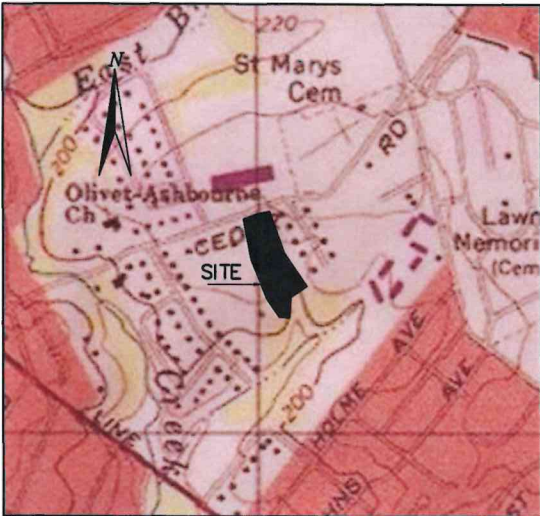
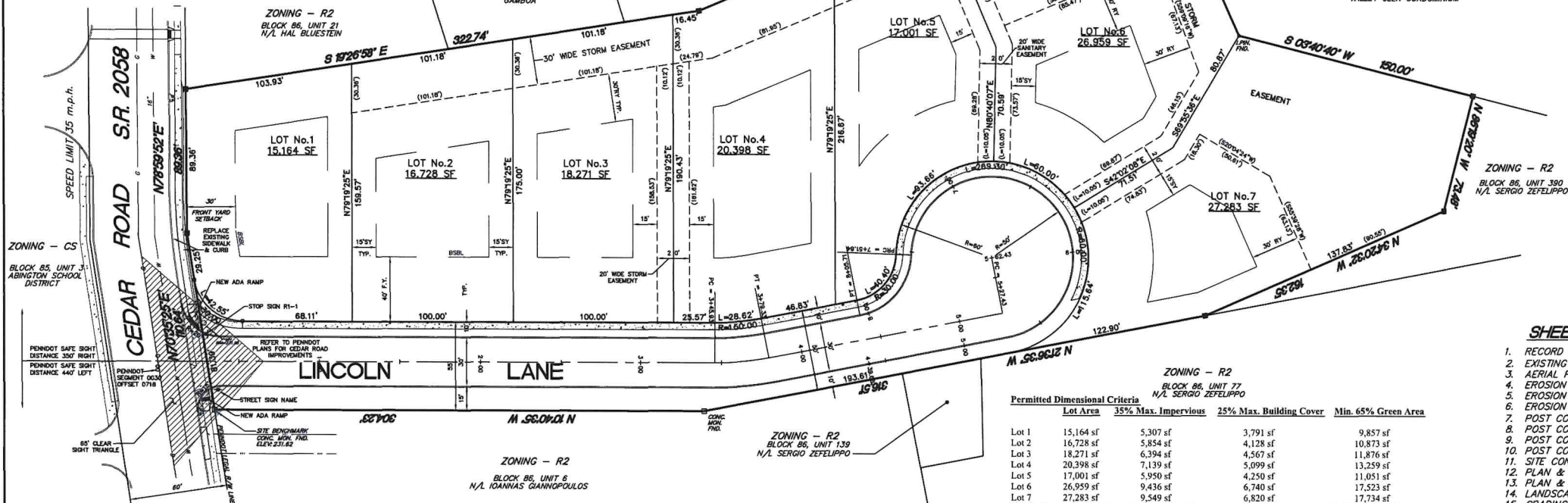




U.S.G.S. LOCATION MAP
FRANKFORD QUAD
SCALE: 1" = 800'

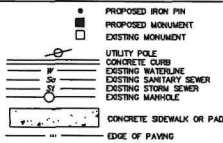


General Notes and Summary

1. Tax Parcel: Block 86 Unit 20 P/N (30-00-07112-00-4)
2. Site Area = 177,620 SF to legal ROW or 4.0776 Acre
3. Owner of Record: Victor Yannessa
365 Cedar Road
Elkins Park, PA 19027
Applicant: Paul Yannessa
403 Longfield Road
Glenside, PA 19038
215-840-3260
4. Zoning: R2 - Low/Medium Density Residential District
Existing and Proposed Use: Single Family Detached Dwelling (Use H-7) Permitted by Right

Required/Permitted	Provided
a. Lot Area - 15,000 sf min.	15,164 sf
b. Lot Width - 100 ft. min. @ BSBL	100 ft.
c. Lot Depth - 100 ft. min.	143.71 ft.
d. Front Yard - 40 ft. min.	40 ft.
e. Side Yard - 15 ft. each min.	15 ft.
f. Rear Yard - 30 ft. min.	30 ft.
g. Impervious Coverage - 35% max.	less than 35%
h. Building Coverage - 25% max.	less than 25%
i. Green Area - 65% min.	less than 65%
j. Building Height - 35 ft. max.	less than 35 ft.
k. Building Length - 150 ft. max.	less than 150 ft.
l. Building Separation - 30 ft. min.	less than 30 ft.
m. Open Space - None Required.	None
n. Buffer Yards Not Required	None
5. Required Parking - Residential use - 2 parking spaces per unit exclusive of garage. Provided Parking: A minimum of 2 on lot parking spaces will be provided per lot.
6. Property boundary determined from field survey by Eastern/Chadrow Associates, Inc and various plans, deeds and information of record.
7. Datum of Topography - U.S.C. & G.S. Increase 0.3 feet to convert to Abington Township Sanitary Sewer Datum.

LEGEND



List of Waivers

The applicant respectfully requests waivers from the following sections of the Abington Township subdivision and land development ordinance (SALDO).

1. Section 146-11.A(4) and 146-11.B(3) - To not be required showing all existing and proposed features, tax parcels and owners names within 400 feet of the site. An aerial plan is provided which shows the surrounding area.
2. Section 146-25.D - To permit a curb radius of less than 20 feet at the intersection of Cedar Road.
3. Section 146-33.D - To permit the use of high density polyethylene pipe (HDPE) in lieu reinforced concrete pipe (RCCP) for the storm water system.
4. Section 146-43.C.3(a) - To permit grading and slopes of 3:1.

ON THE _____ DAY OF _____, A.D. 20____, BEFORE ME THE
SUBSCRIBER, A NOTARY PUBLIC OF THE COMMONWEALTH OF PENNSYLVANIA,
RESIDING IN _____, PERSONALLY APPEARED

KNOWN TO ME (OR SATISFACTORILY PROVEN) TO BE THE PERSON(S) WHOSE
NAME(S) (IS/ARE) SUBSCRIBED TO THE FOREGOING PLAN, AND
ACKNOWLEDGED THAT (HE, SHE, THEY) (IS/ARE) THE OWNER (S) OF THE
DESIGNATED LAND, THAT ALL NECESSARY APPROVAL OF THE PLAN HAS BEEN
OBTAINED AND IS ENDORSED THEREON, AND THAT (HE, SHE, THEY) DESIRE
THAT THE FOREGOING PLAN MAY BE DULY RECORDED.

OWNER _____ NOTARY PUBLIC _____

OWNER _____ MY COMMISSION EXPIRES _____

(SEAL)

APPROVED BY THE BOARD OF COMMISSIONERS OF THE TOWNSHIP OF
ABINGTON THIS _____ DAY OF _____, 20____.

PRESIDENT
ATTEST _____ SECRETARY

ENGINEER

CERTIFIED BY THE MONTGOMERY COUNTY PLANNING COMMISSION THIS
DAY OF _____, 20____.
FILE # _____

ATTEST _____ SECRETARY

RECORDED IN THE OFFICE FOR THE RECORDING OF DEEDS, ETC. AT
NORRISTOWN, PA. IN PLAN BOOK _____, PAGE NO. _____, ON
_____, BY _____.

MOPC. No. _____

PROCESSED AND REVIEWED. A report has been prepared
by the Montgomery County Planning Commission in accordance
with the Municipalities Planning Code.

Certified this date _____

For the Director

Montgomery County Planning Commission

SHEET INDEX

1. RECORD PLAN OF SUBDIVISION (TO BE RECORDED)
2. EXISTING FEATURES/DEMOLITION/ERSAM PLAN
3. AERIAL PLAN
4. EROSION & SEDIMENT CONTROL PLAN
5. EROSION & SEDIMENT CONTROL DETAILS PLAN
6. EROSION & SEDIMENT CONTROL DETAILS PLAN
7. POST CONSTRUCTION STORMWATER MANAGEMENT PLAN (TO BE RECORDED)
8. POST CONSTRUCTION STORMWATER MANAGEMENT DETAILS PLAN
9. POST CONSTRUCTION STORMWATER MANAGEMENT DETAILS BMP #1
10. POST CONSTRUCTION STORMWATER MANAGEMENT DETAILS BMP #2
11. SITE CONSTRUCTION DETAILS PLAN
12. PLAN & PROFILE - LINCOLN LANE & MISC. PIPE RUNS
13. PLAN & PROFILE - SANITARY SEWER EASEMENT
14. LANDSCAPE PLAN & PCSWM
15. GRADING & UTILITY PLAN
16. LIGHTING PLAN
17. SANITARY SEWER DETAILS

PennDOT Permit Plan Index

1. TITLE SHEET
2. GENERAL NOTES AND TRAFFIC CONTROL
3. PEDESTRIAN DETOUR PLAN, ROAD IMPROVEMENT
PLAN AND DRIVEWAY PROFILE
4. SIGHT DISTANCE PLAN
5. ADA RAMP PLAN
6. VEHICLE MANEUVERABILITY PLAN

SHEET 1 of 17

SD-21-03-FINAL MAJOR SUBDIVISION & LAND DEVELOPMENT

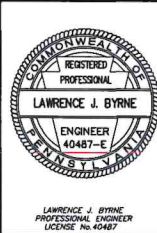
REV. 3-26-2024 PER MCO LETTER DATED 3-15-2024
REV. 12-20-2023 PER MCO & PENNDOT COMMENTS
REV. 5-31-2023 AS PER APPROVED TOWNSHIP RESOLUTION
REV. 9-16-2022 AS PER TOWNSHIP REVIEW

RECORD PLAN OF SUBDIVISION
365 CEDAR ROAD
ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA
MADE FOR
PAUL YANNESSA

SCALE: 1"=40' 0 40 80 120 22 NOVEMBER 2021

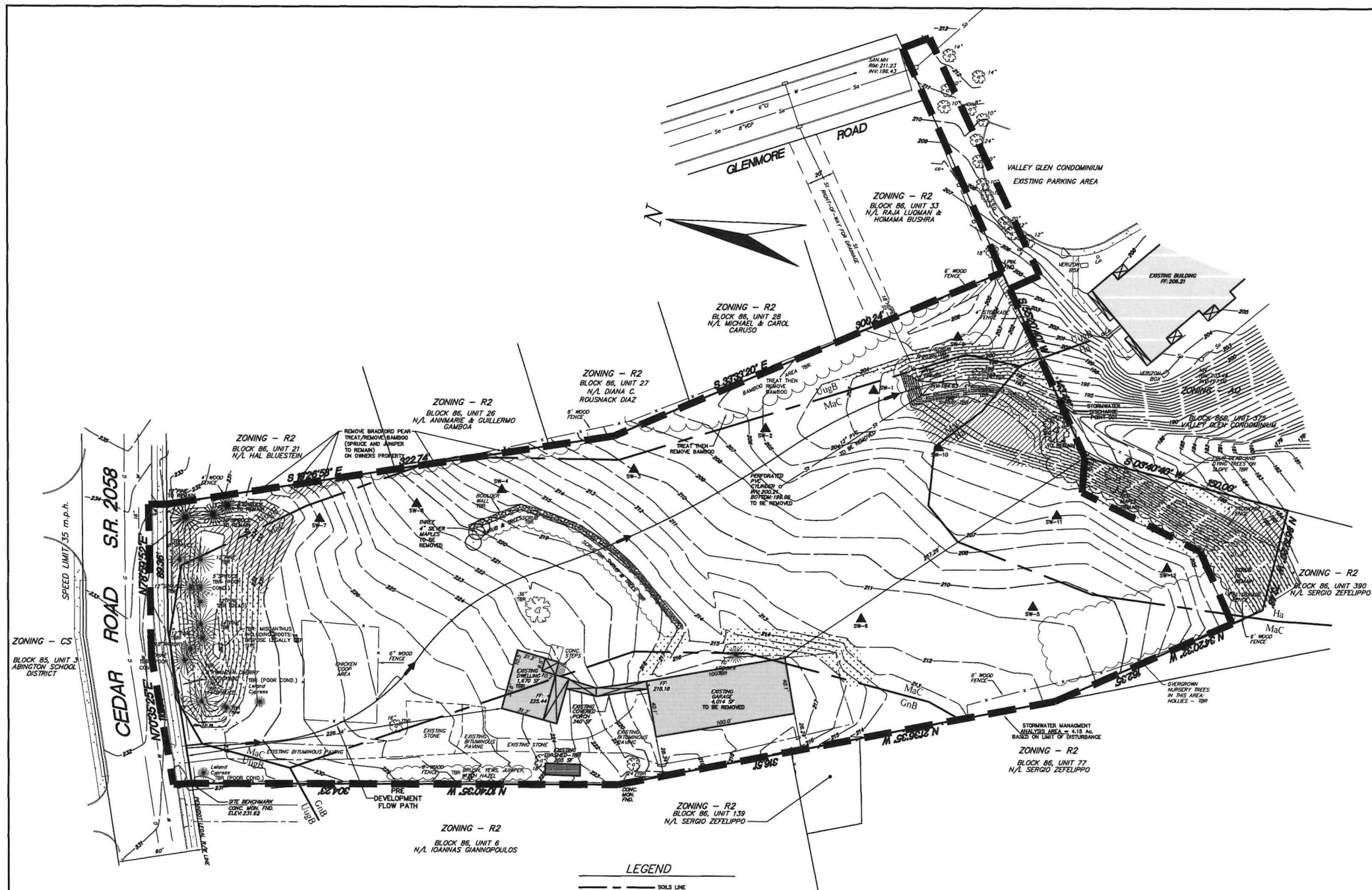
EASTERN/CHADROW ASSOCIATES, INC.

333 E. STREET ROAD • WARMINSTER, PA. 18974 • (215) 672-8671 FAX (215) 672-6765
EST. 1967



I HEREBY CERTIFY THAT I AM A LICENSED 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 SHOWN BY ME ON _____ JANUARY 2018 _____; 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.

SIGNATURE



Demolition Notes:

- The firm or engineer of record is not responsible for job site safety or supervision. Contractor is to proceed with the demolition in a systematic and safe manner, following all the OSHA requirements, to insure public and contractor safety.
- 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.
- Prior to starting any demolition contractor is responsible for/to:
 - Ensure copies of all permits and approvals are on site for review.
 - The required soil erosion and sediment control measures shall be in place prior to site disturbance.
 - 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.
 - Protect and maintain in operation, all active systems that are not being removed during all demolition activities.
 - 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.
 - Coordination with utility companies regarding working "off-peak" hours or on weekends as may be required to minimize the impact on the affected parties.
 - 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 contaminants 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 the owner's environmental consultant.
- The contractor shall provide all the "means and methods" necessary to prevent movement, settlement, or collapse of existing structures, and any other improvements that are remaining on or off site.
- Explosives shall not be used without prior written consent of both the owner and applicable governmental authorities. All the required permits and explosive control measures that are required by the federal, state, and local governments shall be in place prior to starting an explosive program. The contractor is also responsible for all inspection and seismic vibration testing that is required to monitor the effects on all local structures.
- Contractor shall provide traffic control and generally accepted safe practices in conformance with the "manual on uniform traffic control," as well as federal, state, and local regulations when demolition related activities impact roadways or roadway rights-of-way.
- The contractor shall conduct demolition activities in such a manner to insure minimum interference with roads, streets, sidewalks, walkways, and other adjacent facilities. Street closure permits must be received from the appropriate governmental authority where required.
- Use dust control measures to limit the amount of airborne dust and dirt rising and scattering in the air to within federal, state, and/or local standards. After the demolition is complete, adjacent structures and improvements shall be cleaned of all dust and debris caused by the demolition operations. The contractor is responsible for returning all adjacent areas to their "pre-demolition" condition.
- The contractor is responsible to safeguard the site as necessary to perform the demolition in such a manner as to prevent the unauthorized entry of persons at any time.
- This demolition plan is intended to identify those existing items/conditions which are to be removed. It is not intended to provide direction other than that all methods and means are to be in accordance with state, federal local and jurisdictional requirements. The contractor shall be responsible for all OSHA and other safety precautions necessary to provide a safe work site.
- The demolition contractor is responsible for all repairs of damage to all items that are to remain as a result of his activities. All repairs shall use new material. The repairs shall restore the item to the pre-demolition condition.
- Debris shall not be buried on the subject site. All excavated material and debris (solid waste) shall be disposed of in accordance with all town, county, state, and federal laws and applicable codes. The contractor shall properly remove and dispose of hazardous/unusable material off-site in accordance with all applicable codes, ordinances, and laws.
- Demolition of existing structures and foundations should include full removal of all remnant utilities, footings, foundation walls and slabs. Remnant foundations and slabs may remain in place two feet below pavement subgrade and landscaped areas, provided they are adequately broken to promote positive drainage and that they will not interfere with future construction.
- All areas of building demolition and pavement removal which shall be converted to lawn areas shall be provided with a minimum of 6 inches of topsoil set at the proposed final grades.

SHEET 2 of 17

SD-21-03-FINAL MAJOR SUBDIVISION & LAND DEVELOPMENT

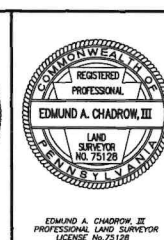
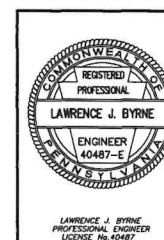
REV. 3-26-2024 PER MCOO LETTER DATED 3-15-2024
REV. 12-20-2023 PER MCOO & PENNDOT COMMENTS
REV. 5-31-2023 AS PER APPROVED TOWNSHIP RESOLUTION
REV. 9-16-2022 AS PER TOWNSHIP REVIEW

EXISTING FEATURES/DEMOLITION PLAN/ERSAM PLAN
365 CEDAR ROAD
ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA
MADE FOR

PAUL YANNESSA

SCALE: 1"=40' 0 40 80 120 22 NOVEMBER 2021

EASTERN/CHADROW ASSOCIATES, INC.
333 E. STREET ROAD • WARMINSTER, PA. 18974 • (215) 672-8671 FAX (215) 672-6765
EST. 1967



STOP-CALL BEFORE YOU DIG!



PENNSYLVANIA ONE CALL SYSTEM, INC.
SERIAL No.20171532707 CONTACTED: 6-2-2017

ACT 187 USERS LIST

USER	ADDRESS	TELEPHONE
1.TOWNSHIP OF ABINGTON	1176 OLD YORK RD. ABINGTON, PA.19001	215-884-5000
2.AQUA PENNSYLVANIA, INC.	762 LANCASTER AVE. BRYN MAWR, PA. 19010	1-800-711-4779
3.BELL TELEPHONE CO. of PA.	104 WTMER RD. HORSHAM, PA. 19044	215-956-2623
4.PHILADELPHIA ELECTRIC Co.	400 PARK AVE. WARMINSTER PA. 18974	OUTSIDE PA. 412-323-7100 IN PA. 800-242-1776
5.PENNA. DEPT. OF TRANSPORTATION	EAST NORRITON TWP.,P.O. BOX 350 NORRISTOWN,PA.	1-215-275-2368

OWNERS LIST

Parid 30-00-22488-00-9
Block 85, Unit 2
Area: 7.57 Ac.
Convent of Saint Basil the Great

Parid 30-00-07064-00-7
Block 85, Unit 3
Area: 25.99 Ac.
Abington School District

Parid 30-00-06968-00-4
Block 85, Unit 4
Area: 18,700 s.f.
Jeffrey M. & Jacqueline E. Kohl

Parid 30-00-07088-00-1
Block 86, Unit 5
Area: 80,400 s.f.
Francis Edward & Rosalie Arguelles

Parid 30-00-07108-00-8
Block 86, Unit 6
Area: 68,400 s.f.
Ioannis Giannopoulos & Catherine Anastasopoulos

Parid 30-00-24288-00-9
Block 86, Unit 21
Area: 18,400 s.f.
Hal Bluestein

Parid 30-00-24284-00-4
Block 86, Unit 26
Area: 15,930 s.f.
Annemarie & Guillermo Gamboa

Parid 30-00-24280-00-8
Block 86, Unit 27
Area: 16,500 s.f.
Diana Kozminski Diaz

Parid 30-00-24276-00-3
Block 86, Unit 28
Area: 16,822 s.f.
Michael & Carol Caruso

Parid 30-00-24311-00-8
Block 86, Unit 29
Area: 17,200 s.f.
Joshua A. & Ellen J. Waters

Parid 30-00-24312-00-3
Block 86, Unit 30
Area: 16,445 s.f.
Paul & Gloria Gross

Parid 30-00-24308-00-7
Block 86, Unit 31
Area: 16,583 s.f.
Chan Phu Sak & Melissa D. Clark-Pho

Parid 30-00-24304-00-2
Block 86, Unit 32
Area: 17,383 s.f.
Michael P. & Rose M. McConnell

Parid 30-00-24272-00-7
Block 86, Unit 33
Area: 16,034 s.f.
Luqman Rajan & Bushra Homama

Parid 30-00-47572-00-8
Block 86, Unit 42
Area: 15,600 s.f.
Adam & Amanda Klein

Parid 30-00-47576-00-4
Block 86, Unit 43
Area: 17,200 s.f.
Kamil El & Danny Wright

Parid 30-00-47580-00-9
Block 86, Unit 44
Area: 20,400 s.f.
Jennette Weiss

Parid 30-00-47584-00-5
Block 86, Unit 45
Area: 23,135 s.f.
Nicolas Rodriguez

Parid 30-00-47588-00-1
Block 86, Unit 46
Area: 20,811 s.f.
Ryan & Jennifer Williams

Parid 30-00-47592-00-6
Block 86, Unit 47
Area: 18,487 s.f.
Andrew & Karen Goode

Parid 30-00-47596-00-2
Block 86, Unit 48
Area: 16,162 s.f.
Maria Radu & Marius Edu

Parid 30-00-07104-00-3
Block 86, Unit 77
Area: 3.61 Ac.
Sergio Zefelippo Jr.

Parid 30-00-07100-00-7
Block 86, Unit 78
Area: 37,207 s.f.
Sergio Zefelippo Jr.

Parid 30-00-07096-00-2
Block 86, Unit 79
Area: 15,000 s.f.
Maria Ross Zefelippo

Parid 30-00-07092-00-6
Block 86, Unit 80
Area: 16,800 s.f.
Christopher Lim & Karen Y. Can Tu

Parid 30-00-07104-10-2
Block 86, Unit 139
Area: 2,673 s.f.
Sergio Zefelippo Jr.

Parid 30-00-07112-02-2
Block 86, Unit 390
Area: 16,057 s.f.
Sergio Zefelippo Jr.

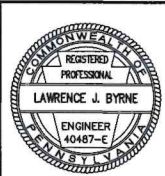
Parid 30-00-23977-09-9
Block 86B, Unit 375
Area: 23.63 Ac.
Valley Glens Condominium



SD-21-03-FINAL MAJOR SUBDIVISION & LAND DEVELOPMENT

SHEET 3 of 17

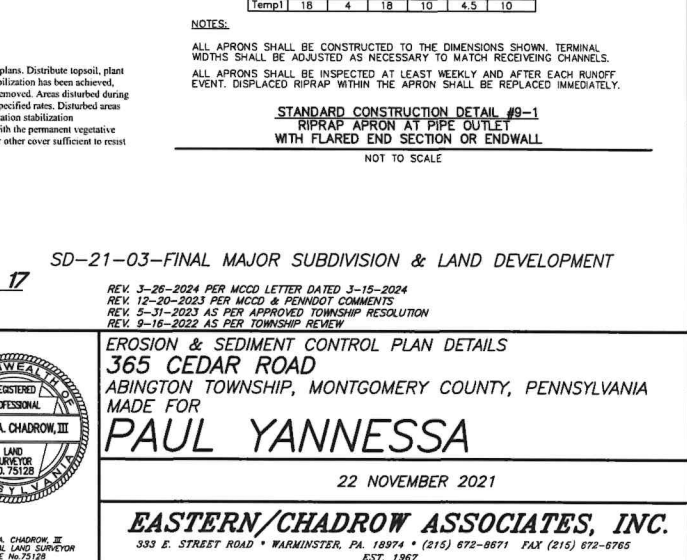
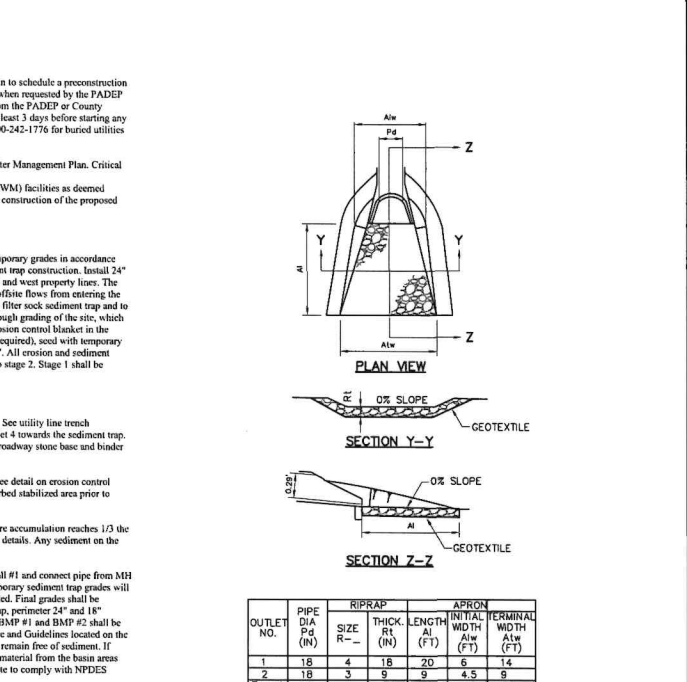
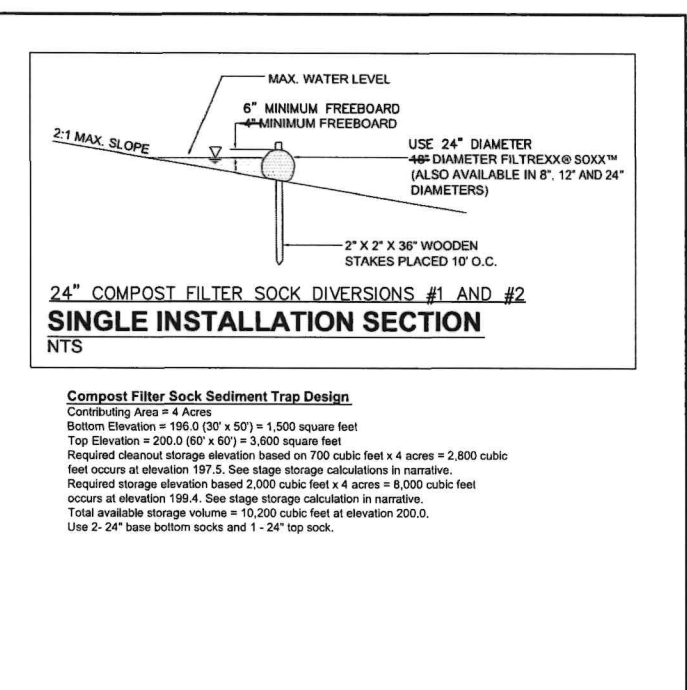
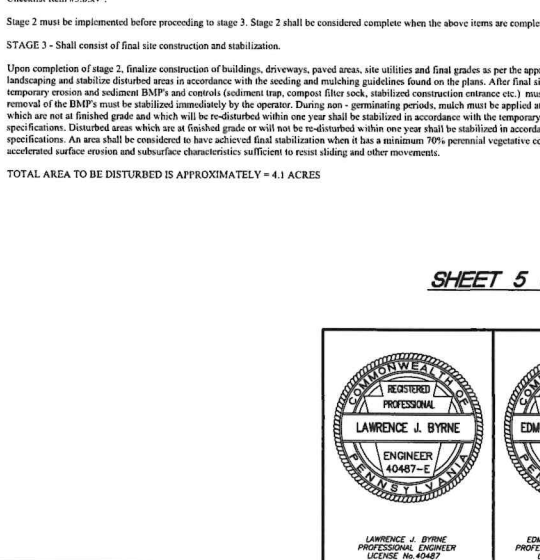
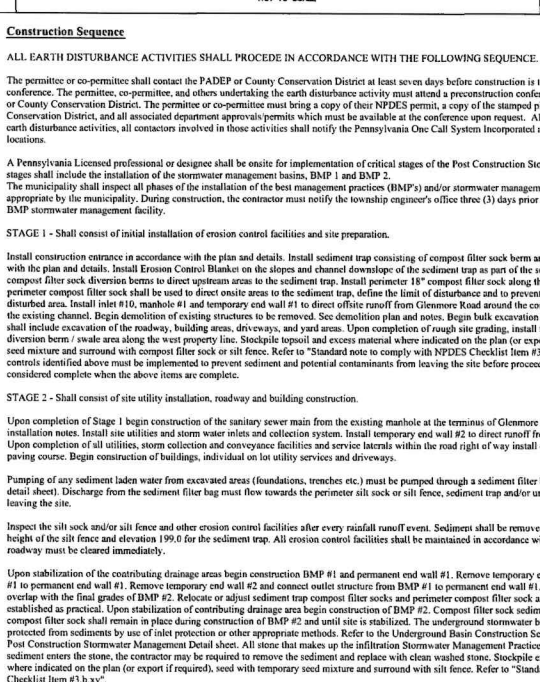
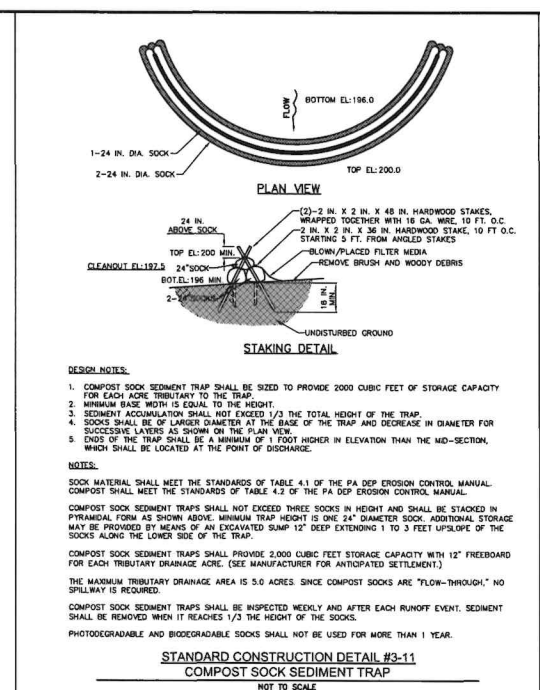
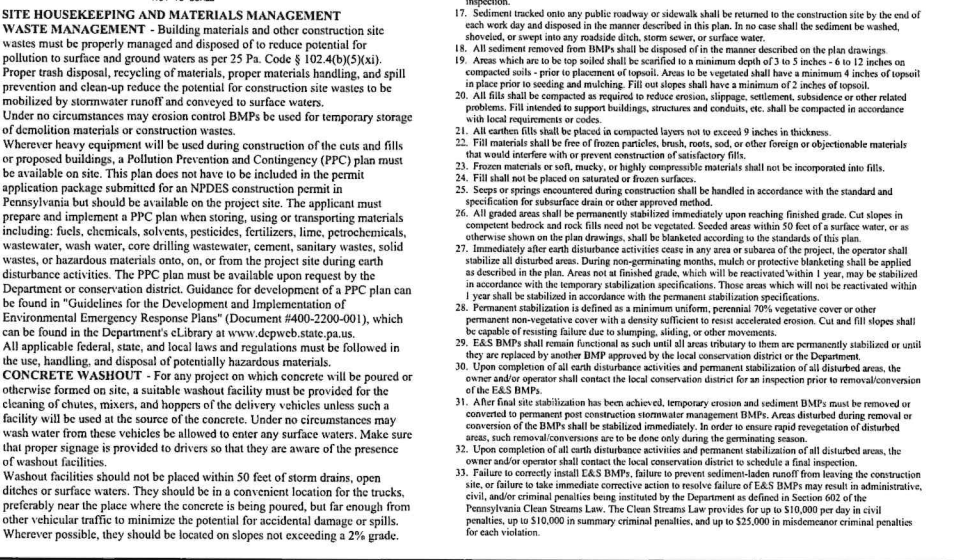
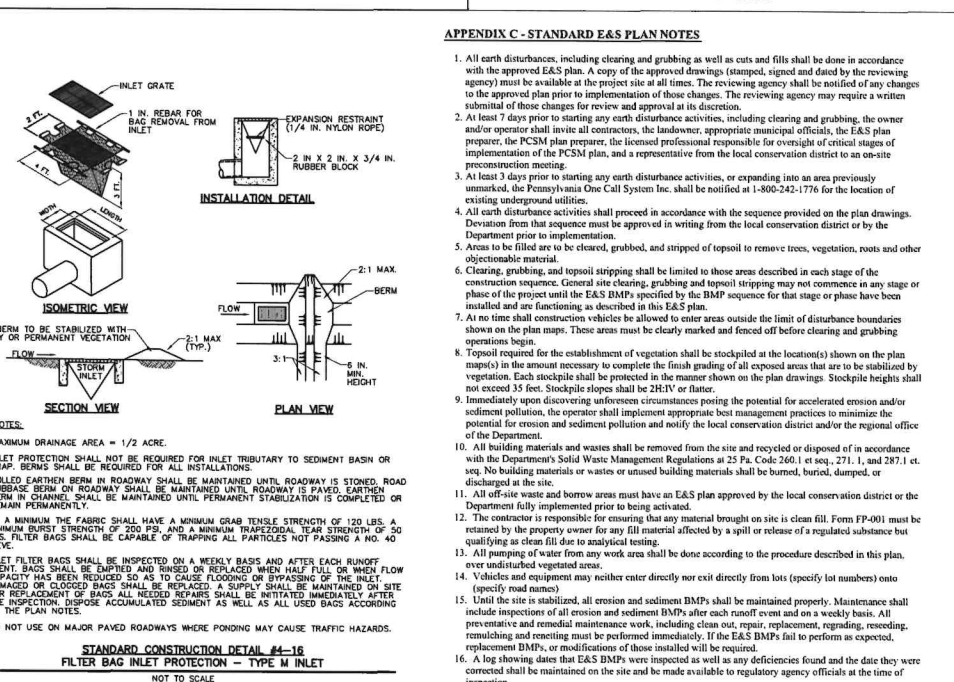
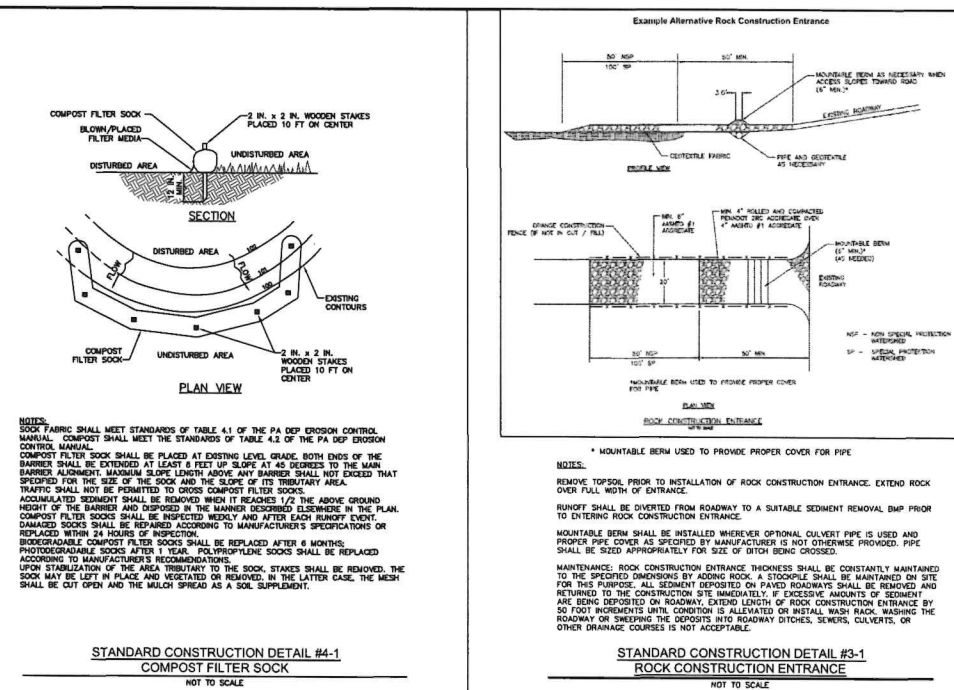
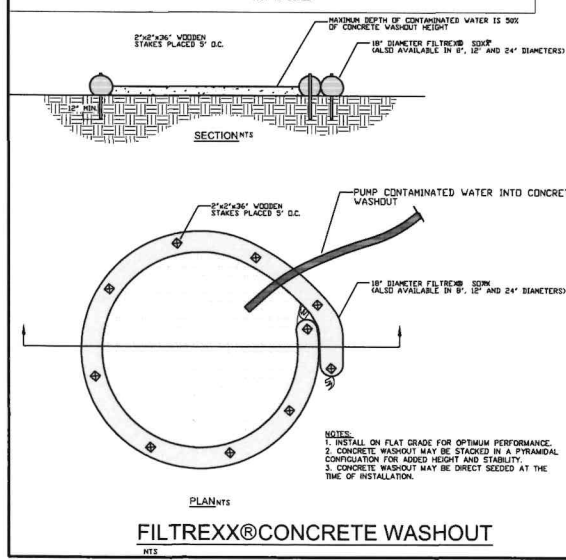
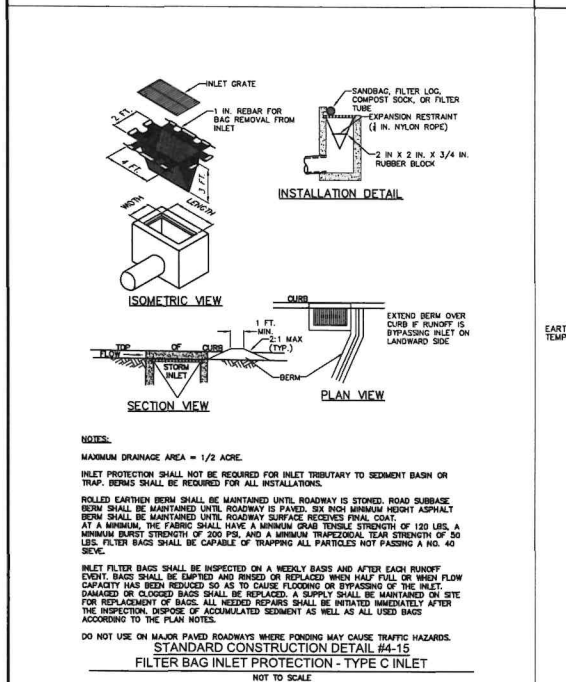
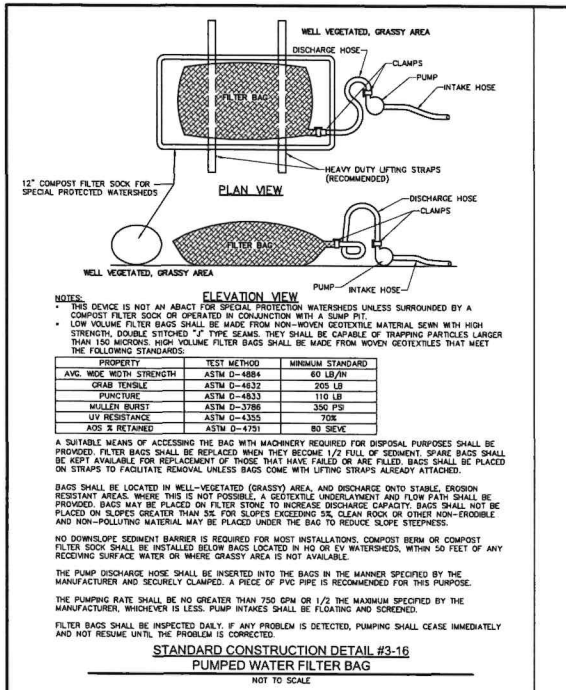
REV. 3-26-2024 PER MCD LETTER DATED 3-15-2024
REV. 12-20-2023 PER MCD & PENNDOT COMMENTS
REV. 5-31-2023 PER APPROVED TOWNSHIP RESOLUTION
REV. 9-16-2022 PER TOWNSHIP REVIEW



AERIAL PLAN
365 CEDAR ROAD
ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA
MADE FOR
PAUL YANNESSA

SCALE: 1"=100' 0 100 200 300 22 NOVEMBER 2021

EASTERN/CHADROW ASSOCIATES, INC.
333 E. STREET ROAD • WARMINSTER, PA. 18974 • (215) 672-8671 FAX (215) 672-6765
EST. 1967



APPENDIX C - STANDARD E&S PLAN NOTES

- All earth disturbances, including clearing and grubbing as well as cuts and fills shall be done in accordance with the approved E&S plan. A copy of the approved drawings (stamped, signed and dated by the reviewing agency) must be available at the project site at all times. The reviewing agency shall be notified of any changes to the approved plan prior to implementation of those changes. The reviewing agency may require a written submittal of those changes for review and approval at its discretion.
- At least 7 days prior to starting any earth disturbance activities, including clearing and grubbing, the owner and/or operator shall invite all contractors, the landowner, appropriate municipal officials, the E&S plan preparer, the PCSM plan preparer, the licensed professional responsible for oversight of critical stages of implementation of the PCSM plan, and a representative from the local conservation district to an on-site reconstruction meeting.
- At least 3 days prior to starting any earth disturbance activities, or expanding into an area previously unmarked, the Pennsylvania One Call System Inc. shall be notified at 1-800-242-1776 for the location of existing underground utilities.
- All earth disturbance activities shall proceed in accordance with the sequence provided on the plan drawings. Deviation from that sequence must be approved in writing from the local conservation district or by the Department prior to implementation.
- Areas to be filled are to be cleared, grubbed, and stripped of topsoil to remove trees, vegetation, roots and other objectionable material.
- Clearing, grubbing, and topsoil stripping shall be limited to those areas described in each stage of the construction sequence. General site clearing, grubbing and topsoil stripping may not commence in any stage or phase of the project until the E&S BMPs specified by the BMP sequence for that stage or phase have been installed and are functioning as described in this E&S plan.
- At no time shall construction vehicles be allowed to enter areas outside the limit of disturbance boundaries shown on the plan maps. These areas must be clearly marked and fenced off before clearing and grubbing operations begin.
- Topsoil required for the establishment of vegetation shall be stockpiled at the location(s) shown on the plan map(s) in the amount necessary to complete the final grading of all exposed areas that are to be stabilized by vegetation. Each stockpile shall be protected in the manner shown on the plan drawings. Stockpile heights shall not exceed 35 feet. Stockpile slopes shall be 2:1H:1V or flatter.
- Immediately upon discovering unforeseen circumstances posing the potential for accelerated erosion and sediment pollution, the operator shall implement appropriate best management practices to minimize the potential for erosion and sediment pollution and notify the local conservation district and/or the regional office of the Department.
- All building materials and wastes shall be removed from the site and recycled or disposed of in accordance with the Department's Solid Waste Management Regulations at 25 Pa. Code 260.1 et seq., 271, and 287.1 et seq. No building materials or wastes or unused building materials shall be burned, buried, dumped, or discharged at the site.
- All off-site water and borrow areas must have an E&S plan approved by the local conservation district or the Department fully implemented prior to being activated.
- The contractor is responsible for ensuring that any material brought on site is clean fill. Form FP-001 must be retained by the property owner for any fill material affected by any spill or release of a regulated substance that qualifies as clean fill due to analytical testing.
- All pumping of water from any work area shall be done according to the procedure described in this plan, under undisturbed vegetation area.
- Vehicles and equipment may neither enter directly nor exit directly from lots (specific lot numbers) onto (specific) road names.
- Until the site is stabilized, all erosion and sediment BMPs shall be maintained properly. Maintenance shall include inspections of all erosion and sediment BMPs after each runoff event and on a weekly basis. All preventative and remedial maintenance work, including clean out, repair, replacement, regrading, reseeded, and reseeded, shall be performed immediately. If the E&S BMPs fail to perform as expected, replacement BMPs, or modifications of those installed will be required.
- A log showing dates that E&S BMPs were inspected as well as any deficiencies found and the date they were corrected shall be maintained on the site and be available to regulatory agency officials at the time of inspection.
- Sediment tracked onto any public roadway or sidewalk shall be returned to the construction site by the end of each work day and disposed in the manner described in this plan. In no case shall the sediment be washed, shoveled, or swept into any roadside ditch, storm sewer, or surface water.
- All sediment removed from BMPs shall be disposed of in the manner described on the plan drawings.
- Areas which are to be topsoiled shall be scarified to a minimum depth of 3 to 5 inches - 6 to 12 inches on compacted soils - prior to placement of topsoil. Areas to be vegetated shall have a minimum 4 inches of topsoil in place prior to seeding and mulching. Fill out slopes shall have a minimum of 2 inches of topsoil.
- All fills shall be compacted as required to reduce erosion, slippage, settlement, subsidence or other related problems. Fill intended to support buildings, structures and conduits, etc. shall be compacted in accordance with local requirements or codes.
- All earthen fills shall be placed in compacted layers not to exceed 9 inches in thickness.
- Fill materials shall be free of frozen materials, brush, roots, and, or other foreign or objectionable materials that would interfere with successful construction of satisfactory fills.
- Frozen materials or soft, muddy, or highly compressible materials shall not be incorporated into fills.
- Fill shall not be placed on saturated or frozen surfaces.
- Seeds or springs encountered during construction shall be handled in accordance with the standard and specification for subsurface drain or other approved method.
- All graded areas shall be permanently stabilized immediately upon reaching finished grade. Cut slopes in competent bedrock and rock fills need not be vegetated. Seeded areas within 50 feet of a surface water, or as otherwise shown on the plan drawings, shall be blanketed according to the standards of this plan.
- Immediately after earth disturbance activities cease in any area or subarea of the project, the operator shall stabilize all disturbed areas. During non-germinating months, mulch or protective blanketing shall be applied as described in the plan. Areas not at finished grade which will be revegetated within 1 year, may be stabilized in accordance with the temporary stabilization specifications. Those areas which will not be revegetated within 1 year shall be stabilized in accordance with the permanent stabilization specifications.
- Permanent stabilization is defined as a minimum uniform, perennial 70% vegetative cover or other permanent non-vegetative cover with a density sufficient to resist accelerated erosion. Cut and fill slopes shall be capable of resisting failure due to slumping, sliding, or other movements.
- E&S BMPs shall remain functional as such until all areas tributary to them are permanently stabilized or until they are replaced by another E&S BMP approved by the local conservation district or the Department.
- Upon completion of all earth disturbance activities and permanent stabilization of all disturbed areas, the owner and/or operator shall contact the local conservation district for an inspection prior to removal/conversion of the E&S BMPs.
- After final site stabilization has been achieved, temporary erosion and sediment BMPs must be removed or converted to permanent post construction stormwater management BMPs. Areas disturbed during removal or conversion of the BMPs shall be stabilized immediately. In order to ensure rapid revegetation of disturbed areas, such removal/conversions are to be done only during the germinating season.
- Upon completion of all earth disturbance activities and permanent stabilization of all disturbed areas, the owner and/or operator shall contact the local conservation district to schedule a final inspection.
- When installing E&S BMPs, failure to prevent sediment-laden runoff from leaving the construction site, or failure to take immediate corrective action to resolve failure of E&S BMPs may result in administrative, civil, and/or criminal penalties being instituted by the Department as defined in Section 602 of the Pennsylvania Clean Streams Law. The Clean Streams Law provides for up to \$10,000 per day in civil penalties, up to \$10,000 in summary criminal penalties, and up to \$25,000 in misdemeanor criminal penalties for each violation.

Construction Sequence

ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE FOLLOWING SEQUENCE.

The permittee or co-permittee shall contact the PADEP or County Conservation District at least seven days before construction is to begin to schedule a preconstruction conference. The permittee, co-permittee, and others undertaking the earth disturbance activity must attend a preconstruction conference when requested by the PADEP or County Conservation District. The permittee or co-permittee must bring a copy of their NPDES permit, a copy of the stamped plan from the PADEP or County Conservation District, and all associated department approval permits which must be available at the conference upon request. Also, at least 3 days before starting any earth disturbance activities, all contractors involved in those activities shall notify the Pennsylvania One Call System Incorporated at 1-800-242-1776 for buried utilities locations.

A Pennsylvania Licensed professional or designee shall be onsite for implementation of critical stages of the Post Construction Stormwater Management Plan. Critical stages shall include the installation of the stormwater management basins, BMP 1 and BMP 2. The municipality shall inspect all phases of the installation of the best management practices (BMPs) and/or stormwater management (SWM) facilities as deemed appropriate by the municipality. During construction, the contractor must notify the township engineer's office three (3) days prior to the construction of the proposed BMP stormwater management facility.

STAGE 1 - Shall consist of initial installation of erosion control facilities and site preparation.

Install construction entrance in accordance with the plan and details. Install sediment trap consisting of compost filter sock berm and temporary grades in accordance with the plan and details. Install Erosion Control Blanket on the slopes and channel downgrades of the sediment trap as part of the sediment trap construction. Install 24" compost filter sock diversion berms to direct upstream areas to the sediment trap. Install perimeter 18" compost filter sock along the east and west property lines. The perimeter compost filter sock shall be used to direct onsite areas to the sediment trap, define the limit of disturbance and to prevent any offsite flows from entering the disturbed area. Install inlet #10, manhole #1 and temporary end wall #1 to direct offsite runoff from Glenmore Road around the compost filter sock sediment trap and to the existing channel. Begin demolition of existing structures to be removed. See demolition plan and notes. Begin bulk excavation and rough grading of the site, which shall include excavation of the roadway, building areas, driveways, and yard areas. Upon completion of rough site grading, install the erosion control blanket in the diversion berm / swale area along the west property line. Stockpile topsoil and excess material where indicated on the plan (or export if required), seed with temporary seed mixture and surround with compost filter sock or silt fence. Refer to "Standard note to comply with NPDES Checklist Item #3.b.x.v". All erosion and sediment controls identified above must be implemented to prevent sediment and potential contaminants from leaving the site before proceeding to stage 2. Stage 1 shall be considered complete when the above items are complete.

STAGE 2 - Shall consist of site utility installation, roadway and building construction.

Upon completion of Stage 1 begin construction of the sanitary sewer main from the existing manhole at the terminus of Glenmore Road. See utility line trench installation notes. Install site utilities and storm water inlets and collection system. Install temporary end wall #2 to direct runoff from inlet #4 towards the sediment trap. Upon completion of all utilities, storm collection and conveyance facilities and service laterals within the road right of way install curb, roadway stone base and kinder paving course. Begin construction of buildings, individual on lot utilities and driveways.

Pumping of any sediment laden water from excavated areas (foundations, trenches etc.) must be pumped through a sediment filter bag (see detail on erosion control detail sheet). Discharge from the sediment filter bag must flow towards the perimeter silt sock or silt fence, sediment trap and/or undisturbed stabilized area prior to leaving the site.

Inspect the silt sock and/or silt fence and other erosion control facilities after every rainfall runoff event. Sediment shall be removed where accumulation reaches 1/3 the height of the silt fence and elevation 199.0 for the sediment trap. All erosion control facilities shall be maintained in accordance with the details. Any sediment on the roadway must be cleared immediately.

Upon stabilization of the contributing drainage areas begin construction BMP #1 and permanent end wall #1. Remove temporary end wall #1 and connect pipe from MHI #1 to permanent end wall #1. Remove temporary end wall #2 and connect outlet from BMP #2 to permanent end wall #1. Temporary sediment trap grades will overlap with the final grades of BMP #2. Relocate or adjust sediment trap compost filter socks and perimeter compost filter sock as needed. Final grades shall be established as practical. Upon stabilization of contributing drainage areas begin construction of BMP #2. Compost filter sock sediment trap, perimeter 24" and 18" compost filter sock shall remain in place during construction of BMP #2 and until site is stabilized. The underground stormwater basins BMP #1 and BMP #2 shall be protected from sediments by use of inlet protection or other appropriate methods. Refer to the Underground Basin Construction Sequence and Guidelines for the Post Construction Stormwater Management Detail sheet. All stone that makes up the infiltration Stormwater Management Practice must remain free of sediment. If sediment enters the stone, the contractor may be required to remove the sediment and replace with clean washed stone. Stockpile excess material from the basin areas where indicated on the plan (or export if required), seed with temporary seed mixture and surround with silt fence. Refer to "Standard note to comply with NPDES Checklist Item #3.b.x.v".

Stage 2 must be implemented before proceeding to stage 3. Stage 2 shall be considered complete when the above items are complete.

STAGE 3 - Shall consist of final site construction and stabilization.

Upon completion of stage 2, finalize construction of buildings, driveways, paved areas, site utilities and final grades as per the approval plans. Distribute topsoil, plant landscaping and stabilize disturbed areas in accordance with the seeding and mulching guidelines found on the plans. After final site stabilization has been achieved, temporary erosion and sediment BMPs and controls (sediment trap, compost filter sock, stabilized construction entrance etc.) must be removed. Areas disturbed during removal of the BMPs must be stabilized immediately by the operator. During non-germinating periods, mulch must be applied at the specified rates. Disturbed areas which are not at finished grade and which will be re-disturbed within one year shall be stabilized in accordance with the temporary vegetation stabilization specifications. Disturbed areas which are at finished grade or will not be re-disturbed within one year shall be stabilized in accordance with the permanent vegetative specifications. An area shall be considered to have achieved final stabilization when it has a minimum 70% perennial vegetative cover or other cover sufficient to resist accelerated surface erosion and subsurface characteristics sufficient to resist sliding and other movements.

TOTAL AREA TO BE DISTURBED IS APPROXIMATELY = 4.1 ACRES

SHEET 5 of 17

SD-21-03-FINAL MAJOR SUBDIVISION & LAND DEVELOPMENT

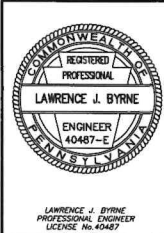
REV. 3-26-2024 PER MCOO LETTER DATED 3-15-2024
REV. 12-20-2023 PER MCOO & PENNDOT COMMENTS
REV. 5-31-2023 AS PER APPROVED TOWNSHIP RESOLUTION
REV. 9-16-2022 AS PER TOWNSHIP REVIEW

EROSION & SEDIMENT CONTROL PLAN DETAILS
365 CEDAR ROAD
ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA
MADE FOR

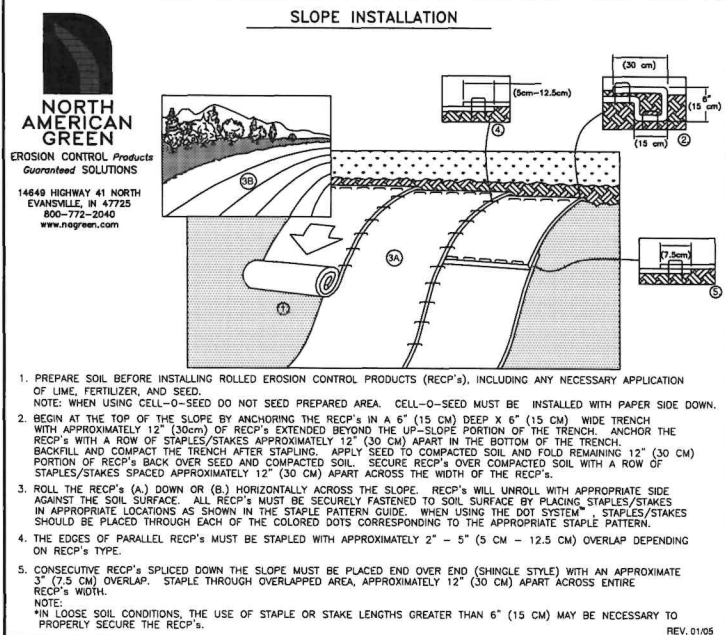
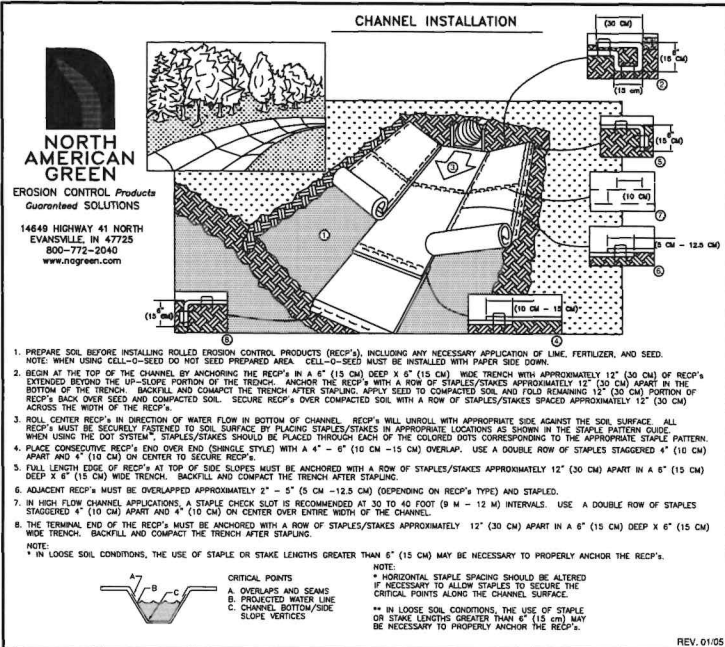
PAUL YANNESSA

22 NOVEMBER 2021

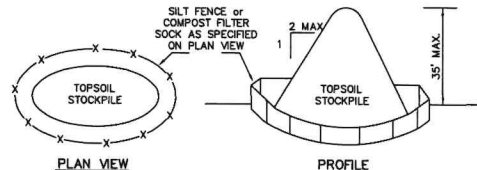
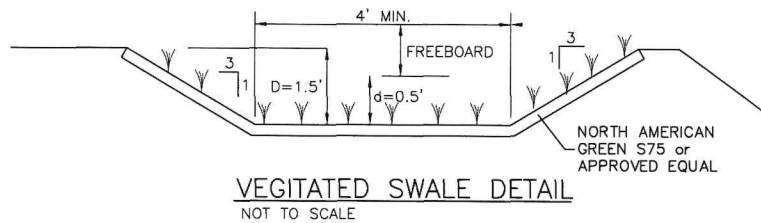
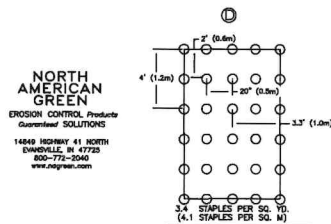
EASTERN/CHADROW ASSOCIATES, INC.
332 E. STREET ROAD • WARRIMSTER, PA. 18974 • (215) 672-8871 FAX (215) 672-8765
EST. 1967



E-2541-5



STAPLE PATTERN GUIDE 6.67' (2.03 M) WIDE ROLLS



- NOTE:
1. SILT FENCE or COMPOST FILTER SOCK AS SPECIFIED ON PLAN VIEW MUST BE PLACED AROUND THE PERIMETER OF ALL STOCKPILES.
2. IMMEDIATELY APPLY TEMPORARY SEEDING TO ALL STOCKPILES WHICH WILL REMAIN IN PLACE 20 DAYS OR MORE.

SEED MIX FOR VEGETATED SWALES
Ernst Conservation Seeds
8984 Menor Pike
Meadville, PA 16335
(800) 873-3321 Fax (814) 336-5191
www.ernstseed.com

Date: October 10, 2023

Native Detention Area Mix - ERNMX-183

Botanical Name	Common Name	Price/Lb
26.00 % <i>Panicum clandestinum</i> , Flag	Deertongue, Tiesia	22.10
25.00 % <i>Panicum virgatum</i> , 'Carrizal', NC Ecotype	Switchgrass, 'Carrizal', NC Ecotype	11.49
24.00 % <i>Elymus virginicus</i> , Madison-NY Ecotype	Virginia Wildrye, Madison-NY Ecotype	16.34
20.00 % <i>Carex vulpinoidea</i> , PA Ecotype	Fox Sedge, PA Ecotype	28.80
3.00 % <i>Juncus effusus</i>	Soft Rush	48.00
1.00 % <i>Juncus tenuis</i> , PA Ecotype	Path Rush, PA Ecotype	48.00
1.00 % <i>Panicum rigidulum</i> , PA Ecotype	Redtop Panicgrass, PA Ecotype	57.60

100.00 %

Seeding Rate: 20 lb per acre, or 1/2 lb per 1,000 sq. ft. For a cover crop, grain rye (1 Sep to 30 Apr; 30 lbs/acre), Japanese millet (1 May to 31 Aug; 10 lbs/acre).

Grasses & Grass-like Species - Herbaceous Perennial; Stormwater Management

The native grasses, sedges and rushes establish quickly in areas where mowing is not anticipated. With a high seed count per pound, it can achieve native establishment with minimum risk and tolerate low-fertility. Mix formulations are subject to change without notice depending on the availability of existing and new products. While the formula may change, the guiding philosophy and function of the mix will not.

Mix Price/Lb Bulk: **\$19.36**

STANDARD WORKSHEET #21 Temporary and Permanent Stabilization Specifications

PROJECT NAME: _____ LOCATION: _____
PREPARED BY: _____ DATE: _____
CHECKED BY: _____ DATE: _____
SPECIFICATIONS: The Department recommends the use of the Penn State publication "Erosion Control & Conservation Plantings on Noncropland" as the standard to use for the selection of species, seed specifications, mixtures, timing and fertilizing, time of seeding, and seeding methods. Specifications for these items may also be obtained from Penn DOT's Publication # 408, Section 804 or by contacting the applicable county conservation district. Upon selection of a reference, that reference must be used to provide all specifications for seeding, mulching, and soil amendments. The following specification will be used for this project:

TEMPORARY

SPECIES:	Winter Rye
% PURE LIVE SEED:	90%
APPLICATION RATE:	150 lbs/acre
FERTILIZER TYPE:	10-10-10
FERTILIZER APPL. RATE:	435 lbs/acre
LIMING RATE:	1.0 tons/acre
MULCH TYPE:	Straw
MULCHING RATE:	3.0 tons/acre

PERMANENT

TOPSOIL PLACEMENT DEPTH:	4 inch min
SPECIES:	50% Kentucky Blue Grass, 40% Red Fescue, 10% Perennial Rye Grass
% PURE LIVE SEED:	90-90-95
APPLICATION RATE:	150 lbs/acre
FERTILIZER TYPE:	10-20-20
FERTILIZER APPL. RATE:	600 lbs/acre
LIMING RATE:	0.5 tons/acre
MULCH TYPE:	Straw
MULCHING RATE:	3 tons/acre
ANCHOR MATERIAL:	Cellulose fiber
ANCHORING METHOD:	Hydro Spray
RATE OF ANCHOR MATERIAL APPL:	800 lbs/acre
SEEDING SEASON DATES:	Early Spring to Late Fall

PERMANENT - STEEP SLOPE

TOPSOIL PLACEMENT DEPTH:	4 inch min
SPECIES:	50% Kentucky Blue Grass, 40% Red Fescue, 10% Perennial Rye Grass
% PURE LIVE SEED:	90-90-95
APPLICATION RATE:	150 lbs/acre
FERTILIZER TYPE:	10-20-20
FERTILIZER APPL. RATE:	600 lbs/acre
LIMING RATE:	0.5 tons/acre
MULCH TYPE:	Straw
MULCHING RATE:	3 tons/acre
ANCHOR MATERIAL:	Emulsified Asphalt
ANCHORING METHOD:	Spray
RATE OF ANCHOR MATERIAL APPL:	100 gal/acre
SEEDING SEASON DATES:	Early Spring to Late Fall

Temporary Stabilization and Permanent Stabilization

Hay or straw mulch must be applied at 3.0 tons per acre.

Mulch with mulch control netting or erosion control blankets must be installed on all slopes 3:1 or steeper.

Straw mulch shall be applied in long strands, not chopped or finely broken.

Until the site is stabilized, all erosion and sediment BMP's must be maintained properly. Maintenance must include inspections of all erosion and sediment control BMP's after each runoff event and on a weekly basis. All preventative and remedial maintenance work, including clean out, repair, replacement, regarding, reseedling, mulching, and renetting, must be done immediately. If erosion and sediment control BMP's fail to perform as expected, replacement BMP's, or modifications to those installed will be required. E&SPCPM p. 168

Sediment removed from BMP's shall be disposed of in landscape areas outside of steep slopes, wetlands, floodplains or drainage swales and immediately stabilized, or placed in topsoil stockpiles.

The operator shall remove from this 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 wastes at this site.

An E&S Plan shall be submitted to the department or authorized conservation district and implemented for all spoil and borrow areas, regardless of their location.

Upon completion or temporary cessation of the earth disturbance activity the project site shall be immediately stabilized in accordance with the recommendations contained in the Erosion and Sediment Pollution Control Program Manual (E&S Manual), Commonwealth of Pennsylvania, Department of Environmental Protection No. 363-2134-008, April 2000, as amended and updated. Erosion and sediment control BMP's shall be implemented and maintained until permanent stabilization is completed and PCSM BMP's are operational.

Soils Limitation and Resolutions for Appendix E Limitation Resolution

* Cutbacks & cave in All applicable OSHA standards in regards to trenching and excavation must be implemented at all times.

* Corrosive Suitable precautions should be taken to protect concrete and steel underground pipes, conduits and storage tanks. Utilize PVC or HDPE pipe as applicable.

Droughty Provide soil amendments such as compost or organic material.

* Easily erodible Stabilize immediately with suitable protection such as erosion control blanket, hydrosedding, sod etc.

* Flooding No work or earth disturbance in flooded soils without proper dewatering.

* Seasonal High Water Dewater excavated areas and trenches by pumping through filter bag or sediment trap. If possible drain by gravity under drain to stabilized areas or sediment traps.

* Hydric soils Remove and replace with suitable material as needed.

* Low Strength/Landslide All applicable OSHA standards in regards to slope construction must be implemented at all times. Minimize slope steepness. Remove and replace with suitable material as needed.

* Slow Percolation Dewater excavated areas and trenches by pumping through filter bag or sediment trap. If possible drain by gravity under drain to stabilized areas or sediment traps. Provide applicable soils testing prior to design of BMP's. Utilize amended soils. Remove and replace with suitable material as needed.

* Piping Utilize water tight pipes and appropriately designed materials and construction techniques.

* Poor Topsoil Perform soils testing and supplement the soils as recommended with organic material, Lime and fertilizer.

* Frost Action Precautions are needed to prevent damage, especially to roadways. Suitable design shall be utilized.

Shrink-Swell Remove and replace with suitable material as needed.

Potential Sinkhole Applicable to carbonate areas. Perform site specific investigation to determine if sink holes and carbonate features are present. Remedial as necessary based on site specific recommendation.

Ponding No work or earth disturbance in flooded or ponding soils without proper dewatering.

* Wetness No work or earth disturbance in flooded or ponding soils without proper dewatering. Allow wet soils to dry out as needed.

* Limitations for Glenelg silt loam, Harbore silt loam, Manor loam and Urban land - Udorthents.

The onsite Soils are classified as :
GnB - Glenelg Silt Loam, 3% to 8% slopes -HSG "B"
Ha - Harbore Silt Loam - HSG "B/D"
Mac - Manor Silt Loam, 8% to 15% slopes - HSG "B"
UugB - Urban Land - Udorthents, schist and gneiss complex, 0% to 8% slopes - HSG "C"
UugD - Urban Land - Udorthents, schist and gneiss complex, 8% to 25% slopes - HSG "C"

SD-21-03-FINAL MAJOR SUBDIVISION & LAND DEVELOPMENT SHEET 6 of 17

REV. 3-26-2024 PER MCCO LETTER DATED 3-15-2024
REV. 12-20-2023 PER MCCO & PENNDOT COMMENTS
REV. 5-31-2023 AS PER APPROVED TOWNSHIP RESOLUTION
REV. 9-16-2022 AS PER TOWNSHIP REVIEW

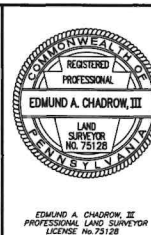
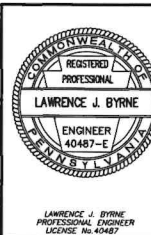
EROSION & SEDIMENT CONTROL PLAN DETAILS
365 CEDAR ROAD
ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA
MADE FOR

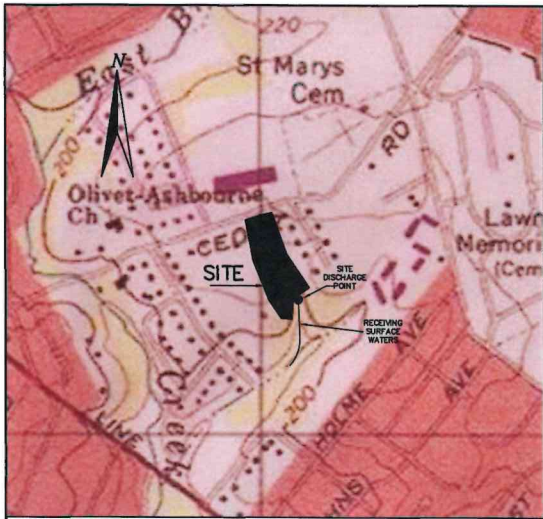
PAUL YANNESSA

22 NOVEMBER 2021

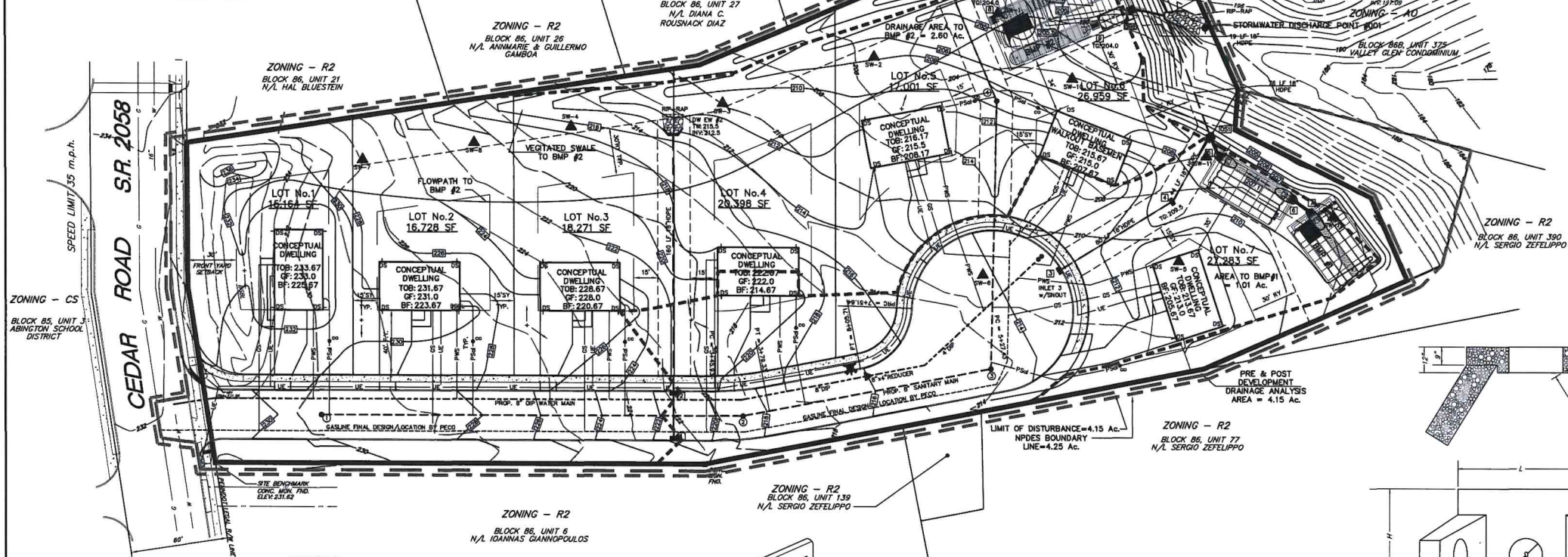
EASTERN/CHADROW ASSOCIATES, INC.

333 E. STREET ROAD • WARMINSTER, PA. 18974 • (215) 672-8671 FAX (215) 672-8765
EST. 1967





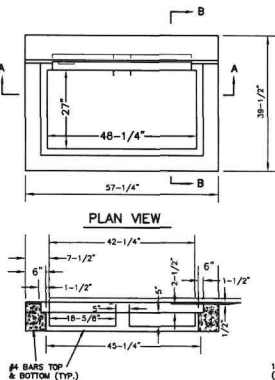
U.S.G.S. LOCATION MAP
FRANKFORD QUAD
SCALE: 1" = 800'



LEGEND

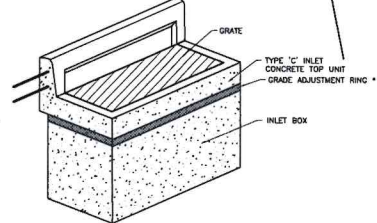
→	FLOW ARROW
100.2	PROPOSED SPOT ELEVATION
100.2	EXISTING SPOT ELEVATION
---	PROPOSED CONTOUR
---	EXISTING CONTOUR
○	EXISTING MONUMENT
○	UTILITY POLE
○	CONCRETE CURB
○	EXISTING WATERLINE
○	EXISTING SANITARY SENDER
○	EXISTING STORM SENDER
○	EXISTING MANHOLE
---	EDGE OF PAVING
---	PROPOSED WATER SERVICE
---	PROPOSED SANITARY LATERAL
---	SUB-DRAINAGE BOUNDARY LINE
---	OVER ALL DRAINAGE BOUNDARY LINE
---	LIMIT OF DISTURBANCE
---	NPDES BOUNDARY LINE
---	SOIL BOUNDARY LINE
▲	SOILS TESTING LOCATION
---	OVERHEAD WIRE
---	PROPOSED UNDERGROUND ELECTRIC
---	PROPOSED GAS SERVICE
---	PROPOSED GAS SERVICE

ZONING - R2
BLOCK 86, UNIT 6
N/L IOANNA GIANNPOULOS

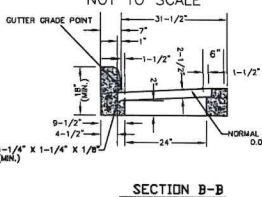


SECTION A-A

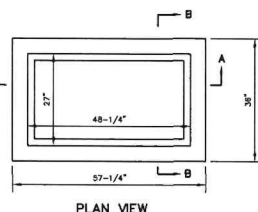
4' C INLET DETAIL



TYPE 'C' INLET
NOT TO SCALE

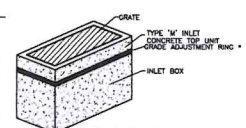


SECTION B-B

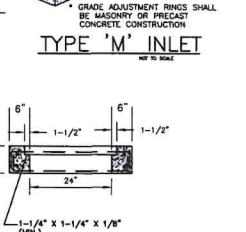


SECTION A-A

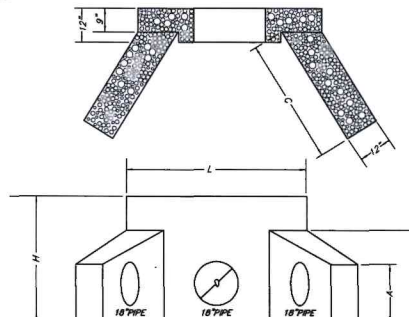
TYPE 'M' INLET TOP UNIT DETAIL



TYPE 'M' INLET
NOT TO SCALE



SECTION B-B



WALL TYPE	"D"	"A"	"B"	"C"
DW-1B	18"	4.5"	5"	3.5"

MODIFIED TYPE D-W ENDWALL
NTS

SPECIFICATIONS
*MINIMUM CONCRETE STRENGTH - 4,000 P.S.I. @ 28 DAYS
- AIR ENTRAINMENT - 5 1/2% ± 1 1/2%
STEEL REINFORCEMENT - #4 REBAR AS SPECIFIED BY PENN. D.O.T. PUBLICATION 40B
SHOP DRAWINGS OF PROPOSED ENDWALL SHALL BE PREPARED PRIOR TO CONSTRUCTION
CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR TOWNSHIP APPROVAL PRIOR TO CONSTRUCTION

NPDES Permit plan notes:

- The nearest receiving surface water is the Jenkintown Creek which is part of the Tacony Creek watershed management district "B". The PA Chapter 93 existing and designated use classification is WWF (Warm Water Fishes) and MF (Migratory fishes).
- The responsible party is the owner: Paul Yannessas
403 Longfield Road
Glenide, PA 19038
215-840-3260
- It shall be responsibility of the owner to maintain the stormwater management system on the site. Maintenance shall be as indicated on these plans and in accordance with the manufacturer's specifications. The landowner shall perform any necessary maintenance and repairs to the storm system if it is found not to be operating as designed. The township shall be granted the right to enter the property to perform proper maintenance if necessary.
- A Pennsylvania licensed professional or designee shall be on site for implementation of critical stages of the post construction stormwater management plan. Critical stages shall include the installation of the basins.
- The plan minimizes the extent and duration of earth disturbance. The plan maximizes the protection of existing drainage features and vegetation. The plan minimizes soil compaction and utilizes other measures or controls that prevent or minimize generation of increased stormwater runoff rate and volume. The plan preserves the integrity of stream channels and maintains and protects the physical, biological and chemical qualities of the receiving stream. These are accomplished by minimizing the limit of disturbance, utilizing a construction sequence and utilizing stormwater BMP's such as the Managed Release Basin, swales and infiltration trench BMP's. The plan minimizes impervious areas, soil compaction, land clearing and grading. The plan utilizes structural and non-structural BMP's that prevent or minimize changes in stormwater runoff peak rate and volume. The plan maximizes the protection of existing drainage features and existing vegetation.
- No geological formations/soil conditions exist on site that have the potential to cause pollution.
- Thermal impacts from the runoff are mitigated because the runoff drains to an underground basin where it has a chance to cool and infiltrate into the ground. In addition vegetation is to be planted in the basin and existing trees and vegetation are to remain onsite which will provide cooling shade.
- Riparian buffers are not required nor proposed because there are no streams or wetlands on the project site.
- On site soils testing was performed by V.W. Consultants and the results are contained in the Post Construction Stormwater Management Report.
- The operator shall remove from this site, recycle, or dispose of wastes in accordance with the Department's Solid Waste Management Regulations at 25 Pa. Code 260.1 et seq. 271.1 et seq. Anticipated wastes shall be vegetative debris such as sticks, leaves and grass clippings. Other debris may consist of paper and plastics such as cups, bottles, containers and other trash. The contractor or responsible party shall not illegally bury, dump, or discharge any material or wastes at this site.

OWNER CERTIFICATION

Any revision of the approved stormwater management plan must be approved by the Municipality & that a revised E & S Plan must be submitted to the Conservation District for a determination of adequacy.

Owner _____ Date _____

MUNICIPAL ENGINEER CERTIFICATION

ON THIS DATE, _____
HAS REVIEWED & HEREBY CERTIFIES THAT THE SWM SITE PLAN MEETS ALL DESIGN STANDARDS & CRITERIA ON THE MUNICIPAL ORDINANCE NO. CHAPTER 142.

I, LAWRENCE J. BYRNE, P.E. HEREBY CERTIFY THAT THE STORMWATER MANAGEMENT PLAN MEETS ALL DESIGN STANDARDS & CRITERIA OF THE ABBINGTON TOWNSHIP WATERSHED ACT 167 STORMWATER MANAGEMENT ORDINANCE &/or PLAN.

SIGNATURE _____ DATE _____

SHEET 7 of 17

SD-21-03-FINAL MAJOR SUBDIVISION & LAND DEVELOPMENT

REV. 3-26-2024 PER MCD LETTER DATED 3-15-2024
REV. 12-20-2023 PER MCD & PENNDOT COMMENTS
REV. 5-31-2023 AS PER APPROVED TOWNSHIP RESOLUTION
REV. 9-16-2022 AS PER TOWNSHIP REVIEW

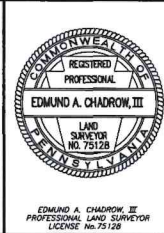
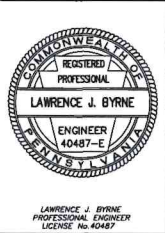
POST CONSTRUCTION STORMWATER MANAGEMENT PLAN

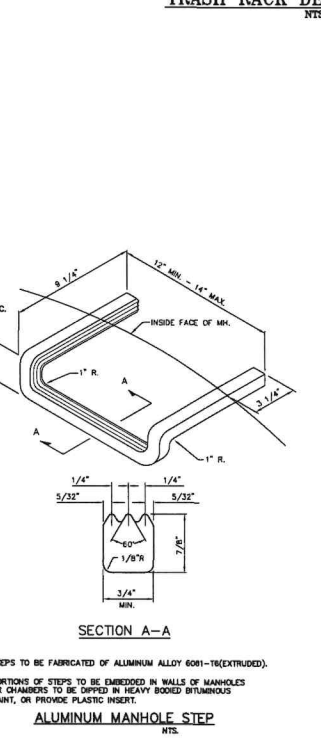
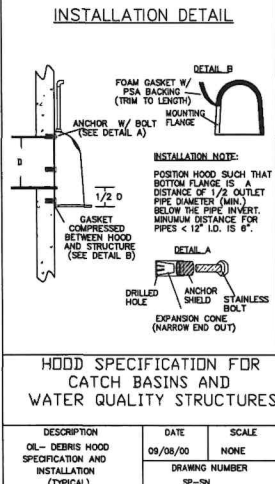
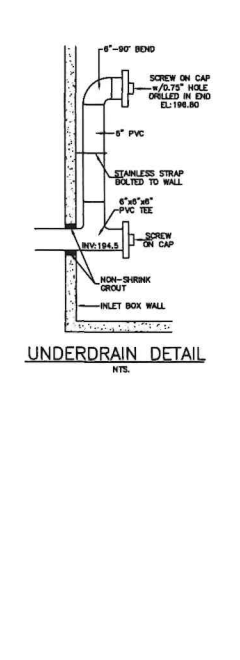
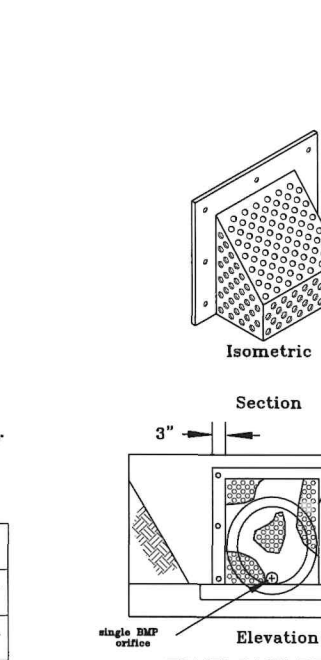
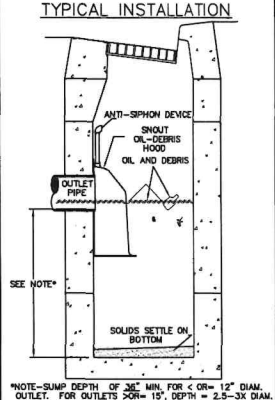
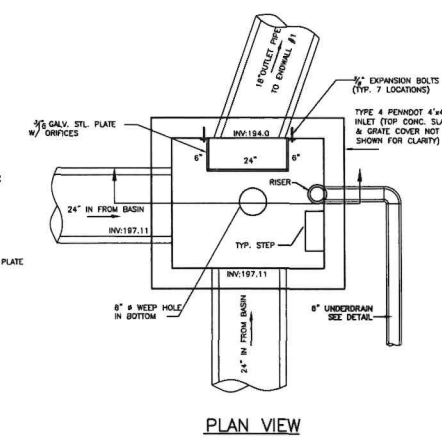
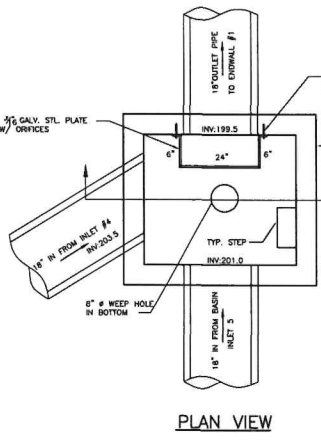
365 CEDAR ROAD
ABBINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

MADE FOR
PAUL YANNESSAS

SCALE: 1"=40' 0 40 80 120 22 NOVEMBER 2021

EASTERN/CHADROW ASSOCIATES, INC.
333 E. STREET ROAD • WARMINSTER, PA. 18974 • (215) 672-8671 FAX (215) 672-8785
EST. 1967





SHEET 8 of 17 SD-21-03-FINAL MAJOR SUBDIVISION & LAND DEVELOPMENT

POST CONSTRUCTION STORMWATER MANAGEMENT DETAILS
365 CEDAR ROAD
ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA
MADE FOR
PAUL YANNESSA

EASTERN/CHADROW ASSOCIATES, INC.

E-2541-8

SC-740 STORMTECH CHAMBER SPECIFICATIONS

- CHAMBERS SHALL BE STORMTECH SC-740.
- CHAMBERS SHALL BE ARCH-SHAPED AND SHALL BE MANUFACTURED FROM VIRGIN, IMPACT-MODIFIED POLYPROPYLENE COPOLYMERS.
- CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- CHAMBER ROWS SHALL PROVIDE CONTINUOUS, UNOBSTRUCTED INTERNAL SPACE WITH NO INTERNAL SUPPORTS THAT WOULD IMPEDE FLOW OR LIMIT ACCESS FOR INSPECTION.
- THE STRUCTURAL DESIGN OF THE CHAMBERS, THE STRUCTURAL BACKFILL, AND THE INSTALLATION REQUIREMENTS SHALL ENSURE THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12, ARE MET FOR: 1) LONG-DURATION DEAD LOADS AND 2) SHORT-DURATION LIVE LOADS, BASED ON THE AASHTO DESIGN TRUCK WITH CONSIDERATION FOR IMPACT AND MULTIPLE VEHICLE PRESENCES.
- CHAMBERS SHALL BE DESIGNED, TESTED AND ALLOWABLE LOAD CONFIGURATIONS DETERMINED IN ACCORDANCE WITH ASTM F2787, "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS". LOAD CONFIGURATIONS SHALL INCLUDE: 1) INSTANTANEOUS (< 1 MIN) AASHTO DESIGN TRUCK LIVE LOAD ON MINIMUM COVER 2) MAXIMUM PERMANENT (75-YR) COVER LOAD AND 3) ALLOWABLE COVER WITH PARKED (1-WEEK) AASHTO DESIGN TRUCK.
- REQUIREMENTS FOR HANDLING AND INSTALLATION:
 - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
 - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 2".
 - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT SHALL BE GREATER THAN OR EQUAL TO 850 LB-IN/IN. THE ASC IS DEFINED IN SECTION 6.2.8 OF ASTM F2418. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.
- ONLY CHAMBERS THAT ARE APPROVED BY THE SITE DESIGN ENGINEER WILL BE ALLOWED, UPON REQUEST BY THE SITE DESIGN ENGINEER OR OWNER, THE CHAMBER MANUFACTURER SHALL SUBMIT A STRUCTURAL EVALUATION FOR APPROVAL BEFORE DELIVERING CHAMBERS TO THE PROJECT SITE AS FOLLOWS:
 - THE STRUCTURAL EVALUATION SHALL BE SEALED BY A REGISTERED PROFESSIONAL ENGINEER.
 - THE STRUCTURAL EVALUATION SHALL DEMONSTRATE THAT THE SAFETY FACTORS ARE GREATER THAN OR EQUAL TO 1.95 FOR DEAD LOAD AND 1.75 FOR LIVE LOAD, THE MINIMUM REQUIRED BY ASTM F2787 AND BY SECTIONS 3 AND 12.12 OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS FOR THERMOPLASTIC PIPE.
 - THE TEST DERIVED CREEP MODULUS AS SPECIFIED IN ASTM F2418 SHALL BE USED FOR PERMANENT DEAD LOAD DESIGN EXCEPT THAT IT SHALL BE THE 75-YEAR MODULUS USED FOR DESIGN.
- CHAMBERS AND END CAPS SHALL BE PRODUCED AT AN ISO 9001 CERTIFIED MANUFACTURING FACILITY.

IMPORTANT - NOTES FOR THE BIDDING AND INSTALLATION OF THE SC-740 SYSTEM

- STORMTECH SC-740 CHAMBERS SHALL NOT BE INSTALLED UNTIL THE MANUFACTURER'S REPRESENTATIVE HAS COMPLETED A PRE-CONSTRUCTION MEETING WITH THE INSTALLERS.
- STORMTECH SC-740 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".
- CHAMBERS ARE NOT TO BE BACKFILLED WITH A DOZER OR AN EXCAVATOR SITUATED OVER THE CHAMBERS. STORMTECH RECOMMENDS 3 BACKFILL METHODS:
 - STONEHOOTER LOCATED OFF THE CHAMBER BED.
 - BACKFILL AS ROWS ARE BUILT USING AN EXCAVATOR ON THE FOUNDATION STONE OR SUBGRADE.
 - BACKFILL FROM OUTSIDE THE EXCAVATION USING A LONG BOOM HOE OR EXCAVATOR.
- THE FOUNDATION STONE SHALL BE LEVELED AND COMPACTED PRIOR TO PLACING CHAMBERS.
- JOINTS BETWEEN CHAMBERS SHALL BE PROPERLY SEATED PRIOR TO PLACING STONE.
- MAINTAIN MINIMUM - 6" (150 mm) SPACING BETWEEN THE CHAMBER ROWS.
- EMBEDMENT STONE SURROUNDING CHAMBERS MUST BE A CLEAN, CRUSHED, ANGULAR STONE 3/4"-2" (20-50 mm).
- THE CONTRACTOR MUST REPORT ANY DISCREPANCIES WITH CHAMBER FOUNDATION MATERIALS BEARING CAPACITIES TO THE SITE DESIGN ENGINEER.
- ADS RECOMMENDS THE USE OF "FLEXSTORM CATCH IT" INSERTS DURING CONSTRUCTION FOR ALL INLETS TO PROTECT THE SUBSURFACE STORMWATER MANAGEMENT SYSTEM FROM CONSTRUCTION SITE RUNOFF.

NOTES FOR CONSTRUCTION EQUIPMENT

- STORMTECH SC-740 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".
- THE USE OF CONSTRUCTION EQUIPMENT OVER SC-740 CHAMBERS IS LIMITED:
 - NO EQUIPMENT IS ALLOWED ON BARE CHAMBERS.
 - NO RUBBER Tired LOADERS, DUMP TRUCKS, OR EXCAVATORS ARE ALLOWED UNTIL PROPER FILL DEPTHS ARE REACHED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".
 - WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT CAN BE FOUND IN THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".
- FULL 36" (900 mm) OF STABILIZED COVER MATERIALS OVER THE CHAMBERS IS REQUIRED FOR DUMP TRUCK TRAVEL OR DUMPING.

USE OF A DOZER TO PUSH EMBEDMENT STONE BETWEEN THE ROWS OF CHAMBERS MAY CAUSE DAMAGE TO THE CHAMBERS AND IS NOT AN ACCEPTABLE BACKFILL METHOD. ANY CHAMBERS DAMAGED BY THE "DUMP AND PUSH" METHOD ARE NOT COVERED UNDER THE STORMTECH STANDARD WARRANTY.

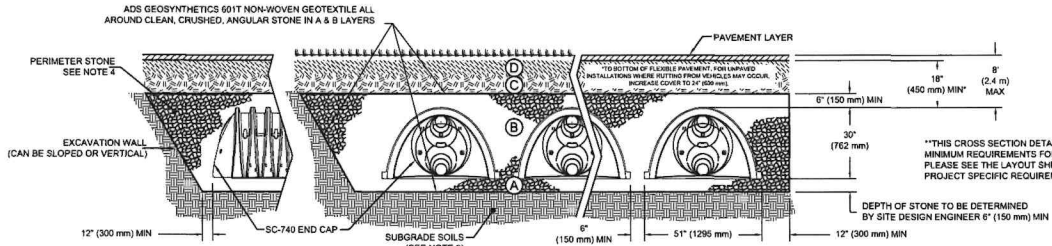
CONTACT STORMTECH AT 1-888-882-2694 WITH ANY QUESTIONS ON INSTALLATION REQUIREMENTS OR WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT.

ACCEPTABLE FILL MATERIALS: STORMTECH SC-740 CHAMBER SYSTEMS

MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	FINAL FILL: FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	INITIAL FILL: FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('A' LAYER) TO 18" (450 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	AASHTO M1451 A-1, A-2-4, A-3 OR AASHTO M431 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 12" (300 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 6" (150 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS. ROLLER CIRCUS VEHICLE WEIGHT NOT TO EXCEED 12,000 lbs (53 kN). DYNAMIC FORCE NOT TO EXCEED 20,000 lbs (89 kN).
B	EMBEDMENT STONE: FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	AASHTO M431 3, 357, 4, 467, 5, 56, 57	NO COMPACTION REQUIRED.
A	FOUNDATION STONE: FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	AASHTO M431 3, 357, 4, 467, 5, 56, 57	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE ^{2,3}

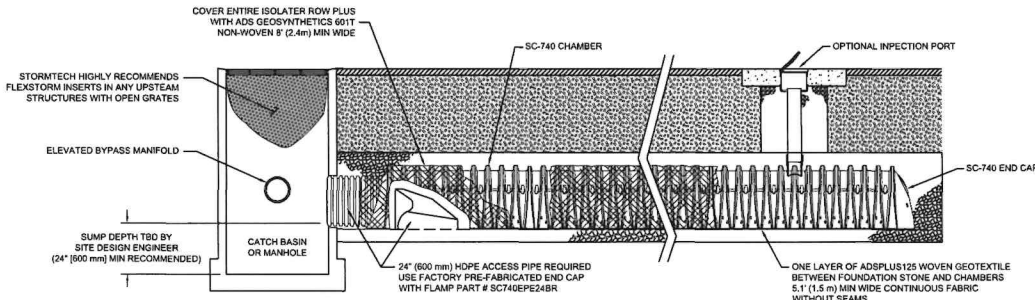
PLEASE NOTE:

- THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR, FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
- STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 6" (150 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
- WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAINING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.
- ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.



NOTES:

- CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- SC-740 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
- PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
- REQUIREMENTS FOR HANDLING AND INSTALLATION:
 - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
 - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 2".
 - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT AS DEFINED IN SECTION 6.2.8 OF ASTM F2418 SHALL BE GREATER THAN OR EQUAL TO 850 LB-IN/IN. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.



INSPECTION & MAINTENANCE

- STEP 1) INSPECT ISOLATOR ROW PLUS FOR SEDIMENT
- A. INSPECTION PORTS (IF PRESENT)
- A.1. REMOVE/OPEN LID ON NYLOPLAST INLINE DRAIN
- A.2. REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED
- A.3. USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
- A.4. LOWER A CAMERA INTO ISOLATOR ROW PLUS FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
- A.5. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- B. ALL ISOLATOR PLUS ROWS
- B.1. REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW PLUS
- B.2. USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW PLUS THROUGH OUTLET PIPE
- B.3. MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY
- B.4. FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE
- B.5. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- STEP 2) CLEAN OUT ISOLATOR ROW PLUS USING THE JETVAC PROCESS
- A. A FIXED CULVERT CLEANING HOZZLE WITH REAR FACING SPREAD OF 45° (1.1 m) OR MORE IS PREFERRED
- B. APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN
- C. VACUUM STRUCTURE SUMP AS REQUIRED
- STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS, RECORD OBSERVATIONS AND ACTIONS.
- STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

NOTES

- INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.
- CONDUCT JETTING AND VACUUMING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY. THE SYSTEM SHALL BE CONSIDERED AS FAILED IF THE ISOLATOR ROW IS COMPLETELY FILLED WITH SEDIMENT TRASH OR OTHER DEBRIS AND FAILS TO DRAIN DOWN OVER 72 HOURS AS OBSERVED. IF THE SYSTEM DOES FAIL AS A RESULT OF IMPROPER MAINTENANCE OVER AN EXTENDED PERIOD OF TIME THEN IMMEDIATE WATER JETTING AND VACUUMING OF THE ISOLATOR ROW WILL BE REQUIRED. IF THE ISOLATOR ROW CAN NOT BE CLEANED OUT BY JETTING AND VACUUMING THEN EXCAVATION OF THE ISOLATOR ROW AND REPLACEMENT MAY BE REQUIRED.

SHEET 9 of 17

SD-21-03-FINAL MAJOR SUBDIVISION & LAND DEVELOPMENT

REV. 3-26-2024 PER MCOO LETTER DATED 3-15-2024
REV. 12-20-2023 PER MCOO & PENNDOT COMMENTS
REV. 5-31-2023 AS PER APPROVED TOWNSHIP RESOLUTION
REV. 9-16-2022 AS PER TOWNSHIP REVIEW

POST CONSTRUCTION STORMWATER MANAGEMENT DETAILS BMP #1
365 CEDAR ROAD
ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA
MADE FOR
PAUL YANNESSA

22 NOVEMBER 2021

EASTERN/CHADROW ASSOCIATES, INC.
333 S. STREET ROAD • WARMINSTER, PA. 18974 • (215) 672-8671 FAX (215) 672-8765
EST. 1967



E-2541-9

MC-4500 STORMTECH CHAMBER SPECIFICATIONS

- CHAMBERS SHALL BE STORMTECH MC-4500.
- CHAMBERS SHALL BE ARCH-SHAPED AND SHALL BE MANUFACTURED FROM VIRGIN, IMPACT-MODIFIED POLYPROPYLENE COPOLYMERS.
- CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS" CHAMBER CLASSIFICATION 60x101.
- CHAMBER ROWS SHALL PROVIDE CONTINUOUS, UNOBSTRUCTED INTERNAL SPACE WITH NO INTERNAL SUPPORTS THAT WOULD IMPEDE FLOW OR LIMIT ACCESS FOR INSPECTION.
- THE STRUCTURAL DESIGN OF THE CHAMBERS, THE STRUCTURAL BACKFILL, AND THE INSTALLATION REQUIREMENTS SHALL ENSURE THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12, ARE MET FOR: 1) LONG-DURATION DEAD LOADS AND 2) SHORT-DURATION LIVE LOADS, BASED ON THE AASHTO DESIGN TRUCK WITH CONSIDERATION FOR IMPACT AND MULTIPLE VEHICLE PRESENCES.
- CHAMBERS SHALL BE DESIGNED, TESTED AND ALLOWABLE LOAD CONFIGURATIONS DETERMINED IN ACCORDANCE WITH ASTM F2787, "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS". LOAD CONFIGURATIONS SHALL INCLUDE: 1) INSTANTANEOUS (1" MIN) AASHTO DESIGN TRUCK LIVE LOAD ON MINIMUM COVER 2) MAXIMUM PERMANENT (75-YR) COVER LOAD AND 3) ALLOWABLE COVER WITH PARKED (1-WEEK) AASHTO DESIGN TRUCK.
- REQUIREMENTS FOR HANDLING AND INSTALLATION:
 - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
 - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 3".
 - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT SHALL BE GREATER THAN OR EQUAL TO 450 LBS/IN². THE ASC IS DEFINED IN SECTION 6.2.8 OF ASTM F2418. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.
- ONLY CHAMBERS THAT ARE APPROVED BY THE SITE DESIGN ENGINEER WILL BE ALLOWED. UPON REQUEST BY THE SITE DESIGN ENGINEER OR OWNER, THE CHAMBER MANUFACTURER SHALL SUBMIT A STRUCTURAL EVALUATION FOR APPROVAL BEFORE DELIVERING CHAMBERS TO THE PROJECT SITE AS FOLLOWS:
 - THE STRUCTURAL EVALUATION SHALL BE SEALED BY A REGISTERED PROFESSIONAL ENGINEER.
 - THE STRUCTURAL EVALUATION SHALL DEMONSTRATE THAT THE SAFETY FACTORS ARE GREATER THAN OR EQUAL TO 1.95 FOR DEAD LOAD AND 1.75 FOR LIVE LOAD, THE MINIMUM REQUIRED BY ASTM F2787 AND BY SECTIONS 3 AND 12.12 OF THE AASHTO LRD BRIDGE DESIGN SPECIFICATIONS FOR THERMOPLASTIC PIPE.
 - THE TEST DERIVED CRISP MODULUS AS SPECIFIED IN ASTM F2418 SHALL BE USED FOR PERMANENT DEAD LOAD DESIGN EXCEPT THAT IT SHALL BE THE 75-YEAR MODULUS USED FOR DESIGN.
- CHAMBERS AND END CAPS SHALL BE PRODUCED AT AN ISO 9001 CERTIFIED MANUFACTURING FACILITY.

IMPORTANT - NOTES FOR THE BIDDING AND INSTALLATION OF MC-4500 CHAMBER SYSTEM

- STORMTECH MC-4500 CHAMBERS SHALL NOT BE INSTALLED UNTIL THE MANUFACTURER'S REPRESENTATIVE HAS COMPLETED A PRE-CONSTRUCTION MEETING WITH THE INSTALLERS.
- STORMTECH MC-4500 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH MC-3500/MC-4500 CONSTRUCTION GUIDE".
- CHAMBERS ARE NOT TO BE BACKFILLED WITH A DOZER OR EXCAVATOR SITUATED OVER THE CHAMBERS. STORMTECH RECOMMENDS 3 BACKFILL METHODS:
 - STONESHOTTER LOCATED OFF THE CHAMBER BED.
 - BACKFILL AS ROWS ARE BUILT USING AN EXCAVATOR ON THE FOUNDATION STONE OR SUBGRADE.
 - BACKFILL FROM OUTSIDE THE EXCAVATION USING A LONG BOOM HOE OR EXCAVATOR.
- THE FOUNDATION STONE SHALL BE LEVELED AND COMPACTED PRIOR TO PLACING CHAMBERS.
- JOINTS BETWEEN CHAMBERS SHALL BE PROPERLY SEATED PRIOR TO PLACING STONE.
- MAINTAIN MINIMUM - 9" (230 mm) SPACING BETWEEN THE CHAMBER ROWS.
- INLET AND OUTLET MANIFOLDS MUST BE INSERTED A MINIMUM OF 12" (300 mm) INTO CHAMBER END CAPS.
- EMBEDMENT STONE SURROUNDING CHAMBERS MUST BE A CLEAN, CRUSHED, ANGULAR STONE MEETING THE AASHTO M43 DESIGNATION OF #3 OR #4.
- STONE SHALL BE BROUGHT UP EVENLY AROUND CHAMBERS SO AS NOT TO DISTORT THE CHAMBER SHAPE. STONE DEPTHS SHOULD NEVER DIFFER BY MORE THAN 12" (300 mm) BETWEEN ADJACENT CHAMBER ROWS.
- STONE MUST BE PLACED ON THE TOP CENTER OF THE CHAMBER TO ANCHOR THE CHAMBERS IN PLACE AND PRESERVE ROW SPACING.
- THE CONTRACTOR MUST REPORT ANY DISCREPANCIES WITH CHAMBER FOUNDATION MATERIAL BEARING CAPACITIES TO THE SITE DESIGN ENGINEER.
- AS RECOMMENDS THE USE OF "FLEXSTORM CATCH IT" INSERTS DURING CONSTRUCTION FOR ALL INLETS TO PROTECT THE SUBSURFACE STORMWATER MANAGEMENT SYSTEM FROM CONSTRUCTION SITE RUNOFF.

NOTES FOR CONSTRUCTION EQUIPMENT

- STORMTECH MC-4500 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH MC-3500/MC-4500 CONSTRUCTION GUIDE".
- THE USE OF EQUIPMENT OVER MC-4500 CHAMBERS IS LIMITED:
 - NO EQUIPMENT IS ALLOWED ON BARE CHAMBERS.
 - NO RUBBER TIED LOADER, DUMP TRUCK, OR EXCAVATORS ARE ALLOWED UNTIL PROPER FILL DEPTHS ARE REACHED IN ACCORDANCE WITH THE "STORMTECH MC-3500/MC-4500 CONSTRUCTION GUIDE".
 - WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT CAN BE FOUND IN THE "STORMTECH MC-3500/MC-4500 CONSTRUCTION GUIDE".
- FULL 36" (900 mm) OF STABILIZED COVER MATERIALS OVER THE CHAMBERS IS REQUIRED FOR DUMP TRUCK TRAVEL OR DUMPING.

USE OF A DOZER TO PUSH EMBEDMENT STONE BETWEEN THE ROWS OF CHAMBERS MAY CAUSE DAMAGE TO CHAMBERS AND IS NOT AN ACCEPTABLE BACKFILL METHOD. ANY CHAMBERS DAMAGED BY USING THE "DUMP AND PUSH" METHOD ARE NOT COVERED UNDER THE STORMTECH STANDARD WARRANTY.

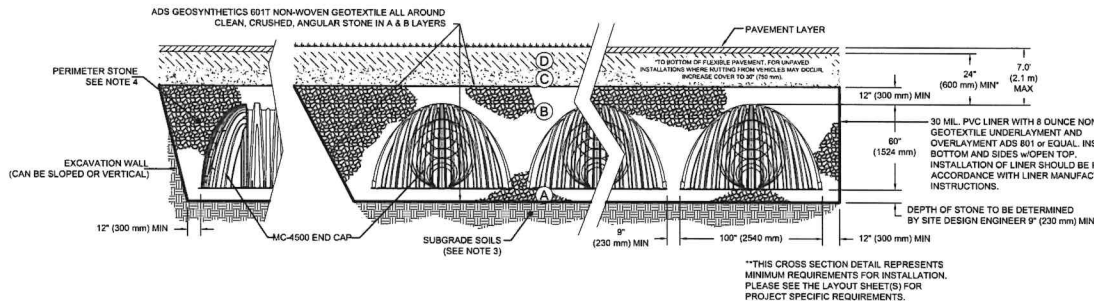
CONTACT STORMTECH AT 1-888-892-2694 WITH ANY QUESTIONS ON INSTALLATION REQUIREMENTS OR WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT.

ACCEPTABLE FILL MATERIALS: STORMTECH MC-4500 CHAMBER SYSTEMS

MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	FINAL FILL: FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A
C	INITIAL FILL: FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE (9" LAYER) TO 24" (600 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	AASHTO M145 ¹ A-1, A-2-4, A-3 OR AASHTO M43 ¹ 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10
B	EMBEDMENT STONE: FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE (A LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43 ¹ 3, 4
A	FOUNDATION STONE: FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43 ¹ 3, 4

PLEASE NOTE:

- THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
- STORMTECH COMPACTION REQUIREMENTS ARE MET FOR A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 9" (230 mm) MAX LIFTS USING TWO FULL COVERS WITH A VIBRATOR. INSTALLATION REQUIREMENTS FOR FLEXIBLE PAVEMENTS MAY VARY. INCREASE COVER TO 10" (254 mm) IF REQUIRED.
- WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.
- ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.



NOTES:

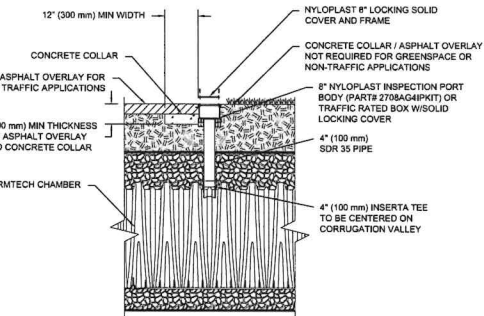
- CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS" CHAMBER CLASSIFICATION 60x101
- MC-4500 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
- PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
- REQUIREMENTS FOR HANDLING AND INSTALLATION:
 - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
 - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 3".
 - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT AS DEFINED IN SECTION 6.2.8 OF ASTM F2418 SHALL BE GREATER THAN OR EQUAL TO 500 LBS/FT². AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.

INSPECTION & MAINTENANCE

- STEP 1) INSPECT ISOLATOR ROW PLUS FOR SEDIMENT
- INSPECTION PORTS (IF PRESENT)
 - REMOVE/OPEN LID ON NYLOPLAST INLINE DRAIN
 - REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED
 - USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
 - LOWERS A CAMERA INTO ISOLATOR ROW PLUS FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
 - IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- B. ALL ISOLATOR PLUS ROWS
- REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW PLUS
 - USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW PLUS THROUGH OUTLET PIPE
 - MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY
 - FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE
 - IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- STEP 2) CLEAN OUT ISOLATOR ROW PLUS USING THE JETVAC PROCESS
- A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 48" (1.2 m) OR MORE IS PREFERRED
 - APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFILL WATER IS CLEAN
 - VACUUM STRUCTURE SUMP AS REQUIRED
- STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS. RECORD OBSERVATIONS AND ACTIONS.
- STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

NOTES

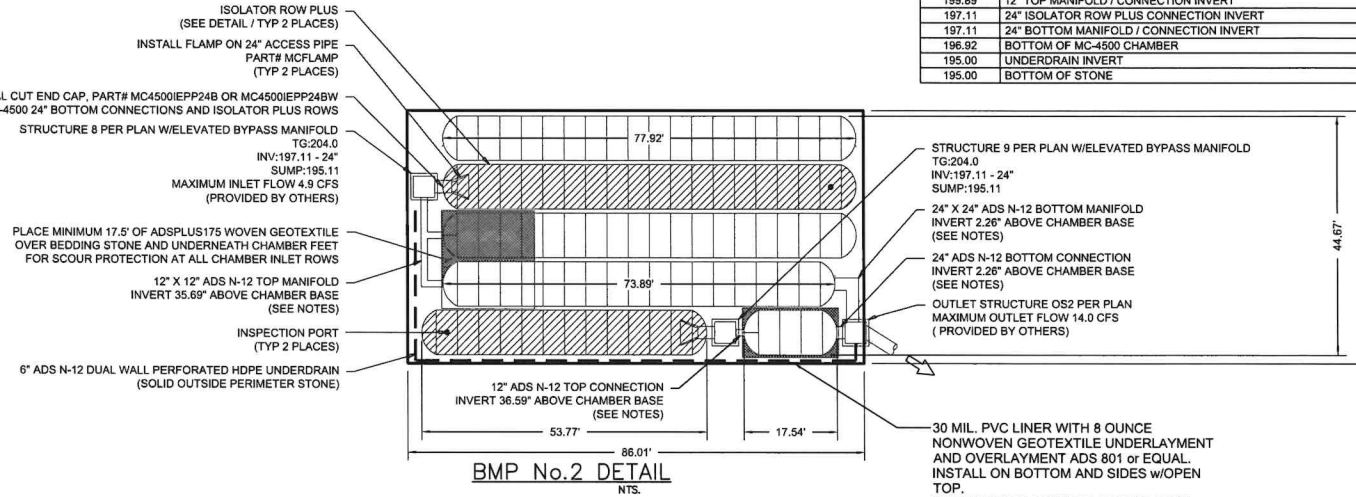
- INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.
- CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY. THE SYSTEM SHALL BE CONSIDERED AS FAILED IF THE ISOLATOR ROW IS COMPLETELY FILLED WITH SEDIMENT, TRASH OR OTHER DEBRIS AND FAILS TO DRAIN DOWN OVER 72 HOURS AS OBSERVED. IF THE SYSTEM DOES FAIL AS A RESULT OF IMPROPER MAINTENANCE OVER AN EXTENDED PERIOD OF TIME THEN IMMEDIATE WATER JETTING AND VACTORING OF THE ISOLATOR ROW WILL BE REQUIRED. IF THE ISOLATOR ROW CAN NOT BE CLEANED OUT BY JETTING AND VACTORING THEN EXCAVATION OF THE ISOLATOR ROW AND REPLACEMENT MAY BE REQUIRED.



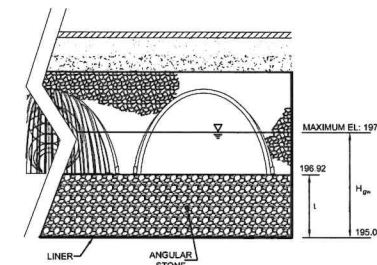
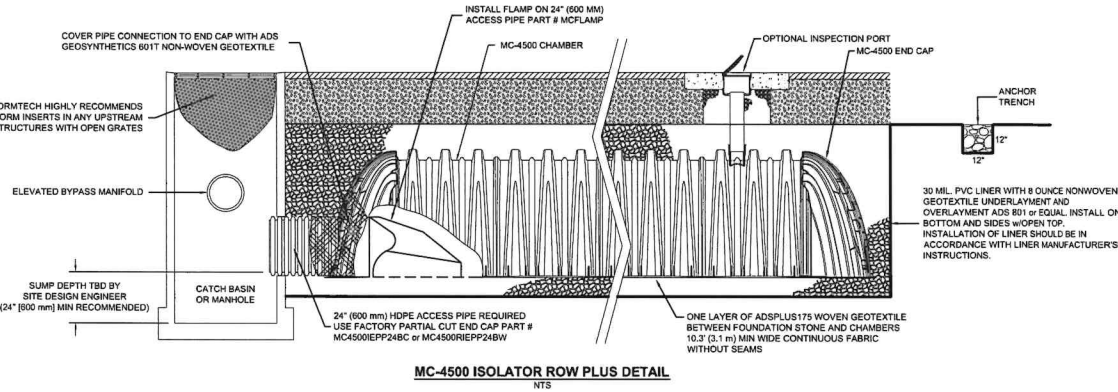
4" PVC INSPECTION PORT DETAIL
(MC SERIES CHAMBER)
NTS

NOTES

- MANHOLE SIZE TO BE DETERMINED BY SITE DESIGN ENGINEER. SEE TECHNICAL NOTE 6.32 FOR MANHOLE SIZING GUIDANCE.
- DUE TO THE ADAPTATION OF THIS CHAMBER SYSTEM TO SPECIFIC SITE AND DESIGN CONSTRAINTS, IT MAY BE NECESSARY TO CUT AND COUPLE ADDITIONAL PIPE TO STANDARD MANHOLE COMPONENTS IN THE FIELD.
- THIS CHAMBER SYSTEM WAS DESIGNED WITHOUT SITE-SPECIFIC INFORMATION ON SOIL CONDITIONS OR BEARING CAPACITY. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR DETERMINING THE SUITABILITY OF THE SOIL AND PROVIDING THE BEARING CAPACITY OF THE INSTALLED SOILS. THE BASE STONE DEPTH MAY BE INCREASED OR DECREASED ONCE THIS INFORMATION IS PROVIDED.
- THE SITE DESIGN ENGINEER MUST REVIEW THE PROXIMITY OF THE CHAMBERS TO THE SLOPE AND CONSIDER EFFECTS OF POSSIBLE SATURATED SOILS ON THE SLOPE'S INTEGRITY.



BMP No.2 DETAIL
NTS



Anti flotation buoyancy Calculations

Increased foundation stone option
 $H_{gw} \times (62.4 \text{ lb/cf}) = (Y \text{ stone} \times L) / SF$
Where:
 H_{gw} = height of groundwater above liner bottom = (197.0 - 195.0) 2 ft.
 Y stone = bulk density of bedding stone = 85 lb/cf
 L = thickness of stone bedding = (196.92 - 195.0) = 1.96 ft.
Buoyancy force = 2 ft. x 62.4 lb/cf = 124.8 lbs
Weight of bedding stone = 1.96 ft. x 65 lb/cf = 126.6 lbs
Safety Factor = 126.6 lbs / 124.8 lbs = 1.33

SHEET 10 of 17

SD-21-03-FINAL MAJOR SUBDIVISION & LAND DEVELOPMENT

REV. 3-26-2024 PER MCD LETTER DATED 3-15-2024
REV. 12-20-2023 PER MCD & PENNDOT COMMENTS
REV. 5-31-2023 AS PER APPROVED TOWNSHIP RESOLUTION
REV. 9-16-2022 AS PER TOWNSHIP REVIEW

POST CONSTRUCTION STORMWATER MANAGEMENT DETAILS BMP #2

365 CEDAR ROAD

ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

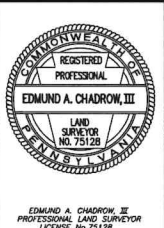
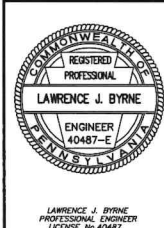
MADE FOR

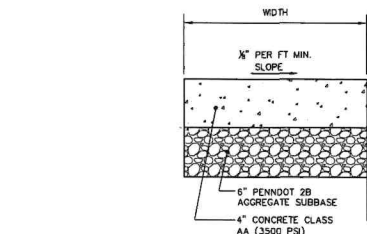
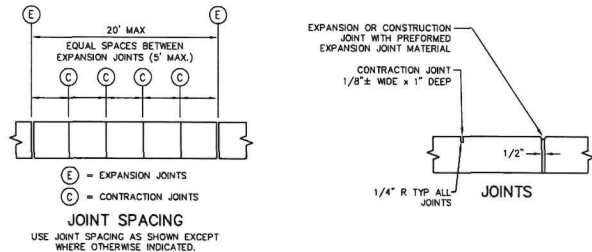
PAUL YANNESSA

22 NOVEMBER 2021

EASTERN/CHADROW ASSOCIATES, INC.

339 E. STREET ROAD • WARMINSTER, PA. 18974 • (215) 672-8671 FAX (215) 672-8765
EST. 1967



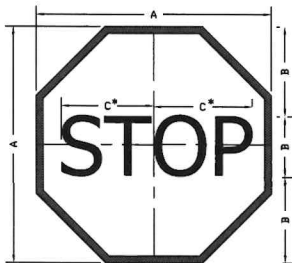


- INSTALLATION NOTES:**
1. ALL CONSTRUCTION TO CONFORM WITH PENNDOT PUBLICATION 408, LATEST EDITION.
 2. ALL CONCRETE TO BE CLASS AA 3500 PSI.
 3. MINIMUM WIDTHS AND MINIMUM SLOPES PER SALDO 513; 526.10; 706.3 & 809, AS APPLICABLE.
 4. THIS STANDARD IS NOT INTENDED FOR SIDEWALK WHICH CROSSES A DRIVEWAY.
 5. INSTALLATION OF CURB RAMPS FOR ACCESSIBILITY SHALL MEET ADA REQUIREMENTS AND SHALL BE IN ACCORDANCE WITH PENNDOT DETAILS RC-67, LATEST EDITION. PENNDOT DETAILS ARE INCLUDED HEREWITH BY REFERENCE.
- SIDEWALK REPAIR AND REPLACEMENT STANDARDS:**
1. SIDEWALKS SHALL BE REPLACED WHEN THE FOLLOWING CONDITIONS OCCUR:
 - A. EVIDENCE OF DETERIORATED CONDITION.
 - B. SIDEWALKS SECTIONS WITH VERTICAL MISALIGNMENTS GREATER THAN 1/4\".

CONCRETE SIDEWALK INSTALLATION

07/29/2009
104C

NTS



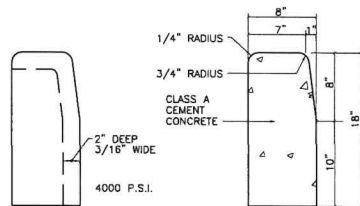
COLOR: LEGEND & BORDER WHITE (REFLECTORIZED)
BACKGROUND RED (REFLECTORIZED)

SIGN SIZE	DIMENSIONS	SERIES	BOR- DER	BLACK STD
30x30	A B C	12-1/2 C	3/4 B1-30	

* Reduce spacing 40%

STOP SIGN (R1-1)

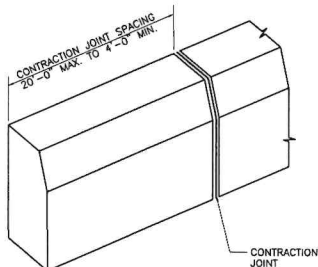
NTS.



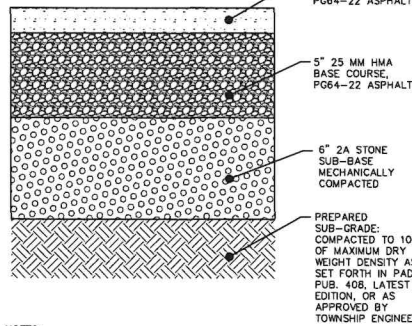
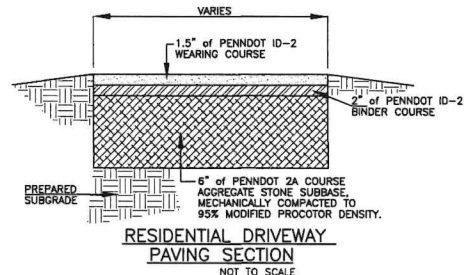
DETAIL A
CONTRACTION JOINT

TYPICAL CROSS SECTION

TYPICAL CROSS SECTION



PLAIN CEMENT CONCRETE CURB
NOT TO SCALE

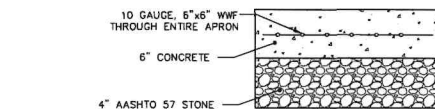


NOTES:

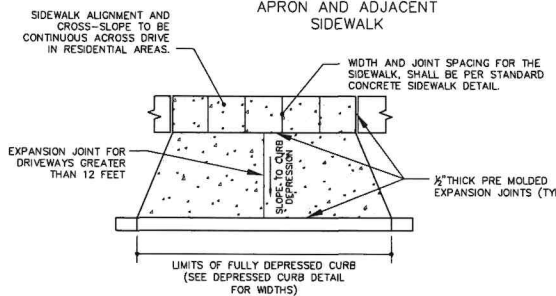
1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS OF PADOT PUBLICATION 408, LATEST EDITION.
2. EXISTING ROADWAYS ALONG THE FRONTAGE OF THE DEVELOPED PROPERTY SHALL RECEIVE MILL AND OVERLAY OF WEARING COURSE IF ANY OF THE FOLLOWING CONDITIONS ARE NOTED AT THE CONCLUSION OF CONSTRUCTION ACTIVITIES:
 1. ALLIGATOR SURFACE, CRACKING OR OTHER DETERIORATION.
 2. DIPS, DEPRESSIONS OR OTHER IRREGULARITIES CAUSING FLOODING.
 3. POT HOLES OR OTHER SURFACE BREAKS.
 4. EXCESSIVE SURFACE SCARRING CAUSED BY CONTRACTORS EQUIPMENT (I.E. BULLDOZER TRACKS).

PAVEMENT DETAIL OF TOWNSHIP ROADS

07/29/2009
4R



SECTION VIEW FOR
APRON AND ADJACENT
SIDEWALK

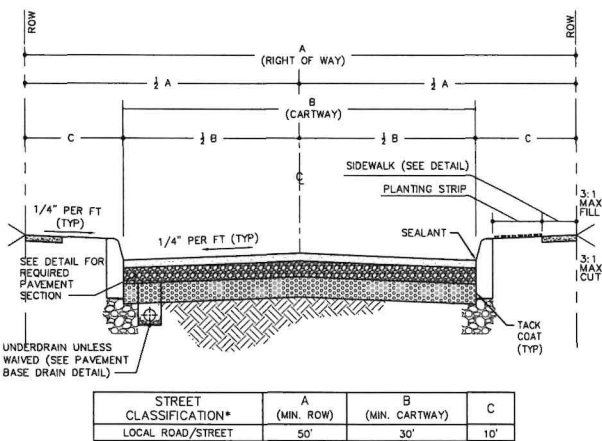


INSTALLATION NOTES:

1. ALL CONSTRUCTION TO CONFORM WITH PENNDOT PUBLICATION 408, LATEST EDITION.
 2. ALL CONCRETE TO BE CLASS AA 3500 PSI.
 3. ALL DRIVEWAYS OR APRONS CONSTRUCTED ADJACENT TO CURB SHALL HAVE DEPRESSED CURB INSTALLED IN ACCORDANCE WITH THE DEPRESSED CONCRETE CURB FOR DRIVEWAYS DETAIL.
- DRIVEWAY APRON REPLACEMENT STANDARDS** - DRIVEWAY APRONS SHALL BE REPLACED WHEN THE FOLLOWING CONDITIONS OCCUR:
1. EVIDENCE OF DETERIORATED CONDITION.
 2. APRONS PLACED WITH VERTICAL MISALIGNMENT OF 1/2\"/>

CONCRETE APRON DETAIL FOR DRIVEWAYS

07/29/2009
105C



NOTES:

1. ALL CONSTRUCTION TO CONFORM TO PENNDOT PUBLICATION 408, LATEST EDITION.
2. ALL NEW STREETS SHALL BE PROPERLY POSTED W/SPEED LIMIT SIGNS IN ACCORDANCE WITH DESIGN SPEED.
3. REQUIRED MINIMUM WIDTH OF PLANTING STRIP AND SIDEWALK PER SALDO SECTION 513.1.
4. THE SIDEWALK IS NOT REQUIRED TO BE LOCATED IN THE RIGHT OF WAY FOR WAGONAL ACCESS STREETS.
5. AN EASEMENT SHALL BE PROVIDED FOR ALL PROPOSED SIDEWALKS NOT LOCATED WITHIN THE PUBLIC RIGHT-OF-WAY. THE SIDEWALK SHALL BE MAINTAINED IN ACCORDANCE WITH SIDEWALKS LOCATED WITHIN THE STREET RIGHT-OF-WAY, AS SPECIFIED ABINGTON TOWNSHIP CODE OF ORDINANCES.
6. A TACK COAT SHALL BE APPLIED TO ALL VERTICAL SURFACES BELOW PAVING LINE. IF BASE COURSE IS IN PLACE FOR MORE THAN 30 DAYS THE SURFACE MUST BE CLEANED AND TACK COATED PRIOR TO INSTALLATION OF THE WEARING COURSE.
7. ALL ASPHALT JOINTS INCLUDING ALONG THE CURB LINE SHALL BE SEALED WITH ASPHALT PG64-22 SEALANT OR APPROVED EQUAL.

TYPICAL ROADWAY SECTION FOR TOWNSHIP ROADS

07/29/2009
1R

I. CONSTRUCTION OBSERVATION
DURING THE COURSE OF CONSTRUCTION OF ROADS THE ENGINEER MUST BE NOTIFIED 24 HOURS PRIOR TO THE FOLLOWING OPERATIONS:

1. PREPARATION OF THE SUBGRADE.
2. LAYING AND ROLLING OF THE SUBBASE.
3. LAYING AND ROLLING OF THE BINDER COURSE.
4. LAYING AND ROLLING OF THE WEARING COURSE.
5. POURING OF CONCRETE CURBS.
6. POURING OF CONCRETE SIDEWALKS.
7. POURING OF CONCRETE APRONS.
8. TRENCH BACKFILL FOR ALL UTILITIES.

THE FOLLOWING ITEMS WILL BE CAUSE FOR REJECTION OF THE PAVING, CURBS, DRIVEWAY APRONS, AND SIDEWALKS BY THE ENGINEER.

II. PAVING

1. ALLIGATOR SURFACE, CRACKING OR OTHER DETERIORATION INDICATING SUBGRADE FAILURE.
2. DIPS OR DEPRESSIONS INDICATING EXCESSIVE SETTLEMENT UNDER THE PAVING, INCLUDING TRENCHES SUCH AS FOR WATER LINE, SEWER LINE, GAS LINE.
3. POT HOLES OR OTHER SURFACE BREAKS.
4. EXCESSIVE SURFACE SCARRING CAUSED BY CONTRACTORS EQUIPMENT (I.E. BULLDOZER TRACKS).
5. IRREGULARITIES CAUSING FLOODING.
6. PAVING DOES NOT MEET DRAINAGE STANDARDS.

III. CURBS

1. METHODS AND MATERIALS NOT MEETING MINIMUM SPECIFICATIONS PROVIDED IN THE DETAIL.
2. CHIPS MORE THAN 1/4 INCH DEEP.
3. CRACKS OF ANY WIDTH.
4. MISALIGNMENT MORE THAN 1/4 INCH IN ANY DIRECTION AT CRACKS OR JOINTS.
5. WORK NOT COMPLETED IN COMPLIANCE WITH PENNDOT PUBLICATION 408.

IV. CURBS (DEPRESSED)

1. METHODS AND MATERIALS NOT MEETING MINIMUM SPECIFICATIONS PROVIDED IN THE DETAIL.
2. ANY DEPRESSED CURB THAT IS FORMED BY CHIPPING OUT OF STRAIGHT CURB. DEPRESSED CURBS MUST BE MADE BY COMPLETE REMOVAL OF THE STRAIGHT CURB TO THE NEAREST JOINT BEYOND THE DEPRESSED AREA AND NEW DEPRESSED CURB SECTIONS POURED.
3. ANY DEPRESSED CURB THAT HAS A LIP MORE THAN 1 1/4 INCHES ABOVE THE EDGE OF PAVING AT DRIVEWAY APRONS OR MORE THAN 1/4 INCH AT CURB RAMPS.
4. CHIPS MORE THAN 1/4 INCH DEEP.
5. CRACKS OF ANY WIDTH.
6. MISALIGNMENT MORE THAN 1/4 INCH IN ANY DIRECTION AT CRACKS OR JOINTS.
7. WORK NOT COMPLETED IN COMPLIANCE WITH PENNDOT PUBLICATION 408.

V. DRIVEWAY APRON

1. METHODS AND MATERIALS NOT MEETING MINIMUM SPECIFICATIONS PROVIDED IN THE DETAIL.
2. CRACKS OF ANY WIDTH.
3. CHIPS MORE THAN 1/4 INCH DEEP.
4. MISALIGNMENT MORE THAN 1/4 INCH IN ANY DIRECTION AT JOINTS.
5. NO MONOLITHIC POIRS BETWEEN CURB & APRON, APRON & SIDEWALK.
6. WORK NOT COMPLETED IN COMPLIANCE WITH PENNDOT PUBLICATION 408.

VI. SIDEWALK

1. METHODS AND MATERIALS NOT MEETING MINIMUM SPECIFICATIONS PROVIDED IN THE DETAIL.
2. ANY DRIVEWAY BLOCK FORMING PART OF THE SIDEWALK, WHICH DOES NOT CORRESPOND TO DRIVE APRON.
3. ANY CRACK, OTHER THAN AT AN EXPANSION OR CONTRACTION JOINT OF ANY WIDTH.
4. MISALIGNMENT IN A VERTICAL DIRECTION MORE THAN 1/4 INCH AT ANY CRACK OR JOINT.
5. INSTALLATION OF CURB RAMPS FOR HANDICAP ACCESS SHALL MEET ADA REQUIREMENTS AND SHALL BE IN ACCORDANCE WITH PENNDOT DETAILS RC-67, LATEST EDITION. PENNDOT DETAILS ARE INCLUDED HEREWITH BY REFERENCE.
6. WORK NOT COMPLETED IN COMPLIANCE WITH PENNDOT PUBLICATION 408.

ROADWAY DEDICATION CHECKLIST FOR ENGINEERS APPROVAL

07/29/2009
2R

NOTE:

CONTRACTOR TO PROVIDE SHOP DRAWINGS OF PROPOSED STRUCTURES & MATERIALS AS REQUIRED BY THE TOWNSHIP ENGINEER. ALL MATERIALS SHALL BE PENNDOT BULLETIN 15 APPROVED PRODUCTS.

SHEET 11 of 17

SD-21-03-FINAL MAJOR SUBDIVISION & LAND DEVELOPMENT

REV. 3-26-2024 PER MCOO LETTER DATED 3-15-2024
REV. 12-20-2023 PER MCOO & PENNDOT COMMENTS
REV. 5-31-2023 AS PER APPROVED TOWNSHIP RESOLUTION
REV. 9-16-2022 AS PER TOWNSHIP REVIEW

CONSTRUCTION DETAILS

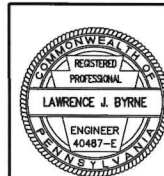
365 CEDAR ROAD
ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA
MADE FOR

PAUL YANNESSA

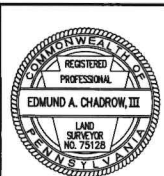
22 NOVEMBER 2021

EASTERN/CHADROW ASSOCIATES, INC.

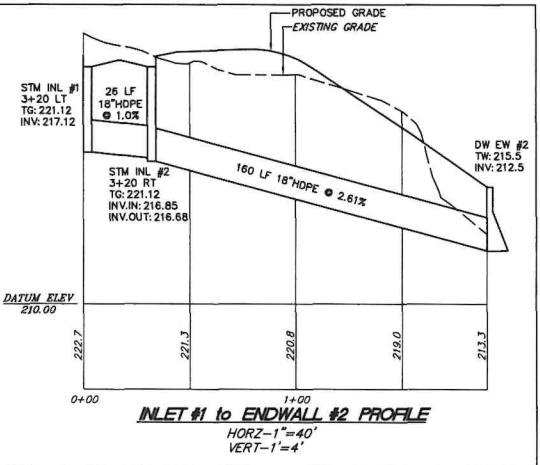
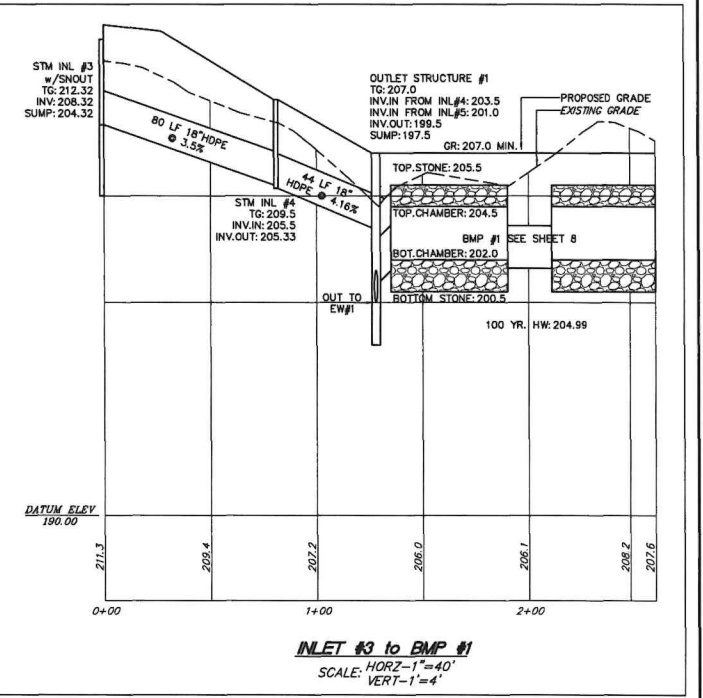
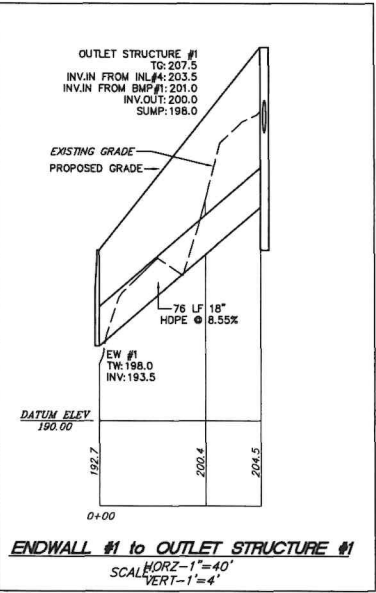
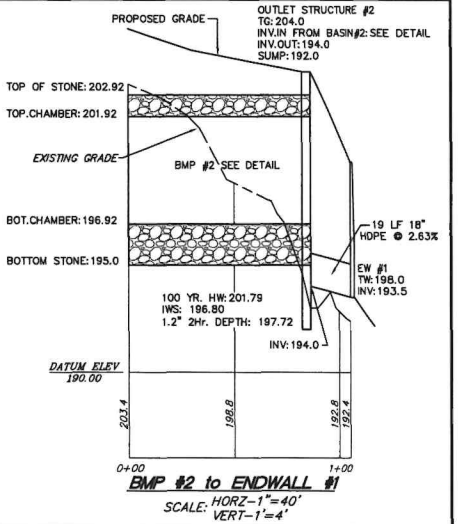
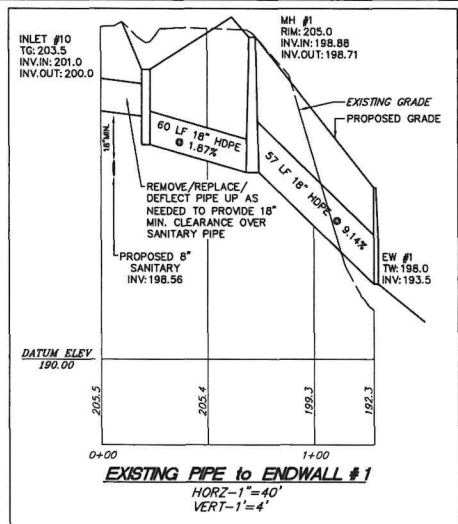
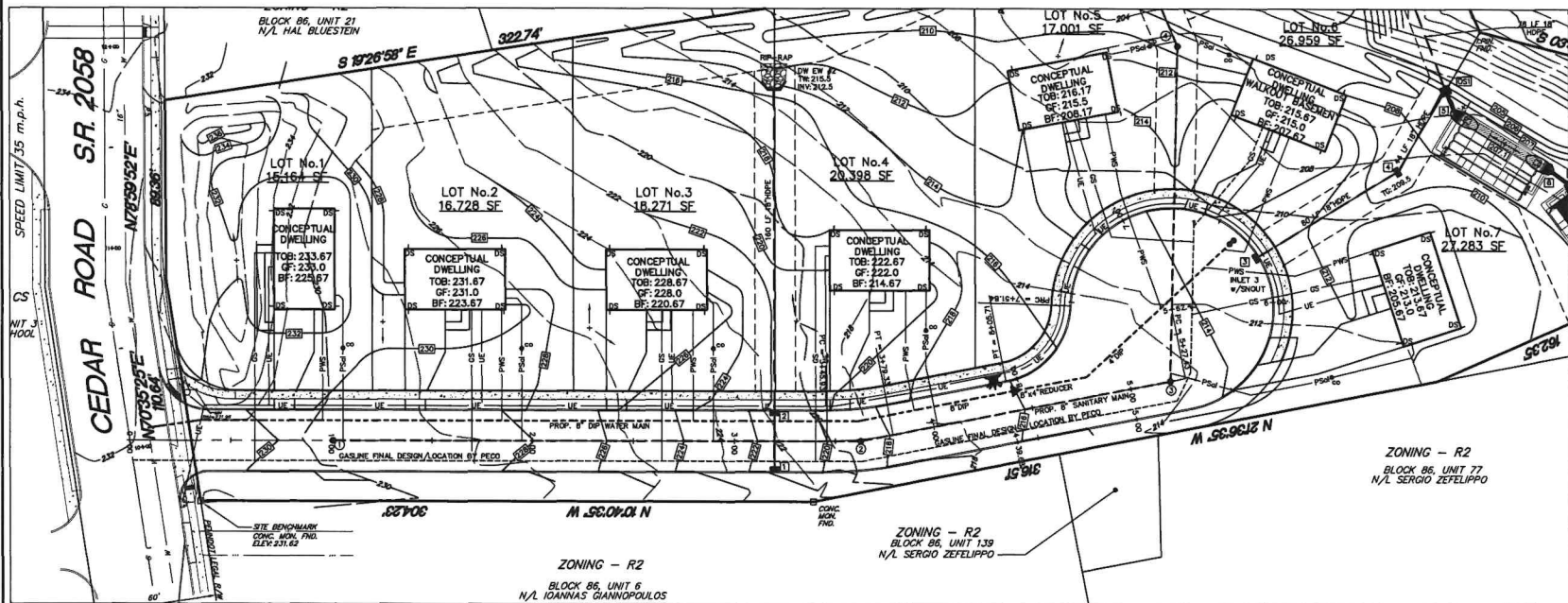
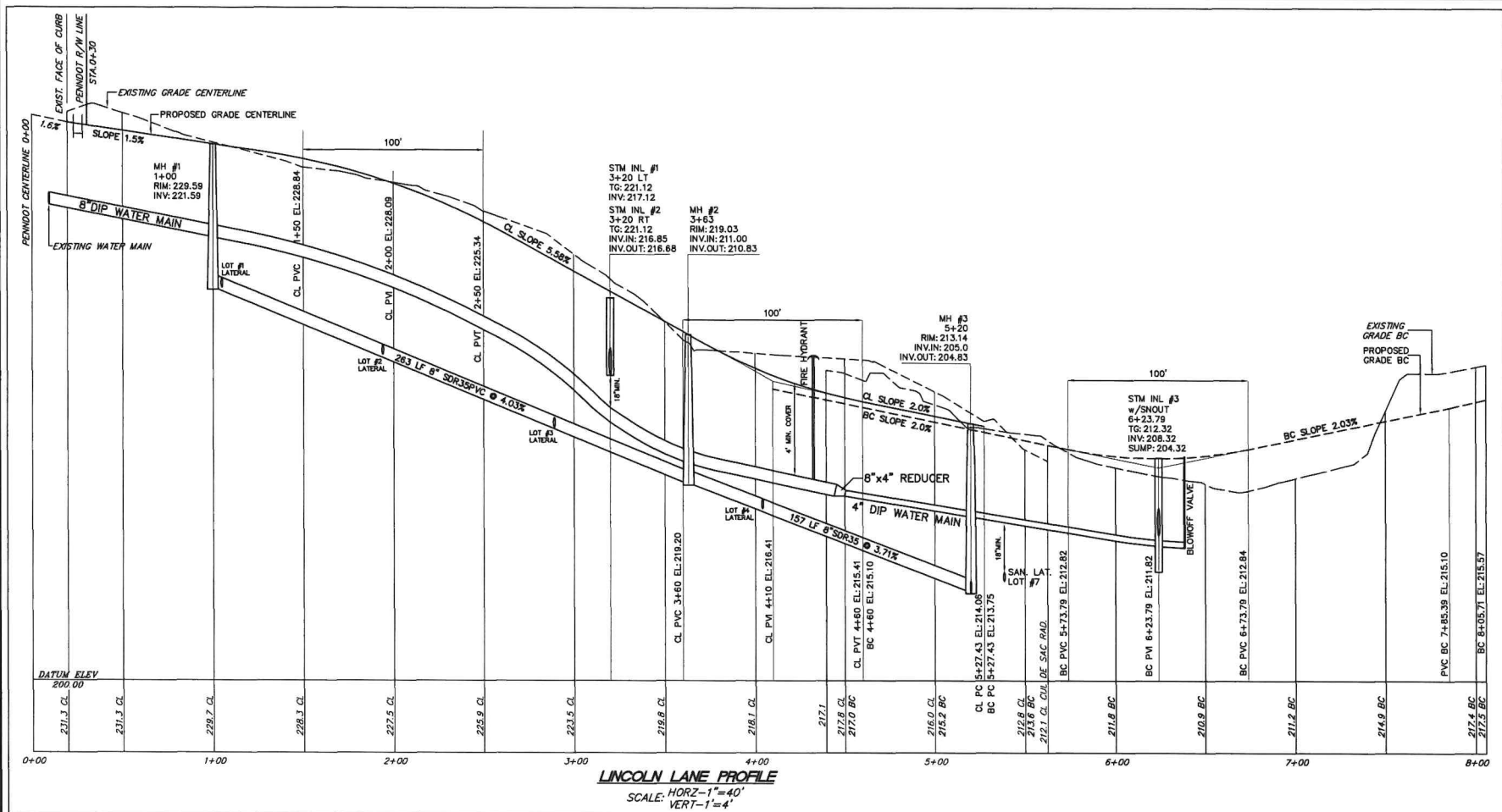
333 E. STREET ROAD • WARMINSTER, PA. 18974 • (215) 672-6971 FAX (215) 672-6765
EST. 1967



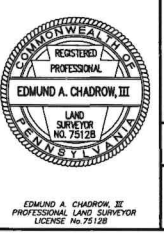
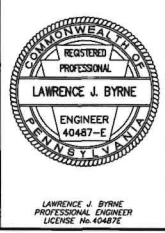
LAWRENCE J. BYRNE
PROFESSIONAL ENGINEER
LICENSE NO. 40487



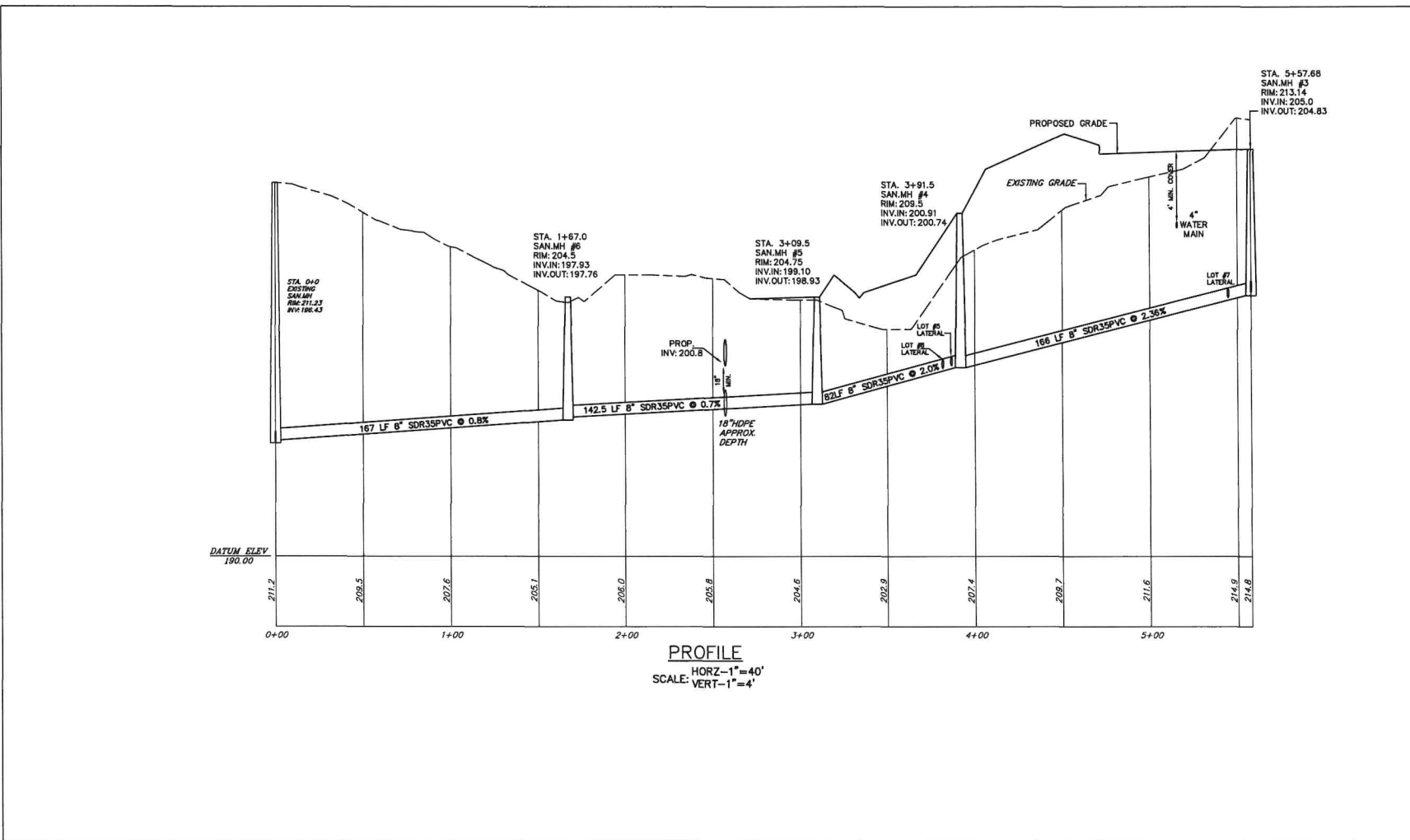
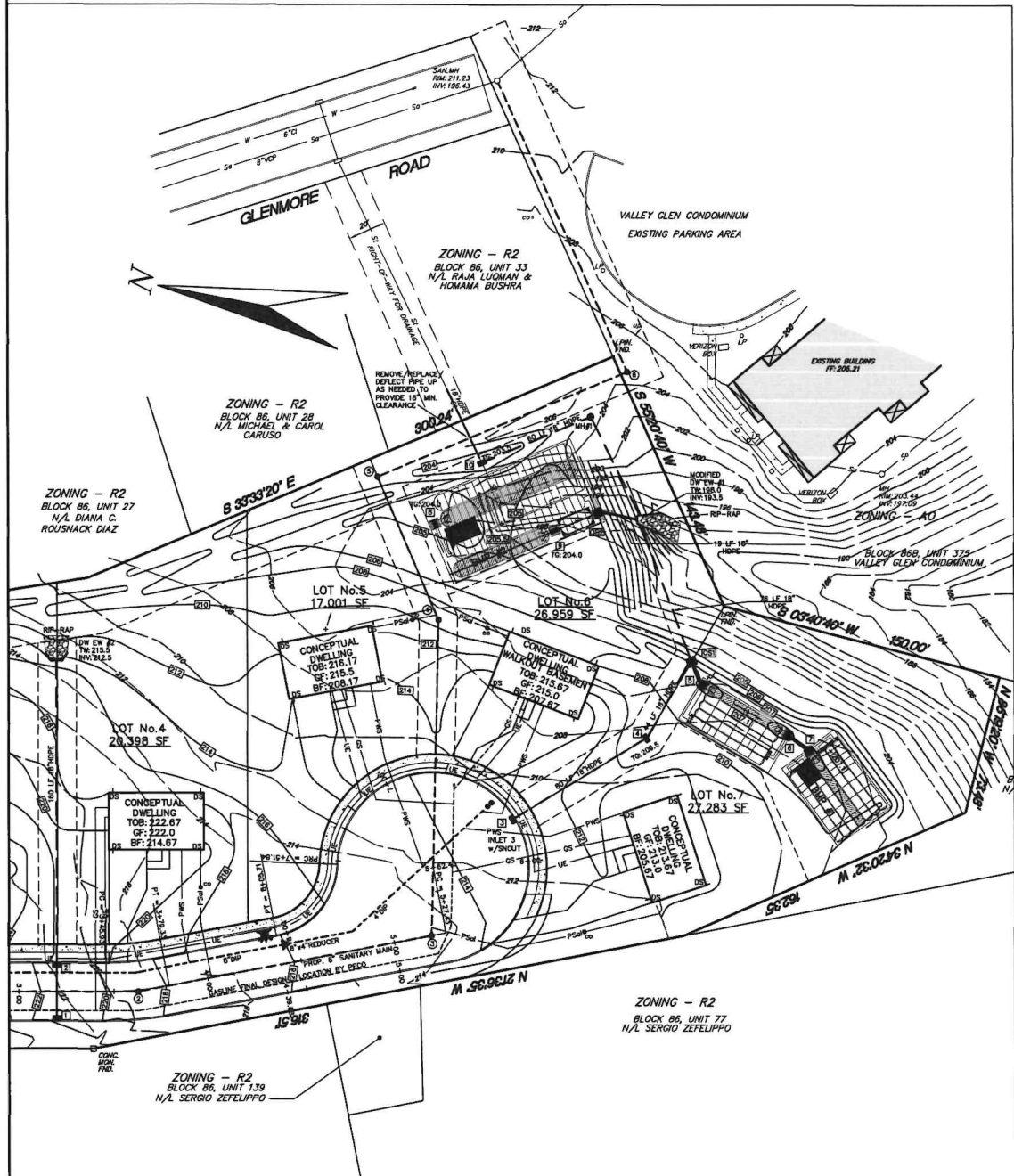
EDMUND A. CHADROW III
PROFESSIONAL LAND SURVEYOR
LICENSE NO. 75128



SHEET 12 of 17
SD-21-03-FINAL MAJOR SUBDIVISION & LAND DEVELOPMENT



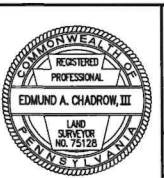
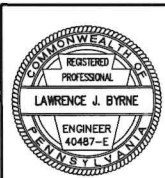
PLAN & PROFILE - LINCOLN LANE & MISC. PIPE RUNS
365 CEDAR ROAD
ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA
MADE FOR
PAUL YANNESSA
SCALE: 1"=40' 0 40 80 120 22 NOVEMBER 2021
EASTERN/CHADROW ASSOCIATES, INC.
333 E. STREET ROAD • WARMINSTER, PA. 18974 • (215) 672-6671 FAX (215) 672-6765
EST. 1967



SHEET 13 of 17

SD-21-03-FINAL MAJOR SUBDIVISION & LAND DEVELOPMENT

REV. 3-26-2024 AS PER MCO LETTER OF 3-15-2024
REV. 12-30-2023 PER MCO & PENNDOT COMMENTS
REV. 5-31-2023 AS PER APPROVED TOWNSHIP RESOLUTION
REV. 9-16-2022 AS PER TOWNSHIP REVIEW



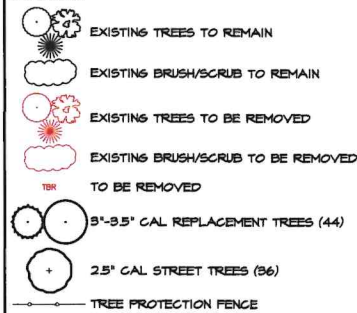
PLAN & PROFILE - SANITARY SEWER EASEMENT
365 CEDAR ROAD
ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA
MADE FOR
PAUL YANNESSA

SCALE: 1"=40' 0 40 80 120 22 NOVEMBER 2021

EASTERN/CHADROW ASSOCIATES, INC.
333 E. STREET ROAD • WARMUNSTER, PA. 18974 • (215) 672-8671 FAX (215) 672-8765
EST. 1967

E-2541-13

LEGEND



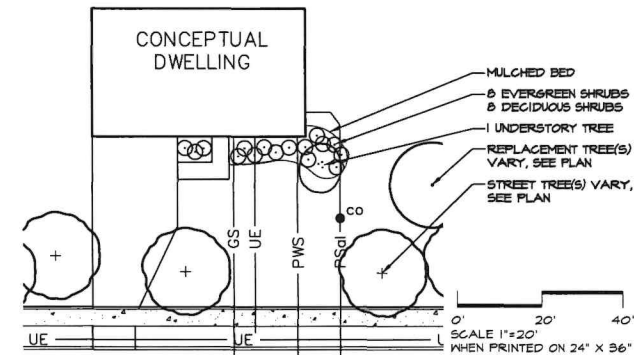
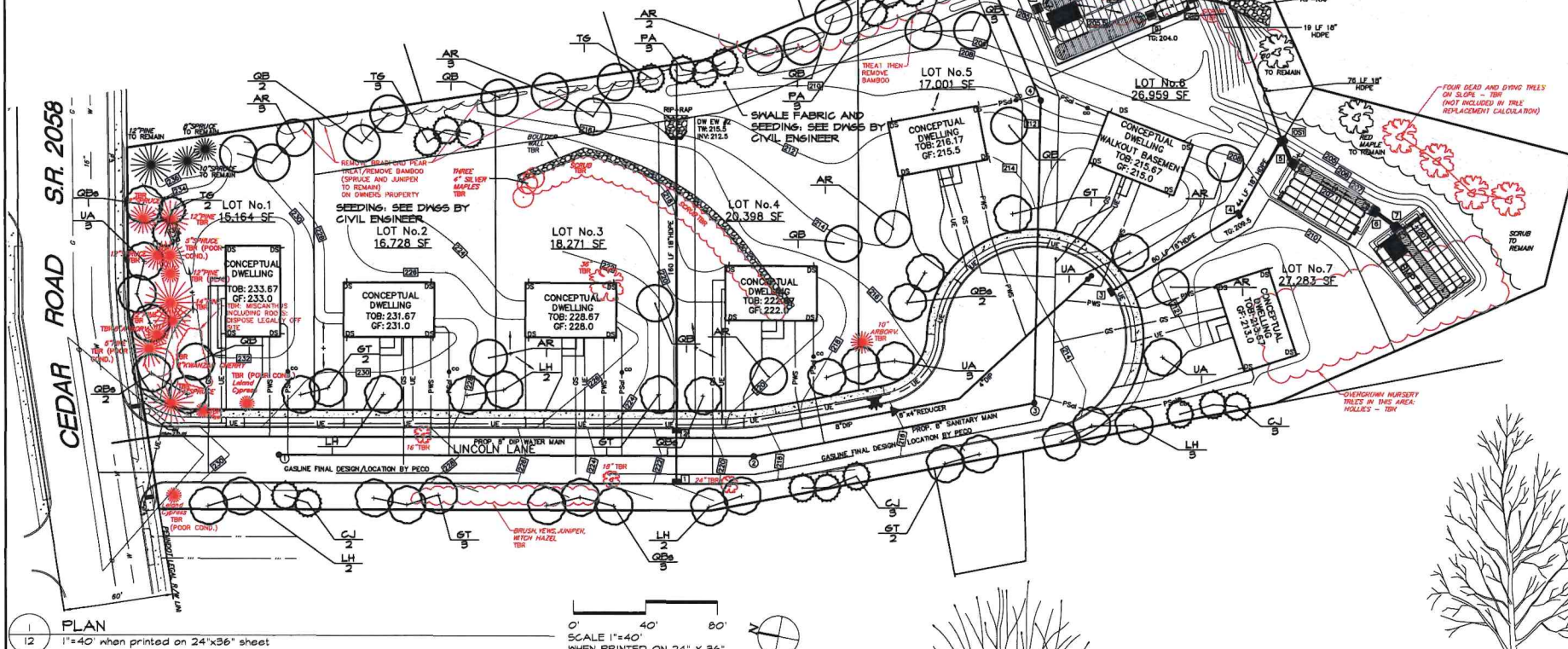
Key	Botanical Name	Common Name	Quan.	Size	Root	Street Tree	Repl. Tree
DECIDUOUS TREES							
AR	<i>Acer rubrum</i>	Red Maple	13	3"-3.5" cal	B&B	x	x
GT	<i>Gleditsia triacanthos</i> 'Skyline'	Skyline Honey Locust	9	2.5" cal	B&B	x	x
LH	<i>Liquidambar styraciflua</i> 'Happidaze'	Happidaze Sweetgum	10	2.5" cal	B&B	x	x
QB	<i>Quercus bicolor</i>	Swamp White Oak	11	3"-3.5" cal	B&B	x	x
QB	<i>Quercus bicolor</i>	Swamp White Oak	9	2.5" cal	B&B	x	x
UA	<i>Ulmus americana</i> 'Liberty'	Liberty Elm	8	2.5" cal	B&B	x	x
EVERGREEN TREES							
CJ	<i>Cryptomeria japonica</i> 'Radicans'	Cryptomeria	8	14'-16'	B&B	x	x
PA	<i>Picea abies</i>	Norway Spruce	6	14'-16'	B&B	x	x
TG	<i>Thuja x 'Green Giant'</i>	Green Giant Arborvitae	6	14'-16'	B&B	x	x

*EVERGREEN TREES 14'-16" AVERAGE HEIGHT ARE USED IN LIEU OF SOME REQUIRED 3"-3.5" CAL DECIDUOUS TREES WHICH TYPICALLY ARE 14'-16" AVERAGE HEIGHT PER AMERICAN STANDARD FOR NURSERY STOCK, TO HELP IMPROVE SCREENING FUNCTIONS AND AESTHETICS

Zoning Code Section	SALDO Section	Subject	Requirement	Data	Required	Provided	Complies with Code
2402.B.1.a. & b. and 2402.B.2.c	146-39 A (2)	Street Trees - Lincoln Lane	1 tree @ 2" cal min (SALDO) per 40LF of frontage (Zoning)	1232.74 LF frontage	31	31	Yes
2402.B.1.a. & b. and 2402.B.2.c	146-39 A (2)	Street Trees - Cedar Road	1 tree @ 2" cal min (SALDO) per 40LF of frontage (Zoning)	<200.00 LF frontage	5	5	Yes
2401.A.2.d		Replacement Trees	2 trees @ 3"-3.5" cal min for each tree removal of 6" cal min	22 healthy trees removed	44	44	Yes
	146-39 B (1)	Lot Landscaping	Trees and shrubs, lawn and/or groundcover in each lot	6" min	Yes	Yes	Yes

LANDSCAPING NOTES

- THIS PLANTING PLAN HAS BEEN PREPARED BY THINKGREEN LLC FOR THE PURPOSE OF MUNICIPAL AND AGENCY REVIEW AND APPROVAL. DO NOT USE AS CONSTRUCTION DOCUMENTS UNTIL ALL CONDITIONS OR APPROVALS HAVE BEEN SATISFIED ON THE DRAWINGS AND EACH DRAWING HAS BEEN REVISED TO INDICATE "ISSUED FOR CONSTRUCTION." THE CLIENT OR OWNER, AND CONTRACTOR, ARE RESPONSIBLE TO ASSURE THAT THE ONLY THE APPROVED PLANS ARE USED FOR BIDDING AND CONSTRUCTION.
- IDENTIFY UNDERGROUND UTILITIES, MARK ON SITE, PROVIDE REPORT TO OWNER, MAINTAIN MARKINGS THROUGHOUT CONSTRUCTION.
- REVIEW CONTRACT DOCUMENTS AND FIELD CONDITIONS BEFORE STARTING EACH PORTION OF THE WORK. REPORT ERRORS, OMISSIONS, OR INCONSISTENCIES PROMPTLY TO LANDSCAPE ARCHITECT.
- EXERCISE CARE IN OPERATIONS TO PROTECT EXISTING UNDERGROUND AND SURFACE UTILITIES, AND FEATURES TO REMAIN.
- ZONING COMPLIANCE NOTES:
 - FOLLOW REQUIREMENTS IN "REQUIREMENTS FOR TREE PROTECTION ZONES," "HAZARDOUS ACTS," AND "TRENCHES AND EXCAVATION" IN SECTION 2401.
 - PROVIDE 1 YEAR GUARANTEE FOR LANDSCAPING PER SECTION 146-39. REFER TO WARRANTY NOTE BELOW.
- FURNISH AND INSTALL PLANTS ON THE DRAWINGS, AS SPECIFIED AND IN THE QUANTITIES OF SYMBOLS INDICATED ON THE PLAN. IF THERE IS A DISCREPANCY BETWEEN THE PLAN AND PLANT SCHEDULE, THE PLANT SCHEDULE GOVERNS.
- NO SUBSTITUTIONS FOR PLANT MATERIAL ARE ACCEPTABLE UNLESS APPROVED BY THE TOWNSHIP AND LANDSCAPE ARCHITECT.



Key	Botanical Name	Common Name	Quan.	Size	Root	Comment
UNDERSTORY TREES						
AC	<i>Amelanchier canadensis</i>	Shadblow Serviceberry	-	6'	B&B/Cont	multistem
BN	<i>Betula nigra</i>	River Birch	-	6'	B&B/Cont	multistem
HC	<i>Halesia carolinia</i>	Carolina Silverbell	-	6'	B&B/Cont	
MV	<i>Magnolia virginiana</i>	Sweetbay	-	6'	B&B/Cont	multistem
	TOTAL		7			
SHRUBS						
CAH	<i>Clethra alnifolia</i> 'Hummingbird'	Hummingbird Summersweet	-	24"	Cont	
IVH	<i>Ittea virginica</i> 'Henry's Garnet'	Henry's Garnet Sweetspire	-	24"	Cont	
JVG	<i>Juniperus virginiana</i> 'Gray Owl'	Gray Owl Juniper	-	24"	Cont	
PJA	<i>Pieris japonica</i>	Japanese Pieris	-	24"	Cont	
PLS	<i>Prunus laurocerasus</i> 'Schipkaensis'	Schipka Cherry Laurel	-	24"	Cont	
	TOTAL		112			

NOTE: FINAL TREE/SHRUB SELECTIONS & LOCATIONS AS DETERMINED BY CONTRACTOR BASED ON SUNSHADE, AVAILABILITY, AND AESTHETICS WITH REVIEW BY OWNER'S REPRESENTATIVE

SHEET 14 of 17
SD-21-03-FINAL MAJOR SUBDIVISION & LAND DEVELOPMENT

REV 9/15/2023

STOP-CALL BEFORE YOU DIG!



USER	ADDRESS	TELEPHONE
1.TOWNSHIP OF ABINGTON	1176 OLD YORK RD. ABINGTON, PA.19001	215-884-5000
2.AQUA PENNSYLVANIA, INC.	762 LANCASTER AVE. BRYN MAWR,PA. 19010	1-800-711-4779
3.BELL TELEPHONE CO. OF PA.	104 WITMER RD. HORSHAM,PA. 19044	215-956-2623
4.PHILADELPHIA ELECTRIC Co.	400 PARK AVE. WARMINSTER PA. 18974	OUTSIDE PA. 412-323-7100 IN PA. 800-242-1776
5.PENNA. DEPT. OF TRANSPORTATION	EAST NORRITON TWP.,P.O. BOX 350 NORRISTOWN,PA.	1-215-275-2368

ACT 187 USERS LIST FOR ABINGTON

Landscape Plan Prepared By:
ThinkGreen LLC
Landscape Architecture,
Construction
& Ecological Design

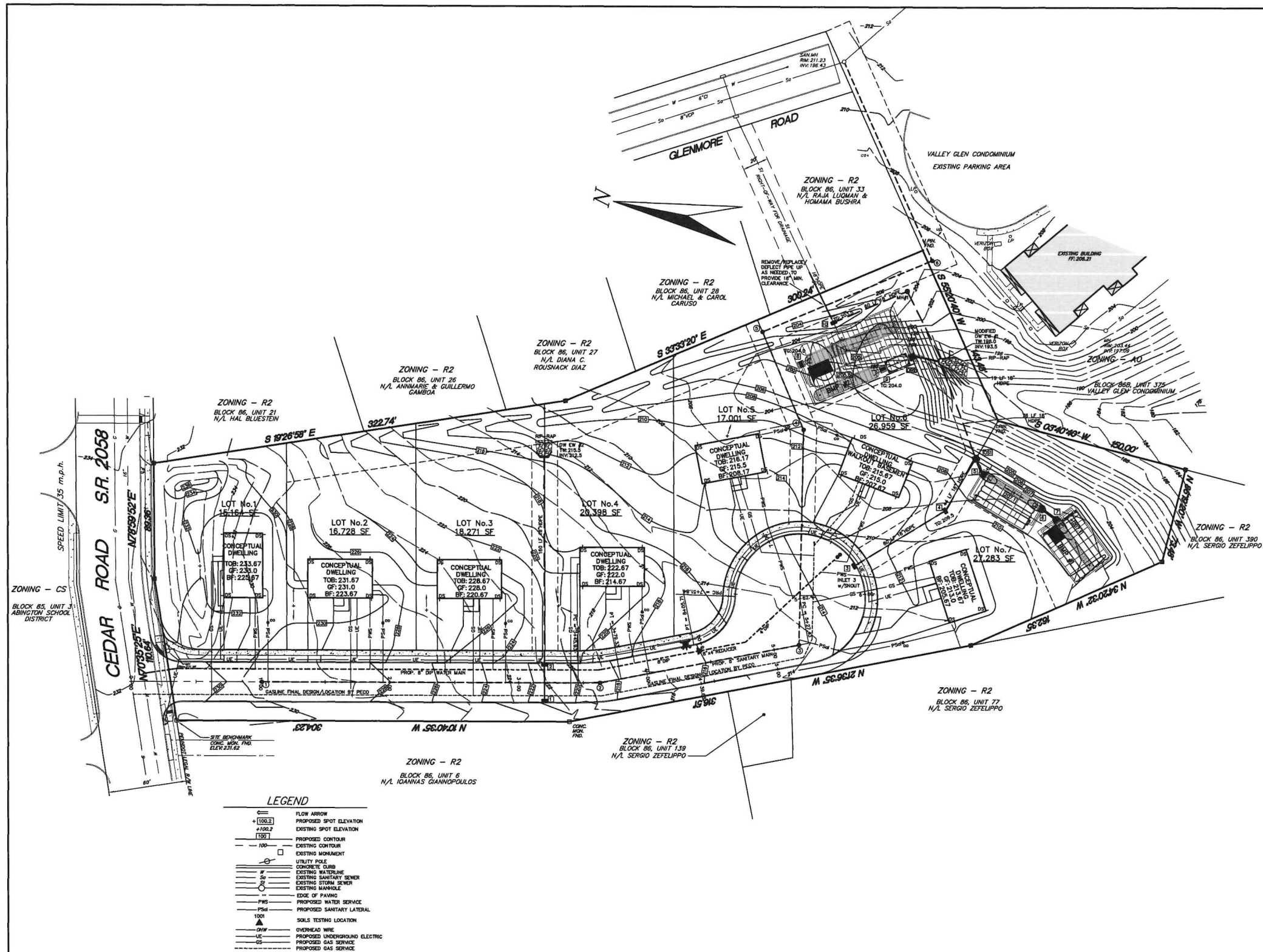
P.O. BOX 528
Glenside, PA 19038
Tel 215 887 2595
Fax 215 887 2596
Contact: Thomas J Johnston, RLA
tjohnston@thinkgreenc.com
www.ThinkGreenLLC.com



LAWRENCE J. BYRNE
PROFESSIONAL LAND SURVEYOR
LICENSE #440467

EDMUND A. CHADROW, II
PROFESSIONAL LAND SURVEYOR
LICENSE #67158

LANDSCAPE PLAN & PCSM PLAN
365 CEDAR ROAD
ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA
MADE FOR
PAUL YANNESSA
SCALE: AS NOTED
REV 24 MAY 2023 PER TWP APPROVAL RESOLUTIONS
EASTERN/CHADROW ASSOCIATES, INC.
333 E. STREET ROAD * WARMINSTER, PA. 18974 * (215) 672-6671 FAX (215) 672-6765
EST. 1967



Standard grading & utility notes:

1. All contractors working on this project shall comply with the requirements of p.l. 852, no. 287 December 10, 1974 as amended on December 12 1986, p.l. 1574, 60. 172. Contractor must notify PA One Call System, Inc. Three days prior to construction: 1-800-242-1776.
2. The location of all existing and proposed services are approximate and must be confirmed independently prior to commencement of any construction or excavation. Sanitary sewer and all other utility service connection points shall be confirmed independently by the contractor in the field prior to the commencement of construction. All discrepancies shall, be reported immediately in writing to the engineer. Construction shall commence beginning at the lowest intent (point of connection) and progress up gradient. Proposed interface points (crossings) with existing underground utilities shall be field verified by test pit prior to commencement of construction.
3. 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. The contractor is responsible for repairs of damage to any existing utilities during construction, at no cost to the owner.
4. It is the responsibility of the contractor to review all of the drawings, specifications, and referenced documents associated with the project work scope prior to the initiation of construction. Should the contractor find a conflict with the documents relative to the specifications or applicable codes, it is the contractor's responsibility to notify the project engineer of record in writing prior to the start of construction. Failure by the contractor to notify the project engineer shall constitute acceptance of full responsibility by the contractor to complete the scope of work as defined by the drawings and in full compliance with local regulations and codes.
5. The contractor is responsible for coordination of site plan documents and architectural design for exact building utility connection locations, door access, and exterior grading. The utility service sizes are to be determined by architect. The contractor shall coordinate installation of utilities/services with the individual companies.
6. All new utilities/services, including electric, telephone, cable TV, etc. Are to be installed underground. All new utilities/services shall be installed in accordance with the providers installation specifications and standards.
7. Site grading shall be performed in accordance with these plans. Subbase material for sidewalks, curb, or asphalt shall be free of organics and other unsuitable materials. Should subbase be deemed unsuitable by owner or owner's representative, subbase is to be removed and filled with approved fill material compacted to 95% optimum density (as determined by modified proctor method).
8. No excavation or fill shall be made with a face steeper than two (2) horizontal to one (1) vertical (2:1).
9. Burying of trees, stumps, or construction material is prohibited.
10. The contractor shall comply to the fullest extent with the latest standards of OSHA directives, or any other agency having jurisdiction for excavation and trenching procedures. The contractor is responsible for determining the "means and methods" required to meet the intent and performance criteria of OSHA, as well as any other entity that has jurisdiction for excavation and/or trenching procedures.
11. Pavement shall be saw cut in straight lines to the full depth of the existing pavement. All debris from removal operations shall be removed from the site at the time of excavation. Stockpiling of debris will not be permitted. Areas of existing pavement that are to be replaced with lawn areas shall be provided with a minimum of 6 inches of topsoil.
12. The tops of existing manholes, inlet structures, and sanitary cleanout tops shall be adjusted, if required, to match the grading and utility plans.
13. In case of discrepancies between plans, the site / record plan will supersede in all cases. The engineer of record must be immediately notified in writing of any conflicts.
14. The contractor shall be required to secure all necessary permits (including D.E.P., etc.) For all off site haul and/or borrow sites. Contractor shall supply a copy of approvals to engineer and owner prior to initiating work.
15. Any drain or conveyance, whether on the surface or subsurface, that allows any non-stormwater discharge, including sewage, process wastewater, and wash water to enter the waters of the Commonwealth is prohibited.
16. Roof downspouts shall not discharge over a sidewalk.

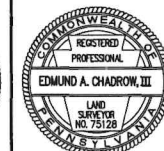
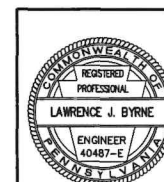
LEGEND

—>—	FLOW ARROW
+ [100.2]	PROPOSED SPOT ELEVATION
+ [100.2]	EXISTING SPOT ELEVATION
[100]	PROPOSED CONTOUR
---	EXISTING CONTOUR
□	EXISTING MONUMENT
—○—	UTILITY POLE
—●—	CONCRETE CURB
—#—	EXISTING WATERLINE
—S—	EXISTING SANITARY SEWER
—X—	EXISTING STORM SEWER
—○—	EXISTING MANHOLE
---	EDGE OF PAVING
—PWS—	PROPOSED WATER SERVICE
—PWS—	PROPOSED SANITARY LATERAL
—1001	SOILS TESTING LOCATION
—OWP—	OVERHEAD WIRE
—UE—	PROPOSED UNDERGROUND ELECTRIC
—GS—	PROPOSED GAS SERVICE

SHEET 15 of 17

SD-21-03-FINAL MAJOR SUBDIVISION & LAND DEVELOPMENT

REV. 3-26-2024 PER MCOE LETTER DATED 3-15-2024
REV. 12-20-2023 PER MCOE & PENNDOT COMMENTS
REV. 5-31-2023 AS PER APPROVED TOWNSHIP RESOLUTION
REV. 9-16-2022 AS PER TOWNSHIP REVIEW

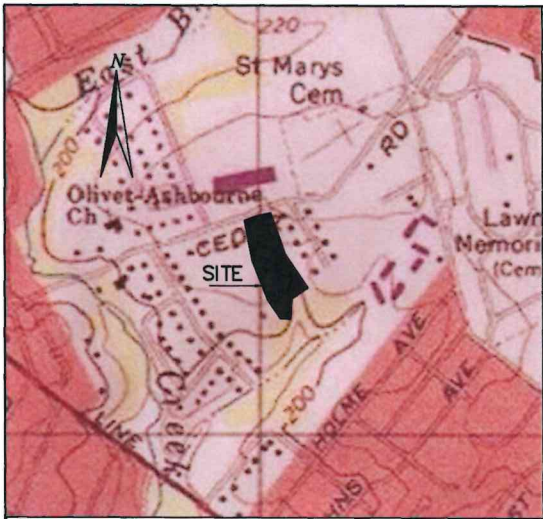


GRADING & UTILITY PLAN
365 CEDAR ROAD
ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA
MADE FOR

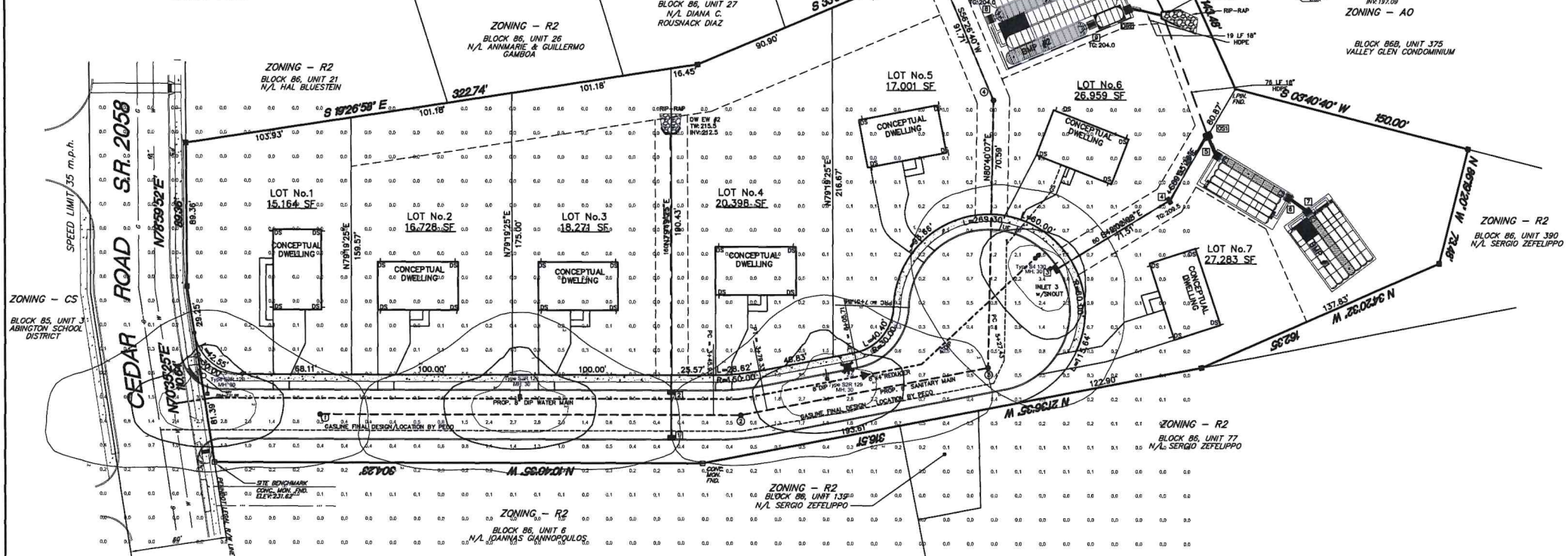
PAUL YANNESSA

SCALE: 1"=40' 0 40 80 120 22 NOVEMBER 2021

EASTERN/CHADROW ASSOCIATES, INC.
339 E. STREET ROAD • WARMINSTER, PA. 18974 • (215) 672-8671 FAX (215) 672-6765
EST. 1967



U.S.G.S. LOCATION MAP
FRANKFORD QUAD
SCALE: 1" = 800'



Luminaire Schedule						
Symbol	Qty	Label	[MANUFACT]	Description	Arrangement	L1D L2D L3D
—B	3	Type S2R 129	Leotek Electronics USA LLC	GCM3-60-4W-40K-2R-GY-190-PCRT-CR/RVL-S/RME-XBP	SINGLE	0.900 0.800 0.720
—B	1	Type S4 130	Leotek Electronics USA LLC	GCM3-60-4W-40K-4-GY-150-PCRT-CR/RVL-S/RME-XBP	SINGLE	0.900 0.800 0.720

Calculation Summary									
Label	CalcType	Units	Avg	Max	Min	AvgMin	MaxMin	LvRatio	Grid Z
Cedar Road	Illuminance	Fc	1.20	3.1	0.4	3.25	7.75	N.A.	0
Cul-de-sac	Illuminance	Fc	0.95	3.3	0.2	4.75	16.50	N.A.	0

THIS LIGHTING PLAN DEPICTS PROPOSED SUSTAINED ILLUMINATION LEVELS CALCULATED USING DATA PROVIDED BY THE NOTED MANUFACTURERS.

ANY SUBSTITUTION REQUESTS MUST BE SUBMITTED 15 DAYS PRIOR TO THE BID AND MUST BE ACCOMPANIED BY A HORIZONTAL PHOTOMETRIC STUDY DEMONSTRATING THAT THE FIXTURES IN QUESTION WILL MEET THE DESIGN INTENT OF THIS PLAN.

ALL EXTERIOR LIGHTING PLANS SHALL BE SUBMITTED 15 DAYS PRIOR TO THE BID TO THE LOCAL LIGHTING AUTHORITY TO DETERMINE IF ALL OF THE LOCAL LIGHTING REQUIREMENTS HAVE BEEN MET.

INSTALLATION NOTES:

- 1.) THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE FIELD VERIFICATION OF ALL EXISTING UNDERGROUND STRUCTURES AND UTILITIES, SUCH AS WATER MAINS, SANITARY AND STORM SEWERS, TELEPHONE AND ELECTRIC CONDUITS, AND GAS LINES, ETC. AND ABOVE GROUND UTILITIES WHICH MAY BE ENCOUNTERED DURING CONSTRUCTION OPERATIONS.
- 2.) DIMENSIONS ARE APPROXIMATE. THE CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY ALL ELEVATIONS, INVERTS, AND DIMENSIONS IN THE FIELD PRIOR TO THE COMMENCEMENT OF WORK.
- 3.) THE PENNSYLVANIA ONE CALL NUMBER IS 1-800-242-1776. THE CONTRACTOR IS REQUIRED TO SUBMIT VERIFICATION TO THE MUNICIPALITY THAT A ONE CALL "CALL" HAS BEEN PLACED PRIOR TO THE START OF DEMOLITION WORK.
- 4.) THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS FROM THE MUNICIPALITY RELATIVE TO THE PROPOSED PROJECT.
- 5.) THE CONTRACTOR SHALL REPAIR ALL UTILITY TRENCHING WORK LOCATED WITHIN EXISTING PAVED STREETS.
- 6.) THE CONTRACTOR SHALL COMPLY WITH ALL CITY, STATE, AND FEDERAL REGULATIONS IN EFFECT AT THE TIME OF CONSTRUCTION.
- 7.) THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRAFFIC CONTROL.
- 8.) THE CONTRACTOR SHALL REMOVE ALL TEMPORARY FENCINGS, GATES, COVERED PEDESTRIAN WALKWAYS, TRAFFIC BARRIERS, AND SIGNAGE AT THE COMPLETION OF THE PROJECT. ALL AREAS DISTURBED AS A RESULT OF THE INSTALLATION OF THESE TEMPORARY CONTROLS SHALL BE RESTORED TO THEIR ORIGINAL CONDITION.
- 9.) THE LIGHT LEVELS DEPICTED ON THIS PLAN WERE CALCULATED BASED ON THE LIF SHOWN IN THE LUMINAIRE SCHEDULE.
- 10.) THE LIGHTING VALUES AND CALCULATION POINTS DEPICTED ON THIS PLAN ARE ANALYZED ON A HORIZONTAL GEOMETRIC PLANE AT GROUND LEVEL UNLESS OTHERWISE NOTED.
- 11.) ILLUMINATION LEVELS ARE SHOWN IN FOOT-CANDELS (FC).
- 12.) THE ELECTRICAL CONTRACTOR IS RESPONSIBLE TO ENSURE THAT SHIELDING AND/OR ROTATED OPTICS ARE INSTALLED AS INDICATED ON THE PLAN IN ORDER TO ACHIEVE THE LIGHTING LEVELS THE REVIEWING AGENCY APPROVED.

LIGHTING CONTROLS AND SURGE PROTECTION: ALL NEW FIXTURES ARE TO BE EQUIPPED WITH DIMONOFF RME-XBP PHOTOCELLS AND ADL POWER PRODUCTS RVAL-S SURGE DEVICE. FIXTURES MUST BE EQUIPPED WITH ALL-MODE PROTECTION (A-L, L-E, M-G). SURGE PROTECTION INTEGRAL TO THE PHOTOCONTROL SHOULD HAVE 3 MODES OF PROTECTION, LINE-TO-NEUTRAL, LINE-TO-GROUND AND NEUTRAL-TO-GROUND. THE MINIMUM SURGE PROTECTION SPECIFICATIONS SHOULD BE 10KA IN, 25KA MAX AND 20KV UOC.

SET ONE SMART PHOTOCELL TO CONTROL ALL OTHER SITE LIGHTING FIXTURES (DIMONOFF RME-XBP).

POLE NOTES:

30' ROUND STEEL POLES TO BE SUPPLIED BY LEOTEK ELECTRONICS, USA, AND INSTALLED PER MANUFACTURER'S REQUIREMENTS.

ARM NOTES:

IF ARM TO BE SUPPLIED BY LEOTEK ELECTRONICS, USA.

PLEASE CONTACT INDEPENDENT LIGHTING FOR PRICING AND AVAILABILITY:

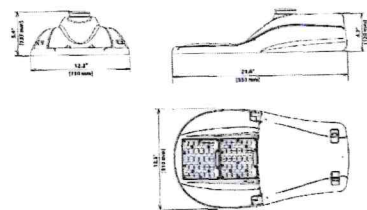
KENT LAZOR
PHONE: 610-363-5271
EMAIL: KLAZOR@COMCAST.NET

LE TEK

GreenCobra™ Midsize LED Street Light

GCM J-Series Specification Data Sheet

Luminaire Data
Weight 11 lbs (5.0 kg)
EPA 0.44 ft



Ordering Information

Sample Catalog No. GCM3-60-4W-40K-2R-GY-190-PCRT-CR/RVL-S/RME-XBP

Model*	LED Code	Voltage	Color Temperature	Distribution	Finish*	Output Code*	FOC*	Options
GCM1*	60	120-277V	3000K	2R	Type 2	GY	Refer to Page 3 to select the performance code.	Fixed Output Code Loss Photocell Receptacle AR87 7-wire Photo-control Receptacle Control Ready 7-wire PC Receptacle Medium Sensor, L3 Lens Medium Sensor, L7 Lens Utility Voltage Label 4 Bolt Mounting Bracket Rubber Wildlife Guard Straight Wire Terminal Block Bubble Level Drum Safety Cable Coastal Paint Finish Extreme Surge Protection, 20KV IZKA, Full-Hot-Off Extreme Surge Protection, Full-Hot-Off, 20KV IZKA Rating
GCM2*	60	120-277V	4000K	2R	Type 2	DB		
GCM3*	60	120-277V	5000K	3R	Type 3	BE		

SHEET 16 of 17

SD-21-03-FINAL MAJOR SUBDIVISION & LAND DEVELOPMENT

REV. 3-26-2024 PER MCOO LETTER DATED 3-15-2024
REV. 12-20-2023 PER MCOO & PENNDOT COMMENTS
REV. 5-31-2023 AS PER APPROVED TOWNSHIP RESOLUTION
REV. 9-16-2022 AS PER TOWNSHIP REVIEW

LIGHTING PLAN
365 CEDAR ROAD
ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA
MADE FOR
PAUL YANNESSA

SCALE: 1"=40' 0 40 80 120 22 NOVEMBER 2021

EASTERN/CHADROW ASSOCIATES, INC.

333 E. STREET ROAD • WARMINGTOWN, PA. 18974 • (215) 672-8671 FAX (215) 672-8785
EST. 1967

