA; NORTHERN VIRGINIA
LONG ISLAND; SOUTHEASTERN, PA; HAMPTON ROADS, VIRGINIA
BOSTON, MA; RALEIGH, NC
NEW YORK METRO; CHARLOTTE, NC
ALBANY, NY; REHOBOTH BEACH, DE
NEW JERSEY; SOUTHERN MARYLAND
SOUTH FLORIDA

THE INFORMATION SHOWN HEREON IS FOR PLAN REVIEW PURPOSES ONLY AND SHALL NOT BE CONSTRUED AS BEING APPROVED FOR CONSTRUCTION UNLESS SPECIFICALLY STATED ON THE PLANS. ANY UNAUTHORIZED USE OF THESE PLANS IS AT THE SOLE RISK OF THE USER AND WITHOUT LIABILITY TO BOHLER ENGINEERING. © BOHLER ENGINEERING, 2015

REVISIONS

REV	DATE	COMMENT	BY
2	12/14/15	GENERAL REVS	MAB
3	01/05/16	GENERAL REVS	DTL
4	01/15/16	PER CCCD COMMENTS	DTL
5	01/29/16	PER COMMENTS	DTL
6	03/03/16	PER CCCD COMMENTS	AGF
7	04/06/16	GENERAL REVS	DTL
8	04/21/16	GENERAL REVS	DTL
9	06/06/16	PER RECORD PLAN	DTL
10	07/13/16	GENERAL REVISIONS	DTL

CALL BEFORE YOU DIG!

PENNSYLVANIA LAW REQUIRES 3 WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND 10 WORKING DAYS IN DESIGN STAGE - STOP CALL

PA1 PAONE.INC 1-800-242-1776

POCS SERIAL NUMBER
20150911340

PROJECT No.: PP140558
DRAWN BY: J.P.W.
CHECKED BY: M.J.
DATE: 2015.10.19
SCALE: 1"=30'
CAD I.D.: PP140558BASE-10

PROJECT:

PRELIMINARY/FINAL LAND DEVELOPMENT PLANS

FOR

PR EXTON SQUARE PROPERTY LP

EXTON SQUARE MALL GROCERY STORE

260 EXTON SQUARE MALL
WEST WHITELAND TOWNSHIP
CHESTER COUNTY, PA

BOHLER ENGINEERING
1515 MARKET STREET, SUITE 920
PHILADELPHIA, PENNSYLVANIA 19102
Phone: (267) 402-3400
Fax: (267) 402-3401
www.BohlerEngineering.com

CORNELIUS BROWN
PROFESSIONAL ENGINEER
PROJECT MANAGER
PENNSYLVANIA LICENSE NO. GE075317

SHEET TITLE:

EXISTING CONDITIONS PLAN (A)

SHEET NUMBER:

10
OF 43

REVISION 10

DL R:\14\PP140558_CAD\LAND DEV\REV-10\PP140558BASE-10-----3-LAYOUT 10-EXIST

11520444_B: 20031 P: 1: SDP
Oct 08, 2015 - 2:58:28 PM
Page 10 of 43

SEE SHEET (A)

SEE SHEET (C)

RECORDER OF DEEDS
CHESTER COUNTY, PA
2015 SEP 30 2:58 PM

POTTSTOWN PIKE
(A.K.A. S.R. 0100)
(A.K.A. L.R. 147)
(VARIABLE WIDTH R.O.W FROM 66' TO 110')

CtA
CtB
UudB

T.M.P. 41-5-90
N/F LANDS OF
DICK LIVING TRUST
D.B. 8305, PG. 961
PARCEL 'H'

T.M.P. 41-5-89.1
N/F LANDS OF
MALVERN FEDERAL
D.B. 4439, PG. 1573

1 STORY
MASONRY BUILDING
"K-MART"
BUILDING FOOT PRINT AREA = 99,513± S.F.
(TBR)

S60°05'25"W 201.40'

N 51°54'36"E 167.51'

40' WIDE ROAD/DRIVEWAY EASEMENT

50' WIDE BUCKEYE PIPE LINE EASEMENT (FORMERLY LAUREL PIPE LINE)

245.6'

KEY MAP
1"=400'
200' 0 400'

N
W E
S

LINE LEGEND

- PROPERTY LINE
- LEGAL RIGHT-OF-WAY LINE
- EXIST. EASEMENT LINE
- EXIST. CURB
- EXIST. FENCE
- EXIST. OVERHEAD WIRE
- EXIST. STORM SEWER PIPE
- EXIST. SANITARY SEWER PIPE
- EXIST. GAS PIPE
- EXIST. VEGETATION
- SOILS DELINEATION LINE
- LIMIT OF DISTURBANCE
- SAWCUT LINE
- EXIST. ASPHALT PAVING (TO BE REMOVED/REPLACED)

SYMBOL LEGEND

- EXIST. INLET
- EXIST. MANHOLE
- EXIST. FIRE HYDRANT
- EXIST. WATER VALVE
- EXIST. UNKNOWN VALVE
- EXIST. SIGN
- EXIST. LIGHT POLE
- EXIST. CLEANOUT
- EXIST. PARKING COUNT
- EXIST. CONCRETE MONUMENT
- EXIST. TREE
- EXIST. UTILITY POLE
- EXIST. TRAFFIC SIGNAL POLE
- EXIST. SPOT ELEVATION
- EXIST. TOP OF CURB ELEVATION
- EXIST. GUTTER ELEVATION
- EXIST. TOP OF WALL ELEVATION
- EXIST. FINISHED FLOOR ELEVATION
- L.S.A. EXIST. LANDSCAPED AREA
- S.W.L. EXIST. SOLID WHITE LINE
- S.Y.L. EXIST. SOLID YELLOW LINE
- D.Y.L. EXIST. DOUBLE YELLOW LINE
- D.C. EXIST. DEPRESSED CURB
- CtB SOILS TYPE
- (TBR) ITEM TO BE REMOVED

UTILITIES:

THE FOLLOWING COMPANIES WERE NOTIFIED BY PENNSYLVANIA ONE CALL SYSTEM, INC. (1-800-242-1776) AND REQUESTED TO MARK OUT UNDERGROUND FACILITIES AFFECTING AND SERVICING THIS SITE. THE UNDERGROUND UTILITY INFORMATION SHOWN HEREON IS BASED UPON THE UTILITY COMPANIES RESPONSE TO THIS REQUEST.
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ENTERPRISE PRODUCTS	607-936-1014
LEVEL 3	720-888-0165
PECO	610-292-8057
VERIZON	(215) 657-9260
WEST WHITELAND TOWNSHIP	610-363-9525

SOIL DESCRIPTIONS

SOIL	DESCRIPTION
CtA	- CONESTOGA SILT LOAM, 0 TO 3% SLOPES
CtB	- CONESTOGA SILT LOAM, 3 TO 8% SLOPES
UudB	- URBAN LAND-UDORTHENTS, LIMESTONE COMPLEX, 0 TO 8% SLOPES

30 15 7.5 0 30
1"=30'

BOHLER ENGINEERING
SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING LANDSCAPE ARCHITECTURE
SUSTAINABILITY PROGRAM MANAGEMENT TRANSPORTATION
◆ UPSTATE NEW YORK ◆ NORTHERN VIRGINIA
◆ NEW ENGLAND ◆ PHILADELPHIA, PA ◆ CENTRAL VIRGINIA
◆ LEHIGH VALLEY, PA ◆ HARRISBURG, PA ◆ RALEIGH
◆ NEW YORK METRO ◆ REHOBOTH BEACH, DE ◆ CHARLOTTE, NC
◆ NEW YORK, NY ◆ BALTIMORE, MD ◆ TAMPA, FL
◆ LONG ISLAND ◆ WASHINGTON, MARYLAND ◆ ORLANDO, FLORIDA

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REVISIONS

REV	DATE	COMMENT	BY
2	12/14/15	GENERAL REVS	MAB
3	01/05/16	GENERAL REVS	DTL
4	01/15/16	PER CCCD COMMENTS	DTL
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6	03/03/16	PER CCCD COMMENTS	ACF
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8	04/21/16	GENERAL REVS	DTL
9	06/06/16	PER RECORD PLAN	DTL
10	07/13/16	GENERAL REVISIONS	DTL

CALL BEFORE YOU DIG!

PENNSYLVANIA LAW REQUIRES 3 WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND 10 WORKING DAYS IN DESIGN STAGE - STOP CALL

PA1 one call inc.
1-800-242-1776

POCS SERIAL NUMBER
20150911340

PROJECT No.: PP140568
DRAWN BY: J.P.W.
CHECKED BY: M.J.
DATE: 2015.10.19
SCALE: 1"=30'
CAD I.D.: PP140558BASE-10

PROJECT:

PRELIMINARY/FINAL LAND DEVELOPMENT PLANS

FOR

PR EXTON SQUARE PROPERTY LP

EXTON SQUARE MALL GROCERY STORE

260 EXTON SQUARE MALL
WEST WHITELAND TOWNSHIP
CHESTER COUNTY, PA

BOHLER ENGINEERING
1515 MARKET STREET, SUITE 920
PHILADELPHIA, PENNSYLVANIA 19102
Phone: (267) 402-3400
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COMMONWEALTH OF PENNSYLVANIA
CORNELIUS BROWN
PE075317
PROFESSIONAL ENGINEER
PENNSYLVANIA LICENSE NO. PE075317

SHEET TITLE:

EXISTING CONDITIONS PLAN (B)

SHEET NUMBER:

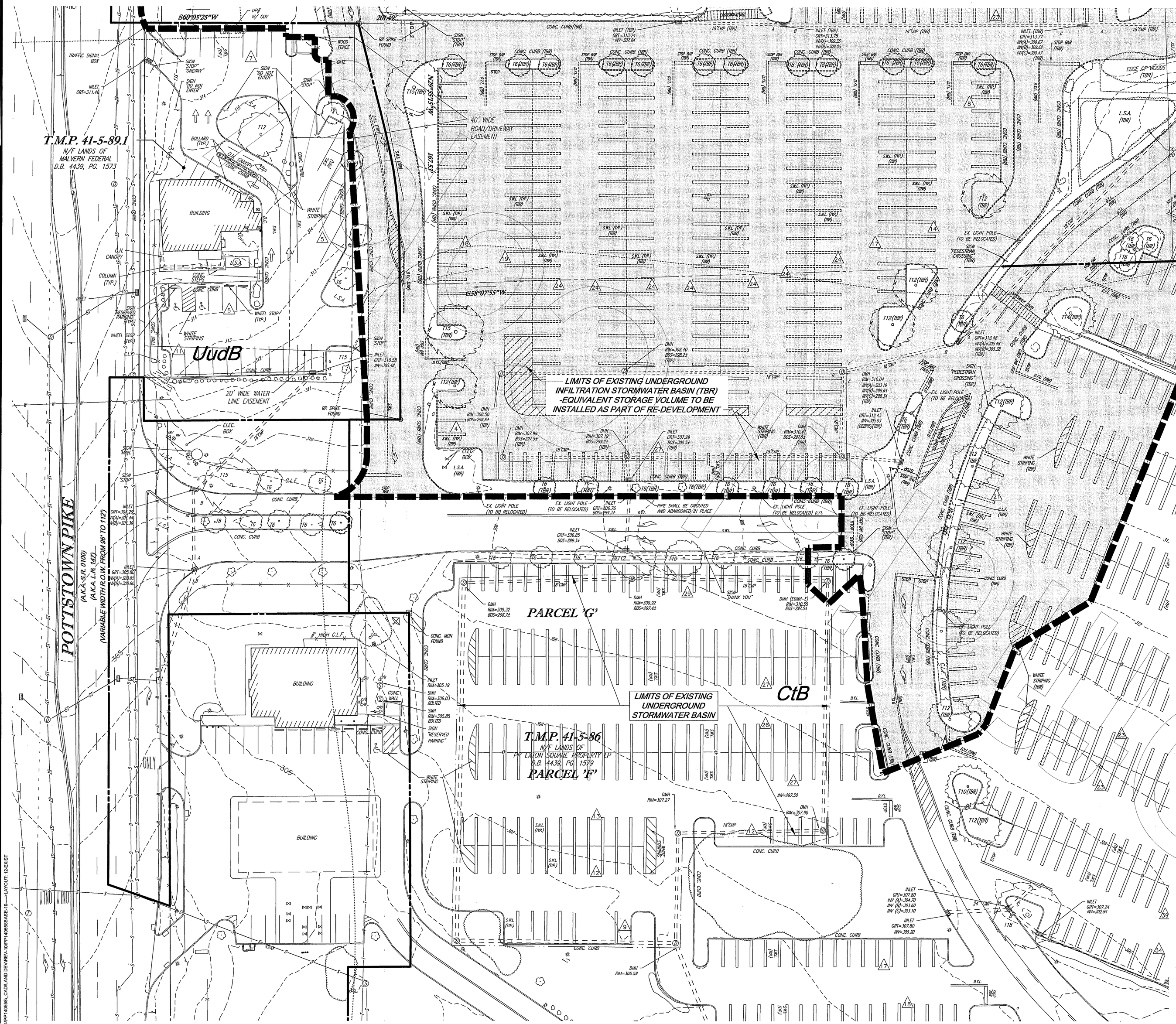
11
OF 43

REVISION 10

R:\SDP\PP140558_CAROLAND DEVREV-WPP\140558BASE-10 — LAYOUT: 11-EXIST

11503444 B: 20031 P: 1, SDP
09/30/2015 02:52 PM
Page 13 of 44

SEE SHEET (B)



KEY MAP
1"=400'
200' 0 400'

REVISIONS

REV	DATE	COMMENT	BY
2	12/14/15	GENERAL REVS	MAB
3	01/05/16	GENERAL REVS	DTL
4	01/15/16	PER CCCD COMMENTS	DTL
5	01/29/16	PER COMMENTS	DTL
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8	04/21/16	GENERAL REVS	DTL
9	06/06/16	PER RECORD PLAN	DTL
10	07/13/16	GENERAL REVISIONS	DTL

LINE LEGEND

- PROPERTY LINE
- LEGAL RIGHT-OF-WAY LINE
- EXIST. EASEMENT LINE
- EXIST. CURB
- EXIST. FENCE
- EXIST. OVERHEAD WIRE
- EXIST. STORM SEWER PIPE
- EXIST. SANITARY SEWER PIPE
- EXIST. GAS PIPE
- EXIST. VEGETATION
- SOILS DELINEATION LINE
- LIMIT OF DISTURBANCE
- SAWCUT LINE
- EXIST. ASPHALT PAVING (TO BE REMOVED/REPLACED)

SYMBOL LEGEND

	EXIST. INLET		EXIST. SPOT ELEVATION
	EXIST. MANHOLE		EXIST. TOP OF CURB ELEVATION
	EXIST. FIRE HYDRANT		EXIST. GUTTER ELEVATION
	EXIST. WATER VALVE		EXIST. TOP OF WALL ELEVATION
	EXIST. UNKNOWN VALVE		EXIST. FINISHED FLOOR ELEVATION
	EXIST. SIGN	L.S.A.	EXIST. LANDSCAPED AREA
	EXIST. LIGHT POLE	S.W.L.	EXIST. SOLID WHITE LINE
	EXIST. CLEANOUT	S.Y.L.	EXIST. SOLID YELLOW LINE
	EXIST. PARKING COUNT	D.Y.L.	EXIST. DOUBLE YELLOW LINE
	EXIST. CONCRETE MONUMENT	D.C.	EXIST. DEPRESSED CURB
	EXIST. TREE	CtB	SOILS TYPE
	EXIST. UTILITY POLE	(TBR)	ITEM TO BE REMOVED
	EXIST. TRAFFIC SIGNAL POLE		

UTILITIES:

THE FOLLOWING COMPANIES WERE NOTIFIED BY PENNSYLVANIA ONE CALL SYSTEM, INC. (1-800-242-1776) AND REQUESTED TO MARK OUR UNDERGROUND FACILITIES AFFECTING AND SERVICING THIS SITE. THE UNDERGROUND UTILITY INFORMATION SHOWN HEREON IS BASED UPON THE UTILITY COMPANIES RESPONSE TO THIS REQUEST.
SERIAL NUMBER(S): 20150911340

UTILITY COMPANY	PHONE NUMBER
AQUA PENNSYLVANIA, INC.	610-525-1400
BUCKEYE PIPELINE CORP.	800-441-2375
COMCAST CABLE COMMUNICATIONS, INC.	215-918-3137
ENTERPRISE PRODUCTS	607-936-1014
LEVEL 3	720-888-0165
PECO	610-292-8057
VERIZON	(215) 657-9260
WEST WHITELAND TOWNSHIP	610-363-8525

SOIL DESCRIPTIONS

SOIL	DESCRIPTION
ClA	- CONESTOGA SILT LOAM, 0 TO 3% SLOPES
ClB	- CONESTOGA SILT LOAM, 3 TO 8% SLOPES
UudB	- URBAN LAND-UDORTHENTS, LIMESTONE COMPLEX, 0 TO 8% SLOPES

30 15 7.5 0 30
1"=30'

BOHLER ENGINEERING
SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
SUSTAINABILITY
LANDSCAPE ARCHITECTURE
PROGRAM MANAGEMENT
TRANSPORTATION SERVICES
ZONING/PERMITTING
◆ UPSTATE NEW YORK
◆ NEW ENGLAND
◆ BOSTON, MA
◆ PHILADELPHIA, PA
◆ LEHIGH VALLEY, PA
◆ SOUTHEASTERN PA
◆ NEW YORK, NY
◆ NEW JERSEY
◆ PHILADELPHIA, PA
◆ CENTRAL VIRGINIA
◆ RALEIGH, NC
◆ CHARLOTTE, NC
◆ TAMPA, FL
◆ SOUTH FLORIDA
◆ BALTIMORE, MD
◆ SOUTHERN MARYLAND

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PROJECT No.:	PP140558
DRAWN BY:	J.P.W.
CHECKED BY:	M.J.
DATE:	2015.10.19
SCALE:	1"=30'
CAD I.D.:	PP140558BASE-10

PROJECT:

PRELIMINARY/FINAL LAND DEVELOPMENT PLANS

FOR

PR EXTON SQUARE PROPERTY LP

EXTON SQUARE MALL GROCERY STORE

260 EXTON SQUARE MALL
WEST WHITELAND TOWNSHIP
CHESTER COUNTY, PA

BOHLER ENGINEERING
1515 MARKET STREET, SUITE 920
PHILADELPHIA, PENNSYLVANIA 19102
Phone: (267) 402-3400
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www.BohlerEngineering.com

COMMONWEALTH OF PENNSYLVANIA
CORNELIUS BROWN
PROFESSIONAL ENGINEER
PROFESSIONAL ENGINEER
PENNSYLVANIA LICENSE NO. PE075317

SHEET TITLE:

EXISTING CONDITIONS PLAN (C)

SHEET NUMBER:

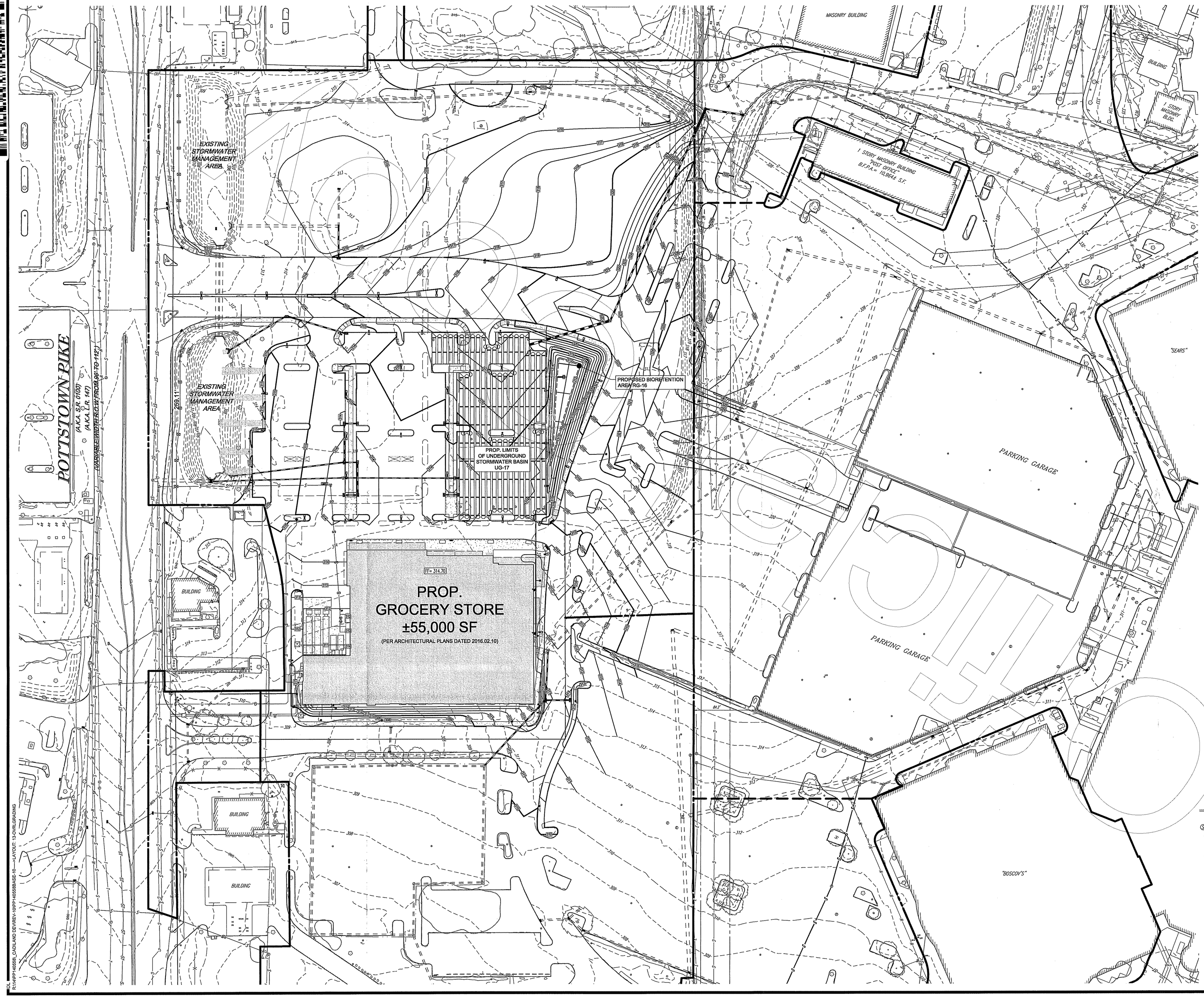
12
OF 43

REVISION 10

R:\PP140558_CADD\LAND DEV\REV-10\PP140558BASE-10—LAYOUT: 12-EXIST

11590444 B: 20031 P: 1, 5DP
09/30/2016 02:58 PM
Page 14 of 44

RECORDER OF DEEDS
CHESTER COUNTY, PA
2016 SEP 30 PM 2:58



NOTES

1. SEE SHEET 8 FOR GRADING NOTES.

LINE LEGEND

- PROPERTY LINE
- LEGAL RIGHT-OF-WAY LINE
- EXIST. CURB
- EXIST. FENCE
- EXIST. CONTOUR LINE
- EXIST. STORM SEWER PIPE
- PROP. CONTOUR LINE
- PROP. STORM SEWER PIPE
- PROP. FLUSH CURB
- PROP. CURB
- PROP. WOOD GUIDERAIL

SYMBOL LEGEND

- EXIST. INLET
- EXIST. MANHOLE
- EXIST. FIRE HYDRANT
- EXIST. WATER VALVE
- EXIST. UNKNOWN VALVE
- EXIST. LIGHT POLE
- EXIST. CLEANOUT
- PROP. STORM INLET
- PROP. MANHOLE
- PROP. ROOFDRAIN
- PROP. CLEANOUT
- PROP. FIRE HYDRANT
- PROP. BOLLARD
- PROP. CART CORRAL
- PROP. AREA LIGHT
- PROP. TRANSFORMER

60 30 15 0 60
1" = 60'

BOHLER ENGINEERING
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LAND PLANNING AND DESIGN
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TRANSPORTATION AND TRAFFIC ENGINEERING
◆ UPSTATE NEW YORK
◆ NEW ENGLAND
◆ LONG ISLAND
◆ NEW YORK METRO
◆ NEW YORK, NY
◆ NEW JERSEY
◆ PHILADELPHIA, PA
◆ LEHIGH VALLEY, PA
◆ CENTRAL PENNSYLVANIA
◆ REHOBOTH BEACH, DE
◆ BALTIMORE, MD
◆ ANNAPOLIS JUNCTION, MARYLAND
◆ NORTHERN VIRGINIA
◆ CENTRAL VIRGINIA
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◆ TAMPA, FL
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REVISIONS

REV	DATE	COMMENT	BY
2	12/14/15	GENERAL REVS	MAB
3	01/05/16	GENERAL REVS	DTL
4	01/15/16	PER CCCD COMMENTS	DTL
5	01/29/16	PER COMMENTS	DTL
6	03/03/16	PER CCCD COMMENTS	ACF
7	04/06/16	GENERAL REVS	DTL
8	04/21/16	GENERAL REVS	DTL
9	06/06/16	PER RECORD PLAN	DTL
10	07/13/16	GENERAL REVISIONS	DTL

CALL BEFORE YOU DIG!

PENNSYLVANIA LAW REQUIRES 3 WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND 10 WORKING DAYS IN DESIGN STAGE - STOP CALL

PA 1 CALL INC. 1-800-242-1776

POCS SERIAL NUMBER 20150911340

PROJECT No.: PP140558
DRAWN BY: J.P.W.
CHECKED BY: M.J.
DATE: 2015.10.19
SCALE: 1"=60'
CAD I.D.: PP140558BASE-10

PROJECT:

PRELIMINARY/FINAL LAND DEVELOPMENT PLANS

FOR

PR EXTON SQUARE PROPERTY LP

EXTON SQUARE MALL GROCERY STORE

260 EXTON SQUARE MALL
WEST WHITELAND TOWNSHIP
CHESTER COUNTY, PA

BOHLER ENGINEERING
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Phone: (267) 402-3400
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COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER CORNELIUS BROWN
PROFESSIONAL ENGINEER
PENNSYLVANIA LICENSE No. PE070517

SHEET TITLE:

OVERALL GRADING PLAN

SHEET NUMBER:

13
OF 43

REVISION 10

DWG: P:\PP140558_CADD_LAND DEVREV\~WPP140558BASE-10-----LAYOUT: 13-OVRL GRADING

15036444 B: 20031 P: 1 SDP
09/30/2016 02:58 PM Pg 1 of 43
RECORDER OF DEEDS
CHESTER COUNTY, PA
2016 SEP 30 PM 2:58

POTTSTOWN PIKE
(AKA S.R. 0100)
(AKA L.R. 147)
(VARIABLE WIDTH R.O.W FROM 96' TO 112')

PROPOSED POST AND RAIL FENCE TO MATCH EXISTING FENCE SURROUNDING MALL PROPERTY (REFER TO DETAIL ON SHEET 34)

EXISTING STORMWATER MANAGEMENT AREA

INLET (TO BE REPLACED) GRT=322.05

INLET (TO BE REPLACED) GRT=322.55

INLET GRT=327.56

EXIST. HYDRANT AND VALVE TO BE RESET

PROP. 5' CURB CUT

SEE SHEET (B)

KEY MAP
1"=400'
200' 0 400'

LINE LEGEND

- PROPERTY LINE
- LEGAL RIGHT-OF-WAY LINE
- EXIST. CURB
- EXIST. FENCE
- EXIST. CONTOUR LINE
- EXIST. STORM SEWER PIPE
- PROP. CONTOUR LINE
- PROP. STORM SEWER PIPE
- PROP. FLUSH CURB
- PROP. CURB
- PROP. WOOD GUIDERAIL

SYMBOL LEGEND

EXIST. INLET	PROP. STORM INLET
EXIST. MANHOLE	PROP. MANHOLE
EXIST. FIRE HYDRANT	PROP. ROOFDRAIN
EXIST. WATER VALVE	PROP. CLEANOUT
EXIST. UNKNOWN VALVE	PROP. SIGN
EXIST. SIGN	PROP. FIRE HYDRANT
EXIST. LIGHT POLE	PROP. A.D.A. PARKING SYMBOL
EXIST. CLEANOUT	PROP. BOLLARD
EXIST. SPOT ELEVATION	PROP. CART CORRAL
EXIST. TOP OF CURB ELEVATION	PROP. AREA LIGHT
EXIST. GUTTER ELEVATION	PROP. TRANSFORMER
EXIST. TOP OF WALL ELEVATION	
EXIST. TOP OF WALL ELEVATION	
EXIST. FINISHED FLOOR ELEVATION	

30 15 7.5 0 30
1"=30'

BOHLER ENGINEERING
SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
PROGRAM MANAGEMENT
SUSTAINABLE DESIGN
LANDSCAPE ARCHITECTURE
PERMITTING SERVICES
TRANSPORTATION SERVICES
◆ PHILADELPHIA, PA
◆ UPSTATE NEW YORK
◆ SOUTHEASTERN, PA
◆ BOSTON, MA
◆ NEW YORK METRO
◆ NEW JERSEY
◆ NORTHERN VIRGINIA
◆ CENTRAL VIRGINIA
◆ RALEIGH, NC
◆ CHARLOTTE, NC
◆ TAMPA
◆ SOUTH FLORIDA
◆ SOUTHERN MARYLAND

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REVISIONS

REV	DATE	COMMENT	BY
2	12/14/15	GENERAL REVS	MAB
3	01/05/16	GENERAL REVS	DTL
4	01/15/16	PER CCCD COMMENTS	DTL
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8	04/21/16	GENERAL REVS	DTL
9	06/06/16	PER RECORD PLAN	DTL
10	07/13/16	GENERAL REVISIONS	DTL

CALL BEFORE YOU DIG!
PENNSYLVANIA LAW REQUIRES 3 WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND 10 WORKING DAYS IN DESIGN STAGE - STOP CALL
PA1 (STATEWIDE) 1-800-242-1776
POCS SERIAL NUMBER 20150911340

PROJECT No.: PP140558
DRAWN BY: J.P.W.
CHECKED BY: M.J.
DATE: 2015.10.19
SCALE: 1"=30'
CAD I.D.: PP140558BASE-10

PROJECT:

PRELIMINARY/FINAL LAND DEVELOPMENT PLANS

FOR

PR EXTON SQUARE PROPERTY LP

EXTON SQUARE MALL GROCERY STORE

260 EXTON SQUARE MALL
WEST WHITELAND TOWNSHIP
CHESTER COUNTY, PA

BOHLER ENGINEERING
1515 MARKET STREET, SUITE 920
PHILADELPHIA, PENNSYLVANIA 19102
Phone: (267) 402-3400
Fax: (267) 402-3401
www.BohlerEngineering.com

COMMONWEALTH OF PENNSYLVANIA
CORNELIUS BROWN
PE075317
PROFESSIONAL ENGINEER
PENNSYLVANIA LICENSE NO. PE075317

SHEET TITLE:
GRADING PLAN (A)

SHEET NUMBER:
14
OF 43

REVISION 10

Not to be used for construction

DL
R:\14\PP140558_CADD\LAND DEV\REV-10\PP140558BASE-10——LAYOUT: 14-GRADING

11592644 B: 20031 P: 1 SDP
10/01/2015 2:58:58 PM
DPRR 1 PAGE

SEE SHEET (A)

RECORDER OF DEEDS
CHESTER COUNTY, PA
2016 SEP 30 PM 2:58

POTTSTOWN PIKE
(A.K.A. S.R. 0100)
(A.K.A. L.R. 147)
(VARIABLE WIDTH R.O.W. FROM 66' TO 112')

PROPOSED POST AND RAIL FENCE TO MATCH EXISTING FENCE SURROUNDING MALL PROPERTY (REFER TO DETAIL ON SHEET 34)

EXISTING STORMWATER MANAGEMENT AREA

ORIFICE PLATE TO BE INSTALLED W/ 8" ORIFICE @ INV. ELEV=312.00

ORIFICE PLATE TO BE INSTALLED OVER EXIST. PIPE OPENING W/ 14" ORIFICE @ INV. ELEV=304.01

HEADWALL (#MH-9) TO REMAIN

PROP. LIMITS OF UNDERGROUND STORMWATER BASIN

PROPOSED BIORETENTION AREA

FF= 314.70

PROP. GROCERY STORE ±55,000 SF

(PER ARCHITECTURAL PLANS DATED 2016.02.10)

SEE SHEET (C)

KEY MAP
1"=400'
200' 0 400'

LINE LEGEND

- PROPERTY LINE
- LEGAL RIGHT-OF-WAY LINE
- EXIST. CURB
- EXIST. FENCE
- EXIST. CONTOUR LINE
- EXIST. STORM SEWER PIPE
- PROP. CONTOUR LINE
- PROP. STORM SEWER PIPE
- PROP. FLUSH CURB
- PROP. CURB
- PROP. WOOD GUIDERAIL

SYMBOL LEGEND

- EXIST. INLET
- EXIST. MANHOLE
- EXIST. FIRE HYDRANT
- EXIST. WATER VALVE
- EXIST. UNKNOWN VALVE
- EXIST. SIGN
- EXIST. LIGHT POLE
- EXIST. CLEANOUT
- EXIST. SPOT ELEVATION
- EXIST. TOP OF CURB ELEVATION
- EXIST. GUTTER ELEVATION
- EXIST. TOP OF WALL ELEVATION
- EXIST. TOP OF WALL ELEVATION
- EXIST. FINISHED FLOOR ELEVATION
- PROP. STORM INLET
- PROP. MANHOLE
- PROP. ROOFDRAIN
- PROP. CLEANOUT
- PROP. SIGN
- PROP. FIRE HYDRANT
- PROP. A.D.A. PARKING SYMBOL
- PROP. BOLLARD
- PROP. CART CORRAL
- PROP. AREA LIGHT
- PROP. TRANSFORMER

30 15 7.5 0 30
1"=30'

BOHLER ENGINEERING
SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
LANDSCAPE ARCHITECTURE
TRANSPORTATION DESIGN
PROGRAM MANAGEMENT
◆ UPSTATE NEW YORK
◆ NEW ENGLAND
◆ NEW YORK METRO
◆ NEW YORK, NY
◆ NEW JERSEY
◆ PHILADELPHIA, PA
◆ LEHIGH VALLEY, PA
◆ HARRISBURG, PA
◆ REHOBOTH BEACH, DE
◆ BALTIMORE, MD
◆ ANNAPOLIS, MARYLAND
◆ NORTHERN VIRGINIA
◆ CENTRAL VIRGINIA
◆ RALEIGH, NC
◆ CHARLOTTE, NC
◆ TAMPA, FL
◆ ATLANTA, GEORGIA

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REVISIONS

REV	DATE	COMMENT	BY
2	12/14/15	GENERAL REVS	MAB
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8	04/21/16	GENERAL REVS	DTL
9	06/06/16	PER RECORD PLAN	DTL
10	07/13/16	GENERAL REVISIONS	DTL

CALL BEFORE YOU DIG!

PENNSYLVANIA LAW REQUIRES 3 WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND 10 WORKING DAYS IN DESIGN STAGE - STOP CALL

PA1 SYSTEM, INC. 1-800-242-1776

PDCS SERIAL NUMBER 20150911340

PROJECT No.: PP140558
DRAWN BY: J.P.W.
CHECKED BY: M.J.
DATE: 2015.10.19
SCALE: 1"=30'
CAD I.D.: PP140558BASE-10

PROJECT:

PRELIMINARY/FINAL LAND DEVELOPMENT PLANS

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COMMONWEALTH OF PENNSYLVANIA
CORNELIUS BROWN
A PROFESSIONAL NAME
ENGINEER
LICENSE NUMBER
PROFESSIONAL ENGINEER
PENNSYLVANIA LICENSE NO. PE075317

SHEET TITLE:
GRADING PLAN (B)

SHEET NUMBER:
15
OF 43

REVISION 10

COPY

R:\XFP\PP140558_CADD_LAND DEV\REV-10\PP140558BASE-10——LAYOUT: 15-GRADING

1456064444 B. 28031 P. 1 SP
03/29/2016 02:52 PM
BUCKS COUNTY RECORDER OF DEEDS

SEE SHEET (B)

PARKING SPACES

FF= 314.70

PROP.
GROCERY STORE
±55,000 SF
(PER ARCHITECTURAL PLANS DATED 2016.02.10)

ZONED: TOWN CENTER

RUNNING CANOPY

C.H. CANOPY

COLUMN (TYP.)

CONC. SIDEWALK

PROP. 5' CURB CUT

MAX. LONGITUDINAL SLOPE SHALL BE LESS THAN 5%

POTTSTOWN PIKE
(A.K.A. S.R. 0100)
(A.K.A. L.R. 147)
(VARIABLE WIDTH R.O.W. FROM 86' TO 112')

ELEC. BOX

BUILDING

LIMITS OF EXISTING UNDERGROUND STORMWATER BASIN

ZONED: TOWN CENTER

227 EXIST. PARKING SPACES

449 PROPOSED PARKING SPACES

RECORDER OF DEEDS
CHESTER COUNTY, PA
2016 SEP 30 PM 2:52

A
B
C

KEY MAP
1"=400'
200' 0 400'

N
W E
S

LINE LEGEND

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- PROP. FLUSH CURB
- PROP. CURB
- PROP. WOOD GUIDERAIL

SYMBOL LEGEND

EXIST. INLET	PROP. STORM INLET
EXIST. MANHOLE	PROP. MANHOLE
EXIST. FIRE HYDRANT	PROP. ROOFDRAIN
EXIST. WATER VALVE	PROP. CLEANOUT
EXIST. UNKNOWN VALVE	PROP. SIGN
EXIST. SIGN	PROP. FIRE HYDRANT
EXIST. LIGHT POLE	PROP. A.D.A. PARKING SYMBOL
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EXIST. SPOT ELEVATION	PROP. CART CORRAL
EXIST. TOP OF CURB ELEVATION	PROP. AREA LIGHT
EXIST. GUTTER ELEVATION	PROP. TRANSFORMER
EXIST. TOP OF WALL ELEVATION	
EXIST. TOP OF WALL ELEVATION	
EXIST. FINISHED FLOOR ELEVATION	

30 15 7.5 0 30
1"=30'

COPY

BOHLER ENGINEERING
SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
LANDSCAPE ARCHITECTURE
TRANSPORTATION AND MOBILITY
LAND DEVELOPMENT PROGRAM MANAGEMENT
SUSTAINABILITY AND PLANNING
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◆ NEW YORK METRO ◆ REHOBOTH BEACH, DE
◆ LONG ISLAND, NY ◆ BALTIMORE, MD
◆ NEW YORK, NY ◆ WASHINGTON, DC AND MARYLAND
◆ NORTHERN VIRGINIA
◆ CENTRAL VIRGINIA
◆ RALEIGH, NC
◆ CHARLOTTE, NC
◆ TAMPA, FL
◆ ORLANDO, FL

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PA1 ONE CALL, INC. 1-800-242-1776

POCS SERIAL NUMBER 20150911340

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CHECKED BY: M.J.
DATE: 2015.10.19
SCALE: 1"=30'
CAD I.D.: PP140558BASE-10

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PENNSYLVANIA LICENSE NO. GE075317

SHEET TITLE:

GRADING PLAN (C)

SHEET NUMBER:

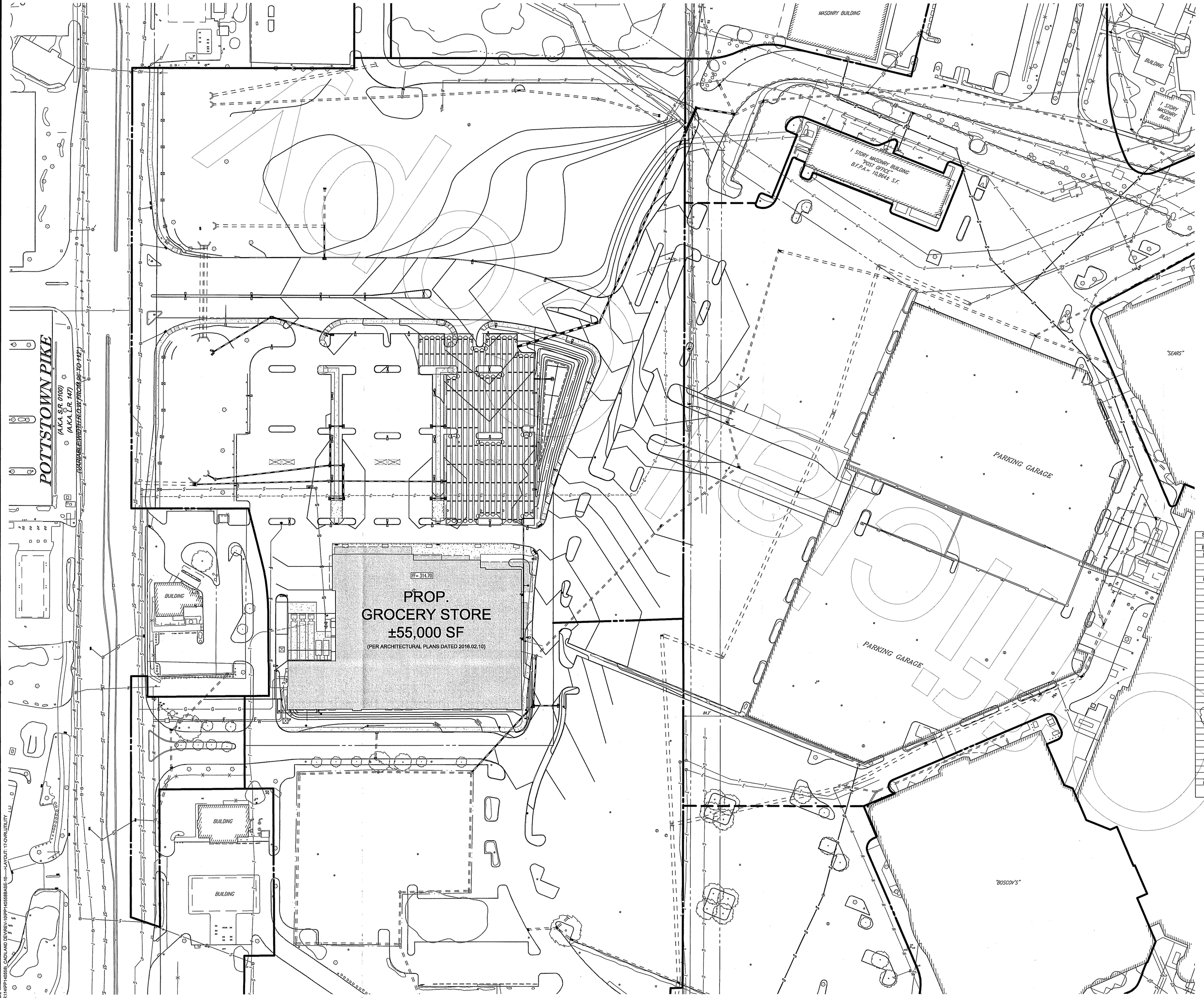
16
OF 43

REVISION 10

DL: RES\PP140558_CAD\LAND DEVRES\1-\XPP140558BASE-10---LAYOUT: 16-GRADING

41306446 B: 20031 Pg: 1 SDP
07/30/2016 02:50:27 PM Page: 1 of 1
Rec Fee: $0.00
Chester County, PA

RECORDER OF DEEDS
CHESTER COUNTY, PA
2016 SEP 30 PM 2:50



NOTES

1. SEE SHEET 8 FOR UTILITY NOTES.
2. SEE SHEETS 21-22 FOR STORM SEWER PROFILES

UTILITIES:

THE FOLLOWING COMPANIES WERE NOTIFIED BY PENNSYLVANIA ONE CALL SYSTEM, INC. (1-800-242-1776) AND REQUESTED TO MARK OUT UNDERGROUND FACILITIES AFFECTING AND SERVICING THIS SITE. THE UNDERGROUND UTILITY INFORMATION SHOWN HEREON IS BASED UPON THE UTILITY COMPANIES RESPONSE TO THIS REQUEST.
SERIAL NUMBER(S): 20150911340

UTILITY COMPANY	PHONE NUMBER
AQUA PENNSYLVANIA, INC.	610-525-1400
BUCKEYE PIPELINE CORP.	800-441-2375
COMCAST CABLE COMMUNICATIONS, INC.	215-918-3137
ENTERPRISE PRODUCTS	607-936-1014
LEVEL 3	720-888-0165
PECO	610-292-8057
VERIZON	(215) 657-9260
WEST WHITELAND TOWNSHIP	610-363-9525

LINE LEGEND

- PROPERTY LINE
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- EXIST. EASEMENT LINE
- EXIST. CURB
- EXIST. FENCE
- EXIST. OVERHEAD WIRE
- EXIST. STORM SEWER PIPE
- EXIST. SANITARY SEWER PIPE
- EXIST. GAS PIPE
- EXIST. VEGETATION
- PROP. FLUSH CURB
- PROP. CURB
- PROP. WOOD GUIDERAIL
- PROP. STORM SEWER PIPE
- PROP. SANITARY SEWER PIPE
- PROP. FIRE SERVICE PIPE
- PROP. DOMESTIC WATER PIPE
- PROP. ELECTRIC LINE

STORM SEWER STRUCTURES

STRUCTURE	RIM/GRATE	INVERT(S) IN	SUMP INVERT	INVERT OUT
EW12	-	-		309.17 (15") (IN14)
BASIN UG-17	-	-		308.98 (12") (BLDG01)
EDMH-E	-	-		301.92 (30") (IN19)
EIN/W9	-	-		304.69 (15") (IN10A)
EIN-F	-	-		310.97 (15") (IN21)
EX. MH	-	-		303.65 (48") (EOS-A)
EXIST. PIPE	-	-		304.13 (8") (102)
HW08	-	-		306.00 (15") (IN09)
J11	-	-		308.87 (15") (IN12)
J16A	-	-		308.13 (15") (IN16)
J17B	-	-		308.85 (24") (DMH17A)
IN02	313.41	-		310.16 (15") (IN03)
IN03	313.41	310.07 (15") (IN02)		310.07 (15") (IN05)
IN04	313.60	310.31 (15") (IN08) 309.75 (15") (IN05)		309.75 (15") (DMH04A)
IN05	313.60	309.84 (15") (IN03)		309.84 (15") (IN04)
IN06	313.83	310.58 (15") (IN07)		310.58 (15") (IN04)
IN07	314.00	-		310.75 (15") (IN06)
IN09	313.46	310.08 (15") (IN10)		310.08 (15") (HW08)
IN10	313.75	-		310.50 (15") (IN09)
IN12	313.41	310.07 (15") (IN13)	306.94	309.04 (15") (J11)
IN13	313.41	-	307.00	310.16 (15") (IN12)
IN14	314.65	311.03 (15") (IN15)	306.21	309.34 (15") (EW12)
IN15	314.38	-	308.00	311.13 (15") (IN14)
OS16	311.50	-	307.25	308.25 (15") (J16A)
OS17	315.33	-		308.41 (15") (DMH01)
TD18	310.70	-		307.70 (8") (102)
IN19	310.81	307.14 (18") (IN20) 304.83 (30") (DMH21)	288.58	304.83 (30") (EDMH-E)
IN20	310.81	-	303.56	307.31 (18") (IN19)
IN21	314.42	-		311.17 (15") (EIN-F)
RD01	314.70	-		311.70 (12") (BASIN)
RD02	314.70	-		309.90 (15") (102)
EIN-G	322.55	-		311.95 (24") (DMH17A)
EOS-A	314.42	304.06 (15") (DMH01)		304.06 (48") (EX. MH)
DMH01	313.60	305.60 (15") (IN17)		305.60 (15") (EOS-A)
DMH04A	314.69	305.15 (15") (IN04)		305.15 (15") (EHW-B)
DMH17A	324.25	310.52 (24") (EIN-G)	305.52	310.52 (24") (J17B)
DMH21	311.75	-		305.50 (30") (IN19)
102	-	306.30 (8") (TD18) 306.30 (15") (BLDG02)		306.30 (8") (EXIST. PIPE)

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LAND SURVEYING LANDSCAPE ARCHITECTURE
SUSTAINABILITY PROGRAM MANAGEMENT TRANSPORTATION PLANNING
◆ UPSTATE NEW YORK ◆ PHILADELPHIA, PA ◆ NORTHERN VIRGINIA
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◆ NEW JERSEY ◆ ALLENTOWN, PA ◆ RALEIGH, NC
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◆ NEW YORK, NY ◆ BALTIMORE, MD ◆ TAMPA, FL
◆ CONNECTICUT ◆ COLUMBIA, MARYLAND ◆ FT. LAUDERDALE, FLORIDA
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POCS SERIAL NUMBER 20150911340

PROJECT No.:	PP140558
DRAWN BY:	J.P.W.
CHECKED BY:	M.J.
DATE:	2015.10.19
SCALE:	1"=60'
CAD I.D.:	PP140558BASE-10

PROJECT:

PRELIMINARY/FINAL LAND DEVELOPMENT PLANS

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SHEET TITLE:

OVERALL UTILITY PLAN

SHEET NUMBER:

17
OF 43

REVISION 10

PLOT BY: Cornelius Brown 7/30/2016 2:50:27 PM
FILE: P:\PP140558_CAD\LAND DEV\DEV-10\PP140558BASE-10-----LAYOUT: 17-OVERALL UTILITY

115004444 B - 20031 P - 1 SOP
DOC ID: 20150911340
DATE RECORDED: 09/30/2015 02:58:00 PM

RECORDER OF DEEDS
CHESTER COUNTY, PA
2015 SEP 30 PM 2:58

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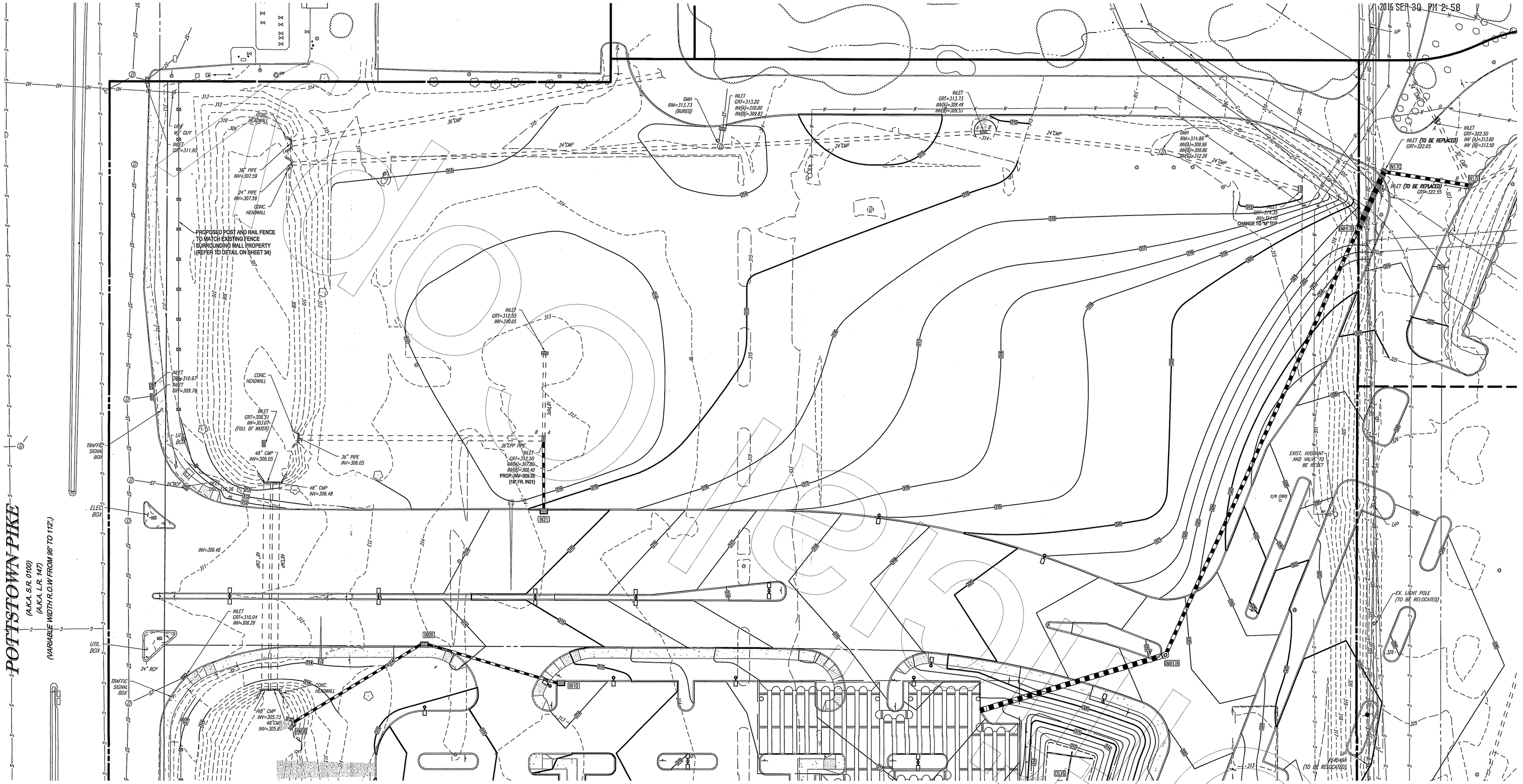
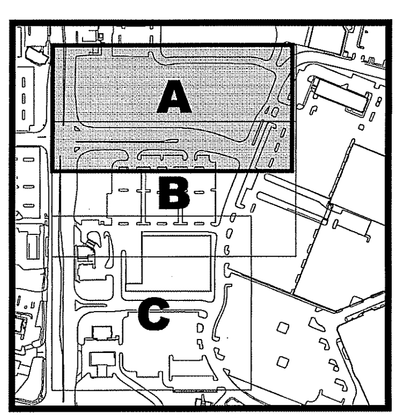
(A.K.A. S.R. 0100)
(A.K.A. L.R. 147)
(VARIABLE WIDTH R.O.W FROM 86' TO 112')





KEY MAP
1"=400'
200' 0 400'

N

LINE LEGEND

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- PROP. FIRE SERVICE PIPE
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- PROP. ELECTRIC LINE

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- EXIST. UNKNOWN VALVE
- EXIST. SIGN
- EXIST. LIGHT POLE
- EXIST. CLEANOUT
- EXIST. TREE
- PROP. STORM INLET
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- PROP. SIGN
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- PROP. BOLLARD
- PROP. CART CORRAL
- PROP. AREA LIGHT
- PROP. TRANSFORMER
- PROP. TEST PIT

UTILITIES:

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WEST WHITELAND TOWNSHIP	610-363-9525

30 15 7.5 0 30
1"=30'

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SOUTHEASTERN, PA
NEW YORK METRO
BOSTON, MA
RICHMOND BEACH, DE
NEW JERSEY
NORTHERN VIRGINIA
CENTRAL VIRGINIA
RALEIGH, NC
CHARLOTTE, NC
TAMPA
SOUTH FLORIDA
SOUTHERN MARYLAND

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CHECKED BY: M.J.
DATE: 2015.10.19
SCALE: 1"=30'
CAD I.D.: PP140558BASE-10

PROJECT:

PRELIMINARY/FINAL LAND DEVELOPMENT PLANS

FOR

PR EXTON SQUARE PROPERTY LP

EXTON SQUARE MALL GROCERY STORE

260 EXTON SQUARE MALL
WEST WHITELAND TOWNSHIP
CHESTER COUNTY, PA

BOHLER ENGINEERING
1515 MARKET STREET, SUITE 920
PHILADELPHIA, PENNSYLVANIA 19102
Phone: (267) 402-3400
Fax: (267) 402-3401
www.BohlerEngineering.com

COMMONWEALTH OF PENNSYLVANIA
CORNELIUS BROWN
PROFESSIONAL ENGINEER
PROJECT ENGINEER/MANAGER
PENNSYLVANIA LICENSE NO. 075317

SHEET TITLE:
UTILITY PLAN (A)

SHEET NUMBER:
18
OF 43

REVISION 10

DO NOT SCALE DRAWING

P:\...\R:\140\PP140558_CADLAND DEV\ENV-10\PP140558BASE-10 — LAYOUT: 18-UTILITY

15009044 B: 20831 P: 1 SDP
07/26/2016 02:25 PM Pages: 1 of 1
RECORDER OF DEEDS
CHESTER COUNTY, PA
2016 SEP 30 PM 2:58

SEE SHEET (A)

POTTSTOWN PIKE
(A.K.A. S.R. 0100)
(A.K.A. L.R. 147)
(VARIABLE WIDTH R.O.W. FROM 96' TO 112')

PROPOSED POST AND RAIL FENCE TO MATCH EXISTING FENCE SURROUNDING MALL PROPERTY (REFER TO DETAIL ON SHEET 34)

ORIFICE PLATE TO BE INSTALLED W/8" ORIFICE @ INV. ELEV=312.09

ORIFICE PLATE TO BE INSTALLED OVER EXIST. PIPE OPENING W/ 10" ORIFICE @ INV. ELEV=304.61

HEADWALL (EHW-8) TO REMAIN

PROP. LIMITS OF UNDERGROUND STORMWATER BASIN UG-17

PROPOSED BIORETENTION AREA RG-16

PROP. INV.=309.38
PROP. ROOF DRAIN (164 LF 12" PVC @ 0.75%)

PROP. SANITARY SEWER LATERAL SERVICE (8" PVC @ 0.025 MIN.

NOTE: ROOF DRAINAGE SHALL TIE INTO PROP. UNDERGROUND BASIN

T= 314.70

PROP. YARD DRAIN GRT=313.00 INV.=310.16 (6" PVC)

PROP. INV.=310.17

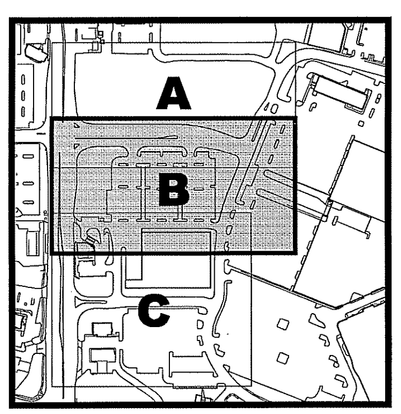
PROP. GREASE INTERCEPTORS

PROP. GROCERY STORE ±55,000 SF
(PER ARCHITECTURAL PLANS DATED 2016.02.10)

EX. LIGHT POLE (TO BE RELOCATED)

INLET GRT=322.45 BOS=309.05 CHANGE TO "M" TOP & RESET GRATE TO ELEV. 323.75

SEE SHEET (C)



KEY MAP
1"=400'
200' 0 400'

LINE LEGEND

- PROPERTY LINE
- LEGAL RIGHT-OF-WAY LINE
- EXIST. EASEMENT LINE
- EXIST. CURB
- EXIST. FENCE
- EXIST. OVERHEAD WIRE
- EXIST. STORM SEWER PIPE
- EXIST. SANITARY SEWER PIPE
- EXIST. GAS PIPE
- EXIST. VEGETATION
- PROP. FLUSH CURB
- PROP. CURB
- PROP. WOOD GUIDERAIL
- PROP. STORM SEWER PIPE
- PROP. SANITARY SEWER PIPE
- PROP. FIRE SERVICE PIPE
- PROP. DOMESTIC WATER PIPE
- PROP. ELECTRIC LINE

SYMBOL LEGEND

- EXIST. INLET
- EXIST. MANHOLE
- EXIST. FIRE HYDRANT
- EXIST. WATER VALVE
- EXIST. UNKNOWN VALVE
- EXIST. SIGN
- EXIST. LIGHT POLE
- EXIST. CLEANOUT
- EXIST. TREE
- PROP. STORM INLET
- PROP. MANHOLE
- PROP. ROOFDRAIN
- PROP. CLEANOUT
- PROP. SIGN
- PROP. FIRE HYDRANT
- PROP. BOLLARD
- PROP. CART CORRAL
- PROP. AREA LIGHT
- PROP. TRANSFORMER
- PROP. TEST PIT

UTILITIES:

THE FOLLOWING COMPANIES WERE NOTIFIED BY PENNSYLVANIA ONE CALL SYSTEM, INC. (1-800-242-1776) AND REQUESTED TO MARK OUT UNDERGROUND FACILITIES AFFECTING AND SERVICING THIS SITE. THE UNDERGROUND UTILITY INFORMATION SHOWN HEREON IS BASED UPON THE UTILITY COMPANIES RESPONSE TO THIS REQUEST.
SERIAL NUMBER(S): 20150911340

UTILITY COMPANY	PHONE NUMBER
AQUA PENNSYLVANIA, INC.	610-525-1400
BUCKEYE PIPELINE CORP.	800-441-2375
COMCAST CABLE COMMUNICATIONS, INC.	215-918-3137
ENTERPRISE PRODUCTS	607-936-1014
LEVEL 3	720-888-0165
PECO	610-292-8057
VERIZON	(215) 857-9260
WEST WHITELAND TOWNSHIP	610-363-9525

30 15 7.5 0 30
1"=30'

BOHLER ENGINEERING
SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
SUSTAINABILITY DESIGN
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
TRANSPORTATION PLANNING
◆ UPSTATE NEW YORK
◆ NEW ENGLAND
◆ NEW JERSEY
◆ NEW YORK METRO
◆ NEW YORK, NY
◆ PHILADELPHIA, PA
◆ LEHIGH VALLEY, PA
◆ HARRISBURG, PA
◆ REHOBOTH BEACH, DE
◆ BALTIMORE, MD
◆ NORTHERN VIRGINIA
◆ CENTRAL VIRGINIA
◆ RICHMOND, VA
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◆ TAMPA, FLORIDA
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REVISIONS

REV	DATE	COMMENT	BY
2	12/14/15	GENERAL REVS	MAB
3	01/05/16	GENERAL REVS	DTL
4	01/15/16	PER CCCD COMMENTS	DTL
5	01/29/16	PER COMMENTS	DTL
6	03/03/16	PER CCCD COMMENTS	ACF
7	04/06/16	GENERAL REVS	DTL
8	04/21/16	GENERAL REVS	DTL
9	06/06/16	PER RECORD PLAN	DTL
10	07/13/16	GENERAL REVISIONS	DTL

CALL BEFORE YOU DIG!

PENNSYLVANIA LAW REQUIRES 3 WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND 10 WORKING DAYS IN DESIGN STAGE - STOP CALL

PA1 (1-800-242-1776)

POCS SERIAL NUMBER
20150911340

PROJECT No.: PP140558
DRAWN BY: J.P.W.
CHECKED BY: M.J.
DATE: 2015.10.19
SCALE: 1"=30'
CAD I.D.: PP140558BASE-10

PROJECT:

PRELIMINARY/FINAL LAND DEVELOPMENT PLANS
FOR
PR EXTON SQUARE PROPERTY LP
EXTON SQUARE MALL GROCERY STORE

260 EXTON SQUARE MALL
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COMMONWEALTH OF PENNSYLVANIA
CORNELIUS J. BROWN IV
ENGINEER
PROFESSIONAL ENGINEER
PENNSYLVANIA LICENSE NO. PE075317

SHEET TITLE:
UTILITY PLAN (B)

SHEET NUMBER:
19
OF 43

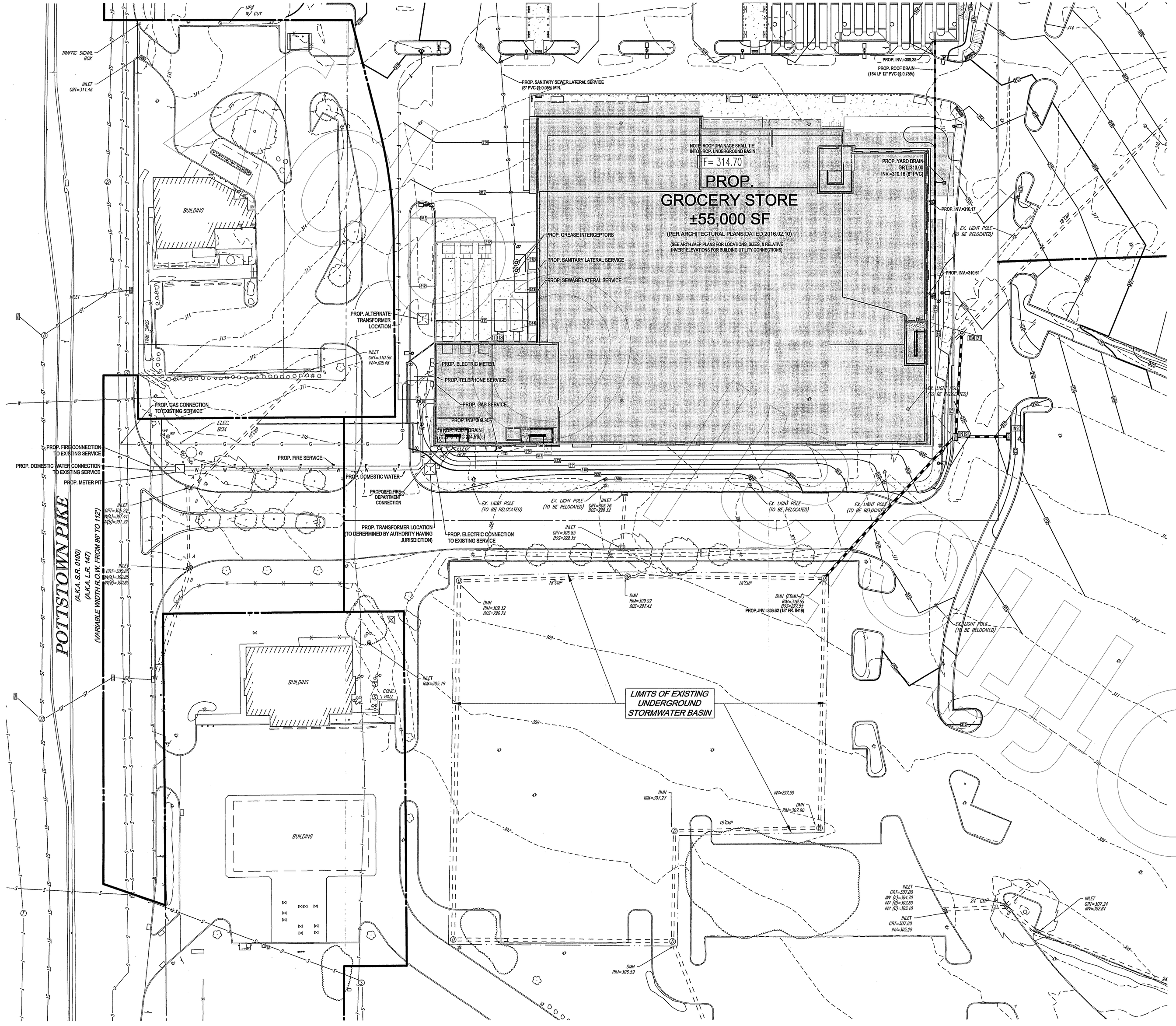
REVISION 10

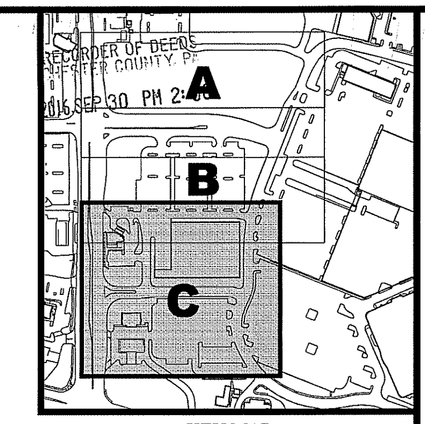
DO NOT USE FOR CONSTRUCTION

DL
R:\1-PP\140558_CADLAND DEVREV\-\PP140558BASE-10-----LAYOUT: 19-UTILITY

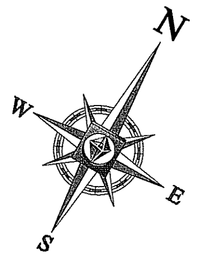
11509444 B: 20031 P: 1, SDP
CHESTER COUNTY, PA
Page 21 of 44

SEE SHEET (B)





KEY MAP
1"=400'
200' 0 400'



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- PROP. CURB
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- PROP. FIRE HYDRANT
- PROP. BOLLARD
- PROP. CART CORRAL
- PROP. AREA LIGHT
- PROP. TRANSFORMER
- PROP. TEST PIT

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VERIZON	(215) 657-9260
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30 15 7.5 0 30
1"=30'

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TRANSPORTATION LANDSCAPE ARCHITECTURE

- UPSTATE NEW YORK
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- NEW JERSEY
- NEW YORK METRO
- NEW YORK, NY
- PHILADELPHIA, PA
- LEHIGH VALLEY, PA
- CENTRAL PENNSYLVANIA
- REHOBOTH BEACH, DE
- BALTIMORE, MD
- WASHINGTON, DC/MARYLAND
- NORTHERN VIRGINIA
- CENTRAL VIRGINIA
- RALEIGH, NC
- CHARLOTTE, NC
- TAMPA, FL
- FORT MYERS, FLORIDA

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REVISIONS

REV	DATE	COMMENT	BY
2	12/14/15	GENERAL REVS	MAB
3	01/05/16	GENERAL REVS	DTL
4	01/15/16	PER CCCD COMMENTS	DTL
5	01/29/16	PER COMMENTS	DTL
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7	04/06/16	GENERAL REVS	DTL
8	04/21/16	GENERAL REVS	DTL
9	06/06/16	PER RECORD PLAN	DTL
10	07/13/16	GENERAL REVISIONS	DTL

CALL BEFORE YOU DIG!

PENNSYLVANIA LAW REQUIRES 3 WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND 10 WORKING DAYS IN DESIGN STAGE - STOP CALL

PA1 ONE CALL
1-800-242-1776

POCS SERIAL NUMBER
20150911340

PROJECT No.: PP140558
DRAWN BY: J.P.W.
CHECKED BY: M.J.
DATE: 2015.10.19
SCALE: 1"=30'
CAD I.D.: PP140558BASE-10

PROJECT:

PRELIMINARY/FINAL LAND DEVELOPMENT PLANS

FOR

PR EXTON SQUARE PROPERTY LP

EXTON SQUARE MALL GROCERY STORE

260 EXTON SQUARE MALL
WEST WHITELAND TOWNSHIP
CHESTER COUNTY, PA

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COMMONWEALTH OF PENNSYLVANIA
CORNELIUS BROWN
ENGINEER
PE075317
PROFESSIONAL ENGINEER
PENNSYLVANIA LICENSE NO. PE075317

SHEET TITLE:
UTILITY PLAN (C)

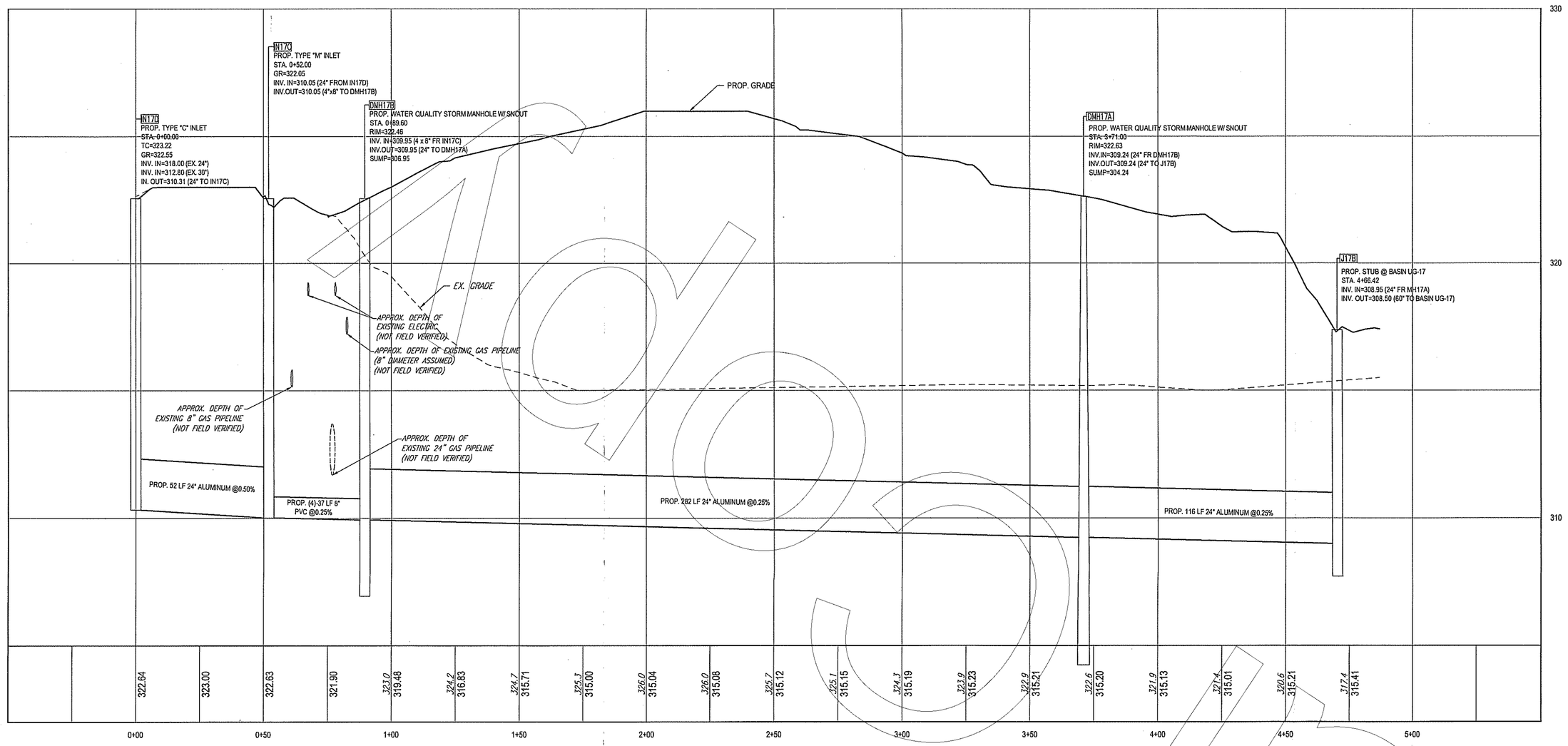
SHEET NUMBER:
20
OF 43

REVISION 10

DL
K:\PHP\140558_CADLAND DEV\REV\WPP140558BASE-10—LAYOUT: 20-UTILITY

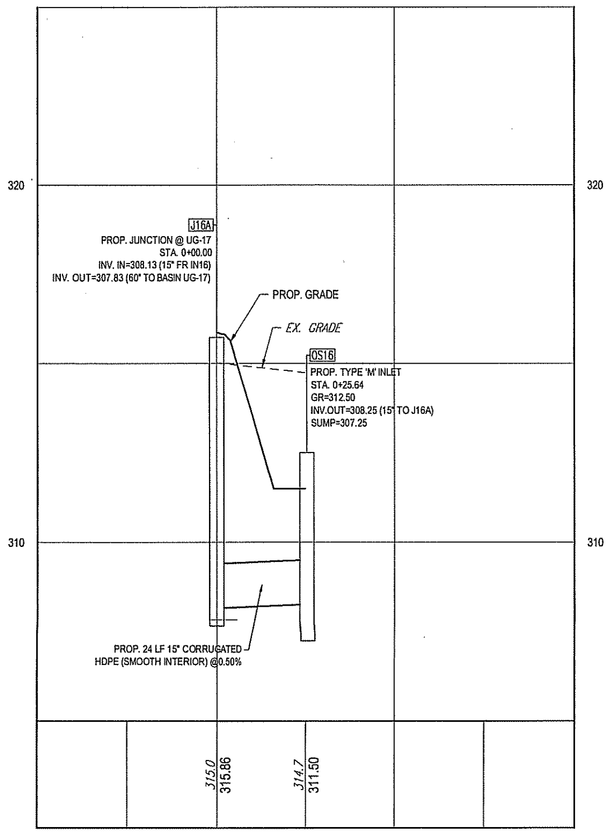
11508444 B: 29031 P: 1 SDP
09/30/2016 02:52 PM
Page 22 of 44

RECORDER OF DEEDS
CHESTER COUNTY, PA
2016 SEP 30 PM 2:58



EIN-G TO UG-17

SCALE: 1"= 30 ' HORIZONTAL
1"= 3 ' VERTICAL



UG-17 TO OS16

SCALE: 1"= 30 ' HORIZONTAL
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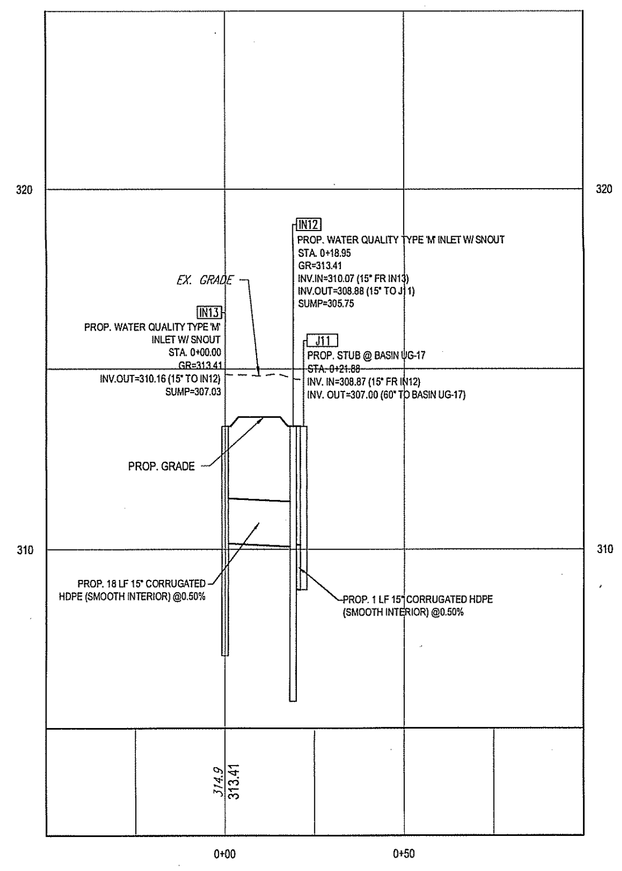
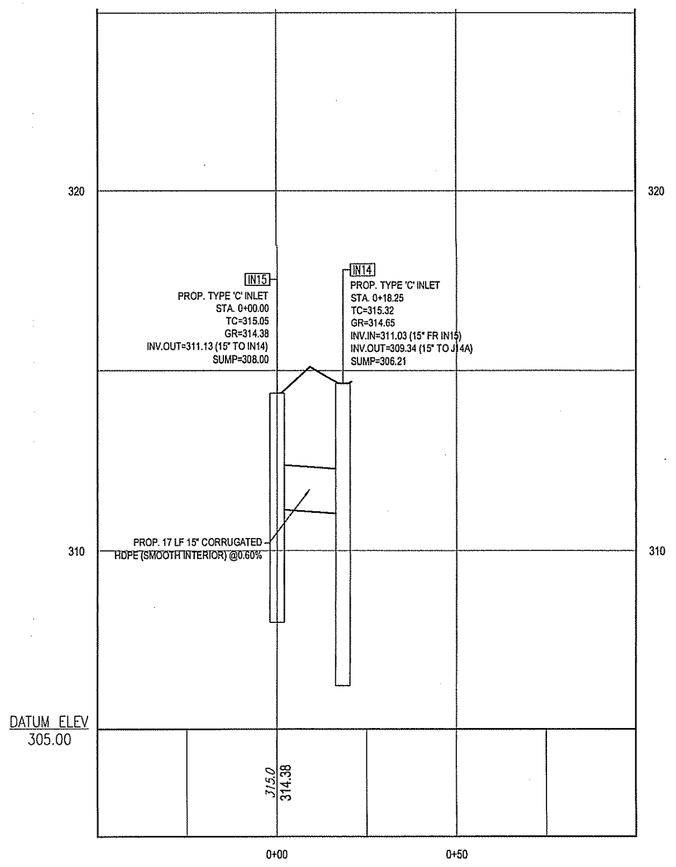


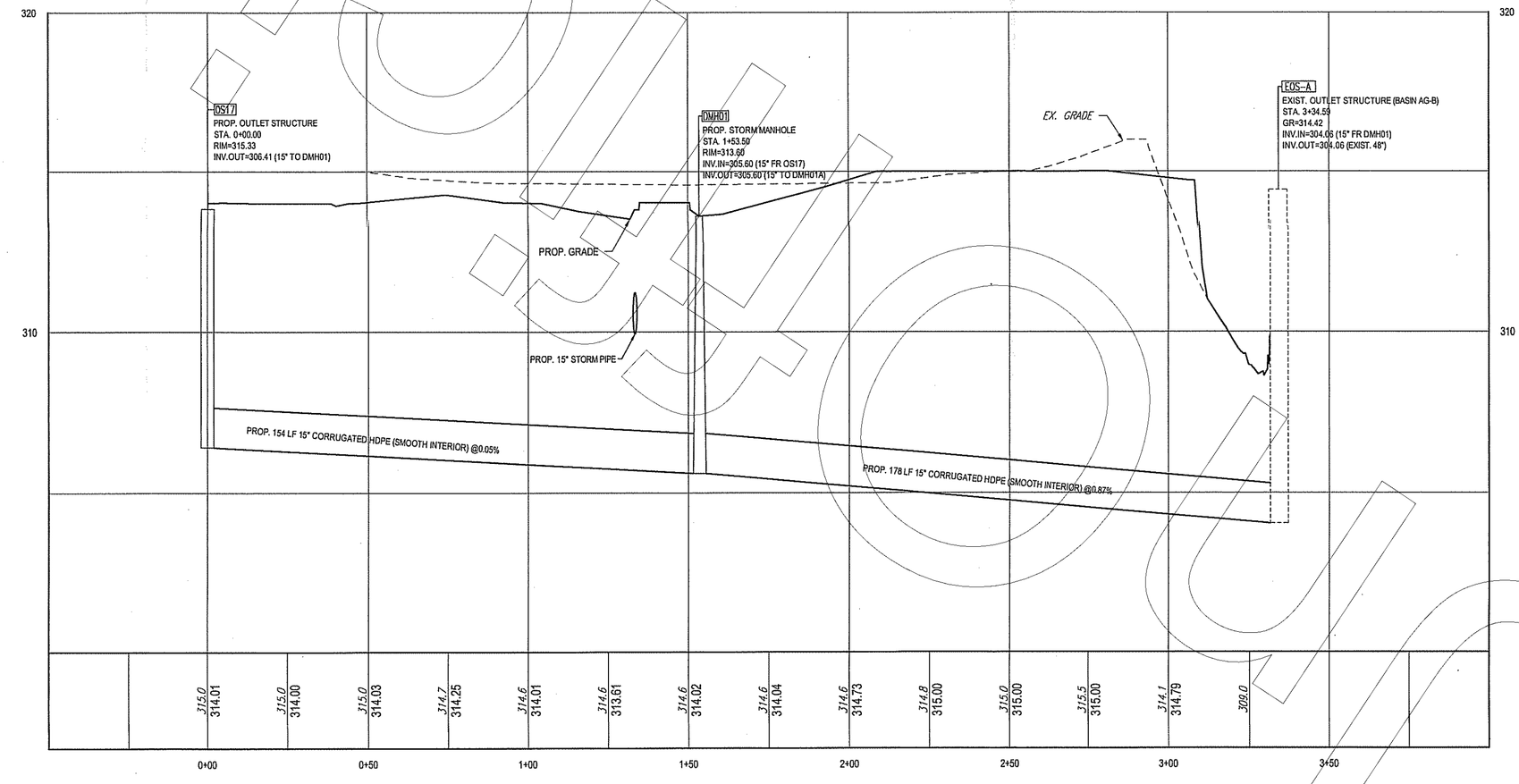
IN13 TO DMH11

SCALE: 1"= 30 ' HORIZONTAL
1"= 3 ' VERTICAL



IN15 TO UG-17

SCALE: 1"= 30 ' HORIZONTAL
1"= 3 ' VERTICAL



OS17 TO EOS-A

SCALE: 1"= 30 ' HORIZONTAL
1"= 3 ' VERTICAL

30 15 7.5 0 30
1"= 30'

PCL K:\5YR\PP140558_CAD\LAND DEV\REV-10\PP140558BASE-10---LAYOUT1 21-STORM PROFILE

BOHLER ENGINEERING

SITE CIVIL AND CONSULTING ENGINEERING
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- NEW JERSEY
- PHILADELPHIA, PA
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- READING, PA
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- BALTIMORE, MD
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REVISIONS

REV	DATE	COMMENT	BY
2	12/14/15	GENERAL REVS	MAB
3	01/05/16	GENERAL REVS	DTL
4	01/15/16	PER CCCD COMMENTS	DTL
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6	03/03/16	PER CCCD COMMENTS	ACF
7	04/06/16	GENERAL REVS	DTL
8	04/21/16	GENERAL REVS	DTL
9	06/06/16	PER RECORD PLAN	DTL
10	07/13/16	GENERAL REVISIONS	DTL

CALL BEFORE YOU DIG!

PENNSYLVANIA LAW REQUIRES 3 WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND 10 WORKING DAYS IN DESIGN STAGE - STOP CALL

PA1 — 1-800-242-1776 — POCS SERIAL NUMBER 20150911340

PROJECT No.: PP140558
DRAWN BY: J.P.W.
CHECKED BY: M.J.
DATE: 2015.10.19
SCALE: 1"=60'
CAD I.D.: PP140558BASE-10

PROJECT:

PRELIMINARY/FINAL LAND DEVELOPMENT PLANS

FOR

PR EXTON SQUARE PROPERTY LP

EXTON SQUARE MALL GROCERY STORE

260 EXTON SQUARE MALL
WEST WHITELAND TOWNSHIP
CHESTER COUNTY, PA

BOHLER ENGINEERING
1515 MARKET STREET, SUITE 920
PHILADELPHIA, PENNSYLVANIA 19102
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www.BohlerEngineering.com

COMMONWEALTH OF PENNSYLVANIA — CORNELIUS BROWN — ENGINEER — PE075317 — PROFESSIONAL ENGINEER — PENNSYLVANIA LICENSE NO. PE075317

SHEET TITLE:

STORM SEWER PROFILES

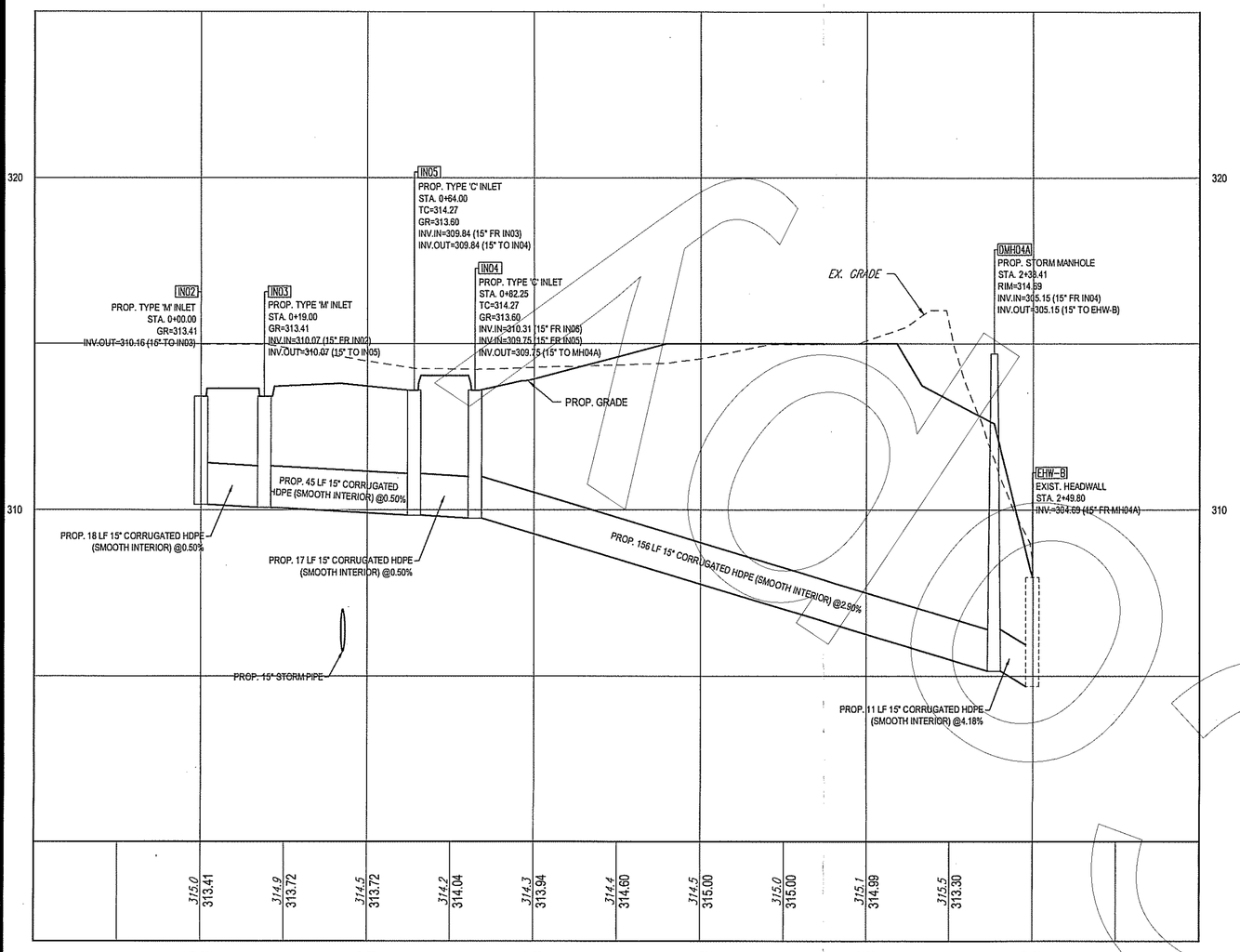
SHEET NUMBER:

21
OF 43

REVISION 10

015056444 B: 20031 P: 1 SDP
08/09/2016 02:56:46 PM 1 of 1
Fee: $25.00
Chester County, PA

RECORDER OF DEEDS
CHESTER COUNTY, PA
2016 SEP 30 PM 2:59



IN02 TO EHW-B

SCALE: 1"= 30 ' HORIZONTAL
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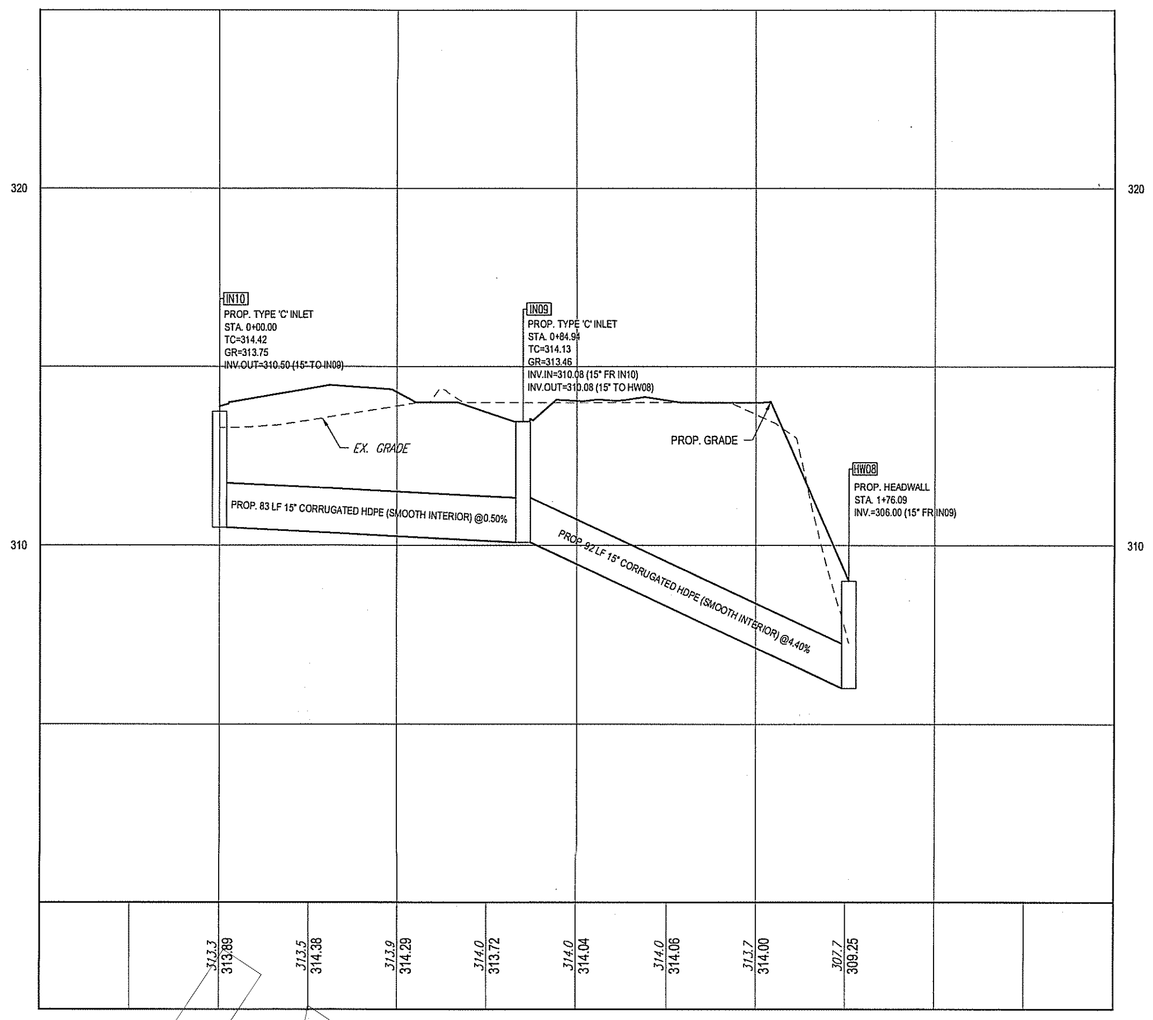

IN10 TO HW08

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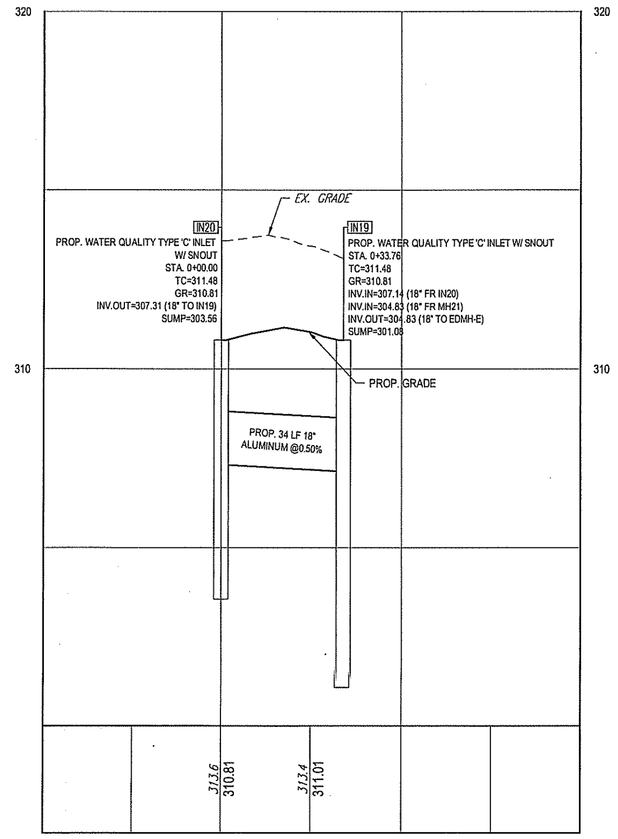
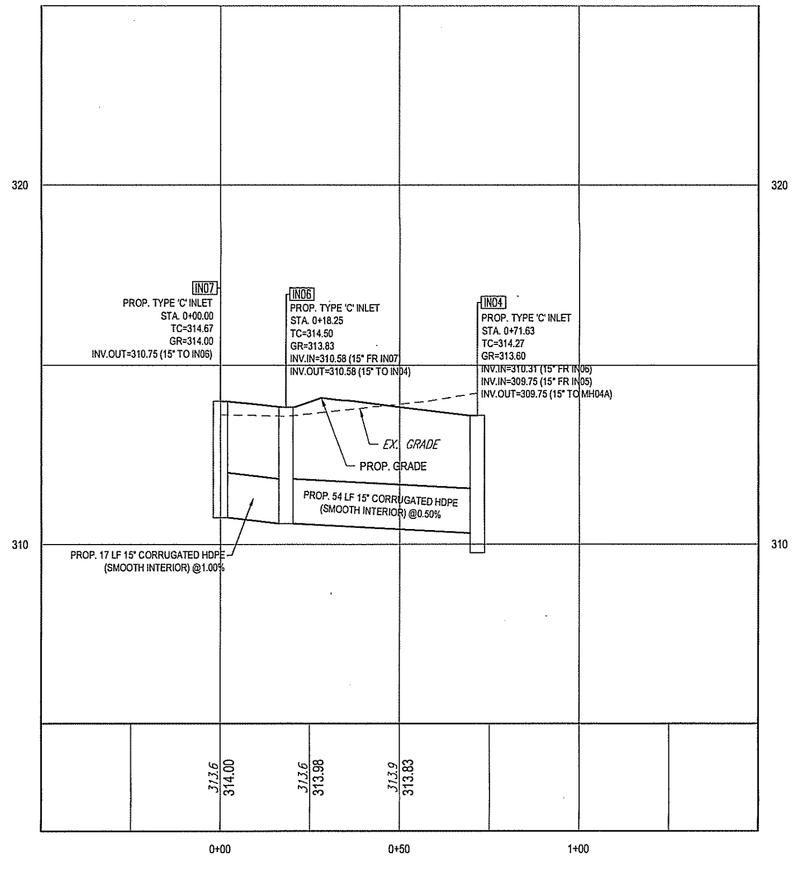


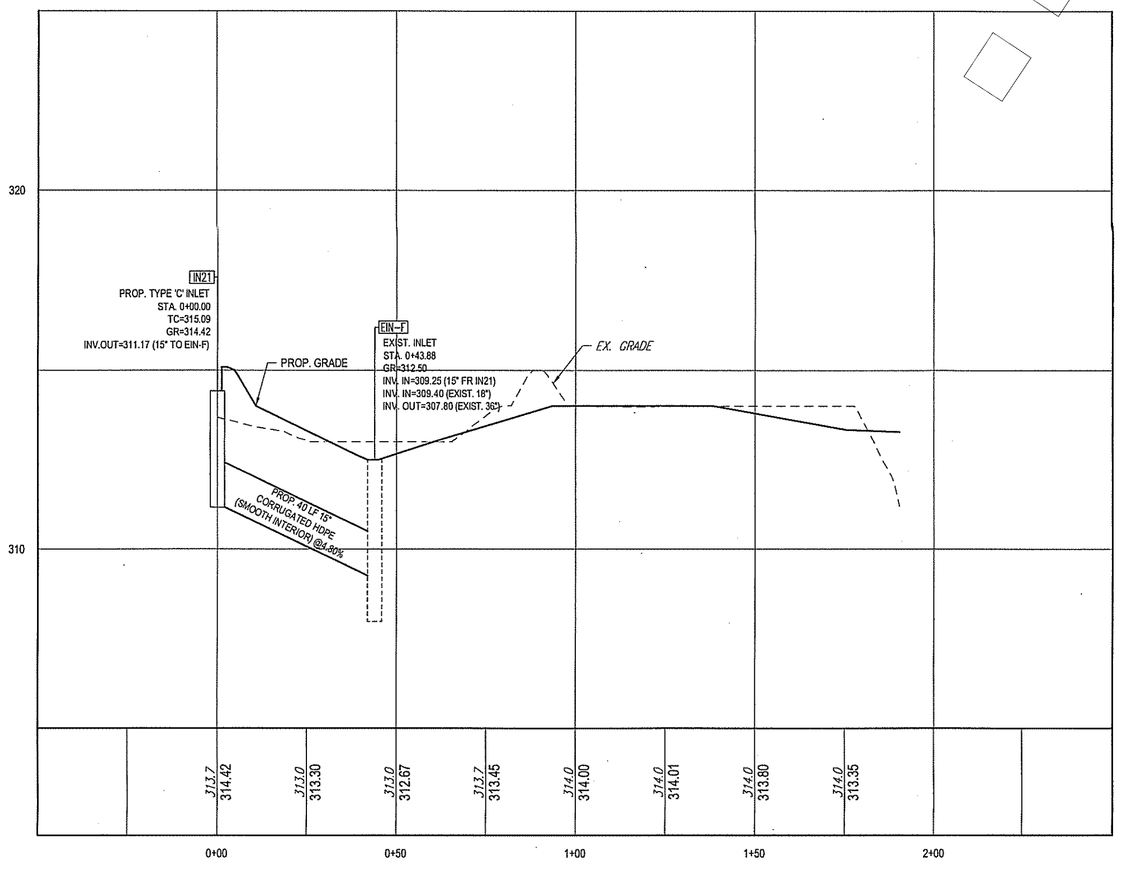
IN20 TO IN19

SCALE: 1"= 30 ' HORIZONTAL
1"= 3 ' VERTICAL



IN07 TO IN04

SCALE: 1"= 30 ' HORIZONTAL
1"= 3 ' VERTICAL



IN21 TO EIN-F

SCALE: 1"= 30 ' HORIZONTAL
1"= 3 ' VERTICAL

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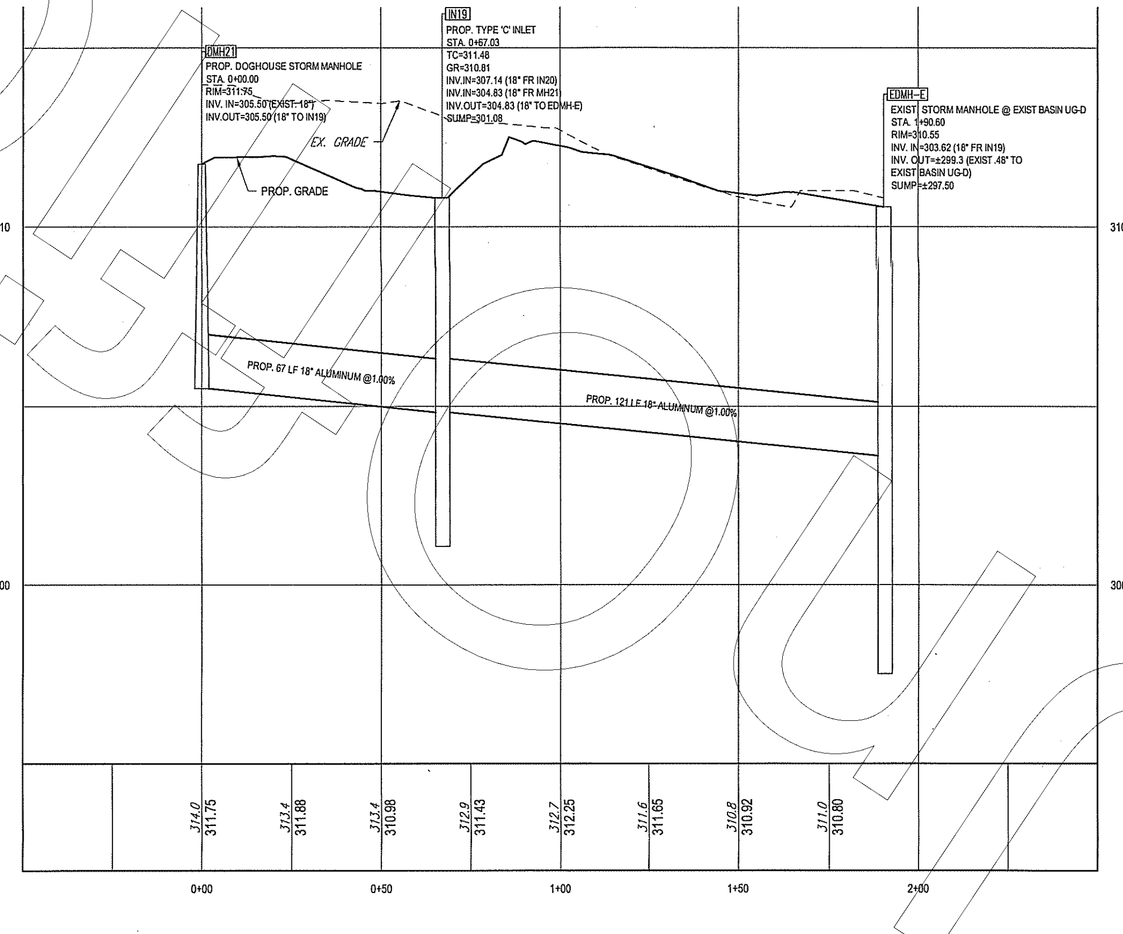
1"=30'



DMH21 TO EDMH-E

SCALE: 1"= 30 ' HORIZONTAL
1"= 3 ' VERTICAL

BOHLER ENGINEERING
SITE CIVIL AND CONSULTING ENGINEERING
LANDSCAPE ARCHITECTURE
LAND SURVEYING
SUSTAINABLE DESIGN
TRANSPORTATION CONSULTING
PROGRAM MANAGEMENT
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◆ UPSTATE NEW YORK
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◆ NORTHERN VIRGINIA
◆ CENTRAL VIRGINIA
◆ RICHMOND, VA
◆ CHARLOTTE, NC
◆ RALEIGH, NC
◆ TAMPA, FL
◆ FT. LAUDERDALE, FLORIDA
◆ BALTIMORE, MD
◆ WASHINGTON, DC LAND
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8	04/21/16	GENERAL REVS	DTL
9	06/06/16	PER RECORD PLAN	DTL
10	07/13/16	GENERAL REVISIONS	DTL

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CONSTRUCTION PHASE AND 10
WORKING DAYS IN DESIGN
STAGE - STOP CALL

PA1 one-call.com
1-800-242-1776

POCS SERIAL NUMBER
20150911340

PROJECT No.: PP140558
DRAWN BY: J.P.W.
CHECKED BY: M.J.
DATE: 2015.10.19
SCALE: 1"=60'
CAD I.D.: PP140558BASE-10

PROJECT:

PRELIMINARY/FINAL LAND DEVELOPMENT PLANS

FOR

PR EXTON SQUARE PROPERTY LP

EXTON SQUARE MALL GROCERY STORE

260 EXTON SQUARE MALL
WEST WHITELAND TOWNSHIP
CHESTER COUNTY, PA

BOHLER ENGINEERING
1515 MARKET STREET, SUITE 920
PHILADELPHIA, PENNSYLVANIA 19102
Phone: (267) 402-3400
Fax: (267) 402-3401
www.BohlerEngineering.com

COMMONWEALTH OF PENNSYLVANIA
CORNELIUS BROWN
PROFESSIONAL ENGINEER
PENNSYLVANIA LICENSE NO. PE075317

SHEET TITLE:

STORM SEWER PROFILES

SHEET NUMBER:

22
OF 43

REVISION 10

K:\LP\PP140558_CAD\LAND DEV\REV-10\PP140558BASE-10—LAYOUT 22-STORM PROFILE

PRELIMINARY PLAN
NOT FOR CONSTRUCTION

PRELIMINARY/FINAL LAND DEVELOPMENT PLANS

FOR

PR EXTON SQUARE PROPERTY LP

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GROCERY STORE

260 EXTON SQUARE MALL
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PROJECT:

PROJECT No.:	PP140558
DRAWN BY:	J.P.W
CHECKED BY:	M.J.
DATE:	2015.10.19
SCALE:	1"=150'
CAD I.D.:	PP140558BASE-10

REVISION 10

SHEET TITLE
OVERALL SOIL EROSION & SEDIMENT POLLUTION CONTROL PLAN

SHEET NUMBER
23
OF 43

CALL BEFORE YOU DIG!
PENNSYLVANIA LAW REQUIRES 3 WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND 10 WORKING DAYS IN DESIGN STAGE - STOP CALL
PA1 serial
POCS SERIAL NUMBER
1-800-242-1776
20150911340

REV	DATE	COMMENT	BY
2	12/14/15	GENERAL REVS	MAB
3	01/05/16	GENERAL REVS	DTL
4	01/15/16	PER CCCD COMMENTS	DTL
5	01/29/16	PER COMMENTS	DTL
6	03/03/16	PER CCCD COMMENTS	ADF
7	04/06/16	GENERAL REVS	DTL
8	04/21/16	GENERAL REVS	DTL
9	06/06/16	PER RECORD PLAN	DTL
10	07/13/16	GENERAL REVISIONS	DTL

REVISIONS

BOHLER ENGINEERING
SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
SUSTAINABLE DESIGN
PERMITTING SERVICES
LANDSCAPE ARCHITECTURE
TRANSPORTATION SERVICES

- UPSTATE NEW YORK
- NEW ENGLAND
- NEW JERSEY
- NEW YORK METRO
- PHILADELPHIA, PA
- LEHIGH VALLEY, PA
- POCONO MOUNTAIN
- REHOBOTH BEACH, DE
- SOUTHERN MARYLAND
- NORTHERN VIRGINIA
- CENTRAL VIRGINIA
- RICHMOND
- CHARLOTTE, NC
- RALEIGH
- SOUTH FLORIDA

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SITE

USGS MAP
(DOWNINGTOWN & MALVERN QUAD)
1"=2,000'
0
1,000'
2,000'

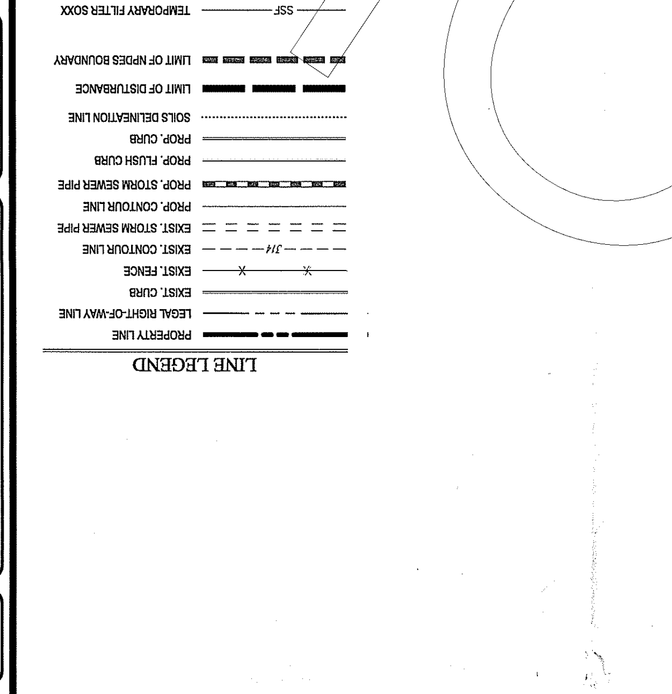
SYMBOL LEGEND

EXIST. INLET	PROP. STORM INLET
EXIST. MANHOLE	PROP. MANHOLE
EXIST. FIRE HYDRANT	PROP. HOODRAIN
EXIST. WATER VALVE	PROP. CLEANOUT
EXIST. UNKNOWN VALVE	PROP. SIGN
EXIST. SIGN	PROP. FIRE HYDRANT
EXIST. LIGHT POLE	PROP. BOLLARD
EXIST. CLEANOUT	PROPOSED INLET W/ INLET PROTECTION
PROPOSED SOIL EROSION CONTROL BLANKET	PROPOSED TEMPORARY CONSTRUCTION ENTRANCE
SOILS TYPE	PROPOSED TEMPORARY STOCKPILE
	PROPOSED INLET W/ INLET COVER (SEE GENERAL NOTE #1 ON SHEET 24)
PHASE II LIMIT OF DISTURBANCE	

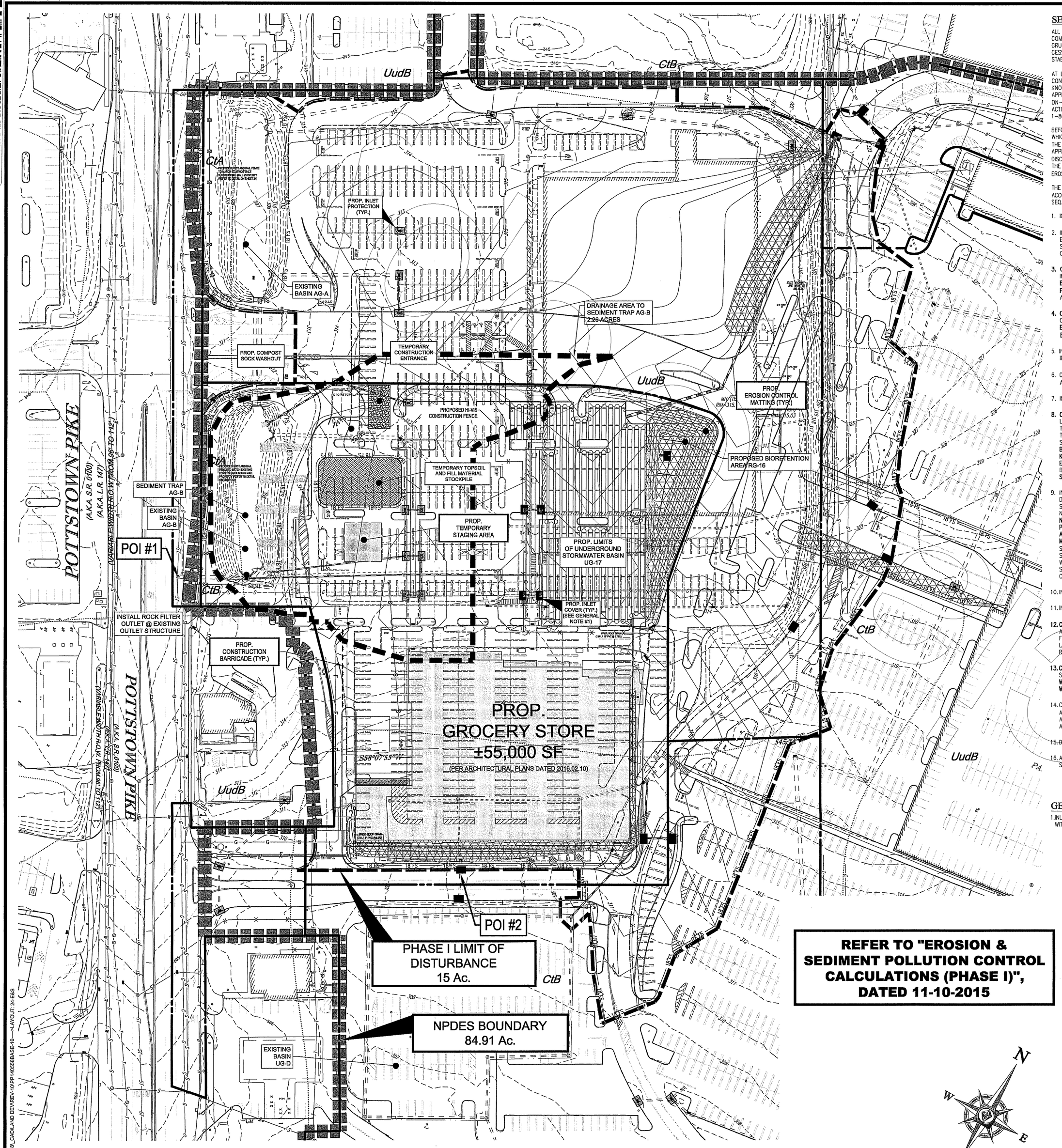
1"=120'
120 60 30 0 120

LINE LEGEND

PROPERTY LINE	
LEGAL RIGHT-OF-WAY LINE	
EXIST. CURB	
EXIST. FENCE	
EXIST. CONTOUR LINE	
EXIST. STORM SEWER PIPE	
PROP. CONTOUR LINE	
PROP. STORM SEWER PIPE	
PROP. FLUSH CURB	
PROP. CURB	
SOILS DELINEATION LINE	
LIMIT OF DISTURBANCE	
LIMIT OF NPDES BOUNDARY	
TEMPORARY FILTER SOXX	SSF


WHITELAND
SITE
Malvern
Exton
Whitelands Golf Club
Whitelands Golf Club
Whitelands Golf Club

RECORDED IN THE OFFICE FOR THE RECORDING OF DEEDS IN AND FOR CHESTER COUNTY, PA
2015 OCT 30 PM 2:57



SEQUENCE OF CONSTRUCTION

ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE FOLLOWING SEQUENCE. EACH STAGE SHALL BE COMPLETED IN COMPLIANCE WITH CHAPTER 102 REGULATIONS BEFORE ANY FOLLOWING STAGE IS INITIATED. CLEARING AND GRUBBING SHALL BE LIMITED ONLY TO THOSE AREAS DESCRIBED IN EACH STAGE, UPON COMPLETION OR TEMPORARY CESSATION OF THE EARTH DISTURBANCE ACTIVITY, OR ANY STAGE THEREOF, THE PROJECT SITE SHALL BE IMMEDIATELY STABILIZED WITH THE APPROPRIATE TEMPORARY OR PERMANENT STABILIZATION.

AT LEAST SEVEN (7) DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, THE OPERATOR SHALL INVITE ALL CONTRACTORS INVOLVED IN THOSE ACTIVITIES INCLUDING, BUT NOT LIMITED TO: A LICENSED PROFESSIONAL OR DESIGNEE KNOWLEDGEABLE IN THE DESIGN AND CONSTRUCTION OF BIORETENTION & INFILTRATION FACILITIES, THE LANDOWNER AND ALL APPROPRIATE MUNICIPAL OFFICIALS AND A REPRESENTATIVE OF THE CHESTER COUNTY CONSERVATION DISTRICT FOR AN ON-SITE PRE-CONSTRUCTION MEETING. ALSO, AT LEAST THREE (3) DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, ALL CONTRACTORS INVOLVED IN THOSE ACTIVITIES SHALL NOTIFY THE PENNSYLVANIA ONE CALL SYSTEM INC. AT 1-800-242-1776 FOR BURIED UTILITIES LOCATION.

BEFORE INITIATING ANY REVISION 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 CHESTER COUNTY CONSERVATION DISTRICT ("CCCD"). THE OPERATOR SHALL ASSURE THAT THE APPROVED EROSION AND SEDIMENT CONTROL PLAN IS PROPERLY AND COMPLETELY IMPLEMENTED. 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.

THE OPERATOR SHALL REMOVE FROM THE SITE, RECYCLE OR DISPOSE OF ALL BUILDING MATERIALS AND WASTES IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA CODE 260.1 ET SEQ., 271.1 ET. SEQ. AND 287.1 ET SEQ.

1. INSTALL CONSTRUCTION ENTRANCE AS DESIGNATED ON THE PLANS.

2. INSTALL ALL PERIMETER SEDIMENT BARRIERS (SILT FENCING AND SILT SOXX) AND INLET PROTECTION OR INLET COVERS ON EXISTING INLETS AS INDICATED ON THE PLANS. INSTALL ROCK FILTER OUTLET AT EXISTING OUTLET STRUCTURE OF SEDIMENT TRAP AG-B. INSTALL TREE PROTECTION FENCE AROUND ANY EXISTING TREES TO REMAIN THAT ARE INSIDE LIMIT OF DISTURBANCE

3. **CRITICAL STAGE** – STRIP SITE AND DEMOLISH EXISTING STRUCTURES. INSTALL TEMPORARY SOIL STOCKPILE. PROVIDE IMMEDIATE STABILIZATION FOR STOCKPILE. **NOTE: PRIOR TO REMOVAL OF EXISTING UNDERGROUND BASIN, DRAINAGE TO BASIN SHALL BE DIVERTED, TO INCLUDE AT MINIMUM INSTALLATION OF STORM SEWER FROM EXISTING MANHOLE EDMH-E TO PROPOSED MANHOLE DMH21, INCLUDING INLET IN19 (SEE UTILITY PLANS).** INSTALL INLET PROTECTION OR INLET COVERS AT NEW INLETS AS INDICATED ON PLANS.

4. **CRITICAL STAGE** – INITIATE THE NECESSARY EARTHWORK TO REACH THE GRADES INDICATED ON THE PLANS. EARTHWORK CAN PROCEED CONCURRENT WITH DEMOLITION OF EXISTING STRUCTURES. **NOTE: SILT SHALL NOT BE PERMITTED TO ENTER BIORETENTION OR SUBSURFACE DETENTION AREAS. ONCE DESIGN GRADES HAVE BEEN ACHIEVED AND BUILDING PAD HAS BEEN ACCEPTED/APPROVED, BUILDING CONSTRUCTION MAY COMMENCE.**

5. INSTALL REMAINING STORM SEWER STARTING AT THE FARTHEST DOWNSTREAM STRUCTURE. INSTALL INLET PROTECTION OR INLET COVERS AT NEW INLETS AS INDICATED ON PLANS.

6. CONTINUE WITH THE BALANCE OF EARTHWORK INCLUDING UTILITY INSTALLATION (SANITARY, ELECTRIC, TELEPHONE, CABLE AND GAS) WHERE APPLICABLE.

7. INSTALL CURBING AND STONE BASE COURSE IN THE DRIVEWAY AND PARKING AREAS.

8. **CRITICAL STAGE** – ONCE FINAL GRADES HAVE BEEN ESTABLISHED IN THE BIORETENTION AREA, SEED MIX SPECIFIED ON THE LANDSCAPE PLAN SHOULD BE SPREAD THROUGHOUT THE AREA AND TOPPED WITH EROSION CONTROL BLANKET TO HOLD THE SEED IN PLACE WHILE VEGETATION BEGINS TO ESTABLISH. ALSO, THE DEWATERING DEVICE SHOULD REMAIN OPEN ON THE BIORETENTION OUTLET STRUCTURE TO PREVENT OVER SATURATION UNTIL VEGETATION IS ESTABLISHED. INSTALL SUBSURFACE DETENTION BASIN. **THE PERMITTEE SHALL PROVIDE ENGINEERING OVERSIGHT FOR THE CONVERSION OF THE BIORETENTION AREA AND INSTALLATION OF SUBSURFACE DETENTION BASIN. A LICENSED PROFESSIONAL OR DESIGNEE KNOWLEDGEABLE IN THE DESIGN AND CONSTRUCTION OF BIORETENTION & DETENTION FACILITIES, PREFERABLY THE DESIGN ENGINEER, SHALL CONDUCT THE OVERSIGHT.** CONVERSION SHALL INCLUDE REMOVING ALL SEDIMENT WITHIN THE BIORETENTION & SUBSURFACE DETENTION AREAS. **NOTE: SILT SHALL NOT BE PERMITTED TO ENTER BIORETENTION OR SUBSURFACE DETENTION AREAS.**

9. INITIATE FINAL GRADING AND PLACEMENT OF TOPSOIL IN ALL LANDSCAPE AREAS. AS SOON AS SLOPES, CHANNELS, DITCHES AND OTHER DISTURBED AREAS REACH FINAL GRADE, THEY MUST BE STABILIZED. ALL LANDSCAPE AREAS MUST BE STABILIZED AND PERMANENT SEEDING OR PLACEMENT OF SOD MUST BE APPLIED. WHEN FINAL GRADE IS ACHIEVED DURING NON-GERMINATING MONTHS, THE AREA SHOULD BE MULCHED UNTIL THE BEGINNING OF THE NEXT PLANTING SEASON. **NOTE: 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.** AS DISTURBED AREAS WITHIN A PROJECT APPROACH FINAL GRADE, PREPARATIONS SHOULD BE MADE FOR SEEDING AND MULCHING TO BEGIN (I.E. ANTICIPATE THE COMPLETION DATE AND SCHEDULE THE SEEDER). IN NO CASE SHOULD AN AREA EXCEEDING 15,000 SQUARE FEET, WHICH IS TO BE STABILIZED BY VEGETATION, REACH FINAL GRADE WITHOUT BEING SEEDED AND MULCHED. WAITING UNTIL EARTHMOVING IS COMPLETED BEFORE MAKING PREPARATIONS FOR SEEDING AND MULCHING IS NOT ACCEPTABLE. SEEDING AND MULCHING REQUIREMENTS ARE SPECIFIED IN THE GENERAL CONSERVATION NOTES AND SPECIFICATIONS.

10. INSTALL BITUMINOUS PAVEMENT AND CONCRETE INCLUDING SIDEWALKS.

11. INSTALL FINAL VEGETATION AND LANDSCAPING SPECIFIED ON THE LANDSCAPE PLAN.

12. **CRITICAL STAGE** – UPON SITE STABILIZATION (UNIFORM COVERAGE OR DENSITY OF 70% ACROSS ALL DISTURBED AREAS) AND NOTIFICATION OF THE CCCD, REMOVE EROSION AND SEDIMENT CONTROL FACILITIES. ALL STORM SEWERS MUST BE FLUSHED. SEDIMENT TRAP AG-B SHALL BE MUCKED OUT AND CONVERTED TO DETENTION BASIN AG-B AND PLANTED PER LANDSCAPE PLANS. INSTALL ORIFICE PLATES AT EXIST. BASIN AG-B OUTLET STRUCTURE. ANY AREA DISTURBED DURING THE REMOVAL OF EROSION AND SEDIMENT CONTROL FACILITIES SHALL BE STABILIZED IMMEDIATELY.

13. **CRITICAL STAGE** – INSTALL WATER QUALITY SNOUTS ON WATER QUALITY INLETS AS SPECIFIED ON THE POST CONSTRUCTION STORMWATER MANAGEMENT PLAN. **THE PERMITTEE SHALL PROVIDE ENGINEERING OVERSIGHT FOR THE INSTALLATION OF WATER QUALITY SNOUTS. A LICENSED PROFESSIONAL OR DESIGNEE KNOWLEDGEABLE IN THE DESIGN AND INSTALLATION OF WATER QUALITY SNOUTS, PREFERABLY THE DESIGN ENGINEER, SHALL CONDUCT THE OVERSIGHT.**

14. CLEAR SIGHT OF DEBRIS AND ALL UNWANTED MATERIALS. OPERATOR SHALL REMOVE FROM SITE, RECYCLE OR DISPOSE OF ALL BUILDING MATERIALS AND WASTES IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 260.1 ET SEQ., 271.1 ET SEQ. THE CONTRACTOR SHALL NOT ILLEGALLY BURY, DUMP OR DISCHARGE ANY BUILDING MATERIAL OR WASTE AT THIS SITE.

15. DEMOBILIZE.

16. A NOTICE OF TERMINATION FORM SHOULD BE SUBMITTED TO THE CHESTER COUNTY CONSERVATION DISTRICT UPON STABILIZATION AND FINAL COMPLETION OF THIS PROJECT.

GENERAL NOTES

1. INLET COVER SHALL CONSIST OF PLYWOOD CUT TO MATCH DIMENSIONS OF INLET GRATE AND SHALL BE WEIGHTED DOWN WITH HEAVY CONCRETE BLOCKS.

UTILITY LINE TRENCH EXCAVATION NOTES

1. LIMIT ADVANCED CLEARING AND GRUBBING OPERATIONS TO A DISTANCE EQUAL TO TWO TIMES THE LENGTH OF PIPE INSTALLATION THAT CAN BE COMPLETED IN ONE DAY.

2. WORK CREWS AND EQUIPMENT FOR TRENCHING, PLACEMENT OF PIPE, PLUG CONSTRUCTION AND BACKFILLING WILL BE SELF CONTAINED AND SEPARATE FROM CLEARING AND GRUBBING AND SITE RESTORATION AND STABILIZATION OPERATIONS.

3. ALL SOIL EXCAVATED FROM THE TRENCH WILL BE PLACED ON THE UPHILL SIDE OF THE TRENCH.

4. LIMIT DAILY TRENCH EXCAVATION TO THE LENGTH OF PIPE PLACEMENT, PLUG INSTALLATION AND BACKFILLING THAT CAN BE COMPLETED THE SAME DAY.

5. WATER WHICH ACCUMULATES IN THE OPEN TRENCH WILL 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 TRENCH BACKFILLING, THE DISTURBED AREA WILL BE GRADED TO FINAL CONTOURS AND IMMEDIATELY STABILIZED.

MAINTENANCE EROSION CONTROL NOTES

ALL MEASURES STATED ON THIS EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION UNTIL NO LONGER REQUIRED FOR A COMPLETED PHASE OF WORK OR FINAL STABILIZATION OF THE SITE. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE CHECKED BY A QUALIFIED PERSON AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF EACH RAINFALL EVENT, AND CLEANED AND REPAIRED IN ACCORDANCE WITH THE FOLLOWING:

1. INLET PROTECTION DEVICES AND BARRIERS SHALL BE REPAIRED OR REPLACED IF THEY SHOW SIGNS OF UNDERMINING, OR DETERIORATION.

2. ALL SEEDED AREAS SHALL BE CHECKED REGULARLY TO SEE THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED, WATERED AND RESEEDED AS NEEDED.

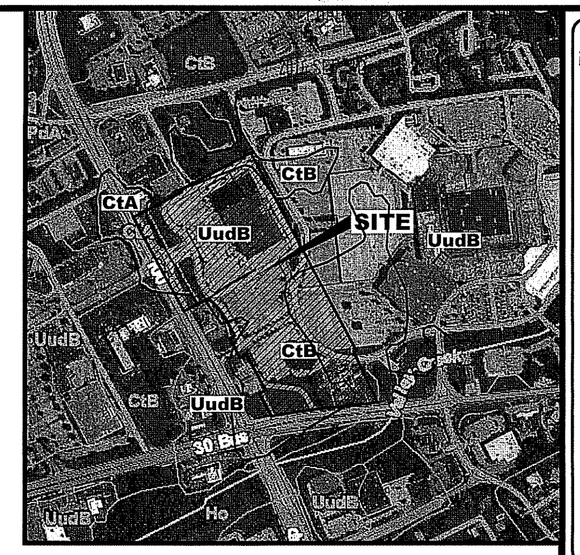
3. SILT FENCES SHALL BE REPAIRED TO THEIR ORIGINAL CONDITIONS IF DAMAGED. SEDIMENT SHALL BE REMOVED FROM THE SILT FENCES WHEN IT REACHES ONE-HALF THE HEIGHT OF THE SILT FENCE.

4. THE CONSTRUCTION ENTRANCES SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE CONSTRUCTION ENTRANCES AS CONDITIONS DEMAND.

5. THE TEMPORARY PARKING AND STORAGE AREA SHALL BE KEPT IN GOOD CONDITION (SUITABLE FOR PARKING AND STORAGE). THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE TEMPORARY PARKING AS CONDITIONS DEMAND.

6. PRIOR TO LEAVING THE SITE, ALL VEHICLES SHALL BE CLEANED OF DEBRIS AND/OR SEDIMENT. DEBRIS AND/OR SEDIMENT REACHING THE PUBLIC STREET SHALL BE CLEANED IMMEDIATELY BY A METHOD OTHER THAN FLUSHING.

REFER TO "EROSION & SEDIMENT POLLUTION CONTROL CALCULATIONS (PHASE I)", DATED 11-10-2015



SOILS MAP

1"=1,000'

500' 0 1,000'

SOIL LEGEND

CtA--CONESTOGA SILT LOAM, 0 TO 3 PERCENT SLOPES
THE CONESTOGA COMPONENT MAKES UP 90 PERCENT OF THE MAP UNIT. SLOPES ARE 0 TO 3 PERCENT. THIS COMPONENT IS ON HILLSIDES, HILLS. THE PARENT MATERIAL CONSISTS OF RESIDUUM WEATHERED FROM SCHIST AND/OR RESIDUUM WEATHERED FROM LIMESTONE. DEPTH TO A ROOT RESTRICTIVE LAYER, BEDROCK, LITHIC, IS 60 TO 99 INCHES. THE NATURAL DRAINAGE CLASS IS WELL DRAINED. WATER MOVEMENT IN THE MOST RESTRICTIVE LAYER IS MODERATELY HIGH. AVAILABLE WATER TO A DEPTH OF 60 INCHES (OR RESTRICTED DEPTH) IS MODERATE. SHRINK-SWELL POTENTIAL IS LOW. THIS SOIL IS NOT FLOODED. IT IS NOT PONDED. THERE IS NO ZONE OF WATER SATURATION WITHIN A DEPTH OF 72 INCHES. ORGANIC MATTER CONTENT IN THE SURFACE HORIZON IS ABOUT 3 PERCENT. NONIRRIGATED LAND CAPABILITY CLASSIFICATION IS 1. THIS SOIL DOES NOT MEET HYDRIC CRITERIA.

CtB--CONESTOGA SILT LOAM, 3 TO 8 PERCENT SLOPES
THE CONESTOGA COMPONENT MAKES UP 90 PERCENT OF THE MAP UNIT. SLOPES ARE 3 TO 8 PERCENT. THIS COMPONENT IS ON HILLSIDES, HILLS. THE PARENT MATERIAL CONSISTS OF RESIDUUM WEATHERED FROM LIMESTONE. DEPTH TO A ROOT RESTRICTIVE LAYER, BEDROCK, LITHIC, IS 60 TO 99 INCHES. THE NATURAL DRAINAGE CLASS IS WELL DRAINED. WATER MOVEMENT IN THE MOST RESTRICTIVE LAYER IS MODERATELY HIGH. AVAILABLE WATER TO A DEPTH OF 60 INCHES (OR RESTRICTED DEPTH) IS MODERATE. SHRINK-SWELL POTENTIAL IS LOW. THIS SOIL IS NOT FLOODED. IT IS NOT PONDED. THERE IS NO ZONE OF WATER SATURATION WITHIN A DEPTH OF 72 INCHES. ORGANIC MATTER CONTENT IN THE SURFACE HORIZON IS ABOUT 3 PERCENT. NONIRRIGATED LAND CAPABILITY CLASSIFICATION IS 2E. THIS SOIL DOES NOT MEET HYDRIC CRITERIA.

UudB--URBAN LAND-UDORTHENTS, LIMESTONE COMPLEX, 0 TO 8 PERCENT SLOPES
THE UDORTHENTS, LIMESTONE COMPONENT MAKES UP 15 PERCENT OF THE MAP UNIT. SLOPES ARE 0 TO 8 PERCENT. THIS COMPONENT IS ON VALLEYS, HILLS, UPLANDS. THE PARENT MATERIAL CONSISTS OF GRADED AREAS OF ARGILLACEOUS LIMESTONE. DEPTH TO A ROOT RESTRICTIVE LAYER, BEDROCK, LITHIC, IS 20 TO 99 INCHES. THE NATURAL DRAINAGE CLASS IS MODERATELY WELL DRAINED. WATER MOVEMENT IN THE MOST RESTRICTIVE LAYER IS MODERATELY LOW. AVAILABLE WATER TO A DEPTH OF 60 INCHES (OR RESTRICTED DEPTH) IS HIGH. SHRINK-SWELL POTENTIAL IS MODERATE. THIS SOIL IS NOT FLOODED. IT IS NOT PONDED. A SEASONAL ZONE OF WATER SATURATION IS AT 21 INCHES DURING JANUARY, FEBRUARY, MARCH, NOVEMBER, DECEMBER. ORGANIC MATTER CONTENT IN THE SURFACE HORIZON IS ABOUT 2 PERCENT. NONIRRIGATED LAND CAPABILITY CLASSIFICATION IS 7S. THIS SOIL DOES NOT MEET HYDRIC CRITERIA.

RECEIVING WATERS:

STORMWATER FROM THIS SITE DISCHARGES INTO VALLEY CREEK. VALLEY CREEK HAS A CHAPTER 93 CLASSIFICATION OF COLD WATER FISHERY (CWF)

LINE LEGEND

- PROPERTY LINE
- LEGAL RIGHT-OF-WAY LINE
- EXIST. CURB
- EXIST. FENCE
- EXIST. CONTOUR LINE
- EXIST. STORM SEWER PIPE
- PROP. CONTOUR LINE
- PROP. STORM SEWER PIPE
- PROP. FLUSH CURB
- PROP. CURB
- SOILS DELINEATION LINE
- LIMIT OF DISTURBANCE
- LIMIT OF NPDES BOUNDARY
- SSF TEMPORARY FILTER SOXX

SYMBOL LEGEND

- EXIST. INLET
- EXIST. MANHOLE
- EXIST. FIRE HYDRANT
- EXIST. WATER VALVE
- EXIST. UNKNOWN VALVE
- EXIST. SIGN
- EXIST. LIGHT POLE
- EXIST. CLEANOUT
- PROPOSED SOIL EROSION CONTROL BLANKET
- CtB SOILS TYPE
- PROP. STORM INLET
- PROP. MANHOLE
- PROP. ROOFDRAIN
- PROP. CLEANOUT
- PROP. SIGN
- PROP. FIRE HYDRANT
- PROP. BOLLARD
- PROPOSED INLET W/ INLET PROTECTION
- PROPOSED TEMPORARY CONSTRUCTION ENTRANCE
- PROPOSED TEMPORARY STOCKPILE
- PROPOSED INLET W/ INLET COVER (SEE GENERAL NOTE #1 ON SHEET 24)

THIS PLAN IS FOR SOIL EROSION & SEDIMENT POLLUTION CONTROL PURPOSES ONLY

BOHLER ENGINEERING
SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
ENVIRONMENTAL CONSULTING
LANDSCAPE ARCHITECTURE
PROGRAM MANAGEMENT
TRANSPORTATION
◆ UPSTATE NEW YORK
◆ NEW ENGLAND
◆ NEW YORK METRO
◆ NEW YORK, NY
◆ NEW JERSEY
◆ NORTHERN VIRGINIA
◆ CENTRAL VIRGINIA
◆ RALEIGH, NC
◆ CHARLOTTE, NC
◆ TAMPA, FL
◆ ORLANDO, FL
◆ PHILADELPHIA, PA
◆ LEHIGH VALLEY, PA
◆ REHOBOTH BEACH, DE
◆ BALTIMORE, MD
◆ ANNAPOLIS, MARYLAND

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REVISIONS

REV	DATE	COMMENT	BY
2	12/14/15	GENERAL REVS	MAB
3	01/05/16	GENERAL REVS	DTL
4	01/15/16	PER CCCD COMMENTS	DTL
5	01/29/16	PER COMMENTS	DTL
6	03/03/16	PER CCCD COMMENTS	ACF
7	04/06/16	GENERAL REVS	DTL
8	04/21/16	GENERAL REVS	DTL
9	06/06/16	PER RECORD PLAN	DTL
10	07/13/16	GENERAL REVISIONS	DTL

CALL BEFORE YOU DIG!

PENNSYLVANIA LAW REQUIRES 3 WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND 10 WORKING DAYS IN DESIGN STAGE - STOP CALL

PA ONE CALL SYSTEM, INC. 1-800-242-1776

POCS SERIAL NUMBER 20150911340

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CHECKED BY: M.J.
DATE: 2015.10.19
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PROJECT:

PRELIMINARY/FINAL LAND DEVELOPMENT PLANS

FOR

PR EXTON SQUARE PROPERTY LP

EXTON SQUARE MALL GROCERY STORE

260 EXTON SQUARE MALL
WEST WHITELAND TOWNSHIP
CHESTER COUNTY, PA

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COMMONWEALTH OF PENNSYLVANIA
CORNELIUS BROWN
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SHEET TITLE:
PHASE I SOIL EROSION & SEDIMENT POLLUTION CONTROL PLAN

SHEET NUMBER:
24
OF 43

REVISION 10

I:\PA_R\11-PP140558_CADLAND DEV\REV-10\PP140558BASE-10-----LAYOUT 24-ESS

11580444 B: 20031 P: 1 SDP
09/30/2016 02:52 PM
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LIMITATIONS AND RESOLUTIONS:

1. SHOULD GROUNDWATER BE ENCOUNTERED DURING FOUNDATION OR UTILITY EXCAVATIONS, WATER SHALL BE PUMPED FROM TRENCH INTO FILTER BAG.

2. DUE TO GRADING LIMITATIONS OF SOILS DURING WINTER MONTHS, THE CONTRACTOR SHALL NOT GRADE THESE SOILS DURING FROSTING OR ICING CONDITIONS.

3. SHOULD BEDROCK BE ENCOUNTERED DURING FOUNDATION OR UTILITY EXCAVATION, ROCK SHALL BE REMOVED AND DISPOSED OF IN A LEGAL MANNER.

4. SOIL TEST SHOULD BE PERFORMED TO DETERMINE SOIL SUITABILITY FOR TOPSOIL. IF SOIL IS DETERMINED TO BE UNSUITABLE THEN TOPSOIL SHALL BE IMPORTED AND DISTRIBUTED THROUGHOUT THE SITE AS REQUIRED.

5. REGARDING KARST TOPOGRAPHY, IT IS RECOMMENDED THAT AREAS OF OBSERVED AND/OR SUSPECTED SINKHOLE ACTIVITY BE FURTHER INVESTIGATED DURING CONSTRUCTION AND THAT SINKHOLE REMEDIATION BE PERFORMED AS NECESSARY. ANY AREAS OF SUSPECTED SINKHOLE ACTIVITY THAT ARE ENCOUNTERED DURING CONSTRUCTION SHOULD BE CLEARLY MARKED UNTIL ADEQUATE EVALUATION OF THESE AREAS CAN BE PERFORMED. SUCH EVALUATION AND ANY REQUIRED REPAIRS SHOULD BE PERFORMED AS SOON AS PRACTICABLE AND BEFORE FURTHER CONSTRUCTION ACTIVITIES IN THE IMMEDIATE VICINITY. ALSO REFERENCE FIGURES 17.2 &_17.3 FROM PADEP E&S MANUAL (INCLUDED IN THESE PLANS) WHICH ADDRESS SINKHOLE REMEDIATION. THE GEOTECHNICAL ENGINEER OF RECORD SHALL BE CONTACTED IN THE EVENT SINKHOLES OR OTHER KARST-RELATED ISSUES ARISE ON-SITE DURING CONSTRUCTION.

SEEDING SPECIFICATIONS

1. SEEDING DATES:
   A. SEEDING SHALL OCCUR BETWEEN MARCH 1ST AND MAY 15TH OR BETWEEN AUGUST 15TH AND NO LATER THAN OCTOBER 15TH.
   B. IF SEEDING CANNOT BE CONDUCTED DURING THE TIMEFRAMES NOTED ABOVE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE LOCAL CONSERVATION DISTRICT AND ALL APPROPRIATE AGENCIES TO DETERMINE AN ACCEPTABLE MEANS IN WHICH TO STABILIZE THE SITE THROUGH THE NEXT GROWING SEASON.
2. SEED MIXTURES: SEED MIXTURE TO BE USED ON THIS SITE SHALL CONSIST OF THE FOLLOWING UNLESS OTHERWISE NOTED ON THE PLANS. RATES ARE IN THE FORM OF POUNDS PER ACRE (LB/A) PER PURE LIVE SEED (POUNDS / ACRE PLS). CONTRACTOR WILL NEED TO ADJUST ACCORDINGLY BASED ON THE SEED GERMINATION AND PURITY RATING (SEE ITEM #3 BELOW).
   A. TEMPORARY SEED MIXTURES: DISTURBED AREAS WHICH ARE NOT AT FINISHED GRADE AND WHICH WILL BE DISTURBED AGAIN WITHIN TWELVE (12) MONTHS MUST BE SEEDED WITH A TEMPORARY SEED MIXTURE AS FOLLOWS:

      ANNUAL RYE (40 POUNDS / ACRE PLS)
      OR SPRING OATS (96 POUNDS / ACRE PLS)
      OR WINTER RYE (168 POUNDS / ACRE PLS)

      (REFERENCE: PENN STATE "EROSION CONTROL & CONSERVATION PLANTINGS ON NONCROPLAND", TABLE 5)

   B. PERMANENT SEEDING SHALL CONSIST OF A NURSE CROP PLUS A PERMANENT SEED MIXTURE, AS FOLLOWS:
      I. NURSE CROP (SELECT ONE):

         ANNUAL RYE (10 POUNDS / ACRE PLS)
         OR SPRING OATS (64 POUNDS / ACRE PLS)
         OR WINTER RYE (56 POUNDS / ACRE PLS)

         (REFERENCE: PA DEP EROSION AND SEDIEMENT CONTROL PROGRAM MANUAL, LATEST EDITION, TABLE 11.4, SEED MX #1)

      II. PERMANENT SEED MIX:

         TALL FESCUES (64 POUNDS / ACRE PLS)
         OR FINE FESCUE (35 POUNDS / ACRE PLS)
         OR KENTUCKY BLUEGRASS (25 POUNDS / ACRE PLS) PLUS REDTOP (3 POUNDS / ACRE PLS)
         OR PERENNIAL RYEGRASS (15 POUNDS / ACRE PLS)

         (REFERENCE: PA DEP EROSION AND SEDIEMENT CONTROL PROGRAM MANUAL, LATEST EDITION, TABLE 11.4, SEED MX #2)

3. PURE LIVE SEED:
   A. SEED USED FOR THE PURPOSE OF PERMANENT STABILIZATION SHALL BE LABELED WITH GERMINATION AND PURITY PERCENTAGES. UNLABELED SEED WILL BE REJECTED. SEED SHALL NOT BE USED MORE THAN ONE (1) YEAR BEYOND THE LABEL DATE.
   B. DETERMINING THE PERCENT PURE LIVE SEED (PERCENT PLS) OF A LABELED SEED: MULTIPLY BY THE PERCENTAGE OF PURE SEED BY THE PERCENTAGE OF GERMINATION AND DIVIDE THE RESULT BY 100 ((%PURE X %GERMINATION) / 100)
   C. DETERMINING THE ACTUAL SEED RATE: SIMPLY DIVIDE THE PERCENT PLS RATING OF THE SEED INTO THE PLS REQUIRED, AS NOTED ABOVE. THE RESULT IS THE POUNDS OF SEED REQUIRED. FOR EXAMPLE: IF THE REQUIRED RATE IS 64 POUNDS PLS, AND THE SEED IS RATED AT 35% PLS, DIVIDE 64 BY 0.35 TO GET 182.9 POUNDS, WHICH IS THE AMOUNT OF THAT SEED REQUIRED PER ACRE.
4. APPLICATION OF SEED: SEEDING SHALL BE APPLIED AND ESTABLISHED IN ACCORDANCE WITH THE "EROSION AND SEDIMENT POLLUTION CONTROL PROGRAM MANUAL" AS PUBLISHED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION BUREAU OF WATER QUALITY PROTECTION (MOST RECENT EDITION).
   A. SEED SHALL BE APPLIED IN A NON-COMPACTED, ROUGHENED TOPSOIL.
   B. SEED MAY BE APPLIED THROUGH ANY OF THE FOLLOWING MEANS AND METHODS, OR OTHER ACCEPTED INDUSTRY PRACTICES, UNLESS SPECIFICALLY NOTED OTHERWISE ON THESE PLANS:
      I. DRILL SEEDING
      II. BROADCAST SEEDING (TWO DIRECTIONS)
      III. HYDROSEEDING (TWO DIRECTIONS)
   C. ALL SEED SHALL BE TEMPORARILY OR PERMANENTLY STABILIZED UNTIL A 70% PERENNIAL COVER IS ACHIEVED:
      I. TEMPORARY STABILIZATION WITH STRAW:
         1. STRAW MULCH SHALL BE APPLIED ON TOP OF THE FRESHLY SEEDED AREAS AT A RATE OF 3 TONS PER ACRE (4 TONS PER ACRE BETWEEN NOVEMBER 1ST AND MARCH 15T).
         2. STRAW SHALL BE STABILIZED WITH A WOOD OR PAPER FIBER MULCH AND TACKIFIER SOLUTION IN ACCORDANCE WITH THE PRODUCT MANUFACTURER'S SPECIFICATIONS.
      II. TEMPORARY/PERMANENT STABILIZATION WITH EROSION CONTROL MATTING/BLANKETS (WHERE SPECIFIED):
         1. MATTING/BLANKETS SHALL BE INSTALLED IN AREAS AS NOTED ON THE EROSION & SEDIMENT CONTROL PLAN OR WITHIN 50 FEET OF PONDS, STREAMS OR WETLANDS. THE PRODUCT SHALL BE INSTALLED AND STAPLED ON TOP OF THE SEEDING IN ACCORDANCE WITH MANUFACTURER SPECIFICATIONS.
         2. AREAS WITH MATTING/BLANKETS SHALL NOT BE TRACKED (CATWALKED) AFTER INSTALLATION.
         3. MATTING/BLANKETS SHALL BE VISUALLY INSPECTED DAILY TO ENSURE THAT THE PRODUCT IS FUNCTIONING PROPERLY, IS HELD FAST TO THE SOIL SURFACE AND IS IN GOOD CONDITION
   D. ONCE SEED HAS BEEN SET, VEHICULAR TRAFFIC OR OTHER SOURCES OF COMPACTION SHALL BE AVOIDED
5. IRRIGATION: NEW SEED APPLICATIONS SHOULD BE SUPPLIED WITH ADEQUATE WATER, A MINIMUM OF ½" TWICE A DAY, UNTIL VEGETATION IS WELL ESTABLISHED (A MINIMUM OF 75% COVER).

MONITORING, INSPECTION, AND REPORTING REQUIREMENTS

VISUAL INSPECTIONS

THE PERMITTEE AND CO-PERMITTEE(S) MUST ENSURE THAT VISUAL SITE INSPECTIONS ARE CONDUCTED WEEKLY, AND WITHIN 24 HOURS AFTER EACH MEASURABLE RAINFALL EVENT THROUGHOUT THE DURATION OF CONSTRUCTION AND UNTIL THE RECEIPT AND ACKNOWLEDGEMENT OF THE NOT BY THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT. THE VISUAL SITE INSPECTIONS AND REPORTS SHALL BE COMPLETED IN A FORMAT PROVIDED BY THE DEPARTMENT, AND CONDUCTED BY QUALIFIED PERSONNEL, TRAINED AND EXPERICIED IN EROSION AND SEDIMENT CONTROL, TO ASCERTAIN THAT E&S BMPS AND PCSM BMPS ARE PROPERLY CONSTRUCTED AND MAINTAINED TO EFFECTIVELY MINIMIZE POLLUTION TO THE WATERS OF THIS COMMONWEALTH. A WRITTEN REPORT OF EACH INSPECTION SHALL BE KEPT AND INCLUDE AT A MINIMUM:

(1) A SUMMARY OF SITE CONDITIONS, E&S BMP AND PCSM BMP, IMPLEMENTATION AND MAINTENANCE AND COMPLIANCE ACTIONS; AND

(2) THE DATE, TIME, NAME AND SIGNATURE OF THE PERSON CONDUCTING THE INSPECTION.

NONCOMPLIANCE REPORTING

WHERE E&S, PCSM OR PYC BMPS ARE FOUND TO BE INOPERATIVE OR INEFFECTIVE DURING AN INSPECTION, OR ANY OTHER TIME, THE PERMITTEE AND CO-PERMITTEE(S) SHALL, WITHIN 24 HOURS, CONTACT THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT, BY PHONE OR PERSONAL CONTACT, FOLLOWED BY THE SUBMISSION OF A WRITTEN REPORT WITHIN 5 DAYS OF THE INITIAL CONTACT. NONCOMPLIANCE REPORTS SHALL INCLUDE THE FOLLOWING INFORMATION:

(1) ANY CONDITION ON THE PROJECT SITE WHICH MAY ENDANGER PUBLIC HEALTH, SAFETY, OR THE ENVIRONMENT, OR INVOLVE INCIDENTS WHICH CAUSE OR THREATEN POLLUTION;

(2) THE PERIOD OF NONCOMPLIANCE, INCLUDING EXACT DATES AND TIMES AND/OR ANTICIPATED TIME WHEN THE ACTIVITY WILL RETURN TO COMPLIANCE;

(3) STEPS BEING TAKEN TO REDUCE, ELIMINATE, AND PREVENT RECURRENCE OF THE NONCOMPLIANCE; AND

(4) THE DATE OR SCHEDULE OF DATES, AND IDENTIFYING REMEDIES FOR CORRECTING NONCOMPLIANCE CONDITIONS.

REDUCTION, LOSS, OR FAILURE OF THE BMPS

UPON REDUCTION, LOSS, OR FAILURE OF THE BMPS, THE PERMITTEE AND CO-PERMITTEE SHALL TAKE IMMEDIATE ACTION TO RESTORE THE BMPS OR PROVIDE AN ALTERNATIVE METHOD OF TREATMENT. SUCH RESTORED BMPS OR ALTERNATIVE TREATMENT SHALL BE AT LEAST AS EFFECTIVE AS THE ORIGINAL BMPS.

TERMINATION OF COVERAGE

NOTE: UPON PERMANENT STABILIZATION OF EARTH DISTURBANCE ACTIVITIES ASSOCIATED WITH CONSTRUCTION ACTIVITY THAT ARE AUTHORIZED BY THIS PERMIT AND WHEN BMPS IDENTIFIED IN THE PCSM PLAN HAVE BEEN PROPERLY INSTALLED, THE PERMITTEE AND/OR CO-PERMITTEE OF THE FACILITY MUST SUBMIT A NOT FORM THAT IS SIGNED IN ACCORDANCE WITH PART B, SECTION I.C, SIGNATORY REQUIREMENTS, OF THIS PERMIT. ALL LETTERS CERTIFYING DISCHARGE TERMINATION ARE TO BE SENT TO THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT. THE NOT MUST CONTAIN THE FOLLOBING INFORMATION: FACILITY NAME, ADDRESS, AND LOCATION, OPERATOR NAME AND ADDRESS, PERMIT NUMBER, IDENTIFICATION AND PROOF OF ACKNOWLEDGEMENT FROM THE PERSON(S) WHO WILL BE RESPONSIBLE FOR OPERATION AND MAINTENANCE OF THE PCSM BMPS IN ACCORDANCE WITH THE APPROVED PCSM PLAN. AND THE REASON FOR PERMIT TERMINATION. UNTIL THE PERMITTEE HAS RECEIVED WRITTEN ACKNOWLEDGEMENT OF THE NOI, THE PERMITTEE WILL REMAIN RESPONSIBLE FOR OPERATING AND MAINTAINING ALL E&S BMPS AND PCSM BMPS ON THE PROJECT SITE AND WILL BE RESPONSIBLE FOR VIOLATIONS OCCURRING ON THE PROJECT SITE.

COMPLETION CERTIFICATE AND FINAL PLANS

WITHIN 30 DAYS AFTER THE COMPLETION OF EARTH DISTURBANCE ACTIVITIES AUTHORIZED BY THIS PERMIT, INCLUDING THE PERMANENT STABILIZATION OF THE SITE AND PROPER INSTALLATION OF PCSM BMPS IN ACCORDANCE WITH THE APPROVED PCSM PLAN, OR UPON SUBMISSION OF THE NOT IF SOONER, THE PERMITTEE SHALL FILE WITH THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT A STATEMENT SIGNED BY A LICENSED PROFESSIONAL AND BY THE PERMITTEE CERTIFYING THAT WORK HAS BEEN PERFORMED IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF THIS PERMIT AND THE APPROVED E&S AND PCSM PLANS.

SPECIAL GEOLOGIC AND SOIL CONDITIONS

THERE ARE NO KNOWN GEOLOGIC FORMATIONS/SOIL CONDITION ISSUES THAT HAVE THE POTENTIAL TO CAUSE POLLUTION.

GENERAL CONSERVATION NOTES AND SPECIFICATIONS

I. GENERAL INFORMATION

A. THIS EROSION AND SEDIMENT CONTROL PLAN SHALL BE AVAILABLE AT THE SITE.
B. NO SEDIMENT OR SEDIMENT LADEN WATER MUST BE ALLOWED TO LEAVE THE SITE WITHOUT FIRST BEING PROPERLY FILTERED.
C. ANY SEDIMENT THAT IS TRACKED ONTO THE ROAD MUST BE CLEANED OFF BEFORE THE END OF THE DAY.
D. DISTURBED AREAS ON WHICH EARTHMOVING ACTIVITIES HAVE CEASED AND WHICH WILL REMAIN EXPOSED SHALL BE STABILIZED IMMEDIATELY, EITHER TEMPORARILY OR PERMANENTLY, INCLUDING THE RESTORATION OF DRIVEWAYS, STOCKPILES, OFF-SITE UNDERGROUND UTILITY LINES AND GRADED PERIMETER AREAS. DURING NON-GERMINATION PERIODS, MULCH MUST BE APPLIED AT RECOMMENDED RATES. CRUSHED STONE ON PAVEMENT SUBGRADES IS CONSIDERED ADEQUATE STABILIZATION.
E. AREAS THAT FAIL TO GERMINATE MUST BE RE-SEEDED OR MULCHED.
F. WHERE DISTURBED AREAS ARE DIFFICULT TO STABILIZE, NETTING SHOULD BE USED TO HOLD SEED AND MULCH IN PLACE; THIS IS ESPECIALLY IMPORTANT AROUND INLETS, DRAINAGE SWALES, IN SWALES AND AREAS OF CONCENTRATED FLOWS, STEEP SLOPES.
G. UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENTATION MUST BE MAINTAINED PROPERLY. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENT CONTROL AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, RE-GRADING, RE-SEEDING, RE-MULCHING, AND RE-NETTING, MUST BE PERFORMED IMMEDIATELY.
H. IF AT ANY TIME PRIOR TO SITE STABILIZATION ANY E&SP PROBLEMS OCCUR WHICH REQUIRE ADDITIONAL CONTROLS, IMMEDIATE ACTION MUST BE TAKEN TO CORRECT THE PROBLEMS.
I. THE CONTRACTOR MUST DEVELOP AND COORDINATE WITH OWNER AND HAVE APPROVED BY THE COUNTY CONSERVATION DISTRICT, A SEPARATE EROSION AND SEDIMENT POLLUTION CONTROL PLAN FOR EACH SPOIL, BORROW OR OTHER WORK AREA NOT DETAILED ON THE PERMITTED PLANS, WHETHER LOCATED WITHIN OR OUTSIDE OF THE LIMITS OF CONSTRUCTION.
J. CONTRACTOR SHALL NOTIFY THE COUNTY CONSERVATION DISTRICT OF DISPOSAL METHOD AND LOCATION OF MATERIALS (IF ANY) TO BE REMOVED FROM SITE.
K. STANDARD FOR DISPOSAL OF MATERIALS ALL MATERIALS TO BE RECYCLED OR DISPOSED OF MUST DO SO IN ACCORDANCE WITH ALL APPLICABLE STATE AND LOCAL REGULATIONS. STOCKPILES TO BE HAULED OFF SITE MUST HAVE AN APPROVED EROSION AND SEDIMENT CONTROL PLAN AT THE DESTINATION LOCATION.
L. THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN SOIL STABILIZATION THROUGHOUT CONSTRUCTION. ADDITIONAL MEASURES REQUIRED TO ENSURE ON-SITE AND OFF-SITE STABILIZATION IN AND ADJACENT TO CONSTRUCTION ACTIVITIES SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND HALL BE AT-NO COST TO THE OWNER. IMMEDIATE NOTIFICATION SHALL BE GIVEN TO THE OWNER AND ENGINEER SHOULD ADDITION STABILIZATION MEASURES BE NECESSARY, IN ACCORDANCE WITH THE NPDES AND/OR SIMILAR REQUIREMENTS FOR THE PROJECT.

II. STANDARD FOR LAND GRADING

A. DEFINITION: RESHAPING THE GROUND SURFACE BY GRADING TO PLAN GRADES, WHICH ARE DETERMINED BY TOPOGRAPHIC SURVEY AND LAYOUT.
   1. PROVISIONS SHALL BE MADE TO SAFELY CONDUCT SURFACE WATER TO STORM DRAINS OR SUITABLE WATER COURSES AND TO PREVENT SURFACE RUNOFF FROM DAMAGING CUT FACES AND FILL SLOPES.
   2. ADJOINING PROPERTY SHALL BE PROTECTED FROM EXCAVATION AND FILLING OPERATIONS.
B. INSTALLATION REQUIREMENTS
   1. TIMBER, LOGS, BRUSH, RUBBISH, ROCKS, STUMPS AND VEGETABLE MATTER WHICH WILL INTERFERE WITH THE GRADING OPERATION OR AFFECT THE PLANNED STABILITY OR FILL AREAS SHALL BE REMOVED AND DISPOSED OF IN ACCORDANCE WITH STANDARD FOR DISPOSAL OF MATERIALS.
   2. FILL MATERIAL IS TO BE FREE OF BRUSH, RUBBISH, TIMBER, LOGS, VEGETATIVE MATTER AND STUMPS IN AMOUNTS THAT WILL BE DETRIMENTAL TO CONSTRUCTING STABLE FILLS.
   3. ALL FILLS SHALL BE COMPACTED SUFFICIENTLY FOR THEIR INTENDED PURPOSE AND AS REQUIRED TO REDUCE SLIPPING, EROSION OR EXCESS SATURATION.
   4. ALL DISTURBED AREAS SHALL BE LEFT WITH A NEAT AND FINISHED APPEARANCE AND SHALL BE PROTECTED FROM EROSION.
   5. (SEE I. D.)

III. STANDARD FOR UTILITY TRENCH EXCAVATION

A. LIMIT ADVANCE CLEARING AND GRUBBING OPERATIONS TO A DISTANCE EQUAL TO TWO TIMES THE LENGTH OF PIPE INSTALLATION THAT CAN BE COMPLETED IN ONE DAY.
B. EXCAVATE TRENCH EXCAVATION TO THE LENGTH OF PIPE PLACEMENT, PLUG INSTALLATION AND BACKFILLING THAT CAN BE COMPLETED THE SAME DAY. DAILY BACKFILLING OF THE TRENCH MAY BE DELAYED FOR A MAX. OF SIX DAYS FOR CERTAIN CASES REQUIRING TESTING OF THE INSTALLED PIPE.
C. WATER WHICH ACCUMULATES IN THE OPEN TRENCH WILL BE COMPLETELY REMOVED BY PUMPING TO A FACILITY FOR REMOVAL OF SEDIMENT (SEDIMENT FILTER BAG, SEE DETAIL) BEFORE PIPE PLACEMENT AND/OR BACKFILLING BEGINS.
D. ON THE FOLLOWING PIPE PLACEMENT AND TRENCH BACKFILLING, THE DISTURBED AREA WILL BE GRADED TO FINAL CONTOURS AND APPROPRIATE TEMPORARY EROSION AND SEDIMENT POLLUTION CONTROL MEASURES / FACILITIES WILL BE INSTALLED. SEEDING AND MULCHING OF ALL DISTURBED AREAS WILL BE DONE IMMEDIATELY.
E. WORK CREWS AND EQUIPMENT FOR TRENCHING, PLACEMENT OF PIPE, PLUG CONSTRUCTION AND BACKFILLING WILL BE SELF CONTAINED AND SEPARATE FORM CLEARING AND GRUBBING AND SITE RESTORATION AND STABILIZATION OPERATIONS.
M. ALL SOIL EXCAVATED FROM THE TRENCH WILL BE PLACED ON THE UPHILL SIDE OF THE TRENCH.

IV. STANDARD FOR TEMPORARY STABILIZATION

A. STANDARD FOR TEMPORARY STABILIZATION WITH FIBERMULCH
   1. MULCHING IS MOST APPLICABLE TO THOSE AREAS SUBJECT TO PERIODIC DISTURBANCE AND REWORKING. IN ADDITION, STABILIZATION WITH FIBER MULCH SHALL BE USED DURING NON-GERMINATION PERIODS.
   2. PERFORM ALL CULTURAL OPERATIONS AT RIGHT ANGLES TO THE SLOPE.
   3. GRADE AS NEED AND FEASIBLE. SEE STANDARD FOR LAND GRADING.
   4. PROTECTIVE MATERIALS TO BE USED:
      A. UNROTTED SMALL-GRAIN UN-CHOPPED STRAW OR HAY AT 3.0 TONS PER ACRE (4 TONS PER ACRE BETWEEN NOVEMBER 1 AND MARCH 1) SPREAD UNIFORMLY AND ANCHORED WITH LIQUID MULCH BINDER. BINDER PRODUCTS SHALL BE INSTALLED IN ACCORDANCE WITH THE PRODUCT MANUFACTURER'S SPECIFICATIONS.
      B. HYDROMULCHER. USE IS LIMITED TO FLATTER SLOPES AND DURING OPTIMUM SEEDING PERIODS IN SPRING AND FALL. LIQUID MULCH BINDERS: APPLY IMMEDIATELY AFTER PLACEMENT OF HAY OR STRAW MULCH TO MINIMIZE LOSS BY WIND OR WATER. PRODUCTS TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURER SPECIFICATIONS.

B. STANDARD FOR TEMPORARY STABILIZATION WITH SEED
   1. DISTURBED AREAS WHICH ARE NOT AT FINISHED GRADE AND WHICH WILL BE REDISTURBED WITHIN TWELVE (12) MONTHS MUST BE SEEDED AND MULCHED IMMEDIATELY WITH A TEMPORARY COVER.
   2. ALL AREAS TO BE PERMANENTLY SEEDED SHALL ALSO RECEIVE TEMPORARY SEEDING CONCURRENTLY.
   3. SEEDBED PREPARATION FOR TEMPORARY SEEDING
      A. PERFORM ALL CULTURAL OPERATIONS AT RIGHT ANGLES TO SLOPE.
      B. APPLY AGRICULTURAL LIME
      C. APPLY 10-10-10 FERTILIZER A RATE OF 500 POUNDS PER ACRE
      D. WORK LIME AND FERTILIZER INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF FOUR (4) INCHES.

C. SEEDING: SEE SEEDING SPECIFICATIONS

V. STANDARD FOR PERMANENT STABILIZATION

A. SPECIFICATION FOR SEEDING & SOIL TREATMENT FOR PERMANENT VEGETATIVE COVER
   1. SITE PREPARATION
      A. GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION AND ANCHORING, AND MAINTENANCE.
      B. SUBSOIL SHOULD BE TESTED FOR LIME REQUIREMENT AND LIMESTONE, IF NEEDED, SHOULD BE APPLIED TO BRING SOIL PH TO BETWEEN 5.5 AND 7 AND INCORPORATED INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES.
      C. IMMEDIATELY PRIOR TO TOPSOIL DISTRIBUTION, THE SURFACE SHOULD BE SCARIFIED OR OTHERWISE LOOSENED TO A DEPTH OF 3-5 INCHES TO PROVIDE A GOOD BOND WITH THE TOPSOIL.
   2. APPLYING TOPSOIL
      A. TOPSOIL SHOULD BE HANDLED ONLY WHEN IT IS DRY ENOUGH TO WORK WITHOUT DAMAGING SOIL STRUCTURE.
      B. ALL DISTURBED TOPSOIL ON-SITE IS TO BE REDISTRIBUTED ON-SITE IN AREAS NOT COVERED BY IMPERVIOUS SURFACES. NO REMOVAL OF TOPSOIL IS ALLOWED UNLESS APPROVED BY THE TOWNSHIP. UNIFORM APPLICATION TO A DEPTH OF 4-8 INCHES (UNSETTLED) IS RECOMMENDED. SOILS WITH A PH OF 4.0 OR LESS OR CONTAINING IRON SULFIDE SHALL BE COVERED WITH A MINIMUM DEPTH OF 12 INCHES OF SOIL HAVING A PH OF 5.0 OR MORE.
   3. SEEDBED PREPARATION
      A. A SOIL TEST SHALL BE CONDUCTED TO ACCURATELY DETERMINE NECESSARY SOIL AMENDMENTS.
      B. PERFORM ALL CULTURAL OPERATIONS AT RIGHT ANGLES TO SLOPE.
      C. SOIL MODIFICATIONS:
         1. APPLY 10-10-40 RATED FERTILIZER AT A RATE OF 1000 POUNDS PER ACRE OR 25 POUNDS PER 1000 SQUARE FEET, OR AS DIRECTED BY SOIL TEST.
         2. APPLY AGRICULTURAL LIME AT A RATE OF 6 TONS PER ACRE OR 240 POUNDS PER 1000 SQUARE FEET, OR AS DIRECTED BY SOIL TEST.
      D. WORK LIME AND FERTILIZER INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES CONTINUE TILLAGE UNTIL A REASONABLY UNIFORM FINE SEEDBED IS PREPARED.
      E. REMOVE FROM THE SURFACE ALL STONES ONE INCHE (1") OR LARGER IN ANY DIMENSION, REMOVE ALL OTHER DEBRIS, SUCH AS WIRE, CABLE, TREE ROOTS, PIECES OF CONCRETE, CLODS, LUMPS OR OTHER UNSUITABLE MATERIAL.
      F. INSPECT SEEDBED JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED, THE AREA MUST BE RE-TILLED AND FIRMED AS ABOVE.
   4. SEEDING: SEE SEEDING SPECIFICATIONS

B. STANDARD FOR PERMANENT STABILIZATION WITH SOD
   1. METHODS AND MATERIALS
      A. CULTIVATED SOD IS PREFERRED OVER NATIVE OR PASTURE SOD. SPECIFY "CERTIFIED SOD," OR OTHER HIGH QUALITY CULTIVATED SOD.
      B. SOD SHOULD BE FREE OF WEEDS AND UNDESIRABLE COARSE WEEDY GRASSES.
      C. SOD SHOULD BE OF UNIFORM THICKNESS, APPROXIMATELY 5/8 INCH, PLUS OR MINUS 1/4 INCH, AT TIME OF CUTTING. (EXCLUDES TOP GROWTH).
      D. SOD SHOULD BE HEDROUS AND DENSE AND BE ABLE TO RETAIN ITS OWN SHAPE AND WEIGHT WHEN SUSPENDED VERTICALLY WITH A FIRM GRASP FROM THE UPPER 0% OF THE STRIP. BROKEN PADS OR TORN AND UNEVEN ENDS WILL NOT BE ACCEPTABLE.
      E. A SOD OF KENTUCKY 31 TALL FESCUE WITH BLUEGRASS, OR A FESCUE BLEND IS PREFERRED.
      F. ONLY MOIST, FRESH UNHEATED SOD SHOULD BE USED. SOD SHOULD BE HARVESTED, DELIVERED AND INSTALLED WITHIN A PERIOD OF 36 HOURS.
   2. SITE PREPARATIONS: SEE SPECIFICATION FOR SEEDING & SOIL TREATMENT FOR PERMANENT VEGETATIVE COVER (ITEM V.A. ABOVE)
   3. SOD PLACEMENT
      A. SOD STRIPS SHOULD BE LAID ON THE CONTOUR, NEVER UP AND DOWN THE SLOPE, STARTING AT THE BOTTOM OF THE SLOPE AND WORKING UP. ON STEEP SLOPES, THE USE OF LADDERS WILL FACILITATE THE WORK AND PREVENT DAMAGE TO THE SOD. DURING PERIODS OF HIGH TEMPERATURE, LIGHTLY IRRIGATE THE SOIL IMMEDIATELY PRIOR TO LAYING THE SOD.
      B. PLACE SOD STRIPS WITH SNUG EVEN JOINTS THAT ARE STAGGERED. OPEN SPACES INVITE EROSION.
      C. ROLL OR TAMP SOD IMMEDIATELY FOLLOWING PLACEMENT TO INSURE SOLID CONTACT OF ROOT-MAT AND SOIL SURFACE. DO NOT OVERLAP SOD. ALL JOINTS SHOULD BE BUTTED TIGHTLY IN ORDER TO PREVENT VOIDS, WHICH WOULD CAUSE DRYING OF THE ROOTS.
      D. ON SLOPES GREATER THAN 3 TO 1, SECURE SOD TO SURFACE SOIL WITH WOOD PEGS, WIRE STAPLES OR A BIODEGRADABLE FASTENER.
      E. SURFACE WATER CANNOT ALWAYS BE DIVERTED FROM FLOWING OVER THE FACE OF THE SLOPE, BUT A CAPPING STRIP OF HEAVY JUTE OR PLASTIC NETTING, PROPERLY SECURED, ALONG THE CROWN OF THE SLOPE AND EDGES WILL PROVIDE EXTRA PROTECTION AGAINST LIFTING AND UNDERCUTTING OF SOD. THE SAME TECHNIQUE CAN BE USED TO ANCHOR SOD IN WATER-CARRYING CHANNELS AND OTHER CRITICAL AREAS. WIRE STAPLES MUST BE USED TO ANCHOR NETTING IN CHANNEL WORK.
      F. IMMEDIATELY FOLLOWING INSTALLATION, SOD SHOULD BE WATERED UNTIL MOISTURE PENETRATES THE SOIL LAYER BENEATH THE SOD TO A DEPTH OF 4 INCHES. MAINTAIN OPTIMUM MOISTURE FOR AT LEAST TWO WEEKS.
   4. FOLLOW-UP INSPECTION: AFTER THE FIRST GROWING SEASON, THE SOD SHOULD BE INSPECTED TO DETERMINE IF ADDITIONAL FERTILIZATION OR LIMING IS NEEDED.

RESPONSIBILITIES FOR FILL MATERIALS

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 PROPERTY OWNER.

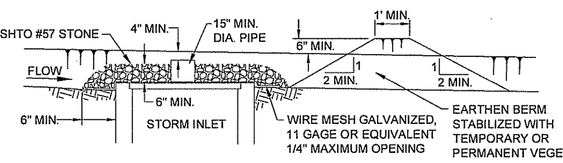
CLEAN FILL IS DEFINED AS: UNCONTAMINATED, NON-WATER SOLUBLE, NON-DECOMPOSABLE, INERT, SOLID MATERIAL. THE TERM INCLUDES SOIL, ROCK, STONE, DREDGED MATERIAL, USED ASPHALT, AND BRICK, BLOCK, OR CONCRETE FROM CONSTRUCTION AND DEMOLITION ACTIVITIES THAT IS SEPARATE FROM OTHER WASTE AND IS RECOGNIZABLE AS 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 OCEAN FILL PROVIDED THE TESTING REVEALS THAT THE FILL MATERIAL CONTAINS CONCENTRATIONS OF REGULATED SUBSTANCES THAT ARE BELOW THE RESIDENTIAL LIMITS IN TABLES FP-001 A AND FP-001 B FOUND IN THE DEPARTMENT'S POLICY "MANAGEMENT OF FILL".

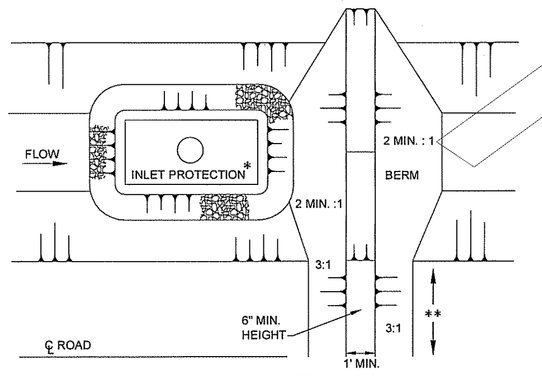
ANY PERSON PLACING CLEAN FILL THAT HAS BEEN AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE MUST USE FORM FP-001 TO CERTIFY THE ORIGIN OF THE FILL MATERIAL AND THE RESULTS OF THE ANALYTICAL TESTING TO QUALIFY THE MATERIAL AS CLEAN FILL. FORM FP-001 MUST BE RETAINED BY THE OWNER OF THE PROPERTY RECEIVING THE FILL. 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: INVESTICATIVE 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 REGULAT

11/25/2014 08:26:31 P:\...\PP140558_CADLAND DEV\REV-10\PP140558DETAILS-10.dwg Plot: 7 of 44

STANDARD CONSTRUCTION DETAIL #4-20
Stone Inlet Protection and Berm - Type M Inlet

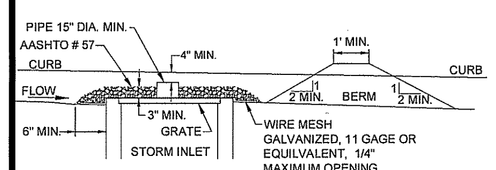


ELEVATION VIEW

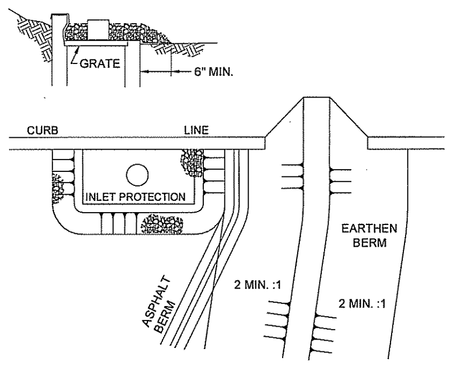


PLAN VIEW

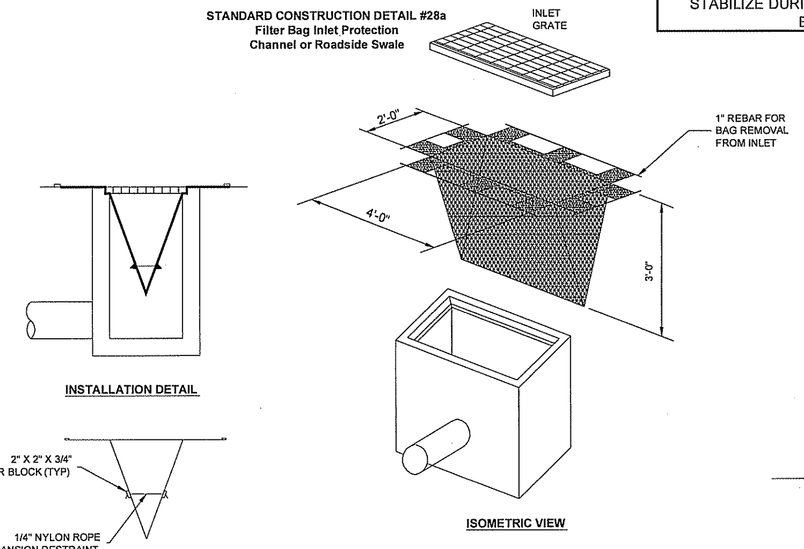
STANDARD CONSTRUCTION DETAIL #4-19
Stone Inlet Protection and Berm - Type C Inlet



ELEVATION VIEW



STANDARD CONSTRUCTION DETAIL #28a
Filter Bag Inlet Protection Channel or Roadside Swale



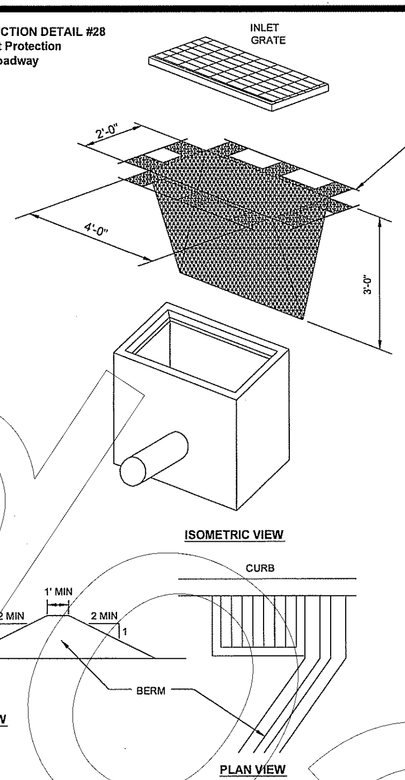
Maximum Drainage Area = 1/2 acre.

Inlet protection is not required for inlet tributary to sediment basin or trap. Berms required for all installations.

Earthen berm in roadway shall be maintained until roadway is stoned. Road subbase berm on roadway shall be maintained until roadway is paved. Earthen berm in channel shall be maintained until permanent stabilization is completed or to remain permanently.

DO NOT USE ON MAJOR PAVED ROADWAYS WHERE PONDING MAY CAUSE TRAFFIC HAZARDS

STANDARD CONSTRUCTION DETAIL #28
Filter Bag Inlet Protection Curbed Roadway



Maximum Drainage Area = 1/2 acre.

Inlet protection is not required for inlet tributary to sediment basin or trap. Berms required for all installations.

Earthen berm shall be maintained 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.

DO NOT USE ON MAJOR PAVED ROADWAYS WHERE PONDING MAY CAUSE TRAFFIC HAZARDS

FIGURE 3.18
Typical Compost Sock Washout Installation

A suitable impervious geomembrane shall be placed at the location of the washout prior to installing the socks.
Adapted from Filtrexx

HEAVY CONCRETE BLOCKS SHALL BE USED BEHIND THE SEDIMENT CONTROL TO STABILIZE DURING RAINFALL/RUNOFF EVENTS.

STANDARD CONSTRUCTION DETAIL #22
Super Filter Fabric Fence

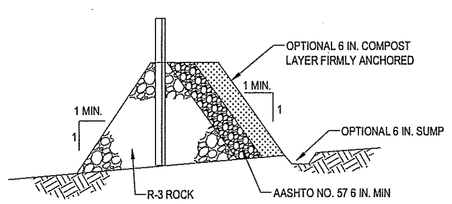
*** Posts spaced @ 10' max. Use 2 1/2" dia. galvanized or aluminum posts.**

**** Chain Link to Post Fasteners spaced @ 14" max. Use No. 6 Ga. aluminum wire or No. 9 galvanized steel pre-formed clips. Chain Link to Tension Wire Fasteners spaced @ 60" max. Use No. 10 Ga. galvanized steel wire. Fabric to Chain Fasteners spaced @ 24" max. C to C.**

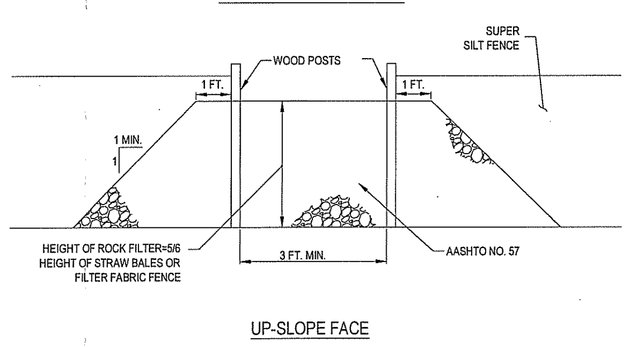
No. 7 Ga. Tension Wire installed horizontally at top and bottom of chain-link fence.

Filter Fabric Fence must be placed at existing level grade. Both ends of the barrier must be extended at least 8 feet upslope at 45 degrees to the main barrier alignment.

Sediment must be removed when accumulations reach 1/2 the above ground height of the fence.



OUTLET CROSS-SECTION



UP-SLOPE FACE

NOTES:

A ROCK FILTER OUTLET SHALL BE INSTALLED WHERE FAILURE OF A SILT FENCE OR STRAW BALE BARRIER HAS OCCURRED DUE TO CONCENTRATED FLOW. ANCHORED COMPOST LAYER SHALL BE USED ON UPSLOPE FACE IN HQ AND EV WATERSHEDS.

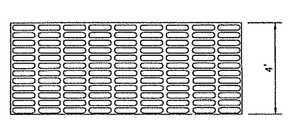
SEDIMENT SHALL BE REMOVED WHEN ACCUMULATIONS REACH 1/3 THE HEIGHT OF THE OUTLET.

TO BE INSTALLED ACROSS EXISTING HEADWALL @ SEDIMENT TRAP AG-B OUTLET STRUCTURE.

STANDARD CONSTRUCTION DETAIL #4-6
ROCK FILTER OUTLET

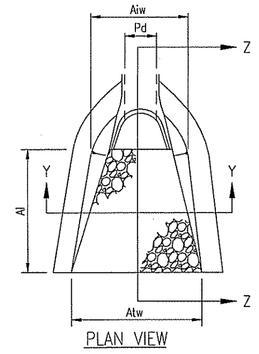
NOT TO SCALE

THIS PLAN IS FOR SOIL EROSION & SEDIMENT POLLUTION CONTROL PURPOSES ONLY

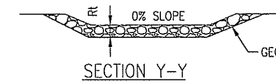


NOTES:
1. POST SELECTION SHOULD BE BASED ON EXPECTED STRENGTH NEEDS AND THE LENGTH OF TIME THE FENCE WILL BE IN PLACE. FLEXIBLE FIBERGLASS ROD POSTS ARE RECOMMENDED FOR PARKS, ATHLETIC EVENTS AND CROWN CONTROL INSTALLATIONS. METAL "T" POSTS OR TREATED WOOD POSTS ARE TYPICALLY USED FOR CONSTRUCTION.
2. POSTS SHOULD BE DRIVEN INTO THE GROUND TO A DEPTH OF 1/3 OF THE HEIGHT OF THE POST. FOR EXAMPLE A 6 FOOT POST SHOULD BE AT LEAST 2 FEET IN THE GROUND.
3. SPACE POSTS EVERY 6 TO 8 FEET.
4. SECURE FENCING TO POSTS WITH NYLON CABLE TIES. WOOD STRIPS MAY ALSO BE USED TO PROVIDE ADDITIONAL SUPPORT AND PROTECTION BETWEEN TIES AND POSTS.

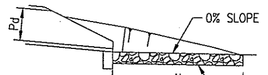
VISI PERIMETER FENCE DETAIL (WOODLAND PROTECTION)
X S10 SCALE: N.T.S. REV.: 2015.03.09



PLAN VIEW



SECTION Y–Y



SECTION Z–Z

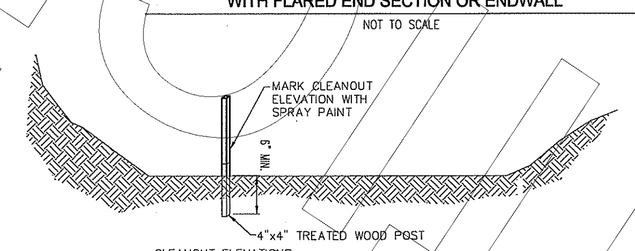
OUTLET NO.	PIPE DIA Pd (IN)	RIPRAP SIZE R-__	RIPRAP THICK. Rl (IN)	APRON LENGTH Al (FT)	APRON INITIAL WIDTH Alw (FT)	APRON TERMINAL WIDTH Alw (FT)
HW-08	15	3	9	6	3.8	6.15

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.

STANDARD CONSTRUCTION DETAIL #9-1
RIPRAP APRON AT PIPE OUTLET WITH FLARED END SECTION OR ENDWALL



X S3 TEMPORARY SEDIMENT CLEANOUT STAKE
SCALE: N.T.S. REV.: 2015.03.09

OUTLET CROSS-SECTION

UP-SLOPE FACE

NOTES:

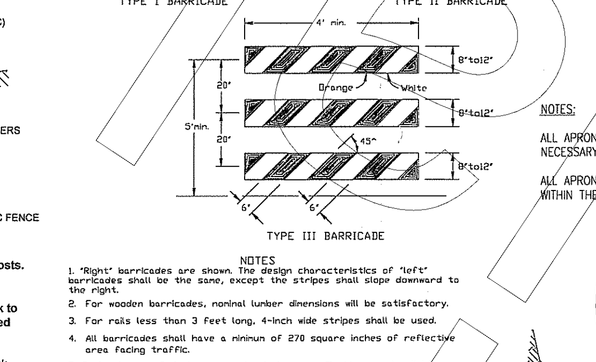
A ROCK FILTER OUTLET SHALL BE INSTALLED WHERE FAILURE OF A SILT FENCE OR STRAW BALE BARRIER HAS OCCURRED DUE TO CONCENTRATED FLOW. ANCHORED COMPOST LAYER SHALL BE USED ON UPSLOPE FACE IN HQ AND EV WATERSHEDS.

SEDIMENT SHALL BE REMOVED WHEN ACCUMULATIONS REACH 1/3 THE HEIGHT OF THE OUTLET.

TO BE INSTALLED ACROSS EXISTING HEADWALL @ SEDIMENT TRAP AG-B OUTLET STRUCTURE.

STANDARD CONSTRUCTION DETAIL #4-6
ROCK FILTER OUTLET

NOT TO SCALE

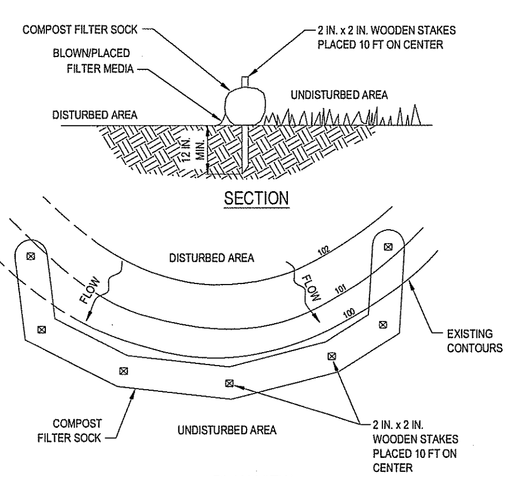


NOTES

1. "Right" barricades are shown. The design characteristics of "left" barricades shall be the same, except the stripes shall slope downward to the right.
2. For wooden barricades, nominal lumber dimensions will be satisfactory.
3. For rails less than 3 feet long, 4-inch wide stripes shall be used.
4. All barricades shall have a minimum of 270 square inches of reflective area facing traffic.
5. During hours of darkness, a steady burn or flashing warning light shall be mounted on each Type I barricade reflectorized with Class I or Class I-A reflective sheeting that has less than 350 square inches of reflective sheeting material facing traffic approaching in each direction.
6. The number of reflectorized rail faces for each type of barricade shall be as follows:

TYPE OF BARRICADE	NO. OF REFLECTORIZED RAIL FACES
I	2 ONE EACH DIRECTION
II	4 (TWO EACH DIRECTION)
III	3 IF FACING TRAFFIC IN ONE DIRECTION 6 IF FACING TRAFFIC IN TWO DIRECTION

FIGURE 2. BARRICADE DESIGN CHARACTERISTICS



NOTES:

SOCK FABRIC SHALL MEET STANDARDS OF TABLE 4.1 OF THE PA DEP EROSION CONTROL MANUAL. COMPOST SHALL MEET THE STANDARDS OF TABLE 4.2 OF THE PA DEP EROSION CONTROL MANUAL.

COMPOST FILTER SOCK SHALL BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF THE BARRIER SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45 DEGREES TO THE MAIN BARRIER ALIGNMENT. MAXIMUM SLOPE LENGTH ABOVE ANY BARRIER SHALL NOT EXCEED THAT SPECIFIED FOR THE SIZE OF THE SOCK AND THE SLOPE OF ITS TRIBUTARY AREA.

TRAFFIC SHALL NOT BE PERMITTED TO CROSS COMPOST FILTER SOCKS.

ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES 1/2 THE ABOVE GROUND HEIGHT OF THE BARRIER AND DISPOSED IN THE MANNER DESCRIBED ELSEWHERE IN THE PLAN.

COMPOST FILTER SOCKS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION.

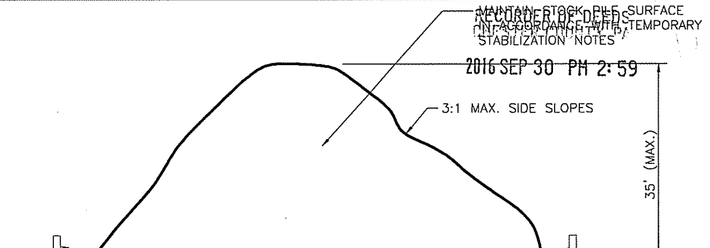
BIODEGRADABLE COMPOST FILTER SOCKS SHALL BE REPLACED AFTER 6 MONTHS; PHOTODEGRADABLE SOCKS AFTER 1 YEAR. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.

UPON STABILIZATION OF THE AREA TRIBUTARY TO THE SOCK, STAKES SHALL BE REMOVED. THE SOCK MAY BE LEFT IN PLACE AND VEGETATED OR REMOVED. IN THE LATTER CASE, THE MESH SHALL BE CUT OPEN AND THE MULCH SPREAD AS A SOIL SUPPLEMENT.

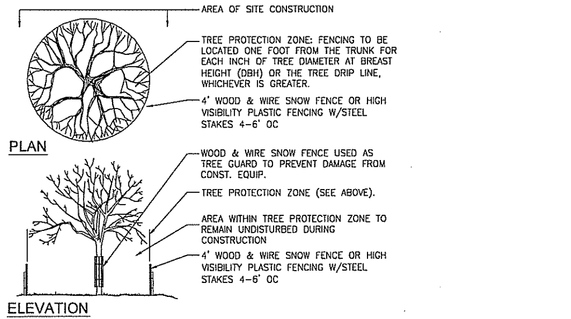
HEAVY CONCRETE BLOCKS SHALL BE USED BEHIND THE SEDIMENT CONTROL TO STABILIZE DURING RAINFALL/RUNOFF EVENTS.

STANDARD CONSTRUCTION DETAIL #4-1
COMPOST FILTER SOCK

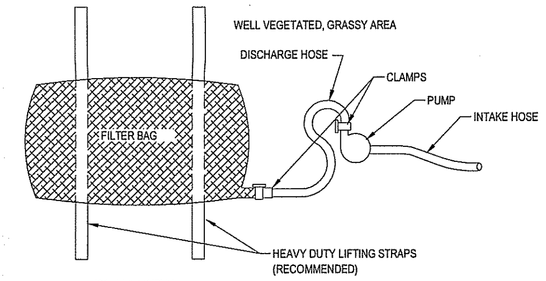
NOT TO SCALE



X S8 TEMPORARY SOIL STOCKPILE DETAIL
SCALE: N.T.S. REV.: 2015.03.09



TREE PROTECTION DURING SITE CONSTRUCTION
X 11 SCALE: N.T.S. REV.: 2015.03.09



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	60 LB/IN
GRAB TENSILE	ASTM D-4632	205 LB
PUNCTURE	ASTM D-4833	110 LB
MULLEN 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 STONE 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.

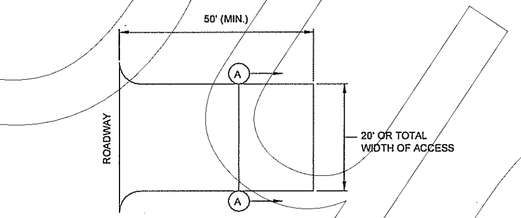
THE PUMPING RATE SHALL BE NO GREATER THAN 750 GPM OR 1/2 THE MAXIMUM SPECIFIED BY THE MANUFACTURER, WHICHEVER IS LESS. PUMP INTAKES SHALL BE FLOATING AND SCREENED.

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

STANDARD CONSTRUCTION DETAIL #16
Rock Construction Entrance



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. At the end of each construction day, all sediment deposited on paved roadways shall be removed and returned to the construction site.

BOHLER ENGINEERING
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2	12/14/15	GENERAL REVS	MAB
3	01/05/16	GENERAL REVS	DTL
4	01/15/16	PER CCCD COMMENTS	DTL
5	01/29/16	PER COMMENTS	DTL
6	03/03/16	PER CCCD COMMENTS	ACF
7	04/06/16	GENERAL REVS	DTL
8	04/21/16	GENERAL REVS	DTL
9	06/06/16	PER RECORD PLAN	DTL
10	07/13/16	GENERAL REVISIONS	DTL

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20150911340

PROJECT No.: PP140558
DRAWN BY: J.P.W.
CHECKED BY: M.J.
DATE: 2015.10.19
SCALE: AS NOTED
CAD I.D.: PP140558DETAILS-10

PROJECT:

PRELIMINARY/FINAL LAND DEVELOPMENT PLANS

FOR

PR EXTON SQUARE PROPERTY LP

EXTON SQUARE MALL GROCERY STORE

260 EXTON SQUARE MALL
WEST WHITELAND TOWNSHIP
CHESTER COUNTY, PA

BOHLER ENGINEERING
1515 MARKET STREET, SUITE 920
PHILADELPHIA, PENNSYLVANIA 19102
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PROJECT ENGINEER
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PENNSYLVANIA LICENSE NO. PE075317

SHEET TITLE:
PHASE I SOIL EROSION & SEDIMENT POLLUTION CONTROL DETAILS

SHEET NUMBER:
26
OF 43

REVISION 10

I:\DL R:\14PP\14058R_CADLAND DEV\REV-10\PP140558DETAILS-10——LAYOUT: 26-E&S DETAILS

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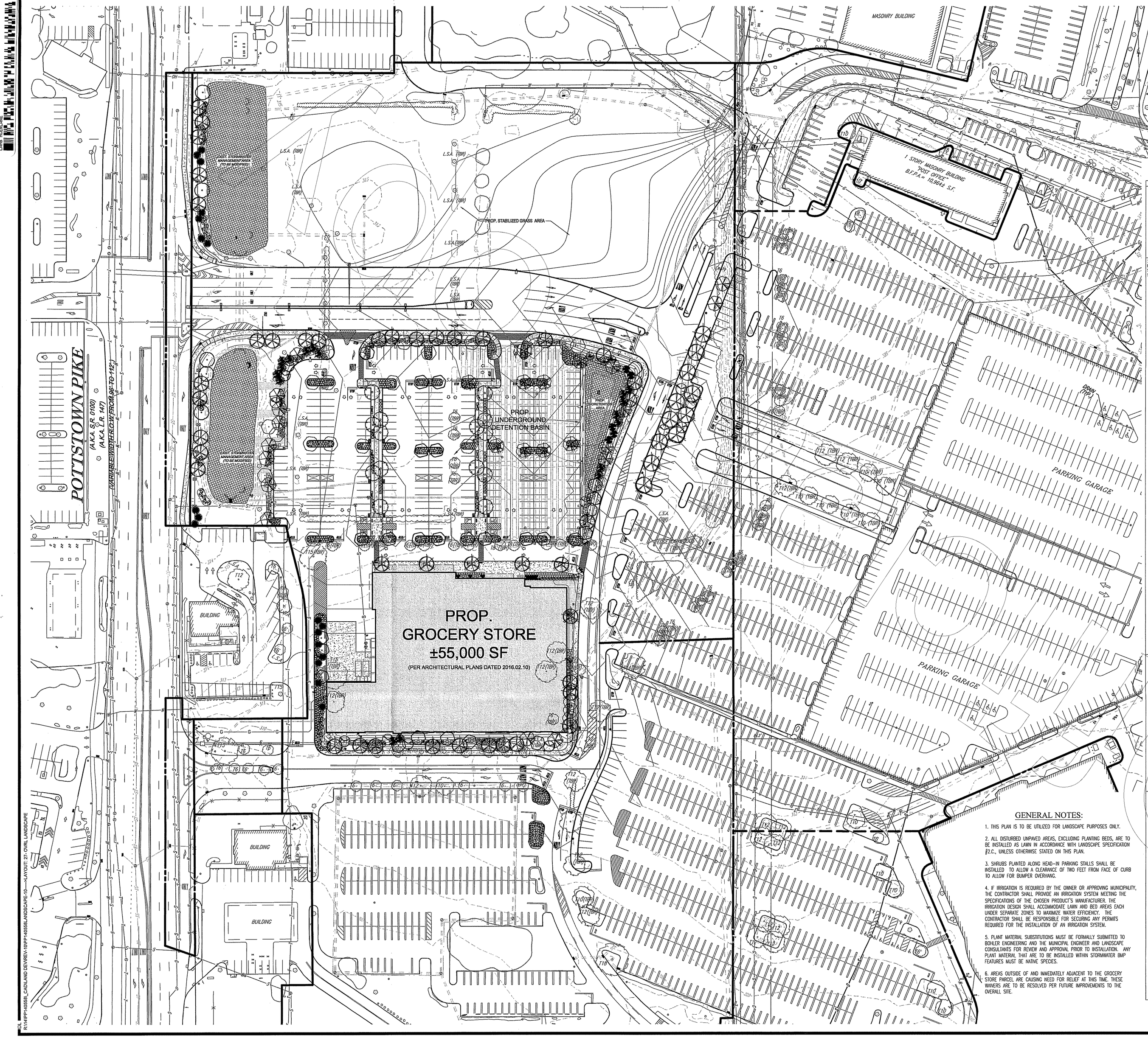
RECORDER OF DEEDS
CHESTER COUNTY, PA
2016 SEP 30 PM 2:59



COMPLIANCE CHART

SECTION	REQUIREMENT	CALCULATIONS (REQUIRED/PROVIDED)	COMPLIANCE
S.A.L.D.O. 281-34.(G)(2) TREE REPLACEMENT	(a) FOR DECIDUOUS TREES OF SIX INCHES UP TO 12 INCHES DBH, ONE INCH OF NEW TREE CALIPER SHALL BE PROVIDED FOR EVERY SIX INCHES OF EXISTING TREE DIAMETER CUT OR REMOVED. (b) FOR DECIDUOUS TREES OF 12 INCHES UP TO 24 INCHES DBH, ONE INCH OF NEW TREE DIAMETER FOR THREE INCHES OF EXISTING TREE DIAMETER CUT OR REMOVED. (c) FOR DECIDUOUS OR EVERGREEN TREES OF 24 INCHES AND GREATER DBH, ONE INCH OF NEW TREE DIAMETER FOR EVERY ONE INCH OF EXISTING TREE DIAMETER CUT OR REMOVED.	TOTAL CAL. OF TREES TO BE REMOVED: 6" TO <12": 53" 12 TO <24": 193" 24"+: 0" REQUIRED: 6-12": 53" / 6 = 88.5" 12-24": 193" / 3 = 64.3" 24"+: 0 / 1 = 0" TOTAL COMPENSATION REQUIRED: 152.8" OR 51 TREES (3" CALIPER DECIDUOUS OR 8' EVERGREEN TREES PROVIDED: 7 AMOG, 5 CHC, 4 LSR, 12 OA, 8 OPH, 11 ZS (52 DECIDUOUS TREES); 17 ABC (17 EVERGREEN TREES) (69 TREES PROVIDED IN ADDITION TO ALL OTHER REQUIREMENTS) *DENOTES MATERIAL COUNTED TOWARD THIS REQUIREMENT	WAIVER FOR SPECIES
281-35.(E & G) BUFFER & SCREEN PLANTING STANDARDS	E. USE OF PERIMETER BUFFERS. (1) PERIMETER BUFFERS SHALL BE USED ALONG ALL PROPERTY BOUNDARY LINES OR RESIDENTIAL SUBDIVISION TRACT BOUNDARY LINES, ALONG ARTERIAL STREET RIGHT-OF-WAY LINES, AND AROUND THE ENTIRE PERIMETER OF STORMWATER MANAGEMENT BASINS, AND SHALL BE USED ADJACENT TO THE HIGHER CLASSIFIED STREET RIGHT-OF-WAY ON REVERSE FRONTAGE RESIDENTIAL LOTS, WHERE A LOW LEVEL OF VISUAL BUFFERING IS DESIRABLE, AS DETERMINED BY THE TOWNSHIP. (2) IF BASINS ARE LANDSCAPED, TO THE SATISFACTION OF THE TOWNSHIP, AS NATURAL HABITAT AREAS WITH DIVERSE AND ABUNDANT NATIVE VEGETATION, NO PERIMETER BUFFER SHALL BE REQUIRED. IN SUCH CASES, APPLICANTS SHALL DEMONSTRATE THAT THE VALUE OF NATIVE HABITAT VEGETATION IS AT LEAST EQUAL IN MONETARY VALUE TO THAT OF THE REQUIRED PERIMETER BUFFER VEGETATION. (3) PERIMETER BUFFERS SHALL BE 25 FEET IN WIDTH, PLACED AT THE PROPERTY LINE, RIGHT-OF-WAY LINE, OR AROUND THE CIRCUMFERENCE OF STORMWATER MANAGEMENT BASINS. PERIMETER BUFFERS SHALL COMPLY WITH THE FOLLOWING PLANTING REQUIREMENTS: (a) ONE SHADE TREE PER 100 FEET OF LENGTH. UP TO 25% OF THE REQUIRED SHADE TREES MAY BE SUBSTITUTED WITH ORNAMENTAL TREES AT A RATIO OF TWO ORNAMENTAL TREES FOR EACH SHADE TREE. (b) TWO EVERGREEN TREES PER 100 FEET OF LENGTH. (c) TEN SMALL SHRUBS OR FIVE LARGE SHRUBS PER 100 FEET OF LENGTH.	LENGTH OF NORTHERN BUFFER: 675± LF. REQUIRED: 25' WIDE BUFFER 675 / 100 = 6.75 6.75 x 1 = 6.75 OR 7 SHADE TREES 6.75 x 2 = 13.5 OR 14 EVERGREEN TREES 6.75 x 5 = 33.75 OR 34 LARGE SHRUBS PROVIDED: MATERIAL TO BE PROVIDED AT FUTURE PHASE.	WAIVER SEE GENERAL NOTE #6
		LENGTH ALONG POTTSTOWN PIKE: 5108± LF. REQUIRED: 508 / 100 = 51 5.1 x 1 = 51 OR 5 SHADE TREES 5.1 x 2 = 10.2 OR 10 EVERGREEN TREES 5.1 x 5 = 25.5 OR 26 LARGE SHRUBS PROVIDED: 5 YOK (5 SHADE TREES);10 PO (10 EVERGREEN TREES); 26 VB (26 LARGE SHRUBS) •DENOTES MATERIAL COUNTED TOWARD THIS REQUIREMENT	COMPLIES
		LENGTH ALONG WEST PROPERTY LINE (ADJ. TO BANK): 2572± LF. REQUIRED: 250 / 100 = 2.5 2.5 x 1 = 2.57 OR 3 SHADE TREES 2.57 x 2 = 5.14 OR 5 EVERGREEN TREES 2.57 x 5 = 12.85 OR 13 LARGE SHRUBS PROVIDED: 3 CTH (3 SHADE TREES); 8 PM (8 EVERGREEN TREES); 15 VH (16 LARGE SHRUBS) –DENOTES MATERIAL COUNTED TOWARD THIS REQUIREMENT	COMPLIES
	F. PERIMETER BUFFERS SHALL BE PLACED AROUND STORMWATER MANAGEMENT BASINS WITH THE FOLLOWING ADDITIONAL CONSIDERATIONS. (3) TREES AND SHRUBS SHALL NOT BE PERMITTED ON THE CONSTRUCTED BERMS FOR BASINS, IN CASES WHERE THE PERIMETER BUFFER CROSSES WITH A CONSTRUCTED BERM, REQUIRED BUFFER PLANTINGS SHALL BE PLACED IN THE AREA DOWNSLOPE AND ADJACENT TO THE BERM. (4) NATURALISTIC BASINS SHALL BE DESIGNED AS NATURAL AREAS WITH WIDE NATIVE PLANTINGS TO PROVIDE HABITAT AND AESTHETICS, AND SHALL BE GRADED TO RESEMBLE NATURALLY OCCURRING LANDFORMS, WITH CONSTRUCTED BANKS NO STEEPER THAN ONE FOOT VERTICAL TO FOUR FEET HORIZONTAL, WHEN APPROVED BY THE TOWNSHIP. NATURALISTIC BASINS MAY BE INSTALLED WITHIN REQUIRED YARD AREAS, AND NO PERIMETER BUFFER SHALL BE REQUIRED. NATURALISTIC BASINS SHALL NOT BE PLANTED IN TURF, BUT SHALL HAVE APPROPRIATE NATIVE PLANTINGS INCLUDING SPECIES RECOMMENDED IN APPENDIX G.[2] PLANTINGS IN NATURALISTIC BASINS SHALL BE DEMONSTRATED TO BE AT LEAST EQUAL IN MONETARY VALUE TO THAT OF THE REQUIRED PERIMETER BUFFER VEGETATION.	PERIMETER OF PROPOSED BASIN: 4103 L.F. REQUIRED: 410 / 100 = 4.1 4.1 x 1 = 4.1 OR 4 SHADE TREES 4.1 x 2 = 8.2 OR 8 EVERGREEN TREES 4.1 x 5 = 20.5 OR 21 LARGE SHRUBS PROVIDED:4 LSR (4 SHADE TREES), 5 PGL, 3 PS (8 EVERGREEN TREES), 5 CA, 9 CO, 7 CS (21 LARGE SHRUBS) *DENOTES MATERIAL COUNTED TOWARD THIS REQUIREMENT	COMPLIES
		EXISTING BASINS: EXISTING VEGETATION TO REMAIN TO SATISFY THIS REQUIREMENT.	COMPLIES
	G.(1)(a) LOW SCREENS SHALL BE USED AROUND THE PERIMETER OF ALL PARKING LOTS OR OTHER SIMILAR VEHICULAR USE AREAS, INCLUDING SERVICE STATIONS, SALES LOTS FOR AUTOMOBILES, VEHICULAR STACKING LANES ASSOCIATED WITH A DRIVE-THROUGH, AND AROUND TRASH ENCLOSURES OR STORAGE BUILDINGS WHEN DECORATIVE WALLS, SUCH AS BRICK, LATTICEWORK OR SPLIT-FACE CONCRETE BLOCK, ARE PROPOSED. (b) HIGH SCREENS SHALL BE USED ADJACENT TO LOADING AREAS, AROUND TRASH ENCLOSURES AND STORAGE BUILDINGS, WHEN FENCING OR PLAIN CONCRETE MASONRY UNITS ARE PROPOSED AND AROUND TRANSFORMERS, MAINTAINING THE REQUIRED CLEAR DISTANCE. HIGH SCREENS OR SIX-FOOT-HIGH OPAQUE FENCING SHALL ALSO BE REQUIRED TO BUFFER ACCESSORY STRUCTURES FROM THE HIGHER CLASSIFICATION STREETS ON REVERSE FRONTAGE LOTS.	REQUIRED: LOW SCREEN PROVIDED AROUND ENTIRE PARKING LOT PROVIDED: LOW SCREEN PROVIDED AROUND PROPOSED GROCERY STORE PARKING LOT CONSISTING OF EVERGREEN SHRUBS SPACED ACCORDING TO REQUIREMENTS. VEGETATION PROVIDED FOR BASIN SCREENING, STREET TREES, AND REPLACEMENT TREES LOCATED ALONG ROUTE 100 TO MEET THE INTENT OF THIS REQUIREMENT. ALL OTHER PARKING LOT SCREENS TO BE PROVIDED AT FUTURE PHASE.	WAIVER SEE GENERAL NOTE #6
	G.(3)(a) LOW SCREEN SHALL BE COMPRISED OF EVERGREEN OR DENSE DECIDUOUS SHRUBS TO FORM A CONTINUOUS SCREEN OR HEDGE, WHICH SHALL REACH A MINIMUM HEIGHT OF THREE FEET, AFTER TWO YEARS' GROWTH. (b) SMALL SHRUBS SHALL BE SPACED NO FARTHER THAN THREE FEET ON CENTER. LARGE SHRUBS SHALL BE SPACED NO FARTHER THAN FIVE FEET ON CENTER.	REQUIRED: LOW SCREEN PROVIDED AROUND ENTIRE PARKING LOT PROVIDED: LOW SCREEN PROVIDED AROUND PROPOSED GROCERY STORE PARKING LOT CONSISTING OF EVERGREEN SHRUBS SPACED ACCORDING TO REQUIREMENTS. ALL OTHER PARKING LOT SCREENS TO BE PROVIDED AT FUTURE PHASE.	WAIVER SEE GENERAL NOTE #6
	4. HIGH SCREENS SHALL BE COMPRISED OF EITHER OF THE FOLLOWING: (a) LARGE EVERGREEN SHRUBS, SPACED NO FARTHER THAN FOUR FEET ON CENTER, OR AS NEEDED TO FORM A CONTINUOUS SCREEN AT A HEIGHT OF SIX FEET AFTER FIVE YEARS' GROWTH. (b) EVERGREEN TREES SPACED 12 TO 15 FEET ON CENTER.	REQUIRED: TRASH ENCLOSURE TO BE SCREENED WITH EVERGREENS PROVIDED: TRASH ENCLOSURE IS LOCATED WITHIN THE BUILDING. REQUIREMENT NOT APPLICABLE.	NOT APPLICABLE
281-36 STREET TREES	D. TREES SHALL BE PLANTED AT A RATIO OF AT LEAST ONE TREE PER 50 LINEAR FEET OF RIGHT-OF-WAY OR PAVEMENT FRONTAGE, OR FRACTION THEREOF, WITHOUT DEDUCTING THE AREAS OF DRIVEWAY CUTS OR CROSSWALKS. TREES SHALL BE DISTRIBUTED ALONG THE ENTIRE PLANTING STRIP, ALTHOUGH THEY NEED NOT BE EVENLY SPACED, ACCORDING TO THE FOLLOWING GUIDELINES: (1) STREET TREE SPACING MAY BE AS CLOSE AS PROPER HORTICULTURAL PRACTICES WILL ALLOW FOR THE SPECIES SELECTED. STREET TREES SHALL BE SPACED NO GREATER THAN 100 FEET ON CENTER, EXCEPT IN CONJUNCTION WITH A PROJECT IDENTIFICATION SIGN SIGHT TRIANGLE. (3) TREES SHALL BE PLANTED SO AS NOT TO INTERFERE WITH THE INSTALLATION AND MAINTENANCE OF SIDEWALKS, LIGHTS, AND UTILITIES. TREES SHALL BE PLANTED A MINIMUM DISTANCE OF: (a) THREE FEET FROM SIDEWALKS AND THE FACE OF CURBS, UNLESS THEY ARE PLANTED IN A TREE PIT. IF TREES ARE LOCATED CLOSER THAN 10 FEET TO A SIDEWALK, ROOT BARRIERS SHALL BE PLACED ALONG THE TREE SIDE OF THE SIDEWALK FOR A DISTANCE OF 10 FEET, CENTERED ON THE TRUNK. ROOT BARRIERS ARE NOT REQUIRED ALONG THE CURB. (b) TEN FEET FROM UNDERGROUND UTILITIES. (c) FIFTEEN FEET FROM OVERHEAD UTILITIES, UNLESS THE USE OF SMALL SHADE OR ORNAMENTAL TREES IS APPROVED.	LENGTH OF POTTSTOWN PIKE: 493 LF± REQUIRED: 493/50=9.85 OR 10 TREES PROVIDED: 10 ZSVG (10 TREES) ‡DENOTES MATERIAL COUNTED TOWARD THIS REQUIREMENT	COMPLIES
		LENGTH ALONG SOUTH ENTRANCE DRIVE (NORTH): 340 LF± REQUIRED: 340/50=6.8 OR 7 TREES PROVIDED: 7 ZSVG (7 TREES) ‡DENOTES MATERIAL COUNTED TOWARD THIS REQUIREMENT	COMPLIES
		EXISTING VEGETATION TO REMAIN ALONG THE SOUTH ENTRANCE DRIVE (SOUTH).	COMPLIES
		LENGTH ALONG NORTH ENTRANCE DRIVE (NORTH): 630 LF± REQUIRED: 630/50=12.6 OR 13 TREES PROVIDED: MATERIAL TO BE PROVIDED AT FUTURE PHASE.	WAIVER SEE GENERAL NOTE #6
		LENGTH ALONG NORTH ENTRANCE DRIVE (SOUTH): 623 LF± REQUIRED: 630/50=12.4 OR 12 TREES PROVIDED: 12 ZSVG (12 TREES) ‡DENOTES MATERIAL COUNTED TOWARD THIS REQUIREMENT	COMPLIES
		LENGTH ALONG LOOP ROAD (EAST): 1,000 LF± REQUIRED: 1,000/50=21.2 OR 21 TREES PROVIDED: MATERIAL TO BE PROVIDED AT FUTURE PHASE.	WAIVER SEE GENERAL NOTE #6
		LENGTH ALONG LOOP ROAD (WEST): 844 LF± REQUIRED: 844/50=16.8 OR 17 TREES PROVIDED: MATERIAL TO BE PROVIDED AT FUTURE PHASE.	WAIVER SEE GENERAL NOTE #6
281-37. PARKING LOT DESIGN & LANDSCAPING	B.(4) EACH PLANTING ISLAND SHALL CONTAIN ONE SHADE TREE PLUS SHRUBS, GROUND COVER, PERENNIALS AND/OR MULCH TO COVER THE ENTIRE AREA AT MATURITY. AT LEAST 50% OF THE PROVIDED SHADE TREES SHALL BE NATIVE TO THE REGION. SHRUBS SHALL NOT EXCEED TWO FEET IN HEIGHT.	GROCERY STORE PARKING TOTAL: 8418 ISLANDS = 36 PROVIDED: 13 ABGG, 14 GTK, 9 GTN (36 TREES, HOWEVER, 3 ARE LOCATED IMMEDIATELY SURROUNDING THE PARKING LOT DUE TO LIGHTING, SIDEWALK, AND UTILITY CONFLICTS). ‡DENOTES MATERIAL COUNTED TOWARD THIS REQUIREMENT	WAIVER
		OTHER EFFECTED PARKING TOTAL: 1918 ISLANDS = 76 PROVIDED: MATERIAL TO BE PROVIDED AT FUTURE PHASE.	WAIVER SEE GENERAL NOTE #6
	C.(2)(a) ONE SHADE TREE SHALL BE REQUIRED FOR EACH 30 FEET OF DIVIDER STRIP...TWO ORNAMENTAL AND/OR FLOWERING TREES MAY BE SUBSTITUTED FOR EACH SHADE TREE. THE TREES NEED NOT BE SPACED EVENLY APART; HOWEVER, THE MAXIMUM SPACING SHALL BE 50 FEET. (b) ONE LARGE SHRUB OR TWO SMALL SHRUBS SHALL BE REQUIRED, FOR EACH 10 FEET OF DIVIDER STRIP. SHRUBS SHALL BE SPACED ACCORDING TO THE GUIDELINES IN § 281-35. THEY MAY BE PLACED BETWEEN THE SHRUB PLANTINGS TO PROVIDE AREAS FOR GROUND COVERS, DECORATIVE MULCH BEDS, ARTWORK, CROSSWALKS OR FLOWERING PLANTS. SHRUBS NEAR THE ENDS OF DIVIDER ISLANDS SHALL NOT EXCEED TWO FEET IN HEIGHT, SO AS NOT TO BLOCK VISIBILITY. THIS SHALL NOT PRECLUDE THE USE OF TALLER SHRUBS ELSEWHERE WITHIN THE DIVIDER ISLAND.	TOTAL LENGTH OF EAST DIVIDER STRIP =1954 L.F. REQUIRED: 195 / 30 = 6.5 OR 7 SHADE TREES 195 / 10 = 19.5 OR 20 LARGE SHRUBS PROVIDED: 7 CCA (7 SHADE TREES); 13 IV, 8 PXOL (21 LARGE SHRUBS) ‡DENOTES MATERIAL COUNTED TOWARD THESE REQUIREMENTS	COMPLIES
		TOTAL LENGTH OF WEST DIVIDER STRIP =1954 L.F. REQUIRED: 195 / 30 = 6.5 OR 7 SHADE TREES 195 / 10 = 19.5 OR 20 LARGE SHRUBS PROVIDED: 7 CCA (7 SHADE TREES); 10 IV, 10 PXOL (20 LARGE SHRUBS) ‡DENOTES MATERIAL COUNTED TOWARD THESE REQUIREMENTS	COMPLIES
	D.(1) PLANTINGS ARE REQUIRED FOR ALL SIDES OF A BUILDING FACING PARKING AREAS. PLANTINGS ARE NOT REQUIRED ALONG THE SIDES OF BUILDINGS CONTAINING SERVICE OR LOADING AREAS, IF PART OF A SIDE OF THE BUILDING FACES PARKING, ONLY THAT PORTION IS SUBJECT TO THESE REQUIREMENTS. LOADING AREAS MUST BE APPROPRIATELY SCREENED ACCORDING TO THE REQUIREMENTS OF § 281-35. LOADING AREA SCREENING IS IN ADDITION TO THE REQUIREMENTS OF THIS SECTION. (2) THE MINIMUM PLANTING REQUIREMENT SHALL BE ONE SHADE TREE PER 50 FEET OF BUILDING FACADE PLUS FIVE SMALL SHRUBS PER 20 FEET OF BUILDING FACADE.	NORTH FACADE= 2556 L.F. REQUIRED: 255 / 50 = 5.1 OR 5 SHADE TREES (255 / 20)*5 = 63.75 OR 64 SMALL SHRUBS PROVIDED: 5 NS (5 SHADE TREES); 32 HPS, 10 IVAN, 23 RGHC, (65 SMALL SHRUBS) ‡DENOTES MATERIAL COUNTED TOWARD THIS REQUIREMENT	COMPLIES
		EAST FACADE= 2072 L.F. REQUIRED: 207 / 50 = 4.14 OR 4 SHADE TREES (207 / 20) x 5 = 51.75 OR 52 SMALL SHRUBS PROVIDED: 4 ARA (4 SHADE TREES); 22 ICS, 2F IVAN, 9 PXOL (52 SMALL SHRUBS) ‡DENOTES MATERIAL COUNTED TOWARD THIS REQUIREMENT	COMPLIES
		SOUTH FACADE= 3166 L.F. REQUIRED: 316 / 50 = 6.32 OR 6 SHADE TREES (316 / 20)*5.2 = 79 SMALL SHRUBS PROVIDED: 5 GTK, 1 NS (6 SHADE TREES); 30 HPS, 22 IOS, 18 IVAN, 9 PXOL, (79 SMALL SHRUBS) ‡DENOTES MATERIAL COUNTED TOWARD THIS REQUIREMENT	COMPLIES

GENERAL NOTES:

1. THIS PLAN IS TO BE UTILIZED FOR LANDSCAPE PURPOSES ONLY.

2. ALL DISTURBED UNPAVED AREAS, EXCLUDING PLANTING BEDS, ARE TO BE INSTALLED AS LAWN IN ACCORDANCE WITH LANDSCAPE SPECIFICATION #2.C., UNLESS OTHERWISE STATED ON THIS PLAN.

3. SHRUBS PLANTED ALONG HEAD-IN PARKING STALLS SHALL BE INSTALLED TO ALLOW A CLEARANCE OF TWO FEET FROM FACE OF CURB TO ALLOW FOR BUMPER OVERHANG.

4. IF IRRIGATION IS REQUIRED BY THE OWNER OR APPROVING MUNICIPALITY, THE CONTRACTOR SHALL PROVIDE AN IRRIGATION SYSTEM MEETING THE SPECIFICATIONS OF THE CHOSEN PRODUCT'S MANUFACTURER. THE IRRIGATION DESIGN SHALL ACCOMMODATE LAWN AND BED AREAS EACH UNDER SEPARATE ZONES TO MAXIMIZE WATER EFFICIENCY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING ANY PERMITS REQUIRED FOR THE INSTALLATION OF AN IRRIGATION SYSTEM.

5. PLANT MATERIAL SUBSTITUTIONS MUST BE FORMALLY SUBMITTED TO BOHLER ENGINEERING AND THE MUNICIPAL ENGINEER AND LANDSCAPE CONSULTANTS FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION. ANY PLANT MATERIAL THAT ARE TO BE INSTALLED WITHIN STORMWATER BMP FEATURES MUST BE NATIVE SPECIES.

6. AREAS OUTSIDE OF AND IMMEDIATELY ADJACENT TO THE GROCERY STORE PARCEL ARE CAUSING NEED FOR RELIEF AT THIS TIME. THESE WAIVERS ARE TO BE RESOLVED PER FUTURE IMPROVEMENTS TO THE OVERALL SITE.

60 30 15 0 60
1"= 60'

BOHLER ENGINEERING
SITE CIVIL AND CONSULTING ENGINEERING
LANDSCAPE ARCHITECTURE
LAND DEVELOPMENT DESIGN
SUSTAINABILITY
TRANSPORTATION
PROGRAM MANAGEMENT
CONSTRUCTION SERVICES
◆ UPSTATE NEW YORK
◆ NEW ENGLAND
◆ NEW JERSEY
◆ NEW YORK METRO
◆ PHILADELPHIA, PA
◆ LEHIGH VALLEY, PA
◆ HARRISBURG, PA
◆ REHOBOTH BEACH, DE
◆ BALTIMORE, MD
◆ WASHINGTON, MARYLAND
◆ NORTHERN VIRGINIA
◆ CENTRAL VIRGINIA
◆ RALEIGH, NC
◆ CHARLOTTE, NC
◆ TAMPA, FL
◆ ORLANDO, FLORIDA
THE INFORMATION, DESIGNS AND CONCEPTS OF THESE PLANS ARE PROPRIETARY AND SHALL NOT BE LOANED OR USED IN ANY MANNER WITHOUT PRIOR WRITTEN AUTHORIZATION FROM BOHLER ENGINEERING. ONLY APPROVED, SIGNED AND SEALED PLANS SHALL BE CONSIDERED TO BE A VALID SET. ELECTRONIC FILES ARE FOR CONSTRUCTION PURPOSES.

REVISIONS

REV	DATE	COMMENT	BY
2	12/14/15	GENERAL REVS	MAB
3	01/05/16	GENERAL REVS	DTL
4	01/15/16	PER CCCD COMMENTS	DTL
5	01/29/16	PER COMMENTS	DTL
6	03/03/16	PER CCCD COMMENTS	ACF
7	04/06/16	GENERAL REVS	DTL
8	04/21/16	GENERAL REVS	DTL
9	06/06/16	PER RECORD PLAN	DTL
10	07/13/16	GENERAL REVISIONS	DTL

CALL BEFORE YOU DIG!
PENNSYLVANIA LAW REQUIRES 3 WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND 10 WORKING DAYS IN DESIGN STAGE - STOP CALL
PAI SERIAL NUMBER
1-800-242-1776
20150911340

PROJECT No.: PP140558
DRAWN BY: J.P.W.
CHECKED BY: M.J
DATE: 2015.10.19
SCALE: AS NOTED
CAD I.D.: PP140558LANDSCAPE-10

PROJECT:

PRELIMINARY/FINAL LAND DEVELOPMENT PLANS
FOR
PR EXTON SQUARE PROPERTY LP
EXTON SQUARE MALL GROCERY STORE
260 EXTON SQUARE MALL
WEST WHITELAND TOWNSHIP
CHESTER COUNTY, PA

BOHLER ENGINEERING
1515 MARKET STREET, SUITE 920
PHILADELPHIA, PENNSYLVANIA 19102
Phone: (267) 402-3400
Fax: (267) 402-3401
www.BohlerEngineering.com

COMMONWEALTH OF PENNSYLVANIA
DANIEL T. FOURTH
No. LA002729
REGISTERED LANDSCAPE ARCHITECT
PENNSYLVANIA

SHEET TITLE:
OVERALL LANDSCAPE PLAN

SHEET NUMBER:
27
OF 43

REVISION 10

DWG: P:\PHILLY\140558_EXTON SQUARE MALL\ENGINEERING\PP\140558_LANDSCAPE-10.DWG - LAYOUT: 27-OVERALL LANDSCAPE
XREF: P:\PHILLY\140558_EXTON SQUARE MALL\ENGINEERING\PP\140558_LANDSCAPE-10.DWG

115020444 B: 20031 P: 1 SUP
RECORDER OF DEEDS
CHESTER COUNTY, PA
2016 SEP 30 PM 2:59

POTTSTOWN PIKE
(A.K.A. S.R. 0100)
(A.K.A. L.R. 147)
(VARIABLE WIDTH R.O.W FROM 86' TO 112')

EXIST. STORMWATER MANAGEMENT AREA (TO BE MODIFIED)

AREA TO BE SEEDED WITH ERNMX-180 (SEE SPECIFICATIONS FOR DETAILS)

PROPOSED POST AREA PO TO MATCH EXISTING FOR SURROUNDING MAIL PROPERTY REFERTO DETAIL ON SHEET 34

PROP. STABILIZED GRASS AREA

EXIST. HYDRANT AND WATER VALVE TO REMAIN

SEE SHEET (B)

LANDSCAPE SCHEDULE

KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS
SHADE TREE(S)					
ARA	4	ACER RUBRUM 'ARMSTRONG'	ARMSTRONG COLUMNAR RED MAPLE	3 1/2-4" CAL.	B+B
AROC	23	ACER RUBRUM 'OCTOBER GLORY'	OCTOBER GLORY RED MAPLE	3 1/2-4" CAL.	B+B
CCA	14	CARPINUS CAROLINIANA	AMERICAN HORNBEAM	2 1/2-3" CAL.	B+B
GTIK	27	GLEDITSIA TRIACANTHOS INERMIS 'SKYCOLE'	SKYLINE THORNLESS HONEYLOCUST	3 1/2-4" CAL.	B+B
GTIN	9	GLEDITSIA TRIACANTHOS INERMIS 'SUNCOLE'	SUNBURST THORNLESS HONEYLOCUST	2 1/2-3" CAL.	B+B
LSR	8	LIQUIDAMBAR STYRACIFLUA 'ROTUNDILOBA'	SEEDLESS SWEETGUM	3 1/2-4" CAL.	B+B
NS	6	NYSSA SYLVATICA	SOURGUM OR TUPELO	3 1/2-4" CAL.	B+B
QPH	8	QUERCUS PHELLOS	WILLOW OAK	3 1/2-4" CAL.	B+B
TCG	5	TILIA CORDATA 'GREENSPIRE'	GREENSPIRE LINDEN	3 1/2-4" CAL.	B+B
ZS	11	ZELKOVA SERRATA 'GREEN VASE'	GREEN VASE ZELKOVA	3 1/2-4" CAL.	B+B
ZSVG	36	ZELKOVA SERRATA 'VILLAGE GREEN'	VILLAGE GREEN ZELKOVA	3 1/2-4" CAL.	B+B
	151				
ORNAMENTAL TREE(S)					
OA	12	OXYDENDRUM ARBOREA	SOURWOOD	8-10'	B+B
EVERGREEN TREE(S)					
ABC	17	ABIES CONCOLOR	WHITE FIR	8'	B+B
PGL	5	PICEA GLAUCA	WHITE SPRUCE	7-8'	B+B
PM	8	PSEUDOTSUGA MENZIESII	DOUGLAS FIR	7-8'	B+B
PO	10	PICEA OMORIKA	SERBIAN SPRUCE	7-8'	B+B
PS	3	PINUS STROBUS	EASTERN WHITE PINE	7-8'	B+B
	43				
EVERGREEN SHRUB(S)					
IGS	111	ILEX GLABRA 'SHAMROCK'	SHAMROCK INKBERRY HOLLY	24-30"	CONTAINER
PXOL	127	PRUNUS LAUROCERSUS 'OTTO LUYKEN'	OTTO LUYKEN CHERRY LAUREL	36"	CONTAINER
ROHC	23	RHODODENDERON X OBTUSUM 'HINO CRIMSON'	HINO CRIMSON AZALEA	18-24"	CONTAINER
VR	48	VIBURNUM X RHYTIDOPHYLLUM	LEATHERLEAF VIBURNUM	3-4'	B+B
	309				
DECIDUOUS SHRUB(S)					
CA	5	CLETHRA ALNIFOLIA	SUMMERSWEET CLETHRA	24-30"	CONTAINER
CO	9	CEPHALANTHUS OCCIDENTALIS	BUTTONBUSH	24-30"	CONTAINER
CS	7	CORNUS SERICEA	RED OSIER DOGWOOD	3'	B+B
DGN	387	DEUTZIA GRACILIS 'NIKKO'	COMPACT DEUTZIA	18-24"	CONTAINER
HPS	94	HYPERICUM PATULUM 'SUNBURST'	SUNBURST ST. JOHNSWORT	18-24"	CONTAINER
IV	23	ITEA VIRGINICA 'HENRY'S GARNET'	GARNET SWEETSPIRE	24-30"	CONTAINER
IWW	49	ILEX VERTICILLATA "AFTERGLOW WINTERBERRY'	AFTERGLOW WINTERBERRY	30-36"	CONTAINER
IVJD	2	ILEX VERTICILLATA 'JIM DANDY WINTERBERRY'	JIM DANDY WINTERBERRY	30-36"	CONTAINER
	576				
GROUND COVER					
JHB	384	JUNIPERUS HORIZONTALIS 'MONBER'	ICEE BLUE JUNIPER	15-18" SPRD	CONTAINER
PQ	110	PARTHENOCISSUS QUINQUEFOLIA	VIRGINIA CREEPER	PEAT POTS	2 YR. PLANTS
	494				
ORNAMENTAL GRASS(ES)					
ANG	27	ANDROPOGON GERARDII	BIG BLUESTEM	1 GAL.	CONTAINER

NOTE: IF ANY DISCREPENCIES OCCUR BETWEEN AMOUNTS SHOWN IN THE PLAN AND THE PLANT LIST, THE PLAN SHALL DICTATE.

1"= 30'

GENERAL NOTES:

1. THIS PLAN IS TO BE UTILIZED FOR LANDSCAPE PURPOSES ONLY.

2. ALL DISTURBED UNPAVED AREAS, EXCLUDING PLANTING BEDS, ARE TO BE INSTALLED AS LAWN IN ACCORDANCE WITH LANDSCAPE SPECIFICATION #2.C., UNLESS OTHERWISE STATED ON THIS PLAN.

3. SHRUBS PLANTED ALONG HEAD-IN PARKING STALLS SHALL BE INSTALLED TO ALLOW A CLEARANCE OF TWO FEET FROM FACE OF CURB TO ALLOW FOR BUMPER OVERHANG.

4. IF IRRIGATION IS REQUIRED BY THE OWNER OR APPROVING MUNICIPALITY, THE CONTRACTOR SHALL PROVIDE AN IRRIGATION SYSTEM MEETING THE SPECIFICATIONS OF THE CHOSEN PRODUCT'S MANUFACTURER. THE IRRIGATION DESIGN SHALL ACCOMMODATE LAWN AND BED AREAS EACH UNDER SEPARATE ZONES TO MAXIMIZE WATER EFFICIENCY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING ANY PERMITS REQUIRED FOR THE INSTALLATION OF AN IRRIGATION SYSTEM.

5. PLANT MATERIAL SUBSTITUTIONS MUST BE FORMALLY SUBMITTED TO BOHLER ENGINEERING AND THE MUNICIPAL ENGINEER AND LANDSCAPE CONSULTANTS FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION. ANY PLANT MATERIAL THAT ARE TO BE INSTALLED WITHIN STORMWATER BMP FEATURES MUST BE NATIVE SPECIES.

6. AREAS OUTSIDE OF AND IMMEDIATELY ADJACENT TO THE GROCERY STORE PARCEL ARE CAUSING NEED FOR RELIEF AT THIS TIME. THESE MAKERS ARE TO BE RESOLVED PER FUTURE IMPROVEMENTS TO THE OVERALL SITE.

KEY MAP
1"=400'
200' 0 400'

BOHLER ENGINEERING
SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
SITE LANDSCAPE DESIGN
PROGRAM MANAGEMENT
PERMITTING
LANDSCAPE ARCHITECTURE
TRANSPORTATION
◆ UPSTATE NEW YORK
◆ NEW ENGLAND
◆ NEW JERSEY
◆ NEW YORK METRO
◆ NEW YORK, NY
◆ PHILADELPHIA, PA
◆ LEHIGH VALLEY, PA
◆ READING, PA
◆ RENSSELAER, NY
◆ REHOBOTH BEACH, DE
◆ BALTIMORE, MD
◆ WASHINGTON, MARYLAND
◆ NORTHERN VIRGINIA
◆ RICHMOND, VA
◆ CENTRAL VIRGINIA
◆ RALEIGH, NC
◆ CHARLOTTE, NC
◆ AUSTIN, TX
◆ TAMPA, FL
◆ ORLANDO, FLORIDA

THE INFORMATION, DETAILS AND CONCEPTS OF THIS PLAN ARE PROPRIETARY AND SHALL NOT BE USED OR DISCLOSED FOR ANY PURPOSE WITHOUT PRIOR WRITTEN AUTHORIZATION FROM BOHLER ENGINEERING. ONLY APPROVED, DATED AND STAMPED DRAWINGS SHALL BE UTILIZED FOR CONSTRUCTION PURPOSES.

REVISIONS

REV	DATE	COMMENT	BY
2	12/14/15	GENERAL REVS	MAB
3	01/05/16	GENERAL REVS	DTL
4	01/15/16	PER CCCD COMMENTS	DTL
5	01/29/16	PER COMMENTS	DTL
6	03/03/16	PER CCCD COMMENTS	ACF
7	04/08/16	GENERAL REVS	DTL
8	04/21/16	GENERAL REVS	DTL
9	06/06/16	PER RECORD PLAN	DTL
10	07/13/16	GENERAL REVISIONS	DTL

CALL BEFORE YOU DIG!
PENNSYLVANIA LAW REQUIRES 3 WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND 10 WORKING DAYS IN DESIGN STAGE - STOP CALL
PA1 SYSTEM, INC. 1-800-242-1776
POCS SERIAL NUMBER 20150911340

PROJECT No.: PP140558
DRAWN BY: J.P.W.
CHECKED BY: M.J.
DATE: 2015.10.19
SCALE: AS NOTED
CAD I.D.: PP140558LANDSCAPE-10

PROJECT:
PRELIMINARY/FINAL LAND DEVELOPMENT PLANS
FOR
PR EXTON SQUARE PROPERTY LP
EXTON SQUARE MALL GROCERY STORE
260 EXTON SQUARE MALL
WEST WHITELAND TOWNSHIP
CHESTER COUNTY, PA

BOHLER ENGINEERING
1515 MARKET STREET, SUITE 920
PHILADELPHIA, PENNSYLVANIA 19102
Phone: (267) 402-3400
Fax: (267) 402-3401
www.BohlerEngineering.com

DANIEL J. NORTH
REGISTERED LANDSCAPE ARCHITECT
PENNSYLVANIA LICENSE NO. LA002729

SHEET TITLE:
LANDSCAPE PLAN (A)

SHEET NUMBER:
28
OF 43

REVISION 10

R:\1-PP\PP140558_CAD\LAND DEV\REV-10\PP140558LANDSCAPE-10---LAYOUT 28- LANDSCAPE

11502444 B: 20031 P: 1 SOP
2016 SEP 30 PM 2:59
Doc Type: DEED
Page 1 of 4

RECORDER OF DEEDS
CHESTER COUNTY, PA
2016 SEP 30 PM 2:59

POTTSTOWN PIKE
(A.K.A. S.R. 0100)
(A.K.A. L.R. 147)
(VARIABLE WIDTH R.O.W. FROM 66' TO 112')

EXIST. STORMWATER MANAGEMENT AREA (TO BE MODIFIED)

PROP. UNDERGROUND DETENTION BASIN

PROP. BIORETENTION AREA

PROP. GROCERY STORE ±55,000 SF
(PER ARCHITECTURAL PLANS DATED 2016.02.10)

SEE SHEET (C)

BUILDING

LANDSCAPE SCHEDULE

KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS
SHADE TREE(S)					
ARA	4	ACER RUBRUM 'ARMSTRONG'	ARMSTRONG COLUMNAR RED MAPLE	3 1/2-4" CAL.	B+B
AROC	23	ACER RUBRUM 'OCTOBER GLORY'	OCTOBER GLORY RED MAPLE	3 1/2-4" CAL.	B+B
CCA	14	CARPINUS CAROLINIANA	AMERICAN HORNBEAM	2 1/2-3" CAL.	B+B
GTIK	27	GLEDITSIA TRIACANTHOS INTERMIS 'SKYCOLE'	SKYLINE THORNLESS HONEYLOCUST	3 1/2-4" CAL.	B+B
GTIN	9	GLEDITSIA TRIACANTHOS INTERMIS 'SUNCOLE'	SUNBURST THORNLESS HONEYLOCUST	2 1/2-3" CAL.	B+B
LSR	8	LIQUIDAMBAR STYRACIFLUA 'ROTUNDILOBA'	SEEDLESS SWEETGUM	3 1/2-4" CAL.	B+B
NS	6	NYSSA SYLVATICA	SOURGUM OR TUPELO	3 1/2-4" CAL.	B+B
OPH	8	QUERCUS PHELLOS	WILLOW OAK	3 1/2-4" CAL.	B+B
TGC	5	TILIA CORDATA 'GREENSPIRE'	GREENSPIRE LINDEN	3 1/2-4" CAL.	B+B
ZS	11	ZELKOVA SERRATA 'GREEN VASE'	GREEN VASE ZELKOVA	3 1/2-4" CAL.	B+B
ZSVG	36	ZELKOVA SERRATA 'VILLAGE GREEN'	VILLAGE GREEN ZELKOVA	3 1/2-4" CAL.	B+B
	151				
ORNAMENTAL TREE(S)					
OA	12	OXYDENDRUM ARBOREA	SOURWOOD	8-10'	B+B
EVERGREEN TREE(S)					
ABC	17	ABIES CONCOLOR	WHITE FIR	8'	B+B
PGL	5	PICEA GLAUCA	WHITE SPRUCE	7-8'	B+B
PM	8	PSEUDOTSUGA MENZIESII	DOUGLAS FIR	7-8'	B+B
PO	10	PICEA OMORIKA	SERBIAN SPRUCE	7-8'	B+B
PS	3	PINUS STROBUS	EASTERN WHITE PINE	7-8'	B+B
	43				
EVERGREEN SHRUB(S)					
IGS	111	ILEX GLABRA 'SHAMROCK'	SHAMROCK INKBERRY HOLLY	24-30"	CONTAINER
PXOL	127	PRUNUS LAUROCERASUS 'OTTO LUYKEN'	OTTO LUYKEN CHERRY LAUREL	36"	CONTAINER
ROHC	23	RHODODENDERON X OBTUSUM 'HINO CRIMSON'	HINO CRIMSON AZALEA	18-24"	CONTAINER
VR	48	VIBURNUM X RHYTIDOPHYLLUM	LEATHERLEAF VIBURNUM	3-4'	B+B
	309				
DECIDUOUS SHRUB(S)					
CA	5	CLETHRA ALNIFOLIA	SUMMERSWEET CLETHRA	24-30"	CONTAINER
CO	9	CEPHALANTHUS OCCIDENTALIS	BUTTONBUSH	24-30"	CONTAINER
CS	7	CORNUS SERICEA	RED OSIER DOGWOOD	3'	B+B
DGN	397	DEUTZIA GRACILIS 'NIKKO'	COMPACT DEUTZIA	18-24"	CONTAINER
HPS	94	HYPERICUM PATULUM 'SUNBURST'	SUNBURST ST. JOHNSWORT	18-24"	CONTAINER
IV	23	ITEA VIRGINICA 'HENRY'S GARNET'	GARNET SWEETSPIRE	24-30"	CONTAINER
IVAW	49	ILEX VERTICILLATA 'AFTERGLOW WINTERBERRY'	AFTERGLOW WINTERBERRY	30-36"	CONTAINER
IVJD	2	ILEX VERTICILLATA 'JIM DANDY WINTERBERRY'	JIM DANDY WINTERBERRY	30-36"	CONTAINER
	576				
GROUND COVER					
JHB	384	JUNIPERUS HORIZONTALIS 'MONBER'	ICEE BLUE JUNIPER	15-18" SPRD	CONTAINER
PQ	110	PARTHENOCISSUS QUINQUEFOLIA	VIRGINIA CREEPER	PEAT POTS	2 YR. PLANTS
	494				
ORNAMENTAL GRASS(ES)					
ANG	27	ANDROPOGON GERARDII	BIG BLUESTEM	1 GAL.	CONTAINER

NOTE: IF ANY DISCREPENCIES OCCUR BETWEEN AMOUNTS SHOWN IN THE PLAN AND THE PLANT LIST, THE PLAN SHALL DICTATE.

30 15 7.5 0 30
1"= 30'

KEY MAP
1"=400'
200' 0 400'

GENERAL NOTES:

1. THIS PLAN IS TO BE UTILIZED FOR LANDSCAPE PURPOSES ONLY.
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3. SHRUBS PLANTED ALONG HEAD-IN PARKING STALLS SHALL BE INSTALLED TO ALLOW A CLEARANCE OF TWO FEET FROM FACE OF CURB TO ALLOW FOR BUMPER OVERHANG.
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1-800-242-1776
POCS SERIAL NUMBER
20150911340

PROJECT No.: PP140558
DRAWN BY: J.P.W.
CHECKED BY: M.J.
DATE: 2015.10.19
SCALE: AS NOTED
CAD I.D.: PP140558LANDSCAPE-10

PROJECT:
PRELIMINARY/FINAL LAND DEVELOPMENT PLANS
FOR
PR EXTON SQUARE PROPERTY LP
EXTON SQUARE MALL GROCERY STORE
260 EXTON SQUARE MALL
WEST WHITELAND TOWNSHIP
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Phone: (267) 402-3400
Fax: (267) 402-3401
www.BohlerEngineering.com

REGISTERED LANDSCAPE ARCHITECT
PENNSYLVANIA LICENSE NO. LA002729

SHEET TITLE:
LANDSCAPE PLAN (B)

SHEET NUMBER:
29
OF 43

REVISION 10

R:\PP\PP140558_CAD\LAND DEV\REV\10\PP140558LANDSCAPE-10.dwg — LAYOUT: 29- LANDSCAPE

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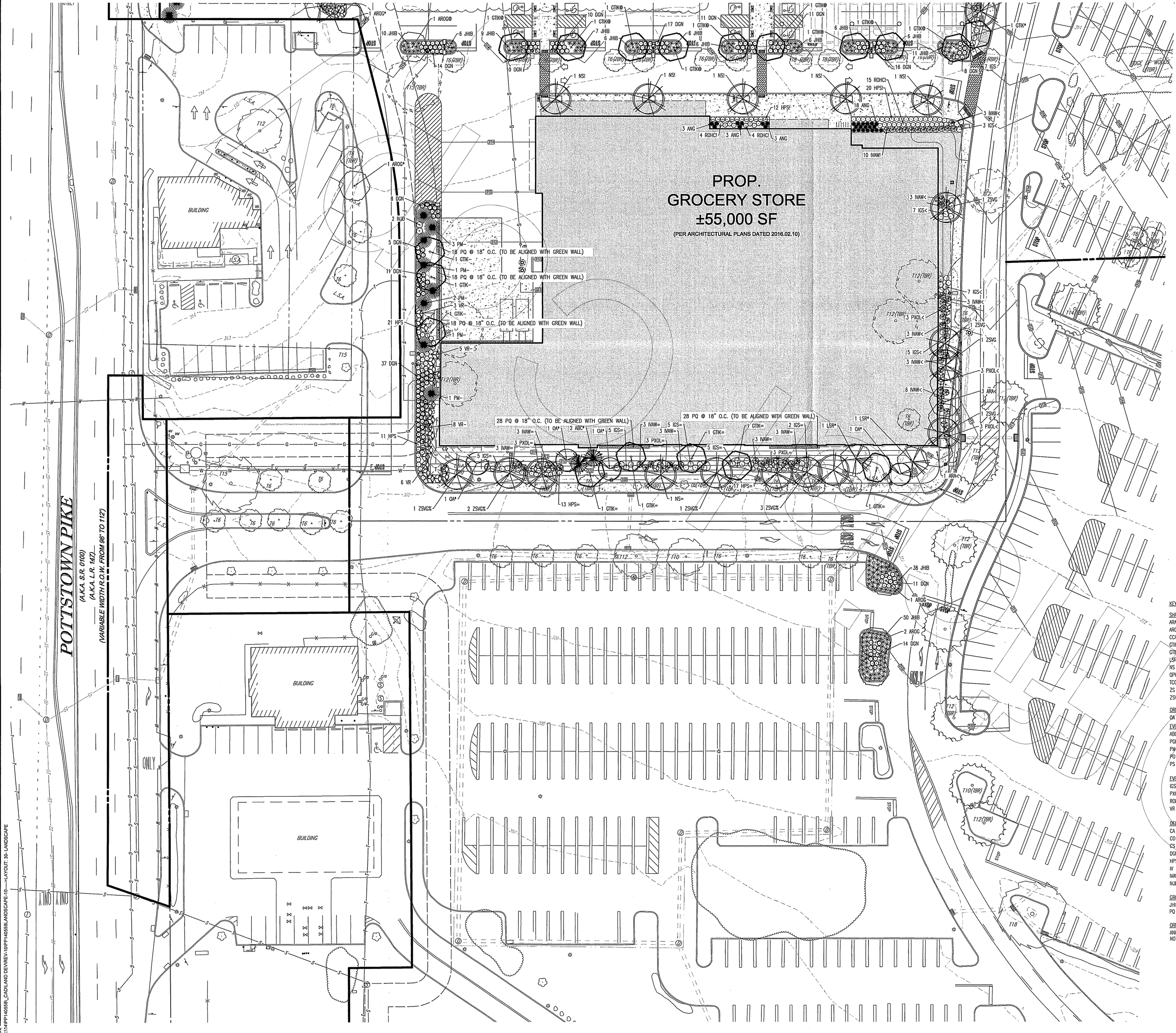
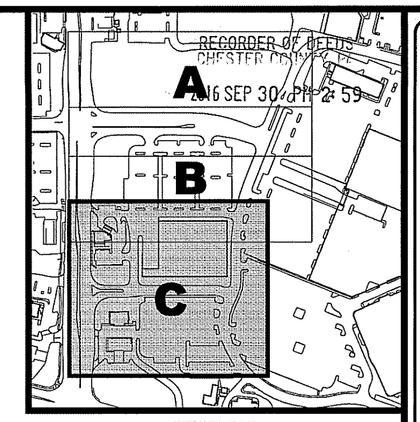
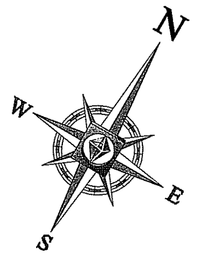
Date: 2/3/2022 2:54 PM
Page 31 of 43

SEE SHEET (B)





KEY MAP
1"=400'
200' 0 400'



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LANDSCAPE SCHEDULE

KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS
SHADE TREE(S)					
ARA	4	ACER RUBRUM 'ARMSTRONG'	ARMSTRONG COLUMNAR RED MAPLE	3 1/2-4" CAL.	B+B
AROG	23	ACER RUBRUM 'OCTOBER GLORY'	OCTOBER GLORY RED MAPLE	3 1/2-4" CAL.	B+B
CCA	14	CARPINUS CAROLINIANA	AMERICAN HORNBEAM	2 1/2-3" CAL.	B+B
GTIK	27	GLEDITSIA TRIACANTHOS INERMIS 'SKYCOLE'	SKYLINE THORNLESS HONEYLOCUST	3 1/2-4" CAL.	B+B
GTIN	9	GLEDITSIA TRIACANTHOS INERMIS 'SUNCOLE'	SUNBURST THORNLESS HONEYLOCUST	2 1/2-3" CAL.	B+B
LSR	8	LIQUIDAMBAR STYRACIFLUA 'ROTUNDILOBA'	SEEDLESS SWEETGUM	3 1/2-4" CAL.	B+B
NS	6	NYSSA SYLVATICA	SOURGUM OR TUPELO	3 1/2-4" CAL.	B+B
OPH	8	QUERCUS PHELLOS	WILLOW OAK	3 1/2-4" CAL.	B+B
TCG	5	TILIA CORDATA 'GREENSPIRE'	GREENSPIRE LINDEN	3 1/2-4" CAL.	B+B
ZS	11	ZELKOVA SERRATA 'GREEN VASE'	GREEN VASE ZELKOVA	3 1/2-4" CAL.	B+B
ZSVG	36	ZELKOVA SERRATA 'VILLAGE GREEN'	VILLAGE GREEN ZELKOVA	3 1/2-4" CAL.	B+B
	151				
ORNAMENTAL TREE(S)					
OA	12	OXYDENDRUM ARBOREA	SOURWOOD	8-10'	B+B
EVERGREEN TREE(S)					
ABC	17	ABIES CONCOLOR	WHITE FIR	8'	B+B
PGL	5	PICEA GLAUCA	WHITE SPRUCE	7-8'	B+B
PM	8	PSEUDOTSUGA MENZIESII	DOUGLAS FIR	7-8'	B+B
PO	10	PICEA OMORIKA	SERBIAN SPRUCE	7-8'	B+B
PS	3	PINUS STROBUS	EASTERN WHITE PINE	7-8'	B+B
	43				
EVERGREEN SHRUB(S)					
IGS	111	ILEX GLABRA 'SHAMROCK'	SHAMROCK INKBERRY HOLLY	24-30"	CONTAINER
PXOL	127	PRUNUS LAUROCERASUS 'OTTO LUYKEN'	OTTO' LUYKEN CHERRY LAUREL	36"	CONTAINER
ROHC	23	RHODODENDERON X OBTUSUM 'HINO CRIMSON'	HINO CRIMSON AZALEA	18-24"	CONTAINER
VR	48	VIBURNUM X RHYTIDOPHYLLUM	LEATHERLEAF VIBURNUM	3-4'	B+B
	309				
DECIDUOUS SHRUB(S)					
CA	5	CLETHRA ALNIFOLIA	SUMMERSWEET CLETHRA	24-30"	CONTAINER
CO	9	CEPHALANTHUS OCCIDENTALIS	BUTTONBUSH	24-30"	CONTAINER
CS	7	CORNUS SERICEA	RED OSIER DOGWOOD	3'	B+B
DGN	387	DEUTZIA GRACILIS 'NIKKO'	COMPACT DEUTZIA	18-24"	CONTAINER
HPS	94	HYPERICUM PATULUM 'SUNBURST'	SUNBURST ST. JOHNSWORT	18-24"	CONTAINER
IV	23	ITEA VIRGINICA 'HENRY'S GARNET'	GARNET SWEETSPIRE	24-30"	CONTAINER
IVAW	49	ILEX VERTICILLATA 'AFTERGLOW WINTERBERRY'	AFTERGLOW WINTERBERRY	30-36"	CONTAINER
IVJD	2	ILEX VERTICILLATA 'JIM DANDY WINTERBERRY'	JIM-DANDY WINTERBERRY	30-36"	CONTAINER
	576				
GROUND COVER					
JHB	384	JUNIPERUS HORIZONTALIS 'MONBER'	ICEE BLUE JUNIPER	15-18" SPRD	CONTAINER
PQ	110	PARTHENOCISSUS QUINQUEFOLIA	VIRGINIA CREEPER	PEAT POTS	2 YR. PLANTS
	494				
ORNAMENTAL GRASS(ES)					
ANG	27	ANDROPOGON GERARDII	BIG BLUESTEM	1 GAL.	CONTAINER

NOTE: IF ANY DISCREPENCIES OCCUR BETWEEN AMOUNTS SHOWN IN THE PLAN AND THE PLANT LIST, THE PLAN SHALL DICTATE.

30 15 7.5 0 30
1"= 30'

BOHLER ENGINEERING
SITE CIVIL AND CONSULTING ENGINEERING
LANDSCAPE ARCHITECTURE
TRANSPORTATION AND TRAFFIC ENGINEERING
LAND SURVEYING
SITE/UTILITY DESIGN
PROGRAM MANAGEMENT
◆ UPSTATE NEW YORK
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REVISIONS

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3	01/05/16	GENERAL REVS	DTL
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PA1 PENTEL INC
1-800-242-1776

POCS SERIAL NUMBER
20150911340

PROJECT No.: PP140558
DRAWN BY: J.P.W.
CHECKED BY: M.J.
DATE: 2015.10.19
SCALE: AS NOTED
CAD I.D.: PP140558LANDSCAPE-10

PROJECT:

PRELIMINARY/FINAL LAND DEVELOPMENT PLANS

FOR

PR EXTON SQUARE PROPERTY LP

EXTON SQUARE MALL GROCERY STORE

260 EXTON SQUARE MALL
WEST WHITELAND TOWNSHIP
CHESTER COUNTY, PA

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1515 MARKET STREET, SUITE 920
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Phone: (267) 402-3400
Fax: (267) 402-3401
www.BohlerEngineering.com

COMMONWEALTH OF PENNSYLVANIA
DAVID A. NORTH
REGISTERED LANDSCAPE ARCHITECT
PENNSYLVANIA REGISTRY NO. LA002729

SHEET TITLE:

LANDSCAPE PLAN (C)

SHEET NUMBER:

30
OF 43

REVISION 10

P:\PA\PP140558_CADLAND DEVREV\10\PP140558LANDSCAPE-10—LAYOUT: 30-LANDSCAPE

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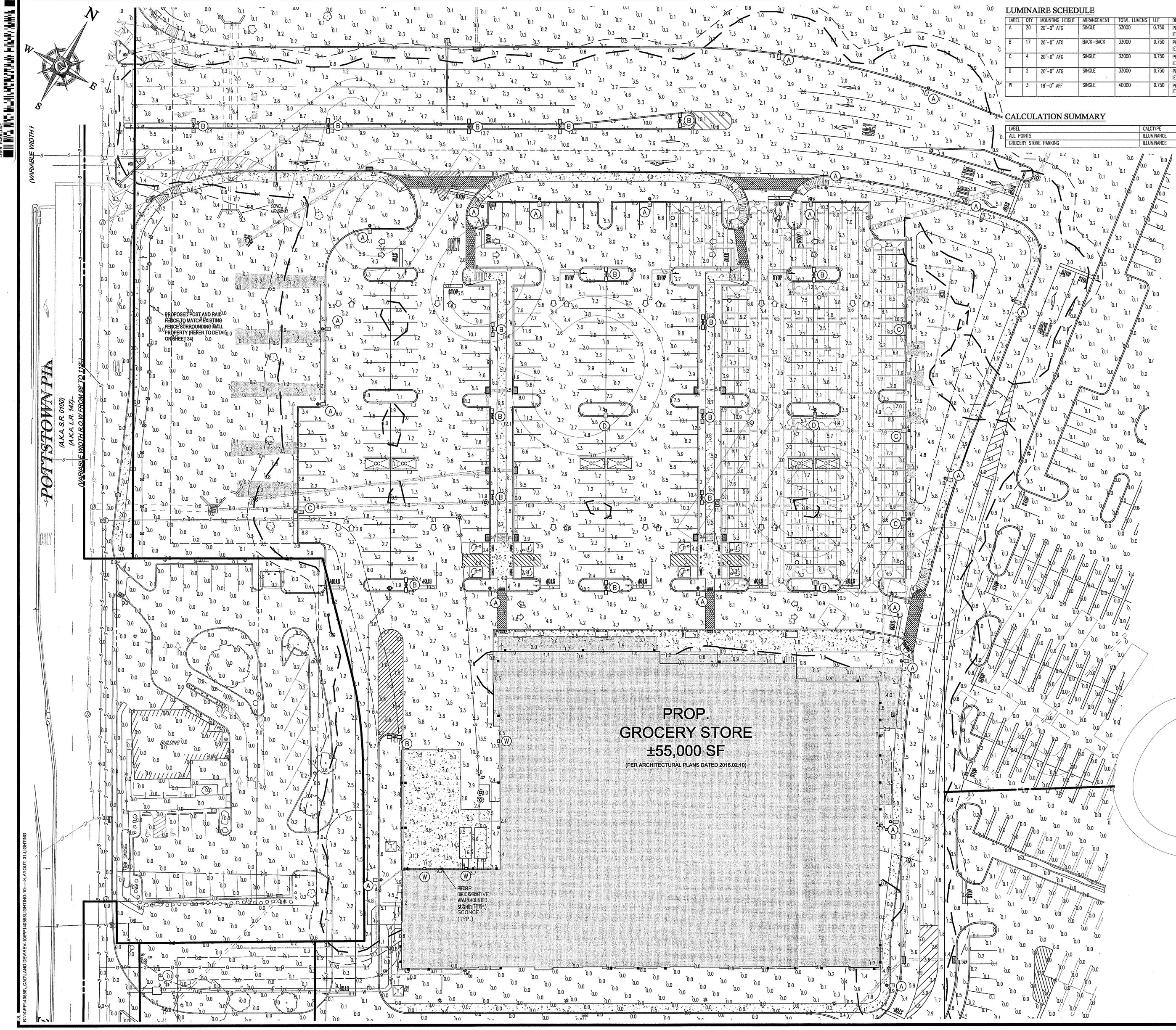
03/23/2016 02:32:32 PM
RECORDER OF DEEDS
CHESTER COUNTY, PA

RECORDER OF DEEDS
CHESTER COUNTY, PA
2016 SEP 30 01:59 PM 2 of 59



LUMINAIRE SCHEDULE

LABEL	QTY	MOUNTING HEIGHT	ARRANGEMENT	TOTAL LUMENS	LLF	DESCRIPTION
A	20	20'-0" AFG	SINGLE	33000	0.750	PHILIPS GARDCO ECOLUME AREA LUMINAIRE, 350W PSMH, TYPE 3H, FULL CUT-OFF (ECA1B-3H-400P.ies (PRO-RATED) ICS FILE USED: ECA1B-3H-400P.ies (PRO-RATED)
B	17	20'-0" AFG	BACK-BACK	33000	0.750	PHILIPS GARDCO ECOLUME AREA LUMINAIRE, 350W PSMH, TYPE 3H, FULL CUT-OFF (ECA1B-2-3H-350PSMH-x-NP) ICS FILE USED: ECA1B-3H-400P.ies (PRO-RATED)
C	4	20'-0" AFG	SINGLE	33000	0.750	PHILIPS GARDCO ECOLUME AREA LUMINAIRE, 350W PSMH, TYPE FH, FULL CUT-OFF, NO SHIELD (ECA1B-1-FH-350PSMH-x-NP) ICS FILE USED: ECA1B-FH-400P-NS.ies (PRO-RATED)
D	2	20'-0" AFG	SINGLE	33000	0.750	PHILIPS GARDCO ECOLUME AREA LUMINAIRE, 350W PSMH, TYPE OH, FULL CUT-OFF, W/ROTATED OPTICS (ECA1B-1-OH-350PSMH-x-NP) ICS FILE USED: ECA1B-OH-400P.ies (PRO-RATED)
W	3	18'-0" AFF	SINGLE	40000	0.750	PHILIPS GARDCO 141 SERIES WALL SCONCE LUMINAIRE, 400W PSMH, TYPE FT, FULL CUT-OFF (141-FT-400PSMH-x-NP) ICS FILE USED: 141-FT-400P.ies

CALCULATION SUMMARY

LABEL	CALCTYPE	UNITS	AVG	MAX	MIN	AVG/MIN	MAX/MIN
ALL POINTS	ILLUMINANCE	Fc	1.07	16.3	0.0	N.A.	N.A.
GROCERY STORE PARKING	ILLUMINANCE	Fc	5.12	15.4	0.8	6.40	19.25

LEGEND

LIMIT 1.0 Fc ISO.
LIMIT 0.5 Fc ISO.

GENERAL LIGHTING NOTES

1. THIS PLAN IS TO BE UTILIZED FOR LIGHTING PURPOSES ONLY. REFER TO ELECTRICAL ENGINEERING PLANS FOR CIRCUITRY DESIGN AND SPECIFICATIONS.
2. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE SUBMITTALS TO THE PROJECT ENGINEER (BOHLER) FOR REVIEW AND APPROVAL. SUBSTITUTION REQUESTS MUST BE ACCOMPANIED BY A HORIZONTAL PHOTOMETRIC STUDY DEMONSTRATING THAT THE FIXTURE(S) IN QUESTION WILL MEET THE DESIGN INTENT OF THIS PLAN. SUBSTITUTION REQUESTS WITHOUT A PHOTOMETRIC STUDY WILL BE REJECTED.
3. THIS LIGHTING PLAN DEPICTS PROPOSED SUSTAINED ILLUMINATION LEVELS CALCULATED USING DATA PROVIDED BY THE NOTED MANUFACTURER(S). ACTUAL SUSTAINED SITE ILLUMINATION LEVELS AND PERFORMANCE OF LUMINARIES MAY VARY DUE TO VARIATIONS IN WEATHER, ELECTRICAL VOLTAGE, TOLERANCE IN LAMPS, THE SERVICE LIFE OF EQUIPMENT AND LUMINARIES AND OTHER RELATED VARIABLE FIELD CONDITIONS.
4. THE LIGHTING VALUES AND CALCULATION POINTS DEPICTED ON THIS PLAN ARE ALL ANALYZED ON A HORIZONTAL GEOMETRIC PLANE AT ELEVATION ZERO (GROUND LEVEL) UNLESS OTHERWISE NOTED. THE VALUES DEPICTED ON THIS PLAN ARE IN FOOTCANDLES.
5. THE LUMINARIES, LAMPS AND LENSES MUST BE REGULARLY INSPECTED/MAINTAINED TO ENSURE THAT THEY FUNCTION PROPERLY. THIS WORK SHOULD INCLUDE, BUT NOT BE LIMITED TO, FREQUENT VISUAL INSPECTIONS, CLEANING OF LENSES, AND RELAMPING ACCORDING TO MANUFACTURER RECOMMENDATIONS. FAILURE TO FOLLOW THE ABOVE STEPS COULD CAUSE THE LUMINARIES FUNCTION IMPROPERLY.
6. THIS LIGHTING PLAN IS INTENDED TO SHOW THE LOCATIONS AND TYPE OF LUMINAIRES, ONLY. POWER SYSTEM, CONDUITS, WIRING, VOLTAGES AND OTHER ELECTRICAL COMPONENTS ARE THE RESPONSIBILITY OF THE ARCHITECT, MEP AND/OR LIGHTING CONTRACTOR, AS INDICATED IN THE CONSTRUCTION CONTRACT DOCUMENTS. THESE ITEMS MUST BE INSTALLED AS REQUIRED BY STATE AND LOCAL REGULATIONS. CONTRACTOR IS RESPONSIBLE FOR INSTALLING LIGHTING FIXTURES AND APPURTENANCES IN ACCORDANCE WITH ALL APPLICABLE BUILDING AND ELECTRICAL CODES AND ALL OTHER APPLICABLE RULES, REGULATIONS, LAWS AND STATUTES.
7. CONTRACTOR MUST BRING TO THE DESIGNER'S ATTENTION, PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, ANY LIGHT LOCATIONS THAT CONFLICT WITH DRAINAGE, UTILITIES, OR OTHER STRUCTURES.
8. THE LIGHTING CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE CONTRACTOR REQUIREMENTS INDICATED IN THE SITE PLAN, INCLUDING BUT NOT LIMITED TO, GENERAL NOTES, GRADING AND UTILITY NOTES, SITE SAFETY, AND ALL GOVERNMENTAL RULES, LAWS, ORDINANCES, REGULATIONS AND THE LIKE.
9. UPON OWNER'S ACCEPTANCE OF THE COMPLETED PROJECT, THE OWNER SHALL BE RESPONSIBLE FOR ALL MAINTENANCE, SERVICING, REPAIR AND INSPECTION OF THE LIGHTING SYSTEM AND ALL OF ITS COMPONENTS AND RELATED SYSTEMS, TO ENSURE ADEQUATE LIGHTING LEVELS ARE PRESENT AND FUNCTIONING AT ALL TIMES.
10. WEST WHITELAND TOWNSHIP RESERVES THE RIGHT TO CONDUCT ONE OR MORE POST-INSTALLATION NIGHTTIME INSPECTIONS TO VERIFY COMPLIANCE WITH APPROVED PLAN AND IF JUSTIFIED, TO REQUIRE REMEDIAL ACTION AT NO EXPENSE TO THE TOWNSHIP.
11. POST-APPROVAL ALTERATIONS TO LIGHTING PLANS OR INTENDED SUBSTITUTIONS FOR APPROVED LIGHTING EQUIPMENT SHALL BE SUBMITTED TO WEST WHITELAND TOWNSHIP FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION.
12. ALL EXTERIOR LIGHTING, WHETHER FREE-STANDING OR MOUNTED ON A STRUCTURE, SHALL BE FULL-CUTOFF.

30 15 7.5 0 30
1"=30'

BOHLER ENGINEERING
SITE CIVIL AND CONSULTING ENGINEERING
LAND DEVELOPMENT
LANDSCAPE ARCHITECTURE
PROGRAM MANAGEMENT
TRANSPORTATION PLANNING
SURVEYING
◆ PHILADELPHIA, PA
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REVISIONS

REV	DATE	COMMENT	BY
2	12/14/15	GENERAL REVS	MAB
3	01/05/16	GENERAL REVS	DTL
4	01/15/16	PER CCCD COMMENTS	DTL
5	01/29/16	PER COMMENTS	DTL
6	03/03/16	PER CCCD COMMENTS	ACF
7	04/06/16	GENERAL REVS	DTL
8	04/21/16	GENERAL REVS	DTL
9	06/06/16	PER RECORD PLAN	DTL
10	07/13/16	GENERAL REVISIONS	DTL

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POCS SERIAL NUMBER
20150911240

PROJECT No.: PP140558
DRAWN BY: J.P.W.
CHECKED BY: M.J.
DATE: 2015.10.19
SCALE:
CAD I.D.: PP140558LIGHTING-10

PROJECT:

PRELIMINARY/FINAL LAND DEVELOPMENT PLANS

FOR

PR EXTON SQUARE PROPERTY LP

EXTON SQUARE MALL GROCERY STORE

260 EXTON SQUARE MALL
WEST WHITELAND TOWNSHIP
CHESTER COUNTY, PA

BOHLER ENGINEERING
1515 MARKET STREET, SUITE 920
PHILADELPHIA, PENNSYLVANIA 19102
Phone: (267) 402-3400
Fax: (267) 402-3401
www.BohlerEngineering.com

REGISTERED LANDSCAPE ARCHITECT
PENNSYLVANIA LICENSE No. LA002729

SHEET TITLE:

LIGHTING PLAN

SHEET NUMBER:

31
OF 43

REVISION 10

PLOTTED: 2016.09.30 01:59 PM BY: DTL
K:\PP\140558_CADLAND DEV\REV-10\PP140558LIGHTING-10---LAYOUT: 31-LIGHTING

11500444 B: 20031 P: 1 SBP
Pages: 33 of 43
DEED RESTRICTIONS
CHESTER COUNTY, PA

RECORDER OF DEEDS
CHESTER COUNTY, PA
2016 SEP 30 PM 2:59

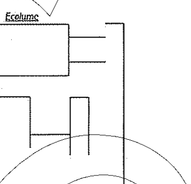
Job:
Type:
Notes:

Featuring CosmoPolis and MasterColor Elite Electronic HID Systems

Ecolume and Decolume

Arm Mount and Wall Mount

Ecolume and Decolume are rectilinear arm-mounted area luminaires, also suitable for wall mounting. The precision segmented optical systems provide required light levels, even illumination, wide pole spacings and glare control. The housing is diformed and the door frame is extruded aluminum. The luminaire is completely sealed and gasketed, preventing intrusion from moisture, insects and contaminants. Decolume luminaires feature three (3) decorative ribs along the lower portion of the housing. The ribs are permanent design elements, an integral part of the diaformed housing.



Flat glass lens luminaires provide full cutoff performance. Sag lens Luminaires using 3V/QV optics set to lower socket position or Mallmaster optics provide semi-cutoff performance. Other sag lens luminaires provide cutoff performance.

PREFIX	MOUNTING	DISTRIBUTION	WATTAGE	VOLTAGE	FINISH	OPTIONS

Enter the order code into the appropriate box above. Note: Gardco reserves the right to refuse a configuration. Not all combinations and configurations are valid. Refer to notes below for exclusions and limitations. For questions or concerns, please consult the factory.

PREFIX

	Ecolume	Decolume	
Arm Mount to Pole*	ECA14	DECA14	14" Square Luminaire
	ECA18	DECA18	18" Square Luminaire
	ECA23	DECA23	23" Square Luminaire
Direct Wall Mount	ECW14	DECW14	14" Square Luminaire
	ECW18	DECW18	18" Square Luminaire
	ECW23	DECW23	23" Square Luminaire
Wall Mount with Arm	ECWA14	DECWA14	14" Square Luminaire
	ECWA18	DECWA18	18" Square Luminaire
	ECWA23	DECWA23	23" Square Luminaire

**Arm mounting on round poles is designed to mount to poles measuring 3.5" OD or larger only.*

MOUNTING

1	Single Pole Mount
2	Twin Pole Mount at 180°
2@90°	Twin Pole Mount at 90°
3	3-way Pole Mount at 90°
3@120°	3-way Pole Mount at 120°
4	4-way Pole Mount

Use "1" for wall mounted units.

DISTRIBUTION

Horizontal Lamp

2H	Type II
3H	Type III
FH	Type IV Forward Throw
BLC	Backlight Control *(18" only, 400MH/HPSMH requires B728/E28 lamp.)*
QH	Type V

Vertical Lamp, Sag Lens

3V[1,2]	Type III Vertical Lamp
FV[1,2]	Type IV Forward Throw Vertical Lamp
QV[1,2]	Type V Vertical Lamp
3V-RNC [1]	Type III Vertical Lamp, Reduced Nadir Candlepower *(23" only)*
QV-RNC[1,2]	Type V Vertical Lamp, Reduced Nadir Candlepower *(23" only)*

RNC (Reduced Nadir Candlepower) optics should be specified only in applications requiring extreme maximum to minimum uniformity ratios (5 to 1 or lower). Reduced luminaire efficiency with RNC optics will result in lower average footcandle levels.

3SV[1]	Type III Vertical Lamp Mallmaster Semi-cutoff *(23" only)*
QSV[1]	Type V Vertical Lamp Mallmaster Semi-cutoff *(23" only)*

Vertical Lamp, Flat Glass Lens

2VFC[1,2]	Type II Vertical Lamp, Flat Glass Lens *(18" only)*
3VFC[1]	Type III Vertical Lamp, Flat Glass Lens *(18" and 23" only)*
FVFC[1]	Type IV Vertical Lamp, Flat Glass Lens *(18" and 23" only)*
QVFC[1]	Type V Vertical Lamp, Flat Glass Lens *(18" and 23" only)*

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1. 14" and 18" luminaires with flat flat glass lens, spinal mounts with high temperature resistant thermoplastic sag lens. 23" arm mount with vertical lens optics are supplied die-cast aluminum optics.

2. Internal 3V/QV optics systems feature a user factory set, cutoff socket position. For other settings, a lower (left) adjustable position socket must be ordered.

3. 14" vertical lens optics require medium base lamp. Not Available with 480V.

4. 18" Flat Glass Lens with vertical lamp optics are only available with medium base lamp up to 250 HPS/PSMH lamps. Not 320, 350, and 400W.

5. 2VFC optics are not available in 23" housing.

Featuring CosmoPolis and MasterColor Elite Electronic HID Systems

Ecolume and Decolume

Arm Mount and Wall Mount

WATTAGE

(E) *Wattages marked with circle "E" meet federal energy efficiency standards applicable to 150 watt through 500 watt metal halide luminaires only.*

	14"	18"	23"
Pulse Start MH Magnetic Ballast	100MH[5,10] 150MH[5,10] 175PSMH (E) 200MH[5,10] (E)	250PSMH (E) 250PSMH**[4] (E) 320PSMH[12] (E) 350PSMH[4] (E) 400PSMH (E)	400PSMH[11] (E) 450PSMH[11] (E) 750PSMH[11] 775PSMH[11] 875PSMH 1000PSMH[11]
CosmoPolis Electronic System	60CMPE[13] 90CMPE[13] 140CMPE[13]	60CMPE[13] 90CMPE[13] 140CMPE[13]	
MasterColor Elite Electronic System		210MCE-3K[14] (E) 210MCE-4K[14] (E) 315MCE-3K[14] (E) 315MCE-4K[14] (E)	210MCE-3K[14] (E) 210MCE-4K[14] (E) 315MCE-3K[14] (E) 315MCE-4K[14] (E)
Pulse Start MH Electronic Ballast		250PSE[13] (E) 320PSE[12,13] (E)	
*Standard MH Magnetic Ballast**[6]*	175MH[5,10]	250MH[4,9] 400MH[4,9]	400MH[4,9] 1000MH[4,9]
High Pressure Sodium Magnetic Ballast	70HPS[5,7] 100HPS[5,7] 150HPS[5,7]	250HPS 400HPS	400HPS 750HPS 1000HPS***[4,9]

***775MH, 350MH and 400MH not available for sale in the United States.*

**** 250P590 includes a 90% efficient magnetic PSMH ballast, meeting the requirements of California Title 20, effective 1/1/2016.*

*****1000W HPS Not available with Vertical Lamp, Flat Glass optics.*

VOLTAGE

120	
208	
240	
277	
347	
480	
QUAD	*120/208/240/277 factory tied to 277V.*
200-277	*CMPE, MCE, and PSE types only.*

FINISH

BRP	Bronze Paint
BLP	Black Paint
WP	White Paint
NP	Natural Aluminum Paint
OC	Optional Color Paint *Specify Optional Color or RAL or OCAGP or OCARL1024.*
SC	Special Paint *Specify. Must supply color chip.*

6. Requires mogul base lamp in horizontal optics and medium base lamp in vertical optics.
7. Not Available in 480V.
8. Requires medium base lamp.
9. Requires mogul base lamp.
10. All 208MH and all 981 150W and below are pulse start by design.
11. Available with vertical lamp optics only.
12. Requires B728 / E28 lamp.
13. CMPE and MCE types available in 120V, 200-277V, 347V or 480V. 120V, 347V and 480V require and includes an auto-tap transformer. For MCE types, "-3K" indicates a 3,000°K Lamp, "-4K" indicates a 4,000°K lamp. PSE types available in 200 - 277V only.
14. Supplied standard for FHFVHVFC optics. Not available with QVFC optics.
15. Kit includes In-Line Fuses.
16. Not Available with 480V.
17. Available for 18" or 23" units only. Requires 2 3/8" OD Mast Arms.
18. Only available with single and twin luminaires @ 180°. Mounts to square poles only.
19. Not available with 23" units.
20. In lieu of glass. Not available with 23" units.
21. See QSG/Q24 Table.
22. Available only with 14" 175PSMH or 150HPS and 18"250PS/HPS through 400PSMH or 350HPS through 400HPS wattages. Includes dual-level capacitor and wiring. Is correct to Gardco Motion Response System.
23. 18For 23"only. Supplied standard with 23" luminaires with vertical optics.
24. Available with CosmoPolis system only. See submittal sheet GE200-005 for complete information on LumStep ballasts.
25. 1000W MH requires B7-37 or E-37 lamp when specified with 3VFC, FVFC, and QVFC optics.

OPTIONS

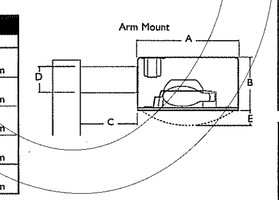
HS[16]	Internal House Side Shield	**ACR**[22]	Acrylic Sag Lens
F	Fusing	**POLY**[20]	Polycarbonate Sag Lens
LF[17]	In-Pole/In-Line Fusing	**SG**[20]	Sag Glass Lens
PCT[16]	Locking Type Photocontrol Receptacle with Photocontrol	**QS**[21]	Quartz Standby
PCR	Locking Type Photocontrol Receptacle	**QST**[21]	Quartz Standby - Timed Delay
PCB[16]	Button Photocontrol	**Q924**[24]	Quartz Emergency
MF[18]	Mast Arm Fitter	**QT924**[24]	Quartz Emergency - Timed Delay
PTF2	Pole Top Fitter 2 3/8" X 4"	**GMR**[25]	Provision for Gardco Motion Response
PTF3	Pole Top Fitter 3 - 3 1/2" X 6"	**L8**[24]	LumiStep Ballast 6 hour
PTF4	Pole Top Fitter 3 1/2 - 4" X 9"	**L8**[24]	LumiStep Ballast 8 hour
ADJ[19,23]	Adjustable Knuckle - Square Pole Mount	**L10**[24]	LumiStep Ballast 10 hour
AT[18]	Adjustable Knuckle - Tenon Mount		

(Note 21)	Q5 / Q924 Table
HID Lamp Watts	Maximum Quartz Lamp Watts
175 watts or less	100 Watts
Above 175 watts up to 400 watts	150 Watts

14" luminaires limited to 100 watt quartz lamp maximum regardless of HID wattage. Q5, QST, Q924 and QT924 options are not available in luminaires above 400 watt HID.

DIMENSIONS AND EPA *(CONTINUED ON PAGE 3)*

ARM MOUNT	14"	18"	23"
A	14" sq 35.56cm	18" sq 45.72cm	23" sq 58.42cm
B	7" 17.78cm	10" 25.40cm	14.5" 36.83cm
C Arm Length	6" 15.24cm	9" 22.86cm	12" 30.48cm
D Arm Height	5" 12.70cm	5" 12.70cm	8" 20.32cm
E Drop Lens	2" 5.08cm	4" 10.16cm	6.5" 16.51cm



ECOLUME and DECOLUME	EPA (Effective Projected Area) ft² / m²		
	Single	Twin 180°	Quad
14" units	1.1 / .103	2.2 / .205	2.7 / .251
18" units	1.9 / .177	3.8 / .354	4.8 / .446
23" units	3.6 / .335	7.3 / .679	8.8 / .818

ECOLUME and DECOLUME	Single Luminaire Weight (lbs / kg)
14" units	30 / 13.61
18" units	50 / 22.68
23" units	90 / 40.83

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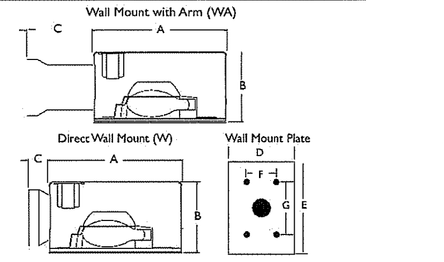
Ecolume and Decolume

Arm Mount and Wall Mount

DIMENSIONS AND EPA *(CONTINUED FROM PAGE 2)*

WALL MOUNT / WALL MOUNT PLATE	14"	18"	23"
A (W & WA)	14" sq 35.56cm	18" sq 45.72cm	23" sq 58.42cm
B (W & WA)	7" 17.78cm	10" 25.40cm	14.5" 36.83cm
C (WA only)	8" 20.32cm	11" 27.94cm	14" 35.56cm
C (W only)	2" 5.08cm	2" 5.08cm	2" 5.08cm
D (W & WA)	5" 12.70cm	5" 12.70cm	5" 12.70cm
E (W & WA)	7" 17.78cm	7" 17.78cm	7.38" 18.75cm
F (W & WA)	2.25" 5.72cm	2.25" 5.72cm	4" 10.16cm
G (W & WA)	4" 10.16cm	4" 10.16cm	6.5" 16.51cm



SPECIFICATIONS

GENERAL DESCRIPTION: Each Ecolume and Decolume is a cutoff luminaire for high intensity discharge lamps. Internal components are totally enclosed, rain-right, dust-right, and corrosion resistant. No venting of the optical system or electrical components is required or permitted. Lamping requires no lifting or hinging of the luminaire housing, disturbing wiring or exposing uninsulated live parts.

HOUSING: The housing wrapper is one-piece diformed aluminum. The housing has an integral reinforcing spine and no welded corners. Silicone seals provide a weatherright seal at all points of material transition.

LENS: A mitered, extruded anodized aluminum door frame retains the optically clear, heat and impact resistant tempered flat glass in a sealed mantar using hollow section, high compliance, memory retentive extruded silicone rubber. A non-yellowing drop acrylic lens is provided standard on 14" and 18" vertical lamp and a sag glass lens is provided on 23" vertical lamp luminaires. A single flush 1/4 turn captive fastener permits easy access to the luminaire.

OPTICAL SYSTEMS: The segmented reflector system consists of two levels of highly specular aluminum facets precisely aligned to achieve specified photometric distributions. The entire optical system is field rotatable in 90° increments. The position-oriented mogul base socket is glazed porcelain with a nickel plated screw shell. A lamp stabilizer is standard on 3H and QH 400W MH and PSMH units.

ELECTRICAL: All electrical components are UL recognized and factory tested. Electronic and magnetic HID ballasts are high power factor. Magnetic HID ballasts are the separate component type. The ballast is mounted on a unitized tray and secured within the luminaire, above the reflector system. Electronic and magnetic HID ballasts are capable of providing reliable lamp starting down to -20°F / -29°C. Standard fluorescent ballasts are solid state.

Luminaires provided with the CosmoPolis or MasterColor Elite high performance ceramic metal halide electronic system include high power factor electronic ballasts, designed specifically for the system selected.

FINISH: Each luminaire receives a fade and abrasion resistant, electrostatically applied, thermally-cured polyester powder finish after fabrication.

LABELS: All luminaires bear UL or CUL (where applicable) Wet Location labels.

WARRANTY: Ecolume and Decolume Luminaires feature a 1 year limited warranty. See Warranty Information on www.sitelighting.com for complete details and exclusions.

FULL CUTOFF PERFORMANCE: Full cutoff performance means a luminaire distribution where zero candela intensity occurs at an angle at or above 90° above nadir. Additionally, the candela per 1000 lamp lumens does not numerically exceed 100 (10 percent) at a vertical angle of 80° above nadir. This applies to all lateral angles around the luminaire.

CUTOFF PERFORMANCE: Cutoff performance means a luminaire distribution where the candela per 1000 lamp lumens does not numerically exceed 25 (2.5 percent) at an angle at or above 90° above nadir, and 100 (10 percent) at a vertical angle of 80° above nadir. This applies to all lateral angles around the luminaire.

SEMI-CUTOFF PERFORMANCE: Semi-Cutoff performance means a luminaire distribution where the candela per 1000 lamp lumens does not numerically exceed 50 (5.0 percent) at an angle at or above 90° above nadir, and 200 (20 percent) at a vertical angle of 80° above nadir. This applies to all lateral angles around the luminaire.

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Philips Lighting
North America Corporation
200 Franklin Square Drive
Somerset, NJ 08873
Phone: 855-486-2216

Philips Lighting Company
281 Hillmount Road
Markham ON, Canada L6C 2S3
Phone: 800-668-9008

NOTES:
1. THIS DETAIL IS FOR BID AND BUDGETARY PURPOSES ONLY. CONTRACTOR SHALL ENSURE DESIGN IS PREPARED BY A QUALIFIED STRUCTURAL ENGINEER CONSIDERING LIGHTING MANUFACTURER REQUIREMENTS, LOCAL WIND LOADS, SITE SPECIFIC SOIL PARAMETERS.
   A. SOME SITE LOCATIONS AND/OR CONDITIONS MAY REQUIRE VIBRATION DAMPENING MEASURES AS DETERMINED BY A STRUCTURAL ENGINEER.
   B. THE STRUCTURAL ENGINEER SHALL BE NOTIFIED OF THE INTENT TO MOUNT ANYTHING ASIDE FROM THE LIGHT FIXTURE INCLUDING (BUT NOT LIMITED TO) CAMERAS, BANNERS, FLAGS, SIGNAGE, ETC. AS IT WILL IMPACT THE POLE AND FOUNDATION DESIGN.
2. ALL REBAR SHALL HAVE A YIELD STRENGTH OF 60ksi, AND MAINTAIN A 3" MIN. CLEARANCE FROM SURFACES.

LIGHT POLE DETAIL
N.T.S.

BOHLER ENGINEERING
SITE CIVIL AND CONSULTING ENGINEERING
LAND DEVELOPMENT PERMITTING SERVICES
SUSTAINABLE DESIGN
TRANSPORTATION SERVICES
◆ PHILADELPHIA, PA ◆ LEHIGH VALLEY, PA ◆ NEW JERSEY ◆ NEW YORK METRO ◆ REHOBOTH BEACH, DE ◆ BALTIMORE, MD ◆ WASHINGTON, D.C. ◆ NORTHERN VIRGINIA ◆ CENTRAL VIRGINIA ◆ RALEIGH, NC ◆ CHARLOTTE, NC ◆ TAMPA, FLORIDA ◆ SOUTH FLORIDA
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REVISIONS

REV	DATE	COMMENT	BY
2	12/14/15	GENERAL REVS	MAB
3	01/05/16	GENERAL REVS	DTL
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POCS SERIAL NUMBER
20150911340

PROJECT No.: PP140558
DRAWN BY: J.P.W.
CHECKED BY: M.J.
DATE: 2015.10.19
SCALE:
CAD I.D.: PP140558LIGHTING-10

PROJECT:

PRELIMINARY/FINAL LAND DEVELOPMENT PLANS

FOR

PR EXTON SQUARE PROPERTY LP

EXTON SQUARE MALL GROCERY STORE

260 EXTON SQUARE MALL
WEST WHITELAND TOWNSHIP
CHESTER COUNTY, PA

BOHLER ENGINEERING
1515 MARKET STREET, SUITE 920
PHILADELPHIA, PENNSYLVANIA 19102
Phone: (267) 402-3000
Fax: (267) 402-3401
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COMMONWEALTH OF PENNSYLVANIA DANIEL TRAVIS NORTH
REGISTERED LANDSCAPE ARCHITECT
PENNSYLVANIA LICENSE NO. LA002729

SHEET TITLE:
LIGHTING DETAILS

SHEET NUMBER:
32
OF 43

REVISION 10

DRAFT
Not for Construction

P:\PHILA\PP140558_CARDLAND DEVREV\+\PPP140558_LIGHTING-10 — LAYOUT: 32-LIGHTING DETAILS

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03/31/2016 02:24:31 PM 1 of 1
Fee: $0.00
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RECORDER OF DEEDS
CHESTER COUNTY, PA
2016 MAR 31 PM 2:23

ERNST SEED CO. RAIN GARDEN MIX SEEDING SPECIFICATIONS (ERNMX-180):

CASSIANTHIUM LATIFOLIUM	INNER OATS	38%
ELYMUS VIRGINICUS	VIRGINIA WILD RYE	15%
PANICUM RIGIDULUM	REDTOP PANICGRASS	12%
ECHINACEA PURPUREA	PURPLE CONEFLOWER	5%
CORE0PSIS LANCEOLATA	LANCELEAF COREOPSIS	4%
RUDBECKIA HIRTA	BLACKEYED SUSAN	3%
TRADESCANTIA OHENSIS	OHIO SPIDERWORT	3%
ASTER LAEVIS	SMOOTH BLUE ASTER	3%
UNITRIS SPICATA	MARSH BLAZING STAR	2%
CHAMAECRISTA FASCICULATA	PARTRIDGE PEA	2%
HELIOPSIS HELIANTHOIDES	OXEYE SUNFLOWER	2%
AGROSTIS PERENNANS	AUTUMN BENTGRASS	2%
BAPTISIA AUSTRALIS	BLUE FALSE INDIGO	1%
ASCLEPIAS INCARNATA	SWAMP MILKWEED	1%
SENNA HEBECARPA	WILD SENNA	1%
SOLIDAGO JUNCEA	EARLY GOLDENROD	1%
NOMERIA FISTULOSA	WILD BERGAMOT	0.5%
PYCNANTHEMUM TENUIFOLIUM	SLENDER MOUNTAINMINT	0.2%

SEEDING RATE: 20 lb. PER ACRE OF THE ERNST MIX WITH AN ADDITIONAL 30 lbs. PER ACRE OF GRAIN RYE (AS A NURSE CROP). THE TEMPORARY SEEDING SPECIFICATION AS NOTED ON THE SOIL EROSION & SEDIMENT CONTROL PLAN SHALL NOT APPLY TO THIS AREA.

1.) THE FORMULATION NOTED ABOVE IS REPRESENTATIVE OF THE ERNST SEED SPECIFICATION. THE MOST CURRENT FORMULATION AS SPECIFIED BY THE ERNST COMPANY AT THE TIME OF PLANTING SHALL BE USED.

2.) SEED SHOULD BE APPLIED USING DRILL SEEDING OR BROADCAST SEEDING METHODS ONLY. THIS SEED MIX WILL NOT GERMINATE WELL WITH HYDROSEEDING METHODS.

3.) THE ENTIRE FACILITY SHALL BE STABILIZED WITH A NORTH AMERICAN GREEN SC150 STRAW & COCONUT BLANKET (OR APPROVED EQUAL). THE BLANKET SHOULD BE INSTALLED ON TOP OF THE SEED IN ACCORDANCE WITH MANUFACTURER SPECIFICATIONS.

4.) SEED MIX WILL NEED DAILY SUPPLEMENTAL WATERING UNTIL IT HAS GERMINATED AND REACHED AN AVERAGE HEIGHT OF ABOUT 12–18".

5.) THIS SHOULD ONLY BE MOWED ONCE PER YEAR DURING THE DORMANT SEASON.

LANDSCAPE SPECIFICATIONS

1. SCOPE OF WORK:
THE LANDSCAPE CONTRACTOR SHALL BE REQUIRED TO PERFORM ALL CLEARING, FINISHED GRADING, SOIL PREPARATION, PERMANENT SEEDING OR SODDING, PLANTING AND MULCHING INCLUDING ALL LABOR, MATERIALS, TOOLS AND EQUIPMENT NECESSARY FOR THE COMPLETION OF THIS PROJECT, UNLESS OTHERWISE CONTRACTED BY THE GENERAL CONTRACTOR.

2. MATERIALS
A. GENERAL – ALL HARDSCAPE MATERIALS SHALL MEET OR EXCEED SPECIFICATIONS AS OUTLINED IN THE MOST CURRENT VERSION OF THE STATE DEPARTMENT OF TRANSPORTATION'S SPECIFICATIONS.

B. TOPSOIL – NATURAL, FRIABLE, LOAMY SILT SOIL HAVING AN ORGANIC CONTENT OF NOT LESS THAN 5% BY WEIGHT AND A PH RANGE BETWEEN 4.5–7.0. IT SHALL BE FREE OF ALL DEBRIS, ROCKS LARGER THAN ONE INCH (1"), WOOD, ROOTS, VEGETABLE MATTER AND CLAY CLODS.

C. LAWN – ALL DISTURBED AREAS ARE TO BE COVERED WITH A MINIMUM FOUR INCH (4") THICK LAYER OF TOPSOIL, AND SEEDED OR SODDED IN ACCORDANCE WITH THE PERMANENT STABILIZATION METHODS INDICATED WITHIN THE SEEDING SPECIFICATION OF THE APPROVED SOIL EROSION PLAN.
i. LAWN SEED MIXTURE SHALL BE FRESH, CLEAN NEW CROP SEED.
ii. SOD SHALL BE STRONGLY ROOTED, WEED AND DISEASE/PEST FREE WITH A UNIFORM THICKNESSOF AT LEAST 2". SOD INSTALLED ON SLOPES GREATER THAN 4:1 SHALL BE PEGGED TO HOLD THE SOD IN PLACE.

D. MULCH – ALL PLANTING BEDS SHALL BE MULCHED WITH A 3" THICK LAYER OF DOUBLE SHREDDED HARDWOOD BARK MULCH, UNLESS OTHERWISE SPECIFIED OR DEPICTED ON THE LANDSCAPE PLAN.

E. FERTILIZER
i. FERTILIZER SHALL BE DELIVERED TO THE SITE MIXED AS SPECIFIED IN THE ORIGINAL UNOPENED STANDARD BAGS SHOWING WEIGHT, ANALYSIS AND NAME OF MANUFACTURER. FERTILIZER SHALL BE STORED IN A WEATHERPROOF PLACE SO THAT IT CAN BE KEPT DRY PRIOR TO USE.
ii. FOR THE PURPOSE OF BIDDING, ASSUME THAT FERTILIZER SHALL BE AS SPECIFIED OR, AS A MINIMUM, 10% NITROGEN, 6% PHOSPHORUS AND 4% POTASSIUM BY WEIGHT. A FERTILIZER SHOULD NOT BE PURCHASED OR APPLIED WITHOUT A SOIL TEST PERFORMED BY A CERTIFIED SOIL LABORATORY AND THE PRIOR APPROVAL OF THE LANDSCAPE ARCHITECT OR ENGINEER.

F. PLANT MATERIAL
i. ALL PLANTS SHALL IN ALL CASES CONFORM TO THE REQUIREMENTS OF THE "AMERICAN STANDARD FOR NURSERY STOCK" (ANSI Z60.1), LATEST EDITION, AS PUBLISHED BY THE AMERICAN NURSERY & LANDSCAPE ASSOCIATION (FORMERLY THE AMERICAN ASSOCIATION OF NURSERYMEN).
ii. IN ALL CASES, BOTANICAL NAMES SHALL TAKE PRECEDENCE OVER COMMON NAMES FOR ANY AND ALL PLANT MATERIAL.
iii. PLANTS SHALL BE LEGIBLY TAGGED WITH THE PROPER BOTANICAL NAME AND SIZE. TAGS ARE TO REMAIN ON AT LEAST ONE PLANT OF EACH SPECIES FOR VERIFICATION PURPOSES DURING THE FINAL INSPECTION.
iv. TREES WITH ABRASION OF THE BARK, SUN SCALDS, DISFIGURATION OR FRESH CUTS OF LIMBS OVER 1½", WHICH HAVE NOT BEEN COMPLETELY CALLUSED, SHALL BE REJECTED. PLANTS SHALL NOT BE BOUND WITH WIRE OR ROPE AT ANY TIME SO AS TO DAMAGE THE BARK OR BREAK BRANCHES.
v. ALL PLANTS SHALL BE TYPICAL OF THEIR SPECIES OR VARIETY AND SHALL EXHIBIT NORMAL GROWTH: WELL DEVELOPED BRANCHES, DENSELY FOLIATED, VIGOROUS ROOT SYSTEMS AND BE FREE OF DISEASE, INSECTS, PESTS, EGGS OR LARVAE.
VI. CALIPER MEASUREMENTS OF NURSERY GROWN TREES SHALL BE TAKEN AT A POINT ON THE TRUNK SIX INCHES (6") ABOVE THE NATURAL GRADE FOR TREES UP TO AND INCLUDING A FOUR INCH (4") CALIPER SIZE. IF THE CALIPER AT SIX INCHES (6") ABOVE THE GROUND EXCEEDS FOUR INCHES (4") IN CALIPER, THE CALIPER SHOULD BE MEASURED AT A POINT 12" ABOVE THE NATURAL GRADE.
VII. SHRUBS SHALL BE MEASURED TO THE AVERAGE HEIGHT OR SPREAD OF THE SHRUB, AND NOT TO THE LONGEST BRANCH.
VIII. TREES AND SHRUBS SHALL BE HANDLED WITH CARE BY THE ROOT BALL.

3. GENERAL WORK PROCEDURES
A. THE CONTRACTOR SHALL UTILIZE WORKMANLIKE INDUSTRY STANDARDS IN PERFORMING ALL LANDSCAPE CONSTRUCTION. THE SITE IS TO BE LEFT IN A CLEAN STATE AT THE END OF EACH WORKDAY. ALL DEBRIS, MATERIALS AND TOOLS SHALL BE PROPERLY STORED, STOCKPILED OR DISPOSED OF.

B. WASTE MATERIALS AND DEBRIS SHALL BE COMPLETELY DISPOSED OF AT THE CONTRACTOR'S EXPENSE. DEBRIS SHALL NOT BE BURIED, INCLUDING ORGANIC MATERIALS, BUT SHALL BE REMOVED COMPLETELY FROM THE SITE.

4. SITE PREPARATIONS
A. BEFORE AND DURING PRELIMINARY GRADING AND FINISHED GRADING, ALL WEEDS AND GRASSES SHALL BE DUG OUT BY THE ROOTS AND DISPOSED OF IN ACCORDANCE WITH THE GENERAL WORK PROCEDURES OUTLINED HEREIN.

B. ALL EXISTING TREES TO REMAIN SHALL BE PRUNED TO REMOVE ANY DAMAGED BRANCHES. THE ENTIRE LIMB OF ANY DAMAGED BRANCH SHALL BE CUT OFF AT THE BRANCH COLLAR. THE CONTRACTOR SHALL ENSURE THAT CUTS ARE SMOOTH AND STRAIGHT. ANY EXPOSED ROOTS SHALL BE CUT BACK WITH CLEAN, SHARP TOOLS AND TOPSOIL SHALL BE PLACED AROUND THE REMAINDER OF THE ROOTS. EXISTING TREES SHALL BE MONITORED ON A REGULAR BASIS FOR THE DURATION OF THE PROJECT AND WARRANTY PERIOD FOR ADDITIONAL ROOT OR BRANCH DAMAGE AS A RESULT OF CONSTRUCTION. ROOTS SHALL NOT BE LEFT EXPOSED FOR MORE THAN ONE (1) DAY. THE CONTRACTOR SHALL WATER EXISTING TREES AS NEEDED TO PREVENT SHOCK OR DECLINE.

C. THE CONTRACTOR SHALL ARRANGE TO HAVE A UTILITY STAKE-OUT TO LOCATE ALL UNDERGROUND UTILITIES PRIOR TO INSTALLATION OF ANY LANDSCAPE MATERIAL. THE PENNSYLVANIA 1-CALL SYSTEM, A MINIMUM OF THREE (3) DAYS IN ADVANCED, AT 1-800-242-1776.

5. TREE PROTECTION
A. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING TREES TO REMAIN. A TREE PROTECTION ZONE SHALL BE ESTABLISHED AT THE DRIP LINE OR 15 FEET FROM THE TRUNK OR AT THE LIMIT OF CONSTRUCTION DISTURBANCE, WHICHEVER IS GREATER. LOCAL STANDARDS THAT MAY REQUIRE A MORE STRICT TREE PROTECTION ZONE SHALL BE HONORED.

B. A FORTY-EIGHT INCH (48") HIGH WOODEN SNOW FENCE OR ORANGE COLORED HIGH-DENSITY "NS-FENCE", OR APPROVED EQUAL, MOUNTED ON STEEL POSTS SHALL BE PLACED ALONG THE BOUNDARY OF THE TREE PROTECTION ZONE. POSTS SHALL BE LOCATED AT A MAXIMUM OF EIGHT FEET (8') ON CENTER OR AS INDICATED WITHIN THE TREE PROTECTION DETAIL.

C. WHEN THE TREE PROTECTION FENCING HAS BEEN INSTALLED, IT SHALL BE INSPECTED BY THE APPROVING AGENCY PRIOR TO DEMOLITION, GRADING, TREE CLEARING OR ANY OTHER CONSTRUCTION. THE FENCING ALONG THE TREE PROTECTION ZONE SHALL BE REGULARLY INSPECTED BY THE LANDSCAPE CONTRACTOR AND MAINTAINED UNTIL ALL CONSTRUCTION ACTIVITY HAS BEEN COMPLETED.

D. AT NO TIME SHALL MACHINERY, DEBRIS, FALLEN TREES OR OTHER MATERIALS BE PLACED, STOCKPILED OR LEFT STANDING IN THE TREE PROTECTION ZONE.

6. SOIL MODIFICATIONS
A. CONTRACTOR SHALL OBTAIN A SOIL TEST FOR ALL AREAS OF THE SITE AND SUBMIT THE SAME TO THE LANDSCAPE ARCHITECT OR ENGINEER FOR APPROVAL PRIOR TO CONDUCTING ANY PLANTING. SOIL TESTS SHALL BE PERFORMED BY A CERTIFIED SOIL LABORATORY.

B. LANDSCAPE CONTRACTOR SHALL REPORT ANY SOIL OR DRAINAGE CONDITIONS CONSIDERED DETRIMENTAL TO THE GROWTH OF PLANT MATERIAL. SOIL MODIFICATIONS, AS SPECIFIED HEREIN OR DIRECTED BY THE LANDSCAPE ARCHITECT OR ENGINEER, IN WRITING, MAY NEED TO BE CONDUCTED BY THE LANDSCAPE CONTRACTOR DEPENDING ON SITE CONDITIONS.

C. THE FOLLOWING AMENDMENTS AND QUANTITIES ARE APPROXIMATE AND ARE FOR BIDDING PURPOSES ONLY. COMPOSITION OF AMENDMENTS SHOULD BE REVISED DEPENDING ON THE OUTCOME OF A TOPSOIL ANALYSIS PERFORMED BY A CERTIFIED SOIL LABORATORY.
i. TO INCREASE A SANDY SOIL'S ABILITY TO RETAIN WATER AND NUTRIENTS, THOROUGHLY TILL ORGANIC MATTER INTO THE TOP 6–12". USE COMPOSTED BARK, COMPOSTED LEAF MULCH OR PEAT MOSS. ALL PRODUCTS SHOULD BE COMPOSTED TO A DARK COLOR AND BE FREE OF PIECES WITH IDENTIFIABLE LEAF OR WOOD STRUCTURE. AVOID MATERIAL WITH A PH HIGHER THAN 7.5.
ii. TO INCREASE DRAINAGE, MODIFY HEAVY CLAY OR SILT (MORE THAN 40% CLAY OR SLT) BY ADDING COMPOSTED PINE BARK (UP TO 30% BY VOLUME) AND/OR AGRICULTURAL GYPSUM. COARSE SAND MAY BE USED IF ENOUGH IS ADDED TO BRING THE SAND CONTENT TO MORE THAN 80% OF THE TOTAL MIX. SUBSURFACE DRAINAGE LINES MAY NEED TO BE ADDED TO INCREASE DRAINAGE.
iii. MODIFY EXTREMELY SANDY SOILS (MORE THAN 80%) BY ADDING ORGANIC MATTER AND/OR DRY, SHREDDED CLAY LOAM UP TO 30% OF THE TOTAL MIX.

7. FINISHED GRADING
A. UNLESS OTHERWISE CONTRACTED, THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF TOPSOIL AND THE ESTABLISHMENT OF FINE-GRADING WITHIN THE DISTURBANCE AREA OF THE SITE.

B. LANDSCAPE CONTRACTOR SHALL VERIFY THAT A PROPER SUBGRADE FOR INSTALLATION OF TOPSOIL HAS BEEN ESTABLISHED. THE SUBGRADE OF THE SITE MUST MEET THE FINISHED GRADE LESS THE REQUIRED TOPSOIL THICKNESS (1"±).

C. ALL LAWN AND PLANTING AREAS SHALL BE GRADED TO A SMOOTH, EVEN AND UNIFORM PLANE WITH NO ABRUPT CHANGE OF SURFACE AS DEPICTED WITHIN THIS SET OF CONSTRUCTION PLANS, UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER OR LANDSCAPE ARCHITECT.

D. ALL PLANTING AREAS SHALL BE GRADED AND MAINTAINED TO ALLOW FREE FLOW OF SURFACE WATER IN AND AROUND THE PLANTING BEDS. STANDING WATER SHALL NOT BE PERMITTED IN PLANTING BEDS.

8. TOPSOILING
A. CONTRACTOR SHALL PROVIDE A SIX INCH (6") THICK MINIMUM LAYER OF TOPSOIL, OR AS DIRECTED BY THE LOCAL ORDINANCE OR CLIENT, IN ALL PLANTING AREAS. TOPSOIL SHOULD BE SPREAD OVER A PREPARED SURFACE IN A UNIFORM LAYER TO ACHIEVE THE DESIRED COMPACTED THICKNESS.

B. ON-SITE TOPSOIL MAY, UPON THE PROVISION OF A SOIL TEST PERFORMED BY A CERTIFIED SOIL LABORATORY AND THE SUBMISSION TO AND APPROVAL BY THE LANDSCAPE ARCHITECT OR ENGINEER, BE USED TO SUPPLEMENT THE TOTAL AMOUNT REQUIRED. TOPSOIL FROM THE SITE MAY BE REJECTED IF IT HAS NOT BEEN PROPERLY REMOVED, STORED AND PROTECTED PRIOR TO CONSTRUCTION.

C. CONTRACTOR SHALL FURNISH TO THE APPROVING AGENCY AN ANALYSIS OF BOTH IMPORTED AND ON-SITE TOPSOIL TO BE UTILIZED IN ALL PLANTING AREAS. THE PH AND NUTRIENT LEVELS MAY NEED TO BE ADJUSTED THROUGH SOIL MODIFICATIONS AS NEEDED TO ACHIEVE THE REQUIRED LEVELS AS SPECIFIED IN THE MATERIALS SECTION ABOVE.

D. ALL PLANTING AND LAWN AREAS ARE TO BE CULTIVATED TO A DEPTH OF SIX INCHES (6"). ALL DEBRIS EXPOSED FROM EXCAVATION AND CULTIVATION SHALL BE DISPOSED OF ACCORDING TO GENERAL WORK PROCEDURES SECTION ABOVE. THE FOLLOWING SHALL BE TILLED AND/OR MIXED TO A DEPTH OF SIX INCHES (6") IN TWO DIRECTIONS (QUANTITIES BASED ON A 1,000 SQUARE FOOT AREA):
i. 20 POUNDS 'GROW POWER' OR APPROVED EQUAL
ii. 20 POUNDS NITRO-FORM (COURSE) 38-0-0 OR BLUE CHIP

E. THE SPREADING OF TOPSOIL SHALL NOT BE CONDUCTED UNDER MUDDY OR FROZEN CONDITIONS.

9. PLANTING
A. ENSURE THAT IT IS FEASIBLE, PLANT MATERIAL SHALL BE PLANTED ON THE DAY OF DELIVERY. IN THE EVENT THIS IS NOT POSSIBLE, LANDSCAPE CONTRACTOR SHALL PROTECT UNINSTALLED PLANT MATERIAL. PLANTS SHALL NOT REMAIN UNPLANTED FOR LONGER THAN A THREE DAY PERIOD AFTER DELIVERY. PLANTS THAT WILL NOT BE PLANTED FOR A PERIOD OF TIME GREATER THAN THREE DAYS SHALL BE HEALED IN WITH TOPSOIL OR MULCH TO HELP PRESERVE ROOT MOISTURE.

B. PLANTING OPERATIONS SHALL BE PERFORMED DURING PERIODS WITHIN THE PLANTING SEASON WHEN WEATHER AND SOIL CONDITIONS ARE SUITABLE AND IN ACCORDANCE WITH ACCEPTED LOCAL PRACTICE. PLANTS SHALL NOT BE INSTALLED IN TOPSOIL THAT IS IN A MUDDY OR FROZEN CONDITION.

C. ANY INJURED ROOTS OR BRANCHES SHALL BE PRUNED TO MAKE CLEAN-CUT ENDS PRIOR TO PLANTING UTILIZING CLEAN, SHARP TOOLS. ONLY INJURED OR DISEASED BRANCHING SHALL BE REMOVED.

D. ALL PLANTING CONTAINERS, BASKETS AND NON-BIODEGRADABLE MATERIALS SHALL BE REMOVED FROM ROOT BALLS DURING PLANTING. NATURAL FIBER BURLAP MUST BE CUT FROM AROUND THE TRUNK OF THE TREE AND FOLDED DOWN AGAINST THE ROOT BALL PRIOR TO BACKFILLING.

E. POSITION TREES AND SHRUBS AT THEIR INTENDED LOCATIONS AS PER THE PLANS AND AS DIRECTED BY APPROVAL OF THE LANDSCAPE ARCHITECT PRIOR TO EXCAVATING PITS, MAKING NECESSARY ADJUSTMENTS AS DIRECTED.

F. PRIOR TO THE ISSUANCE OF ANY CERTIFICATE OF OCCUPANCY, THE PROPOSED LANDSCAPE, AS SHOWN ON THE APPROVED LANDSCAPE PLAN, MUST BE INSTALLED, INSPECTED AND APPROVED BY THE APPROVING AGENCY. THE APPROVING AGENCY SHALL TAKE INTO ACCOUNT SEASONAL CONSIDERATIONS IN THIS REGARD AS FOLLOWS. THE PLANTING OF TREES, SHRUBS, VINES OR GROUND COVER SHALL OCCUR ONLY DURING THE FOLLOWING PLANTING SEASONS:
i. PLANTS: MARCH 15 TO DECEMBER 15
ii. LAWN: MARCH 15 TO JUNE 15 OR SEPT. 1 TO DECEMBER 1

PLANTINGS REQUIRED FOR A CERTIFICATE OF OCCUPANCY SHALL BE PROMISED DURING THE NEXT APPROPRIATE SEASON AT THE MUNICIPALITY'S DISCRETION. CONTRACTOR SHOULD CONTACT APPROVING AGENCY, LANDSCAPE ARCHITECT AND/OR ENGINEER FOR POTENTIAL SUBSTITUTIONS.

G. FURTHERMORE, THE FOLLOWING TREE VARIETIES ARE UNUSUALLY SUSCEPTIBLE TO WINTER DAMAGE. WITH TRANSPLANT SHOCK AND THE SEASONAL LACK OF NITROGEN AVAILABILITY, THE RISK OF PLANT DEATH IS GREATLY INCREASED. IT IS NOT RECOMMENDED THAT THESE SPECIES BE PLANTED DURING THE FALL PLANTING SEASON:

ACER RUBRUM	PLATANUS X ACERIFOLIA
BETULA VARIETIES	POPULUS VARIETIES
CARPINUS VARIETIES	PRUNUS VARIETIES
CHAMAECIS VARIETIES	PYRUS VARIETIES
KOELREUTERIA	QUERCUS VARIETIES
LIQUIDAMBAR STYRACIFLUA	TILIA TOMENTOSA
LIRIODENDRON TULIPIFERA	ZELKOVA VARIETIES

H. PLANTING PITS SHALL BE DUG WITH LEVEL OR CONVEX BOTTOMS, WITH THE WIDTH TWICE THE DIAMETER OF THE ROOT BALL. THE ROOT BALL SHALL REST ON UNDISTURBED SOIL. EACH PLANT PIT SHALL BE BACKFILLED IN LAYERS WITH THE FOLLOWING PREPARED SOIL MIXED THOROUGHLY:
i. 1 PART PEAT MOSS
ii. 1 PART COMPOSTED COW MANURE BY VOLUME
iii. 3 PARTS TOPSOIL BY VOLUME
IV. 21 GRAMS "ACRIFORM" PLANTING TABLETS (OR APPROVED EQUAL) AS FOLLOWS:
A) 2 TABLETS PER 1 GALLON PLANT
B) 3 TABLETS PER 5 GALLON PLANT
C) 4 TABLETS PER 15 GALLON PLANT
D) LARGER PLANTS: 1 TABLETS PER 3" CALIPER OF TRUNK

I. FILL PREPARED SOIL AROUND BALL OF PLANT HALF-WAY AND INSERT PLANT TABLETS. COMPLETE BACKFILL AND WATER THOROUGHLY.

J. ALL PLANTS SHALL BE PLANTED SO THAT THE TOP OF THE ROOT BALL, THE POINT AT WHICH THE ROOT FLARE BEGINS, IS SET AT GROUND LEVEL AND IN THE CENTER OF THE PIT. NO SOIL IS TO BE PLACED DIRECTLY ON TOP OF THE ROOT BALL.

K. ALL PROPOSED TREES *DIRECTLY ADJACENT* TO WALKWAYS OR DRIVEWAYS SHALL BE PRUNED AND MAINTAINED TO A MINIMUM BRANCHING HEIGHT OF 7' FROM GRADE. NO PRUNING SHALL BE CONDUCTED WITHIN THE FIRST YEAR OF PLANTING.

L. GROUND COVER AREAS SHALL RECEIVE A ½" LAYER OF HUMUS RAKED INTO THE TOP 1" OF PREPARED SOIL PRIOR TO PLANTING. ALL GROUND COVER AREAS SHALL BE WEEDED AND TREATED WITH A PRE-EMERGENT CHEMICAL AS PER MANUFACTURER'S RECOMENDATION.

M. NO PLANT, EXCEPT GROUND COVERS, GRASSES OR VINES, SHALL BE PLANTED LESS THAN TWO FEET (2') FROM EXISTING STRUCTURES AND SIDEWALKS.

N. ALL PLANTING AREAS AND PLANTING PITS SHALL BE MULCHED AS SPECIFIED HEREIN TO FILL THE ENTIRE BED AREA OR SAUCER. NO MULCH IS TO TOUCH THE TRUNK OF THE TREE OR SHRUB.

O. ALL PLANTING AREAS SHALL BE WATERED IMMEDIATELY UPON INSTALLATION IN ACCORDANCE WITH THE WATERING SPECIFICATIONS AS LISTED HEREIN.

10. TRANSPLANTING (WHEN REQUIRED)
A. ALL TRANSPLANTS SHALL BE DUG WITH INTACT ROOT BALLS CAPABLE OF SUSTAINING THE PLANT. (SEE SPECIFICATION 2.F. ABOVE)

B. IF PLANTS ARE TO BE STOCKPILED BEFORE REPLANTING, THEY SHALL BE HEALED IN WITH MULCH OR SOIL, ADEQUATELY WATERED AND PROTECTED FROM EXTREME HEAT, SUN AND WIND.

C. PLANTS SHALL NOT BE DUG FOR TRANSPLANTING BETWEEN APRIL 10 AND JUNE 30.

D. UPON REPLANTING, BACKFILL SOIL SHALL BE AMENDED WITH FERTILIZER AND ROOT GROWTH HORMONE.

E. TRANSPLANTS SHALL BE GUARANTEED FOR THE LENGTH OF THE GUARANTEE PERIOD SPECIFIED HEREIN.

F. IF TRANSPLANTS DIE, SHRUBS AND TREES LESS THAN SIX INCHES (6") DBH SHALL BE REPLACED IN KIND. TREES GREATER THAN SIX INCHES (6") DBH MAY BE REQUIRED TO BE REPLACED AT THE OWNER'S REQUEST OR IN ACCORDANCE WITH THE MUNICIPALITY'S TREE REPLACEMENT GUIDELINES.

11. WATERING
A. NEW PLANTINGS OR LAWN AREAS SHALL BE ADEQUATELY IRRIGATED BEGINNING IMMEDIATELY AFTER PLANTING. WATER SHALL BE APPLIED TO EACH TREE AND SHRUB IN SUCH MANNER AS NOT TO DISTURB BACKFILL AND TO THE EXTENT REQUIRED TO INSURE THAT ALL MATERIALS IN THE PLANTING HOLE ARE THOROUGHLY SATURATED. WATERING SHALL CONTINUE AT LEAST UNTIL PLANTS ARE ESTABLISHED.

B. SITE OWNER SHALL PROVIDE WATER IF AVAILABLE ON SITE AT TIME OF PLANTING. IF WATER IS NOT AVAILABLE ON SITE, CONTRACTOR SHALL SUPPLY ALL NECESSARY WATER. THE USE OF WATERING BAGS IS RECOGNIZED FOR ALL NEWLY PLANTED TREES.

C. IF AN IRRIGATION SYSTEM HAS BEEN INSTALLED ON THE SITE, IT SHALL BE USED TO WATER PROPOSED PLANT MATERIAL, BUT ANY FAILURE OF THE SYSTEM DOES NOT ELIMINATE THE CONTRACTOR'S RESPONSIBILITY OF MAINTAINING THE DESIRED MOISTURE LEVEL FOR VIGOROUS, HEALTHY GROWTH.

12. GUARANTEE
A. THE LANDSCAPE CONTRACTOR SHALL GUARANTEE ALL PLANTS FOR A PERIOD OF ONE (1) YEAR FROM APPROVAL OF LANDSCAPE INSTALLATION BY THE LANDSCAPE ARCHITECT AND/OR ENGINEER AND THE APPROVING AGENCY. CONTRACTOR SHALL SUPPLY THE OWNER WITH A MAINTENANCE BOND FOR TEN PERCENT (10%) OF THE VALUE OF THE LANDSCAPE INSTALLATION WHICH WILL BE RELEASED AT THE CONCLUSION OF THE GUARANTEE PERIOD AND WHEN A FINAL INSPECTION HAS BEEN COMPLETED AND APPROVED BY THE OWNER OR AUTHORIZED REPRESENTATIVE.

B. ANY DEAD OR DYING PLANT MATERIAL SHALL BE REPLACED FOR THE LENGTH OF THE GUARANTEE PERIOD. REPLACEMENT OF PLANT MATERIAL SHALL BE CONDUCTED AT THE FIRST SUCCEEDING PLANTING SEASON. ANY DEBRIS SHALL BE DISPOSED OF OFF-SITE, WITHOUT EXCEPTION.

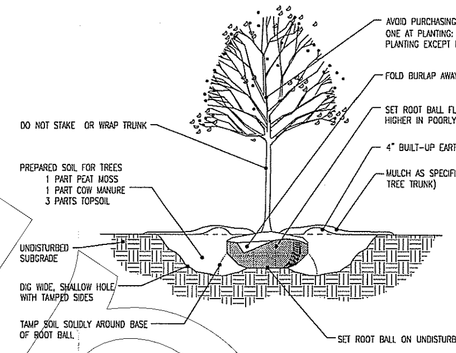
C. TREES AND SHRUBS SHALL BE MAINTAINED BY THE CONTRACTOR DURING CONSTRUCTION AND THROUGHOUT THE 90 DAY MAINTENANCE PERIOD AS SPECIFIED HEREIN. CULTIVATION, WEEDING, WATERING AND THE PROPHYLATIC TREATMENTS SHALL BE PERFORMED AS NECESSARY TO KEEP PLANT MATERIAL IN GOOD CONDITION AND FREE OF INSECTS AND DISEASE.

D. LAWNS SHALL BE MAINTAINED THROUGH WATERING, FERTILIZING, WEEDING, MOWING, TRIMMING AND OTHER OPERATIONS SUCH AS ROLLING, RECUTTING AND REPLANTING AS REQUIRED TO ESTABLISH A SMOOTH, ACCEPTABLE LAWN, FREE OF ERODED OR BARE AREAS.

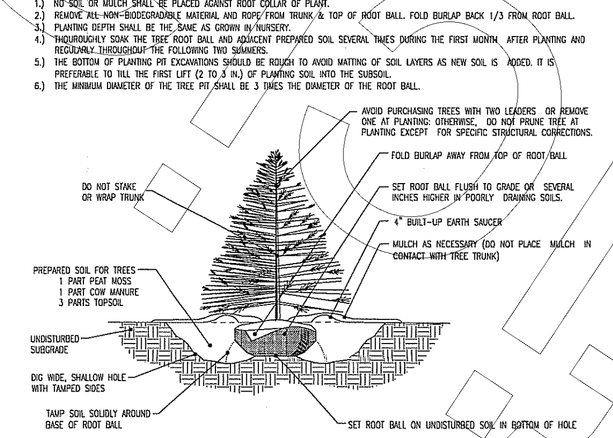
13. CLEANUP
A. UPON THE COMPLETION OF ALL LANDSCAPE INSTALLATION AND BEFORE THE FINAL ACCEPTANCE, THE CONTRACTOR SHALL REMOVE ALL UNUSED MATERIALS, EQUIPMENT AND DEBRIS FROM THE SITE. ALL PAVED AREAS ARE TO BE CLEANED.

B. THE SITE SHALL BE CLEANED AND LEFT IN A NEAT AND ACCEPTABLE CONDITION AS APPROVED BY THE OWNER OR AUTHORIZED REPRESENTATIVE.

14. MAINTENANCE (ALTERNATIVE BID):
IF REQUIRED AS PART OF AN ALTERNATE BID ON THIS PROJECT, A 90 DAY MAINTENANCE PERIOD SHALL COMMENCE AT THE END OF ALL LANDSCAPE INSTALLATION OPERATIONS. THE 90 DAY MAINTENANCE PERIOD ENSURES TO THE OWNER/OPERATOR THAT THE NEWLY INSTALLED LANDSCAPING HAS BEEN MAINTAINED AS SPECIFIED ON THE APPROVED LANDSCAPE PLAN. ONCE THE INITIAL 90 DAY MAINTENANCE PERIOD HAS EXPIRED, THE OWNER/OPERATOR MAY REQUEST THAT BIDDERS SUBMIT AN ALTERNATE MAINTENANCE BID FOR A MONTHLY MAINTENANCE CONTRACT. THE ALTERNATE MAINTENANCE CONTRACT WILL ENCOMPASS ANY WORK THAT IS CONSIDERED APPROPRIATE TO ENSURE THAT PLANT AND LAWN AREAS ARE HEALTHY AND MANICURED TO THE APPROVAL OF THE OWNER/OPERATOR.



DECIDUOUS TREE PLANTING DETAIL
NOT TO SCALE


NOTES:
1.) NO SOIL OR MULCH SHALL BE PLACED AGAINST ROOT COLLAR OF PLANT.
2.) REMOVE ALL NON-BIODEGRADABLE MATERIAL AND ROPE FROM TRUNK & TOP OF ROOT BALL. FOLD BURLAP BACK 1/3 FROM ROOT BALL.
3.) PLANTING DEPTH SHALL BE THE SAME AS GROWN IN NURSERY.
4.) THOUROUGHLY SOAK THE TREE ROOT BALL AND ADJACENT PREPARED SOIL SEVERAL TIMES DURING THE FIRST MONTH AFTER PLANTING AND REGULARLY THROUGHOUT THE FOLLOWING TWO SUMMERS.
5.) THE BOTTOM OF PLANTING PIT EXCAVATIONS SHOULD BE ROUGH TO AVOID MATING OF SOIL LAYERS AS NEW SOIL IS ADDED. IT IS PREFERABLE TO TILL THE FIRST LIFT (2 TO 3 IN.) OF PLANTING SOIL INTO THE SUBSOIL.
6.) THE MINIMUM DIAMETER OF THE TREE PIT SHALL BE 3 TIMES THE DIAMETER OF THE ROOT BALL.
AVOID PURCHASING TREES WITH TWO LEADERS OR REMOVE ONE AT PLANTING OTHERWISE, DO NOT PRUNE TREE AT PLANTING EXCEPT FOR SPECIFIC STRUCTURAL CORRECTIONS.
FOLD BURLAP AWAY FROM TOP OF ROOT BALL
SET ROOT BALL FLUSH TO GRADE OF SEVERAL INCHES HIGHER IN POORLY DRAINING SOILS.
4" BUILT-UP EARTH SAUCER
MULCH AS NECESSARY (DO NOT PLACE MULCH IN CONTACT WITH TREE TRUNK)
DO NOT STAKE OR WRAP TRUNK
PREPARED SOIL FOR TREES
1 PART PEAT MOSS
1 PART COW MANURE
3

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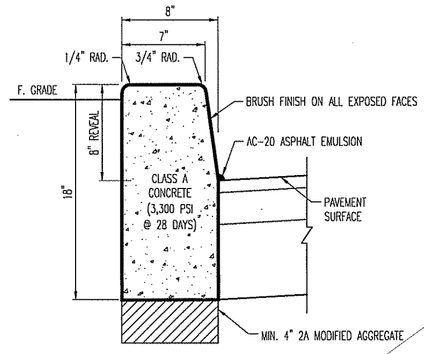
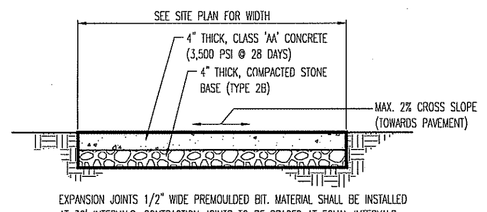
Page 38 of 44

RECORDER OF DEEDS
CHESTER COUNTY, PA
2016 SEP 30 PM 2:59



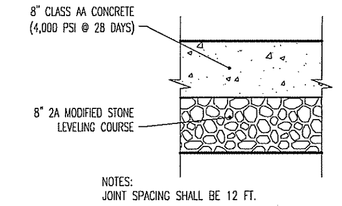
TRANSVERSE JOINTS 3/4" WIDE SHALL BE INSTALLED IN THE CURB 20' APART AND SHALL BE FILLED WITH CELLULAR COMPRESSION MATERIAL AS SPECIFIED RECESSED 1/4" IN FROM FRONT FACE AND TOP OF CURB.

P S5 TYPICAL CONCRETE CURB DETAIL
SCALE: N.T.S. REV.: 2015.03.09



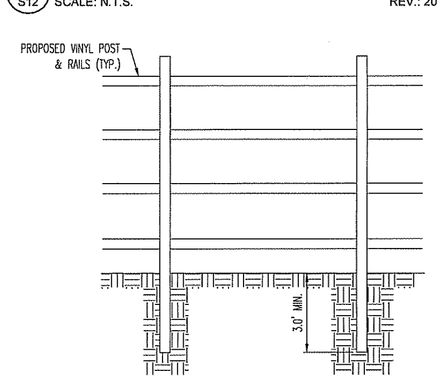
EXPANSION JOINTS 1/2" WIDE PREMOLDED BIT. MATERIAL SHALL BE INSTALLED AT 30' INTERVALS. CONTRACTION JOINTS TO BE SPACED AT EQUAL INTERVALS, 4' MAXIMUM LENGTH.

P S6 CONCRETE SIDEWALK DETAIL
SCALE: N.T.S. REV.: 2015.03.09



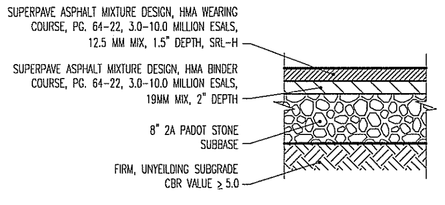
NOTES:
JOINT SPACING SHALL BE 12 FT.

P S12 CONCRETE PAVEMENT DETAIL
SCALE: N.T.S. REV.: 2015.03.09

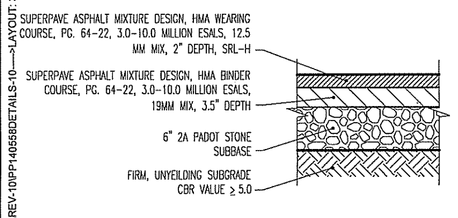


NOTE: FENCE MATERIAL/FINISH/COLOR & DIMENSIONS SHALL MATCH EXISTING FENCE LOCATED ALONG MALL PERIMETER AND AT VEHICULAR ENTRANCES

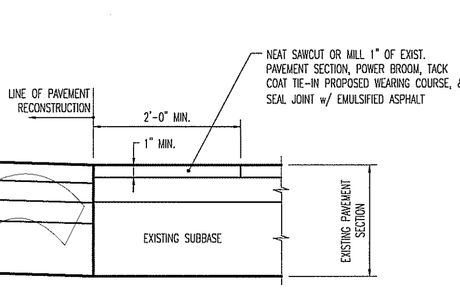
A S4 POST & RAIL FENCE DETAIL
SCALE: N.T.S. REV.: 2015.03.09



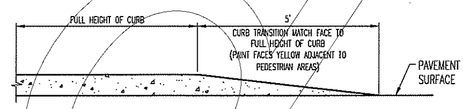
P S14 STANDARD ASPHALT PAVEMENT DETAIL
SCALE: N.T.S. REV.: 2015.03.09



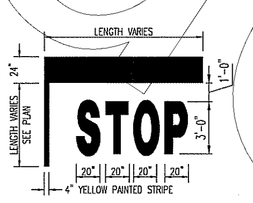
P S15 HEAVY DUTY ASPHALT PAVEMENT DETAIL
SCALE: N.T.S. REV.: 2015.03.09



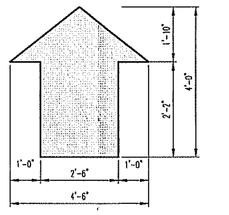
P S7 PAVEMENT TIE-IN DETAIL
SCALE: N.T.S. REV.: 2015.03.09



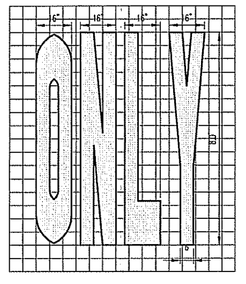
P S8 TAPERED CURB DETAIL
SCALE: N.T.S. REV.: 2015.03.09



T S3 WHITE PAINTED STOP BAR & "STOP" LETTERING DETAIL
SCALE: N.T.S. REV.: 2015.03.09

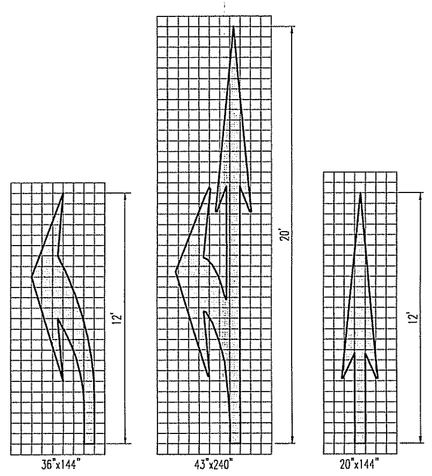


T S5 WHITE PAINTED TRAFFIC ARROW DETAIL
SCALE: N.T.S. REV.: 2015.03.09



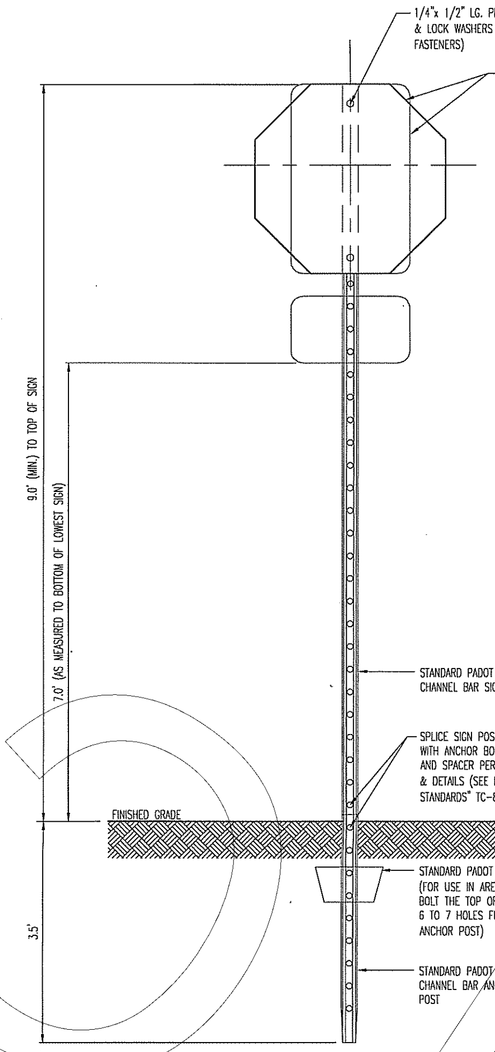
NOTE: EACH GRID EQUALS 6'x6'

T S7 WHITE PADOT PAVEMENT MARKING "ONLY" DETAIL
SCALE: N.T.S. REV.: 2015.03.09



NOTE: EACH GRID EQUALS 6'x6'

T S8 WHITE PADOT PAVEMENT MARKING ARROW DETAIL
SCALE: N.T.S. REV.: 2015.03.09



NOTES:
1.) POST MOUNTED SIGNS SHALL BE TYPE B CHANNEL BAR POSTS AND SHALL CONFORM TO PADOT "TRAFFIC CONTROL SIGNING STANDARDS" TC-8702B SHEET 8 THRU 11 OF 11. APPROPRIATE POSTS SHALL BE SELECTED BASED ON THE SIZE OF THE SIGN USING THE SELECTION TABLES CONTAINED THEREIN.

2.) SIGN INSTALLATION SHALL BE IN ACCORDANCE WITH PADOT "TRAFFIC CONTROL SIGNING STANDARDS" TC-8702B SHEETS 8 THRU 11 OF 11, AS AMENDED.

3.) SEE CIVIL PLANS FOR EXACT LOCATION, TYPE AND SIZE OF SIGNS. ALL REGULATORY (R SERIES), WARNING (W SERIES) AND OTHER APPROVED SIGNS SHALL CONFORM TO THE PADOT "HANDBOOK OF APPROVED SIGNS", PUBLICATION 236M, AS AMENDED, UNLESS OTHERWISE SPECIFIED.

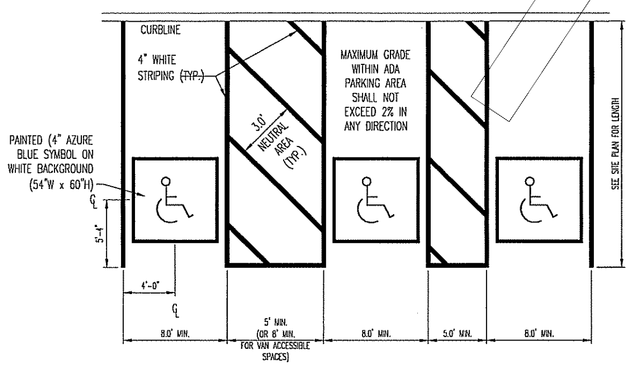
4.) SIGNS SHALL BE SETBACK 2.0' FROM CURB LINES, GUIDE RAILS OR OTHER OBSTRUCTIONS AS MEASURED FROM THE FACE/EDGE OF THE SIGN.

5.) ALONG NON-CURBED LOCAL ROADWAYS SIGNS SHALL BE SETBACK 6.0' FROM THE SHOULDER/PAVING EDGE AND SHALL BE AT A HEIGHT 5.0' ABOVE THE EDGE OF PAVEMENT SURFACE.

6.) ALL SIGNS SHALL BE INSTALLED WITH ACORN NUT FASTENERS.

7.) FOR "RESERVED PARKING SIGN" (R7-8) REFER TO DETAILS AND SPECIFIED MOUNTING HEIGHTS WHICH ARE LOWER FOR INCREASED VISIBILITY PER ADA REGULATIONS.

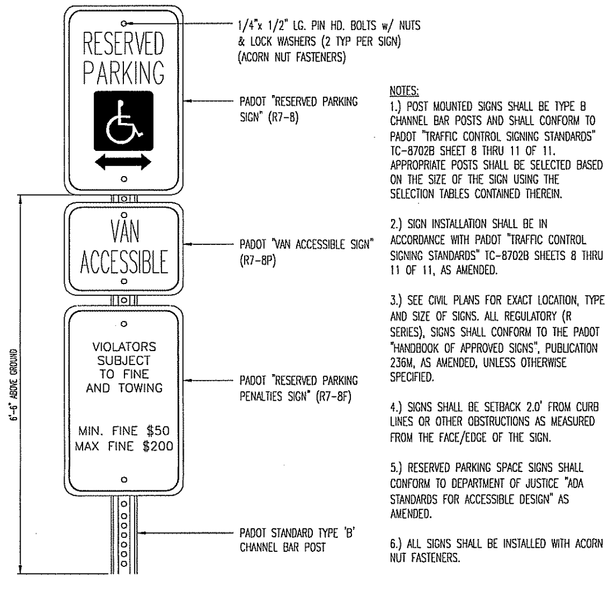
T S9 STANDARD POLE MOUNTED SIGN INSTALLATION DETAIL
SCALE: N.T.S. REV.: 2015.03.09



NOTES:
1.) CURB RAMPS MAY NOT EXTEND INTO ANY PORTION OF THE PARKING SPACE OR ASSOCIATED STRIPED ISLAND.

2.) CURB RAMPS, PAVEMENT MARKINGS, & APPLICABLE SIGNAGE SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST A.D.A. ACCESSIBILITY GUIDELINES.

T S10 ADA ACCESSIBLE PARKING SPACE STRIPING (3 SPACES)
SCALE: N.T.S. REV.: 2015.03.09



NOTES:
1.) POST MOUNTED SIGNS SHALL BE TYPE B CHANNEL BAR POSTS AND SHALL CONFORM TO PADOT "TRAFFIC CONTROL SIGNING STANDARDS" TC-8702B SHEET 8 THRU 11 OF 11, AS AMENDED.

2.) SIGN INSTALLATION SHALL BE IN ACCORDANCE WITH PADOT "TRAFFIC CONTROL SIGNING STANDARDS" TC-8702B SHEETS 8 THRU 11 OF 11, AS AMENDED.

3.) SEE CIVIL PLANS FOR EXACT LOCATION, TYPE AND SIZE OF SIGNS. ALL REGULATORY (R SERIES), SIGNS SHALL CONFORM TO THE PADOT "HANDBOOK OF APPROVED SIGNS", PUBLICATION 236M, AS AMENDED, UNLESS OTHERWISE SPECIFIED.

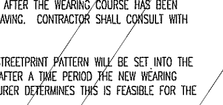
4.) SIGNS SHALL BE SETBACK 2.0' FROM CURB LINES OR OTHER OBSTRUCTIONS AS MEASURED FROM THE FACE/EDGE OF THE SIGN.

5.) RESERVED PARKING SPACE SIGNS SHALL CONFORM TO DEPARTMENT OF JUSTICE "ADA STANDARDS FOR ACCESSIBLE DESIGN" AS AMENDED.

6.) ALL SIGNS SHALL BE INSTALLED WITH ACORN NUT FASTENERS.

RESERVE PARKING SPACE w/ PENALTIES & VAN ACCESSIBLE SIGNS
T S12 SCALE: N.T.S. REV.: 2015.03.09

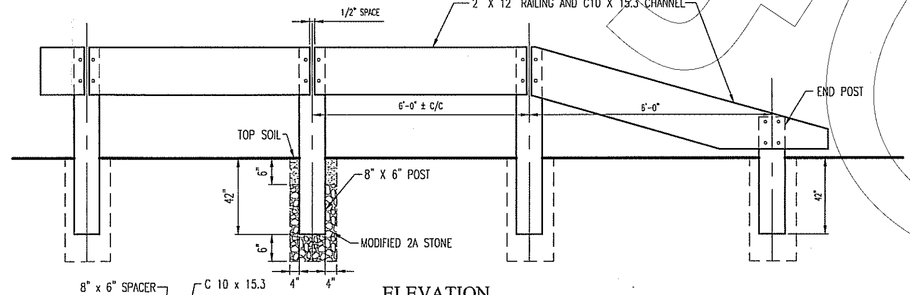
"STREETPRINT" STANDARD HERRINGBONE PATTERN



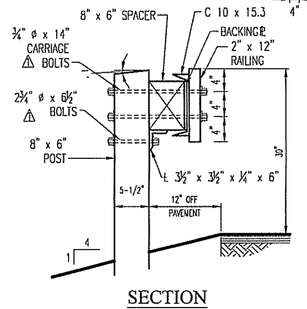
INDIVIDUAL "BRICK" IN PATTERN

NOTES:
1. STREETPRINT PATTERN MAY BE SET INTO PAVEMENT EITHER AT THE TIME SURFACE COURSE IS LAYED AND STILL HOT OR AFTER THE WEARING COURSE HAS BEEN GIVEN TIME TO SET, WHEREBY THE CROSSWALK SECTION WOULD BE REHEATED AND THE PATTERN IMPORTED INTO THE PAVING. CONTRACTOR SHALL CONSULT WITH STREETPRINT FOR SPECIFIC REQUIREMENTS AND COORDINATE WITH TOWNSHIP ENGINEER FOR INSPECTION PURPOSES.
2. EXISTING PAVEMENT AT MANOR DRIVE CROSSINGS ARE TO BE MILLED AND OVERLAYED WITH A NEW WEARING COURSE. STREETPRINT PATTERN WILL BE SET INTO THE NEW OVERLAY COURSE. PLACEMENT OF THE PATTERN MAY BE AT PLACEMENT OF THE WEARING COURSE OR REHEATED AFTER A TIME PERIOD THE NEW WEARING COURSE IS ALLOWED TO SET. THE EXISTING PAVEMENT MAY BE REHEATED AS AN ALTERNATE, PROVIDED THE MANUFACTURER DETERMINES THIS IS FEASIBLE FOR THE EXISTING PAVEMENT CONDITIONS ON MANOR DRIVE.
3. STREETPRINT CONTACT: PHONE 1-800-688-5652 WEBSITE: www.streetprint.com
4. A STANDARD STREETPRINT COLOR SHALL BE USED FOR THE COLORATION OF THE CROSSWALK. COLOR SAMPLES SHALL BE SUBMITTED TO THE TOWNSHIP ENGINEER FOR APPROVAL.

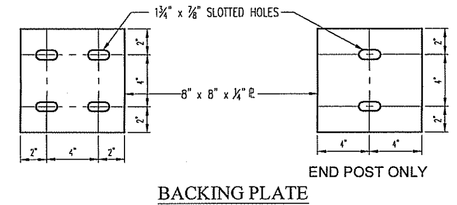
"STREETPRINT" ASPHALT IMPRINTED TEXTURED CROSSWALKS
P S19 SCALE: N.T.S. REV.: 2015.03.09



ELEVATION

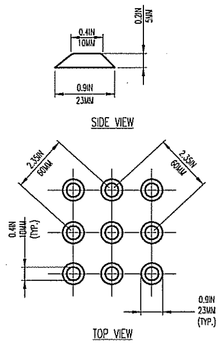


SECTION



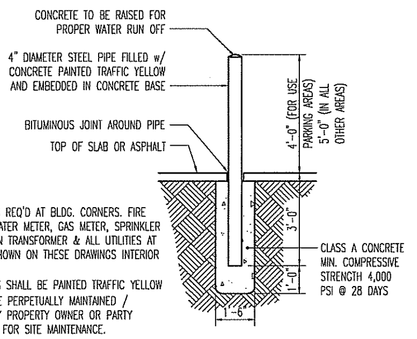
BACKING PLATE
END POST ONLY

T S14 TRUNCATED DOME PATTERN FOR A.D.A. DETECTABLE WARNING SURFACES (FOR USE IN DOT ROADWAYS)
SCALE: N.T.S. REV.: 2015.03.09



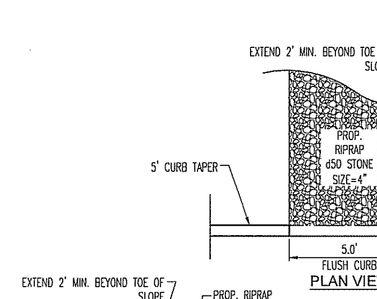
NOTES:
1.) DETECTABLE WARNINGS SHALL BE A PRE-MANUFACTURED ARMOUR-TILE TACTILE SYSTEM OR APPROVED EQUIVALENT.

2.) CONTRACTOR TO COORDINATE SPECIFIC SYSTEM AND MATERIALS TO BE UTILIZED WITH THE ENGINEER TO ENSURE LOCAL, STATE AND A.D.A. COMPLIANCE PRIOR TO CONSTRUCTION.



NOTES:
1.) BOLLARDS REQ'D AT BLDG. CORNERS, FIRE HYDRANTS, WATER METER, GAS METER, SPRINKLER RISER, SHOWN TRANSFORMER & ALL UTILITIES AT LOCATIONS SHOWN ON THESE DRAWINGS INTERIOR & EXTERIOR.
2.) BOLLARDS SHALL BE PAINTED TRAFFIC YELLOW AND MUST BE PERPETUALLY MAINTAINED / REPAINTED BY PROPERTY OWNER OR PARTY RESPONSIBLE FOR SITE MAINTENANCE.

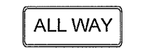
T S18 BOLLARD DETAIL
SCALE: N.T.S. REV.: 2015.03.09



DETAIL OF RIPRAP AT CURB BREAK
N.T.S.

30"x36"

(R3-5L)
LEFT TURN SIGN



18"x6"

(R1-3P)
ALL WAY PLAQUE

24"x30"

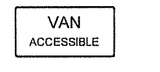
(R4-7)
KEEP RIGHT SIGN

12"x18"

(R7-8)
RESERVED PARKING SIGN

12"x18"

(R7-8F)
RESERVED PARKING PENALTIES SIGN



12"x6"

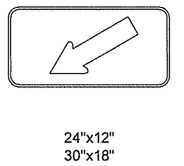
(R7-8P)
VAN ACCESSIBLE SIGN

24"x18"

(R1-5)
YIELD TO PEDS IN CROSSWALK SIGN

30"x30"
36"x36"

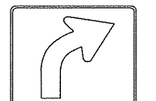
(W11-2)
PEDESTRIAN CROSSING SIGN



24"x12"
30"x18"

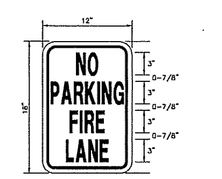
(W16-7P)
DIAGONAL DOWNWARD POINTING ARROW

24"x24"
30"x30"
36"x36"
48"x48"
(R1-1)
STOP SIGN



30"x36"

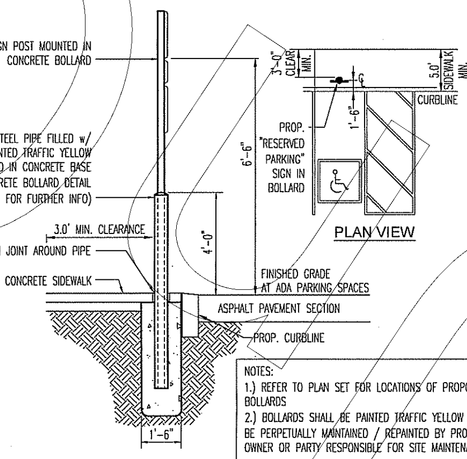
(R3-5R)
RIGHT TURN SIGN



COLOR:
LEGEND & BORDER RED (NON-REFLECTORIZED)
BACKGROUND WHITE (NON-REFLECTORIZED)

NOTE: SIGNS SHALL BE PLACED AT 75 FT (MAX.) INTERVALS, AND SHALL BE AT LEAST 7 FT AND NO MORE THAN 9 FT ABOVE THE PAVEMENT OR CURB.

NO PARKING FIRE LANE SIGN
N.T.S.



NOTES:
1.) REFER TO PLAN SET FOR LOCATIONS OF PROPOSED BOLLARDS
2.) BOLLARDS SHALL BE PAINTED TRAFFIC YELLOW AND MUST BE PERPETUALLY MAINTAINED / REPAINTED BY PROPERTY OWNER OR PARTY RESPONSIBLE FOR SITE MAINTENANCE.

T S16 "RESERVED PARKING" SIGN WITHIN BOLLARD DETAIL
SCALE: N.T.S. REV.: 2015.03.09

A S10 WOODEN GUIDE RAIL DETAIL
SCALE: N.T.S. REV.: 2015.03.09

BOHLER ENGINEERING
SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING PROGRAM MANAGEMENT LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN PERMITTING SERVICES TRANSPORTATION SERVICES
NEW ENGLAND: BOSTON, MA; PORTLAND, ME; PROVIDENCE, RI; NEW YORK, NY; NEW JERSEY
MID-ATLANTIC: LEHIGH VALLEY, PA; SOUTHEASTERN, PA; HARRISBURG, PA; BALTIMORE, MD; SOUTHERN MARYLAND
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REVISIONS

REV	DATE	COMMENT	BY
2	12/14/15	GENERAL REVS	MAB
3	01/05/16	GENERAL REVS	DTL
4	01/15/16	PER CCCD COMMENTS	DTL
5	01/29/16	PER COMMENTS	DTL
6	03/03/16	PER CCCD COMMENTS	ACF
7	04/06/16	GENERAL REVS	DTL
8	04/21/16	GENERAL REVS	DTL
9	06/06/16	PER RECORD PLAN	DTL
10	07/13/16	GENERAL REVISIONS	DTL

CALL BEFORE YOU DIG!
PENNSYLVANIA LAW REQUIRES 3 WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND 10 WORKING DAYS IN DESIGN STAGE - STOP CALL
PA1 WATCH, INC. 1-800-242-1776
POCS SERIAL NUMBER 20150911340

PROJECT No.: PP140558
DRAWN BY: J.P.W.
CHECKED BY: M.J.
DATE: 2015.10.19
SCALE: AS NOTED
CAD I.D.: PP140558DETAILS-10

PROJECT:

PRELIMINARY/FINAL LAND DEVELOPMENT PLANS

FOR

PR EXTON SQUARE PROPERTY LP

EXTON SQUARE MALL GROCERY STORE

260 EXTON SQUARE MALL
WEST WHITELAND TOWNSHIP
CHESTER COUNTY, PA

BOHLER ENGINEERING
1515 MARKET STREET, SUITE 920
PHILADELPHIA, PENNSYLVANIA 19102
Phone: (267) 402-3400
Fax: (267) 402-3401
www.BohlerEngineering.com

COMMONWEALTH OF PENNSYLVANIA
CORNELIUS P. BROWN
ENGINEER
PE075317
PROFESSIONAL ENGINEER
PENNSYLVANIA LICENSE NO. PE075317

SHEET TITLE:
DETAILS

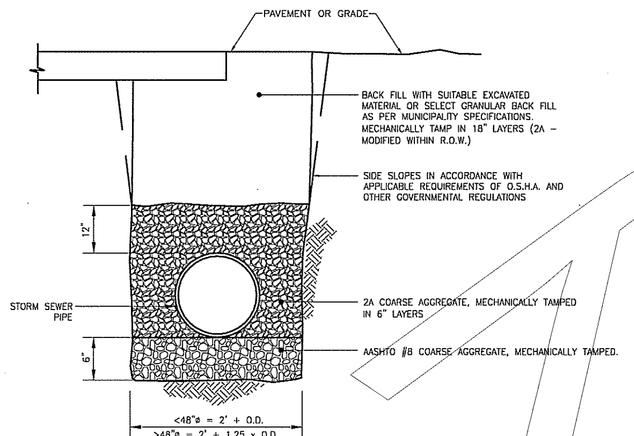
SHEET NUMBER:
34
OF 43

REVISION 10

I:\DL R\11449PP140558_CAD\LAND DEV\REV-10\PP140558DETAILS-10——LAYOUT 34-DETAILS

RECORDER OF DEEDS
CHESTER COUNTY, PA
2016 SEP 30 PM 2:59

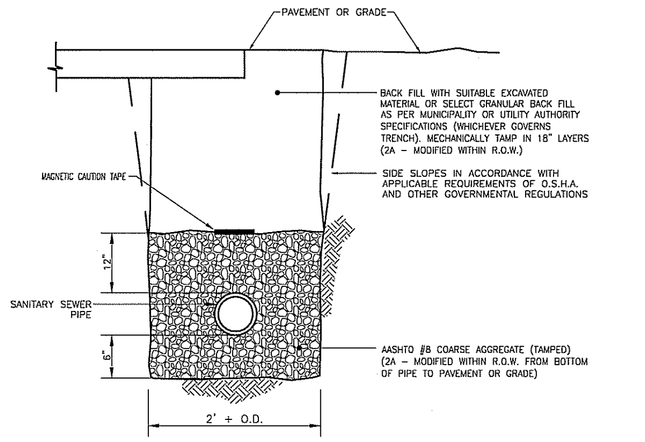
11/30/2016 8:20:03 PM
C:\Projects\PP140558\CADLAND DEV\REV-10\PP140558DETAILS-10.dwg
Layout: 35-DETAILS
User: MJohnson



EXCAVATIONS IN EXISTING PAVED ROADWAYS SHALL BE COORDINATED WITH THE LOCAL PERMITTING AGENCY, AND ALL EXCAVATION SHALL BE PAVED WITH TEMPORARY BITUMINOUS PAVEMENT FROM THE DATE OF ORIGINAL EXCAVATION UNTIL PERMANENT PAVEMENT IS INSTALLED. (MINIMUM = 90 DAYS, MAXIMUM = 120 DAYS)

THIS DETAIL IS NOT FOR USE WITHIN A STATE RIGHT-OF-WAY. REFER TO THE LATEST APPROVED DOT SPECIFICATIONS FOR TRENCH BEDDING WITHIN A STATE RIGHT-OF-WAY.

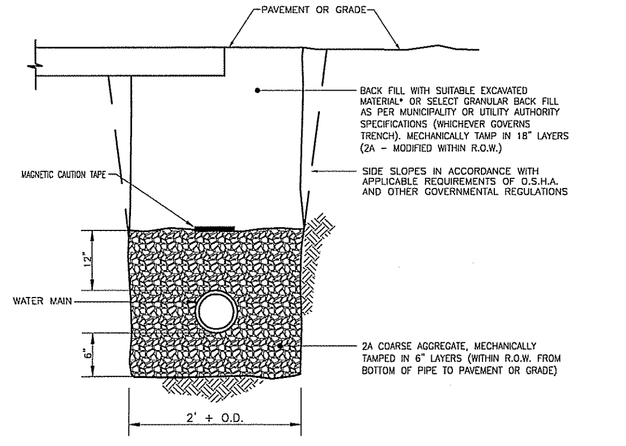
R S8 TRENCH BEDDING CLASSIFICATION (STORM)
SCALE: N.T.S. REV.: 2015.03.09



EXCAVATIONS IN EXISTING PAVED ROADWAYS SHALL BE COORDINATED WITH THE LOCAL PERMITTING AGENCY, AND ALL EXCAVATION SHALL BE PAVED WITH TEMPORARY BITUMINOUS PAVEMENT FROM THE DATE OF ORIGINAL EXCAVATION UNTIL PERMANENT PAVEMENT IS INSTALLED. (MINIMUM = 90 DAYS, MAXIMUM = 120 DAYS)

THIS DETAIL IS NOT FOR USE WITHIN A STATE RIGHT-OF-WAY. REFER TO THE LATEST APPROVED DOT SPECIFICATIONS FOR TRENCH BEDDING WITHIN A STATE RIGHT-OF-WAY.

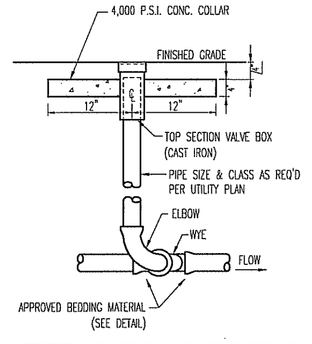
S S8 TRENCH BEDDING CLASSIFICATION (SANITARY MAIN)
SCALE: N.T.S. REV.: 2015.03.09



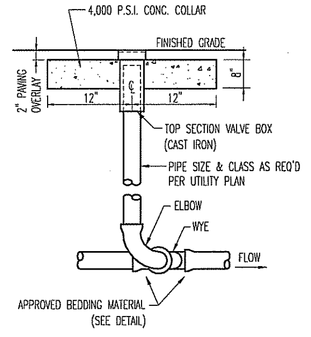
EXCAVATIONS IN EXISTING PAVED ROADWAYS SHALL BE COORDINATED WITH THE LOCAL PERMITTING AGENCY, AND ALL EXCAVATION SHALL BE PAVED WITH TEMPORARY BITUMINOUS PAVEMENT FROM THE DATE OF ORIGINAL EXCAVATION UNTIL PERMANENT PAVEMENT IS INSTALLED. (MINIMUM = 90 DAYS, MAXIMUM = 120 DAYS)

THIS DETAIL IS NOT FOR USE WITHIN A STATE RIGHT-OF-WAY. REFER TO THE LATEST APPROVED DOT SPECIFICATIONS FOR TRENCH BEDDING WITHIN A STATE RIGHT-OF-WAY.

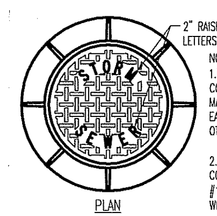
W S4 TRENCH BEDDING CLASSIFICATION (WATER MAIN)
SCALE: N.T.S. REV.: 2015.03.09



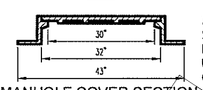
TYPICAL CLEANOUT DETAIL (LANDSCAPED AREAS)
S S13 SCALE: N.T.S. REV.: 2015.03.09



TYPICAL CLEANOUT DETAIL (PAVED AREAS)
S S12 SCALE: N.T.S. REV.: 2015.03.09



PLAN



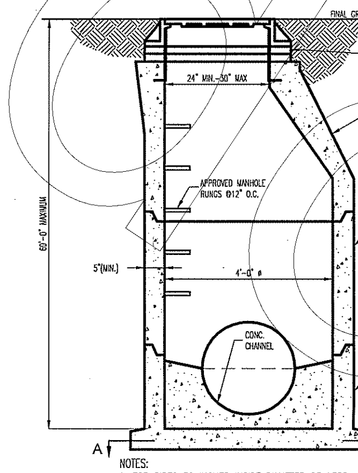
MANHOLE COVER SECTION

NOTES:
1.) STANDARD MANHOLE FRAMES & COVERS SHALL BE USED ON ALL MANHOLES NOT LOCATED WITHIN EASEMENTS UNLESS DIRECTED OTHERWISE BY THE ENGINEER.

2.) STANDARD MANHOLE FRAME & COVER SHALL BE BRIDGESTATE PATTERN #1012B, OR APPROVED EQUIVALENT, WITH NON-PENETRATING PICK HOLES.

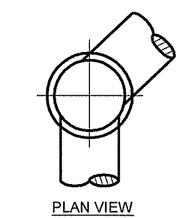
3.) "FLOW-SEAL" MANHOLE COVERS SHALL BE USED ON MANHOLES LOCATED WITHIN EASEMENTS, IN UNPAVED AREAS, AND OUTSIDE OF THE CENTERLINE OF PAVED ROADS.

4.) ALL MANHOLE FRAME AND COVERS SHALL BE MADE IN THE USA.



NOTES:
1. FOR PIPES 30 INCHES INSIDE DIAMETER OR LESS
2. FOR BASE SLAB DIMENSIONS SEE TABLE "A"

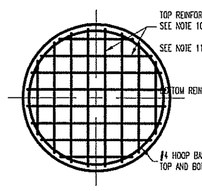
SECTION



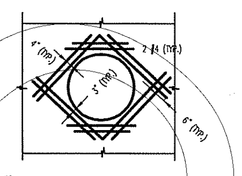
PLAN VIEW

TABLE A
BASE SLAB DIMENSIONS

MAX. DEPTH FROM TOP OF MANHOLE TO TOP OF FOOTING	#5 DESCRIBED (SEE NOTE 12)	
	FOOTING DIAMETER	FOOTING THICKNESS
10'-0"	6'-0"	1'-0"
20'-0"	6'-9"	1'-3"
30'-0"	6'-9"	1'-3"
40'-0"	7'-3"	1'-3"
50'-0"	8'-0"	1'-3"
60'-0"	8'-6"	1'-3"



SECTION A-A

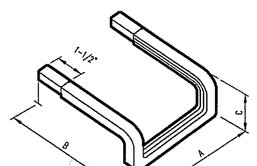


NOTE:
FOR WALL THICKNESS 10" THICK OR GREATER PLACE ADDITIONAL REINFORCEMENT AS SHOWN ABOVE AT EACH FACE OF THE WALL INSIDE MAIN REINFORCEMENT. FOR WALLS 9" THICK KEEP MAIN REINFORCEMENT CENTERED IN WALL. PROVIDE ADDITIONAL REINFORCEMENT AS SHOWN ABOVE, MAINTAINING REQUIRED COVER.

REINFORCEMENT DETAIL AT OPENINGS

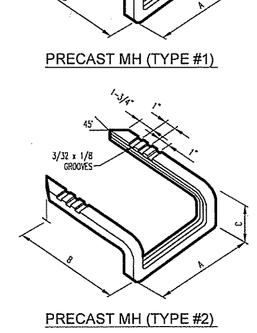
NOTES:
1. PRECAST MANHOLES, MEETING THE REQUIREMENTS OF PUBLICATION 408 SPECIFICATIONS, SECTION 714, MAY BE SUBSTITUTED FOR THE STANDARD CAST-IN-PLACE MANHOLE.
2. CONSTRUCTION NOTES:
A. CONSTRUCT IN ACCORDANCE WITH PENNDOT PUBLICATION 408 SPECIFICATIONS, SECTION 611, SECTIONS 605, 606, 714 AND ASTM C-478-00, STANDARD SPECIFICATIONS FOR PRECAST REINFORCED CONCRETE MANHOLE SECTIONS, AS MODIFIED HERE IN:
B. MINIMUM CONCRETE CLASS AA
C. PROVIDE EPOXY COATED STEEL REINFORCEMENT (IN ACCORDANCE WITH ASTM A1015, STEEL WELDED WIRE FABRIC (IN ACCORDANCE WITH ASTM A563 & A615), PLAIN BILLET STEEL BARS (IN ACCORDANCE WITH ASTM A615) OR DEFORMED BILLET STEEL BARS. PROVIDE MINIMUM YIELD STRENGTH OF 60,000 PSI.
D. CLEAR COVER FOR STEEL:
WALLS: 1"
FOOTINGS: 2" (TOP BARS), 1 1/2" (BOTTOM BARS)
1 1/2" (SIDE CODE)
3. PROVIDE 12" MINIMUM HORIZONTAL CLEARANCE BETWEEN OPENINGS LOCATED AT THE SAME DEPTH. PIPES NOT LOCATED AT THE SAME DEPTH MUST BE LOCATED VERTICALLY AT LEAST ONE TIMES MAXIMUM OPENING DIAMETER APART.
4. FOR RISERS OR BASE SECTIONS WITH OPENINGS, PROVIDE A MINIMUM HEIGHT OF SECTION EQUAL TO TWO TIMES THE LARGEST OPENING. CENTER OF OPENING TO BE LOCATED AT LEAST ONE TIMES THE OPENING FROM THE CLOSEST JOINT BETWEEN RISERS.
5. FOR PRECAST RISER OR BASE SECTIONS WITH ONE OPENING LOCATED AT DEPTHS 30 60" OR FOR SECTIONS WITH TWO OR MORE OPENINGS, LOCATED AT A DEPTH OF 15 FEET AND LESS, PROVIDE CIRCUMFERENTIAL REINFORCEMENT IN ACCORDANCE WITH REINFORCEMENT DETAIL AT OPENINGS.
FOR RISERS OR BASE SECTIONS WITH 2 OR MORE OPENINGS, LOCATED AT A DEPTH GREATER THAN 15 FEET, BUT LESS THAN OR EQUAL TO 30 FEET, PROVIDE CIRCUMFERENTIAL REINFORCEMENT EQUAL TO 0.44 SQ/IN VERTICAL FOOT FOR THE DEPTH OF THE RISER OR BASE SECTION
FOR RISERS OR BASE SECTIONS WITH 2 OR MORE OPENINGS, LOCATED AT DEPTHS GREATER THAN 30 FEET, USE A 10 INCH THICK WALL RISER OR BASE SECTION WITH CIRCUMFERENTIAL REINFORCEMENT EQUAL TO 0.12 SQ/IN VERTICAL FOOT EACH FACE
RISERS OR BASE SECTIONS WITH HOLES TO BE CLEARLY MARKED WITH MAXIMUM ALLOWABLE DEPTH.
6. PROVIDE ADDITIONAL REINFORCEMENT BARS AROUND OPENINGS AS SHOWN ON REINFORCEMENT DETAILS AT OPENINGS
7. PROVIDE MANHOLE STEPS MEETING THE REQUIREMENTS OF PUBLICATION 408 SPECIFICATIONS, SECTION 603.2(C). ALTERNATE CONFIGURATIONS AND DIMENSIONS, AS APPROVED BY THE ENGINEER, MAY BE USED.
8. PROVIDE MINIMUM 1" SECTION IMMERSION FOR METAL STEPS. PROVIDE MINIMUM 3/4" SECTION IMMERSION FOR NON-DETERIORATING MATERIAL STEPS.
9. MECHANICAL ANCHOR REQUIRED FOR INSTALLATION OF STEPS WITHOUT HOOKS.
10. FOR FOOTING TOP REINFORCEMENT, BOTH DIRECTIONS, USE NO. 19 (#) BARS AT 12" FOR DEPTHS 10 60" OR 0.30 IN²/FT MAT FOR DEPTHS 10 30' AND 0.30 IN²/FT MAT FOR DEPTHS GREATER THAN 30'. 6" MAXIMUM SPACING FOR MAT.
11. FOR FOOTING BOTTOM REINFORCEMENT, BOTH DIRECTIONS, USE NO. 13 (#) BARS AT 18" FOR DEPTHS 10 60' OR 0.15 IN²/FT MAT FOR DEPTHS 10 30' AND 0.18 IN²/FT MAT FOR DEPTHS GREATER THAN 30'. 6" MAXIMUM SPACING FOR MAT.
12. A SAFE BEARING CAPACITY OF (1.5 TONS PER SF) UNDER THE ENTIRE SLAB IS ASSUMED TO DETERMINE THE BASE SIZE. WHEN THE SUBSOIL IS "...EXTREMELY POOR, PROCEED WITH CONSTRUCTION ONLY AFTER THE ENGINEER SPECIFIES ADEQUATE BASE DESIGN.

R S1 PRECAST STORM MANHOLE DETAILS
SCALE: N.T.S. REV.: 2015.03.09

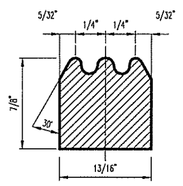


PRECAST MH (TYPE #1)

SPECIFICATIONS:
MANHOLE STEPS SHALL BE ANODIZED ALUMINUM OR APPROVED MATERIAL



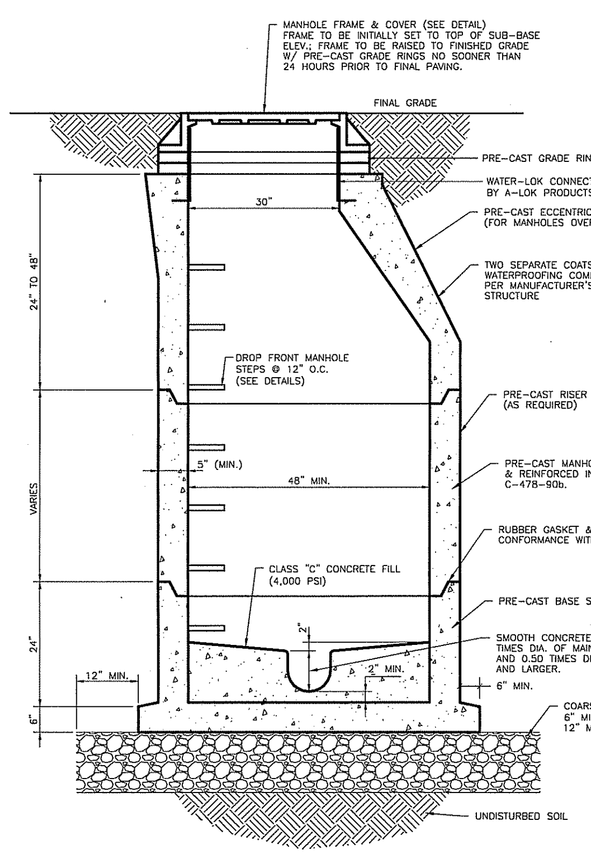
PRECAST MH (TYPE #2)



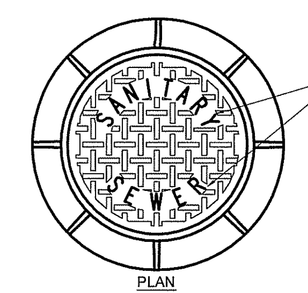
TYP. CROSS-SECTION ON ALL STEPS

APPLICATION	DIMENSION (IN.)		
	A	B	C
PRECAST MH. (TYPE #1)	13-3/4	10	3-3/4
PRECAST MH. (TYPE #2)	13-3/4	11	3-3/4

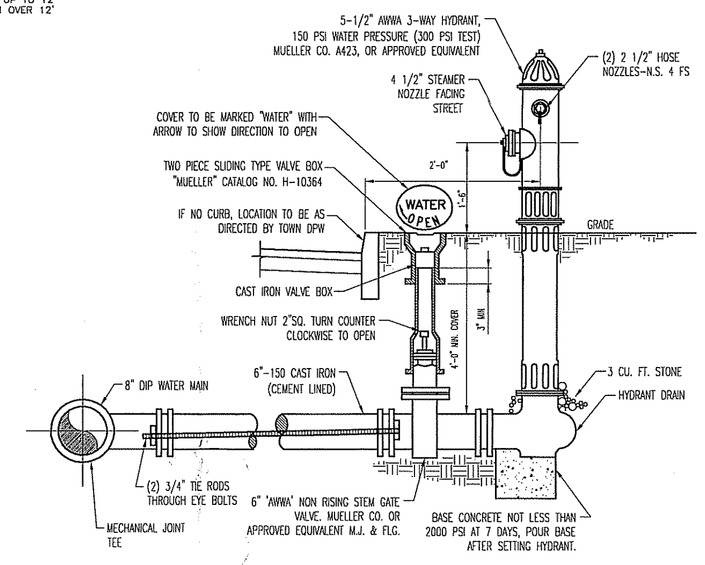
S S5 DROP FRONT MANHOLE STEP
SCALE: N.T.S. REV.: 2015.03.09



S S3 PRECAST SANITARY MANHOLE DETAILS
SCALE: N.T.S. REV.: 2015.03.09



S S6 MANHOLE FRAME DETAIL
SCALE: N.T.S. REV.: 2015.03.09



W S3 TYPICAL HYDRANT & VALVE INSTALLATION
SCALE: N.T.S. REV.: 2015.03.09

*** CONTRACTOR TO CONSTRUCT ADA RAMPS IN COMPLIANCE WITH PADOT STANDARDS**

LIST OF APPLICABLE PADOT DETAILS

SIGNAGE: PA.D.O.T. PUBLICATION 236

ADDITIONAL DETAILS ASSOCIATED WITH PADOT ROAD IMPROVEMENTS ARE ON THE FOLLOWING STANDARD DETAILS FROM PennDOT PUBLICATION 72M:
(THE PERMITTEE IS REQUIRED TO PROVIDE THE CONTRACTOR WITH COPIES OF THE MOST CURRENT APPLICABLE RC DRAWINGS FROM THE PennDOT PUBLICATION 72M)

STANDARD DRAWING NUMBER	DRAWING DATE
RC - 30M	JUNE 10, 2013
RC - 39M	JUNE 10, 2013
RC - 45M	JUNE 10, 2013
RC - 46M	JUNE 10, 2013
RC - 64M	JUNE 10, 2013
RC - 65M	JUNE 10, 2013
RC - 67M	JUNE 10, 2013

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◆ NORTHERN VIRGINIA
◆ WASHINGTON, DC
◆ RALEIGH, NC
◆ CHARLOTTE, NC
◆ TAMPA, FL
◆ SOUTH FLORIDA
◆ BALTIMORE, MD
◆ SOUTHERN MARYLAND
◆ NEW JERSEY
◆ NEW YORK, NY

REVISIONS

REV	DATE	COMMENT	BY
2	12/14/15	GENERAL REVS	MAB
3	01/05/16	GENERAL REVS	DTL
4	01/15/16	PER CCCD COMMENTS	DTL
5	01/29/16	PER COMMENTS	DTL
6	03/03/16	PER CCCD COMMENTS	ACF
7	04/06/16	GENERAL REVS	DTL
8	04/21/16	GENERAL REVS	DTL
9	06/06/16	PER RECORD PLAN	DTL
10	07/13/16	GENERAL REVISIONS	DTL

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PENNSYLVANIA LAW REQUIRES 3 WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND 10 WORKING DAYS IN DESIGN STAGE - STOP CALL

PA1 one call
1-800-242-1776
POCS SERIAL NUMBER
20150911340

PROJECT No.: PP140558
DRAWN BY: J.P.W.
CHECKED BY: M.J.
DATE: 2015.10.19
SCALE: AS NOTED
CAD I.D.: PP140558DETAILS-10

PROJECT:

PRELIMINARY/FINAL LAND DEVELOPMENT PLANS

FOR

PR EXTON SQUARE PROPERTY LP

EXTON SQUARE MALL GROCERY STORE

260 EXTON SQUARE MALL
WEST WHITELAND TOWNSHIP
CHESTER COUNTY, PA

BOHLER ENGINEERING
1515 MARKET STREET, SUITE 920
PHILADELPHIA, PENNSYLVANIA 19102
Phone: (267) 402-3400
Fax: (267) 402-3401
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CORNELIUS BROWN
ENGINEER
PROFESSIONAL ENGINEER
PENNSYLVANIA LICENSE NO. PE075317

SHEET TITLE:
DETAILS

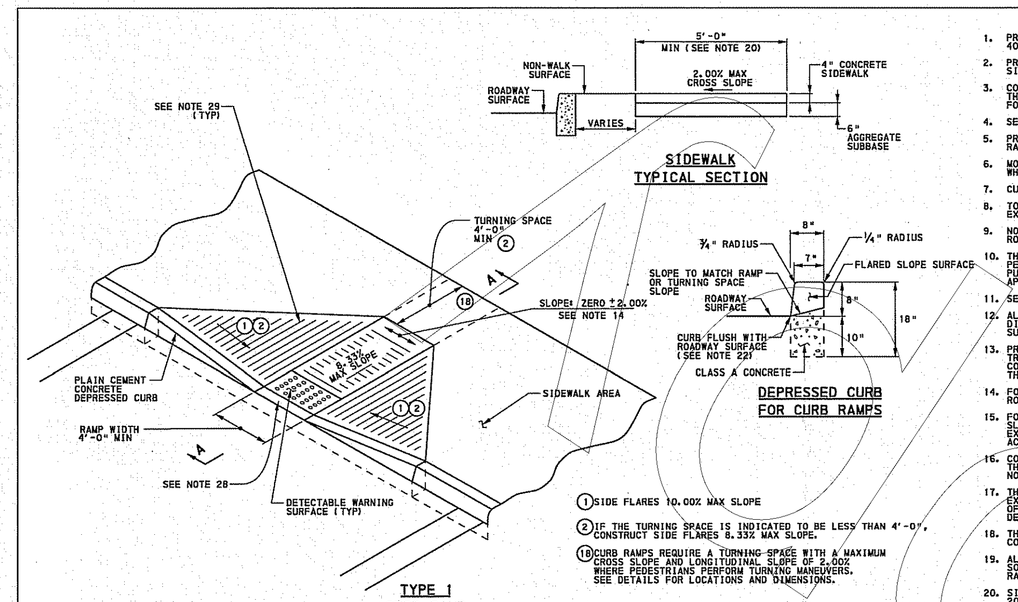
SHEET NUMBER:
35
OF 43

REVISION 10

DL
R:\14\PP140558_CADLAND DEV\REV-10\PP140558DETAILS-10.—LAYOUT: 35-DETAILS

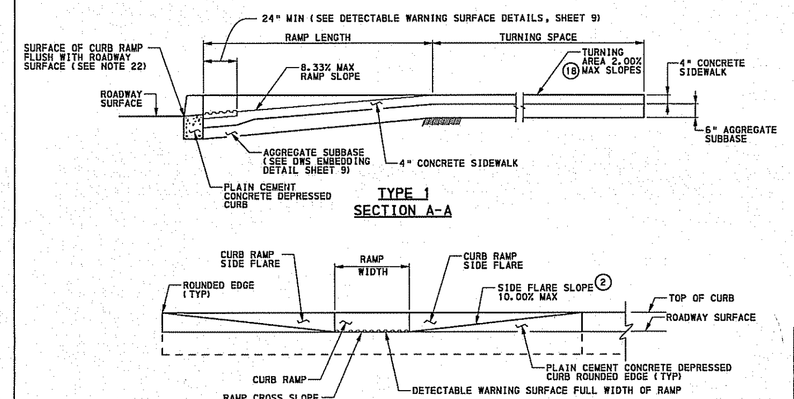
11506444 B: 20031 P: 1 SDP
09/30/2016 02:59 PM Page 37 of 44
CHAD WEIRICH
CHESTER COUNTY RECORDER OF DEEDS

RECORDER OF DEEDS
2016 SEP 30 PM 2:59



TYPE 1
CURB RAMP

DEPRESSED CURB
FOR CURB RAMPS



TYPE 1
SECTION A-A

TYPE 1
ELEVATION

PERCENT SLOPE	EQUIVALENT SLOPE
10.00%	10:1
8.33%	12:1
7.14%	14:1
5.00%	20:1
2.00%	50:1
1.00%	100:1

EQUIVALENT SLOPES

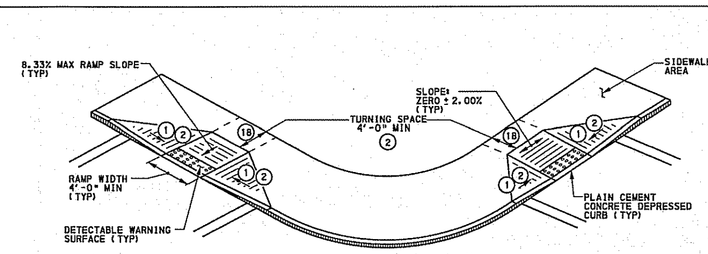
NOTES

1. PROVIDE MATERIALS AND CONSTRUCTION MEETING THE REQUIREMENTS OF PUBLICATION 408, SECTIONS 350, 409, 630, 676, 694, AND 695.
2. PROVIDE EXPANSION JOINT MATERIAL ½" THICK WHERE CURB RAMP ADJOINS ANY RIGID PAVEMENT, SIDEWALK OR STRUCTURE WITH THE TOP OF JOINT FILLER FLUSH WITH ADJACENT CONCRETE SURFACE.
3. CONSTRUCT CURB RAMPS WITH A MINIMUM 4'-0" X 4'-0" CLEAR SPACE BEYOND THE CURB FACE WITHIN THE WIDTH OF THE CROSSWALK AND WHOLLY OUTSIDE THE PARALLEL VEHICLE TRAVEL LANE. SEE SHEET 7 FOR CROSSWALK DETAILS.
4. SEAL JOINTS WITH AN APPROVED SEALING MATERIAL.
5. PROVIDE SLIP RESISTANT TEXTURE ON CURB RAMP BY COARSE BROOMING TRANSVERSE TO THE SLOPE OF THE RAMP. EXTEND THROUGH THE FULL WIDTH AND LENGTH OF THE RAMP INCLUDING THE SIDE FLARES.
6. MODIFY CONSTRUCTION DETAILS TO ADAPT DIMENSIONS TO EXISTING CURB HEIGHTS WHERE THE CURB IS LESS THAN THE STANDARD 8" HEIGHT.
7. CURB RAMP AND SIDE FLARE LENGTHS ARE VARIABLE AND BASED ON CURB HEIGHT AND THE SIDEWALK SLOPE.
8. TO AVOID CAUSING GRADE DIFFICULTY BY REDUCING THE HEIGHT OF CURB, RAMP LENGTH NOT TO EXCEED 15'-0". ADJUST RAMP SLOPE AS NEEDED TO PROVIDE ACCESS TO THE MAXIMUM EXTENT FEASIBLE.
9. NON-WALK AREA IS AS CONSTRUCTED OF CRUSHED/PAVED AREA ADJACENT TO THE PEDESTRIAN ACCESS ROUTE THAT IS NOT USED BY THE PEDESTRIAN FOR ACCESS.
10. THE DETAILS DEPICT PEDESTRIAN PUSHBUTTON POLES TO ILLUSTRATE THE RECOMMENDED PLACEMENT OF PEDESTRIAN PUSHBUTTONS. FOR PLANNING PURPOSES, PROVIDE POLES TO EXTEND PEDESTRIAN PUSHBUTTONS TO THE MAXIMUM EXTENT FEASIBLE UNLESS OTHERWISE DIRECTED. PEDESTRIAN PUSHBUTTON STUB POLES, WHERE APPLICABLE, SO AS NOT TO CREATE PEDESTRIAN OBSTRUCTIONS.
11. SEE TC-8803 FOR ADDITIONAL PEDESTRIAN PUSHBUTTON DETAILS NOT SHOWN.
12. PLACE DETECTABLE WARNING SURFACE TRUNCATED DOMES ON A SQUARE GRID ALONG THE PREDOMINANT DIRECTION OF TRAVEL OF THE RAMP AND PERPENDICULAR TO CURB. SEE SHEET 9 FOR INSTALLATIONS ALONG CURVED SURFACES.
13. PROVIDE DETECTABLE WARNING SURFACES (DWS) 24" MINIMUM IN THE DIRECTION OF PEDESTRIAN TRAVEL AND THE FULL WIDTH OF RAMP AT THE GRADE BREAK AND FLUSH WITH ADJACENT SURFACE AND HIGH CONTRAST VISUALLY WITH ADJACENT WALKWAY SURFACES. EITHER LIGHT-ON-DARK OR DARK-ON-LIGHT FOR THE FULL WIDTH OF RAMP.
14. FOR NEW CONSTRUCTION, DO NOT EXCEED 2.00% CROSS SLOPE ON THE CURB RAMP OR PEDESTRIAN ACCESS ROUTE.
15. FOR NEW CONSTRUCTION AND ALTERATIONS, CONSTRUCT CURB RAMP AND FLARE SLOPES WITH THE FLATTEST SLOPE POSSIBLE. THE SLOPES INDICATED IN THE DETAILS SHOW THE MAX SLOPE ALLOWABLE. SLOPES THAT EXCEED THE SLOPES INDICATED IN THE DETAILS OR CONTRACT DOCUMENTS AS APPLICABLE WILL NOT BE ACCEPTED AND WILL BE RECONSTRUCTED.
16. CONSTRUCT SIDEWALKS AT A LONGITUDINAL SLOPE NOT TO EXCEED 5.00%. FOR ROADWAY PROFILE SLOPES THAT EXCEED 5.00%, CONSTRUCT PARALLEL SIDEWALKS ADJACENT TO ROADWAY AT A LONGITUDINAL SLOPE NOT TO EXCEED ROADWAY PROFILE SLOPE.
17. THE CHANGE IN GRADE AT THE BOTTOM OF THE CURB RAMP AND ADJOINING ROAD SURFACE IS NOT TO EXCEED AN ALGEBRAIC DIFFERENCE OF 11.33%. THE LOWER SLOPE OF THE GUTTER OR ROAD AT THE FOOT OF A CURB RAMP, TURNING SPACE OR BLENDED TRANSITION IS NOT TO EXCEED 5.00%. SEE SHEET 8 FOR DETAILS.
18. THE CONSTRUCTION STANDARDS DEPICTED ARE MOST APPROPRIATE FOR NEW CONSTRUCTION. ALL CONSTRUCTION MUST MEET THE STANDARDS CONTAINED HEREIN UNLESS OTHERWISE NOTED OR DIRECTED.
19. ALL SLOPES ARE MEASURED WITH RESPECT TO A LEVEL PLANE. THEREFORE, THE LENGTH OF RAMP IS NOT EQUAL TO CHANGE IN ELEVATION DIVIDED BY SLOPE. FOR EXAMPLE, A 6" CURB DOES NOT NECESSARILY MEAN A RAMP LENGTH OF 6'-0" FOR A 12:1 SLOPE.
20. SIDEWALK WIDTH MAY BE REDUCED TO 4'-0", WHEN PASSING AREAS 5'-0" X 5'-0" ARE PROVIDED EVERY 200'.
21. THE TRAVEL LANE IS DEFINED BY THE OUTSIDE EDGE OF THE WHITE PAVEMENT MARKING LINE. IF A WHITE PAVEMENT MARKING LINE DOES NOT EXIST, THE TRAVEL LANE IS DEFINED BY THE CONTRACT DOCUMENTS.
22. CONSTRUCT DEPRESSED CURB FOR CURB RAMPS FLUSH TO ADJACENT ROADWAY. GRADE EDGE OF ROAD SURFACE ADJACENT TO THE FLOW LINE TO ENSURE POSITIVE DRAINAGE AND PREVENT PONDING. IN LEVEL TURNING SPACES BEHIND DEPRESSED CURB, ADJUST SLOPES TO PROVIDE POSITIVE DRAINAGE. FILL THE JOINT BETWEEN DEPRESSED CURB AND ROADWAY SURFACE. REMOVE EXCESS JOINT SEALER AND COVER THE SEALED AREA WITH A LIGHT APPLICATION OF DRY SAND.
23. SHEER WALLS AND ABRUPT CHANGES IN HEIGHT OF CURB, FOR EXAMPLE, A 6" CURB DOES NOT NECESSARILY MEAN A RAMP LENGTH OF 6'-0" FOR A 12:1 SLOPE.
24. CONSTRUCT TOP OF PLAIN CEMENT CONCRETE DEPRESSED CURB TO BE FLUSH WITH ADJACENT SURFACES (RAMPS, SIDEWALKS, FLARES).
25. FOR CURB RAMPS THAT LEAD TO A SINGLE CROSSWALK, THE RAMP (EXCLUDING FLARES) TO BE FULLY INSIDE OF MARKED CROSSWALK LINES. SEE SHEET 7 FOR DETAILS.
26. A 4'-0" MAXIMUM DIGITAL DISPLAY LEVEL WILL BE USED TO VERIFY THE SLOPES OF CURB RAMPS AND SIDEWALKS.
27. INSTALL DUMMY JOINTS WHERE RAMPS, TURNING SPACES, FLARES, AND SIDEWALKS ABUT.
28. CONSTRUCT DEPRESSED CURB SLOPE TO MATCH ROADWAY PROFILE AND HAVE A FLUSH CONNECTION. TRANSITION CURB RAMP CROSS SLOPE TO MATCH ROADWAY PROFILE AS GRADUALLY AS POSSIBLE. DO NOT EXCEED 5.00% PER 1'-0" CROSS SLOPE RATE OF CHANGE WHEN TRANSITIONING TO ROADWAY PROFILE.
29. DO NOT SCORE OR MAKE GROOVES ON SLOPED SURFACES. LINES SHOWN ON DETAILS ARE FOR ILLUSTRATION ONLY. SEE NOTE 5.

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION
BUREAU OF PROJECT DELIVERY

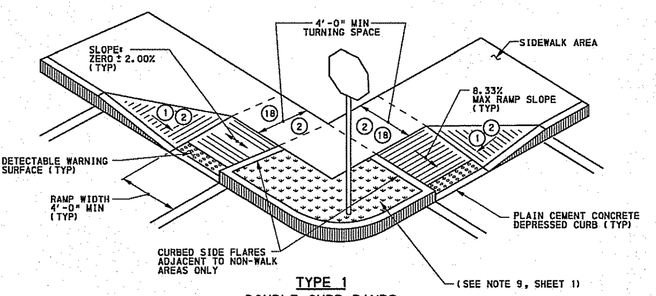
CURB RAMPS AND SIDEWALKS
NEW CONSTRUCTION OR
ALTERATION DETAILS
TYPE 1 CURB RAMPS AND
TYPICAL SECTIONS

RECOMMENDED JUN 10, 2013 — CHIEF, HWY. DELIVERY DIVISION
RECOMMENDED JUN 10, 2013 — ACTING DIR. BUREAU OF PROJECT DELIVERY
SHT 1 OF 14
RC-67M

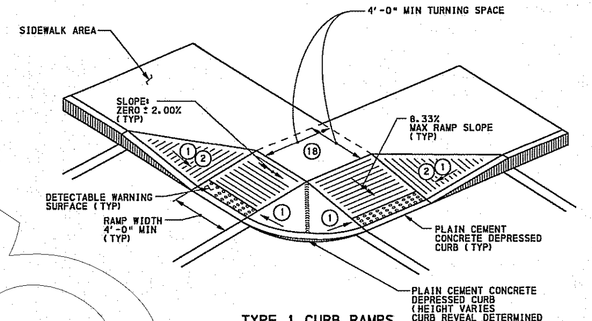


NOTE: IF SPACE IS LIMITED, IT MAY BE NECESSARY TO EXTEND THE SIDE FLARES OF THE TYPE 1 CURB RAMPS (SEE ALTERNATE INSTALLATION DETAIL BELOW). PEDESTRIAN TRAFFIC SHOULD NOT BE DIRECTED TO CROSS THE VERTICAL DROP.

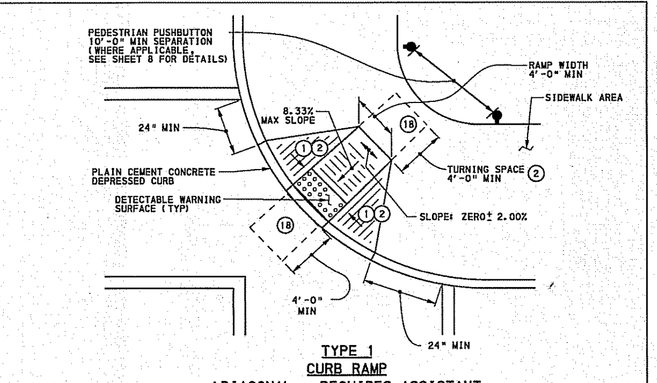
TYPE 1
DOUBLE CURB RAMPS
(PREFERRED INSTALLATION)



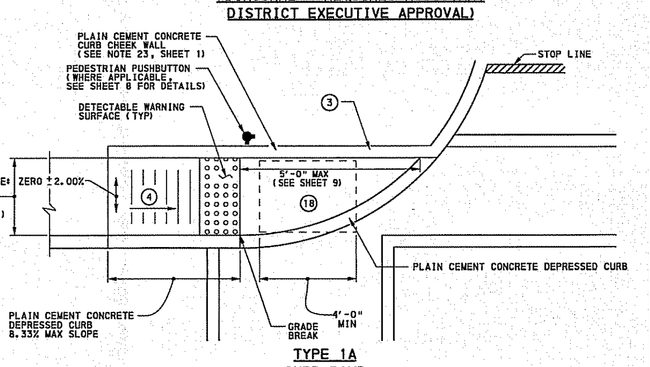
TYPE 1
DOUBLE CURB RAMPS
(ALTERNATE INSTALLATION)



TYPE 1 CURB RAMPS
WITH SHARED TURNING SPACE



TYPE 1
CURB RAMP
(DIAGONAL - REQUIRES ASSISTANT
DISTRICT EXECUTIVE APPROVAL)



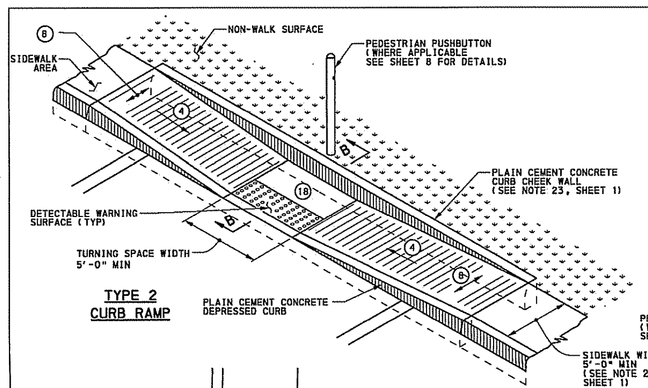
TYPE 1A
CURB RAMP
ASSISTANT DISTRICT EXECUTIVE APPROVAL
REQUIRED IF TURNING SPACE
IS NOT ENTIRELY ON SIDEWALK

1. SIDE FLARES 10.00% MAX SLOPE.
2. IF THE TURNING SPACE IS INDICATED TO BE LESS THAN 4'-0", CONSTRUCT SIDE FLARES 8.33% MAX SLOPE.
3. OPTIONAL ROLLED CONCRETE SURFACE OR REGRADE SLOPE CAN BE USED TO MEET THE ADJACENT SURFACES IN LIEU OF A RETURN CURB CHEEK WALL.
4. 8.33% MAX RAMP SLOPE, SEE NOTE 8 SHEET 1.
10. CURB RAMPS REQUIRE A TURNING SPACE WITH A MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00% WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SEE DETAILS FOR LOCATIONS AND DIMENSIONS.

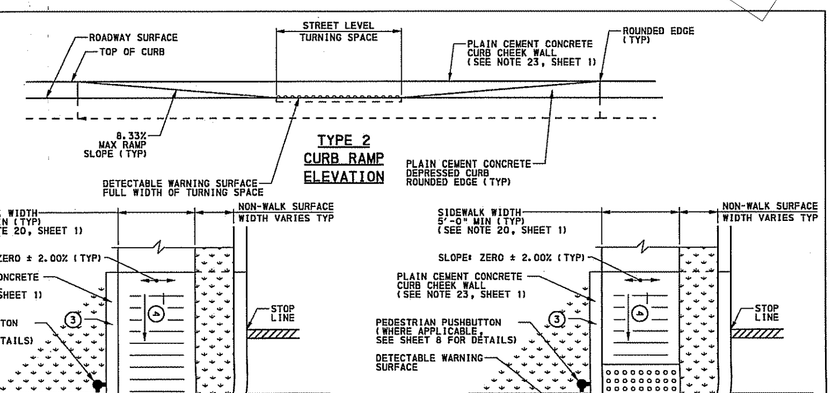
COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION
BUREAU OF PROJECT DELIVERY

CURB RAMPS AND SIDEWALKS
NEW CONSTRUCTION OR
ALTERATION DETAILS
TYPE 1 AND TYPE 1A CURB RAMPS

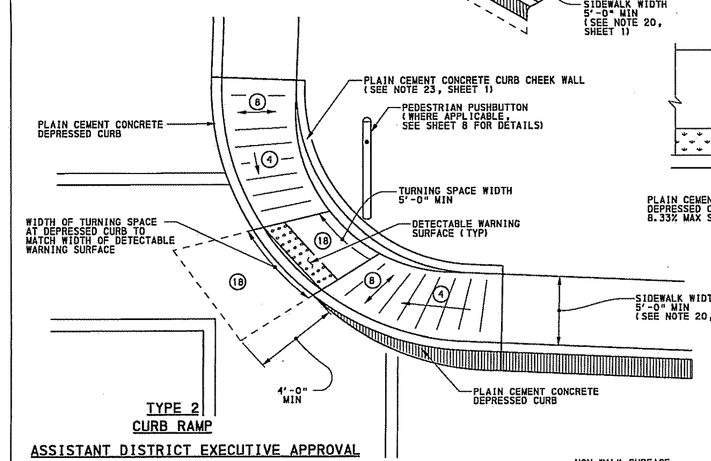
RECOMMENDED JUN 10, 2013 — CHIEF, HWY. DELIVERY DIVISION
RECOMMENDED JUN 10, 2013 — ACTING DIR. BUREAU OF PROJECT DELIVERY
SHT 2 OF 14
RC-67M



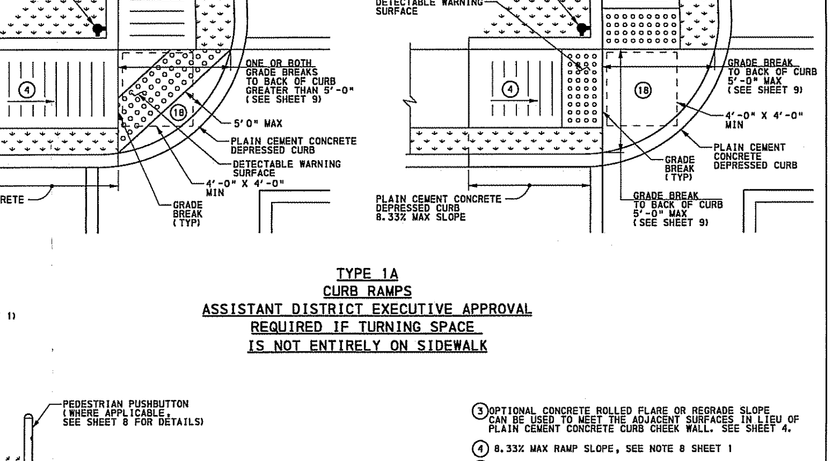
TYPE 2
CURB RAMP



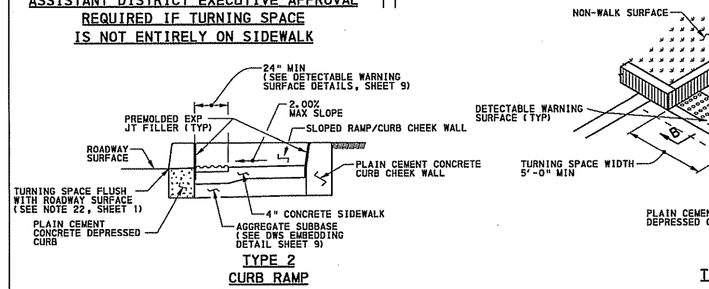
TYPE 2
CURB RAMP
ELEVATION



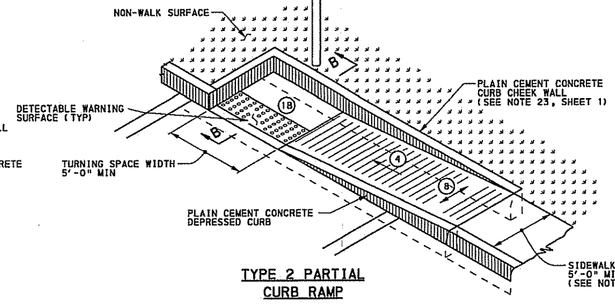
TYPE 2
CURB RAMP
ASSISTANT DISTRICT EXECUTIVE APPROVAL
REQUIRED IF TURNING SPACE
IS NOT ENTIRELY ON SIDEWALK



TYPE 1A
CURB RAMPS
ASSISTANT DISTRICT EXECUTIVE APPROVAL
REQUIRED IF TURNING SPACE
IS NOT ENTIRELY ON SIDEWALK



TYPE 2
CURB RAMP
SECTION B-B



TYPE 2 PARTIAL
CURB RAMP

3. OPTIONAL CONCRETE ROLLED FLARE OR REGRADE SLOPE CAN BE USED TO MEET THE ADJACENT SURFACES IN LIEU OF PLAIN CEMENT CONCRETE CURB CHEEK WALL. SEE SHEET 4.
4. 8.33% MAX RAMP SLOPE, SEE NOTE 8 SHEET 1
8. SLOPE= ZERO ±2.00%
10. CURB RAMPS REQUIRE A TURNING SPACE WITH A MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00% WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SEE DETAILS FOR LOCATIONS AND DIMENSIONS.

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION
BUREAU OF PROJECT DELIVERY

CURB RAMPS AND SIDEWALKS

NEW CONSTRUCTION OR
ALTERATION DETAILS
TYPE 1A AND TYPE 2 CURB RAMPS

RECOMMENDED JUN 10, 2013 — CHIEF, HWY. DELIVERY DIVISION
RECOMMENDED JUN 10, 2013 — ACTING DIR. BUREAU OF PROJECT DELIVERY
SHT 3 OF 14
RC-67M

DL
R:\14PP\140558_CAD\LAND DEV\REV-10\PP140558DETAILS-10——LAYOUT: 36-DETAILS

BOHLER™ ENGINEERING

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◆ SOUTHEASTERN, PA
◆ HARRISBURG-MIDDLETOWN, PA
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REVISIONS

REV	DATE	COMMENT	BY
2	12/14/15	GENERAL REVS	MAB
3	01/05/16	GENERAL REVS	DTL
4	01/15/16	PER CCCD COMMENTS	DTL
5	01/29/16	PER COMMENTS	DTL
6	03/03/16	PER CCCD COMMENTS	ACF
7	04/06/16	GENERAL REVS	DTL
8	04/21/16	GENERAL REVS	DTL
9	05/06/16	PER RECORD PLAN	DTL
10	07/13/16	GENERAL REVISIONS	DTL

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PENNSYLVANIA LAW REQUIRES 3 WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND 10 WORKING DAYS IN DESIGN STAGE - STOP CALL

PA ONE CALL SYSTEM, INC. 1-800-242-1776

POCS SERIAL NUMBER 20150911340

PROJECT No.: PP140558
DRAWN BY: J.P.W.
CHECKED BY: M.J.
DATE: 2015.10.19
SCALE: AS NOTED
CAD I.D.: PP140558DETAILS-10

PROJECT:

PRELIMINARY/FINAL LAND DEVELOPMENT PLANS

FOR

PR EXTON SQUARE PROPERTY LP

EXTON SQUARE MALL GROCERY STORE

260 EXTON SQUARE MALL
WEST WHITELAND TOWNSHIP
CHESTER COUNTY, PA

BOHLER ENGINEERING
1515 MARKET STREET, SUITE 920
PHILADELPHIA, PENNSYLVANIA 19102
Phone: (267) 402-3400
Fax: (267) 402-3401
www.BohlerEngineering.com

COMMONWEALTH OF PENNSYLVANIA
CORNELIUS BROWN
ENGINEER
PE075317

PROFESSIONAL ENGINEER
PENNSYLVANIA LICENSE NO. PE075317

SHEET TITLE:

DETAILS

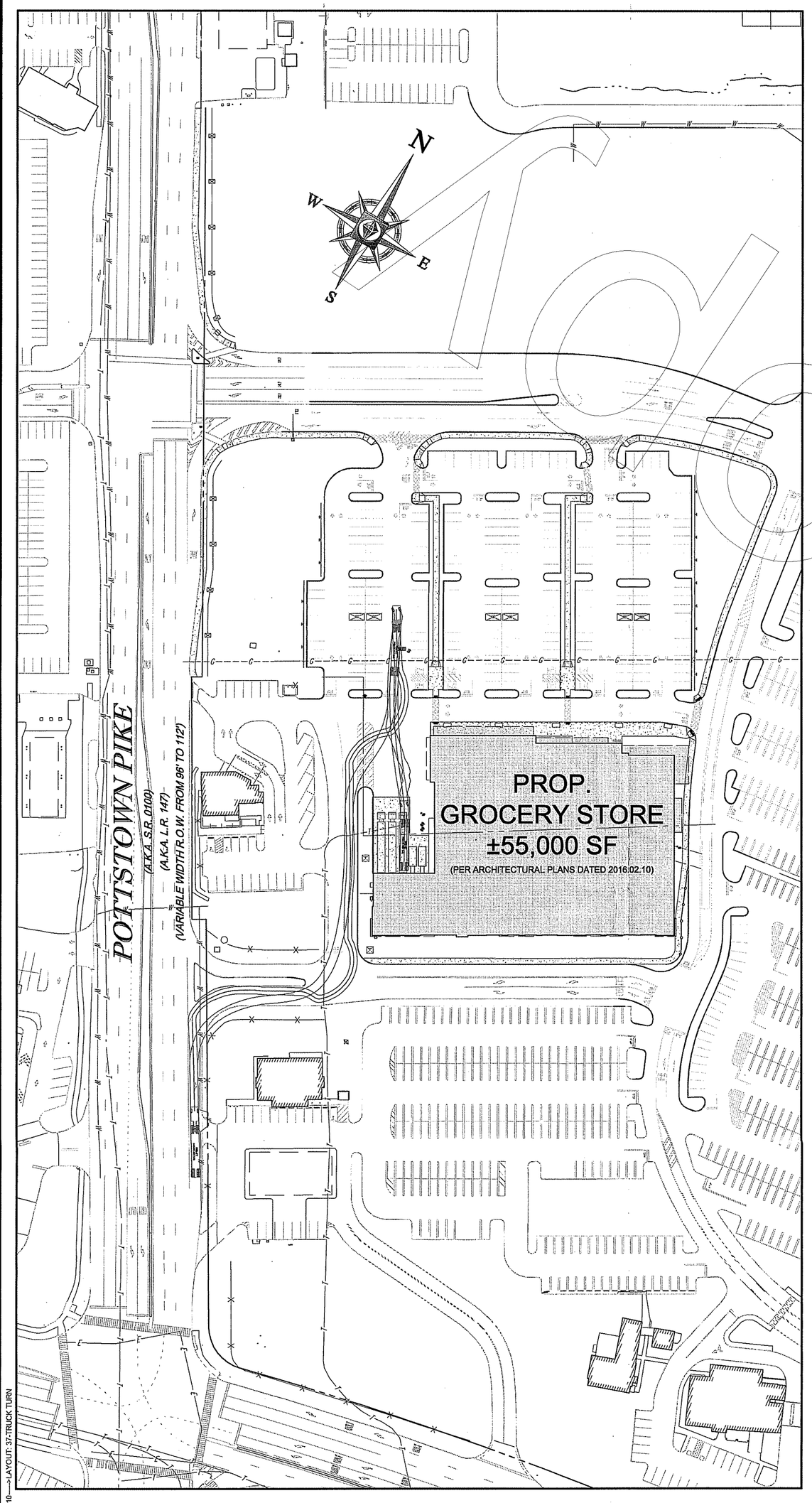
SHEET NUMBER:

36
OF 43

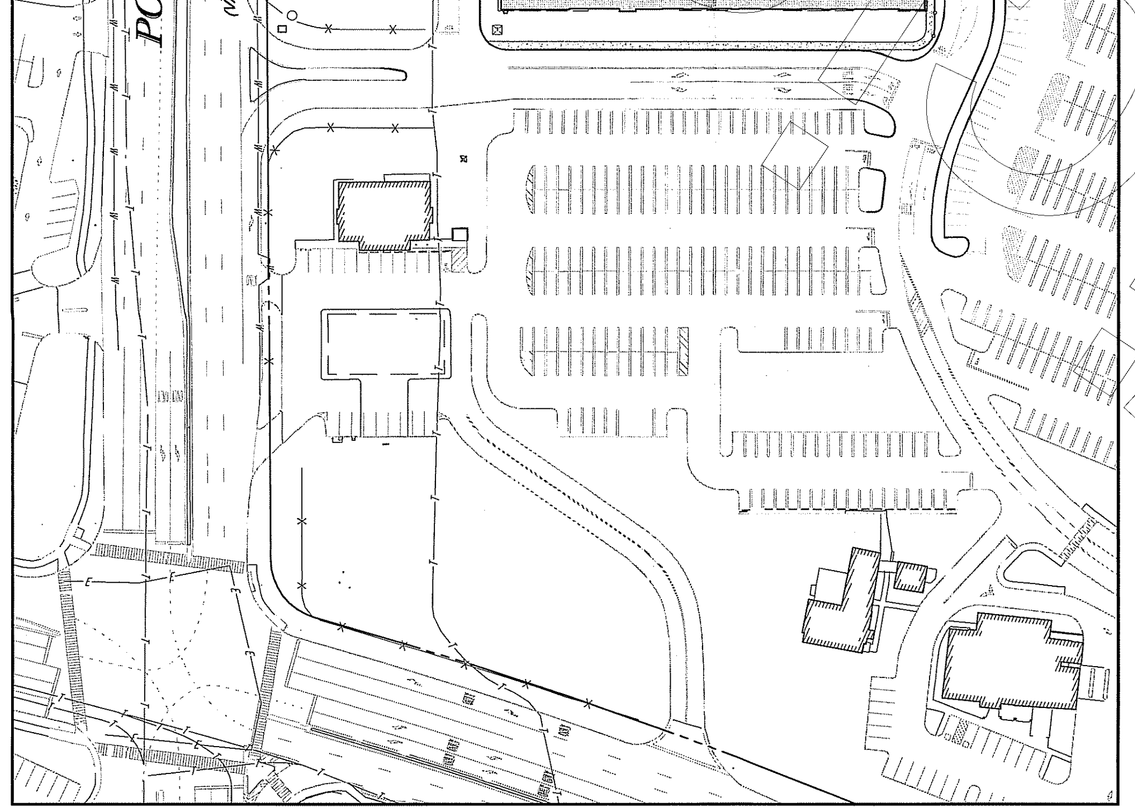
REVISION 10

Bohler Engineering

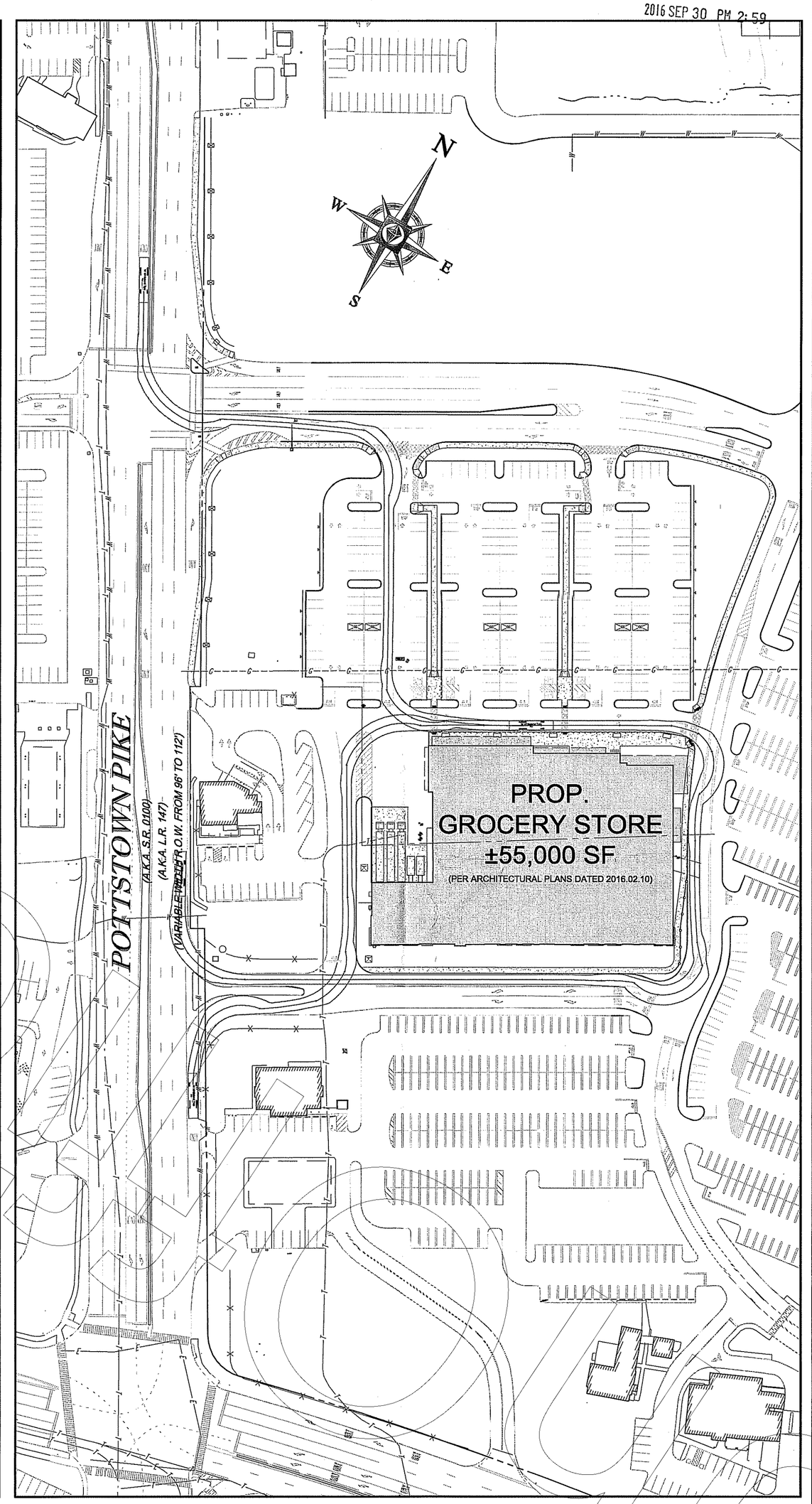
11592444 B: 20031 P: 1 SDP
09/30/2016 02:59:02 PM
Page 1 of 1
RECORDER OF DEEDS
2016 SEP 30 PM 2:59



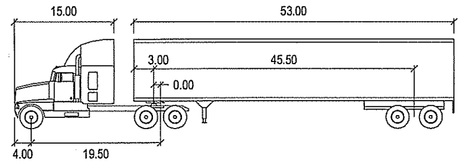
WB-67 TRUCK MOVEMENT - IN



WB-67 TRUCK MOVEMENT - OUT

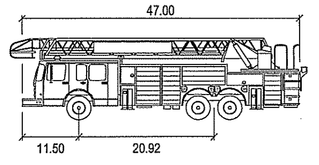


FIRE TRUCK MOVEMENT



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		



W. Whiteland Fire Truck

	feet
Width	: 9.80
Track	: 8.00
Lock to Lock Time	: 6.0
Steering Angle	: 30.0

60 30 15 0 60
1"= 60'

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◆ LEHIGH VALLEY, PA
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◆ NEW YORK, NY
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◆ PHILADELPHIA, PA
◆ LEHIGH VALLEY, PA
◆ CAPE MAY COUNTY, NJ
◆ REHOBOTH BEACH, DE
◆ BALTIMORE, MD
◆ ANNAPOLIS, MARYLAND
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REV	DATE	COMMENT	BY
2	12/14/15	GENERAL REVS	MAB
3	01/05/16	GENERAL REVS	DTL
4	01/15/16	PER CCCD COMMENTS	DTL
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9	06/06/16	PER RECORD PLAN	DTL
10	07/13/16	GENERAL REVISIONS	DTL

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PENNSYLVANIA LAW REQUIRES 3 WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND 10 WORKING DAYS IN DESIGN STAGE - STOP CALL

PA1 one call, inc. 1-800-242-1776

POCS SERIAL NUMBER 20150911340

PROJECT No.: PP140558
DRAWN BY: J.P.W.
CHECKED BY: M.J.
DATE: 2015.10.19
SCALE: 1"=60'
CAD I.D.: PP140558BASE-10

PROJECT:

PRELIMINARY/FINAL LAND DEVELOPMENT PLANS

FOR

PR EXTON SQUARE PROPERTY LP

EXTON SQUARE MALL GROCERY STORE

260 EXTON SQUARE MALL
WEST WHITELAND TOWNSHIP
CHESTER COUNTY, PA

BOHLER ENGINEERING
1515 MARKET STREET, SUITE 920
PHILADELPHIA, PENNSYLVANIA 19102
Phone: (267) 402-3400
Fax: (267) 402-3401
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COMMONWEALTH OF PENNSYLVANIA
TASHEENA LUS BROWN
ENGINEER
PE075317
PROFESSIONAL ENGINEER
PENNSYLVANIA LICENSE NO. PE075317

SHEET TITLE:

TRUCK CIRCULATION PLAN

SHEET NUMBER:

37
OF 43

REVISION 10

PLN: R:\PP140558_CADLAND DEV\REV-10\PP140558BASE-10---LAYOUT 37-TRUCK TURN

RECORDED OF PLANS
CHESTER COUNTY, PA
2015 SEP 30 PM 12:

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◆ LONG ISLAND, NY ◆ ATLANTIC CITY, NJ ◆ RALEIGH, NC
◆ NEW YORK METRO ◆ REHOBOTH BEACH, DE ◆ CHARLOTTE, NC
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REFER TO THE "POST CONSTRUCTION STORMWATER MANAGEMENT NARRATIVE (PHASE I)" DATED 11-10-2015, LAST REVISED 3-03-2016

POTTSTOWN PIKE
(A.K.A. S.R. 0100)
(VARIABLE WIDTH R.O.W. FROM 98' TO 112')

SWEDESFORD ROAD
(A.K.A. L.R. 413)
(VARIABLE WIDTH R.O.W. FROM 67' TO 115')

PROP. BMP 6.6.3
MODIFIED BASIN AG-A

PROP. BMP 6.6.3
UG BASIN UG-17

PROP. BMP 6.6.3
MODIFIED BASIN AG-B

PROP. BMP 6.6.4
WATER QUALITY MANHOLE W/ SNOUT

PROP. BMP 6.6.4
BIORETENTION RG-16

PROP. BMP 6.6.4
WATER QUALITY INLETS W/ SNOUT

POI #1

PROP. BMP 5.6.3
RE-VEGETATE (NATIVE SPECIES)

PROPOSED GROCERY STORE

PROP. BMP 6.6.4
WATER QUALITY INLET W/ SNOUTS

PHASE I LIMIT OF DISTURBANCE AREA=15 AC

POI #2

PHASE II LIMIT OF DISTURBANCE (APPROXIMATE)

NPDES BOUNDARY AREA=84.91 AC

SEARS

EXTON SQUARE MALL

MACY'S

EXTON SQUARE MALL

BOSCOV

JCPENNEY

280.74'

LINCOLN HIGHWAY
(A.K.A. U.S. BUSINESS ROUTE 30)
(VARIABLE WIDTH R.O.W. FROM 116' TO 125')

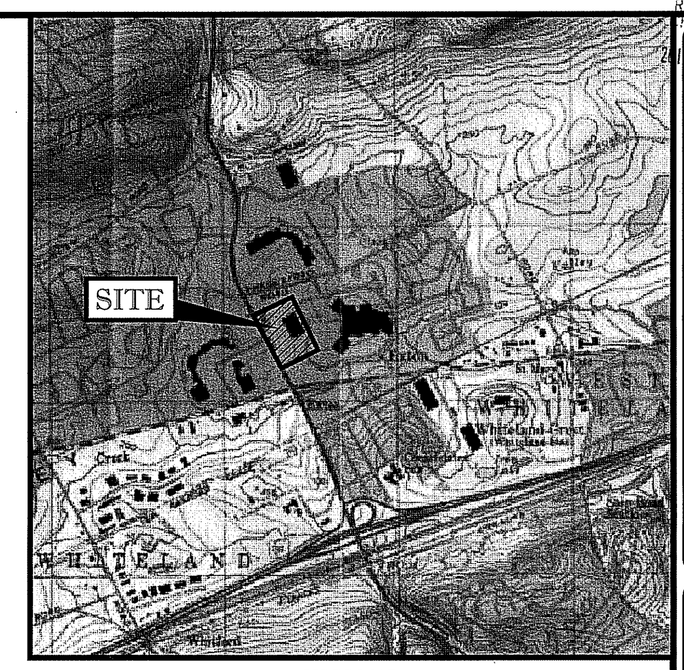
LEGEND

- LIMIT OF DISTURBANCE
- LIMIT OF NPDES BOUNDARY
- PROPERTY LINE
- LEGAL RIGHT-OF-WAY LINE
- EXIST. CURB
- EXIST. FENCE
- EXIST. VEGETATION
- PROP. FLUSH CURB
- PROP. CONCRETE CURB
- PROP. WOOD GUIDERAIL
- EXIST. CONTOUR LINE
- EXIST. STORM SEWER PIPE
- PROP. CONTOUR LINE
- PROP. STORM SEWER PIPE
- SHADE TREE
- EVERGREEN TREE
- ORNAMENTAL TREE
- SHRUBS
- BASIN LANDSCAPING

SOIL DESCRIPTIONS

SOIL	DESCRIPTION
CtA	- CONESTOGA SILT LOAM, 0 TO 3% SLOPES
CtB	- CONESTOGA SILT LOAM, 3 TO 8% SLOPES
UudB	- URBAN LAND-UDORTHENTS, LIMESTONE COMPLEX, 0 TO 8% SLOPES

120 60 30 0 120
1"=120'



USGS MAP
(DOWNINGTOWN & MALVERN QUAD)
1"=2,000'
1,000' 0 2,000'

WATER QUALITY AND RUNOFF VOLUME REQUIREMENTS

(PER WEST WHITELAND TOWNSHIP ORD. 270-19)

REQUIREMENT: THE POST-CONSTRUCTION TOTAL RUNOFF VOLUME SHALL NOT EXCEED THE PRE-DEVELOPMENT TOTAL RUNOFF VOLUME FOR ALL STORMS EQUAL TO OR LESS THAN THE TWO (2)-YEAR, TWENTY-FOUR (24)-HOUR DURATION PRECIPITATION (DESIGN STORM)

REQUIRED WATER QUALITY VOLUME

POI #1
- EXISTING CONDITIONS (9.90 AC.) = 79,244 CF
- DEVELOPED CONDITIONS (10.56 AC.) = 79,888 CF
- 2-YEAR VOLUME CHANGE = +644 CF (INCREASE)-REQD. WATER QUALITY VOLUME (SEE BELOW)

POI #2
- EXISTING CONDITIONS (5.04 AC.) = 43,012 CF
- DEVELOPED CONDITIONS (4.44 AC.) = 39,137 CF
- 2-YEAR VOLUME CHANGE = -3,875 CF (REDUCTION)

PROPOSED WATER QUALITY VOLUME

POI #1
- BIORETENTION BASIN RG-16 VOLUME = 1,794 CF
- REQD. WATER QUALITY VOLUME (FR. ABOVE) = 644 CF
- EXCESS WATER QUALITY VOLUME = 1,150 CF (TO BE APPLIED TO FUTURE DEVELOPMENT WITHIN POI #1)

NOTES:
1. PER WEST WHITELAND TOWNSHIP ORD. 270-23.D, PRE-DEVELOPMENT COVER CONDITIONS FOR REDEVELOPMENT ASSUMES NON-WOODED PERVIOUS SURFACES & TWENTY PERCENT (20%) OF IMPERVIOUS SURFACES AS MEADOW.
2. VOLUME CALCULATIONS FOR EXISTING & PROPOSED CONDITIONS BASED ON PADEP NPDES BMP WORKSHEET #4 METHODOLOGY.

INFILTRATION REQUIREMENTS

(PER WEST WHITELAND TOWNSHIP ORD. 270-20)

NOTE: A WAIVER FROM THE INFILTRATION REQUIREMENT IS REQUESTED DUE TO UNSUITABLE SITE CONDITIONS. REFER TO "STORMWATER INFILTRATION TESTING LETTER" PREPARED BY EARTH ENGINEERING, INC., DATED 12/17/2015 & "GENERAL PROJECT DESCRIPTION AND STORMWATER MANAGEMENT CALCULATIONS" PREPARED BY BOHLER ENGINEERING, DATED 10/19/2015, LAST REVISED 1/29/2016.

STREAM CHANNEL PROTECTION REQUIREMENTS

(PER WEST WHITELAND TOWNSHIP ORD. 270-21)

NOTE: THESE REQUIREMENTS APPLY TO REGULATED ACTIVITES INVOLVING NEW DEVELOPMENT WITH ONE (1) OR MORE ACRES OF EARTH DISTURBANCE. THEREFORE, SINCE THIS PROJECT IS DEFINED AS REDEVELOPMENT & NOT NEW DEVELOPMENT, **THE STREAM CHANNEL PROTECTION REQUIREMENTS DO NOT APPLY.**

STORMWATER PEAK RATE CONTROL REQUIREMENTS

(PER WEST WHITELAND TOWNSHIP ORD. 270-22)

NOTE: PER WEST WHITELAND TOWNSHIP ORD. 270-22.C, FOR REGULATED ACTIVITIES INVOLVING ONLY REDEVELOPMENT, NO PEAK FLOW RATE CONTROLS ARE REQUIRED WHEN AND ONLY IF THE TOTAL PROPOSED IMPERVIOUS SURFACE AREA IS AT LEAST TWENTY PERCENT (20%) LESS THAN THE TOTAL EXISTING IMPERVIOUS SURFACE AREA TO BE DISTURBED BY THE REGULATED ACTIVITY. AS DEMONSTRATED IN THE TABLE BELOW, THE REDUCTION IN IMPERVIOUS SURFACE FOR BOTH POI #1 & POI #2 IS GREATER THAN TWENTY PERCENT (20%). THEREFORE, NO PEAK FLOW RATE CONTROLS ARE REQUIRED.

DRAINAGE AREAS & COVER CONDITIONS (Within Phase I L.O.D.)

POI #1	Pervious (AC.)	Impervious (AC.)	Total (AC.)
Pre-development (Total)	2.30	7.64	9.94
- Managed	1.94	7.42	9.36
- Bypass	0.36	0.22	0.58
Post-development (Total)	5.28	5.45	10.73
- Managed	4.87	4.68	9.55
- Bypass	0.41	0.77	1.08
Differential (Totals)	2.98	-2.19 (-28.7%)	0.79
POI #2	**Pervious (AC.)**	**Impervious (AC.)**	**Total (AC.)**
Pre-development (Total)	0.73	4.33	5.06
- Managed	0.51	3.44	3.95
- Bypass	0.22	0.89	1.11
Post-development (Total)	1.06	3.21	4.27
- Managed	0.86	2.66	3.52
- Bypass	0.20	0.55	0.75
Differential (Totals)	0.33	-1.12 (-25.9%)	-0.79

WATER QUALITY VOLUME CAPACITY (Within Phase I L.O.D.)

Pre-development	
Existing Basin UG-C Infiltration Volume	14,642 CF (Approx.) (To be removed)
Post-development	
Proposed Basin UG-17	34,175 CF [1]
Proposed Bioretention Basin RG-16	1,794 CF
Differential	21,327 CF

1. VOLUME REPRESENTS AMOUNT STORED IN BASIN TO SATISFY REQUIREMENT OF WEST WHITELAND TOWNSHIP ORD. 207-21.B. THAT THE POST-CONSTRUCTION ONE (1)-YEAR, TWENTY FOUR (24)-HOUR STORM FLOW SHALL BE DETAINED FOR A MINIMUM OF TWENTY-FOUR (24) HOURS AND A MAXIMUM NOT TO EXCEED SEVENTY-TWO (72) HOURS FROM A POINT IN TIME WHEN THE MAXIMUM VOLUME OF WATER FROM THE ONE (1)-YEAR, TWENTY-FOUR (24)-HOUR STORM IS STORED IN THE PROPOSED BMP.

REVISIONS

REV	DATE	COMMENT	BY
2	12/14/15	GENERAL REVS	MAB
3	01/05/16	GENERAL REVS	DTL
4	01/15/16	PER CCCD COMMENTS	DTL
5	01/29/16	PER COMMENTS	DTL
6	03/03/16	PER CCCD COMMENTS	ACF
7	04/06/16	GENERAL REVS	DTL
8	04/21/16	GENERAL REVS	DTL
9	06/06/16	PER RECORD PLAN	DTL
10	07/13/16	GENERAL REVISIONS	DTL

CALL BEFORE YOU DIG!
PENNSYLVANIA LAW REQUIRES 3 WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND 10 WORKING DAYS IN DESIGN STAGE - STOP CALL
PA1 STATEWIDE, INC. 1-800-242-1776
POCS SERIAL NUMBER 20150911340

PROJECT No.: PP140558
DRAWN BY: J.P.W.
CHECKED BY: M.J.
DATE: 2015.10.19
SCALE: 1"=150'
CAD I.D.: PP140558BASE-10

PROJECT:

PRELIMINARY/FINAL LAND DEVELOPMENT PLANS

FOR

PR EXTON SQUARE PROPERTY LP

EXTON SQUARE MALL GROCERY STORE

260 EXTON SQUARE MALL
WEST WHITELAND TOWNSHIP
CHESTER COUNTY, PA

BOHLER ENGINEERING
1515 MARKET STREET, SUITE 920
PHILADELPHIA, PENNSYLVANIA 19102
Phone: (267) 402-3400
Fax: (267) 402-3401
www.BohlerEngineering.com

COMMONWEALTH OF PENNSYLVANIA
PROFESSIONAL ENGINEER
CORNELIUS BROWN
ENGINEER
REGISTERED PROFESSIONAL ENGINEER
PENNSYLVANIA LICENSE NO. PE075317

SHEET TITLE:
OVERALL POST-CONSTRUCTION STORMWATER MANAGEMENT PLAN

SHEET NUMBER:
38
OF 43

REVISION 10

I:\SU\PP140558_CADLAND DEV\REV\10\PP140558BASE-10-----LAYOUT: 38-OVRLPCSWM
3135804444 B: 20031 P: 1 SDP
Page 2 of 2 10/30/2015 12:

11520444 B: 20031 P: 1 SDF
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Page 1 of 1
CHESTER COUNTY RECORDER OF DEEDS

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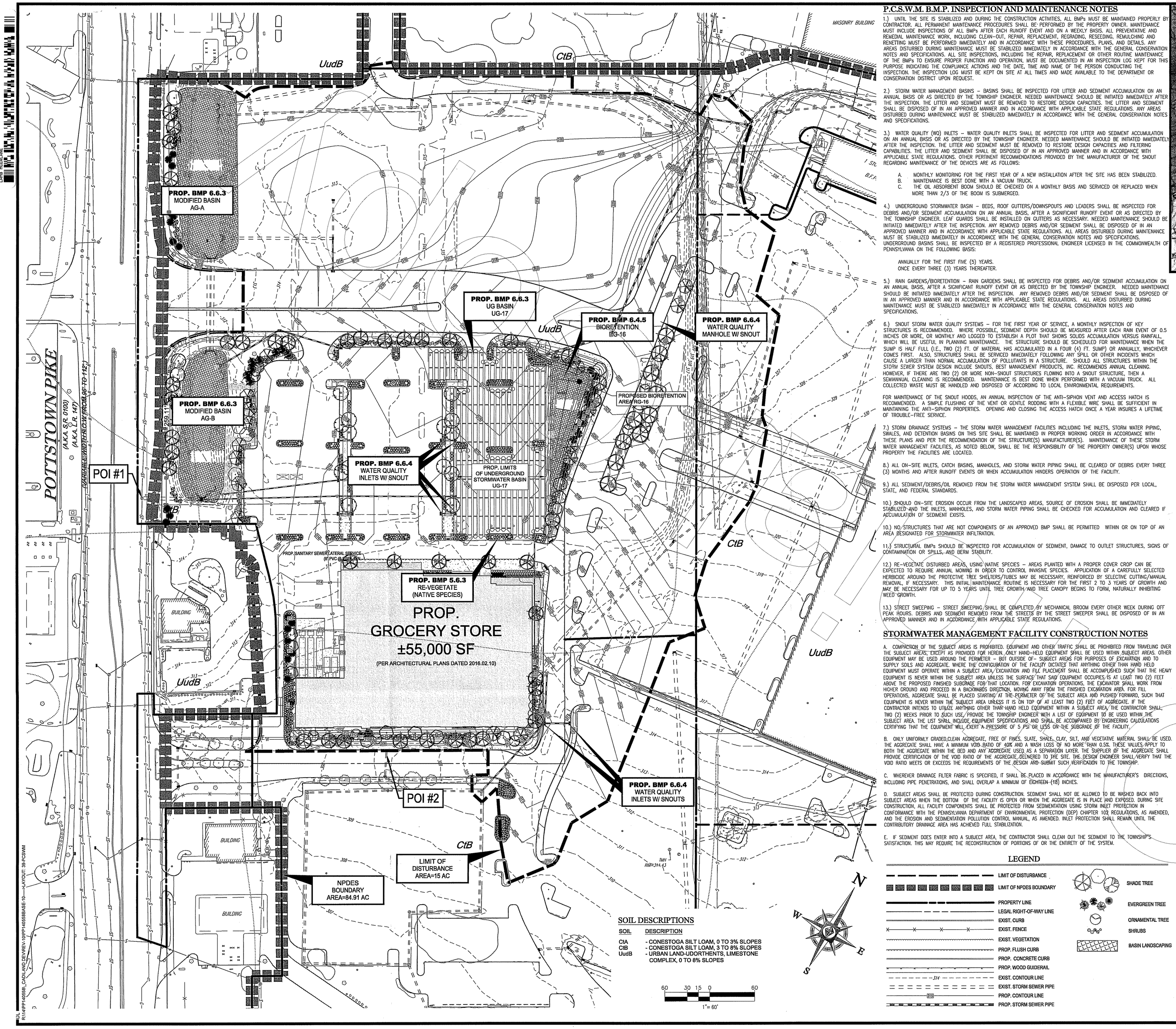

SOIL DESCRIPTIONS

SOIL	DESCRIPTION
CtA	- CONESTOGA SILT LOAM, 0 TO 3% SLOPES
CtB	- CONESTOGA SILT LOAM, 3 TO 8% SLOPES
UudB	- URBAN LAND-UDORTHENTS, LIMESTONE COMPLEX, 0 TO 8% SLOPES

P.C.S.W.M. B.M.P. INSPECTION AND MAINTENANCE NOTES

1.) UNTIL THE SITE IS STABILIZED AND DURING THE CONSTRUCTION ACTIVITIES, ALL BMPs MUST BE MAINTAINED PROPERLY BY CONTRACTOR. ALL PERMANENT MAINTENANCE PROCEDURES SHALL BE PERFORMED BY THE PROPERTY OWNER. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL 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 AND IN ACCORDANCE WITH THESE PROCEDURES, PLANS, AND DETAILS. ANY AREAS DISTURBED DURING MAINTENANCE MUST BE STABILIZED IMMEDIATELY IN ACCORDANCE WITH THE GENERAL CONSERVATION NOTES AND SPECIFICATIONS. ALL SITE INSPECTIONS, INCLUDING THE REPAIR, REPLACEMENT OR OTHER ROUTINE MAINTENANCE OF THE BMPs TO ENSURE PROPER FUNCTION AND OPERATION, MUST BE DOCUMENTED IN AN INSPECTION LOG KEPT FOR THIS PURPOSE INDICATING THE COMPLIANCE ACTIONS AND THE DATE, TIME AND NAME OF THE PERSON CONDUCTING THE INSPECTION. THE INSPECTION LOG MUST BE KEPT ON SITE AT ALL TIMES AND MADE AVAILABLE TO THE DEPARTMENT OR CONSERVATION DISTRICT UPON REQUEST.

2.) STORM WATER MANAGEMENT BASINS – BASINS SHALL BE INSPECTED FOR LITTER AND SEDIMENT ACCUMULATION ON AN ANNUAL BASIS OR AS DIRECTED BY THE TOWNSHIP ENGINEER. NEEDED MAINTENANCE SHOULD BE INITIATED IMMEDIATELY AFTER THE INSPECTION. THE LITTER AND SEDIMENT MUST BE REMOVED TO RESTORE DESIGN CAPACITIES. THE LITTER AND SEDIMENT SHALL BE DISPOSED OF IN AN APPROVED MANNER AND IN ACCORDANCE WITH APPLICABLE STATE REGULATIONS. ANY AREAS DISTURBED DURING MAINTENANCE MUST BE STABILIZED IMMEDIATELY IN ACCORDANCE WITH THE GENERAL CONSERVATION NOTES AND SPECIFICATIONS.

3.) WATER QUALITY (WQ) INLETS – WATER QUALITY INLETS SHALL BE INSPECTED FOR LITTER AND SEDIMENT ACCUMULATION ON AN ANNUAL BASIS OR AS DIRECTED BY THE TOWNSHIP ENGINEER. NEEDED MAINTENANCE SHOULD BE INITIATED IMMEDIATELY AFTER THE INSPECTION. THE LITTER AND SEDIMENT MUST BE REMOVED TO RESTORE DESIGN CAPACITIES AND FILTERING CAPABILITIES. THE LITTER AND SEDIMENT SHALL BE DISPOSED OF IN AN APPROVED MANNER AND IN ACCORDANCE WITH APPLICABLE STATE REGULATIONS. OTHER PERTINENT RECOMMENDATIONS PROVIDED BY THE MANUFACTURER OF THE SNOUT REGARDING MAINTENANCE OF THE DEVICES ARE AS FOLLOWS:

A. MONTHLY MONITORING FOR THE FIRST YEAR OF A NEW INSTALLATION AFTER THE SITE HAS BEEN STABILIZED.
B. MAINTENANCE IS BEST DONE WITH A VACUUM TRUCK.
C. THE OIL ABSORBENT BOOM SHOULD BE CHECKED ON A MONTHLY BASIS AND SERVICED OR REPLACED WHEN MORE THAN 2/3 OF THE BOOM IS SUBMERGED.

4.) UNDERGROUND STORMWATER BASIN – BEDS, ROOF GUTTERS/DOWNSPOUTS AND LEADERS SHALL BE INSPECTED FOR DEBRIS AND/OR SEDIMENT ACCUMULATION ON AN ANNUAL BASIS, AFTER A SIGNIFICANT RUNOFF EVENT OR AS DIRECTED BY THE TOWNSHIP ENGINEER. LEAF GUARDS SHALL BE INSTALLED ON GUTTERS AS NECESSARY. NEEDED MAINTENANCE SHOULD BE INITIATED IMMEDIATELY AFTER THE INSPECTION. ANY REMOVED DEBRIS AND/OR SEDIMENT SHALL BE DISPOSED OF IN AN APPROVED MANNER AND IN ACCORDANCE WITH APPLICABLE STATE REGULATIONS. ALL AREAS DISTURBED DURING MAINTENANCE MUST BE STABILIZED IMMEDIATELY IN ACCORDANCE WITH THE GENERAL CONSERVATION NOTES AND SPECIFICATIONS.
UNDERGROUND BASINS SHALL BE INSPECTED BY A REGISTERED PROFESSIONAL ENGINEER LICENSED IN THE COMMONWEALTH OF PENNSYLVANIA ON THE FOLLOWING BASIS:

ANNUALLY FOR THE FIRST FIVE (5) YEARS.
ONCE EVERY THREE (3) YEARS THEREAFTER.

5.) RAIN GARDENS/BIORETENTION – RAIN GARDENS SHALL BE INSPECTED FOR DEBRIS AND/OR SEDIMENT ACCUMULATION ON AN ANNUAL BASIS, AFTER A SIGNIFICANT RUNOFF EVENT OR AS DIRECTED BY THE TOWNSHIP ENGINEER. NEEDED MAINTENANCE SHOULD BE INITIATED IMMEDIATELY AFTER THE INSPECTION. ANY REMOVED DEBRIS AND/OR SEDIMENT SHALL BE DISPOSED OF IN AN APPROVED MANNER AND IN ACCORDANCE WITH APPLICABLE STATE REGULATIONS. ALL AREAS DISTURBED DURING MAINTENANCE MUST BE STABILIZED IMMEDIATELY IN ACCORDANCE WITH THE GENERAL CONSERVATION NOTES AND SPECIFICATIONS.

6.) SNOUT STORM WATER QUALITY SYSTEMS – FOR THE FIRST YEAR OF SERVICE, A MONTHLY INSPECTION OF KEY STRUCTURES IS RECOMMENDED. WHERE POSSIBLE, SEDIMENT DEPTH SHOULD BE MEASURED AFTER EACH RAIN EVENT OF 0.5 INCHES OR MORE, OR MONTHLY AND LOGGED TO ESTABLISH A PLOT THAT SHOWS SOLIDS ACCUMULATION VERSUS RAINFALL, WHICH WILL BE USEFUL IN PLANNING MAINTENANCE. THE STRUCTURE SHOULD BE SCHEDULED FOR MAINTENANCE WHEN THE SUMP IS HALF FULL (I.E., TWO (2) FT. OF MATERIAL HAS ACCUMULATED IN A FOUR (4) FT. SUMP) OR ANNUALLY, WHICHEVER COMES FIRST. ALSO, STRUCTURES SHALL BE SERVICED IMMEDIATELY FOLLOWING ANY SPILL OR OTHER INCIDENTS WHICH CAUSE A LARGER THAN NORMAL ACCUMULATION OF POLLUTANTS IN A STRUCTURE. SHOULD ALL STRUCTURES WITHIN THE STORM SEWER SYSTEM DESIGN INCLUDE SNOUTS, BEST MANAGEMENT PRODUCTS, INC. RECOMMENDS ANNUAL CLEANING. HOWEVER, IF THERE ARE TWO (2) OR MORE NON-SNOUT STRUCTURES FLOWING INTO A SNOUT STRUCTURE, THEN A SEMIANNUAL CLEANING IS RECOMMENDED. MAINTENANCE IS BEST DONE WHEN PERFORMED WITH A VACUUM TRUCK. ALL COLLECTED WASTE MUST BE HANDLED AND DISPOSED OF ACCORDING TO LOCAL ENVIRONMENTAL REQUIREMENTS.

FOR MAINTENANCE OF THE SNOUT HOODS, AN ANNUAL INSPECTION OF THE ANTI-SIPHON VENT AND ACCESS HATCH IS RECOMMENDED. A SIMPLE FLUSHING OF THE VENT OR GENTLE RODDING WITH A FLEXIBLE WIRE SHALL BE SUFFICIENT IN MAINTAINING THE ANTI-SIPHON PROPERTIES. OPENING AND CLOSING THE ACCESS HATCH ONCE A YEAR INSURES A LIFETIME OF TROUBLE-FREE SERVICE.

7.) STORM DRAINAGE SYSTEMS – THE STORM WATER MANAGEMENT FACILITIES INCLUDING THE INLETS, STORM WATER PIPING, SWALES, AND DETENTION BASINS ON THIS SITE SHALL BE MAINTAINED IN PROPER WORKING ORDER IN ACCORDANCE WITH THESE PLANS AND PER THE RECOMMENDATION OF THE STRUCTURE(S) MANUFACTURER(S). MAINTENANCE OF THESE STORM WATER MANAGEMENT FACILITIES, AS NOTED BELOW, SHALL BE THE RESPONSIBILITY OF THE PROPERTY OWNER(S) UPON WHOSE PROPERTY THE FACILITIES ARE LOCATED.

8.) ALL ON-SITE INLETS, CATCH BASINS, MANHOLES, AND STORM WATER PIPING SHALL BE CLEARED OF DEBRIS EVERY THREE (3) MONTHS AND AFTER RUNOFF EVENTS OR WHEN ACCUMULATION HINDERS OPERATION OF THE FACILITY.

9.) ALL SEDIMENT/DEBRIS/OIL REMOVED FROM THE STORM WATER MANAGEMENT SYSTEM SHALL BE DISPOSED PER LOCAL, STATE, AND FEDERAL STANDARDS.

10.) SHOULD ON-SITE EROSION OCCUR FROM THE LANDSCAPED AREAS, SOURCE OF EROSION SHALL BE IMMEDIATELY STABILIZED AND THE INLETS, MANHOLES, AND STORM WATER PIPING SHALL BE CHECKED FOR ACCUMULATION AND CLEARED IF ACCUMULATION OF SEDIMENT EXISTS.

10.) NO STRUCTURES THAT ARE NOT COMPONENTS OF AN APPROVED BMP SHALL BE PERMITTED WITHIN OR ON TOP OF AN AREA DESIGNATED FOR STORMWATER INFILTRATION.

11.) STRUCTURAL BMPs SHOULD BE INSPECTED FOR ACCUMULATION OF SEDIMENT, DAMAGE TO OUTLET STRUCTURES, SIGNS OF CONTAMINATION OR SPILLS, AND BERM STABILITY.

12.) RE-VEGETATE DISTURBED AREAS, USING NATIVE SPECIES – AREAS PLANTED WITH A PROPER COVER CROP CAN BE EXPECTED TO REQUIRE ANNUAL MOWING IN ORDER TO CONTROL INVASIVE SPECIES. APPLICATION OF A CAREFULLY SELECTED HERBICIDE AROUND THE PROTECTIVE TREE SHELTERS/TUBES MAY BE NECESSARY, REINFORCED BY SELECTIVE CUTTING/MANUAL REMOVAL, IF NECESSARY. THIS INITIAL MAINTENANCE ROUTINE IS NECESSARY FOR THE FIRST 2 TO 3 YEARS OF GROWTH AND MAY BE NECESSARY FOR UP TO 5 YEARS UNTIL TREE GROWTH AND TREE CANOPY BEGINS TO FORM, NATURALLY INHIBITING WEED GROWTH.

13.) STREET SWEEPING – STREET SWEEPING SHALL BE COMPLETED BY MECHANICAL BROOM EVERY OTHER WEEK DURING OFF PEAK HOURS. DEBRIS AND SEDIMENT REMOVED FROM THE STREETS BY THE STREET SWEEPER SHALL BE DISPOSED OF IN AN APPROVED MANNER AND IN ACCORDANCE WITH APPLICABLE STATE REGULATIONS.

STORMWATER MANAGEMENT FACILITY CONSTRUCTION NOTES

A. COMPACTION OF THE SUBJECT AREAS IS PROHIBITED. EQUIPMENT AND OTHER TRAFFIC SHALL BE PROHIBITED FROM TRAVELING OVER THE SUBJECT AREAS, EXCEPT AS PROVIDED FOR HEREIN, ONLY HAND-HELD EQUIPMENT SHALL BE USED WITHIN SUBJECT AREAS. OTHER EQUIPMENT MAY BE USED AROUND THE PERIMETER – BUT OUTSIDE OF– SUBJECT AREAS FOR PURPOSES OF EXCAVATION AND TO SUPPLY SOILS AND AGGREGATE. WHERE THE CONFIGURATION OF THE FACILITY DICTATES THAT ANYTHING OTHER THAN HAND HELD EQUIPMENT MUST OPERATE WITHIN A SUBJECT AREA, EXCAVATION AND FILL PLACEMENT SHALL BE ACCOMPLISHED SUCH THAT THE HEAVY EQUIPMENT IS NEVER WITHIN THE SUBJECT AREA UNLESS THE SURFACE THAT SAID EQUIPMENT OCCUPIES IS AT LEAST TWO (2) FEET ABOVE THE PROPOSED FINISHED SUBGRADE FOR THAT LOCATION. FOR EXCAVATION OPERATIONS, THE EXCAVATOR SHALL WORK FROM HIGHER GROUND AND PROCEED IN A BACKWARDS DIRECTION, MOVING AWAY FROM THE FINISHED EXCAVATION AREA. FOR FILL OPERATIONS, AGGREGATE SHALL BE PLACED STARTING AT THE PERIMETER OF THE SUBJECT AREA AND PUSHED FORWARD, SUCH THAT EQUIPMENT IS NEVER WITHIN THE SUBJECT AREA UNLESS IT IS ON TOP OF AT LEAST TWO (2) FEET OF AGGREGATE. IF THE CONTRACTOR INTENDS TO UTILIZE ANYTHING OTHER THAN HAND HELD EQUIPMENT WITHIN A SUBJECT AREA, THE CONTRACTOR SHALL, TWO (2) WEEKS PRIOR TO SUCH USE, PROVIDE THE TOWNSHIP ENGINEER WITH A LIST OF EQUIPMENT TO BE USED WITHIN THE SUBJECT AREA. THE LIST SHALL INCLUDE EQUIPMENT SPECIFICATIONS, AND SHALL BE ACCOMPANIED BY ENGINEERING CALCULATIONS CERTIFYING THAT THE EQUIPMENT WILL EXERT A PRESSURE OF 5 PSI OR LESS ON THE SUBGRADE OF THE FACILITY.

B. ONLY UNIFORMLY GRADED,CLEAN AGGREGATE, FREE OF FINES, SLATE, SHALES, CLAY, SILT, AND VEGETATIVE MATERIAL SHALL BE USED. THE AGGREGATE SHALL HAVE A MINIMUM VOID RATIO OF 40% AND A WASH LOSS OF NO MORE THAN 0.5%. THESE VALUES APPLY TO BOTH THE AGGREGATE WITHIN THE BED AND ANY AGGREGATE USED AS A SEPARATION LAYER. THE SUPPLIER OF THE AGGREGATE SHALL PROVIDE CERTIFICATION OF THE VOID RATIO OF THE AGGREGATE DELIVERED TO THE SITE. THE DESIGN ENGINEER SHALL VERIFY THAT THE VOID RATIO MEETS OR EXCEEDS THE REQUIREMENTS OF THE DESIGN AND SUBMIT SUCH VERIFICATION TO THE TOWNSHIP.

C. WHEREVER DRAINAGE FILTER FABRIC IS SPECIFIED, IT SHALL BE PLACED IN ACCORDANCE WITH THE MANUFACTURER'S DIRECTIONS, INCLUDING PIPE PENETRATIONS, AND SHALL OVERLAP A MINIMUM OF EIGHTEEN-(18) INCHES.

D. SUBJECT AREAS SHALL BE PROTECTED DURING CONSTRUCTION. SEDIMENT SHALL NOT BE ALLOWED TO BE WASHED BACK INTO SUBJECT AREAS WHEN THE BOTTOM OF THE FACILITY IS OPEN OR WHEN THE AGGREGATE IS IN PLACE AND EXPOSED. DURING SITE CONSTRUCTION, ALL FACILITY COMPONENTS SHALL BE PROTECTED FROM SEDIMENTATION USING STORM INLET PROTECTION IN CONFORMANCE WITH THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION (DEP) CHAPTER 102 REGULATIONS, AS AMENDED, AND THE EROSION AND SEDIMENTATION POLLUTION CONTROL MANUAL, AS AMENDED. INLET PROTECTION SHALL REMAIN UNTIL THE CONTRIBUTORY DRAINAGE AREA HAS ACHIEVED FULL STABILIZATION.

E. IF SEDIMENT DOES ENTER INTO A SUBJECT AREA, THE CONTRACTOR SHALL CLEAN OUT THE SEDIMENT TO THE TOWNSHIP'S SATISFACTION. THIS MAY REQUIRE THE RECONSTRUCTION OF PORTIONS OF OR THE ENTIRETY OF THE SYSTEM.

LEGEND

- LIMIT OF DISTURBANCE
- LIMIT OF NPDES BOUNDARY
- PROPERTY LINE
- LEGAL RIGHT-OF-WAY LINE
- EXIST. CURB
- EXIST. FENCE
- EXIST. VEGETATION
- PROP. FLUSH CURB
- PROP. CONCRETE CURB
- PROP. WOOD GUIDERAIL
- EXIST. CONTOUR LINE
- EXIST. STORM SEWER PIPE
- PROP. CONTOUR LINE
- PROP. STORM SEWER PIPE
- SHADE TREE
- EVERGREEN TREE
- ORNAMENTAL TREE
- SHRUBS
- BASIN LANDSCAPING

USGS MAP
(VALLEY FORGE QUAD)
1"=2,000'
1,000' 0 2,000'

GENERAL MAINTENANCE AND INSPECTION NOTES

1.) VEHICLES SHALL NOT BE PARKED OR DRIVEN ON A BASIN, AND CARE SHOULD BE TAKEN TO AVOID EXCESSIVE COMPACTION BY MOWERS.

2.) INSPECT THE FACILITY AFTER RUNOFF EVENTS AND MAKE SURE THAT RUNOFF DRAINS DOWN WITHIN 72 HOURS. ALSO INSPECT FOR ACCUMULATION OF SEDIMENT, DAMAGE TO OUTLET CONTROL STRUCTURES, EROSION CONTROL MEASURES, SIGNS OF WATER CONTAMINATION/SPILLS, AND SLOPE STABILITY IN THE BERMS.

3.) MOW ONLY AS APPROPRIATE FOR VEGETATIVE COVER SPECIES.

4.) REMOVE ACCUMULATED SEDIMENT FROM FACILITY AS REQUIRED. RESTORE ORIGINAL CROSS SECTION. PROPERLY DISPOSE OF SEDIMENT. REMOVE AND REPLACE SAND/STONE LAYER IF FACILITY DEWATERING TIME EXCEEDS 72 HOURS.

GENERAL SEQUENCING NOTES FOR P.C.S.W.M. B.M.P.s

1.) A SITE INSPECTION AND APPROVAL BY THE COUNTY CONSERVATION DISTRICT IS REQUIRED PRIOR TO THE REMOVAL OR CONVERSION OF SEDIMENT BASINS AND TRAPS.

2.) BOHLER ENGINEERING PA, LLC SHALL BE NOTIFIED OF PRE-CONSTRUCTION MEETING DATE AND BMP CONSTRUCTION SCHEDULE.

3.) THE CONTRACTOR SHALL TAKE ALL STEPS NECESSARY TO LIMIT THE COMPACTION IN THE PROPOSED B.M.P. BOTTOMS.

4.) REFER TO THE BMP CONSTRUCTION DETAILS FOR THE CONSTRUCTION OF ALL PROPOSED STORMWATER MANAGEMENT WATER QUALITY BMP'S.

5.) THE BOTTOM OF ALL BMP'S SHALL BE UNDISTURBED OR UNCOMPACTED SUBGRADE.

6.) REFER TO THE PCSWM PLAN AND DETAILS FOR SPECIFIC BMP CONSTRUCTION GUIDELINES.

7.) AS-BUILT PLANS OF THE STORMWATER BMPs FOR EACH PROJECT PHASE SHALL BE PROVIDED WITHIN SIX MONTHS FOLLOWING THE COMPLETION OF EACH PHASE. THE AS-BUILT PLANS SHALL BE SIGNED AND SEALED BY A PA REGISTERED PROFESSIONAL ENGINEER.

8.) A NOTICE OF TERMINATION (NOT) WILL BE REQUIRED TO BE SUBMITTED FOLLOWING APPROVAL OF THE FINAL AS-BUILT PLANS. PRIOR TO ACCEPTING THE NOT, THE DEPARTMENT AND/OR CONSERVATION DISTRICT STAFF WILL PERFORM A FINAL INSPECTION TO ENSURE SITE STABILIZATION AND VERIFY ADEQUATE INSTALLATION AND FUNCTION OF STORMWATER BMPs.

GENERAL SUBSURFACE DETENTION BASIN (UG-17) INSTALLATION NOTES (CRITICAL STAGE)

1.) SUBSURFACE DETENTION AREAS SHOULD NOT BE PLACED ON AREAS OF RECENT FILL OR COMPACTED FILL. EXCAVATE TO NATIVE SOIL.

2.) ALL SEDIMENT-LADEN STORMWATER RUNOFF SHALL BE DIRECTED AROUND THE SUBSURFACE DETENTION AREA TO THE NEAREST TEMPORARY BMP. WHEN INSPECTION INDICATES THAT SOIL/SEDIMENT HAS ENTERED THE BED, THE AREA SHALL BE FULLY CLEANED AS NECESSARY.

3.) THE SUBSURFACE DETENTION BASIN SHOULD BE COMPRISED OF A 6 INCH MINIMUM SECTION OF AGGREGATE. AGGREGATE IS TO BE UNIFORMLY GRADED, CLEAN-WASHED, AND CONTAIN AT LEAST 40% VOID SPACE.

4.) A LEVEL BOTTOM OF STONE IS REQUIRED TO ASSURE EVEN WATER DISTRIBUTION. INSTALLED PIPES SHALL BE AT A MINIMUM OF 0.5% TO PROMOTE POSITIVE FLOW.

5.) WHEN BASIN IS LOCATED BELOW A LANDSCAPE AREA, THE SURFACE ABOVE THE STONE BED SHOULD BE COMPACTED AS MINIMALLY AS POSSIBLE TO ALLOW FOR SURFACE PERCOLATION THROUGH THE ENGINEERED SOIL LAYER AND INTO THE STONE BED.

6.) IF, DURING CONSTRUCTION THE BASIN FUNCTIONS AS A SEDIMENT CONTROL FACILITY, THE BOTTOM OF THE SEDIMENT FACILITY SHOULD NOT BE EXCAVATED TO WITHIN TWO (2) FEET (ONE FOOT MINIMUM) OF THE BOTTOM OF THE PERMANENT BED ELEVATION. A NON-WOVEN GEOTEXTILE LINER SHALL BE PLACED AT THE BOTTOM OF THE SEDIMENT CONTROL FACILITY (TYPICALLY ONE (1) FOOT BELOW THE BOTTOM OF THE SEDIMENT CONTROL FACILITY). (SEE DETAIL)

BIORETENTION (RG-16) CONSTRUCTION SEQUENCE (CRITICAL STAGE)

1.) THE BIORETENTION FACILITY SHALL BE EXCAVATED TO THE DEPTH AND SIZE REQUIRED. THE CONTRACTOR MUST TAKE CARE TO NOT COMPACT IN-SITU SOILS.
2.) SUBSOILS IN THE ENTIRE GARDEN AREA MUST BE THOROUGHLY AND DEEPLY SCARIFIED BEFORE THE CONTRACTOR PLACES THE PLANTING SOIL MATERIAL. SCARIFYING MUST BE DONE WITH A "TOOTHED" BACKHOE.
3.) EVERY BIORETENTION FACILITY SHALL HAVE AN UNDERDRAIN AND AN OVERFLOW DRAIN. THESE SHALL BE INSTALLED BEFORE PROCEEDING.
4.) THE UNDERDRAIN IS BE INSTALLED IN AN AGGREGATE LAYER AT THE DEPTH SHOWN IN THE TYPICAL BIORETENTION FACILITY AREA DETAIL. THE AGGREGATE LAYER IS TO BE WRAPPED IN NON-WOVEN GEOTEXTILE FABRIC.
5.) INSTALL PEA GRAVEL LAYER AS REQUIRED.
6.) INSTALL PLANTING SOIL MIX TO DEPTH REQUIRED.
7.) PRE-SOAK THE PLANTING SOIL PRIOR TO PLANTING VEGETATION IN ORDER TO AID IN SETTLEMENT.
8.) PLANT BIORETENTION FACILITIES WORKING FROM THE BOTTOM OF THE BASIN UP SIDES. BIORETENTION FACILITY SHRUBS AND TREES SHALL BE INSTALLED PER THE LANDSCAPE PLAN.
9.) THE CONTRACTOR SHALL COVER THE PLANTING SOIL MIX WITH A MAXIMUM OF 2 INCHES OF SHREDDED WOOD MULCH AND PROTECT THE GARDEN WITH SILT FENCE IF EROSION FROM SURROUNDING AREAS IS CONCERN UNTIL ADJACENT LANDSCAPE BECOMES ESTABLISHED.

CRITICAL STAGES

A LICENSED PROFESSIONAL OR DESIGNEE SHALL BE PRESENT AT THE PRE-CONSTRUCTION MEETING.
A LICENSED PROFESSIONAL OR DESIGNEE SHALL BE ON-SITE:
-CONSTRUCTION OF BIORETENTION AREA RG-16;
-CONSTRUCTION OF SUBSURFACE BASIN UG-17;
-INSTALLATION OF SNOUT HOOD IN WATER QUALITY INLETS.
NOTE: PERIMETER E&S BMPs SHALL REMAIN IN PLACE AROUND PROPOSED BMPs UNTIL STABILIZATION IS ACHIEVED IN UPSLOPE AREAS.

RESPONSIBLE PARTY

PR EXTON SQUARE PROPERTY LP
200 SOUTH BROAD ST.
PHILADELPHIA, PA 19102

BOHLER ENGINEERING
SITE CIVIL AND CONSULTING ENGINEERING
LANDSCAPE ARCHITECTURE
LAND DEVELOPMENT
TRANSPORTATION
◆ NORTHERN VIRGINIA
◆ CENTRAL VIRGINIA
◆ RICHMOND
◆ CHARLOTTE, NC
◆ RALEIGH, NC
◆ TAMPA, FL
◆ ORLANDO, FL
◆ PHILADELPHIA, PA
◆ LEHIGH VALLEY, PA
◆ POCONO MOUNTAIN
◆ HARRISBURG, PA
◆ READING, PA
◆ BALTIMORE, MD
◆ SOUTHERN MARYLAND

THE INFORMATION, DESIGN AND CONCEPTS CONTAINED ON THESE PLANS ARE PROPRIETARY AND SHALL NOT BE DISCLOSED OR USED FOR ANY PURPOSE WITHOUT PRIOR WRITTEN AUTHORIZATION FROM BOHLER ENGINEERING. ONLY PERSONS AUTHORIZED IN WRITING BY BOHLER ENGINEERING SHALL BE ENTITLED TO RELY ON THE CONTENTS OF THESE PLANS.

REVISIONS

REV	DATE	COMMENT	BY
2	12/14/15	GENERAL REVS	MAB
3	01/05/16	GENERAL REVS	DTL
4	01/15/16	PER CCCD COMMENTS	DTL
5	01/29/16	PER COMMENTS	DTL
6	03/03/16	PER CCCD COMMENTS	ACF
7	04/08/16	GENERAL REVS	DTL
8	04/21/16	GENERAL REVS	DTL
9	06/06/16	PER RECORD PLAN	DTL
10	07/13/16	GENERAL REVISIONS	DTL

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POCS SERIAL NUMBER 20150911340

PROJECT No.:	PP140558
DRAWN BY:	J.P.W.
CHECKED BY:	M.J.
DATE:	2015.10.19
SCALE:	1"=60'
CAD I.D.:	PP140558BASE-10

PROJECT:

PRELIMINARY/FINAL LAND DEVELOPMENT PLANS

FOR

PR EXTON SQUARE PROPERTY LP

EXTON SQUARE MALL GROCERY STORE

260 EXTON SQUARE MALL
WEST WHITELAND TOWNSHIP
CHESTER COUNTY, PA

BOHLER ENGINEERING
1515 MARKET STREET, SUITE 920
PHILADELPHIA, PENNSYLVANIA 19102
Phone: (267) 402-3400
Fax: (267) 402-3401
www.BohlerEngineering.com

COMMONWEALTH OF PENNSYLVANIA
CORNELIUS BROWN
PROFESSIONAL ENGINEER
PROFESSIONAL ENGINEER
PENNSYLVANIA LICENSE NO. PE075317

SHEET TITLE:
PHASE I POST-CONSTRUCTION STORMWATER MANAGEMENT PLAN

SHEET NUMBER:
39
OF 43

REVISION 10

P:\L Projects\PP140558_CADD AND DRAWINGS\PP140558BASE-10—LAYOUT: 39-PCSWM

Proposed Infiltration BMP(s) (site specific)		Infiltration Information: Measured Infiltration Rate	Factor of Safety	Design Infiltration Rate	Dewatering Time*	Elevation Soils, Water Table, Rock**	Drainage Information: Total Drainage Area to BMP	Total Impervious Drainage Area to BMP	Infiltration BMP Surface Area	Total Drainage Area Loading Ratio	Impervious Area Loading Ratio	BMP Information: Infil. Elevation Top of Bed/ Basin***	Infil. Elevation Bottom of Bed/ Basin***	Elevation Infiltration Test****	Elevation E & S Sediment Basin Bottom (if applies)	Volume to be Infiltrated or Permanently removed*****
		in./hr.	*2 min.*	*in./hr.*	*hrs.*		*sq. ft*	*sq. ft.*	*sq. ft.*	*8:1 Max*	*5:1 Max*					*cf*
BMP 6.4.5	**Rain Garden/ Bioretention - RG-16**	N/A	N/A	N/A	N/A	TBD	37,462	24,394	1,950	19.2	12.5	N/A	N/A	N/A	N/A	1,794[1]

1. REPRESENTS STORAGE VOLUME ON SURFACE (6" DEPTH) OF RAIN GARDEN AND WITHIN VOIDS IN SOIL MIX (10% ASSUMED)

RESPONSIBILITIES FOR FILL MATERIALS

"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 PROPERTY OWNER.

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 DEAN FILL PROVIDED THE TESTING REVEALS THAT THE FILL MATERIAL CONTAINS CONCENTRATIONS OF REGULATED SUBSTANCES THAT ARE BELOW THE RESIDENTIAL LIMITS IN TABLES FP-001 A AND FP-001 B 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. 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".

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."

THERMAL IMPACT MITIGATION

1.) THERMAL IMPACTS ASSOCIATED WITH THIS PROJECT DURING CONSTRUCTION WERE MINIMIZED THROUGH OVERLAND FLOW DRAINING TO THE PROPOSED SEDIMENT TRAP WHICH DISCHARGES VIA SUBTERRANEAN PIPING TO EXISTING PIPING WITHIN THE ROAD RIGHT-OF-WAY. RUNOFF THAT FLOWS OFF-SITE FROM BYPASS AREAS FLOWS VIA SHEET FLOW OVERLAND WHICH WILL PROMOTE COOLING OF THE RUNOFF PRIOR TO REACHING THE RECEIVING WATERS.

2.) IN ADDITION, THERMAL IMPACTS ASSOCIATED WITH THE PROJECT POST-CONSTRUCTION WERE MINIMIZED BY PROVIDING A BIORETENTION BASIN AND A SUBSURFACE EXTENDED DETENTION BASIN TO MITIGATE RUNOFF REACHING THE RECEIVING WATERS. RUNOFF THAT FLOWS OFF-SITE FROM BYPASS AREAS FLOWS VIA SHEET FLOW OVERLAND WHICH WILL PROMOTE COOLING OF THE RUNOFF PRIOR TO REACHING THE RECEIVING WATERS.

LIMITATIONS AND RESOLUTIONS:

1. SHOULD GROUNDWATER BE ENCOUNTERED DURING FOUNDATION OR UTILITY EXCAVATIONS, WATER SHALL BE PUMPED FROM TRENCH INTO FILTER BAG.
2. DUE TO GRADING LIMITATIONS OF SOILS DURING WINTER MONTHS, THE CONTRACTOR SHALL NOT GRADE THESE SOILS DURING FROSTING OR ICING CONDITIONS.
3. SHOULD BEDROCK BE ENCOUNTERED DURING FOUNDATION OR UTILITY EXCAVATION, ROCK SHALL BE REMOVED AND DISPOSED OF IN A LEGAL MANNER.
4. SOIL TEST SHOULD BE PERFORMED TO DETERMINE SOIL SUITABILITY FOR TOPSOIL. IF SOIL IS DETERMINED TO BE UNSUITABLE, THEN TOPSOIL SHALL BE IMPORTED AND DISTRIBUTED THROUGHOUT THE SITE AS REQUIRED.

GENERAL NOTES:

1.) THE POST-CONSTRUCTION BMPs ARE A MEANS FOR THIS DEVELOPMENT TO CONTRIBUTE TO THE PRESERVATION OF THE INTEGRITY OF THE STREAM CHANNELS AND MAINTAIN AND PROTECT THE PHYSICAL, BIOLOGICAL, AND CHEMICAL QUALITIES OF THE RECEIVING STREAM.

2.) THE POST-CONTRUCTION DESIGN IS MEANT TO PREVENT AN INCREASE IN RATE OF STORMWATER RUNOFF BY IMPLEMENTING FACILITIES THAT WILL ATTENUATE THE FLOW.

3.) POST-CONSTRUCTION BMPs, NAMELY THE RAINGARDEN AND BASINS, WILL MINIMIZE THE INCREASE IN STORMWATER VOLUME.

4.) THE LAYOUT MINIMIZES THE IMPERVIOUS AREAS BY RESULTING IN A NET INCREASE IN PERVIOUS AREA.

5.) THE POST-CONSTRUCTION STORMWATER MANAGEMENT PLANS HAVE BEEN DESIGNED TO MAXIMIZE THE PROTECTION OF EXISTING DRAINAGE FEATURES AND EXISTING VEGETATION.

6.) LAND CLEARING AND GRADING HAS BEEN MINIMIZED TO THE GREATEST EXTENT POSSIBLE.

7.) SOIL COMPACTION HAS BEEN MINIMIZED TO THE GREATEST EXTENT POSSIBLE.

8.) VARIOUS PCSWM BMPs, BOTH STRUCTURAL AND NONSTRUCTURAL, HAVE BEEN UTILIZED TO PREVENT OR MINIMIZE CHANGES IN STORMWATER RUNOFF. THESE INCLUDE RAINGARDEN AND UNDERGROUND DETENTION BASIN.

9.) THE PERMITTEE SHALL PROVIDE CONSTRUCTION OVERSIGHT FOR THE PROPOSED STORMWATER BMP'S.

10.) ANY AREA DISTURBED DURING CONSTRUCTION OR THE REMOVAL OF EROSION AND SEDIMENT CONTROL FACILITIES SHALL BE STABILIZED IMMEDIATELY.

11.) THIS POST CONSTRUCTION STORMWATER MANAGEMENT PLAN WAS DESIGNED IN ACCORDANCE WITH THE PENNSYLVANIA STORMWATER BEST MANAGEMENT PRACTICES MANUAL DECEMBER 2006 SECTIONS, BMP 6.6.3: DRY EXTENDED DETENTION BASIN, AND BMP 6.4.5: RAIN GARDEN/BIORETENTION.

12.) A LICENSED PROFESSIONAL OR DESIGNEE SHALL BE PRESENT AT THE PRE-CON MEETING AND ON-SITE DURING CONSTRUCTION OF THE RAIN GARDEN AREA AND UNDERGROUND DETENTION BASIN.

PROCEDURES FOR PROPER RECYCLING AND/OR DISPOSAL OF CONSTRUCTION WASTES ASSOCIATED WITH E&S BMPs

1.) DUST CONTROL – CONSTRUCTION TRAFFIC MUST ENTER AND EXIT THE SITE AT THE STABILIZED CONSTRUCTION ENTRANCE. THE PURPOSE IS TO TRAP DUST AND MUD THAT WOULD OTHERWISE BE CARRIED OFF-SITE BY CONSTRUCTION TRAFFIC. WATER TRUCKS WILL BE USED AS NEEDED DURING CONSTRUCTION TO REDUCE DUST GENERATED ON THE SITE. DUST CONTROL MUST BE PROVIDED BY THE CONTRACTOR TO A DEGREE THAT IS ACCEPTABLE TO THE LOCAL CONSERVATION DISTRICT. AFTER CONSTRUCTION, THE SITE WILL BE STABILIZED, WHICH WILL REDUCE THE POTENTIAL FOR DUST GENERATION.

2.) SOLID WASTE DISPOSAL – NO SOLID MATERIALS, INCLUDING BUILDING MATERIALS, ARE ALLOWED TO BE DISCHARGED FROM THE SITE WITH STORMWATER. ALL SOLID WASTE, INCLUDING DISPOSABLE MATERIALS INCIDENTAL TO THE MAJOR CONSTRUCTION ACTIVITIES, MUST BE COLLECTED AND PLACED IN CONTAINERS. THE CONTAINERS WILL BE EMPTIED AS NECESSARY BY A CONTRACT TRASH DISPOSAL SERVICE AND HAULED AWAY FROM THE SITE.

3.) SANITARY FACILITIES – ALL PERSONNEL INVOLVED WITH CONSTRUCTION ACTIVITIES MUST COMPLY WITH STATE AND LOCAL SANITARY OR SEPTIC SYSTEM REGULATIONS. TEMPORARY SANITARY FACILITIES WILL BE PROVIDED AT THE SITE THROUGHOUT THE CONSTRUCTION PHASE. THEY MUST BE UTILIZED BY ALL CONSTRUCTION PERSONNEL AND WILL BE SERVICED BY A LICENSED COMMERCIAL OPERATOR.

4.) WATER SOURCE – NON-STORMWATER COMPONENTS OF SITE DISCHARGE MUST BE CLEAN WATER. WATER USED FOR CONSTRUCTION WHICH DISCHARGES FROM THE SITE MUST ORIGINATE FROM A PUBLIC WATER SUPPLY OR PRIVATE WELL APPROVED BY THE STATE HEALTH DEPARTMENT. WATER USED FOR CONSTRUCTION THAT DOES NOT ORIGINATE FROM AN APPROVED PUBLIC SUPPLY MUST NOT DISCHARGE FROM THE SITE.

5.) CONCRETE WASTE FROM CONCRETE READY-MIX TRUCKS – DISCHARGE OF EXCESS OR WASTE CONCRETE AND/OR WASH WATER FROM CONCRETE TRUCKS WILL BE ALLOWED ON THE CONSTRUCTION SITE, BUT ONLY IN SPECIFICALLY DESIGNATED DIKED AREAS PREPARED TO PREVENT CONTACT BETWEEN THE CONCRETE AND/OR WASH WATER AND STORMWATER THAT WILL BE DISCHARGED FROM THE SITE.

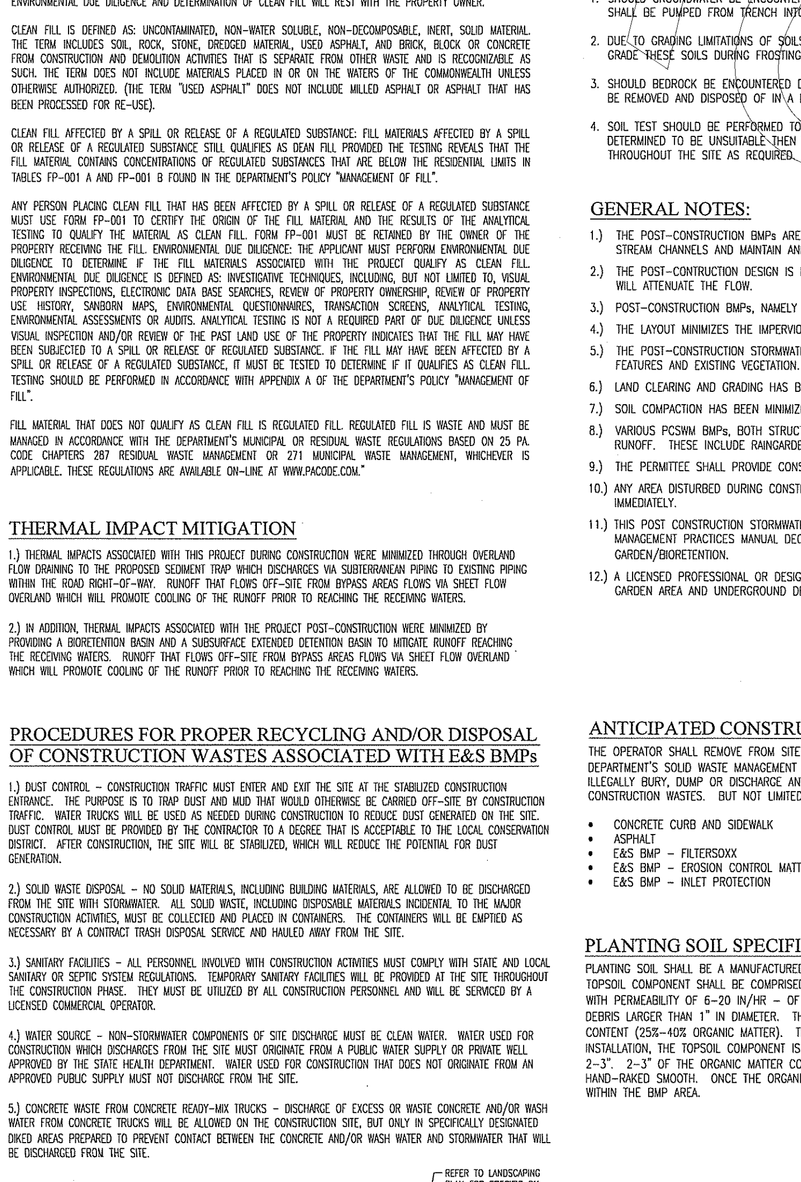
ANTICIPATED CONSTRUCTION WASTES AND RECYCLING NOTES

THE OPERATOR SHALL REMOVE FROM SITE, RECYCLE OR DISPOSE OF ALL BUILDING MATERIAL AND WASTES IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA CODE 260.1 ET SEQ., 271.1 ET SEQ. THE CONTRACTOR SHALL NOT ILLEGALLY BURY, DUMP OR DISCHARGE ANY BUILDING MATERIAL OR WASTE AT THIS SITE. THE FOLLOWING IS A LIST OF POTENTIAL CONSTRUCTION WASTES. BUT NOT LIMITED TO THE LISTED MATERIALS BELOW:

- CONCRETE CURB AND SIDEWALK
- ASPHALT
- E&S BMP – FILTERSOXX
- E&S BMP – EROSION CONTROL MATTING
- E&S BMP – INLET PROTECTION

PLANTING SOIL SPECIFICATIONS FOR B.M.P. FACILITIES

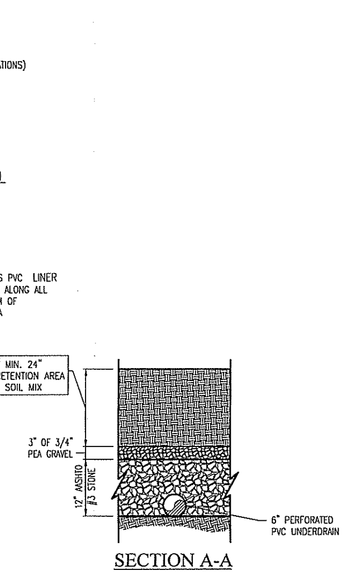
PLANTING SOIL SHALL BE A MANUFACTURED SOIL COMPRISED OF A CLEAN TOPSOIL SUPPLEMENTED WITH ORGANIC MATERIAL. THE TOPSOIL COMPONENT SHALL BE COMPRISED OF ROUGHLY 80% SAND, 10% CLAY AND 10% SILT (PER PERMEABILITY CLASS K4 – SOILS WITH PERMEABILITY OF 6–20 IN/HR – OF THE USDA SOIL PERMEABILITY/TEXTURAL TRIANGLE). IT SHALL BE FREE OF ROCKS OR DEBRIS LARGER THAN 1" IN DIAMETER. THE ORGANIC MATTER COMPONENT SHALL BE COMPRISED OF LEAF COMPOST HIGH IN ORGANIC CONTENT (25%–40% ORGANIC MATTER). THESE COMPONENTS ARE TO BE KEPT SEPARATE UNTIL INSTALLATION. AT TIME OF INSTALLATION, THE TOPSOIL COMPONENT IS TO BE INSTALLED FIRST TO FULL DEPTH (PER THE DETAIL) WITH EXCEPTION OF THE TOP 2–3". 2–3" OF THE ORGANIC MATTER COMPONENT IS TO BE LAYERED ON TOP AND THEN TILLED TO A DEPTH OF 8–10" AND THEN HAND-RAKED SMOOTH. ONCE THE ORGANIC MATTER COMPONENT HAS BEEN PUT IN PLACE, HEAVY MACHINERY SHALL NOT PERMITTED WITHIN THE BMP AREA.



BIORETENTION AREA NO.	BOTTOM ELEVATION	OVERFLOW GRATE ELEVATION	MAXIMUM PONDING DEPTH	OVERFLOW DEVICE	OVERFLOW INVERT IN UNDERDRAIN	OUTFALL PIPE INVERT OUT
RG-16	311.50	312.50	1.0'	TYPE 'A' INLET	308.25	308.25

*BIORETENTION AREA SOIL REQUIREMENTS:

1. CLAY CONTENT: LESS THAN 5%.
2. SAND CONTENT: 50–60%.
3. LEAF COMPOST OR AGED LEAF MULCH: 20–30%.
4. HIGH QUALITY TOPSOIL: 20–30%.
5. PERMEABILITY OF AT LEAST 1.0 FEET PER DAY (0.5 INCHES PER HOUR).
6. FREE OF STONES, STUMPS, ROOTS OR OTHER WOODY MATERIAL OVER 1 INCH IN DIAMETER.
7. FREE OF BRUSH OR SEEDS FROM NOXIOUS WEEDS.
8. PLACEMENT OF THE PLANTING SOIL SHOULD BE IN LIFTS OF 12–18 INCHES, LOOSELY COMPACTED (TAMPED LIGHTLY WITH A DOZER OR BACKHOE BUCKET).

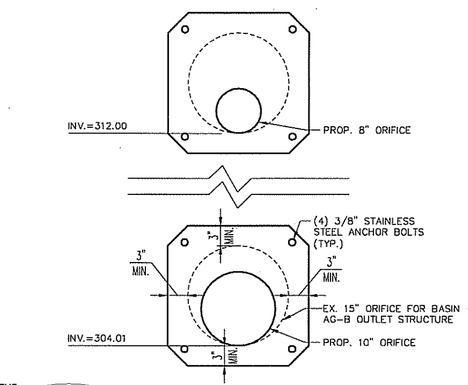


SECTION A-A

TYPICAL BIORETENTION AREA WITH LINER DETAIL
DB 13 SCALE: N.T.S. REV.: 2015.06.11

* GEOTEXTILE FABRIC MUST MEET THE FOLLOWING PROPERTIES:

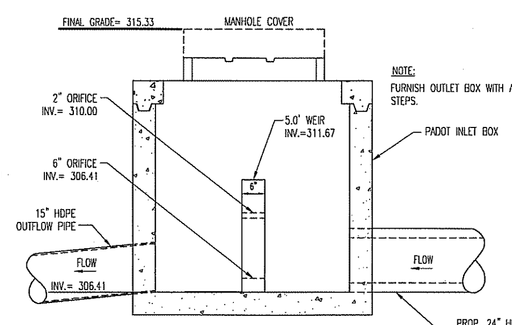
A) GRAB TENSILE STRENGTH (ASTM-D4632) 120 LBS
B) MULLEN BURST STRENGTH (ASTM-D3786) 225 PSI
C) FLOW RATE (ASTM-D4491) 95 GAL/MIN/FT2
D) UV RESISTANCE AFTER 500 HRS (ASTM-D4355) 70%
E) HEAT-SET OR HEAT-CALENDARED FABRICS ARE NOT PERMITTED



24"x24" (MIN.), 3/8" THICK STAINLESS STEEL ORIFICE PLATE (TYP.) (NEOPRENE GASKET TO BE UTILIZED)

NOTE: NON-SHRINK GROUT SHALL BE PROVIDED ALONG ALL EDGES OF THE ORIFICE PLATE

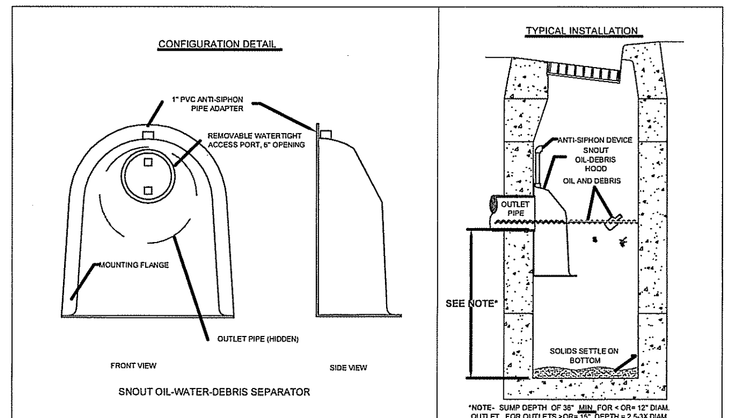
ORIFICE PLATES DETAIL
R 2 (BASIN AG-B OUTLET STRUCTURE EOS-A)
SCALE: N.T.S. REV.: 2015.03.09



NOTE: FURNISH OUTLET BOX WITH ALUMINUM STEPS.

SECTION VIEW

OUTLET STRUCTURE (OS17) DETAIL (UNDERGROUND DETENTION BASIN)
N.T.S.



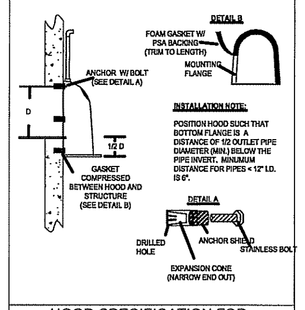
SNOUT OIL-WATER-DEBRIS SEPARATOR

NOTES:

1. ALL HOODS AND TRAPS FOR CATCH BASINS AND WATER QUALITY STRUCTURES SHALL BE AS MANUFACTURED BY: BEST MANAGEMENT PRODUCTS, INC. 53 MT. ARCHER RD. LYME, CT 06371 (860) 434-0277, (800) 434-3195 FAX TOLL FREE: (800) 504-8008 OR (888) 354-7585 WEB SITE: www.bmpinc.com OR PRE-APPROVED EQUAL
2. ALL HOODS SHALL BE CONSTRUCTED OF A GLASS REINFORCED RESIN COMPOSITE WITH ISO GEL COAT EXTERIOR FINISH WITH A MINIMUM 0.125" LAMINATE THICKNESS.
3. ALL HOODS SHALL BE EQUIPPED WITH A WATERTIGHT ACCESS PORT, A MOUNTING FLANGE, AND AN ANTI-SIPHON VENT AS DRAWN. (SEE CONFIGURATION DETAIL)
4. THE SIZE AND POSITION OF THE HOOD SHALL BE DETERMINED BY OUTLET PIPE SIZE AS PER MANUFACTURER'S RECOMMENDATION.
5. THE BOTTOM OF THE HOOD SHALL EXTEND DOWNWARD A DISTANCE EQUAL TO 1/2 THE OUTLET PIPE DIAMETER WITH A MINIMUM DISTANCE OF 6" FOR PIPES <12" I.D.
6. THE ANTI-SIPHON VENT SHALL EXTEND ABOVE HOOD BY MINIMUM OF 3" AND A MAXIMUM OF 24" ACCORDING TO STRUCTURE CONFIGURATION.
7. THE SURFACE OF THE STRUCTURE WHERE THE HOOD IS MOUNTED SHALL BE FINISHED SMOOTH AND FREE OF LOOSE MATERIAL.
8. THE HOOD SHALL BE SECURELY ATTACHED TO STRUCTURE WALL WITH 3/8" STAINLESS STEEL BOLTS AND OIL-RESISTANT GASKET AS SUPPLIED BY MANUFACTURER. (SEE INSTALLATION DETAIL)
9. INSTALLATION INSTRUCTIONS SHALL BE FURNISHED WITH MANUFACTURER SUPPLIED INSTALLATION KIT. INSTALLATION KIT SHALL INCLUDE:
   A. INSTALLATION INSTRUCTIONS
   B. 1" PVC ANTI-SIPHON VENT PIPE AND ADAPTER
   C. OIL-RESISTANT EXTRUDED CELL FOAM GASKET WITH PSA BACKING
   D. 3/8" STAINLESS STEEL BOLTS
   E. ANCHOR SHIELDS

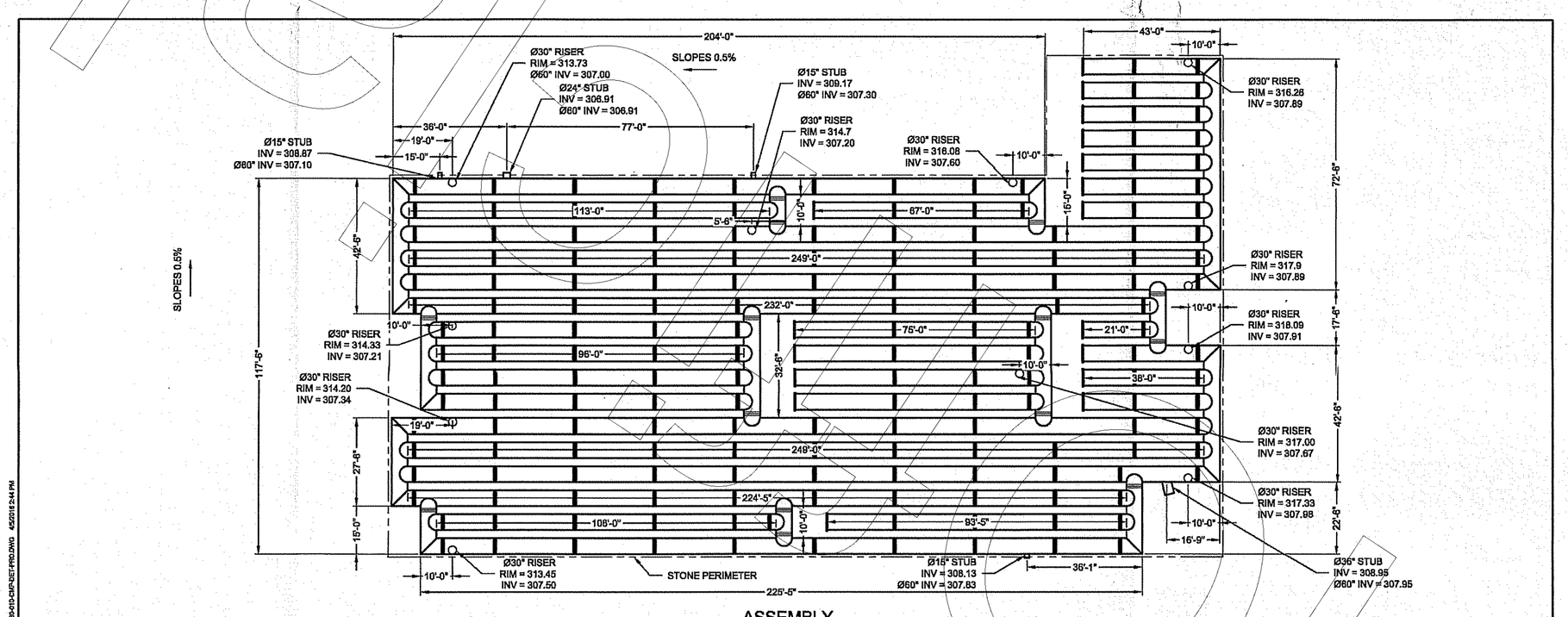
US Patent # 6126817

INSTALLATION DETAIL



HOOD SPECIFICATION FOR CATCH BASINS AND WATER QUALITY STRUCTURES

DESCRIPTION	DATE	SCALE
OIL-DEBRIS HOOD SPECIFICATION AND INSTALLATION (TYPICAL)	09/08/00	NONE
	DRAWING NUMBER	SP-SN

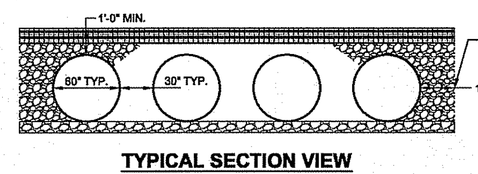


ASSEMBLY
SCALE: 1" = 30'
PIPE VOLUME: 85,545
STONE VOLUME: 46,840
TOTAL VOLUME: 129,386
LOADING: H20/H25
SYSTEM INV = TBD'±

THE UNDERSIGNED HEREBY APPROVES THE ATTACHED (4) PAGES INCLUDING THE FOLLOWING:

- **VOLUME = 85,545**
- **MAINLINE PIPE GAGE = 16**
- **WALL TYPE = PERFORATED**
- **DIAMETER = 60"**
- **FINISH = ALT2**
- **CORRUGATION = 5x1**

CUSTOMER _____ DATE _____



TYPICAL SECTION VIEW
SCALE: N.T.S.

NOTES

- ALL RISER AND STUB DIMENSIONS ARE TO CENTERLINE.
- ALL ELEVATIONS, DIMENSIONS, AND LOCATIONS OF RISERS AND INLETS, SHALL BE VERIFIED BY THE ENGINEER OF RECORD PRIOR TO RELEASING FOR FABRICATION.
- ALL FITTINGS AND REINFORCEMENT COMPLY WITH ASTM A998.
- ALL RISERS AND STUBS ARE 2⅔" x ½" CORRUGATION AND 16 GAGE UNLESS OTHERWISE NOTED.
- RISERS TO BE FIELD TRIMMED TO GRADE.
- QUANTITY OF PIPE SHOWN DOES NOT PROVIDE EXTRA PIPE FOR CONNECTING THE SYSTEM TO EXISTING PIPE OR DRAINAGE STRUCTURES. OUR SYSTEM AS DETAILED PROVIDES NOMINAL INLET AND/OR OUTLET PIPE STUB FOR CONNECTION TO EXISTING DRAINAGE FACILITIES. IF ADDITIONAL PIPE IS NEEDED IT IS THE RESPONSIBILITY OF THE CONTRACTOR.

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MARK	DATE	REVISION DESCRIPTION	BY

CONTECH ENGINEERED SOLUTIONS LLC
www.ContechES.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

CONTECH CMP DETENTION SYSTEMS
SOLUTION PROPOSAL DRAWING

60" UNDERGROUND DETENTION SYSTEM - 537780-010
WHOLE FOODS - EXTON
EXTON, PA.
SITE DESIGNATION: UDS

PROJECT NO.: 537780	BOX NO.: 010	DATE: 3/21/2016
DESIGNED: CJS	DRAWN: CJS	
CHECKED:	APPROVED:	
SHEET NO.: P1 OF 4		

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UPSTATE NEW YORK ◆ BOSTON, MA ◆ NEW YORK, NY ◆ NEW JERSEY
PHILADELPHIA, PA ◆ SOUTHEASTERN, PA ◆ BALTIMORE, MD ◆ SOUTHERN MARYLAND
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RECORDED CHESTER CO. PA. 2016 SEP 30

REVISIONS

REV	DATE	COMMENT	BY
2	12/14/15	GENERAL REVS	MAB
3	01/05/16	GENERAL REVS	DTL
4	01/15/16	PER CCCD COMMENTS	DTL
5	01/29/16	PER COMMENTS	DTL
6	03/03/16	PER CCCD COMMENTS	ACF
7	04/06/16	GENERAL REVS	DTL
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PA1 ONE CALL SYSTEM, INC. 1-800-242-1776

POCS SERIAL NUMBER 20150911340

PROJECT No.: PP140558
DRAWN BY: J.P.W.
CHECKED BY: M.J.
DATE: 2015.10.19
SCALE: AS NOTED
CAD I.D.: PP140558DETAILS-10

PROJECT:

PRELIMINARY/FINAL LAND DEVELOPMENT PLANS

FOR

PR EXTON SQUARE PROPERTY LP

EXTON SQUARE MALL GROCERY STORE

260 EXTON SQUARE MALL
WEST WHITELAND TOWNSHIP
CHESTER COUNTY, PA

BOHLER ENGINEERING
1515 MARKET STREET, SUITE 920
PHILADELPHIA, PENNSYLVANIA 19102
Phone: (267) 402-3400
Fax: (267) 402-3401
www.BohlerEngineering.com

COMMONWEALTH OF PENNSYLVANIA CORNELIUS BROWN ENGINEER 079317 PROFESSIONAL ENGINEER PENNSYLVANIA LICENSE NO. PE079317

SHEET TITLE:
PHASE I POST-CONSTRUCTION STORMWATER MANAGEMENT DETAILS

SHEET NUMBER:
40
OF 43

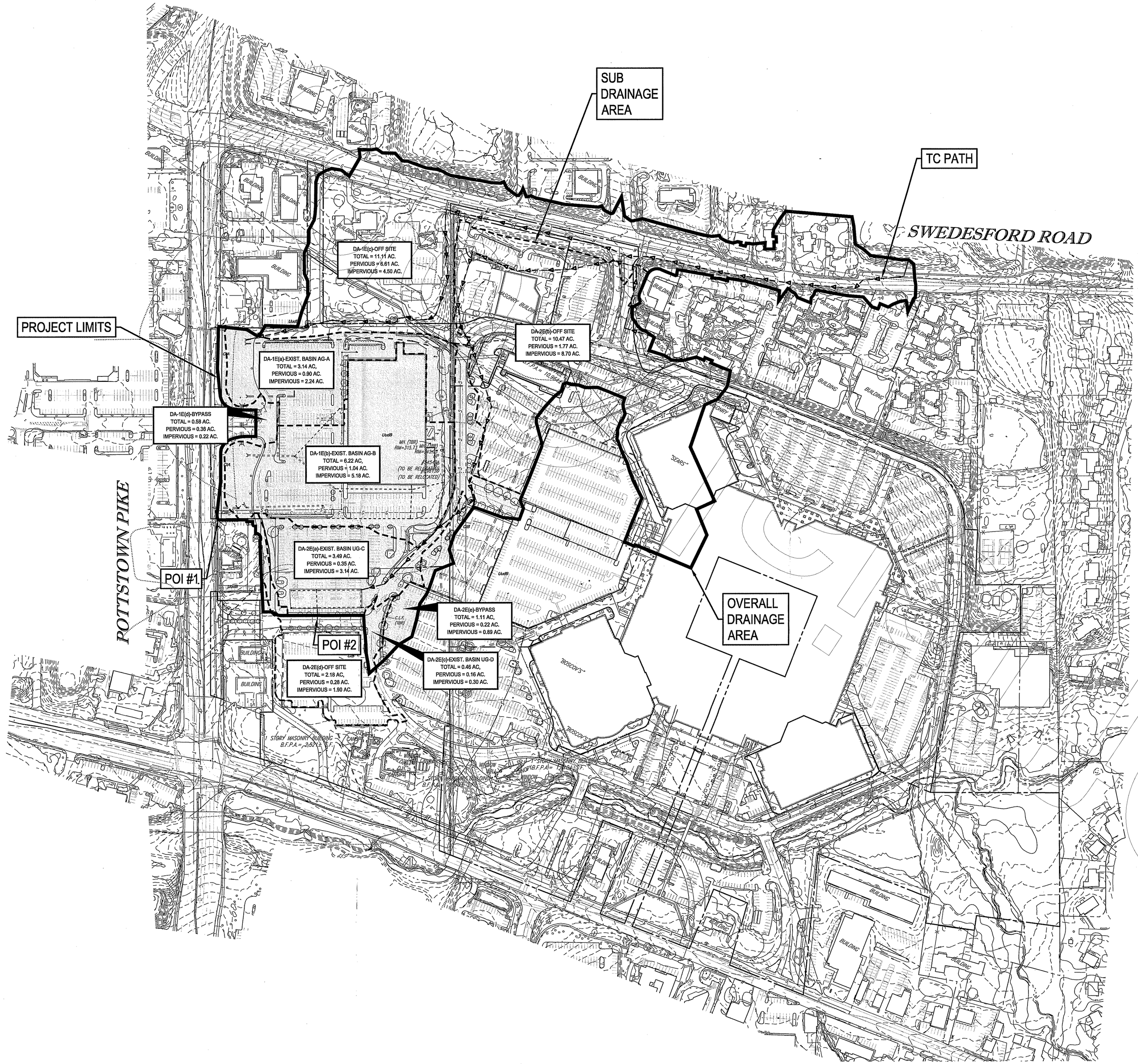
REVISION 10

11520444 B: 20031 P: 1 SBP
Page 41 of 44
DATE: 12/15/2016 02:01:24 PM
CHESTER COUNTY, PA

DWG: P:\PROJECTS\2015\PP140558\CAD\DETAILS\PP140558DETAILS-10.DWG LAYOUT: 40-PCSWM DETAILS PLOTTED: 4/20/2016 2:44 PM BY: CORNELIUS BROWN XREF: P:\PROJECTS\2015\PP140558\CAD\XREF\PP140558_SITE.DWG P:\PROJECTS\2015\PP140558\CAD\XREF\PP140558_SITE-XREF.DWG P:\PROJECTS\2015\PP140558\CAD\XREF\PP140558_SITE-XREF-2.DWG P:\PROJECTS\2015\PP140558\CAD\XREF\PP140558_SITE-XREF-3.DWG P:\PROJECTS\2015\PP140558\CAD\XREF\PP140558_SITE-XREF-4.DWG P:\PROJECTS\2015\PP140558\CAD\XREF\PP140558_SITE-XREF-5.DWG P:\PROJECTS\2015\PP140558\CAD\XREF\PP140558_SITE-XREF-6.DWG P:\PROJECTS\2015\PP140558\CAD\XREF\PP140558_SITE-XREF-7.DWG P:\PROJECTS\2015\PP140558\CAD\XREF\PP140558_SITE-XREF-8.DWG P:\PROJECTS\2015\PP140558\CAD\XREF\PP140558_SITE-XREF-9.DWG P:\PROJECTS\2015\PP140558\CAD\XREF\PP140558_SITE-XREF-10.DWG P:\PROJECTS\2015\PP140558\CAD\XREF\PP140558_SITE-XREF-11.DWG P:\PROJECTS\2015\PP140558\CAD\XREF\PP140558_SITE-XREF-12.DWG P:\PROJECTS\2015\PP140558\CAD\XREF\PP140558_SITE-XREF-13.DWG P:\PROJECTS\2015\PP140558\CAD\XREF\PP140558_SITE-XREF-14.DWG P:\PROJECTS\2015\PP140558\CAD\XREF\PP140558_SITE-XREF-15.DWG P:\PROJECTS\2015\PP140558\CA

11509444 B: 20031 P: 1 SUP
09/30/2016 03:00 PM 1 of 1
Fee: $0.00
Pgs: 1 x 24

RECORDER OF DEEDS
CHESTER COUNTY, PA
2016 SEP 30 PM 3:00



LINE LEGEND

- PROPERTY LINE
- LEGAL RIGHT-OF-WAY LINE
- TIME OF CONCENTRATION PATH
- OVERALL DRAINAGE AREA
- SUB DRAINAGE AREA

150 75 37.5 0 150
1"=150'

BOHLER ENGINEERING

LAND SURVEYING SITE CIVIL AND CONSULTING ENGINEERING LANDSCAPE ARCHITECTURE
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- ALLENTOWN, PA
- REHOBOTH BEACH, DE
- BALTIMORE, MD
- ANNAPOLIS, MARYLAND
- NORTHERN VIRGINIA
- CENTRAL VIRGINIA
- RALEIGH, NC
- CHARLOTTE, NC
- TAMPA, FL
- SARASOTA, FLORIDA

UPSTATE NEW YORK
NEW ENGLAND
ROCHESTER, NY
NEW YORK METRO
NEW YORK, NY
NEW JERSEY

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REVISIONS

REV	DATE	COMMENT	BY
2	12/14/15	GENERAL REVS	MAB
3	01/05/16	GENERAL REVS	DTL
4	01/15/16	PER CCCD COMMENTS	DTL
5	01/29/16	PER COMMENTS	DTL
6	03/03/16	PER CCCD COMMENTS	ACF
7	04/08/16	GENERAL REVS	DTL
8	04/21/16	GENERAL REVS	DTL
9	06/06/16	PER RECORD PLAN	DTL
10	07/13/16	GENERAL REVISIONS	DTL

CALL BEFORE YOU DIG!

PENNSYLVANIA LAW REQUIRES 3 WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND 10 WORKING DAYS IN DESIGN STAGE - STOP CALL

PA1 ONE CALL
1-800-242-1776

POCS SERIAL NUMBER
20150911340

PROJECT No.: PP140558
DRAWN BY: J.P.W.
CHECKED BY: M.J.
DATE: 2015.10.19
SCALE: 1"=150'
CAD I.D.: PP140558BASE-10

PROJECT:

PRELIMINARY/FINAL LAND DEVELOPMENT PLANS

FOR

PR EXTON SQUARE PROPERTY LP

EXTON SQUARE MALL GROCERY STORE

260 EXTON SQUARE MALL
WEST WHITELAND TOWNSHIP
CHESTER COUNTY, PA

BOHLER ENGINEERING
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COMMONWEALTH OF PENNSYLVANIA
CORNELIUS BROWN
REGISTERED PROFESSIONAL ENGINEER
PE075317

PROFESSIONAL ENGINEER
PENNSYLVANIA LICENSE NO. PE075317

SHEET TITLE:

PRE DEVELOPMENT DRAINAGE AREA PLAN

SHEET NUMBER:

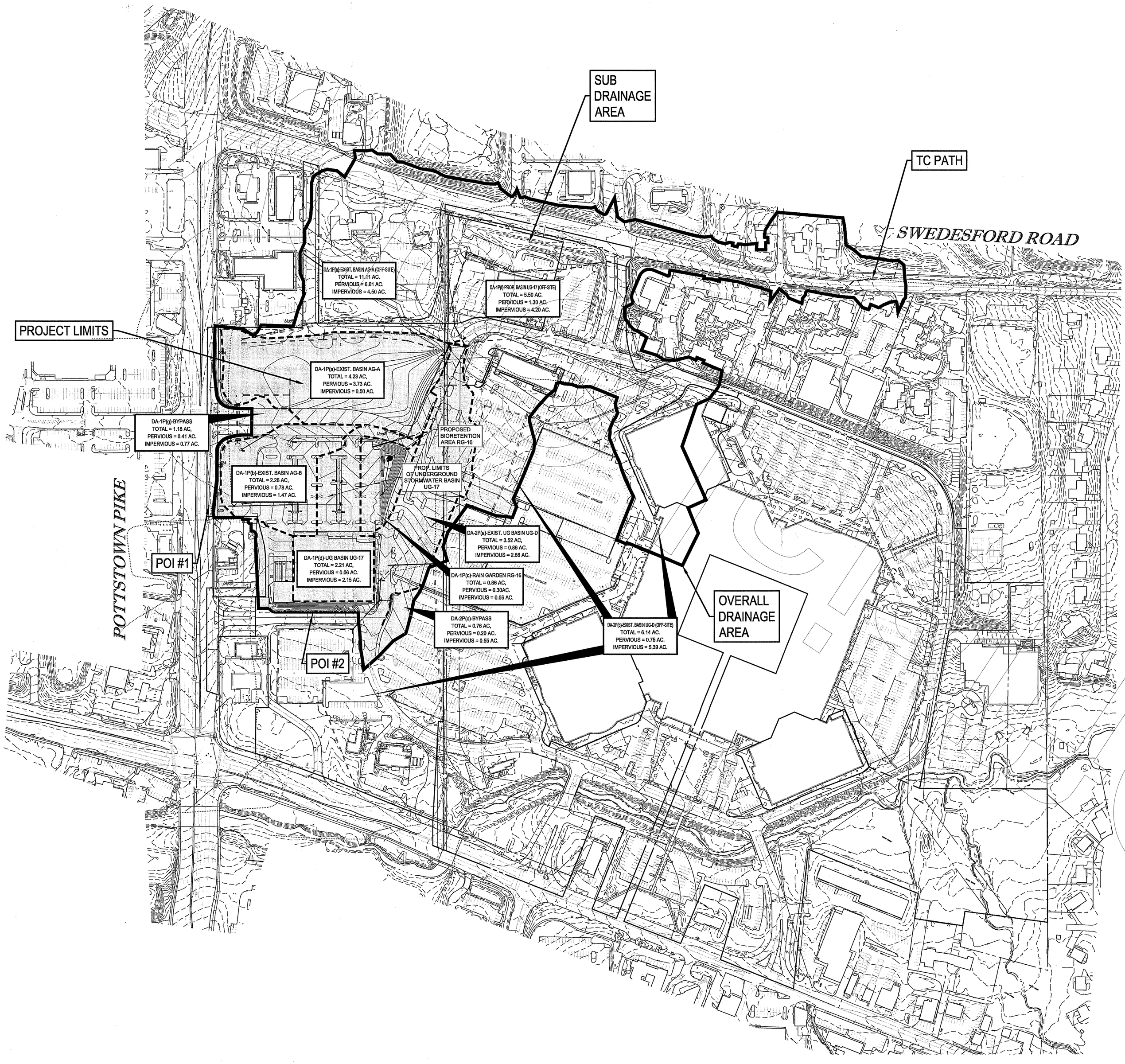
41
OF 43

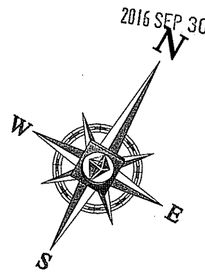
REVISION 10

Plot Date: 10/19/2015 - 3:41 PM By: JPW
N:\PP140558_CADLAND DEVREV-10\PP140558BASE-10---LAYOUT- 41-PREDA

11528444 B: 20031 P: 1 SDP
09/30/2016 02:52 PM
Page 43 of 44

RECORDER OF DEEDS
CHESTER COUNTY, PA
2016 SEP 30 PM 3:00





LINE LEGEND

- PROPERTY LINE
- LEGAL RIGHT-OF-WAY LINE
- TIME OF CONCENTRATION PATH
- OVERALL DRAINAGE AREA
- SUB DRAINAGE AREA

150 75 37.5 0 150
1"=150'

BOHLER ENGINEERING

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SUSTAINABILITY PLANNING TRANSPORTATION SERVICES
PROGRAM MANAGEMENT

- PHILADELPHIA, PA
- UPSTATE NEW YORK
- LEHIGH VALLEY, PA
- NEW ENGLAND
- CENTRAL PENNSYLVANIA
- NORTHERN VIRGINIA
- CENTRAL VIRGINIA
- NEW YORK METRO
- REHOBOTH BEACH, DE
- CHARLOTTE, NC
- NEW YORK, NY
- BALTIMORE, MD
- TAMPA, FLORIDA
- RICHMOND, VIRGINIA
- WASHINGTON, D.C. / MARYLAND
- FORT MYERS, FLORIDA

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REVISIONS

REV	DATE	COMMENT	BY
2	12/14/15	GENERAL REVS	MAB
3	01/05/16	GENERAL REVS	DTL
4	01/15/16	PER CCCD COMMENTS	DTL
5	01/29/16	PER COMMENTS	DTL
6	03/03/16	PER CCCD COMMENTS	ACF
7	04/06/16	GENERAL REVS	DTL
8	04/21/16	GENERAL REVS	DTL
9	06/08/16	PER RECORD PLAN	DTL
10	07/13/16	GENERAL REVISIONS	DTL

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PENNSYLVANIA LAW REQUIRES
3 WORKING DAYS NOTICE FOR
CONSTRUCTION PHASE AND 10
WORKING DAYS IN DESIGN
STAGE – STOP CALL

PA1 ONE CALL INC
1-800-242-1776

POCS SERIAL NUMBER
20150911340

PROJECT No.: PP140558
DRAWN BY: J.P.W.
CHECKED BY: M.J.
DATE: 2015.10.19
SCALE: 1"=150'
CAD I.D.: PP140558BASE-10

PROJECT:

PRELIMINARY/FINAL LAND DEVELOPMENT PLANS

FOR

PR EXTON SQUARE PROPERTY LP

EXTON SQUARE MALL GROCERY STORE

260 EXTON SQUARE MALL
WEST WHITELAND TOWNSHIP
CHESTER COUNTY, PA

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COMMONWEALTH OF PENNSYLVANIA
CORNELIUS BROWN
ENGINEER
075317
PROFESSIONAL ENGINEER
PENNSYLVANIA LICENSE NO. PE075317

SHEET TITLE:

POST DEVELOPMENT DRAINAGE AREA PLAN

SHEET NUMBER:

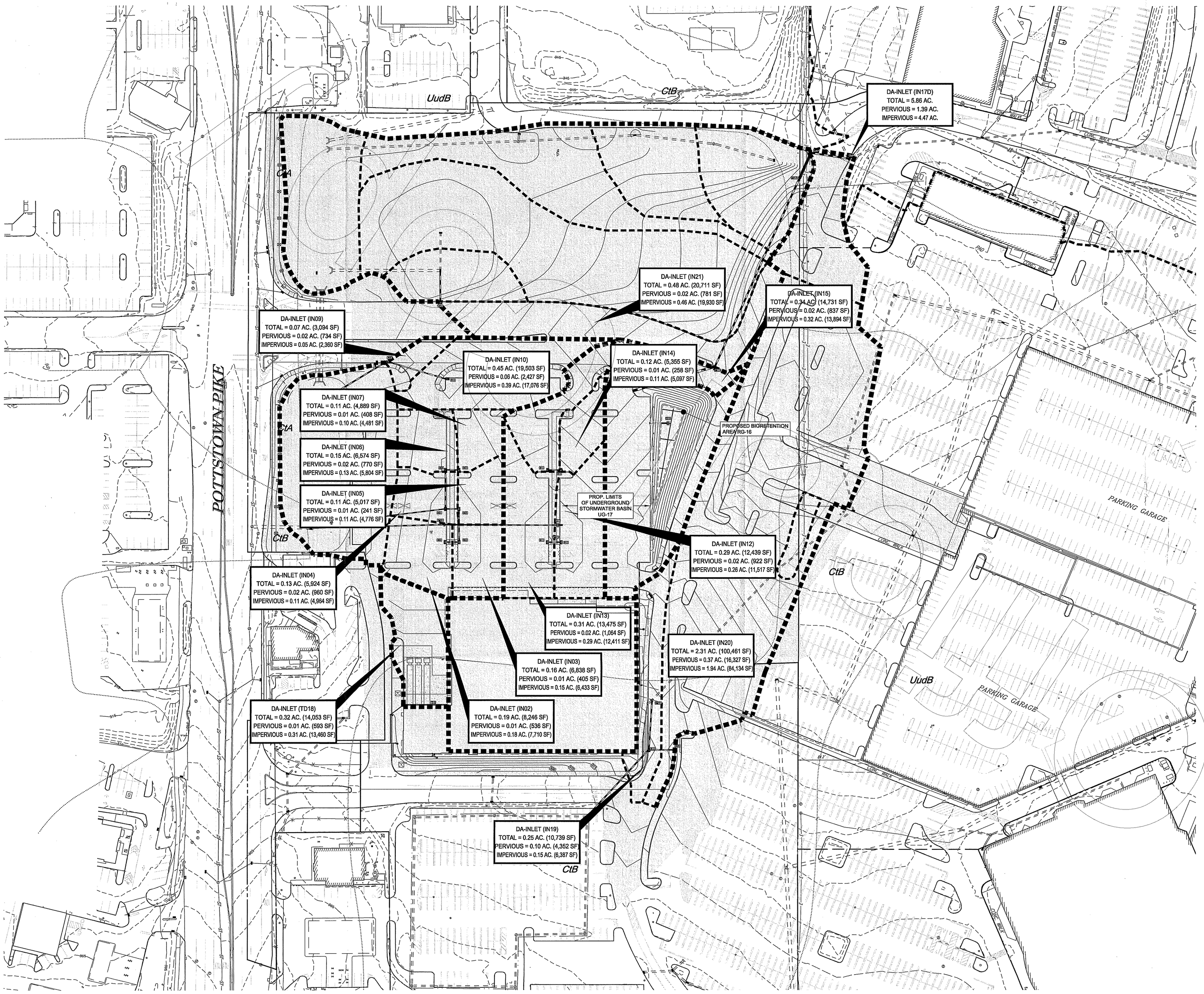
42
OF 43

REVISION 10

Construction Set

PLOT DATE: 10/19/2015 2:52:52 PM
R:\All Projects\140558_CADLAND DEV\REV-10\PP140558BASE-10-----LAYOUT: 42-POSTDA

RECORDER OF DEEDS
CHESTER COUNTY, PA.
2016 SEP 21 PM 3:00



BOHLER ENGINEERING
SITE CIVIL AND CONSULTING ENGINEERING
LANDSCAPE ARCHITECTURE
LAND SURVEYING
LAND DEVELOPMENT
TRANSPORTATION
PERMITTING AND APPROVALS
PROGRAM MANAGEMENT
◆ UPSTATE NEW YORK
◆ NEW ENGLAND
◆ NEW JERSEY, PA
◆ NEW YORK METRO
◆ NEW YORK, NY
◆ WASHINGTON, DC
◆ NORTHERN VIRGINIA
◆ CENTRAL VIRGINIA
◆ RALEIGH, NC
◆ CHARLOTTE, NC
◆ TAMPA, FL
◆ ATLANTA, GEORGIA
◆ ROCKVILLE, MD
◆ BALTIMORE, MD
◆ EASTERN SHORE, MARYLAND

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REVISIONS

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PA1 one call, inc. 1-800-242-1776

POCS SERIAL NUMBER 20150911340

PROJECT No.: PP140558
DRAWN BY: J.P.W.
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PROJECT:

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PHILADELPHIA, PENNSYLVANIA 19102
Phone: (267) 402-3400
Fax: (267) 402-3401
www.BohlerEngineering.com

I HEREBY CERTIFY THAT THE DRAWINGS, PLANS, AND/OR REPORTS PREPARED FOR THIS SUBMISSION ARE IN COMPLIANCE WITH THE CHESTER COUNTY CODE OF ORDINANCES AND THE CHESTER COUNTY ACT 167 STORMWATER MANAGEMENT PLAN.
CORNELIUS BROWN
ENGINEER
PE075317
PROFESSIONAL ENGINEER
PENNSYLVANIA LICENSE NO. PE075317

SHEET TITLE:

INLET DRAINAGE AREA PLAN

SHEET NUMBER:

43
OF 43

REVISION 10

11500444 B. 20831 P. 1 SDP
09/30/2016 02:52 PM
Pages: 1 of 1
Fee: $0.00

PLOTTED: 10/19/2015 2:52:54 PM By: JPW
R:\14PP\140558_CAD\LAND DEV\REV-10\PP140558BASE-10——LAYOUT: 43-INLETDA