REVISED PRELIMINARY / FINAL LAND DEVELOPMENT PLANS

FOR

113 CORPORATION

PROPOSED

ELAND POINT CROSSING

LOCATION OF SITE

ROUTE 113 & DAWSON DRIVE, BOROUGH OF PHOENIXVILLE

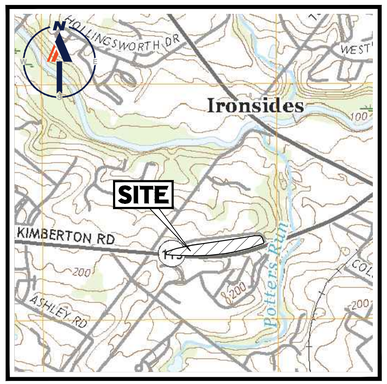
CHESTER COUNTY, PENNSYLVANIA

T.M.P. #15-011-0089.0000

THE PROPOSED AMENDMENT REPRESENTS A REVISION TO THE APPROVED LAND DEVELOPMENT PLANS, ENTITLED "ELAND POINT CROSSING PRELIMINARY/FINAL LAND DEVELOPMENT PLANS" (36 SHEETS), LAST REVISED 5/10/2018, AND PREPARED BY BOHLER ENGINEERING OF CHALFONT, PA

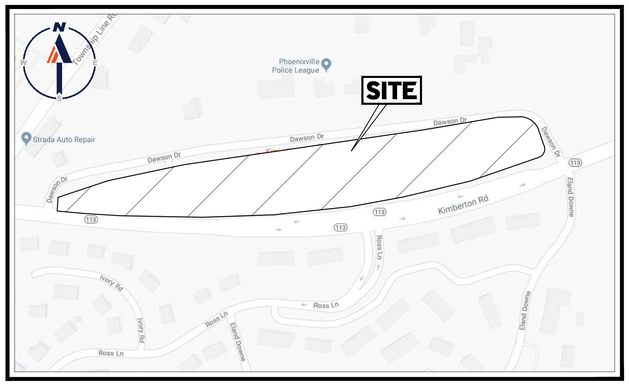
LAND DEVELOPMENT SCHEDULE

ACTION	DEADLINE
FINAL LAND DEVELOPMENT APPROVAL	TBD
RECORD PLANS	TBD
START OF CONSTRUCTION	TBD
END OF CONSTRUCTION	TBD



USGS MAP

(PHOENIXVILLE USGS QUAD)
SCALE: 1"=1,000'



LOCATION MAP

SCALE: 1" = 200'



VICINITY MAP

SCALE: 1" = 2,000'

RECORDER OF DEEDS

RECORDED IN THE OFFICE FOR THE RECORDING OF DEEDS IN AND FOR THE COUNTY OF CHESTER, AT WEST CHESTER, PA, IN PLAN BOOK_____ PAGE NO._____ ON _____, 20___

RECORDER OF DEEDS

AFFIDAVIT OF OWNERSHIP:

COMMONWEALTH OF PENNSYLVANIA
SS:
COUNTY OF _____

BEFORE ME, THE UNDERSIGNED NOTARY PUBLIC, THIS DAY PERSONALLY APPEARED _____ TO ME KNOWN (OR SATISFACTORILY PROVEN), WHO BEING DULY SWORN ACCORDING TO LAW, DEPOSE(S) AND SAY(S):

HE IS THE _____ OF 113 CORPORATION, AND IS THE RECORD OWNER OF ALL THE PROPERTY ("PROPERTY") TO WHICH THIS PLAN APPLIES AND OF ALL RIGHTS WHICH ARE NECESSARY TO IMPLEMENT THIS PLAN. THE SOURCE OF 113 CORPORATION TITLE TO THE PROPERTY IS THE DEED(S) RECORDED, WITH THE OFFICE ("RECORDERS OFFICE") OF THE RECORDER OF DEEDS IN AND FOR CHESTER COUNTY, PENNSYLVANIA, IN RECORD BOOK 254, BEGINNING AT PAGE 127. THIS PLAN IS 113 CORPORATION ACT AND DEED AND IS AUTHORIZED BY 113 CORPORATION TO BE RECORDED WITH THE RECORDER'S OFFICE AND THAT SUCH RECORDING SHALL BE EFFECTIVE FOR ALL PURPOSES. HE IS AUTHORIZED BY 113 CORPORATION ACTING ON BEHALF OF 113 CORPORATION TO MAKE THIS AFFIDAVIT.

113 COPORATION

BY:_____

SWORN AND SUBSCRIBED TO BEFORE ME
THIS _____ DAY OF _____,_____.

_____
NOTARY PUBLIC

PLAN REVISIONS

THE OWNER ACKNOWLEDGES THAT ANY REVISIONS TO THE APPROVED SWM SITE PLAN SHALL BE SUBMITTED TO AND APPROVED BY THE MUNICIPALITY, AND THAT A REVISED EROSION AND SEDIMENT CONTROL PLAN SHALL BE SUBMITTED TO, AND APPROVED BY, THE CONSERVATION DISTRICT OR MUNICIPALITY (AS APPLICABLE) FOR A DETERMINATION OF ADEQUACY PRIOR TO CONSTRUCTION OF THE REVISED FEATURES.

OWNER

PHOENIXVILLE BOROUGH GENERAL NOTES:

AS USED IN THE NOTES AND CERTIFICATIONS ON THIS PLAN, THE FOLLOWING TERMS SHALL HAVE THE FOLLOWING MEANINGS:

APPLICANT - THE PERSON(S) AND/OR ENTITY(IES) WHO OR WHICH HAS SUBMITTED THIS PLAN TO THE BOROUGH FOR APPROVAL PURSUANT TO THE BOROUGH'S SUBDIVISION AND LAND DEVELOPMENT ORDINANCE.

APPLICATION - THE APPLICANT'S APPLICATION, TO THE BOROUGH, FOR APPROVAL OF THIS PLAN PURSUANT TO THE BOROUGH'S SUBDIVISION AND LAND DEVELOPMENT REGULATIONS.

BOROUGH - THE BOROUGH OR PHOENIXVILLE, CHESTER COUNTY, PENNSYLVANIA.

DEVELOPER - THE PERSON(S) OR ENTITY(IES) WHO OR WHICH IMPLEMENT THE LAND DEVELOPMENT SHOWN ON THIS PLAN.

[HOMEOWNERS ASSOCIATION - A PENNSYLVANIA NON-PROFIT CORPORATION TO BE INCORPORATED AND SET UP BY THE DEVELOPER. ALL OWNERS OF THE PROPOSED LOTS IN THE DEVELOPMENT MUST BE MEMBERS OF THE HOMEOWNERS ASSOCIATION, WHICH WILL BE RESPONSIBLE FOR MAINTAINING THE COMMON IMPROVEMENTS.]

PROPERTY OWNER - ALL THE LEGAL AND EQUITABLE OWNERS OF THE PROPERTY AND THEIR HEIRS, SUCCESSORS AND ASSIGNS.

PROPERTY - THE PROPERTY WHICH IS SUBDIVIDED AND/OR DEVELOPED PURSUANT TO THIS PLAN AND IDENTIFIED BY THIS PLAN AS BEING OWNED BY THE PROPERLY OWNER.

PLAN - THIS PLAN AS APPROVED BY THE BOROUGH.

UPI - CHESTER COUNTY UNIFORM PARCEL IDENTIFIER (NUMBER).

1) THE BOROUGH OF PHOENIXVILLE'S APPROVAL OF THIS PLAN, AS A PRELIMINARY/FINAL SUBDIVISION AND LAND DEVELOPMENT PLAN, PURSUANT TO THE BOROUGH OF PHOENIXVILLE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS OF 1989, ORDINANCE NO. 1602, AS AMENDED, WAS MADE BY BOROUGH RESOLUTION _____, WHICH WAS ADOPTED ON _____. THIS PLAN SHOWS THE CONDITIONS OF ITS APPROVAL PER RESOLUTION _____. THE CONDITIONS BIND ALL OWNERS, DEVELOPERS AND USERS OF THE PROPERTY HEREBY DEVELOPED AND/OR SUBDIVIDED AND THEIR HEIRS, SUCCESSORS AND ASSIGNS. THE CONDITIONS MAY CREATE ON-GOING OBLIGATIONS, LIMITATIONS AND/OR REQUIREMENTS AFFECTING THE USE OF THE PROPERTY. THE RESOLUTION IS KEPT BY THE BOROUGH SECRETARY AT THE BOROUGH HALL AND MAY BE INSPECTED THERE BY THE PUBLIC. COPIES OF THE RESOLUTION ARE ALSO AVAILABLE FROM THE BOROUGH FOR A CHARGE.

2) ALL CONDITIONS OR PLAN APPROVAL SHOWN ON THIS PLAN, AND OFFERS OR DEDICATION, SHALL RUN WITH THE LAND FOREVER AND SHALL BE ENFORCEABLE BY THE BOROUGH.

3) THE APPLICANT REPRESENTS TO THE BOROUGH THAT THE APPLICANT HAS ALL THE PROPERTY RIGHTS NECESSARY TO MAKE THE APPLICATION AND, AT THE TIME ANY PERMITS FOR THE IMPLEMENTATION OF THE PLAN ARE ISSUED AND/OR WORK COMMENCED, WILL HAVE ALL THE RIGHTS NECESSARY TO IMPLEMENT THE PLAN COMPLETELY IN COMPLIANCE WITH ALL APPLICABLE REGULATIONS AND WITHOUT VIOLATING THE PROPERTY RIGHTS OR OTHERS. IF THE APPLICANT DOES NOT HAVE OR LOSES ANY SUCH PROPERTY RIGHTS THIS APPROVAL SHALL BE VOIDABLE BY THE BOROUGH BY WRITTEN RESOLUTION. IF ANY OTHER PARTY TAKES ANY LEGAL ACTION AGAINST THE BOROUGH FOR ANY REASON INVOLVING AND/OR ALLEGING THE APPLICANT'S OR PROPERTY OWNER'S LACK OF ANY SUCH PROPERTY RIGHT, THE APPLICANT AND PROPERTY OWNER SHALL HOLD THE BOROUGH HARMLESS AND INDEMNIFY IT FROM ANY AND ALL LIABILITY, LOSS, CLAIM, COST AND/OR EXPENSE, INCLUDING BUT NOT LIMITED TO ATTORNEY'S FEES RESULTING FROM SUCH LEGAL ACTION.

4) A HIGHWAY OCCUPANCY PERMIT IS REQUIRED PURSUANT TO SECTION 420 OF THE ACT OF JUNE 1, 1945 (P.L. 1242, NO. 428), KNOWN AS THE "STATE HIGHWAY LAW," BEFORE DRIVEWAY ACCESS TO A STATE HIGHWAY IS PERMITTED. ACCESS TO A STATE HIGHWAY SHALL BE ONLY AS AUTHORIZED BY A HIGHWAY OCCUPANCY PERMIT. NEITHER THE PENNSYLVANIA DEPARTMENT OF TRANSPORTATION ("PENNDOT") NOR THE BOROUGH SHALL BE LIABLE FOR ANY DAMAGE OR CLAIM WHATSOEVER FOR ANY INJURY TO PERSON OR PROPERTY ARISING OUT OF THE ISSUANCE OR DENIAL OF A HIGHWAY OCCUPANCY PERMIT OR FOR FAILURE TO REGULATE ANY DRIVEWAY. FURTHERMORE, THE BOROUGH SHALL NOT BE LIABLE FOR ANY DAMAGE AND/OR CLAIM WHATSOEVER ARISING OUT OF THE ISSUANCE OR DENIAL OF A HIGHWAY OCCUPANCY PERMIT BY PENNDOT.

5) ALL AREAS SHOWN AS AND/OR REQUIRED TO BE (AT THE TIME THE BOROUGH ADOPTED RESOLUTION _____) OPEN SPACE OR COMMON AREA SHALL BE USED ONLY AS OPEN UNDEVELOPED AREAS AND SHALL NOT BE FURTHER SUBDIVIDED AND/OR ALIENATED SO AS TO CREATE ANY RIGHTS THAT COULD INFRINGE ON THIS OPEN SPACE USE LIMITATION.

6) AT THE BOROUGH'S REQUEST, THE PROPERTY OWNER SHALL EXECUTE AND RECORD, WITH THE APPROPRIATE OFFICES AND OFFICIALS AND IN THE APPROPRIATE AND LEGALLY EFFECTIVE MANNER FOR THE PURPOSE, ALL DOCUMENTS, PLANS, DEEDS AND DECLARATIONS (COLLECTIVELY "RECORDINGS") REQUIRED TO BE RECORDED, BY APPLICABLE REGULATIONS, THE TERMS OF FINAL PLAN APPROVAL AND/OR NOTES ON THIS PLAN, AND SHALL PROVIDE THE BOROUGH WITH COPIES, CERTIFIED BY THE RECORDING OFFICIAL, OF ALL SUCH RECORDINGS, AT THE BOROUGH'S OPTION, BEFORE THE PROPERTY OWNER SHALL PAY THE BOROUGH'S COSTS. [(THIS IS THE INFORMATION THAT IS TO BE OF RECORD FOR THE PLAN ITSELF.) THINGS TO BE RECORDED PRIOR TO START OF WORK.]

7) AT THE BOROUGH'S REQUEST, THE PROPERTY OWNER WILL EXECUTE, ACKNOWLEDGE AND DELIVER ALL DOCUMENTS, DEEDS AND/OR INSTRUMENTS NECESSARY OR APPROPRIATE, IN THE OPINION OF THE BOROUGH SOLICITOR, TO IMPLEMENT THIS PLAN AS APPROVED AND TO RECORD ALL INSTRUMENTS, DEEDS, COVENANTS, EASEMENTS AND/OR RIGHTS-OF-WAY WHICH ARE REQUIRED BY THE TERMS OF FINAL PLAN APPROVAL AND/OR NOTES ON THIS PLAN TO BE CONVEYED TO THE BOROUGH. [THIS INCLUDES DEEDS OF DEDICATION TO BE OFFERED UPON COMPLETION.]

8) THE BOROUGH MAY WITHHOLD BUILDING AND/OR OCCUPANCY PERMITS AND/OR REFUSE TO ACCEPT DEDICATION OF IMPROVEMENTS AND/OR RELEASE IMPROVEMENT SECURITY IF THE LAND DEVELOPMENT AND/OR SUBDIVISION ISUARE NOT AND ISSARE NOT IMPLEMENTED IN FULL COMPLIANCE WITH ANY OTHER GOVERNMENTAL UNIT'S REGULATIONS WHICH APPLY TO THE BUILDING, STRUCTURE, OCCUPANCY, WORK AND/OR IMPROVEMENT FOR WHICH BOROUGH ACTION IS REQUESTED. HOWEVER, THE BOROUGH DOES NOT HEREBY ASSUME ANY DUTY TO INSPECT FOR OR APPROVE ANY WORK OR CONDITION PURSUANT TO ANY OTHER GOVERNMENTAL ENTITY'S REGULATION. IT IS THE PROPERTY OWNER'S OBLIGATION TO ACHIEVE COMPLIANCE WITH ANY AND ALL REGULATIONS OF OTHER GOVERNMENTAL ENTITIES BY WORKING DIRECTLY WITH SUCH ENTITY. TO THE EXTENT THAT SUCH APPROVALS OF OTHER GOVERNMENTAL ENTITIES ARE REQUIRED, FOR THE IMPROVEMENTS, WORK AND/OR PROPOSED USE, THE PROPERTY OWNER REPRESENTS THAT THESE APPROVALS HAVE BEEN APPLIED FOR AND ALL ARE GRANTED AND IN EFFECT OR WILL BE SO PRIOR TO THE ISSUANCE OF ANY BOROUGH BUILDING PERMIT TO CONSTRUCT NEW IMPROVEMENTS PURSUANT TO THIS PLAN. BY REQUIRING COMPLIANCE WITH THE REGULATIONS OF OTHER GOVERNMENTAL ENTITIES AND/OR BY APPROVING THE DEVELOPMENT AND SUBDIVISION PLAN OR ANY PLAN AMENDMENTS, NEITHER THE BOROUGH NOR ANY BOROUGH OFFICIAL REPRESENTS THAT THE SUBJECT MATTER OF THE BOROUGH'S APPROVAL COMPLIES WITH SUCH OTHER ENTITY'S REGULATIONS OR HAS BEEN APPROVED BY OR IS ENTITLED TO BE APPROVED BY SUCH OTHER ENTITY OR THAT THE SUBJECT OF THE APPROVAL HAS BEEN DESIGNED CORRECTLY OR WILL FUNCTION SAFELY.

9) THE STREETS, STREET RIGHTS-OF-WAY AND STREET DRAINAGE RIGHTS, PUBLIC WATER SUPPLY FACILITIES AND THE EASEMENTS THEREFOR AND THE PUBLIC SANITARY SEWER SYSTEM AND THE EASEMENTS THEREFOR, AS SHOWN ON THIS PLAN, ARE OFFERED HEREBY FOR DEDICATION TO THE BOROUGH PERPETUALLY AND IRREVOCABLY. THE STREET DRAINAGE RIGHTS INCLUDE THE RIGHT TO USE, REPAIR AND REPLACE ANY STORMWATER MANAGEMENT FACILITY WHICH DRAINS RUNOFF FROM A DEDICATED ROAD (THIS RIGHT DOES NOT INCLUDE ANY DUTY TO REPAIR OR MAINTAIN ANY SUCH FACILITY). ALSO OFFERED HEREBY FOR DEDICATION TO THE BOROUGH, PERPETUALLY AND IRREVOCABLY, IS AN EXCLUSIVE EASEMENT, RIGHT-OF-WAY AND RIGHTS (ALL CALLED "UTILITY EASEMENT RIGHTS") FOR THE PURPOSES ("UTILITY PURPOSES") OF ANY UTILITY AND ALL UTILITIES, WITH FREE AND UNINTERRUPTED RIGHT OF ENTRY UPON THE PROPERTY FOR ACCESS TO AND USE OF THE EASEMENT AREA. "UTILITY" INCLUDES, BUT IS NOT LIMITED TO, ANY AND ALL WATER, SANITARY SEWER, STORMWATER MANAGEMENT, ELECTRIC, TELEPHONE, CABLE TV AND INFORMATION TRANSMISSION LINES, FACILITIES, SYSTEMS, STRUCTURES AND/OR OPERATIONS NO MATTER WHO THE OPERATOR(S) AND OWNER(S) ARE. THE UTILITY PURPOSES INCLUDE, BUT ARE NOT LIMITED TO, THE FREE RIGHT TO LAYOUT, PLACE, CONSTRUCT, OPERATE, INSPECT, TEST, MAINTAIN, REPAIR, REPLACE, RELOCATE, RECONSTRUCT, ENLARGE, CHANGE AND/OR USE ANY AND ALL LINE(S), STRUCTURE(S), SYSTEM(S) AND/OR SYSTEMS(S) AND ANY AND ALL APPURTENANCES(S) THERETO FOR ANY AND ALL UTILITY PURPOSES. THE EASEMENT AREA SHALL INCLUDE AND IS LIMITED TO ALL OF THE AREA OF THE PROPERTY, WHICH AREA IS WITHIN ALL WATER SUPPLY AND SANITARY SEWER EASEMENTS AND/OR ALL STREET RIGHTS-OF-WAY. THE UTILITY EASEMENT RIGHTS MAY BE USED OVER, UNDER, UPON AND THROUGH ANY AND ALL PART(S) OF THE EASEMENT AREA. ALL THE OFFERED RIGHTS INCLUDE A NEGATIVE EASEMENT WHICH PROHIBITS, IN THE OFFERED RIGHT-OF-WAY AND/OR EASEMENT AREA, ANY ACTIVITY, USE, CONDITION, PLANT, IMPROVEMENT, STRUCTURE AND/OR BUILDING WHICH, IN THE SOLE JUDGMENT OF THE BOROUGH, IS INCONSISTENT IN ANY WAY WITH AND/OR MAY IN ANY WAY INTERFERE WITH, ENDANGER AND/OR OBSTRUCT THE SALE OR EFFICIENT USE OF AND/OR ANY PURPOSE OF THE OFFERED RIGHTS. THE NEGATIVE EASEMENT SHALL ALSO PROVIDE THAT NO STRUCTURE SHALL BE PERMITTED ON, OVER AND/OR UNDER ANY PART OF THE RIGHT-OF-WAY AND/OR EASEMENT AREA, WITHOUT THE BOROUGH'S PRIOR APPROVAL, BY WRITTEN RESOLUTION, SPECIFICALLY AUTHORIZING SUCH USE.

IF AND WHEN REQUESTED BY THE BOROUGH, THE APPLICANT AND (IT/S/HIS/HER/THEIR) HEIRS, SUCCESSORS AND ASSIGNS SHALL TRANSFER TITLE TO ANY AND/OR ALL OF THE OFFERED RIGHTS AND IMPROVEMENTS TO THE BOROUGH. SUCH TRANSFER SHALL BE BY DEED(S) OR AGREEMENT(S) OF DEDICATION WHICH SHALL BE IN SUCH FORM AS THE BOROUGH MAY REQUIRE AND TITLE TO ALL SUCH RIGHTS AND IMPROVEMENTS SHALL BE GOOD AND MARKETABLE AND FREE FROM ANY ENCUMBRANCE. WHEN TRANSFERRING TO (IT/S/HIS/HER/THEIR) ASSIGNS THE PROPERTY OWNER SHALL AND HEREBY DOES RESERVE AND EXCEPT FOR ITSELF (AND THE HOMEOWNERS ASSOCIATION) ALL INTERESTS AND RIGHTS NECESSARY FOR EITHER TO MAKE, FULLY AND COMPLETELY, ALL THE DEDICATIONS REQUIRED HEREBY. HOWEVER, THESE RESERVED RIGHTS TO DEDICATE SHALL NOT BE EXCLUSIVE AND THE (LOT OWNERS/APPLICANT'S AND PROPERTY OWNER'S/S' SUCCESSORS AND ASSIGNS) MAY ALSO MAKE SUCH DEDICATIONS. IN ANY EVENT, THE APPLICANT'S AND PROPERTY OWNER'S(S') SUCCESSORS AND ASSIGNS SHALL BE OBLIGATED TO MAKE SUCH TRANSFER TO THE BOROUGH, AT THE BOROUGH'S REQUEST.

NEITHER THE BOROUGH'S APPROVAL OF THIS PLAN, THE PLAN'S RECORDING NOR ANY NOTE HEREON IS INTENDED TO OR DOES OBLIGATE THE BOROUGH TO MAINTAIN AND/OR ACCEPT, IN ANY WAY, ANY STREET, STORMWATER MANAGEMENT, WATER SUPPLY AND/OR SANITARY SEWER FACILITY, EASEMENT OR RIGHT-OF-WAY AND/OR ANY OTHER IMPROVEMENT SHOWN HEREON AND/OR ANY UTILITY. IF THE BOROUGH SOLICITOR, IN HIS SOLE DISCRETION, TAKES DEDICATION OF A STREET OR STREET RIGHT-OF-WAY, UNLESS THE DEED OF DEDICATION EXPRESSLY AND CLEARLY PROVIDES OTHERWISE, THE BOROUGH WILL NOT TAKE FEE TITLE TO THE AREA WITHIN SUCH STREET RIGHT-OF- WAY AND WILL NOT OWN OR BE RESPONSIBLE FOR ANY TREES, SIDEWALKS AND YARD AREAS (EXISTING, REQUIRED OR NOT SHOWN ON THIS PLAN) AND YARD AREAS WITHIN SUCH RIGHT-OF-WAY. RESPONSIBILITY FOR SUCH STREET TREES, SIDEWALKS AND YARD AREAS SHALL REMAIN, FOR ALL PURPOSES, WITH THE OWNER(S) OF THE FEE TITLE. THE BOROUGH MAY REQUIRE, AT ANY TIME, THAT ANY STREET BE REMOVED, IN ALL OR IN PART, FROM PUBLIC DEDICATION AND ACCEPTED BY THE BOROUGH, UNLESS THE BOROUGH SHALL REQUIRE OTHERWISE, SHALL BE PERPETUAL, RUN WITH THE LAND AND BE ASSIGNABLE BY THE BOROUGH.

10) THE UTILITY SYSTEMS SHALL BE INSTALLED, AND INSPECTED AND APPROVED AS REQUIRED BY THE BOROUGH ENGINEER, BEFORE PAVING OF THE CARTWAY, POURING OF CONCRETE FOR AND/OR PAVING OF SIDEWALKS AND THE CONSTRUCTION OF ANY OTHER IMPROVEMENT WITH WHICH THE CONSTRUCTION OF THE UTILITY SYSTEM MIGHT INTERFERE. THE UTILITY SYSTEMS SHALL BE INSTALLED IN A COMMON TRENCH SYSTEM GRADED, WITHIN AND FOR THE RIGHT-OF-WAY AND EASEMENT FOR ANY ROAD, STREET, SEWER, WATER SUPPLY AND/OR STORMWATER MANAGEMENT FACILITY, PROPOSED TO BE DEDICATED TO THE BOROUGH, UNLESS AND UNTIL THE PLANS FOR SUCH UTILITY SYSTEM AND/OR EASEMENT AND THE TIMING OF ITS CONSTRUCTION ARE APPROVED BY THE BOROUGH ENGINEER IN WRITING.

11) IF THE BOROUGH ACCEPTS, FROM THE DEVELOPER, THE DEVELOPER'S SUCCESSOR OR ASSIGN OR ANY OTHER GRANTOR, A DEED OR OTHER INSTRUMENT OF DEDICATION FOR ANY IMPROVEMENT, THE GRANTOR SHALL AND HEREBY DOES AGREE TO INDEMNIFY AND HOLD HARMLESS THE BOROUGH AND ALL BOROUGH OFFICIALS, FROM AND AGAINST ANY AND ALL CLAIMS, DEMANDS, SUITS, JUDGMENTS AND LIABILITIES WHATSOEVER RESULTING FROM THE NEGLIGENT CONSTRUCTION, DESIGN AND/OR MAINTENANCE OF THE IMPROVEMENT.

12) ALL TREES EXISTING IN AND/OR PLANTED IN THE PUBLIC STREET RIGHT-OF-WAY SHALL BE OWNED AND MAINTAINED IN GOOD, HEALTHY AND SAFE CONDITION, AT ALL TIMES, BY THE FEE OWNER OF THE PART OF THE PROPERTY WHERE THE TREE IS LOCATED, THE BOROUGH SHALL HAVE THE RIGHT, BUT NOT THE DUTY, TO INSPECT ANY SUCH TREE AND TO REQUIRE ITS OWNER, AT THE OWNER'S EXPENSE, TO PRUNE, MAINTAIN AND, IF THE TREE IS DEAD, DISEASED, DAMAGED, MALFORMED OR A THREAT TO PUBLIC SAFETY, TO REMOVE THE TREE. EACH TREE PLANTED WITH A TREE OF AT LEAST A THREE (3") INCH CALIPER AND OF THE SAME SPECIES OR A SPECIES APPROVED BY THE BOROUGH. ALL LIABILITY FOR ANY TREE ON THE PROPERTY SHALL BE ON THE FEE OWNER OF THE PART OF THE PROPERTY WHERE THE TREE IS LOCATED, WITHOUT LIMITATION, SUCH OWNER SHALL HAVE THE DUTY TO ENSURE THAT THE TREE DOES NOT CREATE ANY NUISANCE OR SAFETY HAZARD.

13) IRREVOCABLE LICENSES AND RIGHTS OF ENTRY UPON ANY OF THE PROPERTY SUBJECT TO THIS PLAN ARE HEREBY GRANTED TO THE BOROUGH OF PHOENIXVILLE, ITS OFFICERS AND AGENTS, FOR THE PURPOSE OF CORRECTING OR ABATING A PUBLIC NUISANCE AND/OR TO ADD TO, REPAIR, MODIFY AND/OR REPLACE ANY DRAINS, STORMWATER MANAGEMENT FACILITIES, SEWERS, WATER LINES AND/OR OTHER UTILITIES WHICH ARE CONNECTED TO A PUBLIC FACILITY OR UTILITY AND TO INSPECT AND ENFORCE THE BOROUGH'S REGULATIONS AND/OR COMPLIANCE WITH THIS PLAN, THESE RIGHTS CREATE NO BOROUGH DUTY TO DO ANY SUCH WORK OR INSPECTIONS.

14) ANY IMPROVEMENT SHOWN ON THIS PLAN WHICH DOES NOT FUNCTION SAFELY, AS INTENDED AND/OR IN COMPLETE COMPLIANCE WITH ALL APPLICABLE REGULATIONS SHALL BE REDESIGNED AND RECONSTRUCTED PROMPTLY, BY THE DEVELOPER AND/OR THE PROPERTY OWNER, AT SUCH PARTY'S EXPENSE, TO BE SAFE, FUNCTION AS INTENDED AND TO COMPLY WITH ALL APPLICABLE REGULATIONS. ALL SUCH NEW DESIGNS AND SPECIFICATIONS SHALL BE SUBJECT TO THE BOROUGH ENGINEER'S PRIOR WRITTEN APPROVAL AND INSPECTION, DURING AND AFTER CONSTRUCTION, ALL AT THE APPLICANT'S COST.

15) THE STORMWATER MANAGEMENT FACILITIES (INDIVIDUALLY "STORMWATER FACILITY," AND COLLECTIVELY "STORMWATER FACILITIES"), LOCATED ON THE PROPERTY AND SHOWN ON THIS PLAN ARE PERMANENT AND ARE NOT TO BE REMOVED OR ALTERED. STORMWATER FACILITIES INCLUDE, BUT ARE NOT LIMITED TO, SWALES DESIGNED OR USED TO CONVEY STORMWATER. THE [HOMEOWNERS ASSOCIATION AND THE] OWNER[S] OF EACH PARCEL WHERE ANY STORMWATER FACILITY IS LOCATED AND [SUCH OWNER'S(THEIR) HEIRS, SUCCESSORS AND ASSIGNS ([COLLECTIVELY] THE "OWNER") SHALL BE RESPONSIBLE FOR THE PERPETUAL MAINTENANCE OF THE STORMWATER FACILITIES LOCATED ON THAT PARCEL. THE OWNER SHALL MAINTAIN THE STORMWATER FACILITIES, FOR WHICH THE PROPERTY OWNER IS RESPONSIBLE, IN A CONDITION WHICH IS STRUCTURALLY SOUND AND FUNCTIONAL AND IN COMPLIANCE WITH ALL REGULATIONS AND SHALL NOT CAUSE OR ALLOW ANY SUCH FACILITY TO BE ALTERED, REMOVED, SILTED UP, OVERGROWN AND/OR TO FAIL TO FUNCTION AS DESIGNED AND/OR AS REQUIRED BY APPLICABLE REGULATIONS. IF THE OWNER DOES NOT DO SO, UPON NOTIFICATION BY THE BOROUGH, THE PROPERTY OWNER, AS PROMPTLY AS POSSIBLE, SHALL CORRECT, REPAIR, RECONSTRUCT AND/OR REPLACE SUCH FACILITY TO ACHIEVE AND MAINTAIN THE FACILITY'S DESIGN SPECIFICATIONS, FUNCTIONS AND ITS COMPLIANCE WITH ALL APPLICABLE REGULATIONS, IF THE OWNER FAILS TO SO RESTORE AND/OR CORRECT THE STORMWATER FACILITY, WITHIN THE TIME SPECIFIED BY THE BOROUGH, THE CONDITION OF THE STORMWATER FACILITY SHALL BE A PUBLIC NUISANCE AND THE BOROUGH SHALL HAVE THE FREE RIGHT TO ENTER UPON THE PROPERTY AND TO DO SUCH REPAIRS, MAINTENANCE, REPLACEMENT AND/OR RECONSTRUCTION AS THE BOROUGH DETERMINES NECESSARY WITH RESPECT TO SUCH STORMWATER FACILITY. ALL SUCH CORRECTION, REPAIRS, RECONSTRUCTION AND/OR REPLACEMENT AND THE DESIGN COSTS THEREOF SHALL BE AT THE EXPENSE OF THE OWNER JOINTLY AND SEVERALLY. THE BOROUGH MAY LIEN AND EXECUTE ON THE PROPERTY (AS A MUNICIPAL CLAIM AND LIEN AND/OR IN ANY OTHER MANNER PROVIDED BY LAW) FOR THE COST OF ALT SUCH WORK, INCLUDING ANY ENGINEERING AND DESIGN COST, AND FOR ATTORNEYS' FEES FOR ENFORCEMENT AND COLLECTION.

16) EACH ASSIGNEE OF ANY PARCEL ON THIS PLAN SHALL BE RESPONSIBLE FOR ALL THE TERMS AND CONDITIONS OF THIS PLAN AS APPLICABLE TO SUCH PARCEL. AS USED IN THESE PLAN NOTES, "APPLICANT," "PROPERTY OWNER" AND "DEVELOPER" INCLUDE SUCH PARTY'S HEIRS, SUCCESSORS AND ASSIGNS.

17) EACH LOT SHOWN ON THIS PLAN SHALL HAVE PRIVATE IMPLIED ACCESS EASEMENTS AND RIGHTS-OF-WAY OVER ONLY THE ROADS SHOWN HEREON WHICH ARE ACTUALLY CONSTRUCTED.

18) ALL PLANTS WHICH ARE PROVIDED PURSUANT TO THE PLAN SHALL CONFORM TO THE CURRENT AMERICAN STANDARD FOR NURSERY STOCK OF THE AMERICAN ASSOCIATION OF NURSERYMEN, INC. EACH PLANT SHALL BE MULCHED WHEN PLANTED WITH THREE INCHES OF MULCH APPROVED BY THE BOROUGH. TREES AND SHRUBS, WHICH GROW TO HEIGHTS OF FIVE FEET OR TALLER, SHALL BE PLACED SO THAT THEIR BRANCHES WILL NOT GROW INTO ANY BUILDINGS, OBSTRUCT DRIVEWAY AND/OR STREET SIGHT TRIANGLES OR INTERFERE WITH OVERHEAD PUBLIC UTILITIES.

19) AS PART OF THE LAND DEVELOPMENT AND SUBDIVISION PLAN REVIEW AND APPROVAL PROCESS, THE BOROUGH DID NOT DETERMINE WHETHER THERE ARE WETLANDS ON THE PROPERTY. IF THE U.S. ARMY CORPS OF ENGINEERS ("CORPS") OR PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION ("DEP") DETERMINES THAT THERE ARE SUCH WETLANDS ON THE TRACT AND THE APPLICANT'S AND PROPERTY OWNER'S PROPOSED IMPROVEMENT OR AFFECT COMPLIANCE WITH ANY APPLICABLE REGULATION, THIS PLAN SHALL BE VOIDABLE BY THE BOROUGH, BY WRITTEN RESOLUTION, AND THE BOROUGH MAY REQUIRE THE PROPERTY OWNER TO AMEND THE DEVELOPMENT AND SUBDIVISION PLAN. IN SUCH CASE, THE BOROUGH MAY REQUIRE ITS PROR WRITTEN APPROVAL OF THE AMENDMENT WHICH APPROVAL MAY BE GRANTED SUBJECT TO SUCH CONDITIONS AS BOROUGH COUNCIL DETERMINES APPROPRIATE.

20) THE WAIVERS SPECIFICALLY GRANTED BY RESOLUTION _____ RELATE ONLY TO SUBDIVISION AND LAND DEVELOPMENT ORDINANCE REQUIREMENTS. NOTHING SHOWN HEREON SHALL BE CONSTRUED TO VARY, WAIVE OR REDUCE ANY REQUIREMENTS OF THE ZONING ORDINANCE OR ANY OTHER BOROUGH ORDINANCE OR REGULATION.

21) THE BOROUGH AND BOROUGH ENGINEER HAVE REVIEWED THE DEVELOPMENT AND SUBDIVISION PLAN AND ALL INFORMATION SUPPLIED WITH IT ONLY FOR BOROUGH PURPOSES AND ONLY FOR COMPLIANCE WITH THE BOROUGH'S REGULATIONS. THE BOROUGH DOES NOT WARRANT, IN ANY WAY, THE IMPROVEMENTS OR WORK SHOWN ON THE PLAN. IN REVIEWING THE DEVELOPMENT AND SUBDIVISION PLAN AND ANY FUTURE PLANS, PLAN CHANGES AND/OR SPECIFICATIONS AND DESIGNS CONCERNING THE PROPOSED USE, IMPROVEMENTS AND/OR WORK, THE BOROUGH ENGINEER AND ALL BOROUGH OFFICIALS HAVE RELIED AND MAY RELY ON THE INFORMATION SUPPLIED BY THE APPLICANT. THE APPLICANT IS RESPONSIBLE FOR THE ACCURACY AND COMPLETENESS OF ALL INFORMATION (E.G., PROPERTY OWNERSHIP, ENCUMBRANCES, MEASUREMENTS, CALCULATIONS, PLANS, LOCATIONS, SURVEYS AND SITE DATA) SUPPLIED TO THE BOROUGH AT ALL TIMES. IT IS THE APPLICANT'S AND APPLICANT'S ENGINEERS DUTY TO IDENTIFY ALL RELEVANT CONDITIONS BOTH ON AND OFF THE PROPERTY. THE APPLICANT MUST DETERMINE AND THE APPLICANT'S ENGINEER MUST CERTIFY TO THE BOROUGH THAT ALL PLANS DO COMPLY AND THAT ALL IMPROVEMENTS AND WORK, WHEN IMPLEMENTED IN THE FIELD AS SHOWN ON THE PLANS, WILL COMPLY WITH ALL APPLICABLE REGULATIONS, WILL IN ALL WAYS REFLECT GOOD ENGINEERING AND CONSTRUCTION PRACTICES AND WILL NOT RESULT IN DAMAGE TO ANY PERSONS OR PROPERTY. IN MAKING THESE DETERMINATIONS, NEITHER THE APPLICANT NOR THE APPLICANT'S ENGINEER HAS RELIED OR SHALL RELY UPON ANY APPROVAL, PERMIT, DETERMINATION OF OR INFORMATION OR RECOMMENDATIONS FROM OR ESTABLISHED BY THE BOROUGH ENGINEER OR ANY OTHER BOROUGH OFFICIAL. NO BOROUGH OFFICIAL IS RESPONSIBLE FOR DESIGNING, DESIGN CONCEPTS, DESIGN SPECIFICATIONS FOR OR PROPER CONSTRUCTION AND/OR SUITABILITY OF ANY IMPROVEMENT OR WORK OR FOR DETERMINING TITLE ISSUES CONCERNING THE TRACT AND/OR ANY ENCUMBRANCE OR FOR CHECKING ANYTHING SHOWN ON THE PLAN AS PART OF THE PLAN REVIEW AND/O

GENERAL NOTES

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

1. ALL ACCESSIBLE ADA PARKING SPACES MUST BE CONSTRUCTED TO MEET, AT A MINIMUM, THE MORE STRINGENT OF THE REQUIREMENTS OF THE "AMERICANS WITH DISABILITIES ACT" (ADA) CODE (42 U.S.C. § 12101 et seq. AND 42 U.S.C. § 4151 et seq.) OR THE REQUIREMENTS OF THE JURISDICTION WHERE THE PROJECT IS TO BE CONSTRUCTED, AND ANY AND ALL AMENDMENTS TO BOTH WHICH ARE IN EFFECT WHEN THESE PLANS ARE COMPLETED.

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

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

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

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

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

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

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

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

10. DEBRIS MUST NOT BE BURIED ON THE SUBJECT SITE AND ALL UNSUITABLE EXCAVATED MATERIAL AND DEBRIS (SOLID WASTE) MUST BE DISPOSED OF IN ACCORDANCE WITH THE REQUIREMENTS OF ANY AND ALL GOVERNMENTAL AUTHORITIES WHICH HAVE JURISDICTION OVER THIS PROJECT OR OVER CONTRACTOR.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

GENERAL DEMOLITION NOTES

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

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

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

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

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

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

6. 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.

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

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

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

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

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

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

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

   G. A COMPLETE INSPECTION FOR CONTAMINANTS, BY A LICENSED ENVIRONMENTAL TESTING AGENCY, OF ALL BUILDINGS AND/OR STRUCTURES TO BE REMOVED SHALL BE DONE IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL ENVIRONMENTAL REGULATIONS. ALL 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.

9. 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.

10. IN THE ABSENCE OF SPECIFIC REQUIREMENTS, THE CONTRACTOR SHALL PERFORM EARTH MOVEMENT ACTIVITIES, DEMOLITION AND REMOVAL OF ALL FOUNDATION WALLS, FOOTINGS, AND OTHER MATERIALS WITHIN THE LIMITS OF DISTURBANCE IN ACCORDANCE WITH DIRECTION BY OWNER'S GEOTECHNICAL ENGINEER.

11. 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.

12. 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.

13. 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.

14. DEMOLITION ACTIVITIES AND EQUIPMENT SHALL NOT USE AREAS OUTSIDE THE DEFINED PROPERTY LINES, WITHOUT WRITTEN PERMISSION OF THE OWNER, AND/OR APPROPRIATE GOVERNMENT AGENCY.

15. 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.

16. 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.

17. 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.

18. 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.

19. 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/UNSUITABLE MATERIAL OFF-SITE IN ACCORDANCE WITH ALL APPLICABLE CODES, ORDINANCES, AND LAWS.

PROJECT SPECIAL NOTES

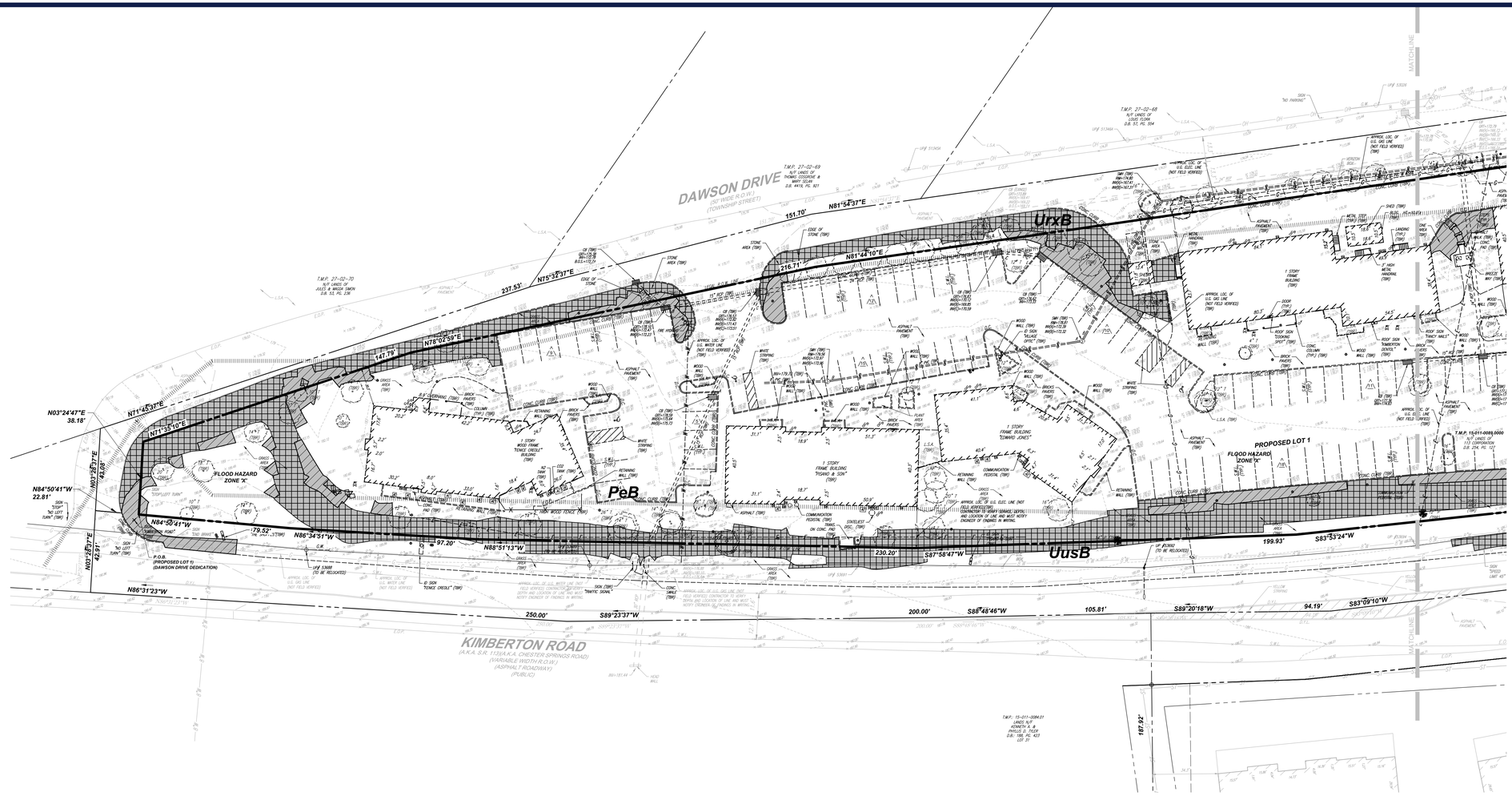
1. NO WETLANDS ARE LOCATED ON THE PROPERTY.
2. THE OPEN SPACE SHOWN ON THE PROPERTY SHALL BE RESERVED FOR PUBLIC USE.
3. ANY SPRINKLER SYSTEM OF STAND PIPE FDC LOCATIONS MUST BE APPROVED BY THE FIRE CHIEF AND ALL FDC CONNECTIONS WILL BE 5" STORTZ ON A 30°
4. SNOW REMOVAL ACTIVITIES SHALL NOT STOCKPILE SNOW AND ICE WITHIN 25-FEET OF BUCKEYE'S HIGH PRESSURE PETROLEUM PRODUCTS PIPELINE.
5. NO BUILDING WALL, DECK, POOL, FENCE, SWING SET, FUEL STORAGE TANK, MATERIAL STORAGE, LONG TERM PARKING, ETC. SHALL BE LOCATED WITHIN 25-FEET OF BUCKEYE'S HIGH PRESSURE PETROLEUM PRODUCTS PIPELINE.
6. DETAILED DESIGN CALCULATIONS AND DESIGN PLANS FOR THE PROPOSED RETAINING WALL WILL BE REQUIRED AND APPROVED BY THE BOROUGH PRIOR TO CONSTRUCTION.
7. ALL INTERNAL WATER AND SEWER LINES ARE CONSIDERED PRIVATE AND SUBJECT TO COMPLIANCE WITH THE BOROUGH PLUMBING CODE.

GENERAL GRADING & UTILITY NOTES

1. LOCATIONS OF ALL EXISTING AND PROPOSED SERVICES ARE APPROXIMATE AND MUST BE INDEPENDENTLY CONFIRMED WITH LOCAL UTILITY COMPANIES PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION OR EXCAVATION. SANITARY SEWER AND ALL OTHER UTILITY SERVICE CONNECTION POINTS MUST BE INDEPENDENTLY CONFIRMED BY THE CONTRACTOR IN THE FIELD PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. ALL DISCREPANCIES MUST IMMEDIATELY BE REPORTED, IN WRITING, TO THE ENGINEER. CONSTRUCTION MUST COMMENCE BEGINNING AT THE LOWEST INVERT (POINT OF CONNECTION) AND PROGRESS UP GRADIENT. PROPOSED INTERFACE POINTS (CROSSINGS) WITH EXISTING UNDERGROUND UTILITIES SHALL BE FIELD VERIFIED BY TEST PITS PRIOR TO COMMENCEMENT OF CONSTRUCTION.

2. CONTRACTOR MUST VERTICALLY AND HORIZONTALLY LOCATE ALL EXISTING 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 OR WORK SPACE, WHICHEVER IS GREATER. THE CONTRACTOR MUST USE, REFER TO, AND COMPLY WITH THE REQUIREMENTS OF THE APPLICABLE UTILITY NOTIFICATION SYSTEM TO LOCATE ALL THE UNDERGROUND UTILITIES. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ALL DAMAGE TO ANY EXISTING UTILITIES DURING CONSTRUCTION, AT NO COST TO THE OWNER. CONTRACTOR SHALL BEAR ALL COSTS ASSOCIATED WITH DAMAGE TO ANY EXISTING UTILITIES DURING CONSTRUCTION.

3. IT IS THE CONTRACTOR'S RESPON



15-25% STEEP SLOPES (MAN-MADE)

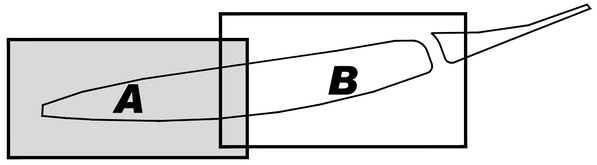
25+ SUPER STEEP SLOPES (MAN-MADE)

LEGEND
TO BE REMOVED

BUILDING	
RETAINING WALL	
CONCRETE CURB	
PROPERTY LINE	
ELECTRIC LINE	
TELEPHONE LINE	
GAS LINE	
WATER LINE	
SANITARY SEWER	
STORM PIPE	
SIGN	
PARKING COUNT	10
LIGHT FIXTURE	
TREE	
DRAINAGE INLET	
STORM/SANITARY MANHOLE	
WATER VALVE	
CLEANOUT	
GAS METER	
AC UNIT	AC
UTILITY POLE	

LEGEND
EXISTING

BUILDING	
RETAINING WALL	
CONCRETE CURB	
FENCE	
TREELINE	
PROPERTY LINE	
R.O.W. LINE	
ADJACENT PROPERTY LINE	
EASEMENT LINE	
SETBACK LINE	
WATERWAY LINE	
FLOODPLAIN LINE	FP
SOIL TYPE DELINIATION	
CONTOUR LINE	123
OVERHEAD UTILITY WIRES	OH
ELECTRIC LINE	E
GAS LINE	G
WATER LINE	W
SANITARY SEWER	S
STORM PIPE	
CONCRETE MONUMENT/ IRON PIN	
SIGN	
PARKING COUNT	123
LIGHT FIXTURE	
TREE	
DRAINAGE INLET	
STORM/SANITARY MANHOLE	
WATER/GAS VALVES	
UTILITY POLE	



KEY MAP
N.T.S.



30 15 7.5 0 30
1" = 30'

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PROJECT No.: PC191216
DRAWN BY: CCP
CHECKED BY: JRH
DATE: 03/04/2020
CAD I.D.: PC19121 6-SPP-2

PROJECT:
REVISED PRELIMINARY/ FINAL LAND DEVELOPMENT PLANS
FOR
113 CORPORATION

ELAND POINT CROSSING

ROUTE 113 & DAWSON DRIVE
BOROUGH OF PHOENIXVILLE
CHESTER COUNTY
PHOENIXVILLE, PA

BOHLER
1600 MANOR DRIVE, SUITE 200
CHALFONT, PA 18914
Phone: (215) 996-9100
Fax: (215) 996-9102
www.BohlerEngineering.com

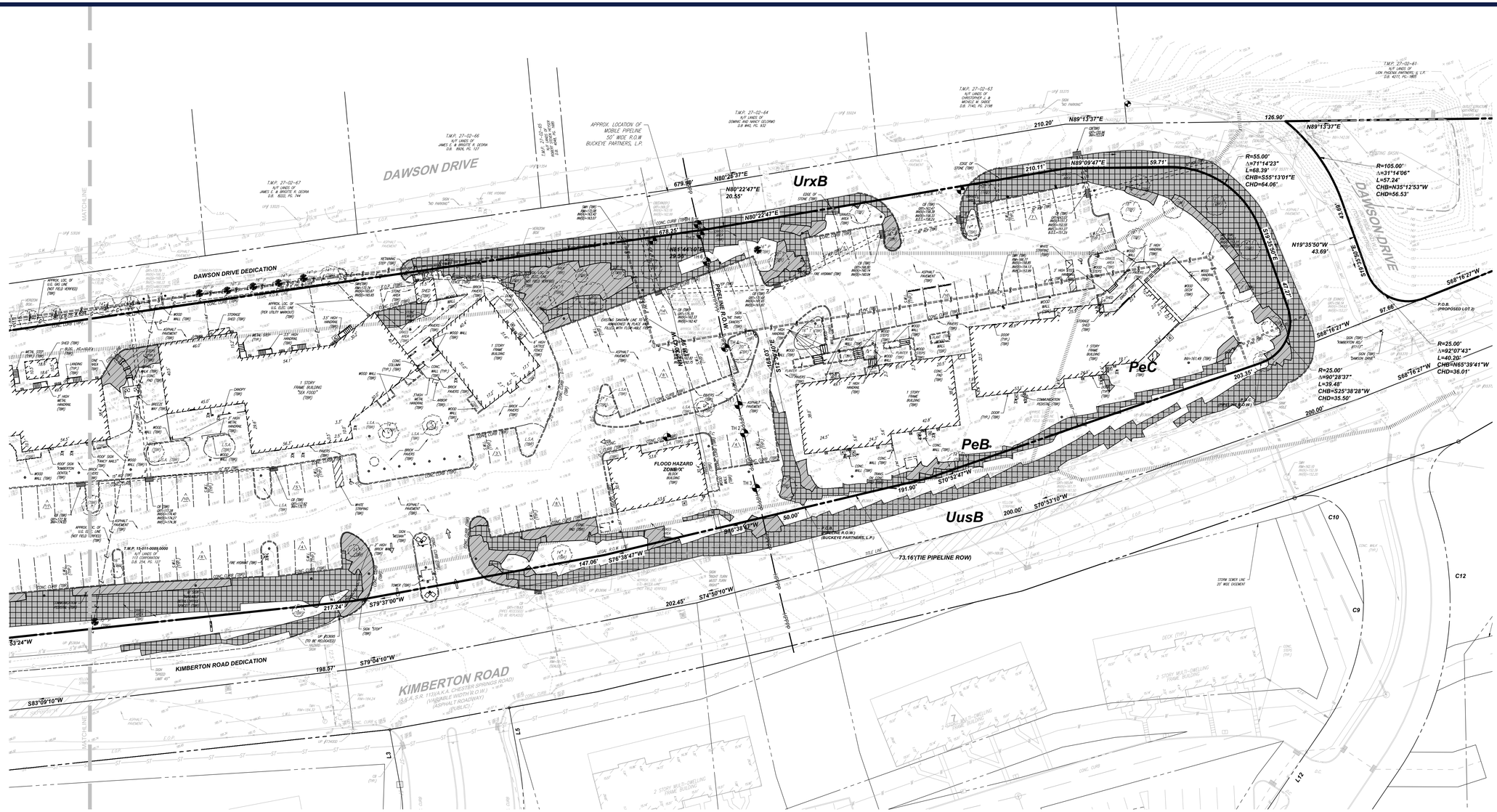
JOHN R. HORNICK
COMMONWEALTH OF PENNSYLVANIA
PROFESSIONAL
JOHN R. HORNICK
PROFESSIONAL ENGINEER
Signature / Registration No. / Seal
NEW JERSEY PE LICENSE No. 24GE04041000

SHEET TITLE:
EXISTING CONDITIONS/ DEMOLITION PLAN (A)

SHEET NUMBER:
C-201
3 OF 36

REVISION 2 - 9/25/2020

R:\191\PC191216\DRAWINGS\PLAN SETS\LAND DEVELOPMENT\REVISION 2 (BOROUGH RESUBMISSION)\PC191216-SPP-2_____LAYOUT C-201 DEMO A
HH

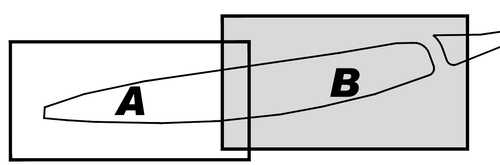


LEGEND	
TO BE REMOVED	
BUILDING	
RETAINING WALL	
CONCRETE CURB	
PROPERTY LINE	
ELECTRIC LINE	
TELEPHONE LINE	
GAS LINE	
WATER LINE	
SANITARY SEWER	
STORM PIPE	
SIGN	
PARKING COUNT	
LIGHT FIXTURE	
TREE	
DRAINAGE INLET	
STORM/SANITARY MANHOLE	
WATER VALVE	
CLEANOUT	
GAS METER	
AC UNIT	
UTILITY POLE	

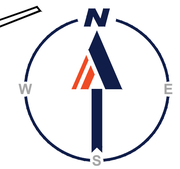
LEGEND	
EXISTING	
BUILDING	
RETAINING WALL	
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PARKING COUNT	
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TREE	
DRAINAGE INLET	
STORM/SANITARY MANHOLE	
WATER/GAS VALVES	
UTILITY POLE	

15-25% STEEP SLOPES (MAN-MADE)

25+ SUPER STEEP SLOPES (MAN-MADE)



KEY MAP
N.T.S.



30 15 7.5 0 30
1"= 30'

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CHECKED BY: JRH
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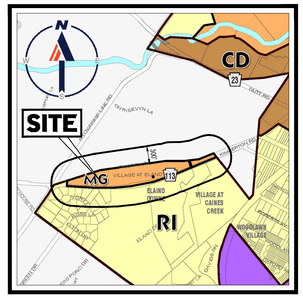
COMMONWEALTH OF PENNSYLVANIA
JOHN R. HORNICK
PROFESSIONAL ENGINEER
JOHN R. HORNICK
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 24GE04615400

SHEET TITLE:
EXISTING CONDITIONS/ DEMOLITION PLAN (B)

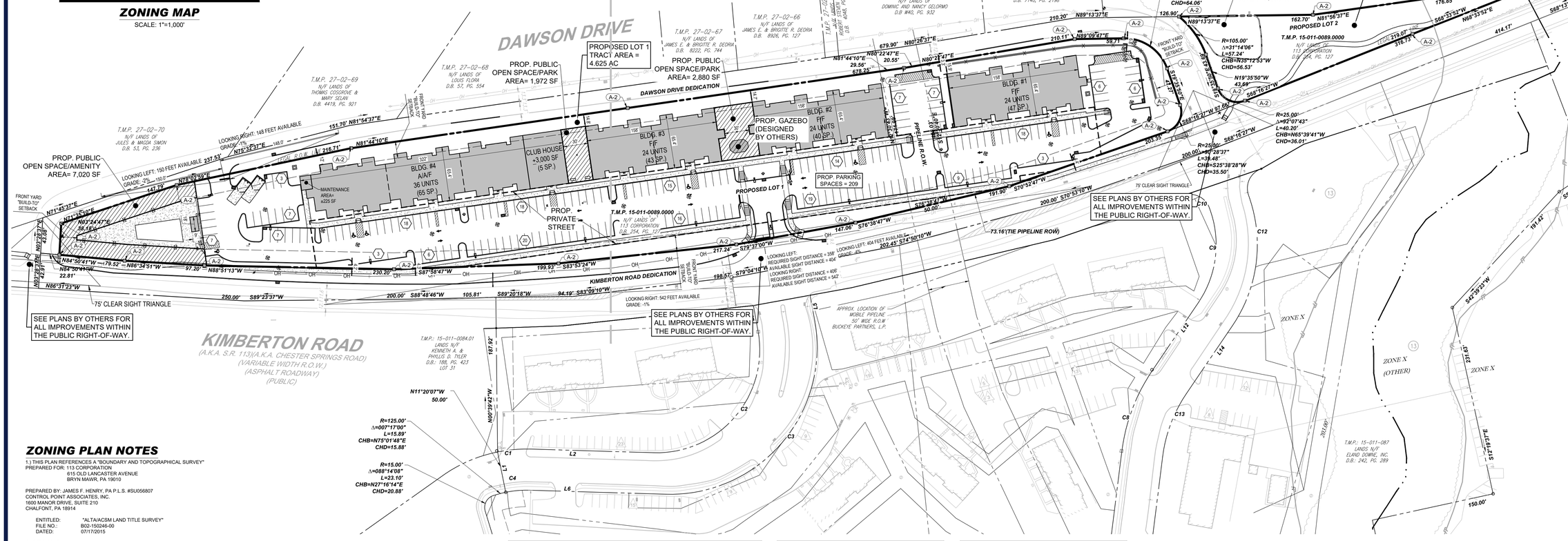
SHEET NUMBER:
C-202
4 OF 36

REVISION 2 - 9/25/2020

R:\191216\DRAWINGS\PLANSETS\LAND DEVELOPMENT\REVISION 2 (BOROUGH RESUBMISSION)\PC191216-SPP-2.----LAYOUT C-202 DEMO B HH



ZONING MAP
SCALE: 1"=1,000'



ZONING PLAN NOTES

1.) THIS PLAN REFERENCES A "BOUNDARY AND TOPOGRAPHICAL SURVEY" PREPARED FOR: 113 CORPORATION
615 OLD LANCASTER AVENUE
BRYN MAWR, PA 19010

PREPARED BY: JAMES F. HENRY, PA P.L.S. #SU056807
CONTROL POINT ASSOCIATES, INC.
1600 MANOR DRIVE, SUITE 210
CHALFONT, PA 18914

ENTITLED: "ALTA/ACSM LAND TITLE SURVEY"
FILE NO.: B02-150246-00
DATED: 07/17/2015

2.) APPLICANT:
113 CORPORATION
615 OLD LANCASTER AVENUE
BRYN MAWR, PA 19010

3.) ZONING DATA:
108 KIMBERTON ROAD
TAX MAP PARCEL NO. 15-011-0089.0000

EXISTING ZONING: MIXED USE GROWTH
EXISTING USE: COMMERCIAL

PROPOSED USE: RESIDENTIAL (PERMITTED BY RIGHT)
OFFICE/HEALTH AND FITNESS CLUB (PERMITTED BY RIGHT)

TRACT AREA:	4.625 AC.
PUBLIC OPEN SPACE REQUIREMENT:	(-)0.231 AC.
LOT AREA:	4.394 AC.

	REQUIRED	EXISTING	PROPOSED
MIN. LOT AREA:	10,500 SF	201,449 SF (4.625 AC.)	201,449 SF* (4.625 AC.)
MIN. LOT WIDTH:	70 FT.	N/A	1309.8'
MIN. YARD SETBACKS			
FRONT "BUILD-TO":	10-20 FT.	20 FT.	10-20 FT.
SIDE YARD (EA):	15 FT.	N/A	N/A
REAR:	20 FT.	20 FT.	20 FT.
MAX. IMPERVIOUS COVERAGE:	70%	73.5%	69.0%*
MIN. BUILDING SPACING:	30 FT.	9.3 FT.	30.0 FT.
MAX. BUILDING HEIGHT:	60 FT.	<60 FT.	<60 FT.
MIN. MID-BLOCK SPACING:	30 FT.	N/A	60 FT.
OPEN SPACE REQUIREMENT:	5% OF TRACT AREA (0.231 AC)	N/A	0.232 AC (11,872 SF)

*CALCULATION BASED UPON LOT AREA
**OPEN SPACE IS PERMITTED AS SEPARATE USE PURSUANT TO SECTION 27-407.2
***BASED ON FOOTPRINT AREA

4.) PUBLIC OPEN SPACE REQUIREMENTS:
TOTAL REQUIRED = 4.625 AC x 0.05 = 0.231 AC (10,072 S.F.)
TOTAL PROPOSED = 0.232 AC (11,872 S.F.)

5.) DWELLING UNITS CONSIST OF 1 AND 2 BEDROOM UNITS

LEGEND — PROPOSED

(A-2)	SURVEYORS MONUMENT. SEE DETAILS

PARKING REQUIREMENTS

TOTAL REQUIRED (BASED UPON ITE PARKING GENERATION MANUAL)^	REQUIRED	PROVIDED
1.23 SPACES PER UNIT	108 UNITS*1.23 = 132.84 OR 133 SPACES	209 SPACES^^
PREFERRED PARKING	**REQUIRED**	**PROVIDED**
1.75 SPACES PER UNIT	108 UNITS*1.75 = 189 SPACES	209 SPACES^^

NOTES
^ 1.23 SPACES PER UNIT FROM ITE MANUAL USE CODE 221
^^ 209 TOTAL SPACES INCLUDES 7 ADA ACCESSIBLE SPACES

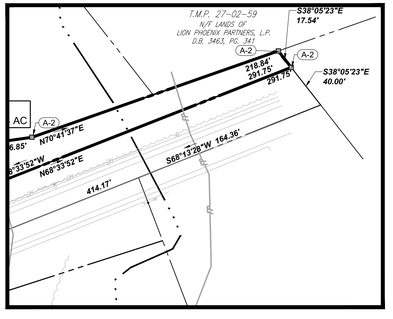
NOTES:
1. **APPLICANT HAS CONFIRMED THAT R.O.W. OF DAWSON DRIVE IS OWNED BY SCHUYLKILL TOWNSHIP.**
2. **APPLICANT HAS CONFIRMED THAT R.O.W. OF KIMBERTON ROAD IS OWNED BY PADOT BY WAY OF CONDEMNATION AND/OR TAKING PROCEEDINGS.**

LEGEND — EXISTING

BUILDING; RETAINING WALL; CONCRETE CURB; FENCE; TREELINE; R.O.W. LINE; ADJACENT PROPERTY LINE; EASEMENT LINE; SETBACK LINE; WATERWAY LINE; FLOODPLAIN LINE; SOIL TYPE DELINIATION; OVERHEAD UTILITY WIRES; ACCESSIBLE SYMBOL; CONCRETE MONUMENT/ IRON PIN; SIGN; PARKING COUNT; LIGHT FIXTURE; TREE; DRAINAGE INLET; STORM/SANITARY MANHOLE; WATER/GAS VALVES; UTILITY POLE

LEGEND — PROPOSED

BUILDING; RETAINING WALL; CONCRETE CURB; FLUSH CURB; EDGE OF PAVEMENT; 5' HIGH ALUMINUM GUARD FENCE; POST & RAIL FENCE; GUIDE RAIL; PROPERTY LINE; SETBACK LINE; LIMITS OF PRIVATE STREET; ACCESSIBLE SYMBOL; CROSSWALK; SIDEWALK; PUBLIC OPEN SPACE; RAMP; SIGN; PARKING COUNT (10); AREA LIGHT; DRAINAGE INLET; YARD DRAIN; MANHOLE; CLEANOUT (CO); FIRE HYDRANT; UTILITY POLE; CONCRETE MONUMENT



RESPONSIBLE PARTIES

THE PROPERTY OWNER SHALL BE RESPONSIBLE FOR ALL OPEN SPACE MAINTENANCE. THIS INCLUDES THE CURRENT PROPERTY OWNER LISTED BELOW AND ANY SUCCESSORS.

113 CORPORATION
940 HAVERFORD ROAD, SUITE 102
HAVERFORD, PA 19010



60 30 15 0 60
1"= 60'

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CHECKED BY:	JRH
DATE:	03/04/2020
CAD I.D.:	PC191216-SPP-2

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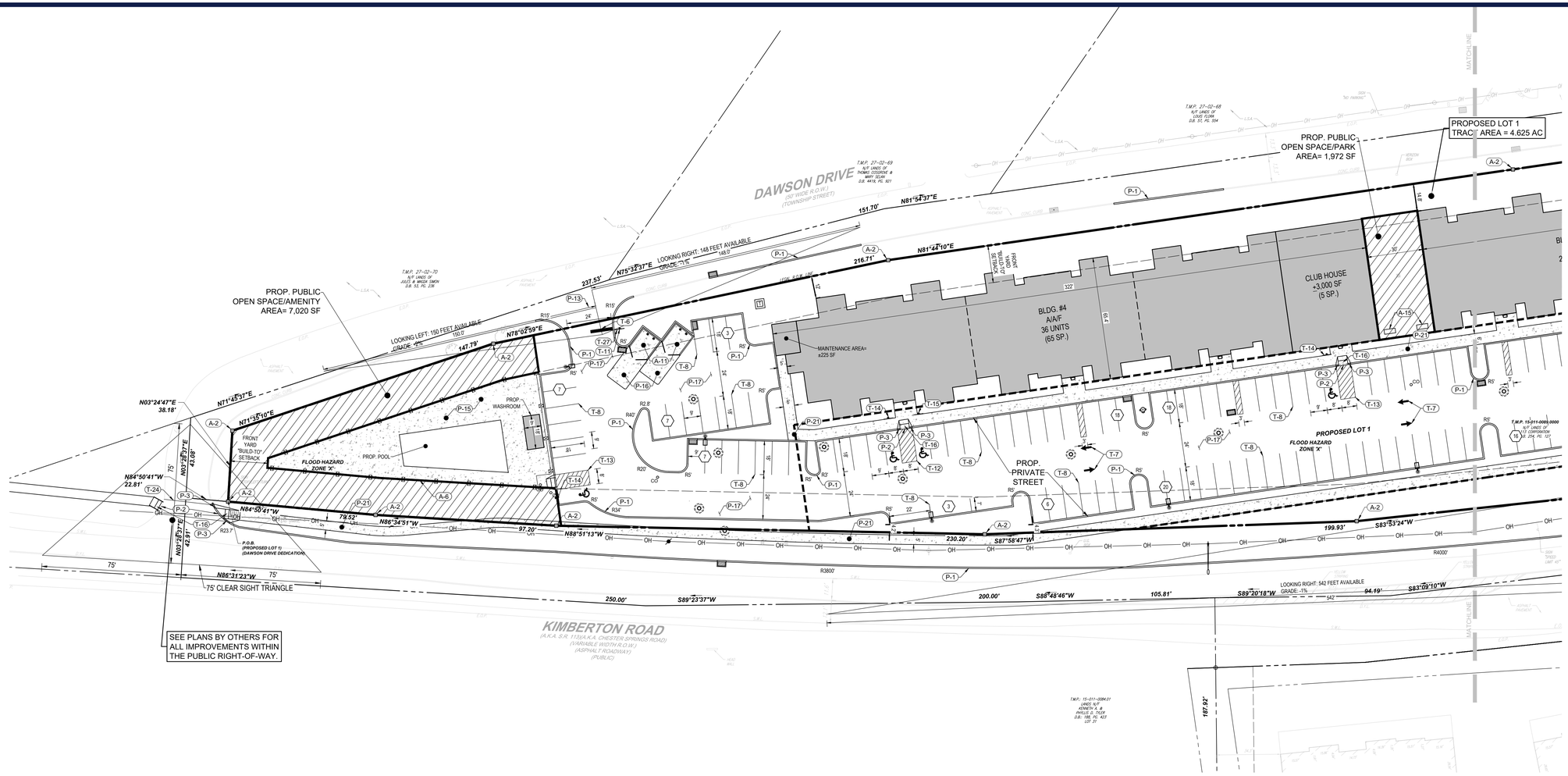
JAMES R. HORNICK — COMMONWEALTH OF PENNSYLVANIA — PROFESSIONAL ENGINEER — DATE: 9/25/2020 — NEW JERSEY LICENSE No. 24GE04000000

SHEET TITLE:
OVERALL SITE PLAN

SHEET NUMBER:
C-301
5 OF 36

REVISION 2 - 9/25/2020

R:\PC\PC191216\DRAWINGS\PLAN SETS\LAND DEVELOPMENT\REVISION 2 (BOROUGH RESUBMISSION)\PC191216-SPP-2---LAYOUT C-301 OA SITE
HH



LEGEND
PROPOSED

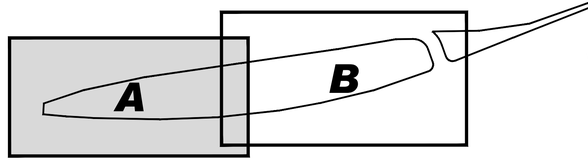
A-2	SURVEYORS MONUMENT. SEE DETAILS
A-3	WOODEN GUILE RAIL. SEE DETAILS
A-6	POST AND RAIL FENCE. SEE DETAILS
A-11	12'-6" x 12'-6" CMU TRASH ENCLOSURE. SEE DETAILS
A-13	5' HIGH ALUMINUM GUARD FENCE. SEE DETAILS.
A-14	PARK BENCH (DESIGN BY OTHERS)
A-15	GAZEBO (DESIGN BY OTHERS)
P-1	TYPICAL CONCRETE CURB. SEE DETAILS
P-2	TYPICAL FLUSH CONCRETE CURB. SEE DETAILS
P-3	TAPERED CURB. SEE DETAILS
P-4	TYPICAL EXTENDED CONCRETE CURB. SEE DETAILS
P-13	PAVEMENT AND TIE-IN. SEE DETAILS
P-15	CONCRETE PAVEMENT. SEE DETAILS
P-16	REINFORCED CONCRETE PAVEMENT. SEE DETAILS
P-17	STANDARD ASPHALT PAVEMENT. SEE DETAILS
P-21	CONCRETE SIDEWALK. SEE DETAILS
T-6	WHITE PAINTED STOP BAR. SEE DETAILS
T-7	WHITE PAINTED TRAFFIC ARROW. SEE DETAILS
T-8	PAVEMENT MARKING. SEE DETAILS
T-11	STANDARD POLE MOUNTED SIGN INSTALLATION. SEE DETAILS
T-12	ADA ACCESSIBLE PARKING SPACE STRIPING (2 SPACES). SEE DETAILS
T-13	ADA ACCESSIBLE PARKING SPACE STRIPING (1 SPACE). SEE DETAILS
T-14	RESERVED PARKING SPACE WITH PENALTIES & VAN ACCESSIBLE SIGNS. SEE DETAILS
T-15	RESERVED PARKING SPACE & PENALTIES SIGNS. SEE DETAILS
T-16	TRUNCATED DOME PATTERN FOR ADA DETECTABLE WARNING SURFACES. SEE DETAILS
T-18	RESERVED PARKING SIGN WITHIN BOLLARD. SEE DETAILS
T-24	STANDARD CROSSWALK. SEE DETAILS
T-27	STANDARD SIGN. SEE DETAILS

LEGEND
EXISTING

BUILDING	
RETAINING WALL	
CONCRETE CURB	
FENCE	
TREELINE	
R.O.W. LINE	
ADJACENT PROPERTY LINE	
EASEMENT LINE	
SETBACK LINE	
WATERWAY LINE	
FLOODPLAIN LINE	
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OVERHEAD UTILITY WIRES	
ACCESSIBLE SYMBOL	
CONCRETE MONUMENT/ IRON PIN	
SIGN	
PARKING COUNT	
LIGHT FIXTURE	
TREE	
DRAINAGE INLET	
STORM/SANITARY MANHOLE	
WATER/GAS VALVES	
UTILITY POLE	

LEGEND
PROPOSED

BUILDING	
RETAINING WALL	
CONCRETE CURB	
FLUSH CURB	
EDGE OF PAVEMENT	
5' HIGH ALUMINUM GUARD FENCE	
POST & RAIL FENCE	
GUIDE RAIL	
PROPERTY LINE	
SETBACK LINE	
LIMITS OF PRIVATE STREET	
ACCESSIBLE SYMBOL	
CROSSWALK	
SIDEWALK	
PUBLIC OPEN SPACE	
RAMP	
SIGN	
PARKING COUNT	16
AREA LIGHT	
DRAINAGE INLET	
YARD DRAIN	
MANHOLE	
CLEANOUT	CO
FIRE HYDRANT	
UTILITY POLE	
CONCRETE MONUMENT	



KEY MAP
N.T.S.



30 15 7.5 0 30
1"= 30'

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COMMONWEALTH OF PENNSYLVANIA
JOHN R. HORNICK
PROFESSIONAL ENGINEER
No. PE082842
NEW JERSEY LICENSE No. 24GE04633000

SHEET TITLE:

SITE PLAN (A)

SHEET NUMBER:

C-302
6 OF 36

REVISION 2 - 9/25/2020

E:\BPC\191216\DRAWINGS\PLAN SETS\LAND DEVELOPMENT\REVISION 2 (BOROUGH RESUBMISSION)\PC191216-SPP-2 - LAYOUT C-302 SITE A
HH



LEGEND — PROPOSED

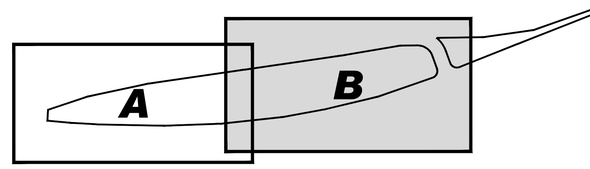
A-2	SURVEYORS MONUMENT. SEE DETAILS
A-3	WOODEN GUILE RAIL. SEE DETAILS
A-6	POST AND RAIL FENCE. SEE DETAILS
A-11	12'-6" x 12'-6" CMU TRASH ENCLOSURE. SEE DETAILS
A-13	5' HIGH ALUMINUM GUARD FENCE. SEE DETAILS.
A-14	PARK BENCH (DESIGN BY OTHERS)
A-15	GAZEBO (DESIGN BY OTHERS)
P-1	TYPICAL CONCRETE CURB. SEE DETAILS
P-2	TYPICAL FLUSH CONCRETE CURB. SEE DETAILS
P-3	TAPERED CURB. SEE DETAILS
P-4	TYPICAL EXTENDED CONCRETE CURB. SEE DETAILS
P-13	PAVEMENT AND TIE-IN. SEE DETAILS
P-15	CONCRETE PAVEMENT. SEE DETAILS
P-16	REINFORCED CONCRETE PAVEMENT. SEE DETAILS
P-17	STANDARD ASPHALT PAVEMENT. SEE DETAILS
P-21	CONCRETE SIDEWALK. SEE DETAILS
T-6	WHITE PAINTED STOP BAR. SEE DETAILS
T-7	WHITE PAINTED TRAFFIC ARROW. SEE DETAILS
T-8	PAVEMENT MARKING. SEE DETAILS
T-11	STANDARD POLE MOUNTED SIGN INSTALLATION. SEE DETAILS
T-12	ADA ACCESSIBLE PARKING SPACE STRIPING (2 SPACES). SEE DETAILS
T-13	ADA ACCESSIBLE PARKING SPACE STRIPING (1 SPACE). SEE DETAILS
T-14	RESERVED PARKING SPACE WITH PENALTIES & VAN ACCESSIBLE SIGNS. SEE DETAILS
T-15	RESERVED PARKING SPACE & PENALTIES SIGNS. SEE DETAILS
T-16	TRUNCATED DOME PATTERN FOR ADA DETECTABLE WARNING SURFACES. SEE DETAILS
T-18	RESERVED PARKING SIGN WITHIN BOLLARD. SEE DETAILS
T-24	STANDARD CROSSWALK. SEE DETAILS
T-27	STANDARD SIGN. SEE DETAILS

LEGEND — EXISTING

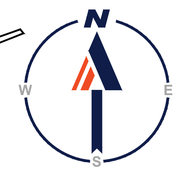
BUILDING	
RETAINING WALL	
CONCRETE CURB	
FENCE	
TREELINE	
R.O.W. LINE	
ADJACENT PROPERTY LINE	
EASEMENT LINE	
SETBACK LINE	
WATERWAY LINE	
FLOODPLAIN LINE	
SOIL TYPE DELINIATION	
OVERHEAD UTILITY WIRES	
ACCESSIBLE SYMBOL	
CONCRETE MONUMENT/ IRON PIN	
SIGN	
PARKING COUNT	
LIGHT FIXTURE	
TREE	
DRAINAGE INLET	
STORM/SANITARY MANHOLE	
WATER/GAS VALVES	
UTILITY POLE	

LEGEND — PROPOSED

BUILDING	
RETAINING WALL	
CONCRETE CURB	
FLUSH CURB	
EDGE OF PAVEMENT	
5' HIGH ALUMINUM GUARD FENCE	
POST & RAIL FENCE	
GUIDE RAIL	
PROPERTY LINE	
SETBACK LINE	
LIMITS OF PRIVATE STREET	
ACCESSIBLE SYMBOL	
CROSSWALK	
SIDEWALK	
PUBLIC OPEN SPACE	
RAMP	
SIGN	
PARKING COUNT	10
AREA LIGHT	
DRAINAGE INLET	
YARD DRAIN	
MANHOLE	
CLEANOUT	CO
FIRE HYDRANT	
UTILITY POLE	
CONCRETE MONUMENT	



KEY MAP
N.T.S.



30 15 7.5 0 30
1"= 30'

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1	8/04/2020	PER NPDES SUBMISSION	HH / RE
2	9/25/2020	PER BOROUGH RESUBMISSION	HH / RE

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PROJECT No.:	PC191216
DRAWN BY:	CCP
CHECKED BY:	JRH
DATE:	03/04/2020
CAD I.D.:	PC191216-SPP-2

PROJECT:

REVISED PRELIMINARY/ FINAL LAND DEVELOPMENT PLANS

FOR

113 CORPORATION

ELAND POINT CROSSING

ROUTE 113 & DAWSON DRIVE
BOROUGH OF PHOENIXVILLE
CHESTER COUNTY
PHOENIXVILLE, PA

BOHLER
1600 MANOR DRIVE, SUITE 200
CHALFONT, PA 18914
Phone: (215) 996-9100
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COMMONWEALTH OF PENNSYLVANIA
PROFESSIONAL ENGINEER
John R. Hornick
Printed Name: JOHN R. HORNICK
PA LICENSE No. 084570E
NEW JERSEY LICENSE No. 24GE04633000

SHEET TITLE:

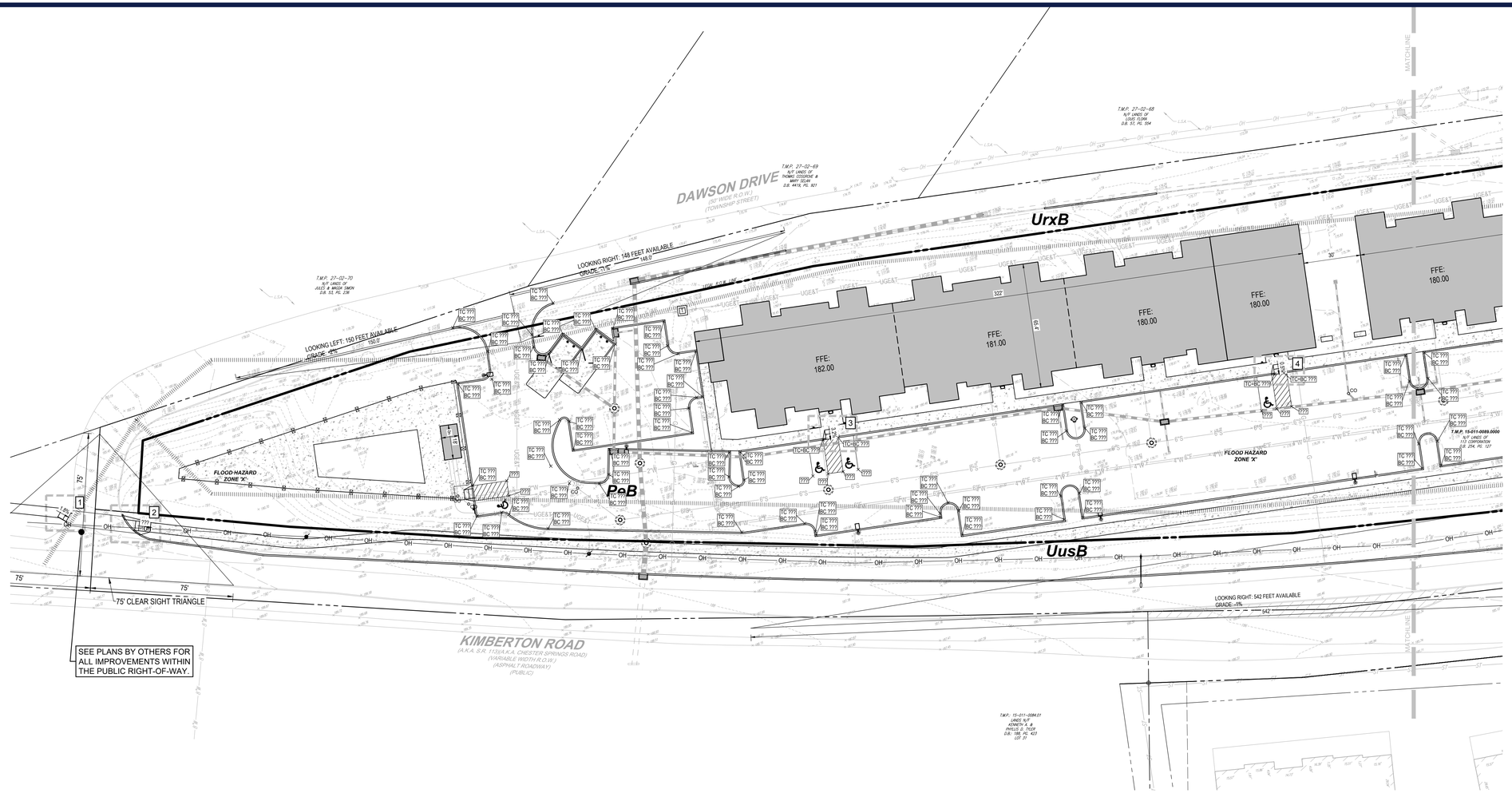
SITE PLAN (B)

SHEET NUMBER:

C-303
7 OF 36

REVISION 2 - 9/25/2020

R:\191PC\191216\DRAWINGS\PLAN SETS\LAND DEVELOPMENT\REVISION 2 (BOROUGH RESUBMISSION)\PC191216-SPP-2_—_LAYOUT_C-303 SITE B
HH



LEGEND
TO BE REMOVED

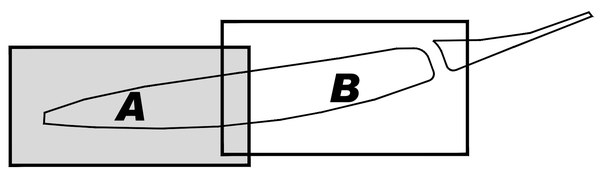
BUILDING
RETAINING WALL
CONCRETE CURB

LEGEND
EXISTING

BUILDING
RETAINING WALL
CONCRETE CURB
FENCE
TREELINE
R.O.W. LINE
ADJACENT PROPERTY LINE
EASEMENT LINE
SETBACK LINE
WATERWAY LINE
SOIL TYPE DELINIATION
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OVERHEAD UTILITY WIRES
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SANITARY SEWER
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LEGEND
PROPOSED

BUILDING
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FLUSH CURB
EDGE OF PAVEMENT
5' HIGH ALUMINUM GUARD FENCE
POST & RAIL FENCE
GUIDE RAIL
PROPERTY LINE
CONTOUR LINE
SAWCUT LINE
UNDERGROUND ELECTRIC & TELEPHONE LINE
ELECTRIC LINE
TELEPHONE LINE
GAS LINE
WATER LINE
SANITARY SEWER
STORM PIPE
ACCESSIBLE SYMBOL
SIDEWALK
RAMP
SIGN
AREA LIGHT
DRAINAGE INLET
YARD DRAIN
MANHOLE
CLEANOUT
FIRE HYDRANT
UTILITY POLE
SPOT ELEVATION



KEY MAP
N.T.S.



30 15 7.5 0 30
1"= 30'

R:\BPS\191216\DRAWINGS\PLANSETS\LAND DEVELOPMENT\REVISION 2 (BOROUGH RESUBMISSION)\PC191216-SPP-2 — LAYOUT C-401 GRADE A

HH

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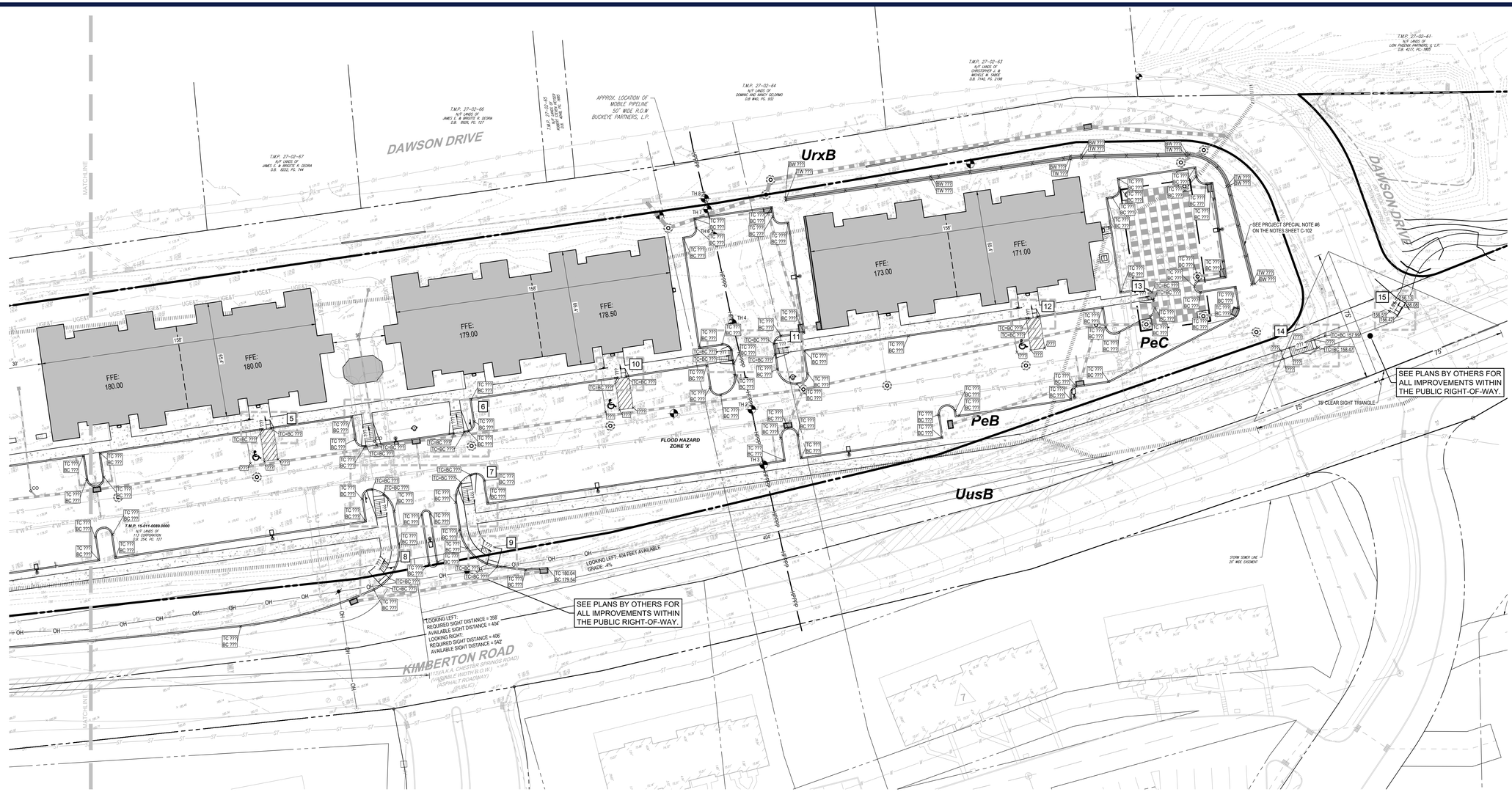
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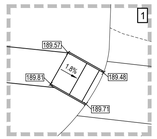
GRADING PLAN

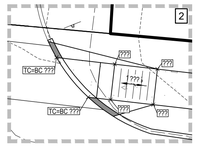
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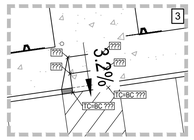
C-401
8 OF 36

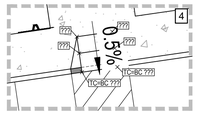
REVISION 2 - 9/25/2020

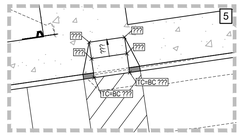

DAWSON DRIVE
KIMBERTON ROAD
(VARIABLE WIDTH R.O.W.)
(ASPHALT ROADWAY)
(PUBLIC)
MATCHLINE
UrxB
PeB
PeC
UusB
FFE: 180.00
FFE: 179.00
FFE: 178.50
FFE: 173.00
FFE: 171.00
FLOOD HAZARD ZONE "X"
SEE PLANS BY OTHERS FOR ALL IMPROVEMENTS WITHIN THE PUBLIC RIGHT-OF-WAY.
SEE PROJECT SPECIAL NOTE #6 ON THE NOTES SHEET C-102
10' CLEAR SIGHT TRIANGLE
LOOKING LEFT: REQUIRED SIGHT DISTANCE = 358' AVAILABLE SIGHT DISTANCE = 404'
LOOKING RIGHT: REQUIRED SIGHT DISTANCE = 406' AVAILABLE SIGHT DISTANCE = 542'
LOOKING LEFT: 404 FEET AVAILABLE GRADE: 4%
STORM SEWER LINE 20' WIDE EASEMENT
APPROX. LOCATION OF MOBILE PIPELINE 50' WIDE R.O.W. BUCKEYE PARTNERS, L.P.
T.M.P. 27-02-67 N/F LANDS OF JAMES E. & BRIGITTE R. DEORA D.B. 8222, PG. 744
T.M.P. 27-02-66 N/F LANDS OF JAMES E. & BRIGITTE R. DEORA D.B. 8926, PG. 127
T.M.P. 27-02-65 N/F LANDS OF ROBERT & PATRICIA HOPP D.B. 2444, PG. 1
T.M.P. 27-02-64 N/F LANDS OF DOMINIC AND NANCY GIOVANO D.B. 8443, PG. 932
T.M.P. 27-02-63 N/F LANDS OF MICHAEL & MICHELE M. DABLE D.B. 7140, PG. 2186
T.M.P. 27-02-61 N/F LANDS OF LDN PHOENIX PARTNERS, L.P. D.B. 4372, PG. 1865
T.M.P. 15-011-0089.0000 N/F LANDS OF 113 CORPORATION D.B. 254, PG. 127
TH 1
TH 2
TH 3
TH 4
TH 5
TH 6
TH 7
TH 8
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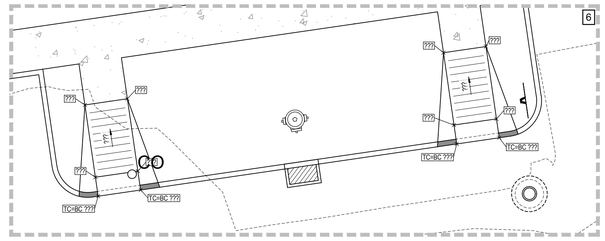


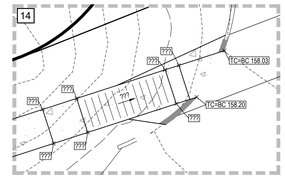


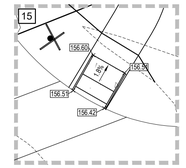


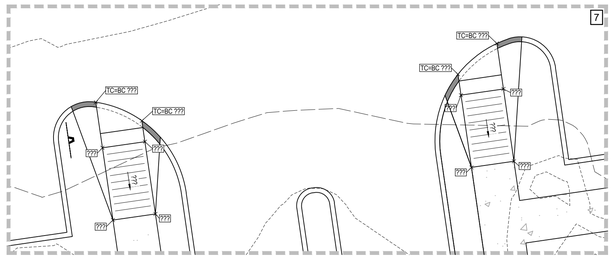


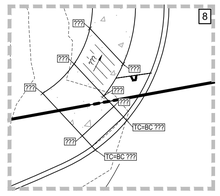


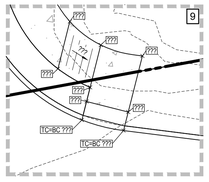


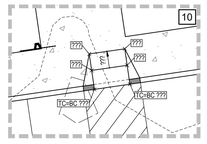


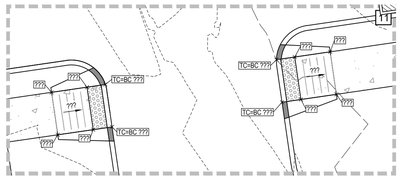


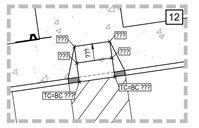


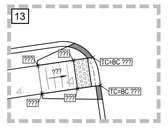














10 5 2.5 0 10

1"= 10'

HH R:\PPC\191216\DRAWINGS\PLAN SETS\LAND DEVELOPMENT\REVISION 2 (BOROUGH RESUBMISSION)\PC191216-SPP-2---LAYOUT C-403 ADA DETAILS

TM

BOHLER

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LAND SURVEYING
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LANDSCAPE ARCHITECTURE
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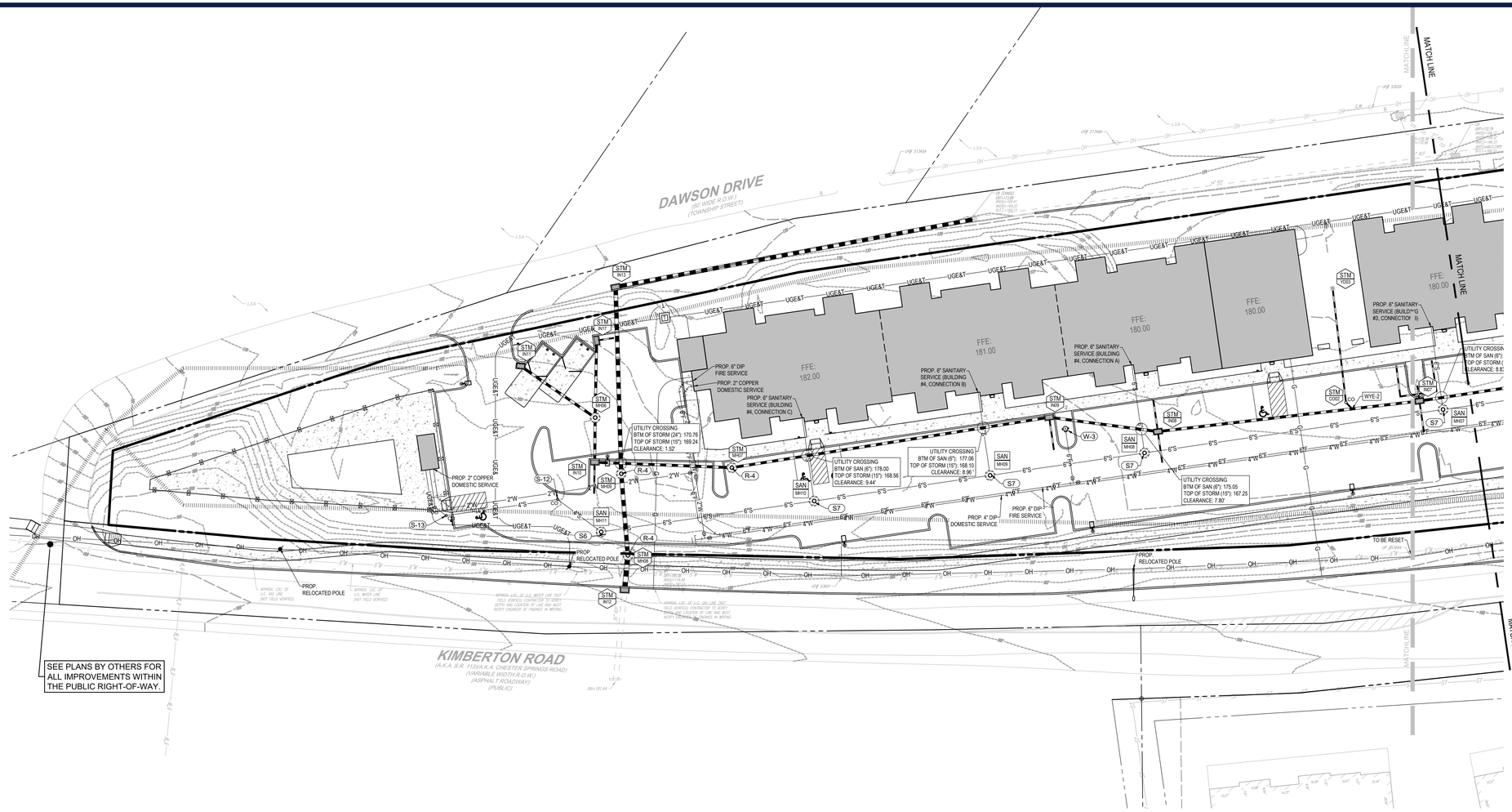
ADA DETAILS PLAN

SHEET NUMBER:

C-403

10 OF 36

REVISION 2 - 9/25/2020



LEGEND

EXISTING

BUILDING	
RETAINING WALL	
CONCRETE CURB	
FENCE	
TREELINE	
R.O.W. LINE	
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LEGEND

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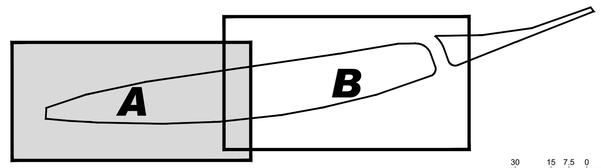
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PROPERTY LINE	
CONTOUR LINE	
UNDERGROUND ELECTRIC & TELEPHONE LINE	UGE&T
ELECTRIC LINE	E
TELEPHONE LINE	T
GAS LINE	G
WATER LINE	W
SANITARY SEWER	S
STORM PIPE	
SIDEWALK	
RAMP	
SIGN	
AREA LIGHT	
DRAINAGE INLET	
YARD DRAIN	
MANHOLE	
CLEANOUT	CO
FIRE HYDRANT	
UTILITY POLE	

LEGEND

PROPOSED

R-1	OUTLET STRUCTURE. SEE DETAILS
R-4	PRECAST STORM MANHOLE. SEE DETAILS
S6	SANITARY MANHOLE. SEE DETAILS
S7	SANITARY DROP MANHOLE. SEE DETAILS
S-13	TYPICAL CLEANOUT (LANDSCAPED AREAS). SEE DETAILS
W-2	WATER SERVICE CONNECTION. SEE DETAILS
W-3	TYPICAL HYDRANT & VALVE INSTALLATION. SEE DETAILS

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KEY MAP
N.T.S.

30 15 7.5 0 30
1"= 30'

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2	9/25/2020	PER BOROUGH RESUBMISSION	HH / RE

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PROJECT No.:	PC191216
DRAWN BY:	CCP
CHECKED BY:	JRH
DATE:	03/04/2020
CAD I.D.:	PC191216-SPP-2

PROJECT:

REVISED PRELIMINARY/ FINAL LAND DEVELOPMENT PLANS

FOR

113 CORPORATION

ELAND POINT CROSSING

ROUTE 113 & DAWSON DRIVE
BOROUGH OF PHOENIXVILLE
CHESTER COUNTY
PHOENIXVILLE, PA

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COMMONWEALTH OF PENNSYLVANIA
PROFESSIONAL
JOHN R. HORNICK
PROFESSIONAL ENGINEER
SIGNED / SEALED - 03/04/2020
NEW JERSEY LICENSE No. 24GE05033000

SHEET TITLE:

UTILITY PLAN (A)

SHEET NUMBER:

C-501
11 OF 36

REVISION 2 - 9/25/2020

E:\BPC\191216\DRAWINGS\PLAN SETS\LAND DEVELOPMENT\REVISION 2 (BOROUGH RESUBMISSION)\PC191216-SPP-2---LAYOUT C-501 UTILITY A
HH

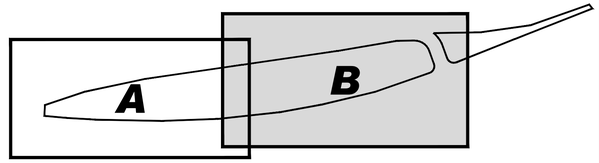


LEGEND — EXISTING

BUILDING	
RETAINING WALL	
CONCRETE CURB	
FENCE	
TREELINE	
R.O.W. LINE	
ADJACENT PROPERTY LINE	
EASEMENT LINE	
SETBACK LINE	
WATERWAY LINE	
FLOODPLAIN LINE	
SOIL TYPE DELINIATION	
CONTOUR LINE	
OVERHEAD UTILITY WIRES	
ELECTRIC LINE	
GAS LINE	
WATER LINE	
SANITARY SEWER	
STORM PIPE	
CONCRETE MONUMENT/ IRON PIN	
SIGN	
LIGHT FIXTURE	
TREE	
DRAINAGE INLET	
STORM/SANITARY MANHOLE	
WATER/GAS VALVES	
UTILITY POLE	

LEGEND — PROPOSED

BUILDING	
RETAINING WALL	
CONCRETE CURB	
FLUSH CURB	
EDGE OF PAVEMENT	
5' HIGH ALUMINUM GUARD FENCE	
POST & RAIL FENCE	
GUIDE RAIL	
PROPERTY LINE	
CONTOUR LINE	
UNDERGROUND ELECTRIC & TELEPHONE LINE	UGE&T
ELECTRIC LINE	E
TELEPHONE LINE	T
GAS LINE	G
WATER LINE	W
SANITARY SEWER	S
STORM PIPE	
SIDEWALK	
RAMP	
SIGN	
AREA LIGHT	
DRAINAGE INLET	
YARD DRAIN	
MANHOLE	
CLEANOUT	CO
FIRE HYDRANT	
UTILITY POLE	



KEY MAP
N.T.S.

LEGEND — PROPOSED

R-1	OUTLET STRUCTURE. SEE DETAILS
R-4	PRECAST STORM MANHOLE. SEE DETAILS
S6	SANITARY MANHOLE. SEE DETAILS
S7	SANITARY DROP MANHOLE. SEE DETAILS
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30 15 7.5 0 30
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J. R. HORNICK
PROFESSIONAL
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 24GE04041600

SHEET TITLE:

UTILITY PLAN (B)

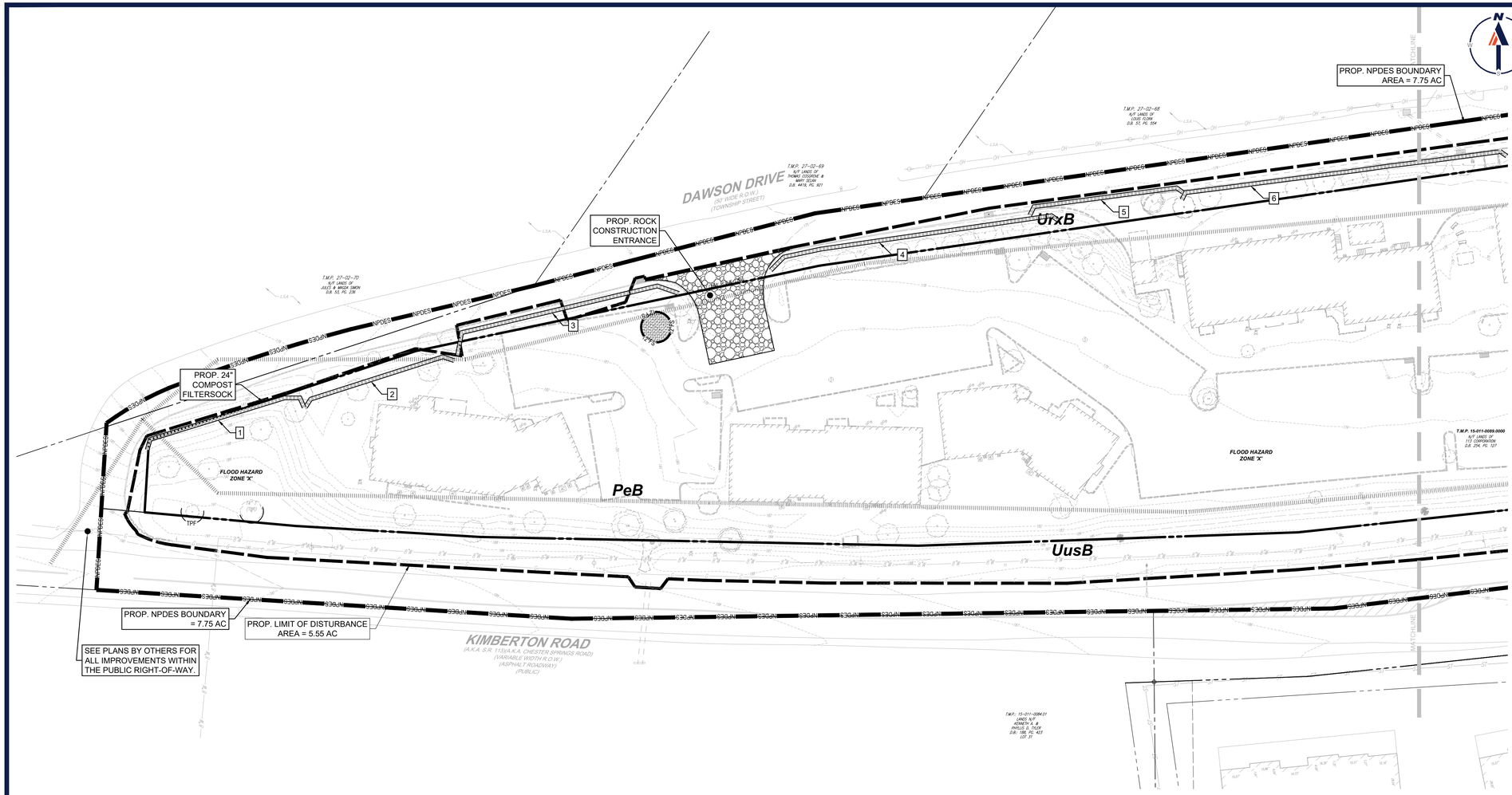
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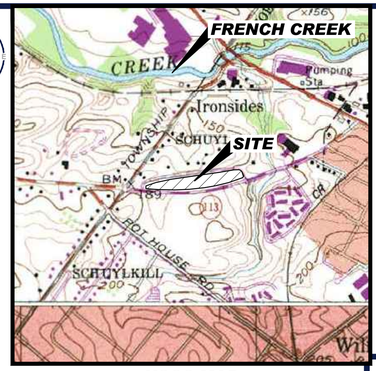
C-502
12 OF 36

REVISION 2 - 9/25/2020

R:\191\PC191216\DRAWINGS\PLAN SETS\LAND DEVELOPMENT\REVISION 2 (BOROUGH RESUBMISSION)\PC191216-SPP-2---LAYOUT C-502 UTILITY B

HH





USGS MAP
(PHOENIXVILLE USGS QUAD)
SCALE: 1"=1,000'

500 0 1,000

LEGEND

PROPOSED

- (X-58) TEMPORARY SOIL STOCKPILE. SEE DETAILS
- (X-59) BASIN SPILLWAY LINING. SEE DETAILS
- (X-511) TREE PROTECTION DURING SITE CONSTRUCTION. SEE DETAILS

LEGEND

EXISTING

BUILDING	
RETAINING WALL	
CONCRETE CURB	
FENCE	
TREELINE	
PROPERTY LINE	
R.O.W. LINE	
ADJACENT PROPERTY LINE	
EASEMENT LINE	
SETBACK LINE	
WATERWAY LINE	
FLOODPLAIN LINE	
SOIL TYPE DELINIATION	
CONTOUR LINE	
OVERHEAD UTILITY WIRES	
ELECTRIC LINE	
GAS LINE	
WATER LINE	
SANITARY SEWER	
STORM PIPE	
CONCRETE MONUMENT/ IRON PIN	
SIGN	
LIGHT FIXTURE	
TREE	
DRAINAGE INLET	
STORM/SANITARY MANHOLE	
WATER/GAS VALVES	
UTILITY POLE	

LEGEND

PROPOSED

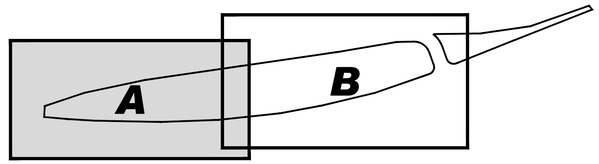
LIMIT OF DISTURBANCE	
NPDES BOUNDARY	NPDES
COMPOST FILTER SOCK	
TREE PROTECTION FENCE	TPF
CONCRETE WASHOUT	
TEMPORARY STOCKPILE	
ROCK CONSTRUCTION ENTRANCE	
NAGSC150	
INFILTRATION TEST LOCATION (APPROXIMATE)	P-1

SOILS LEGEND

UgB	SOILS TYPE

SOILS TABLE

SYMBOL	SOIL NAME	SLOPES
PeB	PENN SILT LOAM	3 - 8%
PeC	PENN SILT LOAM	8 - 15%
UrxB	URBAN LAND-PENN COMPLEX	0 - 8%
UusB	URBAN LAND-UDORTHENTS, SHALE AND SANDSTONE COMPLEX	0 - 8%



KEY MAP
N.T.S.

N
W E
S

30 15 7.5 0 30
1"= 30'

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CHECKED BY:	JRH
DATE:	03/04/2020
CAD I.D.:	PC191216-SPP-2

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NOTARIAL SEAL
JAY R. HORNICK, Notary Public
PHOENIXVILLE BORO, CHESTER COUNTY
MY COMMISSION EXPIRES JUNE 6, 2021
MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES
PROFESSIONAL ENGINEER
COMMONWEALTH OF PENNSYLVANIA
JAY R. HORNICK
No. PE082844
NEW JERSEY LICENSE No. 24GE05043000

SHEET TITLE:

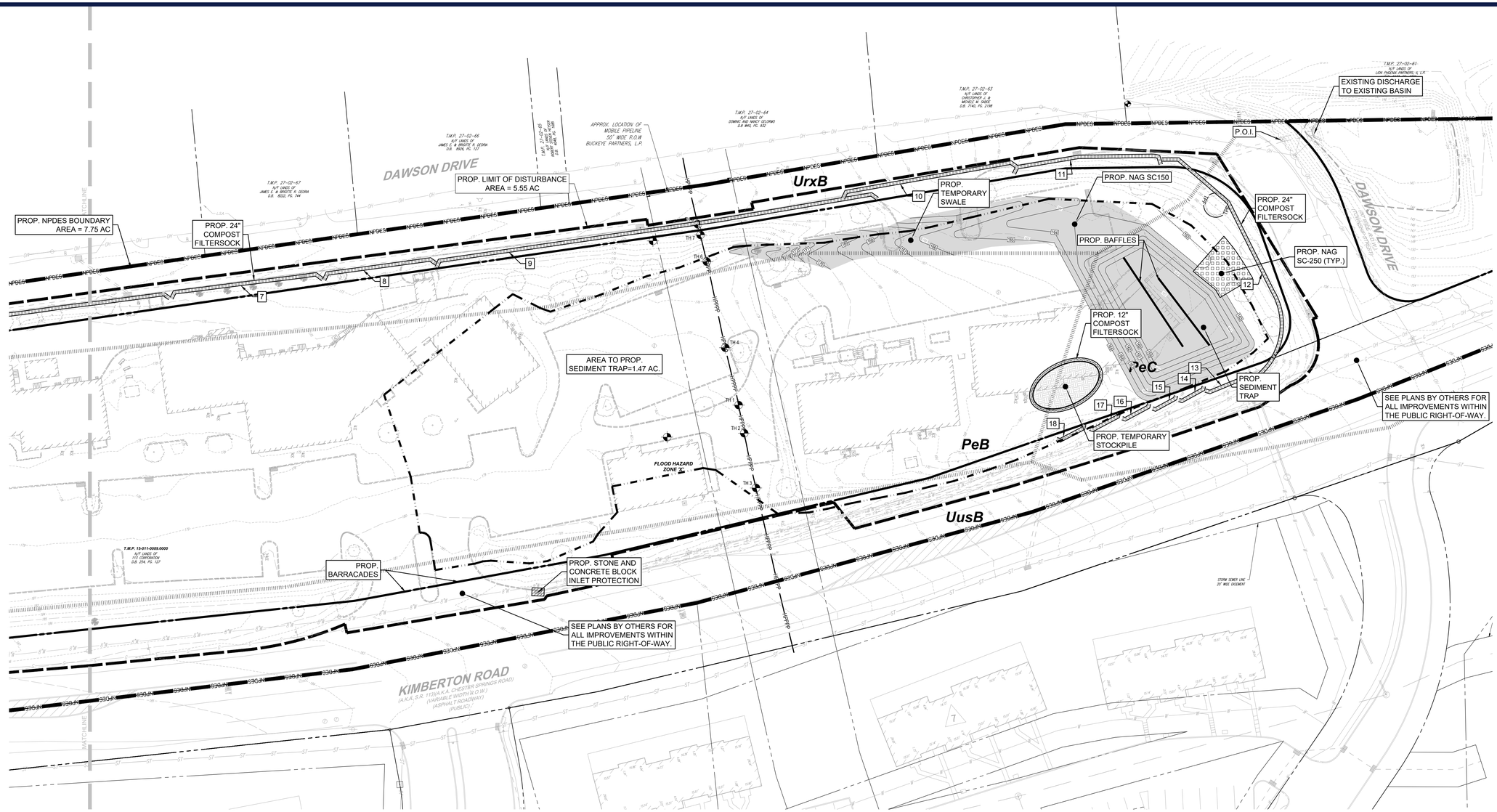
PHASE 1 EROSION & SEDIMENTATION CONTROL PLAN (A)

SHEET NUMBER:

C-601
13 OF 36

REVISION 2 - 9/25/2020

E:\BPC\191216\DRAWINGS\PLAN SETS\LAND DEVELOPMENT\REVISION 2 (BOROUGH RESUBMISSION)\PC191216-SPP-2_---LAYOUT C-601 ESS 1 A
HH



LEGEND
TO BE REMOVED

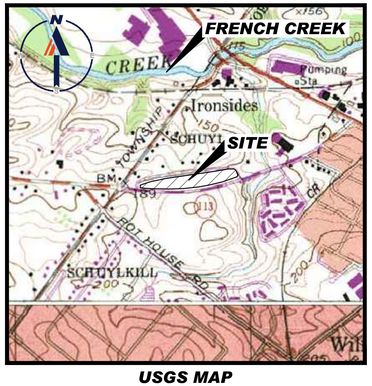
BUILDING	
RETAINING WALL	
CONCRETE CURB	
TREE	
DRAINAGE INLET	
STORM/SANITARY MANHOLE	
WATER VALVE	
CLEANOUT	
GAS METER	
AC UNIT	AC
UTILITY POLE	

LEGEND
EXISTING

BUILDING	
RETAINING WALL	
CONCRETE CURB	
FENCE	
TREELINE	
PROPERTY LINE	
R.O.W. LINE	
ADJACENT PROPERTY LINE	
EASEMENT LINE	
SETBACK LINE	
WATERWAY LINE	
FLOODPLAIN LINE	FP
SOIL TYPE DELINIATION	
CONTOUR LINE	123
OVERHEAD UTILITY WIRES	OH
ELECTRIC LINE	E
GAS LINE	G
WATER LINE	W
SANITARY SEWER	
STORM PIPE	
CONCRETE MONUMENT/ IRON PIN	
SIGN	
LIGHT FIXTURE	
TREE	
DRAINAGE INLET	
STORM/SANITARY MANHOLE	
WATER/GAS VALVES	
UTILITY POLE	

LEGEND
PROPOSED

LIMIT OF DISTURBANCE	
NPDES BOUNDARY	NPDES
COMPOST FILTER SOCK	
TREE PROTECTION FENCE	TPF
CONCRETE WASHOUT	CONCRETE WASHOUT AREA
TEMPORARY STOCKPILE	
ROCK CONSTRUCTION ENTRANCE	
NAGSC150	
INFILTRATION TEST LOCATION (APPROXIMATE)	P-1



USGS MAP
(PHOENIXVILLE USGS QUAD)
SCALE: 1"=1,000'

500 0 1,000

SOILS LEGEND

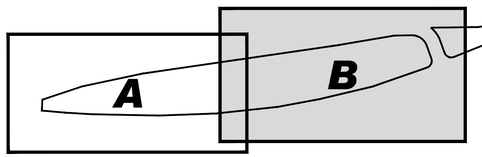
UgB	SOILS TYPE

SOILS TABLE

SYMBOL	SOIL NAME	SLOPES
PeB	PENN SILT LOAM	3 - 8%
PeC	PENN SILT LOAM	8 - 15%
UrxB	URBAN LAND-PENN COMPLEX	0 - 8%
UusB	URBAN LAND-UDORTHENTS, SHALE AND SANDSTONE COMPLEX	0 - 8%

LEGEND
PROPOSED

X-S8	TEMPORARY SOIL STOCKPILE. SEE DETAILS
X-S9	BASIN SPILLWAY LINING. SEE DETAILS
X-S11	TREE PROTECTION DURING SITE CONSTRUCTION. SEE DETAILS



KEY MAP
N.T.S.



30 15 7.5 0 30
1"= 30'

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CHECKED BY:	JRH
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PROFESSIONAL ENGINEER
John R. Hornick
PROFESSIONAL ENGINEER
Licensed / Registered in: PA
NEW JERSEY PE License No. 24GE04631000

SHEET TITLE:

PHASE 1 EROSION & SEDIMENTATION CONTROL PLAN (A)

SHEET NUMBER:

C-602
14 OF 36

REVISION 2 - 9/25/2020

R:\191\PC191216\DRAWINGS\PLANSETS\LAND DEVELOPMENT\REVISION 2 (BOROUGH RESUBMISSION)\PC191216-SPP-2---LAYOUT C-602 ESS 1 B
HH

LEGEND
PROPOSED

BUILDING	
RETAINING WALL	
CONCRETE CURB	
FLUSH CURB	
EDGE OF PAVEMENT	
5' HIGH ALUMINUM GUARD FENCE	X
POST & RAIL FENCE	
GUIDE RAIL	
PROPERTY LINE	
CONTOUR LINE	100
SAWCUT LINE	
UNDERGROUND ELECTRIC & TELEPHONE LINE	UGE&T
ELECTRIC LINE	E
TELEPHONE LINE	T
GAS LINE	G
WATER LINE	W
SANITARY SEWER	S
STORM PIPE	
SIDEWALK	
RAMP	
SIGN	
AREA LIGHT	
DRAINAGE INLET	
YARD DRAIN	
MANHOLE	
CLEANOUT	
FIRE HYDRANT	
UTILITY POLE	
LIMIT OF DISTURBANCE	
NPDES BOUNDARY	NPDES
COMPOST FILTER SOCK	
TREE PROTECTION FENCE	TPF
CONCRETE WASHOUT	CONCRETE WASHOUT AREA
TEMPORARY STOCKPILE	
ROCK CONSTRUCTION ENTRANCE	
NAGSC150	
INFILTRATION TEST LOCATION (APPROXIMATE)	P-1

LEGEND
EXISTING

BUILDING	
RETAINING WALL	
CONCRETE CURB	
FENCE	X
TREELINE	
R.O.W. LINE	
ADJACENT PROPERTY LINE	
EASEMENT LINE	
SETBACK LINE	
WATERWAY LINE	
FLOODPLAIN LINE	FP
SOIL TYPE DELINIATION	
CONTOUR LINE	100
OVERHEAD UTILITY WIRES	OH
ELECTRIC LINE	E
GAS LINE	G
WATER LINE	W
SANITARY SEWER	
STORM PIPE	
CONCRETE MONUMENT/ IRON PIN	
SIGN	
LIGHT FIXTURE	
TREE	
DRAINAGE INLET	
STORM/SANITARY MANHOLE	
WATER/GAS VALVES	
UTILITY POLE	

LEGEND
PROPOSED

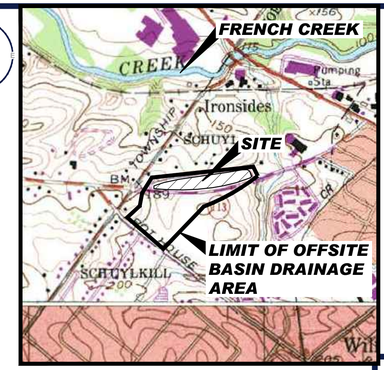
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X-S9	BASIN SPILLWAY LINING. SEE DETAILS
X-S11	TREE PROTECTION DURING SITE CONSTRUCTION. SEE DETAILS

SOILS LEGEND

UgB	SOILS TYPE

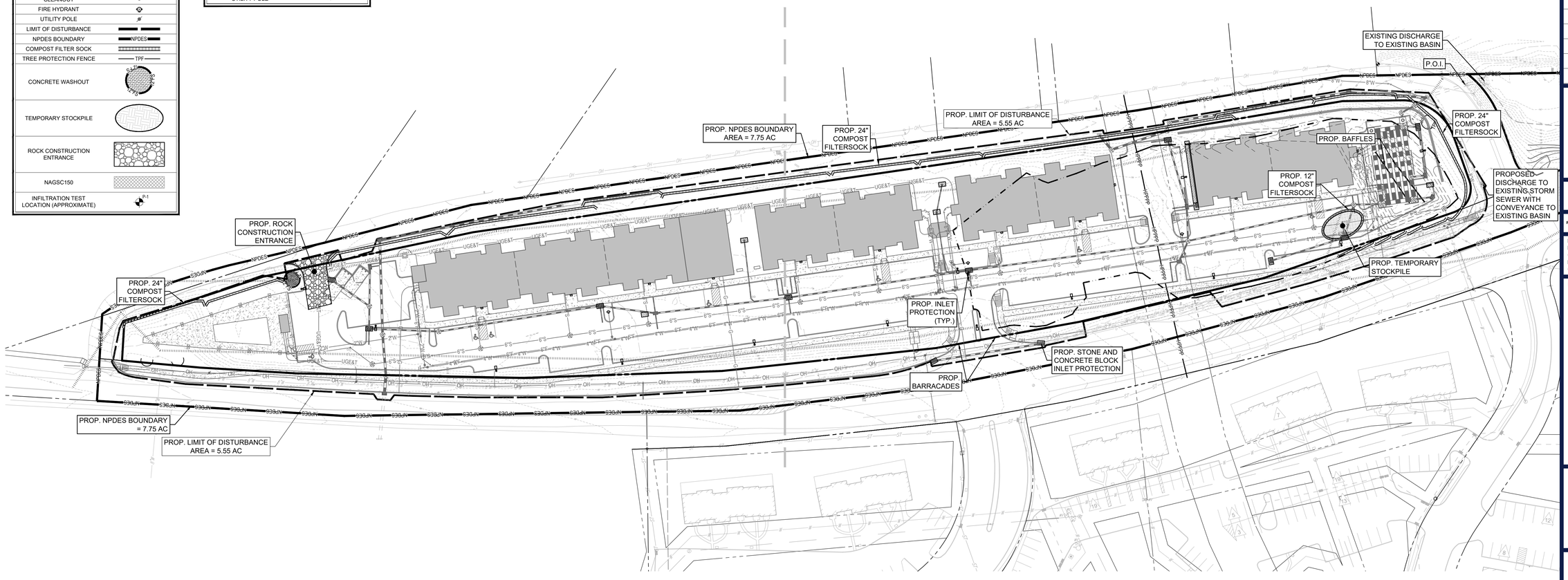
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(PHOENIXVILLE USGS QUAD)
SCALE: 1"=1,000'

500 0 1,000



N
W E
S

50 25 12.5 0 50
1"= 50'

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JOHN R. HORNICK
EXPIRES 06/21
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 24GE04633600
PENNSYLVANIA LICENSE No. PE084000

SHEET TITLE:

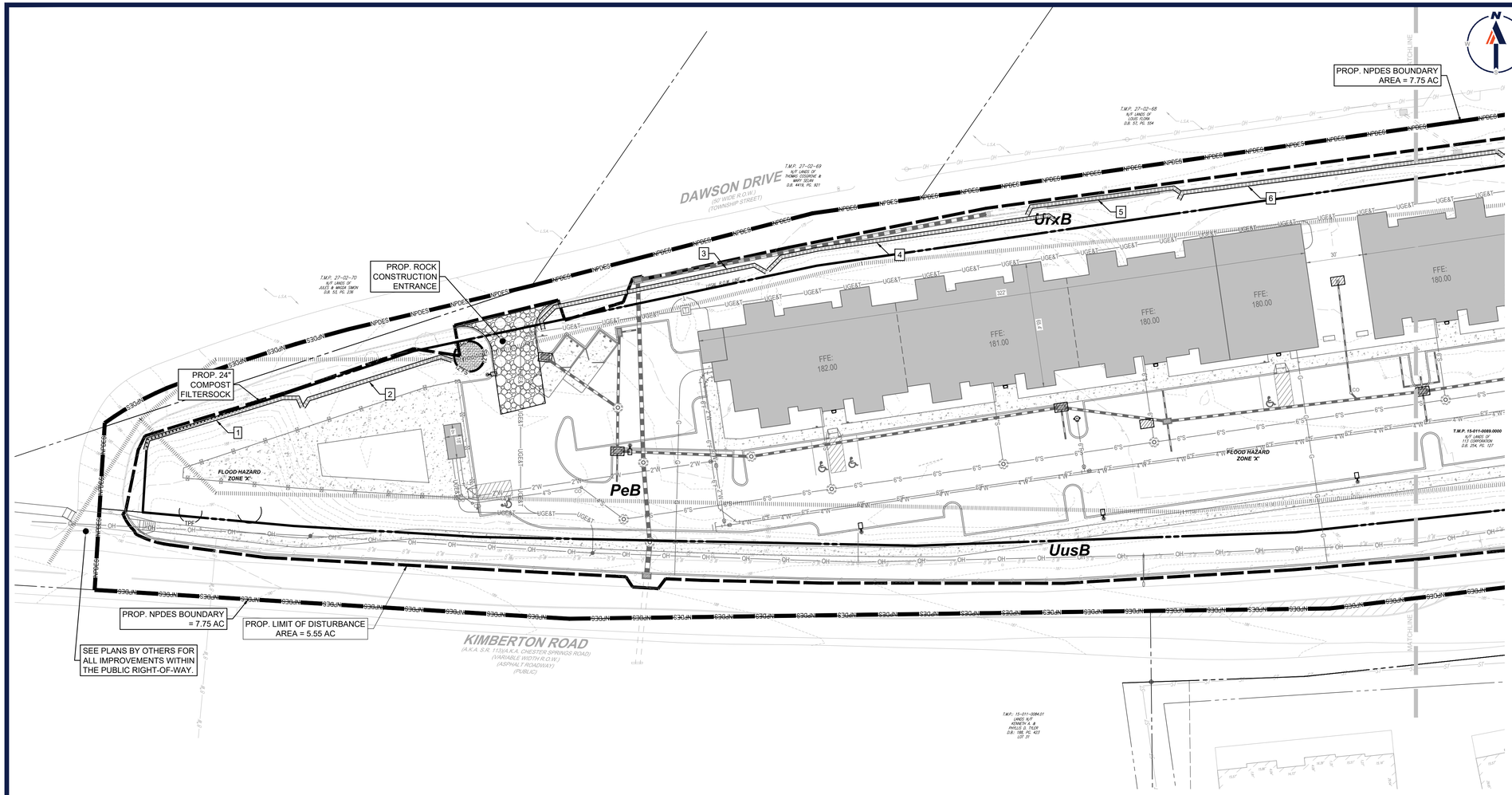
OVERALL PHASE 2 EROSION & SEDIMENTATION CONTROL PLAN

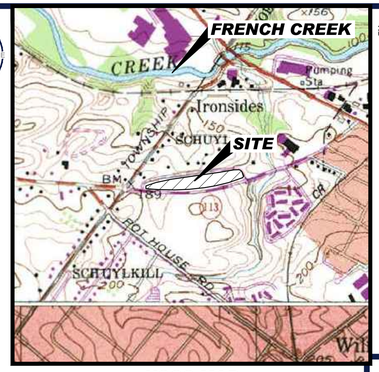
SHEET NUMBER:

C-603
15 OF 36

REVISION 2 - 9/25/2020

R:\PPC\191216\DRAWINGS\PLANSETS\LAND DEVELOPMENT\REVISION 2 (BOROUGH RESUBMISSION)\PC191216-SPP-2---LAYOUT C-603 E&S 2 (OA)
HH





USGS MAP
(PHOENIXVILLE USGS QUAD)
SCALE: 1"=1,000'

500 0 1,000

SOILS LEGEND

UgB	SOILS TYPE

SOILS TABLE

SYMBOL	SOIL NAME	SLOPES
PeB	PENN SILT LOAM	3 - 8%
PeC	PENN SILT LOAM	8 - 15%
UrxB	URBAN LAND-PENN COMPLEX	0 - 8%
UusB	URBAN LAND-UDORTHENTS, SHALE AND SANDSTONE COMPLEX	0 - 8%

LEGEND

PROPOSED

X-S8	TEMPORARY SOIL STOCKPILE. SEE DETAILS
X-S9	BASIN SPILLWAY LINING. SEE DETAILS
X-S11	TREE PROTECTION DURING SITE CONSTRUCTION. SEE DETAILS

LEGEND

PROPOSED

- BUILDING
- RETAINING WALL
- CONCRETE CURB
- FLUSH CURB
- EDGE OF PAVEMENT
- 3' HIGH ALUMINUM GUARD FENCE
- POST & RAIL FENCE
- GUIDE RAIL
- PROPERTY LINE
- CONTOUR LINE
- SAWCUT LINE
- UNDERGROUND ELECTRIC & TELEPHONE LINE
- ELECTRIC LINE
- TELEPHONE LINE
- GAS LINE
- WATER LINE
- SANITARY SEWER
- STORM PIPE
- SIDEWALK
- RAMP

LEGEND

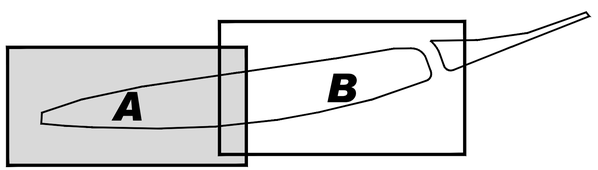
PROPOSED

- SIGN
- AREA LIGHT
- DRAINAGE INLET
- YARD DRAIN
- MANHOLE
- CLEANOUT
- FIRE HYDRANT
- UTILITY POLE
- LIMIT OF DISTURBANCE
- NPDES BOUNDARY
- COMPOST FILTER SOCK
- TREE PROTECTION FENCE
- CONCRETE WASHOUT
- TEMPORARY STOCKPILE
- ROCK CONSTRUCTION ENTRANCE
- NAGSC150
- INFILTRATION TEST LOCATION (APPROXIMATE)

LEGEND

EXISTING

- BUILDING
- RETAINING WALL
- CONCRETE CURB
- FENCE
- TREELINE
- R.O.W. LINE
- ADJACENT PROPERTY LINE
- EASEMENT LINE
- SETBACK LINE
- WATERWAY LINE
- FLOODPLAIN LINE
- SOIL TYPE DELINIATION
- CONTOUR LINE
- OVERHEAD UTILITY WIRES
- ELECTRIC LINE
- GAS LINE
- WATER LINE
- SANITARY SEWER
- STORM PIPE
- CONCRETE MONUMENT/ IRON PIN
- SIGN
- LIGHT FIXTURE
- TREE
- DRAINAGE INLET
- STORM/SANITARY MANHOLE
- WATER/GAS VALVES
- UTILITY POLE



KEY MAP
N.T.S.

30 15 7.5 0 30
1"= 30'

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SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
INDUSTRIAL ENGINEERING
PERMITTING SERVICES
TRANSPORTATION SERVICES

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REVISIONS

REV	DATE	COMMENT	DRAWN BY / CHECKED BY
1	8/04/2020	PER NPDES SUBMISSION	HH / RE
2	9/25/2020	PER BOROUGH RESUBMISSION	HH / RE

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PROJECT No.: PC191216
DRAWN BY: CCP
CHECKED BY: JRH
DATE: 03/04/2020
CAD I.D.: PC191216-SPP-2

PROJECT:

REVISED PRELIMINARY/ FINAL LAND DEVELOPMENT PLANS

FOR

113 CORPORATION

ELAND POINT CROSSING

ROUTE 113 & DAWSON DRIVE
BOROUGH OF PHOENIXVILLE
CHESTER COUNTY
PHOENIXVILLE, PA

BOHLER
1600 MANOR DRIVE, SUITE 200
CHALFONT, PA 18914
Phone: (215) 996-9100
Fax: (215) 996-9102
www.BohlerEngineering.com

COMMONWEALTH OF PENNSYLVANIA
JOHN R. HORNICK
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 24GE05043000

SHEET TITLE:

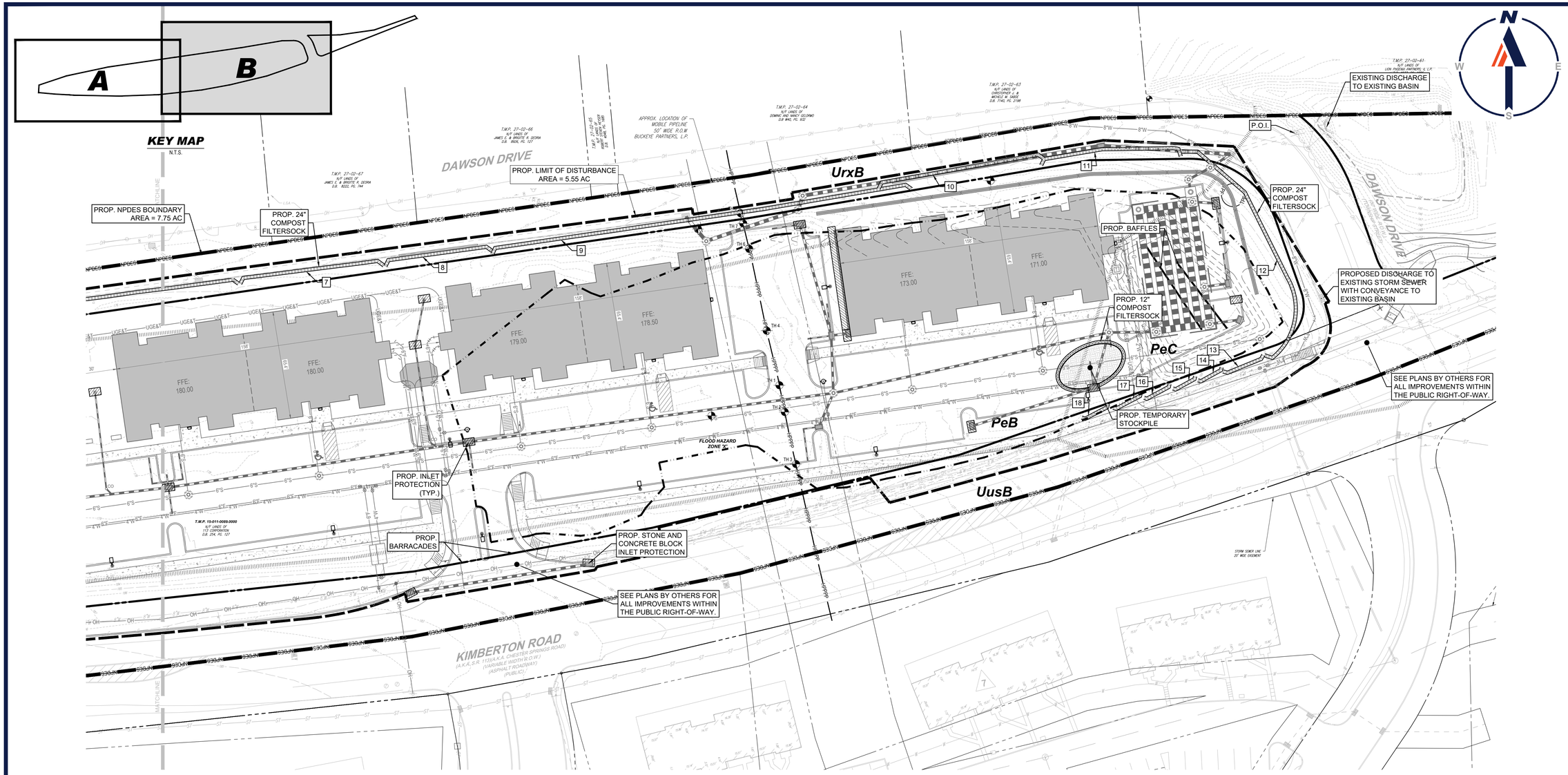
PHASE 2 EROSION & SEDIMENTATION CONTROL PLAN (A)

SHEET NUMBER:

C-604
16 OF 36

REVISION 2 - 9/25/2020

E:\1PC\191216\DRAWINGS\PLAN SETS\LAND DEVELOPMENT\REVISION 2 (BOROUGH RESUBMISSION)\PC191216-SPP-2_---LAYOUT C-604 E&S 2 A
HH



LEGEND

PROPOSED

BUILDING	
RETAINING WALL	
CONCRETE CURB	
FLUSH CURB	
EDGE OF PAVEMENT	
7' HIGH ALUMINUM GUARD FENCE	X
POST & RAIL FENCE	
GUIDE RAIL	
PROPERTY LINE	
CONTOUR LINE	725
SAWCUT LINE	
UNDERGROUND ELECTRIC & TELEPHONE LINE	UGE&T
ELECTRIC LINE	E
TELEPHONE LINE	T
GAS LINE	G
WATER LINE	W
SANITARY SEWER	S
STORM PIPE	
SIDEWALK	
RAMP	

LEGEND

PROPOSED

SIGN	
AREA LIGHT	
DRAINAGE INLET	
YARD DRAIN	
MANHOLE	
CLEANOUT	CO
FIRE HYDRANT	
UTILITY POLE	
LIMIT OF DISTURBANCE	
NPDES BOUNDARY	NPDES
COMPOST FILTER SOCK	
TREE PROTECTION FENCE	TPF
CONCRETE WASHOUT	SANITARY CONCRETE WASHOUT
TEMPORARY STOCKPILE	
ROCK CONSTRUCTION ENTRANCE	
NAGSC150	
INFILTRATION TEST LOCATION (APPROXIMATE)	P-1

LEGEND

EXISTING

BUILDING	
RETAINING WALL	
CONCRETE CURB	
FENCE	X
TREELINE	
R.O.W. LINE	
ADJACENT PROPERTY LINE	
EASEMENT LINE	
SETBACK LINE	
WATERWAY LINE	
FLOODPLAIN LINE	FP
SOIL TYPE DELINIATION	
CONTOUR LINE	725
OVERHEAD UTILITY WIRES	OH
ELECTRIC LINE	E
GAS LINE	G
WATER LINE	W
SANITARY SEWER	S
STORM PIPE	
CONCRETE MONUMENT/ IRON PIN	
SIGN	
LIGHT FIXTURE	
TREE	
DRAINAGE INLET	
STORM/SANITARY MANHOLE	
WATER/GAS VALVES	
UTILITY POLE	

LEGEND

PROPOSED

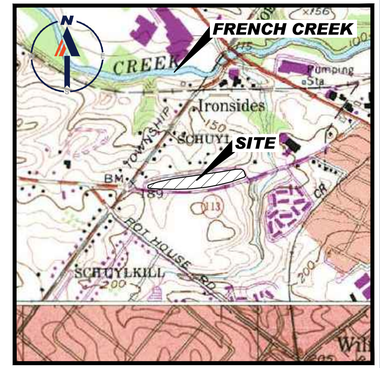
X-S8	TEMPORARY SOIL STOCKPILE. SEE DETAILS
X-S9	BASIN SPILLWAY LINING. SEE DETAILS
X-S11	TREE PROTECTION DURING SITE CONSTRUCTION. SEE DETAILS

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UgB	SOILS TYPE

SOILS TABLE

SYMBOL	SOIL NAME	SLOPES
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UusB	URBAN LAND-UDORTHENTS, SHALE AND SANDSTONE COMPLEX	0 - 8%



USGS MAP

(PHOENIXVILLE USGS QUAD)
SCALE: 1"=1,000'

500 0 1,000

30 15 7.5 0 30

1"= 30'

BOHLER

SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
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PROJECT No.:	PC191216
DRAWN BY:	CCP
CHECKED BY:	JRH
DATE:	03/04/2020
CAD I.D.:	PC191216-SPP-2

PROJECT:

REVISED PRELIMINARY/ FINAL LAND DEVELOPMENT PLANS

FOR

113 CORPORATION

ELAND POINT CROSSING

ROUTE 113 & DAWSON DRIVE
BOROUGH OF PHOENIXVILLE
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www.BohlerEngineering.com

JOHN R. HORNICK
COMMONWEALTH OF PENNSYLVANIA
PROFESSIONAL
JOHN R. HORNICK
PROFESSIONAL ENGINEER
Signature: [signature] DATE: 09/25/2020
NEW JERSEY PROFESSIONAL LICENSE No. 24GE04041600

SHEET TITLE:

PHASE 2 EROSION & SEDIMENTATION CONTROL PLAN (B)

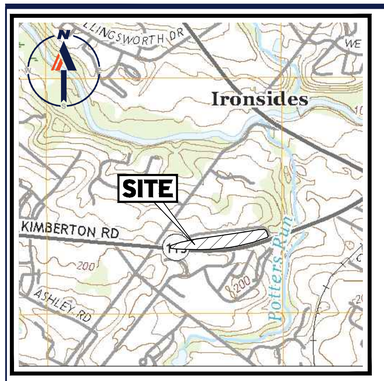
SHEET NUMBER:

C-605
17 OF 36

REVISION 2 - 9/25/2020

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HH



USGS MAP

(PHOENIXVILLE USGS QUAD)
SCALE: 1"=1,000'



SOIL MAP

SCALE: 1"=350'
SOURCE: USDA

LOCATION OF ALL SURFACE WATERS AND THEIR CLASSIFICATION UNDER CHAPTER 93

§102.4(b)(5)(v)

THE SUBJECT SITE IS LOCATED WITHIN THE FRENCH CREEK WATERSHED, WHICH HAS A TSF (TROUT STOCKING) CHAPTER 93 CLASSIFICATION.

RECYCLING OR DISPOSAL OF MATERIALS

§102.4(b)(5)(xi)

THE FOLLOWING IS A LIST THAT INCLUDES, BUT THAT IS NOT LIMITED TO, THE POTENTIAL CONSTRUCTION WASTES THAT MAY EXIST ON-SITE:
- CONCRETE CURB AND SIDEWALK
- ASPHALT
- E&S BMP - COMPOST FILTER SOCKS
- E&S BMP - TEMPORARY RISER
- E&S BMP - EROSION CONTROL MATTING
- E&S BMP - STONE INLET PROTECTION
- E&S BMP - STONE & CONCRETE BLOCK INLET PROTECTION
- E&S BMP - REGULATED FILL MATERIALS

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., 271.1, AND 287.1 ET SEQ. NO BUILDING MATERIALS OR WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURNED, BURIED, DUMPED, OR DISCHARGED AT THE SITE. BELOW IS A LIST OF METHODS FOR THE PROPER RECYCLING/DISPOSAL OF VARIOUS MATERIALS:

1.) DUST CONTROL - CONSTRUCTION TRAFFIC MUST ENTER AND EXIT THE SITE AT THE STABILIZED CONSTRUCTION ENTRANCE. THE PURPOSE IS TO TRAP DUST AND MUD THAT WOULD OTHERWISE BE CARRIED OFF-SITE BY CONSTRUCTION TRAFFIC. WATER TRUCKS WILL BE USED AS NEEDED DURING CONSTRUCTION TO REDUCE DUST GENERATED ON THE SITE. DUST CONTROL MUST BE PROVIDED BY THE CONTRACTOR TO A DEGREE THAT IS ACCEPTABLE TO THE LOCAL CONSERVATION DISTRICT. AFTER CONSTRUCTION, THE SITE WILL BE STABILIZED, WHICH WILL REDUCE THE POTENTIAL FOR DUST GENERATION.

2.) SOLID WASTE DISPOSAL - NO SOLID MATERIALS, INCLUDING BUILDING MATERIALS, ARE ALLOWED TO BE DISCHARGED FROM THE SITE WITH STORMWATER. ALL SOLID WASTE, INCLUDING DISPOSABLE MATERIALS INCIDENTAL TO THE MAJOR CONSTRUCTION ACTIVITIES, MUST BE COLLECTED AND PLACED IN CONTAINERS. THE CONTAINERS WILL BE EMPTIED AS NECESSARY BY A CONTRACT TRASH DISPOSAL SERVICE AND HAULED AWAY FROM THE SITE.

3.) SANITARY FACILITIES - ALL PERSONNEL INVOLVED WITH CONSTRUCTION ACTIVITIES MUST COMPLY WITH STATE AND LOCAL SANITARY OR SEPTIC SYSTEM REGULATIONS. TEMPORARY SANITARY FACILITIES WILL BE PROVIDED AT THE SITE THROUGHOUT THE CONSTRUCTION PHASE. THEY MUST BE UTILIZED BY ALL CONSTRUCTION PERSONNEL AND WILL BE SERVICED BY A LICENSED COMMERCIAL OPERATOR.

4.) WATER SOURCE - NON-STORMWATER COMPONENTS OF SITE DISCHARGE MUST BE CLEAN WATER. WATER USED FOR CONSTRUCTION WHICH DISCHARGES FROM THE SITE MUST ORIGINATE FROM A PUBLIC WATER SUPPLY OR PRIVATE WELL APPROVED BY THE STATE HEALTH DEPARTMENT. WATER USED FOR CONSTRUCTION THAT DOES NOT ORIGINATE FROM AN APPROVED PUBLIC SUPPLY MUST NOT DISCHARGE FROM THE SITE.

5.) CONCRETE WASTE FROM CONCRETE READY-MIX TRUCKS - DISCHARGE OF EXCESS OR WASTE CONCRETE AND/OR WASH WATER FROM CONCRETE TRUCKS WILL BE ALLOWED ON THE CONSTRUCTION SITE, BUT ONLY IN SPECIFICALLY DESIGNATED DIKED AREAS PREPARED TO PREVENT CONTACT BETWEEN THE CONCRETE AND/OR WASH WATER AND STORMWATER THAT WILL BE DISCHARGED FROM THE SITE.

GEOLOGIC FORMATIONS/SOIL CONDITIONS THAT MAY HAVE THE POTENTIAL TO CAUSE POLLUTION

§102.4(b)(5)(xii)

THERE ARE NO GEOLOGIC FORMATIONS OR SOIL CONDITIONS THAT COULD CAUSE CONTAMINANT POLLUTION DURING EARTH DISTURBANCE ACTIVITIES.

POTENTIAL FOR THERMAL IMPACTS

THE POTENTIAL FOR THERMAL IMPACTS HAS BEEN AVOIDED BY PROVIDING A TEMPORARY DIVERSION SWALE TO COOL AND CONVEY ADDITIONAL STORMWATER TO THE SEDIMENT TRAP, AND COMPOST FILTERSOCK COOLS STORMWATER BEFORE DISCHARGING.

EARTHWORK ACTIVITY IMPLEMENTATION

THE FOLLOWING MEASURES ARE TAKEN TO MINIMIZE THE EXTENT AND DURATION OF EARTH DISTURBANCE:
- ACCESS THE SITE THROUGH DESIGNATED CONSTRUCTION ENTRANCE
- SEQUENCE CONSTRUCTION ACTIVITIES BY LIMITING DISTURBANCES TO A SPECIFIC TASK SUCH THAT EACH TASK IS COMPLETED BEFORE THE NEXT TASK IS INITIATED

THE FOLLOWING MEASURES ARE TAKEN TO MAXIMIZE PROTECTION OF EXISTING DRAINAGE FEATURES AND VEGETATION:
- ACCESS THE SITE THROUGH DESIGNATED CONSTRUCTION ENTRANCE
- PROTECT EXISTING TREES AND VEGETATION WHERE PRACTICAL

THE FOLLOWING MEASURES ARE TAKEN TO MINIMIZE SOIL COMPACTION:
- ACCESS THE SITE THROUGH DESIGNATED CONSTRUCTION ENTRANCE
- USE OF TREADED MACHINERY WHERE PRACTICAL DURING EARTHMOVING OPERATIONS
- GRADE SITE TO MINIMIZE EXTENT OF CUTS/FILLS

THE FOLLOWING MEASURES ARE TAKEN TO PREVENT OR MINIMIZE GENERATION OF INCREASED STORM WATER RUNOFF:
- DIRECT RUNOFF TO AN UNDERGROUND DETENTION BASIN TO CONTROL RUNOFF RATES AND VOLUME
- PROVIDE A RAIN GARDEN TO HELP REDUCE RUNOFF RATES AND VOLUME
- PROVIDE AMENDED SOILS THROUGHOUT THE SITE TO HELP REDUCE RUNOFF VOLUME

TYPES, DEPTH, SLOPE, LOCATIONS, AND LIMITATIONS OF THE SOILS

§102.4(b)(5)(ii)

SOIL DESCRIPTIONS

SOIL	DESCRIPTION	SOIL GROUP
PeB	- PENN SILT LOAM, 3 TO 8 PERCENT SLOPES	B
PeC	- PENN SILT LOAM, 8 TO 15 PERCENT SLOPES	B
UrxB	- URBAN LAND, PENN COMPLEX, 0 TO 8 PERCENT SLOPES	B
UusB	- URBAN LAND, UDORTHENTS, SHALE AND SANDSTONE COMPLEX, 0 TO 8 PERCENT SLOPES	A

SOIL USE LIMITATIONS AND THEIR RESOLUTIONS PROVIDED

1. CUTBANKS CAVE - ENSURE WORKER PROTECTION DURING ALL EXCAVATION AND TRENCHING WORK.
2. CORROSIVE TO CONCRETE/STEEL - IN AREAS WHERE CONCRETE OR STEEL IS TO COME INTO DIRECTION CONTACT WITH THE SOIL, LIME SHALL BE MIXED INTO THE SOIL TO A DEPTH OF 6" MINIMUM.
3. DROUGHTY - USE EXISTING SUITABLE TOPSOIL AND SOIL AMENDMENTS DURING CONSTRUCTION AS NECESSARY.
4. EASILY ERODIBLE - INSTALL EROSION CONTROL BLANKET ON ALL SLOPES 3:1 OR STEEPER.
5. HYDRIC/HYDRIC INCLUSIONS - QUALIFIED INDIVIDUAL SHOULD DETERMINE EXISTENCE OF WETLANDS PRIOR TO CONSTRUCTION.
6. LOW STRENGTH/LANDSLIDE PRONE - AVOID OVER-STEEPENING AND OVERLOADING OF SLOPES, REMOVAL OF LATERAL SUPPORT AND SATURATION OF SLOPES TO PREVENT FAILURE.
7. SLOW PERCOLATION - AVOID DESIGN OF INFILTRATION STRUCTURE WITHOUT PROPER INFILTRATION TESTING.
8. PIPING - INSTALL PROPERLY DESIGNED ANTI-SEEP COLLARS ON PIPES.
9. POOR SOURCE OF TOPSOIL - AMEND SOIL WITH COMPOST TO INCREASE MOISTURE CONTENT AND ABILITY TO SUSTAIN EROSION RESISTANT VEGETATION.
10. FROST ACTION - ENSURE PROPER PROTECTION FROM DAMAGE, ESPECIALLY TO ROADWAYS.

E&S PLAN DESIGNED AND IMPLEMENTED TO BE CONSISTENT WITH PCSM PLAN

§102.4(b)(5)(xiv)

REGARDING THE LOCATIONS OF EXISTING RIPARIAN BUFFERS RELATIVE TO THE LIMIT OF DISTURBANCE AND WHETHER PROPOSED INFILTRATION FACILITIES ARE OUTSIDE OF PROPOSED GRADING AREAS, NOTE THE FOLLOWING:
- THERE ARE NO EXISTING OR PROPOSED RIPARIAN BUFFERS.
- THERE ARE NO PROPOSED INFILTRATION BMPs OUTSIDE OF PROPOSED GRADING AREAS.

EXISTING/PROPOSED RIPARIAN FOREST BUFFERS

§102.4(b)(5)(xv)

REGARDING EXISTING OR PROPOSED RIPARIAN FOREST BUFFERS, NOTE THE FOLLOWING:
- THERE ARE NO EXISTING/PROPOSED RIPARIAN FOREST BUFFERS LOCATED WITHIN OR OUTSIDE THE LIMITS OF DISTURBANCE FOR THIS PROJECT.

E&S - GENERAL NOTES:

1. THIS PLAN REPRESENTS THE MINIMUM LEVEL OF IMPLEMENTATION OF TEMPORARY EROSION AND SEDIMENTATION CONTROL STRUCTURES. ADDITIONAL FACILITIES OR MEASURES SHALL BE INSTALLED WHERE NECESSARY OR WHERE DIRECTED BY EITHER THE TOWNSHIP OR THE COUNTY CONSERVATION DISTRICT AS CONSTRUCTION PROGRESSES.

2. THE OWNER/CONSTRUCTION MANAGER IS RESPONSIBLE FOR ALL TEMPORARY AND PERMANENT EROSION AND SEDIMENT CONTROLS AND SITE STABILIZATION. THE OWNER SHALL ASSIGN ONE INDIVIDUAL TO BE RESPONSIBLE FOR PROPER INSTALLATION AND MAINTENANCE OF ALL FACILITIES AND MEASURES.

3. PROTECTION TO THE EXISTING TREES AND SHRUBS SHALL BE TAKEN BY THE CONTRACTOR TO ELIMINATE UNNECESSARY DAMAGE.

4. ANY DRY FILL HAULED OFFSITE MUST BE TAKEN TO A LOCATION WITH AN EROSION AND SEDIMENTATION CONTROL PLAN WHICH HAS BEEN REVIEWED BY THE COUNTY CONSERVATION DISTRICT FOR ADEQUACY.

5. EROSION AND SEDIMENTATION CONTROLS MUST BE CONSTRUCTED, STABILIZED, AND FUNCTIONAL BEFORE SITE DISTURBANCE WITHIN TRIBUTARY AREAS OF THOSE CONTROLS.

6. STOCKPILES MUST BE STABILIZED IMMEDIATELY.

7. NO CHANGES SHALL BE MADE IN THE CONTOUR OF THE LAND. NO GRADING, EXCAVATING, REMOVAL OR DESTRUCTION OF THE TOPSOIL, TREES OR OTHER VEGETATIVE COVER OF THE LAND SHALL BE COMMENCED WITHIN A PROPOSED SUBDIVISION OR LAND DEVELOPMENT TRACT UNTIL SUCH TIME THAT A PLAN FOR SEDIMENTATION CONTROL AND MINIMIZING EROSION HAS BEEN REVIEWED AND FOUND SATISFACTORY BY THE COUNTY CONSERVATION DISTRICT AND REVIEWED AND APPROVED BY THE TOWNSHIP, OR THERE HAS BEEN A DETERMINATION BY THE TOWNSHIP, UPON RECOMMENDATION BY THE COUNTY CONSERVATION DISTRICT, THAT SUCH PLANS ARE NOT NECESSARY.

8. BEFORE INITIATING ANY REVISIONS TO THE APPROVED EROSION AND SEDIMENT CONTROL PLAN OR REVISIONS TO OTHER PLANS WHICH MAY AFFECT THE EFFECTIVENESS OF THE APPROVED E&S CONTROL PLAN, THE OPERATOR MUST RECEIVE APPROVAL OF THE REVISIONS FROM THE COUNTY CONSERVATION DISTRICT.

9. THE OPERATOR SHALL ASSURE THAT AN EROSION AND SEDIMENT CONTROL PLAN HAS BEEN PREPARED, APPROVED BY THE COUNTY CONSERVATION DISTRICT, AND IS BEING IMPLEMENTED AND MAINTAINED FOR ALL SOIL AND/OR ROCK SPOIL AND BORROW AREAS, REGARDLESS OF THEIR LOCATIONS.

10. CONTRACTOR SHALL USE TREADED MACHINERY AND MINIMIZE SOIL COMPACTION WHEREVER POSSIBLE.

Location	SiltSoxx Size (inches)	Slope (%)	Max. Allowable Slope Length Above Barrier (ft)*	Provided Slope Length Above Barrier (ft)
1	24	7.53	389	83
2	24	7.57	387	109
3	24	15.63	244	16
4	24	10.34	297	29
5	24	13.67	263	22
6	24	21.43	186	28
7	24	20.00	200	30
8	24	29.54	105	22
9	24	40.00	80	20
10	24	18.19	218	44
11	24	22.06	179	17
12	24	30.56	99	18
13	24	28.57	114	42
14	24	29.05	110	37
15	24	31.67	97	15
16	24	31.25	98	12
17	24	27.50	125	10
18	24	25.00	150	7
19	24	30.00	100	5

COMPOST FILTER SOCK SIZING CHART

SEQUENCE OF BMP INSTALLATION AND REMOVAL

§102.4(b)(5)(vii)

ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE FOLLOWING SEQUENCE. EACH STAGE SHALL BE COMPLETED IN COMPLIANCE WITH CHAPTER 102 REGULATIONS BEFORE ANY FOLLOWING STAGE IS INITIATED. CLEARING AND GRUBBING SHALL BE LIMITED ONLY TO THOSE AREAS DESCRIBED IN EACH STAGE, UPON COMPLETION OR TEMPORARY CESSATION OF THE EARTH DISTURBANCE ACTIVITY THAT WILL EXCEED FOUR (4) DAYS, OR ANY STAGE THEREOF, THE PROJECT SITE SHALL BE IMMEDIATELY STABILIZED WITH THE APPROPRIATE TEMPORARY OR PERMANENT STABILIZATION.

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

BEFORE INITIATING ANY REVISION TO THE APPROVED EROSION AND SEDIMENT CONTROL PLAN OR REVISIONS TO OTHER PLANS WHICH MAY AFFECT THE EFFECTIVENESS OF THE APPROVED E&S CONTROL PLAN, THE OPERATOR MUST RECEIVE APPROVAL OF THE REVISIONS FROM THE CHESTER COUNTY CONSERVATION DISTRICT. THE OPERATOR SHALL ASSURE THAT THE APPROVED EROSION AND SEDIMENT CONTROL PLAN IS PROPERLY AND COMPLETELY IMPLEMENTED. IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE OPERATOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES TO ELIMINATE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION.

1. INSTALL CONSTRUCTION ENTRANCE AS DESIGNATED ON THE PLANS.
2. INSTALL ALL PERIMETER COMPOST FILTER SOCKS, TREE PROTECTION FENCING, AND INLET PROTECTION WITHIN THE DESIGNATED LIMIT OF DISTURBANCE AS INDICATED ON THE PLANS. ONLY LIMITED CLEARING AND GRUBBING NECESSARY TO INSTALL THE PERIMETER EROSION AND SEDIMENT POLLUTION CONTROLS IS PERMITTED.
3. DEMOLISH BUILDINGS ON SITE. BUILDING DEMOLITION SHALL BE PERFORMED ONLY TO THE BUILDING SLAB. NO EARTH DISTURBANCE SHALL BEGIN UNTIL INSTALLATION OF SEDIMENT TRAP.
4. INSTALL TEMPORARY SWALE AND CONSTRUCT SEDIMENT TRAP. ONLY LIMITED CLEARING AND GRUBBING IS PERMITTED FOR CONSTRUCTION OF ACCESS TO THE SEDIMENT TRAP. CONSTRUCTION OF THE SEDIMENT TRAP SHALL INCLUDE THE NECESSARY CLEARING AND GRUBBING, EARTHWORK, AND ALL OTHER SEDIMENT TRAP FEATURES AS SHOWN ON THE PLANS AND DETAILS, AND ANY NECESSARY TEMPORARY STABILIZATION OF ALL DISTURBED AREAS. THE TRAP IS TO BE STABILIZED AND FUNCTIONING PROPERLY PRIOR TO ANY FURTHER EARTH DISTURBANCE ACTIVITIES. **UPON INSTALLATION OF THE SEDIMENT TRAP SPILLWAY, AN INSPECTION OF THE SPILLWAY SHALL BE CONDUCTED BY A QUALIFIED SITE REPRESENTATIVE AND THE CHESTER COUNTY CONSERVATION DISTRICT SHALL BE NOTIFIED IN WRITING THAT THE PROPER SPILLWAY IS INSTALLED, PER PLAN.** SEDIMENT TRAPS MUST BE PROTECTED FROM UNAUTHORIZED ACTS OF THIRD PARTIES. REFER TO THE SEDIMENT BASIN SOIL CONSERVATION DISTRICT MONITORING, INSPECTION AND REPORTING REQUIREMENTS PROVIDED ON THE SOIL EROSION AND SEDIMENT POLLUTION CONTROL NOTES FOR ADDITIONAL SEDIMENT BASIN REQUIREMENTS DURING CONSTRUCTION.
5. ONCE SEDIMENT TRAP AND TEMPORARY SWALE ARE CONSTRUCTED, STABILIZED AND FUNCTIONING PROPERLY, DEMOLISH REMAINING FEATURES ON SITE. ONCE DEMOLITION IS COMPLETE, PROCEED TO PHASE 2.

PHASE 2 SEQUENCE OF CONSTRUCTION

1. INITIATE THE NECESSARY EARTHWORK TO REACH THE GRADES INDICATED ON THE PLANS. BUILDING CONSTRUCTION FOR BUILDINGS "#3" AND "#4" MAY COMMENCE UPON ACCEPTANCE OF BUILDING PAD BY OWNER. THE CONCRETE WASHOUT MUST BE INSTALLED BEFORE ANY CONCRETE CAN BE POURED ON-SITE. CONTRACTOR MUST PERFORM BULK OF EARTHWORK TO BALANCE CUTS AND FILLS TO THE GREATEST EXTENT POSSIBLE. ALL AREAS DISTURBED DURING THE EARTHWORK PHASE OF CONSTRUCTION MUST BE TEMPORARILY SEEDED AND STABILIZED IN ACCORDANCE WITH THE GENERAL CONSERVATION NOTES AND SPECIFICATIONS AND SEEDING SPECIFICATIONS IF PERMANENT STABILIZATION CANNOT BE ACHIEVED WITHIN FOUR (4) DAYS.
2. CONTINUE WITH THE BALANCE OF EARTHWORK INCLUDING UTILITY INSTALLATION (SANITARY, ELECTRIC, TELEPHONE, CABLE AND GAS) WHERE APPLICABLE FOR BUILDINGS "#3" AND "#4".
3. INSTALL ALL CURBING SHOWN IN THIS PHASE FOR BUILDINGS "#3" AND "#4" AND INSTALL STONE BASE COURSE IN THE DRIVEWAY AND PARKING AREAS FOR BUILDINGS "#3" AND "#4".
4. INITIATE FINAL GRADING AND PLACEMENT OF TOPSOIL IN LANDSCAPE AREAS FOR BUILDINGS "#3" AND "#4". **CRITICAL STAGE: INSTALL AMENDED SOILS.** AS SOON AS SLOPES, CHANNELS, DITCHES AND OTHER DISTURBED AREAS REACH FINAL GRADE, THEY MUST BE STABILIZED. ALL LANDSCAPE AREAS MUST BE STABILIZED AND PERMANENT SEEDING OR PLACEMENT OF SOD MUST BE APPLIED. WHEN FINAL GRADE IS ACHIEVED DURING NON-GERMINATING MONTHS, THE AREA SHOULD BE MULCHED UNTIL THE BEGINNING OF THE NEXT PLANTING SEASON. HOWEVER, THE AREA WILL NOT BE CONSIDERED STABILIZED UNTIL A MINIMUM UNIFORM 70% VEGETATIVE COVER OF EROSION RESISTANT PERENNIAL SPECIES HAS BEEN ACHIEVED. AS DISTURBED AREAS WITHIN A PROJECT APPROACH FINAL GRADE, PREPARATIONS SHOULD BE MADE FOR SEEDING AND MULCHING TO BEGIN (I.E. ANTICIPATE THE COMPLETION DATE AND SCHEDULE THE SEEDER). IN NO CASE SHOULD AN AREA EXCEEDING 15,000 SQUARE FEET, WHICH IS TO BE STABILIZED BY VEGETATION, REACH FINAL GRADE WITHOUT BEING SEEDED AND MULCHED. WAITING UNTIL EARTHMOVING IS COMPLETED BEFORE MAKING PREPARATIONS FOR SEEDING AND MULCHING IS NOT ACCEPTABLE. SEEDING AND MULCHING REQUIREMENTS ARE SPECIFIED IN THE GENERAL CONSERVATION NOTES AND SPECIFICATIONS.
5. INSTALL BITUMINOUS PAVEMENT AND CONCRETE INCLUDING SIDEWALKS AROUND BUILDINGS "#3" AND "#4". **CRITICAL STAGE: INSTALL POROUS PAVEMENT IN PARKING AREAS FOR BUILDINGS "#3" AND "#4" AS INDICATED ON THE POST-CONSTRUCTION STORMWATER MANAGEMENT PLAN. THE PERMITTEE SHALL PROVIDE ENGINEERING OVERSIGHT FOR THE CONSTRUCTION OF THE POROUS PAVEMENT. A LICENSED PROFESSIONAL OR DESIGNEE KNOWLEDGEABLE IN THE DESIGN AND CONSTRUCTION OF POROUS PAVEMENT, SHALL CONDUCT THE OVERSIGHT.**
6. UPON STABILIZATION OF ALL AREAS TRIBUTARY TO THE SEDIMENT TRAP, REMOVE SEDIMENT TRAP. PERIMETER CONTROLS SHALL REMAIN IN PLACE THROUGHOUT THE COMPLETION OF CONSTRUCTION UNTIL THE FINAL INSPECTION AND APPROVAL BY THE CONSERVATION DISTRICT IS REQUIRED PRIOR TO REMOVAL OR CONVERSION OF SEDIMENT TRAP. **THE PERMITTEE SHALL PROVIDE ENGINEERING OVERSIGHT FOR THE REMOVAL OF THE SEDIMENT TRAP. A LICENSED PROFESSIONAL OR DESIGNEE KNOWLEDGEABLE IN THE DESIGN AND CONSTRUCTION OF SEDIMENT TRAPS, SHALL CONDUCT THE OVERSIGHT.**
7. INITIATE THE NECESSARY EARTHWORK TO REACH THE GRADES INDICATED ON THE PLANS. BEGIN INSTALLATION OF RETAINING WALL. BUILDING CONSTRUCTION FOR BUILDINGS "#1" AND "#2" MAY COMMENCE UPON ACCEPTANCE OF BUILDING PAD BY OWNER. THE CONCRETE WASHOUT MUST BE INSTALLED BEFORE ANY CONCRETE CAN BE POURED ON-SITE. CONTRACTOR MUST PERFORM BULK OF EARTHWORK TO BALANCE CUTS AND FILLS TO THE GREATEST EXTENT POSSIBLE. ALL AREAS DISTURBED DURING THE EARTHWORK PHASE OF CONSTRUCTION MUST BE TEMPORARILY SEEDED AND STABILIZED IN ACCORDANCE WITH THE GENERAL CONSERVATION NOTES AND SPECIFICATIONS AND SEEDING SPECIFICATIONS IF PERMANENT STABILIZATION CANNOT BE ACHIEVED WITHIN FOUR (4) DAYS.
8. C**RITICAL STAGE: INSTALL RAIN GARDEN.** INITIATE STORM SEWER INSTALLATIONS FOR THE FEATURES SHOWN ON THE PLANS STARTING AT THE FURTHEST DOWNSTREAM STRUCTURE. ALL PROPOSED INLETS DRAINING TO AN UNDERGROUND STORMWATER BMP SHOULD BE BLOCKED UNTIL THE SITE IS PERMANENTLY STABILIZED. SEE ADDITIONAL RAIN GARDEN FACILITY SEQUENCING, INSTALLATION AND MAINTENANCE & INSPECTION NOTES PROVIDED ON THE POST CONSTRUCTION STORMWATER MANAGEMENT PLANS FOR CONSTRUCTION OF THE RAIN GARDEN. **THE PERMITTEE SHALL PROVIDE ENGINEERING OVERSIGHT FOR THE CONSTRUCTION OF THE RAIN GARDEN. A LICENSED PROFESSIONAL OR DESIGNEE KNOWLEDGEABLE IN THE DESIGN AND CONSTRUCTION OF RAIN GARDENS, SHALL CONDUCT THE OVERSIGHT.** NO CONSTRUCTION EQUIPMENT, SUCH AS CRANES DURING BUILDING CONSTRUCTION, SHALL BE PARKED ON TOP OF THE RAIN GARDEN TO AVOID DAMAGING THE RAIN GARDEN OR OVER-COMPACTING THE SUBSURFACE SOILS.
9. **CRITICAL STAGE: INSTALL DETENTION BASIN.** INITIATE STORM SEWER AND SUBSURFACE DETENTION BASIN INSTALLATION FOR THE FEATURES SHOWN ON THE PLANS STARTING AT THE FURTHEST DOWNSTREAM STRUCTURE. SEE ADDITIONAL DETENTION FACILITY SEQUENCING, INSTALLATION AND MAINTENANCE & INSPECTION NOTES PROVIDED ON THE POST CONSTRUCTION STORMWATER MANAGEMENT PLANS FOR CONSTRUCTION OF THE SUBSURFACE DETENTION BASIN. **THE PERMITTEE SHALL PROVIDE ENGINEERING OVERSIGHT FOR THE CONSTRUCTION OF THE SUBSURFACE DETENTION BASIN. A LICENSED PROFESSIONAL OR DESIGNEE KNOWLEDGEABLE IN THE DESIGN AND CONSTRUCTION OF SUBSURFACE DETENTION BASINS, SHALL CONDUCT THE OVERSIGHT.** INLETS DISCHARGING TO SUBSURFACE DETENTION BASIN MUST BE BLOCKED IMMEDIATELY AFTER INSTALLATION AND REMAIN BLOCKED UNTIL SITE IS FULLY STABILIZED TO PREVENT SEDIMENT FROM ENTERING THE SUBSURFACE DETENTION BASIN. NO CONSTRUCTION EQUIPMENT, SUCH AS CRANES DURING BUILDING CONSTRUCTION, SHALL BE PARKED ON TOP OF THE SUBSURFACE BASINS TO AVOID DAMAGING THE SUBSURFACE BASINS OR OVER-COMPACTING THE SUBSURFACE SOILS.
10. CONTINUE WITH THE BALANCE OF EARTHWORK INCLUDING UTILITY INSTALLATION (SANITARY, ELECTRIC, TELEPHONE, CABLE AND GAS) WHERE APPLICABLE FOR BUILDINGS "#1" AND "#2".
11. INSTALL ALL CURBING SHOWN IN THIS PHASE FOR BUILDINGS "#1" AND "#2" AND INSTALL STONE BASE COURSE IN THE DRIVEWAY AND PARKING AREAS FOR BUILDINGS "#1" AND "#2".
12. INITIATE FINAL GRADING AND PLACEMENT OF TOPSOIL IN LANDSCAPE AREAS FOR BUILDINGS "#1" AND "#2". **CRITICAL STAGE: INSTALL AMENDED SOILS.** AS SOON AS SLOPES, CHANNELS, DITCHES AND OTHER DISTURBED AREAS REACH FINAL GRADE, THEY MUST BE STABILIZED. ALL LANDSCAPE AREAS MUST BE STABILIZED AND PERMANENT SEEDING OR PLACEMENT OF SOD MUST BE APPLIED. WHEN FINAL GRADE IS ACHIEVED DURING NON-GERMINATING MONTHS, THE AREA SHOULD BE MULCHED UNTIL THE BEGINNING OF THE NEXT PLANTING SEASON. HOWEVER, THE AREA WILL NOT BE CONSIDERED STABILIZED UNTIL A MINIMUM UNIFORM 70% VEGETATIVE COVER OF EROSION RESISTANT PERENNIAL SPECIES HAS BEEN ACHIEVED. AS DISTURBED AREAS WITHIN A PROJECT APPROACH FINAL GRADE, PREPARATIONS SHOULD BE MADE FOR SEEDING AND MULCHING TO BEGIN (I.E. ANTICIPATE THE COMPLETION DATE AND SCHEDULE THE SEEDER). IN NO CASE SHOULD AN AREA EXCEEDING 15,000 SQUARE FEET, WHICH IS TO BE STABILIZED BY VEGETATION, REACH FINAL GRADE WITHOUT BEING SEEDED AND MULCHED. WAITING UNTIL EARTHMOVING IS COMPLETED BEFORE MAKING PREPARATIONS FOR SEEDING AND MULCHING IS NOT ACCEPTABLE. SEEDING AND MULCHING REQUIREMENTS ARE SPECIFIED IN THE GENERAL CONSERVATION NOTES AND SPECIFICATIONS.
13. INSTALL BITUMINOUS PAVEMENT AND CONCRETE INCLUDING SIDEWALKS AROUND BUILDINGS "#1" AND "#2". **CRITICAL STAGE: INSTALL POROUS PAVEMENT IN PARKING AREAS FOR BUILDINGS "#1" AND "#2" AS INDICATED ON THE POST-CONSTRUCTION STORMWATER MANAGEMENT PLAN. THE PERMITTEE SHALL PROVIDE ENGINEERING OVERSIGHT FOR THE CONSTRUCTION OF THE POROUS PAVEMENT. A LICENSED PROFESSIONAL OR DESIGNEE KNOWLEDGEABLE IN THE DESIGN AND CONSTRUCTION OF POROUS PAVEMENT, SHALL CONDUCT THE OVERSIGHT.**
14. **CRITICAL STAGE: INSTALL NATIVE SPECIES AND LANDSCAPING SPECIFIED ON THE LANDSCAPE PLAN.**
15. UPON SITE STABILIZATION (UNIFORM COVERAGE OR DENSITY OF 70% ACROSS ALL DISTURBED AREAS) AND NOTIFICATION OF THE CHESTER COUNTY CONSERVATION DISTRICT, REMOVE REMAINING EROSION AND SEDIMENT CONTROL FACILITIES. ANY AREA DISTURBED DURING THE REMOVAL OF EROSION AND SEDIMENT CONTROL FACILITIES SHALL BE STABILIZED IMMEDIATELY.
16. CLEAR SITE OF DEBRIS AND ALL UNWANTED MATERIALS. OPERATOR SHALL REMOVE FROM SITE, RECYCLE OR DISPOSE OF ALL BUILDING MATERIALS AND WASTES IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 260.1 ET SEQ., 271.1 ET SEQ. THE CONTRACTOR SHALL NOT ILLEGALLY BURY, DUMP OR DISCHARGE ANY BUILDING MATERIAL OR WASTE AT THIS SITE.
17. DEMOBILIZE.
18. A NOTICE OF TERMINATION FORM SHOULD BE SUBMITTED TO THE CHESTER COUNTY CONSERVATION DISTRICT UPON STABILIZATION AND FINAL COMPLETION OF THIS PROJECT.

DEFINITION OF CLEAN FILL AND IMPORT/EXPORT MATERIAL NOTES

TO COMPLY WITH SECTION C.3 OF NOI

IF THE SITE WILL NEED TO IMPORT OR EXPORT MATERIAL FROM THE SITE, THE RESPONSIBILITY FOR PERFORMING ENVIRONMENTAL DUE DILIGENCE AND DETERMINATION OF CLEAN FILL WILL REST WITH THE APPLICANT.

1.) CLEAN FILL IS DEFINED AS: UNCONTAMINATED, NON-WATER SOLUBLE, NON-DECOMPOSABLE, INERT, SOLID MATERIAL. THE TERM INCLUDES SOIL ROCK, STONE, DREDGED MATERIAL, USED ASPHALT, AND BRICK, BLOCK OR CONCRETE FROM CONSTRUCTION AND DEMOLITION ACTIVITIES THAT IS SEPARATE FROM OTHER WASTE AND IS RECOGNIZABLE AS SUCH. THE TERM DOES NOT INCLUDE MATERIALS PLACED IN OR ON THE WATERS OF THE COMMONWEALTH UNLESS OTHERWISE AUTHORIZED. (THE TERM "USED ASPHALT" DOES NOT INCLUDE MILLED ASPHALT OR ASPHALT THAT HAS BEEN PROCESSED FOR RE-USE).

2.) CLEAN FILL AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE: FILL MATERIALS AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE STILL QUALIFIES AS CLEAN FILL PROVIDED THE TESTING REVEALS THAT THE FILL MATERIAL CONTAINS CONCENTRATIONS OF REGULATED SUBSTANCES THAT ARE BELOW THE RESIDENTIAL LIMITS IN TABLES FP-1A AND FP-1B FOUND IN THE DEPARTMENT'S POLICY "MANAGEMENT OF FILL".

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

GENERAL CONSERVATION NOTES AND SPECIFICATIONS

I. GENERAL INFORMATION

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

II. STANDARD FOR LAND GRADING

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

III. STANDARD FOR UTILITY TRENCH EXCAVATION

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

IV. STANDARD FOR TEMPORARY STABILIZATION

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

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

C. SEEDING: SEE SEEDING SPECIFICATIONS

V. STANDARD FOR PERMANENT STABILIZATION

A. SPECIFICATION FOR SEEDING & SOIL TREATMENT FOR PERMANENT VEGETATIVE COVER
1. SITE PREPARATION
A. GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION AND MONITORING, AND MAINTENANCE.
B. SUBSOIL SHOULD BE TESTED FOR LIME REQUIREMENT AND LIMESTONE, IF NEEDED, SHOULD BE APPLIED TO BRING SOIL PH TO BETWEEN 5.5 AND 7 AND INCORPORATED INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES.
C. IMMEDIATELY PRIOR TO TOPSOIL DISTRIBUTION, THE SURFACE SHOULD BE SCARIFIED OR OTHERWISE LOOSENED TO A DEPTH OF 3-5 INCHES TO PROVIDE A GOOD BOND WITH THE TOPSOIL.
2. APPLYING TOPSOIL
A. TOPSOIL SHOULD BE HANDLED ONLY WHEN IT IS DRY ENOUGH TO WORK WITHOUT DAMAGING SOIL STRUCTURE.
B. ALL DISTURBED TOPSOIL ON-SITE IS TO BE REDISTRIBUTED ON-SITE IN AREAS NOT COVERED BY IMPERVIOUS SURFACES. NO REMOVAL OF TOPSOIL IS ALLOWED UNLESS APPROVED BY THE TOWNSHIP. UNIFORM APPLICATION TO A DEPTH OF 6-8 INCHES (UNSETTLED) IS RECOMMENDED. SOILS WITH A PH OF 4.0 OR LESS OR CONTAINING IRON SULFIDE SHALL BE COVERED WITH A MINIMUM DEPTH OF 12 INCHES OF SOIL HAVING A PH OF 5.0 OR MORE.
3. SEEDBED PREPARATION
A. A SOIL TEST SHALL BE CONDUCTED TO ACCURATELY DETERMINE NECESSARY SOIL AMENDMENTS.
B. PERFORM ALL CULTURAL OPERATIONS AT RIGHT ANGLES TO SLOPE.
C. SOIL MODIFICATIONS:
1. APPLY 10-10-20 RATED FERTILIZER AT A RATE OF 1000 POUNDS PER ACRE OR 25 POUNDS PER 1000 SQUARE FEET, OR AS DIRECTED BY SOIL TEST.
2. APPLY AGRICULTURAL LIME AT A RATE OF 6 TONS PER ACRE OR 240 POUNDS PER 1000 SQUARE FEET, OR AS DIRECTED BY SOIL TEST.
D. WORK LIME AND FERTILIZER INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES CONTINUE TILLAGE UNTIL A REASONABLY UNIFORM FINE SEEDBED IS PREPARED.
E. REMOVE FROM THE SURFACE ALL STONES ONE INCH (1") OR LARGER IN ANY DIMENSION. REMOVE ALL OTHER DEBRIS, SUCH AS WIRE, CABLE, TREE ROOTS, PIECES OF CONCRETE, CLODS, LUMPS OR OTHER UNSUITABLE MATERIAL.
F. INSPECT SEEDBED JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED, THE AREA MUST BE RE-TILLED AND FIRMED AS ABOVE.
4. SEEDING: SEE SEEDING SPECIFICATIONS
5. SEED BED AREAS SHALL ALSO BE STABILIZED USING AN APPROVED METHOD (EG: HYDROMULCHING) AS OUTLINED IN ITEM IV.A. HEREIN.

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

SEEDING SPECIFICATIONS

1. SEEDING DATES
A. SEEDING SHALL OCCUR BETWEEN MARCH 1ST AND MAY 15TH OR BETWEEN AUGUST 15TH AND NO LATER THAN OCTOBER 15TH.
B. IF SEEDING CANNOT BE CONDUCTED DURING THE TIMEFRAMES NOTED ABOVE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE LOCAL CONSERVATION DISTRICT AND ALL APPROPRIATE AGENCIES TO DETERMINE AN ACCEPTABLE MEANS IN WHICH TO STABILIZE THE SITE THROUGH THE NEXT GROWING SEASON.
2. SEED MIXTURES: SEED MIXTURE TO BE USED ON THIS SITE SHALL CONSIST OF THE FOLLOWING UNLESS OTHERWISE NOTED ON THE PLANS. RATES ARE IN THE FORM OF POUNDS PER ACRE (LB/A) PER PURE LIVE SEED (POUNDS / ACRE PLS). CONTRACTOR WILL NEED TO ADJUST ACCORDINGLY BASED ON THE SEED GERMINATION AND PURITY RATING (SEE ITEM #3 BELOW).
A. TEMPORARY SEED MIXTURES: DISTURBED AREAS WHICH ARE NOT AT FINISHED GRADE AND WHICH WILL BE DISTURBED AGAIN WITHIN TWELVE (12) MONTHS MUST BE SEEDED WITH A TEMPORARY SEED MIXTURE AS FOLLOWS:
ANNUAL RYE (40 POUNDS / ACRE PLS)
OR SPRING OATS (96 POUNDS / ACRE PLS)
OR WINTER RYE (168 POUNDS / ACRE PLS)
(REFERENCE: PENN STATE "EROSION CONTROL & CONSERVATION PLANTINGS ON NONCROPLAND", TABLE 5)
B. PERMANENT SEEDING SHALL CONSIST OF A NURSE CROP PLUS A PERMANENT SEED MIXTURE, AS FOLLOWS:
I. NURSE CROP (SELECT ONE):
ANNUAL RYE (10 POUNDS / ACRE PLS)
OR SPRING OATS (64 POUNDS / ACRE PLS)
OR WINTER RYE (56 POUNDS / ACRE PLS)
(REFERENCE: PA DEP EROSION AND SEDIMENT CONTROL PROGRAM MANUAL, LATEST EDITION, TABLE 11.4, SEED MIX #1)
II. PERMANENT SEED MIX:
TALL FESCUES (64 POUNDS / ACRE PLS)
OR FINE FESCUE (35 POUNDS / ACRE PLS)
OR KENTUCKY BLUEGRASS (25 POUNDS / ACRE PLS) PLUS REDTOP (3 POUNDS / ACRE PLS)
OR PERENNIAL RYEGRASS (15 POUNDS / ACRE PLS)
(REFERENCE: PA DEP EROSION AND SEDIMENT CONTROL PROGRAM MANUAL, LATEST EDITION, TABLE 11.4, SEED MIX #2)
3. PURE LIVE SEED:
A. SEED USED FOR THE PURPOSE OF PERMANENT STABILIZATION SHALL BE LABELED WITH GERMINATION AND PURITY PERCENTAGES. UNLABELED SEED WILL BE REJECTED. SEED SHALL NOT BE USED MORE THAN ONE (1) YEAR BEYOND THE LABEL DATE.
B. DETERMINING THE PERCENT PURE LIVE SEED (PERCENT PLS) OF A LABELED SEED: MULTIPLY BY THE PERCENTAGE OF PURE SEED BY THE PERCENTAGE OF GERMINATION AND DIVIDE THE RESULT BY 100 ((%PURE X %GERMINATION) / 100)
C. DETERMINING THE ACTUAL SEED RATE: SIMPLY DIVIDE THE PERCENT PLS RATING OF THE SEED INTO THE PLS REQUIRED, AS NOTED ABOVE. THE RESULT IS THE POUNDS OF SEED REQUIRED. FOR EXAMPLE: IF THE REQUIRED RATE IS 64 POUNDS PLS, AND THE SEED IS RATED AT 35% PLS, DIVIDE 64 BY 0.35 TO GET 182.9 POUNDS, WHICH IS THE AMOUNT OF THAT SEED REQUIRED PER ACRE.
4. APPLICATION OF SEED: SEEDING SHALL BE APPLIED AND ESTABLISHED IN ACCORDANCE WITH THE "EROSION AND SEDIMENT POLLUTION CONTROL PROGRAM MANUAL" AS PUBLISHED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION BUREAU OF WATER QUALITY PROTECTION (MOST RECENT EDITION).
A. SEED SHALL BE APPLIED IN A NON-COMPACTED, ROUGHENED TOPSOIL.
B. SEED MAY BE APPLIED THROUGH ANY OF THE FOLLOWING MEANS AND METHODS, OR OTHER ACCEPTED INDUSTRY PRACTICES, UNLESS SPECIFICALLY NOTED OTHERWISE ON THESE PLANS:
I. DRILL SEEDING
II. BROADCAST SEEDING (TWO DIRECTIONS)
III. HYDROSEEDING (TWO DIRECTIONS)
C. ALL SEED SHALL BE TEMPORARILY OR PERMANENTLY STABILIZED UNTIL A 70% PERENNIAL COVER IS ACHIEVED:
I. TEMPORARY STABILIZATION WITH STRAW:
1. STRAW MULCH SHALL BE APPLIED ON TOP OF THE FRESHLY SEEDED AREAS AT A RATE OF 3 TONS PER ACRE (4 TONS PER ACRE BETWEEN NOVEMBER 1ST AND MARCH 1ST).
2. STRAW SHALL BE STABILIZED WITH A WOOD OR PAPER FIBER MULCH AND TACKIFIER SOLUTION IN ACCORDANCE WITH THE PRODUCT MANUFACTURER'S SPECIFICATIONS.
II. TEMPORARY/PERMANENT STABILIZATION WITH EROSION CONTROL MATTING/BLANKETS (WHERE SPECIFIED):
1. MATTING/BLANKETS SHALL BE INSTALLED IN AREAS AS NOTED ON THE EROSION & SEDIMENT CONTROL PLAN OR WITHIN 50 FEET OF PONDS, STREAMS OR WETLANDS. THE PRODUCT SHALL BE INSTALLED AND STAPLED ON TOP OF THE SEEDING IN ACCORDANCE WITH MANUFACTURER SPECIFICATIONS.
2. AREAS WITH MATTING/BLANKETS SHALL NOT BE TRACKED (CATWALKED) AFTER INSTALLATION.
3. MATTING/BLANKETS SHALL BE VISUALLY INSPECTED DAILY TO ENSURE THAT THE PRODUCT IS FUNCTIONING PROPERLY, IS HELD FAST TO THE SOIL SURFACE AND IS IN GOOD CONDITION.
D. ONCE SEED HAS BEEN SET, VEHICULAR TRAFFIC OR OTHER SOURCES OF COMPACTION SHALL BE AVOIDED
5. IRRIGATION: NEW SEED APPLICATIONS SHOULD BE SUPPLIED WITH ADEQUATE WATER, A MINIMUM OF ½" TWICE A DAY, UNTIL VEGETATION IS WELL ESTABLISHED (A MINIMUM OF 75% COVER).

GENERAL TREE PROTECTION NOTES

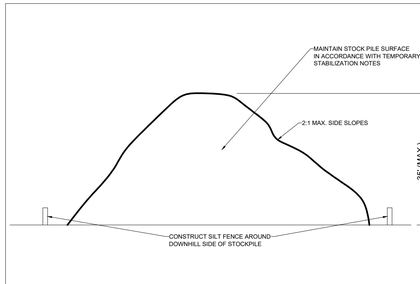
1. TREE PROTECTION ZONES SHALL BE ESTABLISHED AROUND ALL EXISTING TREES THAT SHALL REMAIN, AS SHOWN ON THIS PLAN. NO MACHINE OR FOOT TRAFFIC NOR STORAGE OF MATERIALS SHALL BE PERMITTED WITHIN THE TREE PROTECTION ZONE.

2. THE TREE PROTECTION ZONE SHALL BE ENCLOSED WITH A WOOD & WIRE SNOW FENCE OR HIGH VISIBILITY FENCE TO KEEP EQUIPMENT AND FOOT TRAFFIC AS FAR AWAY FROM THE EXISTING TREES AS POSSIBLE.

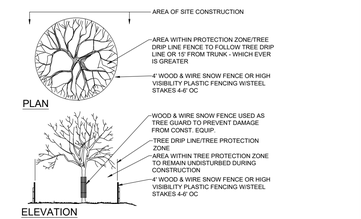
3. TREE PROTECTION FENCE SHALL BE INSPECTED AND APPROVED BY THE TOWNSHIP PRIOR TO COMMENCEMENT OF CLEARING AND CONSTRUCTION ACTIVITIES. THE GENERAL CONTRACTOR SHALL INSPECT AND REPAIR DAILY.

4. IT IS RECOMMENDED THAT A QUALIFIED ARBORIST BE RETAINED THROUGHOUT CONSTRUCTION TO MONITOR THE HEALTH OF THE TREES IN QUESTION, TO OVERSEE ROOT PRUNING AND TO ENFORCE ALL TREE PROTECTION MEASURES.

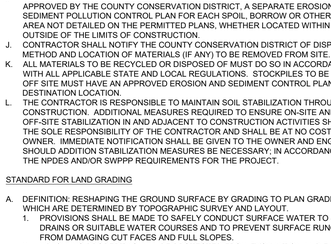
5. TREE PROTECTION FENCING SHALL REMAIN UNTIL EARTH MOVING HAS BEEN COMPLETED.



X-8 TEMPORARY SOIL STOCKPILE DETAIL
NOT TO SCALE



X-11 TREE PROTECTION DURING SITE CONSTRUCTION
NOT TO SCALE



* MOUNTABLE BERM USED TO PROVIDE PROPER COVER FOR PIPE

NOTES:

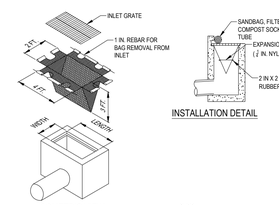
REMOVE TOPSOIL PRIOR TO INSTALLATION OF ROCK CONSTRUCTION ENTRANCE. EXTEND ROCK OVER FULL WIDTH OF ENTRANCE.

RUNOFF SHALL BE DIVERTED FROM ROADWAY TO A SUITABLE SEDIMENT REMOVAL BMP PRIOR TO ENTERING ROCK CONSTRUCTION ENTRANCE.

MOUNTABLE BERM SHALL BE INSTALLED WHEREVER OPTIONAL CULVERT PIPE IS USED AND PROPER PIPE COVER AS SPECIFIED BY MANUFACTURER IS NOT OTHERWISE PROVIDED. PIPE SHALL BE SIZED APPROPRIATELY FOR SIZE OF DITCH BEING CROSSED.

MAINTENANCE: ROCK CONSTRUCTION ENTRANCE THICKNESS SHALL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK. A STOCKPILE SHALL BE MAINTAINED ON SITE FOR THIS PURPOSE. ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE IMMEDIATELY. IF EXCESSIVE AMOUNTS OF SEDIMENT ARE BEING DEPOSITED ON ROADWAY, EXTEND LENGTH OF ROCK CONSTRUCTION ENTRANCE BY 50 FOOT INCREMENTS UNTIL CONDITION IS ALLEVIATED OR INSTALL WASH RACK. WASHING THE ROADWAY OR SWEEPING THE DEPOSITS INTO ROADWAY DITCHES, SEWERS, CULVERTS, OR OTHER DRAINAGE COURSES IS NOT ACCEPTABLE.

STANDARD CONSTRUCTION DETAIL #3-1
ROCK CONSTRUCTION ENTRANCE
NOT TO SCALE



NOTES:

MAXIMUM DRAINAGE AREA = 1/2 ACRE.

INLET PROTECTION SHALL NOT BE REQUIRED FOR INLET TRIBUTARY TO SEDIMENT BASIN OR TRAP. BERMS SHALL BE REQUIRED FOR ALL INSTALLATIONS.

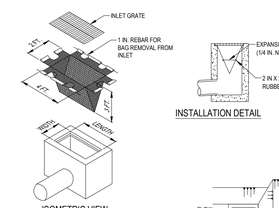
ROLLED EARTHEN BERM SHALL BE MAINTAINED UNTIL ROADWAY IS STONED. ROAD SUBBASE BERM SHALL BE MAINTAINED UNTIL ROADWAY IS PAVED. SIX INCH MINIMUM HEIGHT ASPHALT BERM SHALL BE MAINTAINED UNTIL ROADWAY SURFACE RECEIVES FINAL COAT.

AT A MINIMUM, THE FABRIC SHALL HAVE A MINIMUM GRAB TENSILE STRENGTH OF 120 LBS, A MINIMUM BURST STRENGTH OF 200 PSI, AND A MINIMUM TRAPEZOIDAL TEAR STRENGTH OF 50 LBS. FILTER BAGS SHALL BE CAPABLE OF TRAPPING ALL PARTICLES NOT PASSING A NO. 40 SIEVE.

INLET FILTER BAGS SHALL BE INSPECTED ON A WEEKLY BASIS AND AFTER EACH RUNOFF EVENT. BAGS SHALL BE EMPTIED AND RINSED OR REPLACED WHEN HALF FULL OR WHEN FLOW CAPACITY HAS BEEN REDUCED SO AS TO CAUSE FLOODING OR BYPASSING OF THE INLET. DAMAGED OR CLOGGED BAGS SHALL BE REPLACED. A SUPPLY SHALL BE MAINTAINED ON SITE FOR REPLACEMENT OF BAGS. ALL NEEDED REPAIRS SHALL BE INITIATED IMMEDIATELY AFTER THE INSPECTION. DISPOSE ACCUMULATED SEDIMENT AS WELL AS ALL USED BAGS ACCORDING TO THE PLAN NOTES.

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

STANDARD CONSTRUCTION DETAIL #4-15
FILTER BAG INLET PROTECTION - TYPE C INLET
NOT TO SCALE



NOTES:

MAXIMUM DRAINAGE AREA = 1/2 ACRE.

INLET PROTECTION SHALL NOT BE REQUIRED FOR INLET TRIBUTARY TO SEDIMENT BASIN OR TRAP. BERMS SHALL BE REQUIRED FOR ALL INSTALLATIONS.

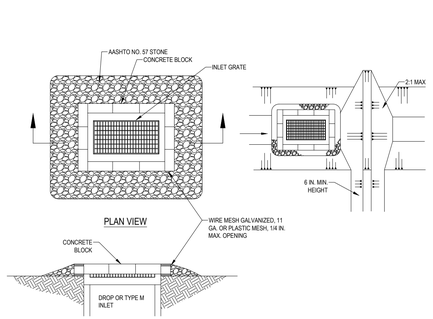
ROLLED EARTHEN BERM IN ROADWAY SHALL BE MAINTAINED UNTIL ROADWAY IS STONED. ROAD SUBBASE BERM ON ROADWAY SHALL BE MAINTAINED UNTIL ROADWAY IS PAVED. EARTHEN BERM IN CHANNEL SHALL BE MAINTAINED UNTIL PERMANENT STABILIZATION IS COMPLETED OR REMAIN PERMANENTLY.

AT A MINIMUM, THE FABRIC SHALL HAVE A MINIMUM GRAB TENSILE STRENGTH OF 120 LBS., A MINIMUM BURST STRENGTH OF 200 PSI, AND A MINIMUM TRAPEZOIDAL TEAR STRENGTH OF 50 LBS. FILTER BAGS SHALL BE CAPABLE OF TRAPPING ALL PARTICLES NOT PASSING A NO. 40 SIEVE.

INLET FILTER BAGS SHALL BE INSPECTED ON A WEEKLY BASIS AND AFTER EACH RUNOFF EVENT. BAGS SHALL BE EMPTIED AND RINSED OR REPLACED WHEN HALF FULL OR WHEN FLOW CAPACITY HAS BEEN REDUCED SO AS TO CAUSE FLOODING OR BYPASSING OF THE INLET. DAMAGED OR CLOGGED BAGS SHALL BE REPLACED. A SUPPLY SHALL BE MAINTAINED ON SITE FOR REPLACEMENT OF BAGS. ALL NEEDED REPAIRS SHALL BE INITIATED IMMEDIATELY AFTER THE INSPECTION. DISPOSE ACCUMULATED SEDIMENT AS WELL AS ALL USED BAGS ACCORDING TO THE PLAN NOTES.

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

STANDARD CONSTRUCTION DETAIL #4-16
FILTER BAG INLET PROTECTION - TYPE M INLET
NOT TO SCALE



NOTES:

MAXIMUM DRAINAGE AREA =1 ACRE.

INLET PROTECTION SHALL NOT BE REQUIRED FOR INLET TRIBUTARY TO SEDIMENT BASIN OR TRAP. BERMS SHALL BE REQUIRED FOR ALL INSTALLATIONS NOT LOCATED AT A LOW POINT.

ROLLED EARTHEN BERM IN ROADWAY SHALL BE PROVIDED AND MAINTAINED IMMEDIATELY DOWN GRADIEN

POST CONSTRUCTION STORMWATER PLANNING AND DESIGN

THE FOLLOWING MEASURES WERE TAKEN TO PRESERVE THE INTEGRITY OF STREAM CHANNELS AND MAINTAIN AND PROTECT THE PHYSICAL, BIOLOGICAL, AND CHEMICAL QUALITIES OF THE RECEIVING STREAM:

- DIRECT RUNOFF FROM IMPERVIOUS SURFACES INCLUDING PARKING AREAS TO BMPS
- THE USE OF NATIVE SPECIES REQUIRES LESS FERTILIZATION AND CHEMICAL APPLICATION THAN NONNATIVE SPECIES
- THE USE OF SOIL AMENDMENT RESTORES SOIL POROSITY THROUGH TILLING AND COMPOSTING TO IMPROVE THE SOIL'S CAPACITY FOR INFILTRATION AND POLLUTANT REMOVAL

THE FOLLOWING MEASURES WERE TAKEN TO PREVENT AN INCREASE IN THE RATE OF STORM WATER RUNOFF:

- DIRECT RUNOFF TO AN UNDERGROUND DETENTION BASIN TO CONTROL RUNOFF RATES
- PROVIDE A RAIN GARDEN TO HELP REDUCE RUNOFF RATES
- MINIMIZE IMPERVIOUS AREAS WHERE PRACTICAL

THE FOLLOWING MEASURES WERE TAKEN TO MINIMIZE ANY INCREASE IN STORM WATER RUNOFF VOLUME:

- PROVIDE A RAIN GARDEN TO HELP REDUCE RUNOFF VOLUME
- PROVIDE AMENDED SOILS THROUGHOUT THE SITE TO HELP REDUCE RUNOFF VOLUME
- MINIMIZE IMPERVIOUS AREAS WHERE PRACTICAL

THE FOLLOWING MEASURES WERE TAKEN TO MINIMIZE IMPERVIOUS AREAS:

- ONLY PROVIDE SIDEWALK WHERE NECESSARY.

THE FOLLOWING MEASURES ARE TAKEN TO MAXIMIZE PROTECTION OF EXISTING DRAINAGE FEATURES AND VEGETATION:

- ACCESS THE SITE THROUGH DESIGNATED CONSTRUCTION ENTRANCE
- PROTECT EXISTING TREES AND VEGETATION WHERE PRACTICAL

THE FOLLOWING MEASURES WERE TAKEN TO MINIMIZE LAND CLEARING AND GRADING:

- PROTECT EXISTING TREES AND VEGETATION WHERE PRACTICAL

THE FOLLOWING MEASURES ARE TAKEN TO MINIMIZE SOIL COMPACTION:

- ACCESS THE SITE THROUGH DESIGNATED CONSTRUCTION ENTRANCE
- USE OF TREADED MACHINERY WHERE PRACTICAL DURING EARTHMOVING OPERATIONS
- GRADE SITE TO MINIMIZE EXTENT OF CUTS/FILLS

THE FOLLOWING MEASURES WERE TAKEN TO UTILIZE OTHER STRUCTURAL OR NONSTRUCTURAL BMPS THAT PREVENT OR MINIMIZE CHANGES IN STORM WATER RUNOFF:

- DIRECT RUNOFF TO AN UNDERGROUND DETENTION BASIN TO CONTROL RUNOFF RATES
- PROVIDE A RAIN GARDEN TO HELP REDUCE RUNOFF VOLUME
- PROVIDE AMENDED SOILS THROUGHOUT THE SITE TO HELP REDUCE RUNOFF VOLUME MINIMIZE IMPERVIOUS AREAS WHERE PRACTICAL

RESPONSIBLE PARTIES

THE PROPERTY OWNER SHALL BE RESPONSIBLE FOR ALL STORMWATER MANAGEMENT FACILITY OPERATIONS AND MAINTENANCE. THIS INCLUDES THE CURRENT PROPERTY OWNER LISTED BELOW AND ANY SUCCESSORS.

113 CORPORATION
940 HAVERFORD ROAD, SUITE 102
HAVERFORD, PA 19010

RECEIVING WATERS

STORMWATER FROM THIS SITE DISCHARGES INTO AN UNNAMED TRIBUTARY TO FRENCH CREEK, WHICH HAS A TSF, CHAPTER 93 CLASSIFICATION.

SOIL POTENTIAL LIMITIONS AND RESOLUTIONS

1. SHOULD GROUNDWATER BE ENCOUNTERED DURING FOUNDATION OR UTILITY EXCAVATIONS, WATER SHALL BE PUMPED FROM TRENCH INTO FILTER BAG.
2. DUE TO GRADING LIMITATIONS OF SOILS DURING WINTER MONTHS, THE CONTRACTOR SHALL NOT GRADE THESE SOILS DURING FROSTING OR ICING CONDITIONS.
3. SHOULD BEDROCK BE ENCOUNTERED DURING FOUNDATION OR UTILITY EXCAVATION, ROCK SHALL BE REMOVED AND DISPOSED OF IN A LEGAL MANNER
4. SOIL TEST(S) SHOULD BE PERFORMED TO DETERMINE SOIL SUITABILITY FOR TOP SOIL IF SOIL IS DETERMINED TO BE UNSUITABLE THEN TOPSOIL SHALL BE IMPORTED AND DISTRIBUTED THROUGHOUT THE SITE AS REQUIRED.

TABLE 4
CASED BOREHOLE INFILTRATION TEST RESULTS

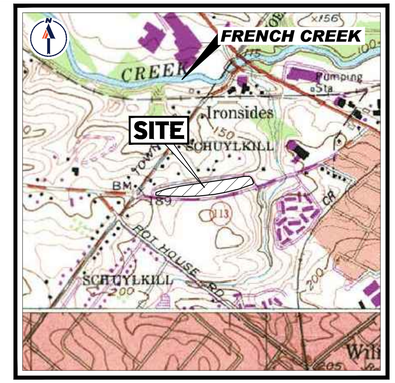
Infiltration Test Designation	Ground Surface Elevation (ft)	[1.] Infiltration Test Depth (ft)	Test Interval (min)	Final Drop in Water Level (in)	[2.] Infiltration Rate (in/hr)
P-1	179.8	7.0	30	0.0	0.0
P-2	179.4	6.3	30	0.0	0.0
P-3	179.2	-	-	-	-
P-4	178.0	-	-	-	-

[1.] Infiltration depths were measured from existing site grades at the time of the investigation.
[2.] The infiltration rates are field measured values and do not include a factor of safety for design purposes.

LANDSCAPE SCHEDULE

KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS
SHADE TREE(S)					
CCA	18	CARPINUS CAROLINIANA	AMERICAN HORNBEAM	2 1/2-3" CAL.	B+B
GTIK	10	GLEDITSIA TRIACANTHOS INTERMIS 'SKYCOLE'	SKYLINE THORNLESS HONEYLOCUST	2 1/2-3" CAL.	B+B
QPH	18	QUERCUS PHELLOS	WILLOW OAK	2 1/2-3" CAL.	B+B
TCG	17	TILIA CORDATA 'GREENSPIRE'	GREENSPIRE LINDEN	2 1/2-3" CAL.	B+B
	63				
ORNAMENTAL TREE(S)					
AG	15	ACER GINNALA	AMUR MAPLE	2" CAL.	B+B
OA	11	OXYDENDRUM ARBOREA	SOURWOOD	2" CAL.	B+B
PSCS	12	PRUNUS SARGENTII 'COLUMNARIS'	COLUMNAR SARGENT CHERRY	2-2 1/2" CAL.	B+B
	38				
EVERGREEN SHRUB(S)					
ICC	94	ILEX CRENATA 'COMPACTA'	COMPACT JAPANESE HOLLY	30" MIN.	CONTAINER
IGS	141	ILEX GLABRA 'SHAMROCK'	SHAMROCK INKBERRY HOLLY	30" MIN.	CONTAINER
JCHC	34	JUNIPERUS CHINENSIS 'HETZII COLUMNARIS'	COLUMNAR HETZ JUNIPER	6' MIN.	B+B
JCSG	15	JUNIPERUS CHINENSIS 'SEA GREEN'	SEA GREEN JUNIPER	30" SPRD. MIN.	B+B
	284				
DECIDUOUS SHRUB(S)					
CA	9	CLETHRA ALNIFOLIA	SUMMERSWEET CLETHRA	30" MIN.	CONTAINER
CS	16	CORNUS SERICEA	RED OSIER DOGWOOD	30" MIN.	B+B
FXI	35	FORSYTHIA X INTERMEDIA 'SPECTABILIS'	SHOWY BORDER FORSYTHIA	3-4'	B+B
IV	123	ITEA VIRGINICA 'HENRY'S GARNET'	GARNET SWEETSPIRE	30" MIN.	CONTAINER
IVAW	33	ILEX VERTICILLATA 'AFTERGLOW WINTERBERRY'	AFTERGLOW WINTERBERRY	30-36"	CONTAINER
IVJD	3	ILEX VERTICILLATA 'JIM DANDY WINTERBERRY'	JIM DANDY WINTERBERRY	30-36"	CONTAINER
LB	5	LINDERA BENZOIN	SPICEBUSH	30-36"	CONTAINER
VD	27	VIBURNUM DENTATUM	ARROWWOOD VIBURNUM	3-4'	B+B
	251				
GROUND COVER					
JHB	240	JUNIPERUS HORIZONTALIS 'MONBER'	ICEE BLUE JUNIPER	15-18" SPRD	CONTAINER

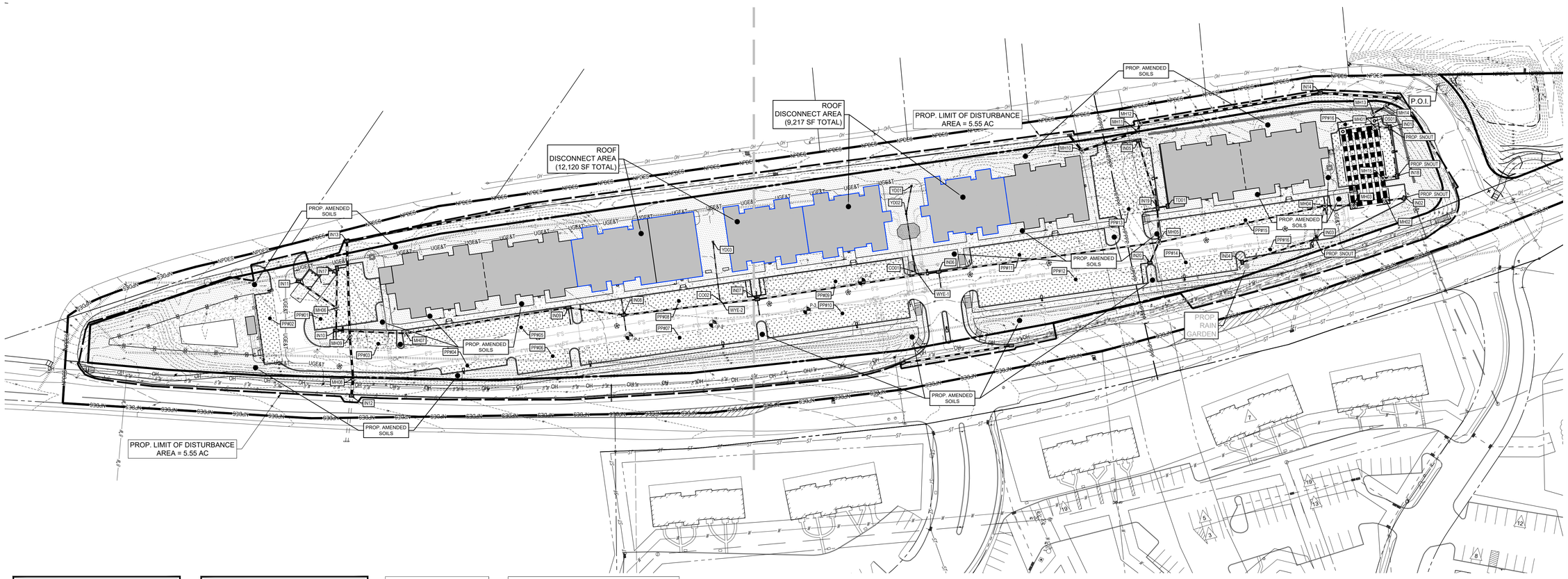
THE SHADE AND ORNAMENTAL TREES LISTED ABOVE ARE NATIVE AND/OR ADAPTED SPECIES.



USGS MAP

(PHOENIXVILLE USGS QUAD)
SCALE: 1"=1,000'

500 0 1,000



LEGEND

EXISTING

BUILDING	
RETAINING WALL	
CONCRETE CURB	
FENCE	
TREELINE	
PROPERTY LINE	
R.O.W. LINE	
ADJACENT PROPERTY LINE	
EASEMENT LINE	
SETBACK LINE	
WATERWAY LINE	
FLOODPLAIN LINE	
SOIL TYPE DELINIATION	
CONTOUR LINE	
STORM PIPE	

LEGEND

PROPOSED

BUILDING	
RETAINING WALL	
CONCRETE CURB	
FLUSH CURB	
EDGE OF PAVEMENT	
5' HIGH ALUMINUM GUARD FENCE	
POST & RAIL FENCE	
GUIDE RAIL	
CONTOUR LINE	
STORM PIPE	
INFILTRATION TEST LOCATION (APPROXIMATE)	P-1
AMENDED SOILS	
PLANTING SOIL	
POROUS PAVEMENT	

DRAINAGE AREAS

DRAINAGE AREA	AREA (ACRES)
RAIN GARDEN	0.53
DETENTION BASIN	4.32
AMENDED SOILS	1.43
POROUS PAVEMENT	0.92

SOILS LEGEND

UgB	SOILS TYPE

SOILS TABLE

SYMBOL	SOIL NAME	SLOPES
PeB	PENN SILT LOAM	3 - 8%
PeC	PENN SILT LOAM	8 - 15%
UnB	URBAN LAND-PENN COMPLEX	0 - 8%
UusB	URBAN LAND-UDORTHENTS, SHALE AND SANDSTONE COMPLEX	0 - 8%

N W E S

50 25 12.5 0 50
1"= 50'

BOHLER

SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
LAND DEVELOPMENT
PERMITTING SERVICES
TRANSPORTATION SERVICES

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REVISIONS

REV	DATE	COMMENT	DRAWN BY / CHECKED BY
1	8/04/2020	PER NPDES SUBMISSION	HH / RE
2	9/25/2020	PER BOROUGH RESUBMISSION	HH / RE

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PROJECT No.:	PC191216
DRAWN BY:	CCP
CHECKED BY:	JRH
DATE:	03/04/2020
CAD I.D.:	PC191216-SPP-2

PROJECT:

REVISED PRELIMINARY/ FINAL LAND DEVELOPMENT PLANS

FOR

113 CORPORATION

ELAND POINT CROSSING

ROUTE 113 & DAWSON DRIVE
BOROUGH OF PHOENIXVILLE
CHESTER COUNTY
PHOENIXVILLE, PA

BOHLER
1600 MANOR DRIVE, SUITE 200
CHALFONT, PA 18914
Phone: (215) 996-9100
Fax: (215) 996-9102
www.BohlerEngineering.com

JOHN R. HORNICK
COMMONWEALTH OF PENNSYLVANIA
PROFESSIONAL ENGINEER
JOHN R. HORNICK
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE No. 24GE04000000

SHEET TITLE:

POST CONSTRUCTION STORMWATER MANAGEMENT PLAN

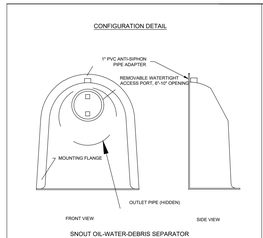
SHEET NUMBER:

C-608
20 OF 36

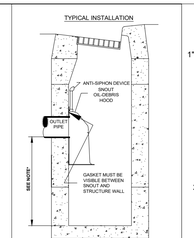
REVISION 2 - 9/25/2020

R:\PPC\191216\DRAWINGS\PLAN SETS\LAND DEVELOPMENT\REVISION 2 (BOROUGH RESUBMISSION)\PC191216-SPP-2---LAYOUT C-600 PCSWM

HH



SNOUT OIL-WATER-DEBRIS SEPARATOR

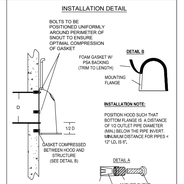


NOTE: SUMP DEPTH TO BE MIN. OF 2.5 TIMES THE OUTLET PIPE I.D. (E.G. 24" PIPE= 5' SUMP) 3' MIN FOR PIPES 12" I.D. OR LESS

INSPECTION REQUIREMENTS:

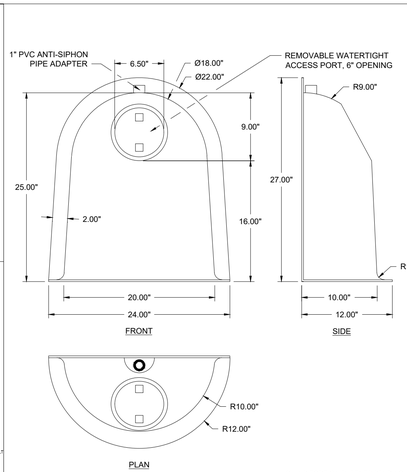
1. **MANUFACTURER:** ALL HOODS AND TRAPS FOR CATCH BASINS AND WATER QUALITY STRUCTURES SHALL BE PROVIDED BY: **BEST MANAGEMENT PRODUCTS, INC.** 53 MT. ARCHER RD. LYME, CT 06371 TOLL FREE: (800) 504-8008 OR (877) 434-3197 WEB SITE: www.bmpinc.com
2. **CONFIGURATION:** ALL HOODS SHALL BE EQUIPPED WITH A WATERTIGHT ACCESS PORT, A MOUNTING FLANGE, AND AN ANTI-SIPHON VENT AS SHOWN. (SEE CONFIGURATION DETAIL)
3. **PIPE COVERAGE:** THE SIZE OF THE HOOD SHALL PERMIT THE O.D. OF THE OUTLET PIPE TO BE COVERED COMPLETELY.
4. **HOOD POSITION:** THE BOTTOM OF THE HOOD SHALL EXTEND DOWNWARD A MINIMUM DISTANCE EQUAL TO 1/2 THE OUTLET PIPE I.D. WITH A MINIMUM DISTANCE OF 6" FOR PIPES <12" I.D. GREATER INSERTION DEPTH IS PERMISSIBLE.
5. **ANTI-SIPHON VENT:** VENT WITH ELBOW AND FEMALE ADAPTER SHALL EXTEND ABOVE HOOD BY MINIMUM OF 12" AND A MAXIMUM OF 84" ACCORDING TO STRUCTURE CONFIGURATION.
6. **MOUNTING SURFACE PREPARATION:** THE SURFACE OF THE STRUCTURE WHERE THE HOOD IS MOUNTED SHALL BE FINISHED SMOOTH AND FREE OF LOOSE MATERIAL.
7. **SNOUT/STRUCTURE INTERFACE:** THE HOOD SHALL BE SEALED VERTICALLY TO CONCRETE WALL WITH 3/8' STAINLESS STEEL BOLTS. OIL-RESISTANT GASKET AS SUPPLIED BY MANUFACTURER **MUST BE INSTALLED** TO PROVIDE PROPER SEAL. (SEE DETAIL "B").
8. **ACCESSORIES:** IF OIL BOOMS OR FLOW DEFLECTORS ARE SPECIFIED, THEY MUST BE INSTALLED AND PRESENT FOR INSPECTION.
9. **INSTALLATION INSTRUCTIONS:** INSTRUCTIONS SHALL BE FURNISHED UPON REQUEST OF INSPECTOR WITH MANUFACTURER SUPPLIED INSTALLATION KIT. INSTALLATION KIT SHALL INCLUDE:
   A. INSTALLATION INSTRUCTIONS
   B. PVC ANTI-SIPHON VENT PIPE, FEMALE ADAPTER WITH NUT, O-RING GASKETS
   C. OIL-RESISTANT CRUSHED CELL FOAM GASKET WITH PSA BACKING
   D. 3/8" STAINLESS STEEL BOLTS
   E. ANCHOR SHIELDS (SEE BELOW FOR MULTI-PART SNOUTS 39F, 49F, 54R, 96F AND SPLIT SNOUTS ONLY)
   F. STAINLESS NUTS AND BOLTS PLUS GASKET TO SECURE TOP AND BOTTOM OF SNOUT.

US Patent # 6126817 CANADIAN Patent # 2285146



INSTALLATION REQUIREMENTS FOR SNOUT HOODS INSTALLED IN STORMWATER QUALITY IMPROVEMENT STRUCTURES

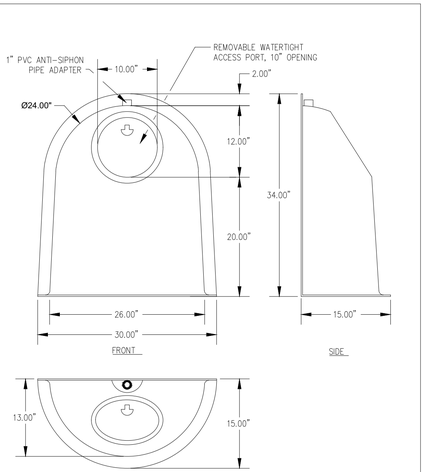
DESCRIPTION	DATE	SCALE
OIL-DEBRIS HOOD INSTALLATION REQUIREMENTS (TYPICAL)	04/13/05	NONE
	DRAWING NUMBER	
	INRQ-SN	



INLETS WITH SNOUTS:	
IN01	IN02
IN22A	

U.S. AND FOREIGN PATENTS PENDING

BMP, INC. 53 MT. ARCHER ROAD, LYME, CT. 06371 (800) 504-8008 FAX: (860)434-3195		
DESCRIPTION	DATE	SCALE
18F SNOUT OIL & DEBRIS STOP	09/14/99	NONE
	DRAWING NUMBER	
	99-0914	



U.S. AND FOREIGN PATENTS PENDING

BMP, INC. 53 MT. ARCHER ROAD, LYME, CT. 06371 (800) 504-8008 FAX: (860)434-3195		
DESCRIPTION	DATE	SCALE
24F SNOUT OIL & DEBRIS STOP	09/20/99	NONE
	DRAWING NUMBER	
	99-0920	

BEST MANAGEMENT PRODUCTS, INC.
The SNOUT® INSTALLATION INSTRUCTIONS
U.S. Patent # 6126817 Canadian Patent #2285146

PRODUCT NAME

The SNOUT® Oil-Water-Debris Separator
U. S. Patent # 6126817
Canadian Patent # 2285146

MANUFACTURER

Best Management Products, Inc.
53 Mt. Archer Rd.
Lyme CT 06371
Phone: (800) 504-8008
Fax: (410) 687-6757
E Mail: tjm@bmpinc.com, duran@bmpinc.com
Web site: http://www.bmpinc.com

PRODUCT DESCRIPTION

Basic Application: The SNOUT® Oil-Water-Debris Separator is a patented plastic composite hooded outlet cover that attaches to the wall of a stormwater catch basin or other water-quality structure over the outlet pipe in such a manner as to prevent the exit of floating debris and oil.

Composition and Materials: The SNOUT® is hand fabricated from marine grade fiberglass. The attachment hardware is 18-8 stainless steel, the anti-siphon device is schedule 40 PVC and the access hatch is ABS plastic.
These materials have proven to be extremely durable and maintenance free.
The SNOUT® is adaptable to any type catch basin construction and is available in flat or curved back styles.

INSTALLATION (Structure wall to be finished smooth, flush and free of loose material)

1. Select the SNOUT® Oil-Water-Debris Separator of size and configuration to fit application. (Our SNOUTS are numbered to reflect that they will fit over a pipe with an outside diameter less than that number. For example: An 18 series SNOUT® will fit over a pipe with an O.D. less than 18". Select F for flat-walled structures and R for round-walled structures.)

BEST MANAGEMENT PRODUCTS, INC.
The SNOUT® INSTALLATION INSTRUCTIONS
U.S. Patent # 6126817 Canadian Patent #2285146

2. Center the SNOUT® directly over the exit pipe so that the entire pipe is covered and so that the lower edge of the hood is at least 1/2 the pipe diameter below the lowest inside point of the pipe (deeper is even better.)
3. Drill * equally spaced 7/16" holes through the SNOUT® flange. (*Number of holes vary depending on size of SNOUT®.)
4. Mark and drill catch basin and install the tamp-in lead anchors.
   (1) Drill a 3/4"hole into the base material to the required depth (approximately 1-1/4" deep.)
   (2) Blow the hole clean of dust and other material.
   (3) Insert the anchor into the hole. Narrow end of cone must point out, lead shield slides over cone.
   (4) Position the setting tool or a 9/16 socket against the anchor outer cone. (The outer rim of the tool or socket should seat onto the lead shield rim.) Set the anchor by driving the lead sleeve over the cone using several sharp hammer blows. Be sure the anchor is at the required embedment depth (flush or slightly below face of concrete)
5. Attach the vent pipe adapter in the pre-drilled hole in the top of the SNOUT® using the 2 flat O ring gaskets and PVC lock-nut supplied in the kit. Install with female slip adapter up and a washer on each side of the SNOUT® shell. Tighten lock-nut hand tight.
6. Remove PSA backing and with firm pressure, attach gasket strip(s) to back of flange and trim excess.
7. Attach the SNOUT® to the catch basin wall with 3/8" diameter stainless steel bolts in lead expansion anchors. Do not over tighten; 10-15 foot-pounds should be sufficient.
8. Cut the anti-siphon vent stack to length and attach to hood at slip adapter with PVC cement.
9. Attach 90 degree fitting to vent stack with PVC cement. Ensure that fitting opening is accessible for maintenance and inspection.

SNOUT® Installation Kit Items included with each SNOUT® (Number and sizes will vary with size of SNOUT®)
( ) 3/8"expansion anchor assemblies (anchors, stainless bolts & stainless washers)
(1) 1" or 2" female pipe adapter
(2) Neoprene O rings
(1) PVC lock-nut
( ) PSA backed gasket strip(s)
(1) 1" or 2" diameter 12" length PVC pipe
(1) 90 degree elbow

BEST MANAGEMENT PRODUCTS, INC.
The SNOUT® INSTALLATION INSTRUCTIONS
U.S. Patent # 6126817 Canadian Patent #2285146

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- LIST

SOIL AMENDMENT SPECIFICATIONS

DESIGN CONSIDERATIONS

1.) COMPOST SHOULD BE ADDED AT A RATE OF 2:1 (SOIL:COMPOST). IF A PROPRIETARY PRODUCT IS USED, THE MANUFACTURER'S INSTRUCTIONS SHOULD BE FOLLOWED IN TERMS OF MIXING AND APPLICATION RATE.

2.) SOIL RESTORATION SHOULD NOT TAKE PLACE WITHIN THE DRIP LINE OF A TREE TO AVOID DAMAGING THE ROOT SYSTEM.

3.) PROCEDURE: ROTOTILL OR RIP THE SUBGRADE, REMOVE ROCKS, DISTRIBUTE THE COMPOST, SPREAD THE NUTRIENTS, ROTOTILL AGAIN.

4.) ADD 2-3 INCHES COMPOST / AMENDMENT AND TILL TO A MINIMUM DEPTH OF 8 INCHES.

COMPOST MATERIALS

1.) COMPOST PRODUCTS SPECIFIED FOR USE IN THIS APPLICATION ARE DESCRIBED IN THE TABLE 1.

2.) ONLY COMPOST PRODUCTS THAT MEET ALL APPLICABLE STATE AND FEDERAL REGULATIONS PERTAINING TO ITS PRODUCTION AND DISTRIBUTION MAY BE USED IN THIS APPLICATION . APPROVED COMPOST PRODUCTS MUST MEET RELATED STATE AND FEDERAL CHEMICAL CONTAMINANT (e.g., HEAVY METALS PESTICIDES, etc.) AND PATHOGEN LIMIT STANDARDS PERTAINING TO THE FEEDSTOCKS (SOURCE MATERIALS) IN WHICH IT IS DERIVED.

3.) VERY COARSE COMPOST SHOULD BE AVOIDED FOR SOIL AMENDMENT AS IT WILL MAKE PLANTING AND CROP ESTABLISHMENT MORE DIFFICULT.

4.) NOTE - SPECIFYING THE USE OF COMPOST PRODUCTS THAT ARE CERTIFIED BY THE U.S. COMPOSTING COUNCIL'S SEAL OF TESTING (STA) PROGRAM (www.compostingcouncil.org) WILL ALLOW FOR THE ACQUISITION OF PRODUCTS THAT ARE ANALYZED ON A ROUTINE BASIS, USING THE SPECIFIED TEST METHODS. STA PARTICIPANTS ARE ALSO REQUIRED TO PROVIDE A STANDARD PRODUCT LABEL TO ALL CUSTOMERS, ALLOWING EASY COMPARISON TO OTHER PRODUCTS.

COMPOST APPLICATION PROCEDURE

1.) THE ENTIRE AREA TO BE AMENDED SHOULD BE RIPPED TO LOOSEN SOILS. THE SURFACE SHOULD THEN BE CLEARED OF CLODS, ROCKS AND DEBRIS GREATER THAN 2" IN DIAMETER. THE SOIL SURFACE SHALL BE REASONABLY FREE OF LARGE CLODS, ROOTS, STONES GREATER THAN 2 INCHES, AND OTHER MATERIAL WHICH WILL INTERFERE WITH THE AMENDMENT PROCESS, PLANTING AND SUBSEQUENT SITE MAINTENANCE.

2.) DISTRIBUTE COMPOST EVENLY TO A DEPTH OF 2-3" INCHES OVER THE ENTIRE SOIL SURFACE. TILL TO A DEPTH OF 8" IN TWO CROSSING DIRECTIONS. FOR SMALL AREAS, COMPOST MAY BE SPREAD BY HAND WITH A SHOVEL AND RAKED EVENLY OVER THE SOIL. FOR LARGER AREAS, USE A TRACTOR-MOUNTED SPREADER OR OTHER SIMILAR DEVICE.

3.) SPREAD LIME AND NUTRIENTS AS INDICATED BY SOIL TESTING.

4.) WATER THOROUGHLY. ALLOW SOIL TO SETTLE FOR ONE WEEK. IF COMPOST IS IMMATURE, EXTEND SETTLING PERIOD TO TWO TO FIVE WEEKS.

5.) FINE GRADE AND HAND ROLL AS NECESSARY TO ACHIEVE AN EVEN FINAL GRADE

GENERAL SEQUENCING NOTES FOR P.C.S.W.M. B.M.P.s

1.) A SITE INSPECTION AND APPROVAL BY THE COUNTY CONSERVATION DISTRICT IS REQUIRED PRIOR TO THE REMOVAL OR CONVERSION OF SEDIMENT BASINS AND TRAPS.

2.) BOHLER ENGINEERING PA, LLC SHALL BE NOTIFIED OF PRE-CONSTRUCTION MEETING DATE AND BMP CONSTRUCTION SCHEDULE.

3.) THE CONTRACTOR SHALL TAKE ALL STEPS NECESSARY TO LIMIT THE COMPACTION IN THE PROPOSED B.M.P. BOTTOMS.

4.) INFILTRATION TESTING SHALL BE CONDUCTED UPON SEDIMENT BASIN CONVERSION TO ENSURE THE INFILTRATION RATES HAVE NOT BEEN COMPROMISED DURING CONSTRUCTION.

5.) REFER TO THE BMP CONSTRUCTION DETAILS FOR THE CONSTRUCTION OF ALL PROPOSED STORMWATER MANAGEMENT INFILTRATION/WATER QUALITY BMP'S.

6.) THE BOTTOM OF ALL INFILTRATION BMP'S SHALL BE UNDISTURBED OR UNCOMPACTED SUBGRADE.

7.) REFER TO THE PCSWM PLAN AND DETAILS FOR SPECIFIC BMP CONSTRUCTION GUIDELINES.

8.) AS-BUILT PLANS OF THE STORMWATER BMPs FOR EACH PROJECT PHASE SHALL BE PROVIDED WITHIN SIX MONTHS FOLLOWING THE COMPLETION OF EACH PHASE. THE AS-BUILT PLANS SHALL BE SIGNED AND SEALED BY A PA REGISTERED PROFESSIONAL ENGINEER.

9.) A NOTICE OF TERMINATION (NOT) WILL BE REQUIRED TO BE SUBMITTED FOLLOWING APPROVAL OF THE FINAL AS-BUILT PLANS. PRIOR TO ACCEPTING THE NOT, THE DEPARTMENT AND/OR CONSERVATION DISTRICT STAFF WILL PERFORM A FINAL INSPECTION TO ENSURE SITE STABILIZATION AND VERIFY ADEQUATE INSTALLATION AND FUNCTION OF STORMWATER BMPs.

PROCEDURES FOR PROPER RECYCLING AND/OR DISPOSAL OF CONSTRUCTION WASTES ASSOCIATED WITH E&S BMPs

1.) DUST CONTROL - CONSTRUCTION TRAFFIC MUST ENTER AND EXIT THE SITE AT THE STABILIZED CONSTRUCTION ENTRANCE. THE PURPOSE IS TO TRAP DUST AND MUD THAT WOULD OTHERWISE BE CARRIED OFF-SITE BY CONSTRUCTION TRAFFIC. WATER TRUCKS WILL BE USED AS NEEDED DURING CONSTRUCTION TO REDUCE DUST GENERATED ON THE SITE. DUST CONTROL MUST BE PROVIDED BY THE CONTRACTOR TO A DEGREE THAT IS ACCEPTABLE TO THE LOCAL CONSERVATION DISTRICT. AFTER CONSTRUCTION, THE SITE WILL BE STABILIZED, WHICH WILL REDUCE THE POTENTIAL FOR DUST GENERATION.

2.) SOLID WASTE DISPOSAL - NO SOLID MATERIALS, INCLUDING BUILDING MATERIALS, ARE ALLOWED TO BE DISCHARGED FROM THE SITE WITH STORMWATER. ALL SOLID WASTE, INCLUDING DISPOSABLE MATERIALS INCIDENTAL TO THE MAJOR CONSTRUCTION ACTIVITIES, MUST BE COLLECTED AND PLACED IN CONTAINERS. THE CONTAINERS WILL BE EMPTIED AS NECESSARY BY A CONTRACT TRASH DISPOSAL SERVICE AND HAULED AWAY FROM THE SITE.

3.) SANITARY FACILITIES - ALL PERSONNEL INVOLVED WITH CONSTRUCTION ACTIVITIES MUST COMPLY WITH STATE AND LOCAL SANITARY OR SEPTIC SYSTEM REGULATIONS. TEMPORARY SANITARY FACILITIES WILL BE PROVIDED AT THE SITE THROUGHOUT THE CONSTRUCTION PHASE. THEY MUST BE UTILIZED BY ALL CONSTRUCTION PERSONNEL AND WILL BE SERVICED BY A LICENSED COMMERCIAL OPERATOR.

4.) WATER SOURCE - NON-STORMWATER COMPONENTS OF SITE DISCHARGE MUST BE CLEAN WATER. WATER USED FOR CONSTRUCTION WHICH DISCHARGES FROM THE SITE MUST ORIGINATE FROM A PUBLIC WATER SUPPLY OR PRIVATE WELL APPROVED BY THE STATE HEALTH DEPARTMENT. WATER USED FOR CONSTRUCTION THAT DOES NOT ORIGINATE FROM AN APPROVED PUBLIC SUPPLY MUST NOT DISCHARGE FROM THE SITE.

5.) CONCRETE WASTE FROM CONCRETE READY-MIX TRUCKS - DISCHARGE OF EXCESS OR WASTE CONCRETE AND/OR WASH WATER FROM CONCRETE TRUCKS WILL BE ALLOWED ON THE CONSTRUCTION SITE, BUT ONLY IN SPECIFICALLY DESIGNATED DIKED AREAS PREPARED TO PREVENT CONTACT BETWEEN THE CONCRETE AND/OR WASH WATER AND STORMWATER THAT WILL BE DISCHARGED FROM THE SITE.

GEOTECHNICAL FORMATIONS

THERE ARE NO GEOLOGICAL FORMATIONS OR SOIL CONDITIONS THAT MAY HAVE THE POTENTIAL TO CAUSE POLLUTION DURING EARTH DISTURBANCE ACTIVITIES.

POTENTIAL FOR THERMAL IMPACTS

THE POTENTIAL FOR THERMAL IMPACTS HAS BEEN AVOIDED THROUGH THE WATER QUALITY EFFECTS OF THE PROPOSED POST CONSTRUCTION BMPS, INCLUDING THE RAINGARDEN, AMENDED SOILS, AND STORMWATER BASIN, AS WELL AS THE SHADING EFFECTS OF THE PROPOSED LANDSCAPED AREAS. THE STORM PIPING HELPS COOL AND CONVEY STORMWATER.

PHASE 1 SEQUENCE OF CONSTRUCTION

ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE FOLLOWING SEQUENCE. EACH STAGE SHALL BE COMPLETED IN COMPLIANCE WITH CHAPTER 102 REGULATIONS BEFORE ANY FOLLOWING STAGE IS INITIATED. CLEARING AND GRUBBING SHALL BE LIMITED ONLY TO THOSE AREAS DESCRIBED IN EACH STAGE. UPON COMPLETION OR TEMPORARY CESSATION OF THE EARTH DISTURBANCE ACTIVITY THAT WILL EXCEED FOUR (4) DAYS, OR ANY STAGE THEREOF, THE PROJECT SITE SHALL BE IMMEDIATELY STABILIZED WITH THE APPROPRIATE TEMPORARY OR PERMANENT STABILIZATION.

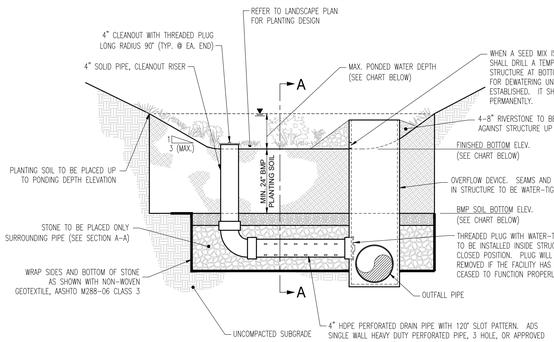
AT LEAST SEVEN (7) DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, THE OPERATOR SHALL INVITE ALL CONTRACTORS INVOLVED IN THOSE ACTIVITIES INCLUDING, BUT NOT LIMITED TO: THE LANDOWNER, ALL APPROPRIATE MUNICIPAL OFFICIALS AND A REPRESENTATIVE OF THE CHESTER COUNTY CONSERVATION DISTRICT FOR AN ON-SITE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

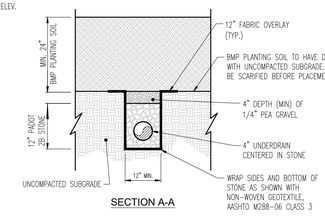
BEFORE INITIATING ANY REVISION TO THE APPROVED EROSION AND SEDIMENT CONTROL PLAN OR REVISIONS TO OTHER PLANS WHICH MAY AFFECT THE EFFECTIVENESS OF THE APPROVED E&S CONTROL PLAN, THE OPERATOR MUST RECEIVE APPROVAL OF THE REVISIONS FROM THE CHESTER COUNTY CONSERVATION DISTRICT. THE OPERATOR SHALL ASSURE THAT THE APPROVED EROSION AND SEDIMENT CONTROL PLAN IS PROPERLY AND COMPLETELY IMPLEMENTED. IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE OPERATOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES TO ELIMINATE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION.

1. INSTALL CONSTRUCTION ENTRANCE AS DESIGNATED ON THE PLANS.
2. INSTALL ALL PERIMETER COMPOST FILTER SOCKS, TREE PROTECTION FENCING, AND INLET PROTECTION WITHIN THE DESIGNATED LIMIT OF DISTURBANCE AS INDICATED ON THE PLANS. ONLY LIMITED CLEARING AND GRUBBING NECESSARY TO INSTALL THE PERIMETER EROSION AND SEDIMENT POLLUTION CONTROLS IS PERMITTED.
3. DEMOLISH BUILDINGS ON SITE. BUILDING DEMOLITION SHALL BE PERFORMED ONLY TO THE BUILDING SLAB. NO EARTH DISTURBANCE SHALL BEGIN UNTIL INSTALLATION OF SEDIMENT TRAP.
4. INSTALL TEMPORARY SWALE AND CONSTRUCT SEDIMENT TRAP. ONLY LIMITED CLEARING AND GRUBBING IS PERMITTED FOR CONSTRUCTION OF ACCESS TO THE SEDIMENT TRAP. CONSTRUCTION OF THE SEDIMENT TRAP SHALL INCLUDE THE LIMITED CLEARING AND GRUBBING, EARTHWORK, AND ALL OTHER SEDIMENT TRAP FEATURES AS SHOWN ON THE PLANS AND DETAILS, AND ANY NECESSARY TEMPORARY STABILIZATION OF ALL DISTURBED AREAS. THE TRAP IS TO BE STABILIZED AND FUNCTIONING PROPERLY PRIOR TO ANY FURTHER EARTH DISTURBANCE ACTIVITIES. **UPON INSTALLATION OF THE SEDIMENT TRAP SPILLWAY, AN IMMEDIATE INSPECTION OF THE SPILLWAY SHALL BE CONDUCTED BY A QUALIFIED SITE REPRESENTATIVE AND THE CHESTER COUNTY CONSERVATION DISTRICT SHALL BE NOTIFIED IN WRITING THAT THE PROPER SPILLWAY IS INSTALLED PER PLAN.** SEDIMENT TRAPS MUST BE PROTECTED FROM UNAUTHORIZED ACTS OF THIRD PARTIES. REFER TO THE SEDIMENT BASIN SOIL CONSERVATION DISTRICT MONITORING, INSPECTION AND REPORTING REQUIREMENTS PROVIDED ON THE SOIL EROSION AND SEDIMENT POLLUTION CONTROL NOTES FOR ADDITIONAL SEDIMENT BASIN REQUIREMENTS DURING CONSTRUCTION.
5. ONCE SEDIMENT TRAP AND TEMPORARY SWALE ARE CONSTRUCTED, STABILIZED AND FUNCTIONING PROPERLY, DEMOLISH REMAINING FEATURES ON SITE. ONCE DEMOLITION IS COMPLETE, PROCEED TO PHASE 2.

PHASE 2 SEQUENCE OF CONSTRUCTION

1. INITIATE THE NECESSARY EARTHWORK TO REACH THE GRADES INDICATED ON THE PLANS. BUILDING CONSTRUCTION FOR BUILDINGS "#3" AND "#4" MAY COMMENCE UPON ACCEPTANCE OF BUILDING PAD BY OWNER. THE CONCRETE WASHOUT MUST BE INSTALLED BEFORE ANY CONCRETE CAN BE POURED ON-SITE. CONTRACTOR MUST PERFORM BULK OF EARTHWORK TO BALANCE CUTS AND FILLS TO THE GREATEST EXTENT POSSIBLE. ALL AREAS DISTURBED DURING THE EARTHWORK PHASE OF CONSTRUCTION MUST BE TEMPORARILY SEEDED AND STABILIZED IN ACCORDANCE WITH THE GENERAL CONSERVATION NOTES AND SPECIFICATIONS AND SEEDING SPECIFICATIONS IF PERMANENT STABILIZATION CANNOT BE ACHIEVED WITHIN FOUR (4) DAYS.
2. CONTINUE WITH THE BALANCE OF EARTHWORK INCLUDING UTILITY INSTALLATION (SANITARY, ELECTRIC, TELEPHONE, CABLE AND GAS) WHERE APPLICABLE FOR BUILDINGS "#3" AND "#4".
3. INSTALL ALL CURBING SHOWN IN THIS PHASE FOR BUILDINGS "#3" AND "#4" AND INSTALL STONE BASE COURSE IN THE DRIVEWAY AND PARKING AREAS FOR BUILDINGS "#3" AND "#4".
4. INITIATE FINAL GRADING AND PLACEMENT OF TOPSOIL IN LANDSCAPE AREAS FOR BUILDINGS "#3" AND "#4". **CRITICAL STAGE: INSTALL AMENDED SOILS.** AS SOON AS SLOPES, CHANNELS, DITCHES AND OTHER DISTURBED AREAS REACH FINAL GRADE, THEY MUST BE STABILIZED. ALL LANDSCAPE AREAS MUST BE STABILIZED AND PERMANENT SEEDING OR PLACEMENT OF SOD MUST BE APPLIED. WHEN FINAL GRADE IS ACHIEVED DURING NON-GERMINATING MONTHS, THE AREA SHOULD BE MULCHED UNTIL THE BEGINNING OF THE NEXT PLANTING SEASON. HOWEVER, THE AREA WILL NOT BE CONSIDERED STABILIZED UNTIL A MINIMUM UNIFORM 70% VEGETATIVE COVER OF EROSION RESISTANT PERENNIAL SPECIES HAS BEEN ACHIEVED. AS DISTURBED AREAS WITHIN A PROJECT APPROACH FINAL GRADE, PREPARATIONS SHOULD BE MADE FOR SEEDING AND MULCHING TO BEGIN (I.E. ANTICIPATE THE COMPLETION DATE AND SCHEDULE THE SEEDER). IN NO CASE SHOULD AN AREA EXCEEDING 15,000 SQUARE FEET, WHICH IS TO BE STABILIZED BY VEGETATION, REACH FINAL GRADE WITHOUT BEING SEEDED AND MULCHED. WAITING UNTIL EARTHMOVING IS COMPLETED BEFORE MAKING PREPARATIONS FOR SEEDING AND MULCHING IS NOT ACCEPTABLE. SEEDING AND MULCHING REQUIREMENTS ARE SPECIFIED IN THE GENERAL CONSERVATION NOTES AND SPECIFICATIONS.
5. INSTALL BITUMINOUS PAVEMENT AND CONCRETE INCLUDING SIDEWALKS AROUND BUILDINGS "#3" AND "#4". **CRITICAL STAGE: INSTALL POROUS PAVEMENT IN PARKING AREAS FOR BUILDINGS "#3" AND "#4" AS INDICATED ON THE POST-CONSTRUCTION STORMWATER MANAGEMENT PLAN. THE PERMITTEE SHALL PROVIDE ENGINEERING OVERSIGHT FOR THE CONSTRUCTION OF THE POROUS PAVEMENT. A LICENSED PROFESSIONAL OR DESIGNEE KNOWLEDGEABLE IN THE DESIGN AND CONSTRUCTION OF POROUS PAVEMENT, SHALL CONDUCT THE OVERSIGHT.**
6. UPON STABILIZATION OF ALL AREAS TRIBUTARY TO THE SEDIMENT TRAP, REMOVE SEDIMENT TRAP. PERIMETER CONTROLS SHALL REMAIN IN PLACE THROUGHOUT THE COMPLETION OF CONSTRUCTION. REMOVE SEDIMENT TRAP. A SITE INSPECTION AND APPROVAL BY THE CONSERVATION DISTRICT IS REQUIRED PRIOR TO REMOVAL OR CONVERSION OF SEDIMENT TRAPS. **THE PERMITTEE SHALL PROVIDE ENGINEERING OVERSIGHT FOR THE REMOVAL OF THE SEDIMENT TRAP. A LICENSED PROFESSIONAL OR DESIGNEE KNOWLEDGEABLE IN THE DESIGN AND CONSTRUCTION OF SEDIMENT TRAPS, SHALL CONDUCT THE OVERSIGHT.**
7. INITIATE THE NECESSARY EARTHWORK TO REACH THE GRADES INDICATED ON THE PLANS. BEGIN INSTALLATION OF RETAINING WALL. BUILDING CONSTRUCTION FOR BUILDINGS "#1" AND "#2" MAY COMMENCE UPON ACCEPTANCE OF BUILDING PAD BY OWNER. THE CONCRETE WASHOUT MUST BE INSTALLED BEFORE ANY CONCRETE CAN BE POURED ON-SITE. CONTRACTOR MUST PERFORM BULK OF EARTHWORK TO BALANCE CUTS AND FILLS TO THE GREATEST EXTENT POSSIBLE. ALL AREAS DISTURBED DURING THE EARTHWORK PHASE OF CONSTRUCTION MUST BE TEMPORARILY SEEDED AND STABILIZED IN ACCORDANCE WITH THE GENERAL CONSERVATION NOTES AND SPECIFICATIONS AND SEEDING SPECIFICATIONS IF PERMANENT STABILIZATION CANNOT BE ACHIEVED WITHIN FOUR (4) DAYS.
8. **CRITICAL STAGE: INSTALL RAIN GARDEN.** INITIATE STORM SEWER INSTALLATIONS FOR THE FEATURES SHOWN ON THE PLANS STARTING AT THE FURTHEST DOWNSTREAM STRUCTURE. ALL UNDERGROUND STORMWATER BMP SHOULD BE BLOCKED UNTIL THE SITE IS PERMANENTLY STABILIZED. SEE ADDITIONAL RAIN GARDEN FACILITY SEQUENCING, INSTALLATION AND MAINTENANCE & INSPECTION NOTES PROVIDED ON THE POST CONSTRUCTION STORMWATER MANAGEMENT PLANS FOR CONSTRUCTION OF THE RAIN GARDEN. **THE PERMITTEE SHALL PROVIDE ENGINEERING OVERSIGHT FOR THE CONSTRUCTION OF THE RAIN GARDEN. A LICENSED PROFESSIONAL OR DESIGNEE KNOWLEDGEABLE IN THE DESIGN AND CONSTRUCTION OF RAIN GARDENS, SHALL CONDUCT THE OVERSIGHT.** NO CONSTRUCTION EQUIPMENT, SUCH AS CRANES DURING BUILDING CONSTRUCTION, SHALL BE PARKED ON TOP OF THE RAIN GARDEN TO AVOID DAMAGING THE RAIN GARDEN OR OVER-COMPACTING THE SUBSURFACE SOILS.
9. **CRITICAL STAGE: INSTALL DETENTION BASIN.** INITIATE STORM SEWER AND SUBSURFACE DETENTION BASIN INSTALLATION FOR THE FEATURES SHOWN ON THE PLANS STARTING AT THE FURTHEST DOWNSTREAM STRUCTURE. SEE ADDITIONAL DETENTION FACILITY SEQUENCING, INSTALLATION AND MAINTENANCE & INSPECTION NOTES PROVIDED ON THE POST CONSTRUCTION STORMWATER MANAGEMENT PLANS FOR CONSTRUCTION OF THE SUBSURFACE DETENTION BASIN. **THE PERMITTEE SHALL PROVIDE ENGINEERING OVERSIGHT FOR THE CONSTRUCTION OF THE SUBSURFACE DETENTION BASIN. A LICENSED PROFESSIONAL OR DESIGNEE KNOWLEDGEABLE IN THE DESIGN AND CONSTRUCTION OF SUBSURFACE DETENTION BASINS, SHALL CONDUCT THE OVERSIGHT.** INLETS DISCHARGING





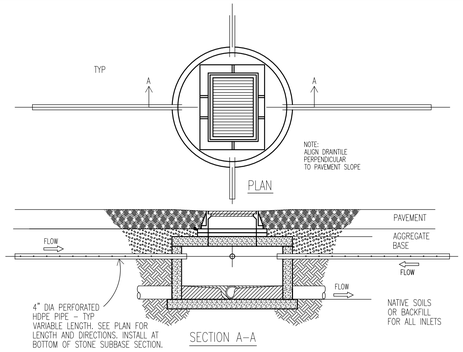
SECTION A-A

FACILITY NUMBER	FINISHED BOTTOM ELEVATION	BMP SOIL BOTTOM ELEVATION	OVERFLOW GRATE ELEVATION	MAXIMUM PONDING DEPTH	OVERFLOW DEVICE	OVERFLOW INVERT
RG01	170.80	168.80	171.00	0.20'	TYPE 'M' INLET	166.49

B S11 **TYPICAL RAIN GARDEN DETAIL**
SCALE: N.T.S. REV.: 2017.01.05

RAIN GARDEN CONSTRUCTION SEQUENCE

1.) THE RAIN GARDEN FACILITY SHALL BE EXCAVATED TO THE DEPTH AND SIZE REQUIRED. THE CONTRACTOR MUST TAKE CARE TO NOT COMPACT IN-SITU SOILS.
2.) **CRITICAL STAGE: PRIOR TO BMP INSTALLATION, A REPRESENTATIVE FROM THE CHESTER COUNTY CONSERVATION DISTRICT AND THE BOROUGH ENGINEER MUST BE CALLED TO SCHEDULE AN INSPECTION. CONTRACTOR SHALL CONTACT THE ENGINEER OF RECORD (OR DESIGNEE) AND HOLD AN RAIN GARDEN PRE-CONSTRUCTION MEETING ONCE THE FOOTPRINT OF THE RAIN GARDEN HAS BEEN EXCAVATED TO THE DESIGN ELEVATION.**
3.) OVER EXCAVATE THE RAIN GARDEN AREA TO TWO FEET BELOW THE PROPOSED BOTTOM AND MANUALLY GRADE AND SCARIFY THE EXISTING SOIL SURFACE. BACKFILL WITH TWO FEET OF AMENDED SOILS AS SPECIFIED BY THE GEOTECHNICAL ENGINEER OF RECORD. THE BOTTOM OF THE RAIN GARDEN FACILITY SHALL BE AT A LEVEL GRADE.
4.) SUBSOILS IN THE ENTIRE RAIN GARDEN AREA MUST BE THOROUGHLY AND DEEPLY SCARIFIED BEFORE THE CONTRACTOR PLACES THE PLANTING SOIL MATERIAL. SCARIFYING MUST BE DONE WITH A "TOOTHED" BACKHOE.
5.) EVERY RAIN GARDEN FACILITY SHALL HAVE AN UNDERDRAIN AND AN OVERFLOW DRAIN. THESE SHALL BE INSTALLED BEFORE PROCEEDING.
6.) THE UNDERDRAIN IS TO BE INSTALLED IN AN AGGREGATE LAYER AT THE DEPTH SHOWN IN THE TYPICAL RAIN GARDEN DETAIL. THE AGGREGATE LAYER IS TO BE WRAPPED IN NON-WOVEN GEOTEXTILE FABRIC.
7.) INSTALL PEA GRAVEL LAYER AS REQUIRED.
8.) INSTALL PLANTING SOIL MIX TO DEPTH REQUIRED.
9.) PRE-SOAK THE PLANTING SOIL PRIOR TO PLANTING VEGETATION IN ORDER TO AID IN SETTLEMENT.
10.) PLANT RAIN GARDEN FACILITIES WORKING FROM THE BOTTOM OF THE FACILITY UP SIDES. RAIN GARDEN FACILITY SHRUBS AND TREES SHALL BE INSTALLED PER THE LANDSCAPE PLAN.
11.) THE CONTRACTOR SHALL COVER THE PLANTING SOIL MIX WITH A MAXIMUM OF 2 INCHES OF SHREDDED WOOD MULCH AND PROTECT THE GARDEN WITH SILT FENCE IF EROSION FROM SURROUNDING AREAS IS CONCERN UNTIL ADJACENT LANDSCAPE BECOMES ESTABLISHED.



SECTION A-A

INLETS WITH FINGER DRAINS:	
MH04	IN09
IN01	IN10
IN03	IN17
IN05	IN18
IN06	IN19
IN07	IN20
IN08	

FINGER DRAIN DETAIL
N.T.S.

BMP OWNERSHIP, OPERATION, AND MAINTENANCE PROCEDURES:

1. UNTIL THE SITE IS STABILIZED AND DURING THE CONSTRUCTION ACTIVITIES, ALL BMPS MUST BE MAINTAINED PROPERLY BY CONTRACTOR. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL BMPS IN ACCORDANCE WITH THE SCHEDULE BELOW. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN-OUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, REMULCHING AND RENETTING MUST BE PERFORMED IMMEDIATELY AND IN ACCORDANCE WITH THESE PROCEDURES, PLANS, AND DETAILS. ANY AREAS DISTURBED DURING MAINTENANCE MUST BE STABILIZED IMMEDIATELY IN ACCORDANCE WITH THE GENERAL CONSERVATION NOTES & SPECIFICATIONS. ALL PERMANENT MAINTENANCE PROCEDURES SHALL BE PERFORMED BY THE OWNER OR OWNER'S DESIGNATED OPERATOR.

OWNER INFORMATION:
113 CORPORATION
940 HAVERFORD ROAD, SUITE 102
HAVERFORD, PA 19010
PHONE: (610) 519-9300

PROPERTY INFORMATION:
PARCEL T.M.P.: T.M.P. #15-011-0089.0500
SITE ADDRESS: ROUTE 113 & DAWSON DRIVE
PHOENIXVILLE BOROUGH
CHESTER COUNTY, PA

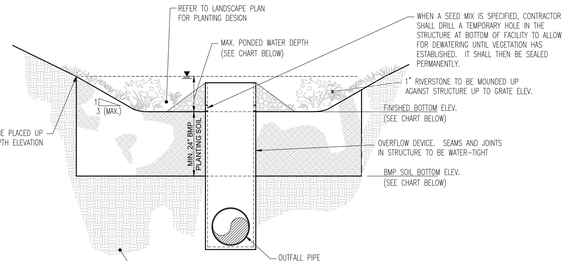
2. THE LANDOWNER ACKNOWLEDGES THAT, PER THE PROVISIONS OF THE MUNICIPALITY'S STORMWATER MANAGEMENT ORDINANCE, IT IS UNLAWFUL TO MODIFY, REMOVE, FILL, LANDSCAPE, ALTER OR IMPAIR THE EFFECTIVENESS OF, OR PLACE ANY STRUCTURE, OTHER VEGETATION, YARD WASTE, BRUSH CUTTINGS, OR OTHER WASTE OR DEBRIS INTO ANY PERMANENT STORMWATER MANAGEMENT BMP OR CONVEYANCE DESCRIBED IN THIS PCSWM PLAN OR TO ALLOW THE BMP OR CONVEYANCE TO EXIST IN A CONDITION WHICH DOES NOT CONFORM TO THIS PCSWM PLAN, WITHOUT WRITTEN APPROVAL FROM THE MUNICIPALITY
3. NO BMP OR MAN-MADE CONVEYANCE MAY BE USED BY THE OWNER OR OTHERS FOR ANY PURPOSE OTHER THAN ITS INTENDED STORMWATER FUNCTION, OR, IF APPROVED BY THE MUNICIPAL ENGINEER, A STATEMENT OF SPECIFIC ALLOWABLE USES OF THE BMP.
4. THE OWNER SHALL MAKE RECORDS OF THE INSTALLATION, INSPECTION, MAINTENANCE AND OF ALL REPAIRS OF THE BMPs, AND SHALL RETAIN THE RECORDS FOR A PERIOD OF 10 YEARS. THESE RECORDS SHALL BE PROVIDED TO THE BOROUGH, CONSERVATION DISTRICT OR PADEP FOR REVIEW AND INSPECTION UPON REQUEST. UPON FINAL INSPECTION THE MUNICIPALITY SHALL INFORM THE OWNER WHETHER THE SUBMISSION OF PERIODIC (ANNUAL OR OTHER FREQUENCY) INSPECTION AND MAINTENANCE REPORTS ARE REQUIRED. THE OWNER SHALL KEEP RECORDS ON FILE WITH THE MUNICIPALITY THE NAME, ADDRESS, AND TELEPHONE NUMBER OF THE PERSON RESPONSIBLE FOR MAINTENANCE ACTIVITIES AND IMPLEMENTATION OF THE OPERATION AND MAINTENANCE PLAN. THE THE EVENT OF A CHANGE, NEW INFORMATION SHALL BE SUBMITTED BY THE MUNICIPALITY WITHIN 60 WORKING DAYS OF THE CHANGE. THE OWNER IS COMPLETE A WRITTEN REPORT DOCUMENTING THE EACH INSPECTION AND ALL BMP REPAIR AND MAINTENANCE ACTIVITIES.

AT A MINIMUM, MAINTENANCE INSPECTIONS SHALL BE PERFORMED BY THE OWNER IN ACCORDANCE WITH THE FOLLOWING SCHEDULE:

BMP	MINIMUM DURATION	TASK
STORMWATER MANAGEMENT BASIN	EACH STORM >3"	- INSPECT STRUCTURES FOR DAMAGE - CONFIRM DEWATERING WITHIN 72 HOURS
	4 TIMES PER YEAR	- INSPECT FOR SIGNS OF CONTAMINATION OR SPILLS - FORMATION OF A POTENTIAL SINK HOLE - INSPECT FOR EROSION - INSPECT FOR SEDIMENT ACCUMULATION - INSPECT VEGETATIVE COVER CONDITION
RAINGARDENS/BIO-RETENTION AREAS	4 TIMES PER YEAR	- INSPECT FOR LITTER - INSPECT FOR SIGNS OF CONTAMINATION OR SPILLS - INSPECT FOR SEDIMENT ACCUMULATION - INSPECT VEGETATIVE COVER CONDITION - EVALUATE PLANT GROWTH - INSPECT FOR EROSION
	ANNUALLY	- REMOVE DETRITUS, CUT BACK DORMANT PERENNIAL PLANTS - INSPECT FOR INVASIVE PLANT SPECIES - INSPECT FOR MULCH LEVEL AND REPLENISH AS NEEDED
	EVERY 3 YEARS	- INSPECT FOR MULCH LEVEL AND REPLENISH AS NEEDED
STORMWATER STRUCTURES (INLETS, MANHOLES, OUTLET STRUCTURES PIPING)	2 TIMES PER YEAR	- INSPECT FOR DEBRIS THAT COULD HINDER THE OPERATION OF THE STRUCTURE
RE-VEGETATE DISTURBED AREAS	ANNUALLY	- INSPECT FOR DYING/DEAD PLANT MATERIAL - INSPECT FOR INVASIVE SPECIES
POROUS PAVEMENT	2 TIMES PER YEAR	- INSPECT FOR SOIL ACCUMULATION ON PAVEMENT SURFACE - VACUUM PAVEMENT TO REMOVE ANY DEBRIS OR SEDIMENT CAUGHT IN THE PORES OF THE PAVEMENT

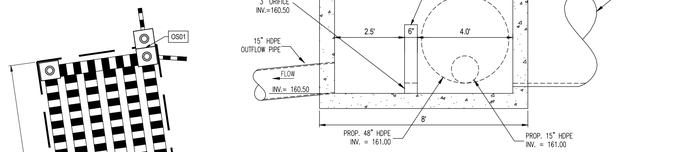
MAINTENANCE SHALL BE PERFORMED IMMEDIATELY AFTER AN INSPECTION WHEN NECESSARY IN ACCORDANCE WITH THE FOLLOWING:

- STORMWATER MANAGEMENT BASINS - ACCUMULATED LITTER AND SEDIMENT MUST BE REMOVED TO RESTORE DESIGN CAPACITIES. THE SEDIMENT AND LITTER SHALL BE DISPOSED OF AN APPROVED MANNER AND IN ACCORDANCE WITH STATE REGULATIONS. ANY AREAS DISTURBED DURING MAINTENANCE MUST BE STABILIZED IMMEDIATELY IN ACCORDANCE WITH THE GENERAL CONSERVATION NOTES AND SPECIFICATIONS.
- RAINGARDENS/BIORETENTION AREAS - NEEDED MAINTENANCE SHOULD BE INITIATED IMMEDIATELY AFTER THE INSPECTION. THE LITTER AND SEDIMENT MUST BE REMOVED TO RESTORE DESIGN CAPACITIES. THE LITTER AND SEDIMENT SHALL BE REMOVED, RECYCLED OR DISPOSED OF IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA CODE 260.1 ET SEQ., 271.1 ET. SEQ. AND 287.1 ET SEQ. ANY AREAS DISTURBED DURING MAINTENANCE MUST BE STABILIZED IMMEDIATELY IN ACCORDANCE WITH THE GENERAL CONSERVATION NOTES AND SPECIFICATIONS.
  - RAINGARDEN FAILURE- THIS RAINGARDEN IS AN INFILTRATION FACILITY. FAILURE INDICATORS INCLUDE THE FACILITY NOT DEWATERING IN THE ALLOTTED 72 HOURS OR WETLAND PLANTS GROWING IN AN ABUNDANCE. IF RAIN GARDEN #1 FAILS TO INFILTRATE AFTER 72 HOURS, THE SITE'S MAINTENANCE OPERATOR SHALL REMOVE THE CAP ON THE DEWATERING PIPE LOCATED AT THE BOTTOM OF THE RAIN GARDEN SO THAT IT CAN DRAIN INTO THE STORM DRAINAGE SYSTEM. ONCE THE CAP SHALL BE REINSTALLED ON THE DEWATERING PIPE. UPON OBSERVING A FAILURE INDICATOR A QUALIFIED INDIVIDUAL SUCH AS AN ENGINEER OR SOIL SCIENTIST/ENGINEER SHALL BE CONSULTED TO DETERMINE THE CAUSE EXACT CAUSE OF FAILURE. UPON FURTHER INVESTIGATION PERFORMED BY A QUALIFIED INDIVIDUAL A REMEDIATION PLAN SHALL BE IMPLEMENTED TO RESTORE THE RAINGARDEN TO ITS ORIGINAL DESIGN CAPACITIES, THIS INCLUDES PERFORMING ADDITIONAL INFILTRATION TESTING TO DETERMINE WHETHER THE FACILITY HAS BEEN BROUGHT BACK TO ITS ORIGINAL DESIGN CAPACITIES.
- STORM DRAINAGE SYSTEMS - THE STORMWATER MANAGEMENT FACILITIES INCLUDING THE INLETS, MANHOLES, OUTLET STRUCTURES, STORMWATER PIPING, RAIN GARDEN, AND DETENTION BASIN ON THIS SITE SHALL BE MAINTAINED IN PROPER WORKING ORDER IN ACCORDANCE WITH THESE PLANS AND PER THE RECOMMENDATION OF THE STRUCTURE(S) MANUFACTURER(S). MAINTENANCE OF THESE STORMWATER MANAGEMENT FACILITIES, AS NOTED BELOW, SHALL BE THE RESPONSIBILITY OF THE PROPERTY OWNER(S) UPON WHOSE PROPERTY THE FACILITIES ARE LOCATED.
  - ALL ONSITE INLETS, MANHOLES, OUTLET STRUCTURES AND STORMWATER PIPING SHALL BE CLEARED OF DEBRIS EVERY SIX (6) MONTHS OR WHEN ACCUMULATION HINDERS OPERATION OF THE FACILITY.
  - ALL SEDIMENT/DEBRIS/OIL REMOVED FROM THE STORMWATER MANAGEMENT SYSTEM SHALL BE DISPOSED PER LOCAL, STATE, AND FEDERAL STANDARDS.
  - SHOULD ONSITE EROSION OCCUR FROM THE LANDSCAPED AREAS, SOURCE OF EROSION SHALL BE IMMEDIATELY STABILIZED AND THE INLETS, MANHOLES, AND STORMWATER PIPING SHALL BE CHECKED FOR ACCUMULATION AND CLEARED IF ACCUMULATION OF SEDIMENT EXISTS.
- RE-VEGETATE DISTURBED AREAS- SITES THAT REQUIRE LANDSCAPING AND RE-VEGETATION SHOULD SELECT AND USE VEGETATION OF NATIVE SPECIES THAT DO NOT REQUIRE SIGNIFICANT AMOUNT CHEMICAL MAINTENANCE BY FERTILIZERS, HERBICIDES, AND PESTICIDES.
  - VEGETATION FAILURE- FAILURE INDICATORS INCLUDE THE EXCESSIVE GROWTH OF INVASIVE SPECIES AND VEGETATION THAT FAILS TO ESTABLISH OR DIES OFF. UPON OBSERVING A FAILURE INDICATOR A QUALIFIED INVIDIVIDUAL SUCH AS A LANDSCAPE ARCHITECT OR SOIL SCIENTIST/ENGINEER SHALL BE CONSULTED TO DETERMINE THE EXACT CAUSE OF THE FAILURE. REMEDIATION SHALL BE IN ACCORDANCE WITH THE QUALIFIED INDIVIDUALS RECOMMENDATIONS BASED ON THEIR INVESTIGATION.
- POROUS PAVEMENT - VACUUM PAVEMENT TO REMOVE DEBRIS CAUGHT IN THE PORES OF THE PAVEMENT. LANDSCAPE AREAS AROUND THE POROUS PAVEMENT SHOULD BE MAINTAINED TO PREVENT SOIL FROM LAYING ON THE SURFACE OF THE PAVEMENT. REMOVE ANY SOIL DEPOSITED ON THE POROUS SURFACE IMMEDIATELY.
  - POROUS PAVEMENT FAILURE - INDICATIONS OF FAILURE OF THIS BMP INCLUDE PONDING OF WATER/A FAILURE OF WATER TO INFILTRATE FROM THE PAVEMENT SURFACE. UPON OBSERVING A FAILURE INDICATOR A QUALIFIED INVIDIVIDUAL SUCH AS A LANDSCAPE ARCHITECT OR SOIL SCIENTIST/ENGINEER SHALL BE CONSULTED TO DETERMINE THE EXACT CAUSE OF THE FAILURE. REMEDIATION SHALL BE IN ACCORDANCE WITH THE QUALIFIED INDIVIDUALS RECOMMENDATIONS BASED ON THEIR INVESTIGATION.

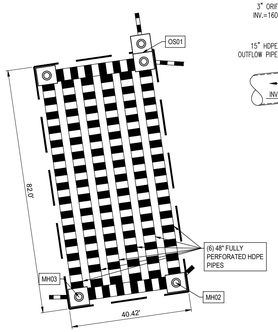


FACILITY NUMBER	FINISHED BOTTOM ELEVATION	BMP SOIL BOTTOM ELEVATION	OVERFLOW GRATE ELEVATION	MAXIMUM PONDING DEPTH	OVERFLOW DEVICE	OVERFLOW INVERT
DISCONNECT GARDEN #1	178.87	176.87	177.04	2"	YARD DRAIN	171.50
DISCONNECT GARDEN #2	179.60	177.60	177.77	2"	YARD DRAIN	176.79

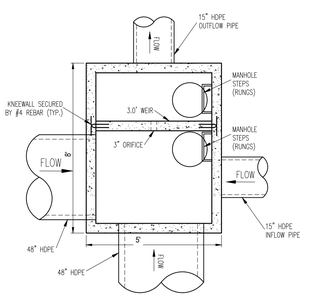
B 11 **TYPICAL DISCONNECT GARDEN DETAIL**
SCALE: N.T.S. REV.: 2017.01.05



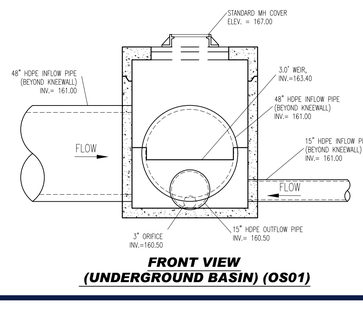
OUTLET STRUCTURE (OS01) DETAIL (UNDERGROUND BASIN)



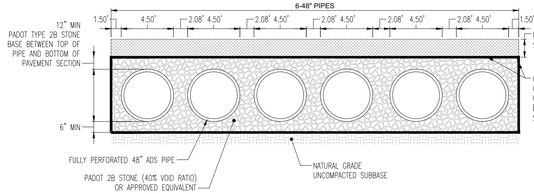
PLAN VIEW OF UNDERGROUND BASIN



PLAN VIEW (UNDERGROUND BASIN) (OS01)



FRONT VIEW (UNDERGROUND BASIN) (OS01)



STORMWATER DETENTION BASIN SPECIFICATIONS:

1.) UTILIZE A UNIFORMLY GRADED CRUSHED STONE (2B), PROVIDED THAT THE STONE IS PROPERLY CLEANED AND THAT A MINIMUM VOID RATIO OF 40% IS PROVIDED. HIGHER VOID THE RATIOS MAY BE SELECTED BY THE DESIGN ENGINEER, AND IF SO, THE DESIGN VOID RATIO SHALL GOVERN. IN ORDER TO INSURE THAT THE STONE USED IS PROPERLY CLEANED, IN ADDITION TO AASHTO DESIGNATION: M43-88 GRADATION, THE PERCENT PASSING THE NO. 200 SIEVE SHALL NOT EXCEED 0.2%

2.) A CERTIFICATION FROM THE MANUFACTURER DOCUMENTING THE FULL GRADATION AND VOID RATIO SHALL BE OBTAINED.

3.) WHEN IN THE OPINION OF THE BOROUGH INSPECTOR OR THE GEOTECHNICAL ENGINEER THE STONE IS NOT CONSISTENT WITH THE APPROVED SAMPLE, IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE THE STONE RETESTED AND CERTIFIED BEFORE ANY ADDITIONAL STONE IS INSTALLED OR DELIVERED.

4.) ALL STONE SAMPLES AND CERTIFICATIONS SHALL BE SUBMITTED TO THE BOROUGH 14 DAYS PRIOR TO THE START OF STORMWATER DETENTION BASIN CONSTRUCTION.

5.) THE BOTTOM OF THE EXCAVATION SHALL BE SCARIFIED PRIOR TO THE PLACEMENT OF AGGREGATE.

6.) ONLY CLEAN AGGREGATE, FREE OF DEBRIS, SHALL BE ALLOWED.

7.) THE TOP, BOTTOM, AND SIDES OF THE BED SHALL BE COVERED WITH CONTINUOUS NON-WOVEN GEOTEXTILE, MIRAFI 140N, AMOCO 4547, GEOTEX 451, OR APPROVED EQUIVALENT.

8.) CONSTRUCTION OF THE FACILITY SHALL PREVENT SILT FROM CLOGGING THE AGGREGATE BACKFILL.

9.) CONTRACTOR TO REVIEW AND IMPLEMENT PIPE BEDDING AND BACKFILL REQUIREMENTS RECOMMENDED BY THE SPECIFIC PIPE MANUFACTURER.

10.) THE BEDS SHALL BE BACKFILLED WITH CLEAN WASHED AGGREGATE AND SHALL BE KEPT CLEAN OF SOIL/SEDIMENT DURING THE INSTALLATION PROCESS. IF INSPECTION INDICATES THAT SOIL/SEDIMENT HAS CONTAMINATED THESE ITEMS, THE MATERIALS SHALL BE REPLACED AND/OR CLEANED AS NECESSARY.

B S3 **CROSS SECTION OF SUBSURFACE DETENTION BASIN**
SCALE: N.T.S. REV.: 2015.03.09

SEQUENCE OF CONSTRUCTION FOR UNDERGROUND DETENTION BASIN:

1. AREAS FOR PROPOSED UNDERGROUND DETENTION SYSTEM SHALL BE CLEARLY MARKED BEFORE ANY SITE WORK BEGINS TO AVOID SOIL DISTURBANCE WHEREVER POSSIBLE.
2. PROVIDE EROSION AND SEDIMENTATION CONTROL PROTECTION ON THE SITE SUCH THAT CONSTRUCTION RUNOFF IS DIRECTED AWAY FROM THE PROPOSED UNDERGROUND DETENTION SYSTEM.
3. INSTALL FENCING AROUND THE BASIN AREAS AS SHOWN ON THE PLANS. DO NOT REMOVE INLET PROTECTION OR OTHER EROSION AND SEDIMENT CONTROL MEASURES UNTIL SITE IS FULLY STABILIZED.
4. COMPLETE SITE ELEVATION GRADING AND STABILIZE THE SOIL DISTURBED WITHIN THE LIMIT OF DISTURBANCE. DO NOT FINALIZE THE SYSTEM'S EXCAVATION AND CONSTRUCTION UNTIL THE DRAINAGE AREA IS FULLY STABILIZED.
5. EXCAVATE UNDERGROUND AREA TO PROPOSED INVERT DEPTH AND MANUALLY GRADE AND SCARIFY THE EXISTING SOIL SURFACE. THE BOTTOM OF THE BED SHALL BE AT A LEVEL GRADE.
6. EXISTING SUBGRADE SHALL NOT BE COMPACTED OR SUBJECT TO EXCESSIVE CONSTRUCTION EQUIPMENT PRIOR TO PLACEMENT OF GEOTEXTILE AND STONE BED. IF IT IS ESSENTIAL THAT EQUIPMENT BE USED IN THE EXCAVATED AREA, ALL EQUIPMENT MUST BE APPROVED BY THE GEOTECHNICAL ENGINEER. USE OF EQUIPMENT WITH NARROW TRACKS OR TIRES, RUBBER TIRES WITH LARGE LUGS, OR HIGH PRESSURE TIRES WILL CAUSE EXCESSIVE COMPACTION AND SHALL NOT BE USED.
7. **CRITICAL STAGE: PRIOR TO BMP INSTALLATION, A REPRESENTATIVE FROM THE CHESTER COUNTY CONSERVATION DISTRICT AND THE BOROUGH ENGINEER MUST BE CALLED TO SCHEDULE AN INSPECTION. CONTRACTOR SHALL CONTACT THE ENGINEER OF RECORD (OR DESIGNEE) AND HOLD A PRE-CONSTRUCTION MEETING ONCE THE FOOTPRINT OF THE BASIN HAS BEEN EXCAVATED TO THE DESIGN ELEVATION.**
8. PLACE GEOTEXTILE AND PVC LINER ALONG THE SIDES, TOP AND BOTTOM OF THE BED AND PLACE THE BED AGGREGATE AND AASHTO #8 STONE IMMEDIATELY AFTER APPROVAL OF SUBGRADE PREPARATION TO PREVENT ACCUMULATION OF DEBRIS OR SEDIMENT. PREVENT RUNOFF AND SEDIMENT FROM ENTERING THE STORAGE BED DURING THE PLACEMENT OF THE GEOTEXTILE, PVC LINER, AND AGGREGATE.
9. INSTALL ALL CONTROL STRUCTURES WITHIN THE BASIN.
10. PLACE GEOTEXTILE AND PVC LINER IN ACCORDANCE WITH MANUFACTURER'S STANDARDS AND RECOMMENDATIONS. ADJACENT STRIPS OF FILTER FABRIC SHALL OVERLAP A MINIMUM OF 16 INCHES. FABRIC SHALL BE SECURED AT LEAST 4 FEET OUTSIDE OF BED.
11. INSTALL AGGREGATE COURSE IN LIFTS OF 6-8 INCHES. LIGHTLY COMPACT EACH LAYER WITH EQUIPMENT, KEEPING EQUIPMENT MOVEMENT OVER STORAGE BED SUBGRADES TO A MINIMUM. INSTALL AGGREGATE TO GRADES INDICATED ON THE DRAWINGS.
12. FOLD & SECURE NON-WOVEN GEOTEXTILE OVER UNDERGROUND DETENTION BASIN.
13. COMPLETE SURFACE GRADING ABOVE THE UNDERGROUND DETENTION SYSTEM, USING SUITABLE EQUIPMENT TO AVOID EXCESS COMPACTION.
14. PAVE OVER SOIL WITH APPROPRIATE PAVEMENT INDICATED ON PAVING PLAN.
15. ANY SEDIMENT THAT ENTERS INLETS DURING CONSTRUCTION IS TO BE REMOVED WITH IN 24 HOURS.

TABLE 1. PHYSICAL REQUIREMENTS FOR COMPOST

PARAMETER	RANGE	TESTING METHOD
pH	5.0-8.5	TMECC 4.11A
SOLUBLE SALT CONCENTRATION	< 10dS/m	TMECC 4.10-A
MOISTURE	30-60% WET WEIGHT BASIS	SMEWW 2540B
ORGANIC MATTER	30-65% DRY WEIGHT BASIS	TMECC 5.07-A
PARTICLE SIZE	98% PASS THROUGH 3/4" SCREEN OR SMALLER	TMECC 5.07-A
STABILITY (CARBON DIOXIDE EVOLUTION RATE)	> 80% RELATIVE TO POSITIVE CONTROL	TMECC 5.08-B
MATURITY (SEED EMERGENCE AND SEEDING VIGOR)	> 80% RELATIVE TO POSITIVE CONTROL	TMECC 5.05-A
PHYSICAL CONTAMINANTS (MAN MADE INERTS)	< 1% DRY WEIGHT BASIS	TMECC 3.08-A
CHEMICAL CONTAMINANTS	MEET OR EXCEED US EPA CLASS A STANDARD, 40 CFR §503.13, TABLES 1 AND 3 LEVELS:	
ARSENIC	< 41 PPM	TMECC 4.06-AS
CADMIUM	< 39 PPM	TMECC 4.06-CD
COPPER	< 1,500 PPM	TMECC 4.05-CU
LEAD	< 300 PPM	TMECC 4.06-PB
MERCURY	< 17 PPM	TMECC 4.06-HG
MOLYBDENUM	< 75 PPM	TMECC 4.05-MO
NICKEL	< 420 PPM	TMECC 4.06-NI
SELENIUM	< 100 PPM	TMECC 4.06-SE
ZINC	< 2,800 PPM	TMECC 4.06-ZN
BIOLOGICAL CONTAMINANTS (PATHOGENS)	MEET OR EXCEED US EPA CLASS A STANDARD, 40 CFR §503.32(a) LEVELS:	
FECAL COLIFORM	< 1,000 MPN PER GRAM, DRY WEIGHT BASIS	TMECC 7.01
SOLMONELLA	< 3 MPN PER 4 GRAMS, DRAY WEIGHT BASIS	TMECC 7.02

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PROJECT No.:	PC191216
DRAWN BY:	CCP
CHECKED BY:	JRH
DATE:	03/04/2020
CAD I.D.:	PC191216-CND-2

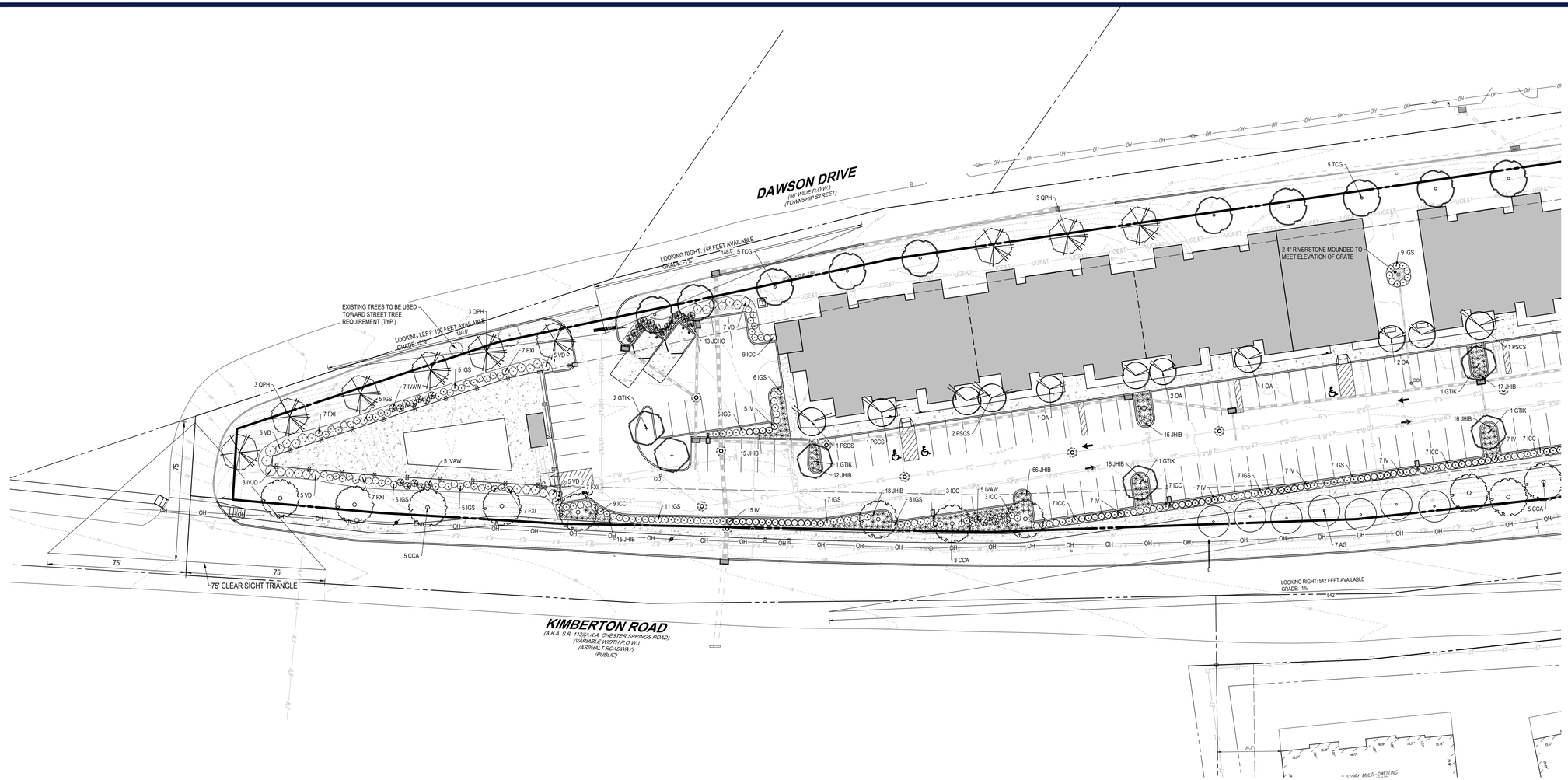
PROJECT:

REVISED PRELIMINARY/ FINAL LAND DEVELOPMENT PLANS
FOR
113 CORPORATION

ELAND POINT CROSSING

ROUTE 113 & DAWSON DRIVE
BOROUGH OF PHOENIXVILLE
CHESTER COUNTY
PHOENIXVILLE, PA

BOHLER
1600 MANOR DRIVE, SUITE 200
C



COMPLIANCE CHART:

SECTION	REQUIREMENTS	CALCULATIONS (REQUIRED/PROPOSED)	COMPLIANCE
SALDO 22-608.3. RESIDENTIAL PARKING LOTS	D. THE ENTIRE PARKING LOT PERIMETER SHALL BE BUFFERED AND LANDSCAPED AND APPROVED BY THE BOROUGH.	THE PARKING LOT PERIMETER HAS BEEN SCREENED WITH EVERGREEN AND DECIDUOUS SHRUBS AND A WALL.	COMPLIES
ZONING 27-406 BUFFERING/ SCREENING/ STREET TREES	1. STREET TREES SHALL BE INSTALLED AND MAINTAINED AT FORTY-FOOT INTERVALS ALONG ALL STREETS, TO PROVIDE SHADE AND TO ENHANCE THE STREETSCAPE, AND IN A MANNER THAT SERVES TO BUFFER PEDESTRIAN SIDEWALKS AND TRAILS FROM THE STREET. STREET TREE TYPES, SIZES, AND CHARACTERISTICS SHALL BE IN ACCORDANCE WITH THE PHOENIXVILLE BOROUGH SUBDIVISION AND LAND DEVELOPMENT ORDINANCE	LENGTH OF ROW ALONG DAWSON DRIVE = 1,460± LF. (EXCLUDING DRIVEWAY LENGTH) REQUIRED: 1,460 / 40 = 36.5 OR 37 STREET TREES PROVIDED: 2 EXISTING PLUS 18 QPH, 17 TCG (37 STREET TREES)	COMPLIES
		LENGTH OF ROW ALONG KIMBERTON ROAD = 1,319± LF. (EXCLUDING DRIVEWAY LENGTH) REQUIRED: 1,319 / 40 = 32.97 OR 33 STREET TREES PROVIDED: 15 AG, 18 CCA (33 STREET TREES)	COMPLIES
		LENGTH ALONG PROPOSED PRIVATE STREET = 937± LF. (LESS DRIVEWAYS) REQUIRED: 937 / 40 = 23.4 OR 23 STREET TREES PROVIDED: 11 OA, 12 PSCS (23 STREET TREES)	COMPLIES
	2.A. OFF-STREET PARKING AND LOADING AREAS THAT CAN BE VIEWED FROM PUBLIC STREETS SHALL BE SCREENED THROUGH THE USE OF LANDSCAPING, FENCING AND/OR WALLS.	THE PARKING LOT AND LOADING AREAS VISIBLE FROM PUBLIC STREETS HAVE BEEN SCREENED WITH EVERGREEN AND DECIDUOUS SHRUBS.	COMPLIES

LANDSCAPE SCHEDULE

KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS
SHADE TREE(S)					
CCA	18	CARPINUS CAROLINIANA	AMERICAN HORNBEAM	2 1/2-3" CAL.	B+B
GTIK	10	GLEDITSIA TRIACANTHOS INTERMIS 'SKYCOLE'	SKYLINE THORNLESS HONEYLOCUST	2 1/2-3" CAL.	B+B
QPH	18	QUERCUS PHELLOS	WILLOW OAK	2 1/2-3" CAL.	B+B
TCG	17	TILIA CORDATA 'GREENSPIRE'	GREENSPIRE LINDEN	2 1/2-3" CAL.	B+B
	63				
ORNAMENTAL TREE(S)					
AG	15	ACER GINNALA	AMUR MAPLE	2" CAL.	B+B
OA	11	OXYDENDRUM ARBOREA	SOURWOOD	2" CAL.	B+B
PSCS	12	PRUNUS SARGENTII 'COLUMNARIS'	COLUMNAR SARGENT CHERRY	2-2 1/2" CAL.	B+B
	38				
EVERGREEN SHRUB(S)					
ICC	94	ILEX CRENATA 'COMPACTA'	COMPACT JAPANESE HOLLY	30" MIN.	CONTAINER
IGS	141	ILEX GLABRA 'SHAMROCK'	SHAMROCK INKBERRY HOLLY	30" MIN.	CONTAINER
JCHC	34	JUNIPERUS CHINENSIS 'HETZII COLUMNARIS'	COLUMNAR HETZ JUNIPER	6' MIN.	B+B
JCSG	15	JUNIPERUS CHINENSIS 'SEA GREEN'	SEA GREEN JUNIPER	30" SPRD. MIN.	B+B
	284				
DECIDUOUS SHRUB(S)					
CA	9	CLETHRA ALNIFOLIA	SUMMERSWEET CLETHRA	30" MIN.	CONTAINER
CS	16	CORNUS SERICEA	RED OSIER DOGWOOD	30" MIN.	B+B
FXI	35	FORSYTHIA X INTERMEDIA 'SPECTABILIS'	SHOWY BORDER FORSYTHIA	3-4'	B+B
IV	123	ITEA VIRGINICA 'HENRY'S GARNET'	GARNET SWEETSPIRE	30" MIN.	CONTAINER
IVAW	33	ILEX VERTICILLATA 'AFTERGLOW WINTERBERRY'	AFTERGLOW WINTERBERRY	30-36"	CONTAINER
IVJD	3	ILEX VERTICILLATA 'JIM DANDY WINTERBERRY'	JIM DANDY WINTERBERRY	30-36"	CONTAINER
LB	5	LINDERA BENZOIN	SPICEBUSH	30-36"	CONTAINER
VD	27	VIBURNUM DENTATUM	ARROWWOOD VIBURNUM	3-4'	B+B
	251				
GROUND COVER					
JHIB	240	JUNIPERUS HORIZONTALIS 'MONBER'	ICEE BLUE JUNIPER	15-18" SPRD	CONTAINER

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30 15 7.5 0 30

1"= 30'

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CHECKED BY:	JRH
DATE:	03/04/2020
CAD I.D.:	PC191216-LND-2

PROJECT:

REVISED PRELIMINARY/ FINAL LAND DEVELOPMENT PLANS

FOR

113 CORPORATION

ELAND POINT CROSSING

ROUTE 113 & DAWSON DRIVE
BOROUGH OF PHOENIXVILLE
CHESTER COUNTY
PHOENIXVILLE, PA

BOHLER
1600 MANOR DRIVE, SUITE 200
CHALFONT, PA 18914
Phone: (215) 996-9100
Fax: (215) 996-9102
www.BohlerEngineering.com

D.T. NORTH
REGISTERED LANDSCAPE ARCHITECT
PENNSYLVANIA LICENSE No. LA002729

SHEET TITLE:

LANDSCAPE PLAN (A)

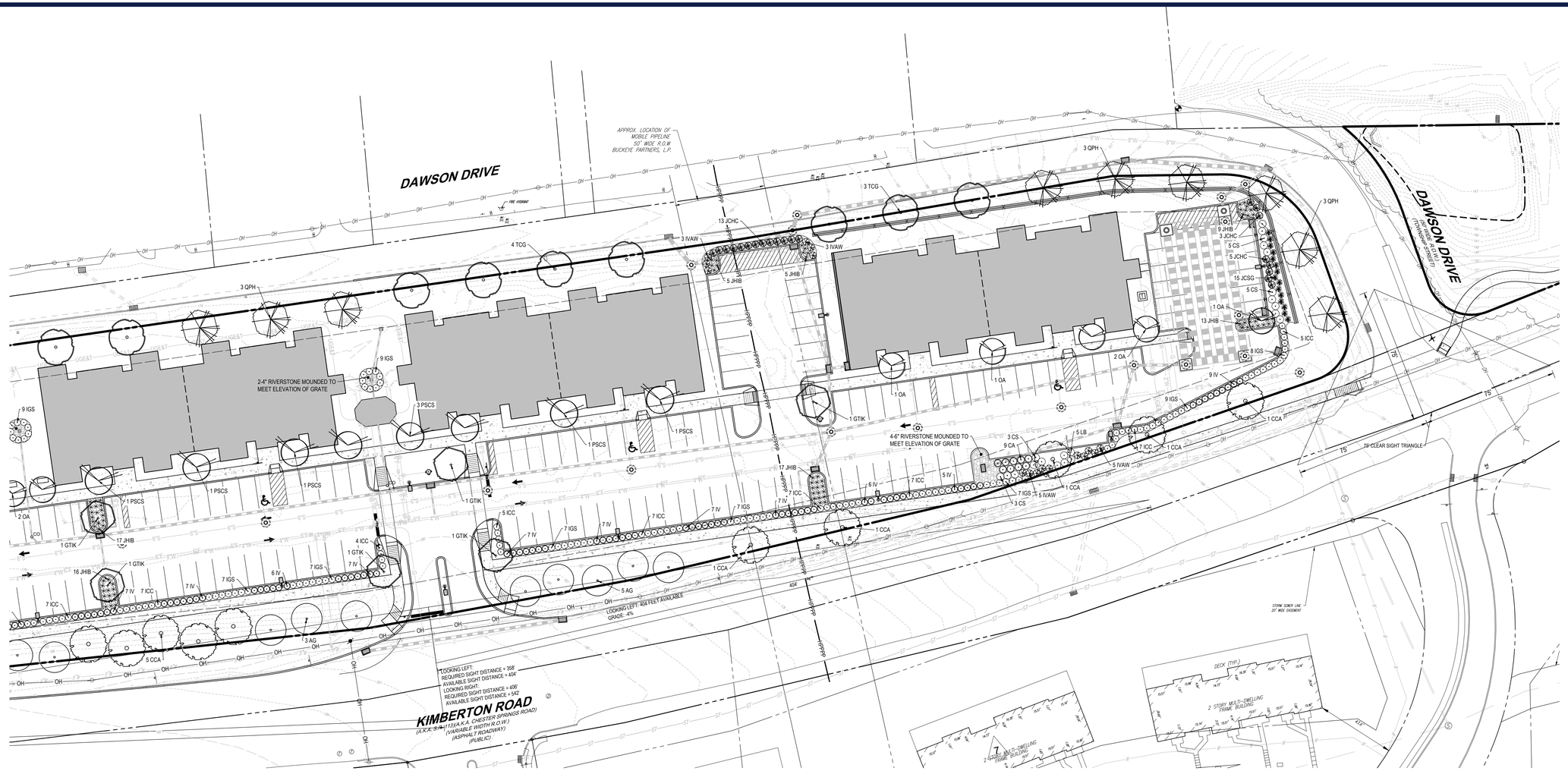
SHEET NUMBER:

C-701
23 OF 36

REVISION 2 - 9/25/2020

R:\PPC\191216\DRAWINGS\PLANSETS\LAND DEVELOPMENT\REVISION 2 (BOROUGH RESUBMISSION)\PC191216-LND-2-----LAYOUT C-701 LSCP A

HH



COMPLIANCE CHART:

SECTION	REQUIREMENTS	CALCULATIONS (REQUIRED/PROPOSED)	COMPLIANCE
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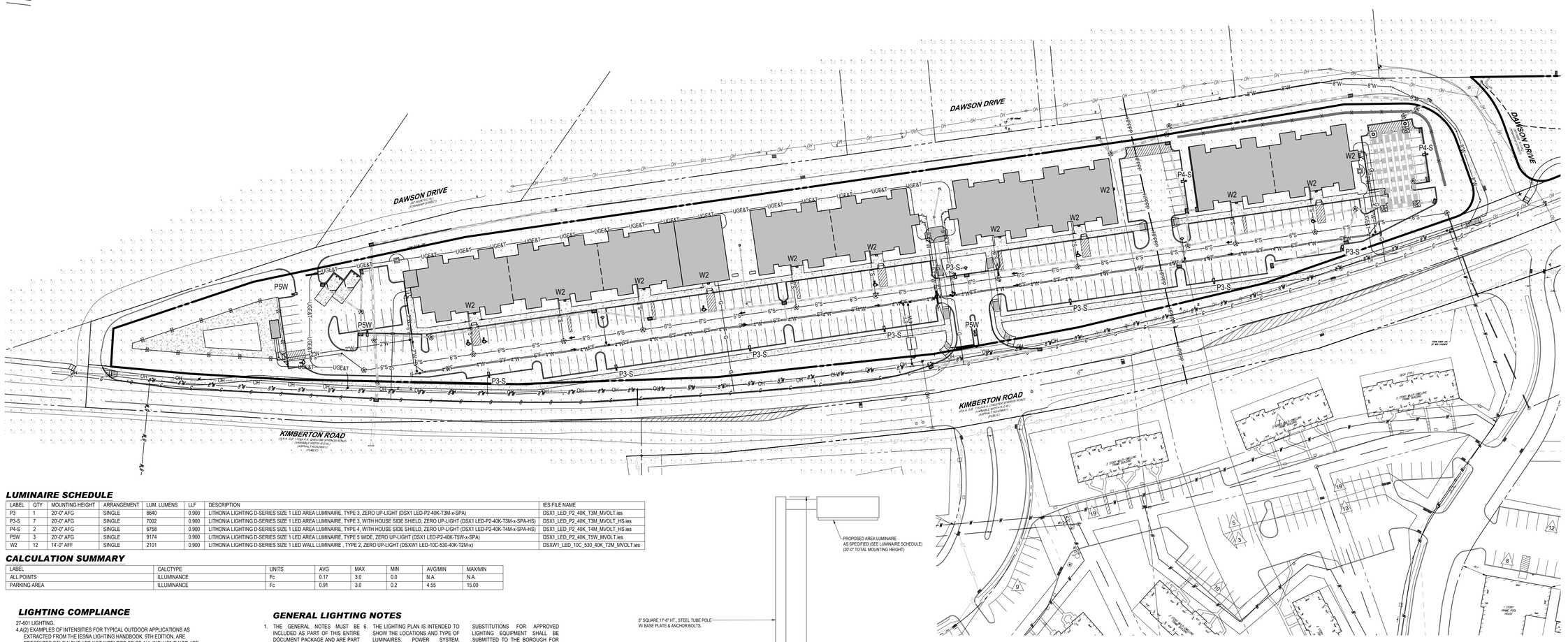
D.T. NORTH
REGISTERED LANDSCAPE ARCHITECT
PENNSYLVANIA LICENSE No. LA002729

SHEET TITLE:
LANDSCAPE PLAN (B)

SHEET NUMBER:
C-702
24 OF 36

REVISION 2 - 9/25/2020

R:\PPC\191216\DRAWINGS\PLANSETS\LAND DEVELOPMENT\REVISION 2 (BOROUGH RESUBMISSION)\PC191216-LND-2---LAYOUT C-702 LSCP B
HH



LUMINAIRE SCHEDULE

LABEL	QTY	MOUNTING HEIGHT	ARRANGEMENT	LUM. LUMENS	LLF	DESCRIPTION	IES FILE NAME
P3	1	20'-0" AFG	SINGLE	8640	0.900	LITHONIA LIGHTING D-SERIES SIZE 1 LED AREA LUMINAIRE, TYPE 3, ZERO UP-LIGHT (DSX1 LED-P2-40K-T3M-x-SPA)	DSX1_LED_P2_40K_T3M_MVOLT.ies
P3-S	7	20'-0" AFG	SINGLE	7002	0.900	LITHONIA LIGHTING D-SERIES SIZE 1 LED AREA LUMINAIRE, TYPE 3, WITH HOUSE SIDE SHIELD, ZERO UP-LIGHT (DSX1 LED-P2-40K-T3M-x-SPA-HS)	DSX1_LED_P2_40K_T3M_MVOLT_HS.ies
P4-S	2	20'-0" AFG	SINGLE	6758	0.900	LITHONIA LIGHTING D-SERIES SIZE 1 LED AREA LUMINAIRE, TYPE 4, WITH HOUSE SIDE SHIELD, ZERO UP-LIGHT (DSX1 LED-P2-40K-T4M-x-SPA-HS)	DSX1_LED_P2_40K_T4M_MVOLT_HS.ies
P5W	3	20'-0" AFG	SINGLE	9174	0.900	LITHONIA LIGHTING D-SERIES SIZE 1 LED AREA LUMINAIRE, TYPE 5 WIDE, ZERO UP-LIGHT (DSX1 LED-P2-40K-T5W-x-SPA)	DSX1_LED_P2_40K_T5W_MVOLT.ies
W2	12	14'-0" AFF	SINGLE	2101	0.900	LITHONIA LIGHTING D-SERIES SIZE 1 LED WALL LUMINAIRE , TYPE 2, ZERO UP-LIGHT (DSXW1 LED-10C-530-40K-T2M-x)	DSXW1_LED_10C_530_40K_T2M_MVOLT.ies

CALCULATION SUMMARY

LABEL	CALCTYPE	UNITS	AVG	MAX	MIN	AVG/MIN	MAX/MIN
ALL POINTS	ILLUMINANCE	Fc	0.17	3.0	0.0	N.A.	N.A.
PARKING AREA	ILLUMINANCE	Fc	0.91	3.0	0.2	4.55	15.00

LIGHTING COMPLIANCE

27-601 LIGHTING.

4.A(2) EXAMPLES OF INTENSITIES FOR TYPICAL OUTDOOR APPLICATIONS AS EXTRACTED FROM THE IESNA LIGHTING HANDBOOK, 9TH EDITION, ARE PRESENTED BELOW BUT ARE NOT INTENDED TO BE ALL-INCLUSIVE NOR ARE THE LISTED USES DEEMED TO BE PERMITTED USES WITHIN THE BOROUGH.

USE/TASK	MAINTAINED FOOTCANDLES	UNIFORMITY RATIO
(b) PARKING, RESIDENTIAL	0.2 MIN.	5:1 AVG MIN

[COMPLIES]

C(1) ALL OUTDOOR LIGHTING, WHETHER OR NOT REQUIRED OR PERMITTED BY THIS CHAPTER, ON PRIVATE, RESIDENTIAL, COMMERCIAL, INDUSTRIAL, MUNICIPAL, RECREATIONAL OR INSTITUTIONAL PROPERTY, SHALL BE AIMED, LOCATED, DESIGNED, FITTED AND MAINTAINED SO AS NOT TO PRESENT A HAZARD TO DRIVERS OR PEDESTRIANS BY IMPAIRING THEIR ABILITY TO SAFELY TRAVERSE AND SO AS NOT TO CREATE A NUISANCE BY PROJECTING OR REFLECTING OBJECTIONABLE LIGHT ONTO A NEIGHBORING USE OR PROPERTY. [COMPLIES]

(2) FLOODLIGHTS, SPOTLIGHTS AND OMNIDIRECTIONAL FIXTURES, REGARDLESS OF WHETHER FOR RESIDENTIAL OR NONRESIDENTIAL APPLICATIONS, SHALL BE SO INSTALLED OR AIMED THAT THEY DO NOT PROJECT THEIR OUTPUT INTO THE WINDOWS OF NEIGHBORING RESIDENCES, ADJACENT USES, SKYWARD OR ONTO A PUBLIC ROADWAY OR PEDESTRIAN WAY. [COMPLIES]

(7) VEGETATION SCREENS SHALL NOT BE EMPLOYED TO SERVE AS THE PRIMARY MEANS FOR CONTROLLING GLARE; RATHER, GLARE CONTROL SHALL BE ACHIEVED PRIMARILY THROUGH THE USE OF SUCH MEANS AS CUTOFF FIXTURES, SHIELDS AND BAFFLES, AND APPROPRIATE APPLICATION OF FIXTURE MOUNTING HEIGHT, WATTAGE, AIMING ANGLE AND PLACEMENT. [COMPLIES]

(8) THE INTENSITY OF ILLUMINATION PROJECTED ONTO A RESIDENTIAL PROPERTY FROM ANOTHER PROPERTY SHALL NOT EXCEED 0.1 VERTICAL FOOTCANDLE, MEASURED LINE-OF-SIGHT, FROM ANY POINT ON THE ADJACENT RESIDENTIAL PROPERTY. [COMPLIES]

D.(1) ELECTRICAL FEEDS FOR FIXTURES MOUNTED ON POLES SHALL BE RUN UNDERGROUND, NOT OVERHEAD. [COMPLIES]

(2) LIGHTING STANDARDS TO THE REAR OF PARKING SPACES SHALL BE PLACED A MINIMUM OF FIVE FEET OUTSIDE PAVED AREA, CURBING OR TIRE STOPS, OR ON CONCRETE PEDESTALS AT LEAST 30 INCHES HIGH ABOVE THE PAVEMENT, OR SUITABLY PROTECTED BY OTHER APPROVED MEANS. [COMPLIES]

(3) FIXTURES MEETING IESNA FULL-CUTOFF CRITERIA SHALL NOT BE MOUNTED IN EXCESS OF 20 FEET ABOVE FINISHED GRADE OF THE AREA BEING ILLUMINATED. [COMPLIES]

GENERAL LIGHTING NOTES

1. THE GENERAL NOTES MUST BE INCLUDED AS PART OF THIS ENTIRE DOCUMENT PACKAGE AND ARE PART OF THE CONTRACT DOCUMENTS. THE GENERAL NOTES ARE REFERENCED HEREIN, AND THE ELECTRICAL CONTRACTOR MUST REFER TO THEM AND FULLY COMPLY WITH THESE NOTES, IN THEIR ENTIRETY. THE ELECTRICAL CONTRACTOR MUST BE FAMILIAR WITH AND ACKNOWLEDGE FAMILIARITY WITH ALL OF THE GENERAL NOTES AND ALL OF THE PLANS' SPECIFIC NOTES.
2. THE ELECTRICAL CONTRACTOR MUST COMPLY WITH ALL APPLICABLE CONTRACTOR REQUIREMENTS INDICATED IN THE PLANS, INCLUDING BUT NOT LIMITED TO GENERAL NOTES, GRADING AND UTILITY NOTES, SITE SAFETY, AND ALL AGENCY AND GOVERNMENTAL REGULATIONS.
3. THE LIGHTING PLAN DEPICTS PROPOSED, SUSTAINED ILLUMINATION LEVELS CALCULATED USING DATA PROVIDED BY THE NOTED MANUFACTURER. ACTUAL SUSTAINED SITE ILLUMINATION LEVELS AND PERFORMANCE OF LUMINAIRES MAY VARY DUE TO VARIATIONS IN WEATHER, ELECTRICAL VOLTAGE, TOLERANCE IN LAMPS, THE SERVICE LIFE OF EQUIPMENT AND LUMINAIRES AND OTHER RELATED VARIABLE FIELD CONDITIONS.
4. THE LIGHTING VALUES AND CALCULATION POINTS DEPICTED ON THIS PLAN ARE ANALYZED ON A HORIZONTAL GEOMETRIC PLANE AT GROUND LEVEL UNLESS OTHERWISE NOTED. ILLUMINATION LEVELS ARE SHOWN IN FOOT-CANDLES (FC).
5. THE LUMINAIRES, LAMPS AND LENSES MUST BE REGULARLY INSPECTED/MAINTAINED TO ENSURE THAT THEY FUNCTION PROPERLY. THIS WORK SHOULD INCLUDE, BUT IS NOT LIMITED TO, VISUAL OBSERVATION, CLEANING OF LENSES, AND RE-LAMPING ACCORDING TO MANUFACTURER RECOMMENDATIONS. FAILURE TO FOLLOW THE ABOVE STEPS COULD RESULT IN IMPROPER LIGHT DISTRIBUTION AND FAILURE TO COMPLY WITH THE APPROVED DESIGN. UPON COMPLETION AND OWNER'S ACCEPTANCE OF THE WORK, THE ABOVE RESPONSIBILITIES BECOMES SOLELY THE OWNER'S.
6. THE LIGHTING PLAN IS INTENDED TO SHOW THE LOCATIONS AND TYPE OF LUMINAIRES, POWER SYSTEM, CONDUITS, WIRING AND OTHER ELECTRICAL COMPONENTS ARE SOLELY THE ARCHITECT'S, MECHANICAL ENGINEER'S AND/OR ELECTRICAL CONTRACTOR'S RESPONSIBILITY, AS INDICATED IN THE CONSTRUCTION CONTRACT DOCUMENTS. THE CONTRACTOR MUST COORDINATE WITH THE PROJECT ARCHITECT AND/OR ELECTRICAL ENGINEER REGARDING ANY AND ALL POWER SOURCES AND TIMING DEVICES NECESSARY TO MEET THE DESIGN INTENT. THESE ITEMS MUST BE INSTALLED AS REQUIRED BY STATE AND LOCAL REGULATIONS. CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION OF LIGHTING FIXTURES AND APPURTENANCES IN ACCORDANCE WITH ALL APPLICABLE BUILDING AND ELECTRICAL CODES.
7. THE ELECTRICAL CONTRACTOR MUST BRING IMMEDIATELY, IN WRITING, ANY LIGHT LOCATIONS THAT CONFLICT WITH DRAINAGE, UTILITIES, OR OTHER STRUCTURE(S) TO THE ENGINEER OF RECORD'S ATTENTION, PRIOR TO THE START OF CONSTRUCTION.
8. 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.
9. UPON OWNER'S ACCEPTANCE OF THE COMPLETED PROJECT, THE OWNER SHALL BE RESPONSIBLE FOR ALL MAINTENANCE, SERVICING, REPAIR AND INSPECTION OF THE LIGHTING SYSTEM AND ALL OF ITS COMPONENTS AND RELATED SYSTEMS, TO ENSURE ADEQUATE LIGHTING LEVELS ARE PRESENT AND FUNCTIONING AT ALL TIMES.
10. THE LIGHT LOSS FACTORS (LLF) DEPICTED IN THE LUMINAIRE SCHEDULE ON THIS PLAN ARE BASED ON DATA PROVIDED BY THE MANUFACTURER FOLLOWING IES LM-80-08 TESTING. THE LIGHT LEVELS DEPICTED ON THIS PLAN WERE CALCULATED BASED ON THE LLF LISTED IN THE LUMINAIRE SCHEDULE.
11. POST-APPROVAL ALTERATIONS TO LIGHTING PLANS OR INTENDED SUBSTITUTIONS FOR APPROVED LIGHTING EQUIPMENT SHALL BE SUBMITTED TO THE BOROUGH FOR REVIEW AND APPROVAL.
12. THE BOROUGH RESERVES THE RIGHT TO CONDUCT POST-INSTALLATION NIGHTTIME INSPECTIONS TO VERIFY COMPLIANCE WITH THE REQUIREMENTS OF THIS CHAPTER AND AS OTHERWISE AGREED UPON BY THE BOROUGH, AND IF APPROPRIATE, TO REQUIRE REMEDIAL ACTION AT NO EXPENSE TO THE BOROUGH.

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

LIGHT POLE DETAIL
SCALE: N.T.S. REV.: 2019.07.17

50 25 12.5 0 50
1"= 50'

BOHLER
SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
LAND PLANNING
PERMITTING SERVICES
TRANSPORTATION SERVICES

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REVISIONS

REV	DATE	COMMENT	DRAWN BY / CHECKED BY
1	8/04/2020	PER NPDES SUBMISSION	HH / RE
2	9/25/2020	PER BOROUGH RESUBMISSION	HH / RE

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THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.: PC191216
DRAWN BY: CCP
CHECKED BY: JRH
DATE: 03/04/2020
CAD I.D.: PC191216-LGT-2

PROJECT:

REVISED PRELIMINARY/ FINAL LAND DEVELOPMENT PLANS

FOR

113 CORPORATION

ELAND POINT CROSSING

ROUTE 113 & DAWSON DRIVE
BOROUGH OF PHOENIXVILLE
CHESTER COUNTY
PHOENIXVILLE, PA

BOHLER
1600 MANOR DRIVE, SUITE 200
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COMMONWEALTH OF PENNSYLVANIA
LA002729
REGISTERED LANDSCAPE ARCHITECT
PENNSYLVANIA LICENSE No. LA002729

SHEET TITLE:

LIGHTING PLAN

SHEET NUMBER:

C-703
25 OF 36

REVISION 2 - 9/25/2020

I:\PC\191216\DRAWINGS\PLAN SETS\LAND DEVELOPMENT\REVISION 2 (BOROUGH RESUBMISSION)\PC191216-LGT-2 — LAYOUT: C-703 LIGHT
HH

D-Series Size 1
LED Area Luminaire

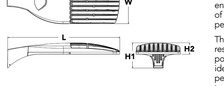


Catalog Number
Notes
Type

Fill the fully key or mouse over the page to see all interactive elements.

Specifications

EPA:	1.01 ft² (0.09 m²)
Length:	33" (83.8 cm)
Width:	15" (33.0 cm)
Height H1:	7-1/2" (19.0 cm)
Height H2:	3-1/2"
Weight (max):	27 lbs (12.7 kg)



Introduction

The modern styling of the D-Series is striking yet unobtrusive - making a bold, progressive statement even as it blends seamlessly with its environment. The D-Series distills the benefits of the latest in LED technology to a high performance, high efficacy, long-life luminaire.

The outstanding photometric performance results in sites with excellent uniformity, greater pole spacing and lower power density. It is ideal for replacing up to 750W metal halide in pedestrian and area lighting applications with typical energy savings of 65% and expected service life of over 100,000 hours.

A= Capable options indicated by this color background.

Ordering Information

EXAMPLE: DSX1 LED P7 40K T3M MVOLT SPA NLTAIR2 PIRHN DDBXD

DSX1 LED

Series	LEDs	Color temperature	Distribution	Voltage	Mounting
DSX1 LED	**Forward optics** P1 P4 P7 P10 P12 P2 P5 P8 P11 P13 P3 P6 P9 **Rotated optics** P59[1] P12[1] P11[1] P13[1]	30K 3000 K 40K 4000 K 50K 5000 K	T1S Type I short (Automotive) T2S Type II short T2M Type II medium T3S Type III short T3M Type III medium T4M Type IV medium TFTM Forward throw medium	T5VS Type V very short[1] T5S Type V short[1] T5M Type V medium[1] T5W Type V wide[1] BLC Backlight control[1] LCCO Left corner cutoff[1] RCCO Right corner cutoff[1]	MVOLT[2] 120[1] 208[1] 240[1] 277[1] 347[1] 480[1] **Shipped included** SPA Square pole mounting RPA Round pole mounting WBA Wall bracket[3] SPUMBA Square pole universal mounting adapter[4] RPUMBA Round pole universal mounting adapter[4] **Shipped separately** KMA8 DDBXD U Mast arm mounting bracket adapter (specify finish)[5]

Control options		Other options		Finish (required)	
Shipped installed		**Shipped installed**		DDBXD Dark bronze	
NLTAIR2 nLight AIR generation 2 enabled[7]	PIR High/low, motion/ambient sensor, 8-15' mounting height, ambient sensor enabled at 5fc[8,9]	HS House-side shield[10]		DBLXD Black	
PIRHN Network, high/low motion/ambient sensor[7]	PIRH High/low, motion/ambient sensor, 15-30' mounting height, ambient sensor enabled at 5fc[8,9]	SF Single fuse (120, 277, 347V)[1]		DNAXD Natural aluminum	
PER NEMA twist-lock receptacle only (controls ordered separately)[10]	PIR1FC3V High/low, motion/ambient sensor, 8-15' mounting height, ambient sensor enabled at 1fc[8,9]	DF Double fuse (208, 240, 480V)[1]		DWHXD White	
PERS Five-pin receptacle only (controls ordered separately)[10]	PIR1FC3V Bi-level, motion/ambient sensor, 15-30' mounting height, ambient sensor enabled at 1fc[8,9]	L90 Left rotated optics[1]		DDBTXD Textured dark bronze	
PERT Seven-pin receptacle only (controls ordered separately)[10]	FAO Field adjustable output[11]	R90 Right rotated optics[1]		DBLBXD Textured black	
DMG 0-10v dimming wires pulled outside fixture (for use with an external control, ordered separately)[11]		**Shipped separately**		DNATXD Textured natural aluminum	
DS Dual switching[12,13,14]		BS Bird spikes[15]		DWHGXD Textured white	
		EGS External glare shield			

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Ordering Information

Accessories

Ordered and shipped separately.

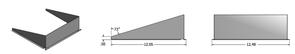
DLL127F 1.5 JU	Photocell - SSL twist-lock (120-277V)[16]
DLL347F 1.5 CUL JU	Photocell - SSL twist-lock (347V)[16]
DLL480F 1.5 CUL JU	Photocell - SSL twist-lock (480V)[16]
DSHORT SBK U	Shorting cap[16]
DSX1HS SBK U	House-side shield for P1, P2, P3, P4 and P5[10]
DSX1HS 40C U	House-side shield for P6 and P7[10]
DSX1HS 70C U	House-side shield for P8, P9, P10, P11 and P12[10]
PUMBA DDBXD U*	Square and round pole universal mounting bracket (specify finish)[4]
KMA8 DDBXD U	Mast arm mounting bracket adapter (specify finish)[5]
DSX1SSS 2PBKS U	External glare shield

For more control options, visit DTL and ROAM online.

NOTES
1. P15, P11, P12 or P13 and rotated optics (L90, R90) only available together.
2. Any Type 5 distribution with photocell, is not available with WBA.
3. Not available with HS.
4. MAST arms requires an any line voltage from 120-277V (50/60 Hz).
5. Single fuse (SF) requires 120V, 277V or 347V. Double fuse (DF) requires 208V, 240V or 480V.
6. Terminal block is suitable for connecting a photocontrol intended for retrofit on existing, pre-drilled poles only. 7.5 Q vibration load rating per ANSI C136.31.
7. Must order fixture with SPA option. Must be ordered as a separate accessory, see Accessories information. For use with 2-3/8" mast arm (not included).
8. Must be ordered with PIRHN. Sensor cover available only in dark bronze, black, white and natural aluminum colors.
9. Must be ordered with NLTAIR2. For more information on nLight Air 2 visit this link.
10. Photocell ordered and shipped as a separate line item from Acuity Brands Controls. See accessories. Not available with DS option. Shorting cap included.
11. Not available with P1, P2, P3, P4 or P5. Reference Motion Sensor table on page 4.
12. Not available with PIRHN, PER5, PER7, P8, P9, P10, P11 and P12.
13. Provides 50/50 fixture operation via (2) independent drivers. Not available with PER, PER5, PER7, P8 or P9RH. Not available P1, P2, P3, P4 or P5.
14. Requires (2) separately switched circuits with isolated neutral. See Outdoor Control Technical Guide for details.
15. Reference Motion Sensor table on page 4.
16. Not available with SLC, LCCO and RCCO distribution. Also available as a separate accessory; see Accessories information.
17. Must be ordered with fixture for factory pre-drilling.
20. Requires Luminaire to be specified with PER, PER5 or PER7 option. See PER Table on page 3.
21. For retrofit use only.

Options

EGS - External Glare Shield



Drilling

HANDHOLE ORIENTATION



Tenon Mounting Slipfitter**

Tenon O.D.	Mounting	Single/Bolt	2 @ 180	2 @ 90	3 @ 120	3 @ 90	4 @ 90
2-3/8"	SPA/RPA	AS3-5 190	AS3-5 280	AS3-5 290	AS3-5 320	AS3-5 390	AS3-5 490
	SPUMBA	AS3-5 190	AS3-5 280	AS4-5 290	AS3-5 320	AS4-5 390	AS4-5 490
	RUPUMBA	AS3-5 190	AS3-5 280		AS3-5 320		
2-7/8"	SPA/RPA	AS725-190	AS725-280	AS725-290	AS725-320	AS725-390	AS725-490
	SPUMBA	AS725-190	AS725-280		AS725-320		
	RUPUMBA	AS725-190	AS725-280		AS725-320		
4"	SPA/RPA	AS735-190	AS735-280	AS735-290	AS735-320	AS735-390	AS735-490
	SPUMBA	AS735-190	AS735-280	AS735-290	AS735-320	AS735-390	AS735-490
	RUPUMBA	AS735-190	AS735-280		AS735-320		

Template #8



Top of Pole

Mounting Option	Drilling Template	Single	2 @ 180	2 @ 90	3 @ 90	3 @ 120	4 @ 90
Head Location		Side B	Side B & D	Side B & C	Side B, C & D	Round Pole Only	Side A, B, C & D
Drill Nomenclature	#8	DM19AS	DM28AS	DM29AS	DM39AS	DM42AS	DM49AS

Drilling Template	Minimum Acceptable Pattern Dimension					
#8	2-7/8"	2-7/8"	3.5"	3.5"	3"	3.5"
#8	2-7/8"	2-7/8"	3.5"	3.5"	3"	3.5"
#5	2-7/8"	3"	4"	4"	3.5"	4"
#5	2-7/8"	3.5"	5"	5"	3.5"	5"

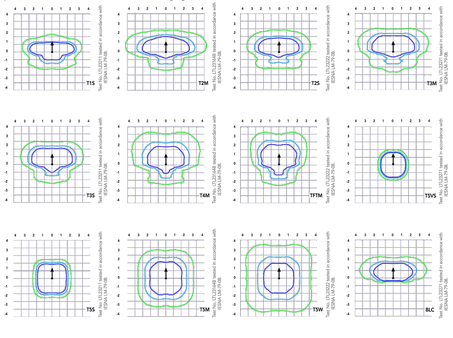
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Photometric Diagrams

To see complete photometric reports or download .ies files for this product, visit Lithonia Lighting's D-Series Area Size 1 homepage.

Isofootcandle plots for the DSX1 LED 40C 1000 40K. Distances are in units of mounting height (25').

LEGEND
- 0.1 fc
- 0.5 fc
- 1.0 fc



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Performance Data

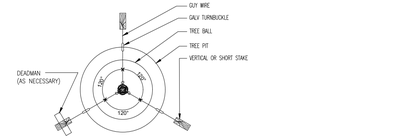
Lumen Output

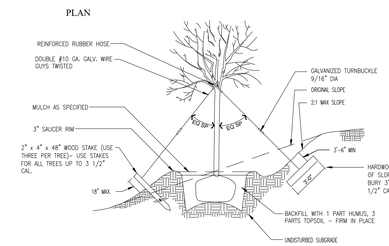
Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts Contact factory for performance data on any configurations not shown here.

Forward Optics

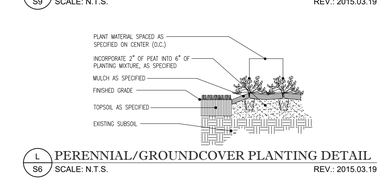
LCO Count	Drive Current	Power Package	System Watts	Dist. Type	30K (3000 K, 70 CRI)					40K (4000 K, 70 CRI)					50K (5000 K, 70 CRI)				
					Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
30	530	P1	54W	T1S	6,457	2	0	2	120	6,956	2	0	2	129	7,044	2	0	2	130
				T2S	6,450	2	0	2	119	6,949	2	0	2	129	7,037	2	0	2	130
				T2M	6,483	1	0	1	120	6,984	2	0	2	129	7,073	2	0	2	131
				T3S	6,279	2	0	2	116	6,764	2	0	2	125	6,850	2	0	2	127
				T3M	6,468	1	0	2	120	6,967	2	0	2	129	7,056	1	0	2	131
				T4M	6,327	1	0	2	117	6,816	1	0	2	126	6,902	1	0	2	128
				TFTM	6,464	1	0	2	120	6,963	1	0	2	129	7,052	1	0	2	131
				T5VS	6,722	2	0	0	124	7,242	3	0	0	134	7,334	3	0	0	136
				T5S	6,728	2	0	1	125	7,248	2	0	1	134	7,340	2	0	1	136
				T5M	6,711	3	0	1	124	7,229	3	0	1	134	7,321	3	0	2	136
				T5W	6,667	3	0	2	123	7,182	3	0	2	133	7,273	3	0	2	135
				BLC	5,299	1	0	1	98	5,709	1	0	2	106	5,781	1	0	2	107
				LCCO	3,941	1	0	2	73	4,248	1	0	2	79	4,302	1	0	2	80
				RCCO	3,943	1	0	2	73	4,248	1	0	2	79	4,302	1	0	2	80
30	700	P2	70W	T1S	8,249	2	0	2	118	8,886	2	0	2	127	8,999	2	0	2	129
				T2S	8,240	2	0	2	118	8,877	2	0	2	127	8,989	2	0	2	128
				T2M	8,283	2	0	2	118	8,923	2	0	2	127	9,036	2	0	2	129
				T3S	8,021	2	0	2	115	8,641	2	0	2	123	8,751	2	0	2	125
				T3M	8,263	2	0	2	118	8,901	2	0	2	127	9,014	2	0	2	129
				T4M	8,083	2	0	2	115	8,708	2	0	2	124	8,818	2	0	2	126
				TFTM	8,257	2	0	2	118	8,896	2	0	2	127	9,008	2	0	2	129
				T5VS	8,588	3	0	1	123	9,252	3	0	1	132	9,369	3	0	1	134
				T5S	8,595	3	0	1	123	9,259	3	0	1	132	9,376	3	0	1	134
				T5M	8,573	3	0	2	122	9,236	3	0	2	132	9,353	3	0	2	134
				T5W	8,517	3	0	2	122	9,175	4	0	2	131	9,291	4	0	2	133
				BLC	6,770	1	0	2	97	7,293	1	0	2	104	7,386	1	0	2	106
				LCCO	5,038	1	0	2	72	5,427	1	0	2	78	5,496	1	0	2	79
				RCCO	5,038	1	0	2	72	5,427	1	0	2	78	5,496	1	0	2	79
30	1050	P3	102W	T1S	11,661	2	0	2	114	12,562	3	0	3	123	12,721	3	0	3	125
				T2S	11,648	2	0	2	114	12,548	3	0	3	123	12,707	3	0	3	125
				T2M	11,708	2	0	2	115	12,613	2	0	2	124	12,773	2	0	2	125
				T3S	11,339	2	0	2	111	12,215	3	0	3	120	12,370	3	0	3	121
				T3M	11,680	2	0	2	115	12,582	2	0	2	123	12,742	2	0	2	125
				T4M	11,426	2	0	3	112	12,309	2	0	3	121	12,465	2	0	3	122
				TFTM	11,673	2	0	2	114	12,575	2	0	3	123	12,734	2	0	3	125
				T5VS	12,140	3	0	1	119	13,078	3	0	1	128	13,244	3	0	1	130
				T5S	12,150	3	0	1	119	13,089	3	0	1	128	13,254	3	0	1	130
				T5M	12,119	4	0	2	119	13,056	4	0	2	128	13,221	4	0	2	130
				T5W	12,040	4	0	3	118	12,970	4	0	3	127	13,134	4	0	3	129
				BLC	9,570	1	0	2	94	10,310	1	0	2	101	10,440	1	0	2	102
				LCCO	7,121	1	0	3	70	7,671	1	0	3	75	7,768	1	0	3	76
				RCCO	7,121	1	0	3	70	7,671	1	0	3	75	7,768	1	0	3	76
30	1250	P4	129W	T1S	13,455	3	0	3	107	14,473	3	0	3	116	14,657	3	0	3	117
				T2S	13,421	3	0	3	107	14,458	3	0	3	116	14,641	3	0	3	117
				T2M	13,490	2	0	2	108	14,532	3	0	3	116	14,716	3	0	3	118
				T3S	13,064	3	0	3	105	14,074	3	0	3	113	14,252	3	0	3	114
				T3M	13,457	2	0	2	108	14,491	3	0	3	116	14,681	2	0	3	117
				T4M	13,165	2	0	3	105	14,182	2	0	3	113	14,362	2	0	3	115
				TFTM	13,449	2	0	3	108	14,488	2	0	3	116	14,672	2	0	3	117
				T5VS	13,987	4	0	1	112	15,068	4	0	1	121	15,259	4	0	1	122
				T5S	13,999	3	0	1	112	15,080	3	0	1	121	15,271	3	0	1	122
				T5M	13,963	4	0	2	112	15,042	4	0	2	120	15,233	4	0	2	122
				T5W	13,872	4	0	3	111	14,944	4	0	3	120	15,133	4	0	3	121
				BLC	11,027	1	0	2	88	11,879	1	0	2	95	12,029	1	0	2	96
				LCCO	8,205	1	0	3	66	8,839	1	0	3	71	8,951	1	0	3	72
				RCCO	8,205	1	0	3	66	8,839	1	0	3	71	8,951	1	0	3	72
30	1400	P5	138W	T1S	14,679	3	0	3	106	15,814	3	0	3	115	16,014	3	0	3	116
				T2S	14,644	3	0	3	106	15,797	3	0	3	114	15,997	3	0	3	116
				T2M	14,719	3	0	3	107	15,878	3	0	3	115	16,079	3	0	3	117
				T3S	14,274	3	0	3	103	15,377	3	0	3	111	15,572	3	0	3	113
				T3M	14,704	2	0	3	107	15,840	3	0	3	115	16,040	3	0	3	116
				T4M	14,384	2	0	3	104	15,496	3	0	3	112	15,692	2	0	3	114
				TFTM	14,695	2	0	3	106	15,830	3	0	3	115	16,030	3	0	3	116
				T5VS	15,283	4	0	1	111	16,464	4	0	1	119	16,672	4	0	1	121
				T5S	15,295	3	0	1	111	16,477	4	0	1	119	16,686	4	0	1	121
				T5M	15,257	4	0	2	111	16,435	4	0	2	119	16,644	4	0	2	121
				T5W	15,157	4	0	3	110	16,328	4	0	3	118	16,534	4	0	3	120
				BLC	12,048	1	0	2	87	12,979	1	0	2	94	13,143	1	0	2	95
				LCCO	8,965	1	0	3	65	9,657	1	0	3	70	9,780	1	0	3	71
				RCCO	8,965	1	0	3	65	9,657	1	0	3	70	9,780	1	0	3	71

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L S9 SCALE: N.T.S. — SLOPE TREE PLANTING DETAIL — REV.: 2015.03.19

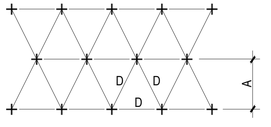


L S6 SCALE: N.T.S. — PERENNIAL/GROUNDCOVER PLANTING DETAIL — REV.: 2015.03.19

NOTES:
1. ANY TREE INSTALLED WITHIN 10 FT. OF NEW CONCRETE SIDEWALKS SHOULD BE INSTALLED WITH BIOBARRIER ROOT BARRIER FABRIC AS SHOWN.
2. TREES SHALL BE INSTALLED ACCORDING TO THE APPROPRIATE PLANTING DETAIL.

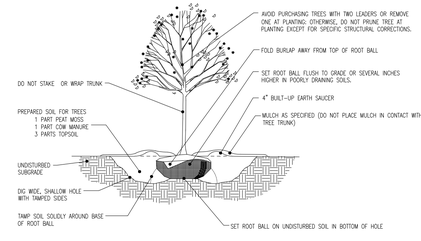
S12 SCALE: N.T.S. — BIOBARRIER ROOT BARRIER DETAIL — REV.: 2015.03.19

SPACING	ROW
"D" @ O.C.	"A"
8" O.C.	5.20"
10" O.C.	6.93"
12" O.C.	8.66"
15" O.C	10.40"
18" O.C.	13.00"
24" O.C.	15.60"
30" O.C.	20.80"
36" O.C.	26.00"
	30.00"

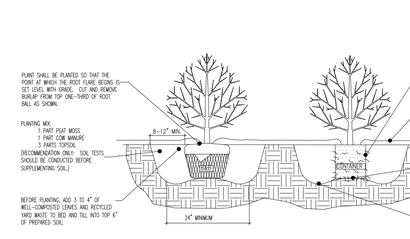


L S7 SCALE: N.T.S. — GROUNDCOVER/ANNUAL PLANTING SPACING — REV.: 2015.03.19

NOTES:
1.) NO SOIL OR MULCH SHALL BE PLACED AGAINST ROOT COLLAR OF PLANT.
2.) REMOVE ALL NON–BIODEGRADABLE MATERIAL AND ROPE FROM TRUNK & TOP OF ROOT BALL. FOLD OR CUT BURLAP BACK FROM TOP 1/3 OF ROOT BALL.
3.) PLANTING DEPTH SHALL BE THE SAME AS GROWN IN NURSERY.
4.) THOROUGHLY SOAK THE TREE ROOT BALL AND ADJACENT PREPARED SOIL SEVERAL TIMES DURING THE FIRST MONTH AFTER PLANTING AND REGULARLY THROUGHOUT THE FOLLOWING TWO SUMMERS.
5.) THE BOTTOM OF PLANTING PIT EXCAVATIONS SHOULD BE ROUGH TO AVOID MATTING OF SOIL LAYERS AS NEW SOIL IS ADDED. IT IS PREFERABLE TO TILL THE FIRST LIFT (2 TO 3 IN.) OF PLANTING SOIL INTO THE SUBSOIL.
6.) THE MINIMUM DIAMETER OF THE TREE PIT SHALL BE 3 TIMES THE DIAMETER OF THE ROOT BALL.



S1 SCALE: N.T.S. — DECIDUOUS TREE PLANTING DETAIL — REV.: 2015.03.19



L S5 SCALE: N.T.S. — DECIDUOUS & EVERGREEN SHRUB PLANTING DETAIL — REV.: 2015.03.19

LANDSCAPE SPECIFICATIONS:

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

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

B. TOPSOIL - NATURAL, FRIABLE, LOAMY SILT SOIL HAVING AN ORGANIC CONTENT NOT LESS THAN 5%, A PH RANGE BETWEEN 5.5-7.0, IT SHALL BE FREE OF DEBRIS, ROCKS LARGER THAN ONE INCH (1"), WOOD, ROOTS, VEGETABLE MATTER AND CLAY CLODS.

C. LAWN - LAWN AREAS SHALL BE SEEDED OR SODDED IN ACCORDANCE WITH THE PERMANENT STABILIZATION METHODS INDICATED WITHIN THE SOIL EROSION AND SEDIMENT CONTROL NOTES. FOR SOIL BED PREPARATIONS, REFER TO ITEM B BELOW.
I. LAWN SEED MIXTURE SHALL BE FRESH, CLEAN NEW CROP SEED.
II. SOD SHALL BE STRONGLY ROOTED, WEED AND DISEASE/PEST FREE WITH A UNIFORM THICKNESS. SOD INSTALLED ON SLOPES GREATER THAN 4:1 SHALL BE PEGGED TO HOLD SOD IN PLACE.

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

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

F. PLANT MATERIAL
I. ALL P

IN04 TO MH04

SCALE: 1"= 40 ' HORIZONTAL
1"= 4 ' VERTICAL

TD01 TO MH05

SCALE: 1"= 40 ' HORIZONTAL
1"= 4 ' VERTICAL

IN05 TO MH06

SCALE: 1"= 40 ' HORIZONTAL
1"= 4 ' VERTICAL

OS01 TO EXIN200

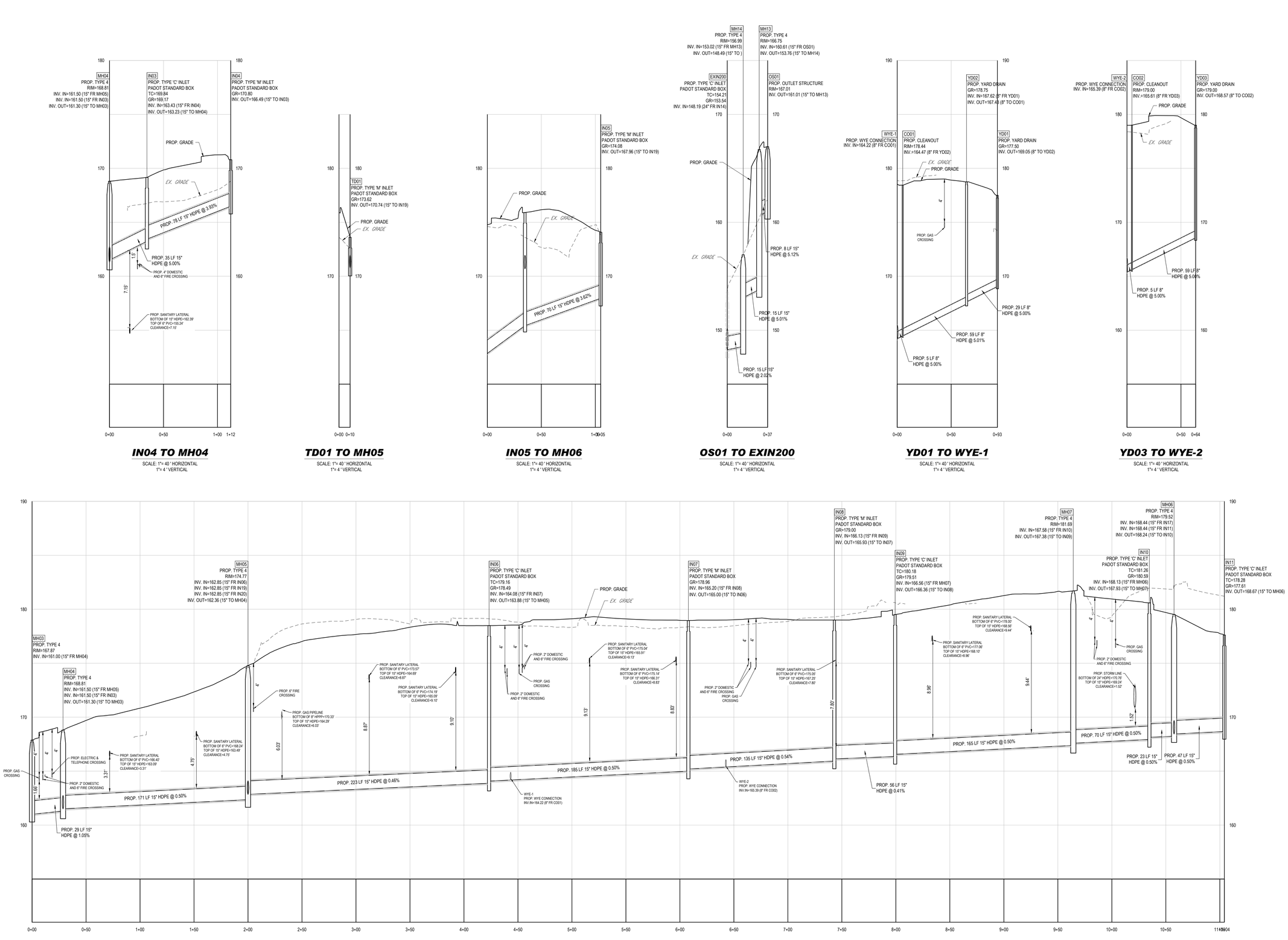
SCALE: 1"= 40 ' HORIZONTAL
1"= 4 ' VERTICAL

YD01 TO WYE-1

SCALE: 1"= 40 ' HORIZONTAL
1"= 4 ' VERTICAL

YD03 TO WYE-2

SCALE: 1"= 40 ' HORIZONTAL
1"= 4 ' VERTICAL



IN11 TO MH02

SCALE: 1"= 40 ' HORIZONTAL
1"= 4 ' VERTICAL

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PROJECT No.:	PC191216
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CHECKED BY:	JRH
DATE:	03/04/2020
CAD I.D.:	PC191216-UTL-2

PROJECT:

REVISED PRELIMINARY/ FINAL LAND DEVELOPMENT PLANS

FOR

113 CORPORATION

ELAND POINT CROSSING

ROUTE 113 & DAWSON DRIVE
BOROUGH OF PHOENIXVILLE
CHESTER COUNTY
PHOENIXVILLE, PA

BOHLER
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CHALFONT, PA 18914
Phone: (215) 996-9100
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NEW JERSEY LICENSE No. 24GE04042400

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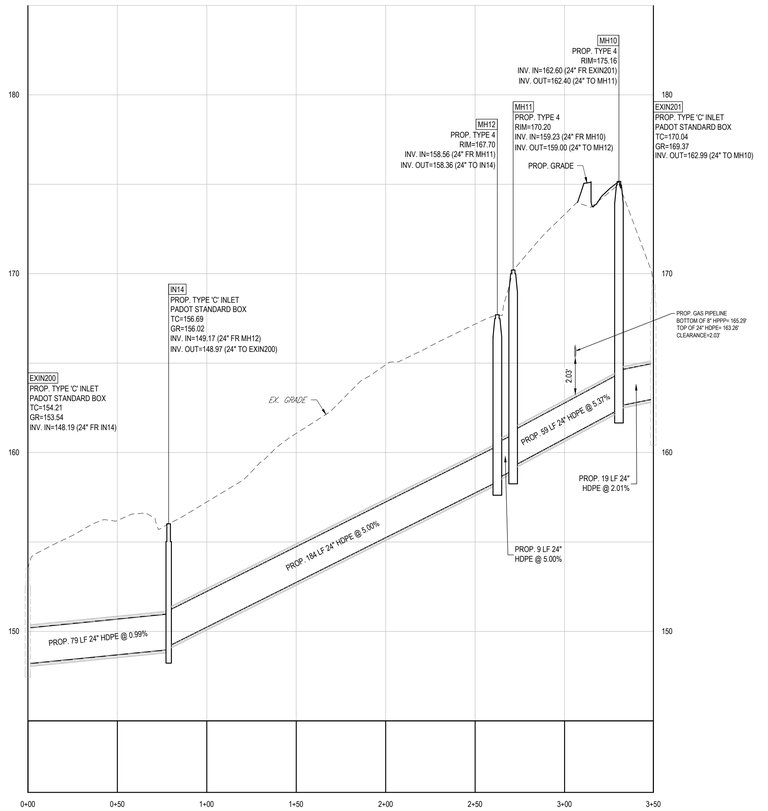
STORM PROFILES

SHEET NUMBER:

C-801
27 OF 36

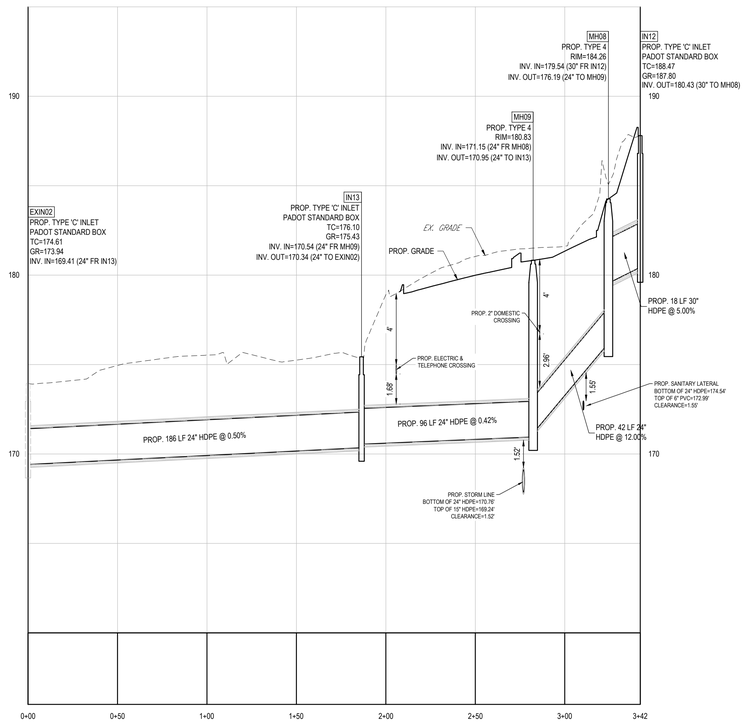
REVISION 2 - 9/25/2020

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HH



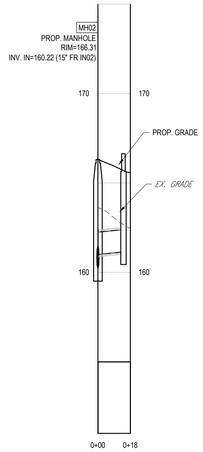
EXIN201 TO EXIN200

SCALE: 1"= 40 ' HORIZONTAL
1"= 4 ' VERTICAL



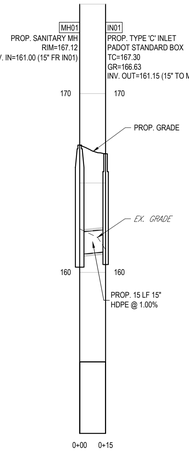
IN12 TO EXIN02

SCALE: 1"= 40 ' HORIZONTAL
1"= 4 ' VERTICAL



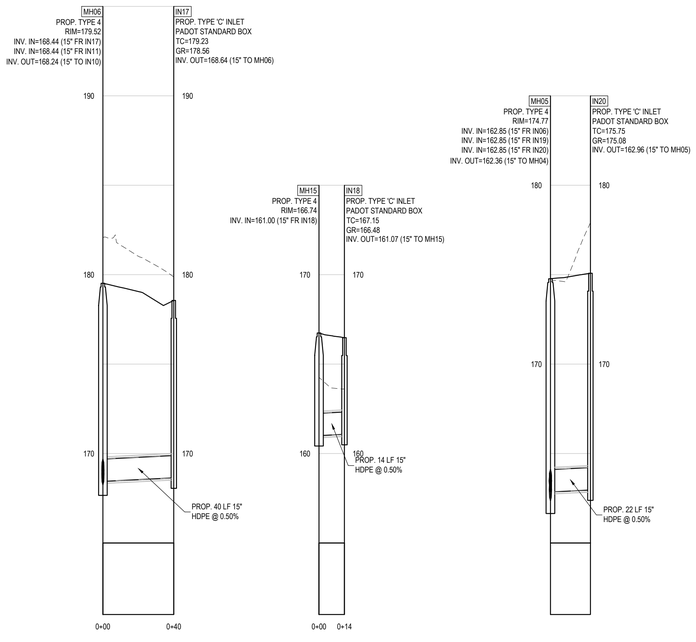
IN02 TO MH02

SCALE: 1"= 40 ' HORIZONTAL
1"= 4 ' VERTICAL



IN01 TO MH01

SCALE: 1"= 40 ' HORIZONTAL
1"= 4 ' VERTICAL



MH06 TO IN17

SCALE: 1"= 40 ' HORIZONTAL
1"= 4 ' VERTICAL

BASIN TO IN18

SCALE: 1"= 40 ' HORIZONTAL
1"= 4 ' VERTICAL

MH05 TO IN20

SCALE: 1"= 40 ' HORIZONTAL
1"= 4 ' VERTICAL

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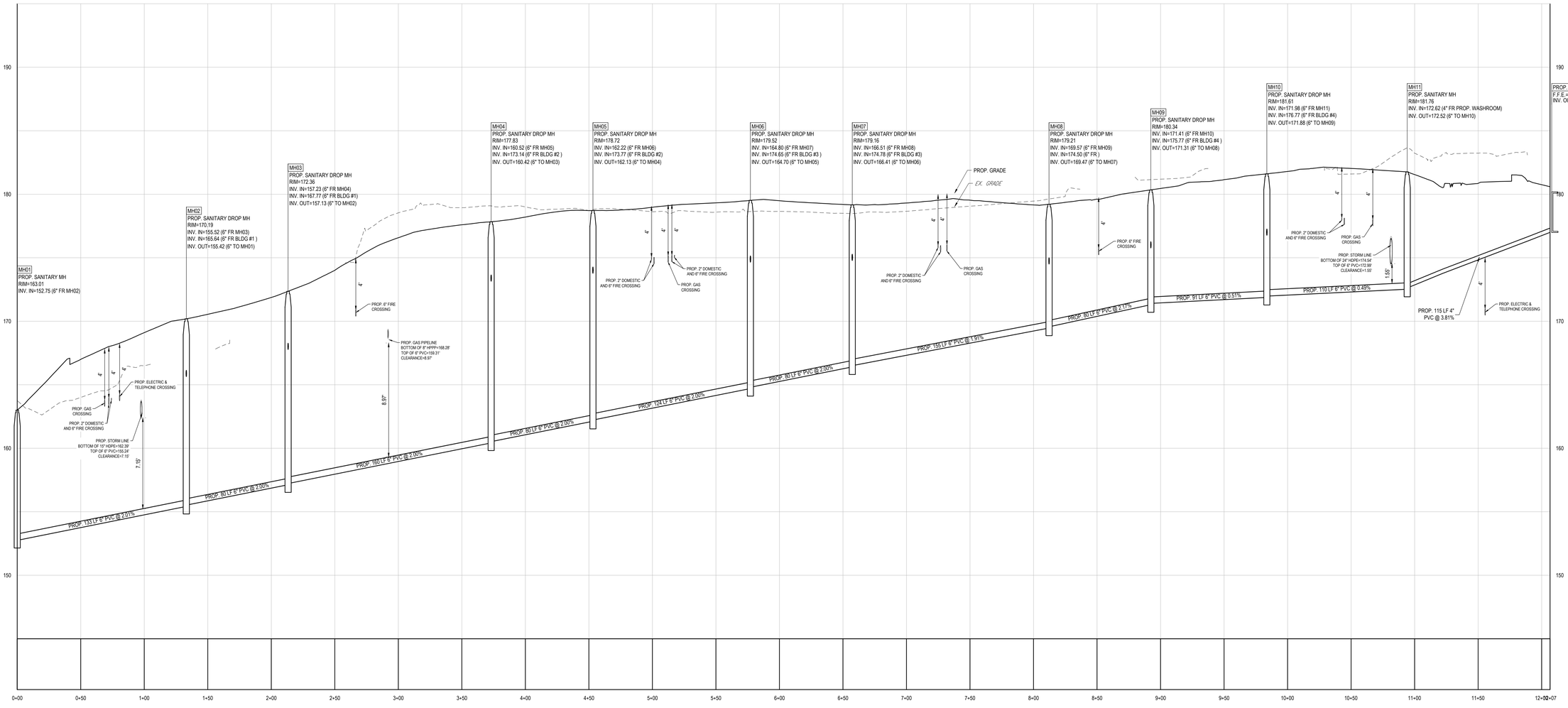
STORM PROFILES

SHEET NUMBER:

C-802

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REVISION 2 - 9/25/2020



PROPOSED SANITARY RUN

SCALE: 1"= 40 ' HORIZONTAL
1"= 4 ' VERTICAL

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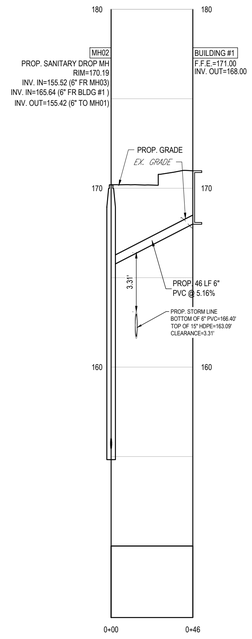
SANITARY PROFILES

SHEET NUMBER:

C-803

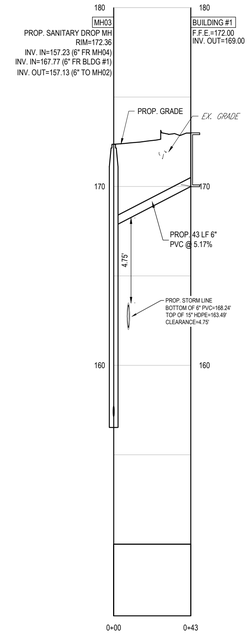
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REVISION 2 - 9/25/2020



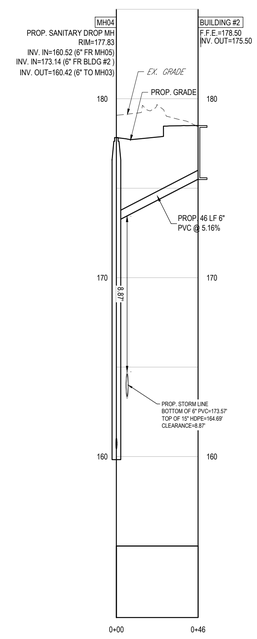
BUILDING #1 SANITARY LATERAL A

SCALE: 1"= 40 ' HORIZONTAL
1"= 4 ' VERTICAL



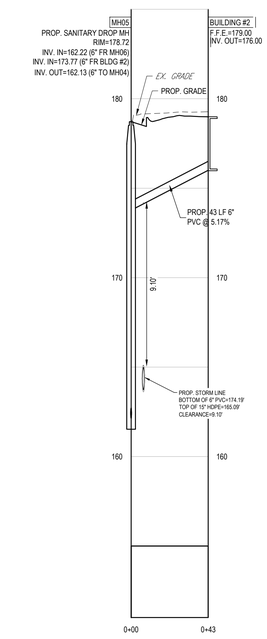
BUILDING #1 SANTIARY LATERAL B

SCALE: 1"= 40 ' HORIZONTAL
1"= 4 ' VERTICAL



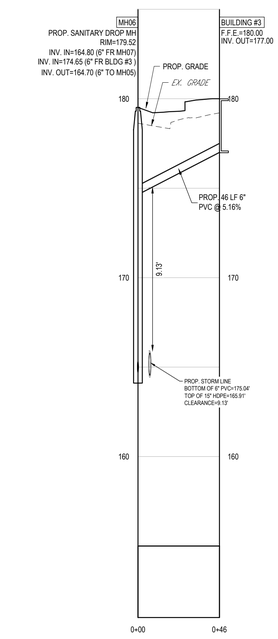
BUILDING #2 SANITARY LATERAL A

SCALE: 1"= 40 ' HORIZONTAL
1"= 4 ' VERTICAL



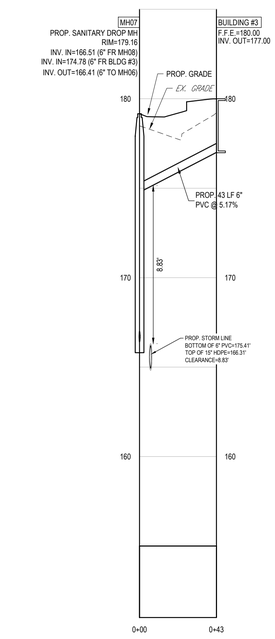
BUILDING #2 SANITARY LATERAL B

SCALE: 1"= 40 ' HORIZONTAL
1"= 4 ' VERTICAL



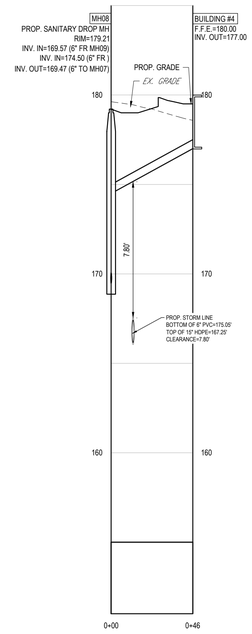
BUILDING #3 SANITARY LATERAL A

SCALE: 1"= 40 ' HORIZONTAL
1"= 4 ' VERTICAL



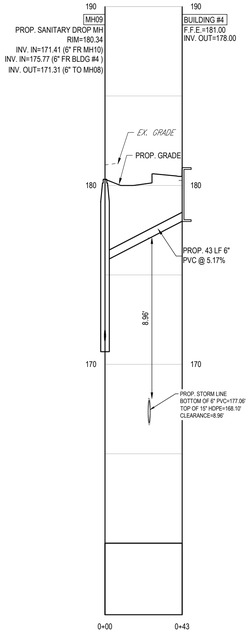
BUILDING #3 SANITARY LATERAL B

SCALE: 1"= 40 ' HORIZONTAL
1"= 4 ' VERTICAL



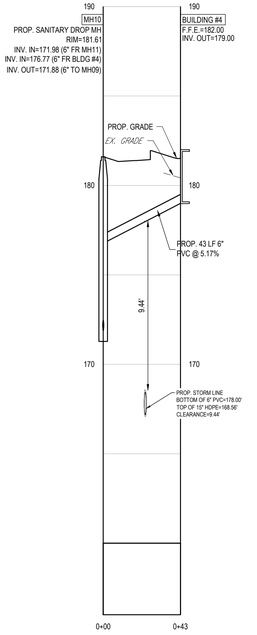
BUILDING #4 SANITARY LATERAL A

SCALE: 1"= 40 ' HORIZONTAL
1"= 4 ' VERTICAL



BUILDING #4 SANITARY LATERAL B

SCALE: 1"= 40 ' HORIZONTAL
1"= 4 ' VERTICAL



BUILDING #4 SANITARY LATERAL C

SCALE: 1"= 40 ' HORIZONTAL
1"= 4 ' VERTICAL

R:\191216\DRAWINGS\PLAN SETS\LAND DEVELOPMENT\REVISION 2 (BOROUGH RESUBMISSION)\PC191216-UTL-2-----LAYOUT C-804 SAN PROFILES
HH

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REV	DATE	COMMENT	DRAWN BY / CHECKED BY
1	8/04/2020	PER NPDES SUBMISSION	HH / RE
2	9/25/2020	PER BOROUGH RESUBMISSION	HH / RE

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PROJECT No.: PC191216
DRAWN BY: CCP
CHECKED BY: JRH
DATE: 03/04/2020
CAD I.D.: PC191216-UTL-2

PROJECT:

REVISED PRELIMINARY/ FINAL LAND DEVELOPMENT PLANS

FOR

113 CORPORATION

ELAND POINT CROSSING

ROUTE 113 & DAWSON DRIVE
BOROUGH OF PHOENIXVILLE
CHESTER COUNTY
PHOENIXVILLE, PA

BOHLER
1600 MANOR DRIVE, SUITE 200
CHALFONT, PA 18914
Phone: (215) 996-9100
Fax: (215) 996-9102
www.BohlerEngineering.com

JOHN R. HORNICK
COMMONWEALTH OF PENNSYLVANIA
PROFESSIONAL
John R. Hornick
PROFESSIONAL ENGINEER
Signature Date: 9/25/2020
NEW JERSEY LICENSE No. 24GE04041000

SHEET TITLE:

SANITARY PROFILES

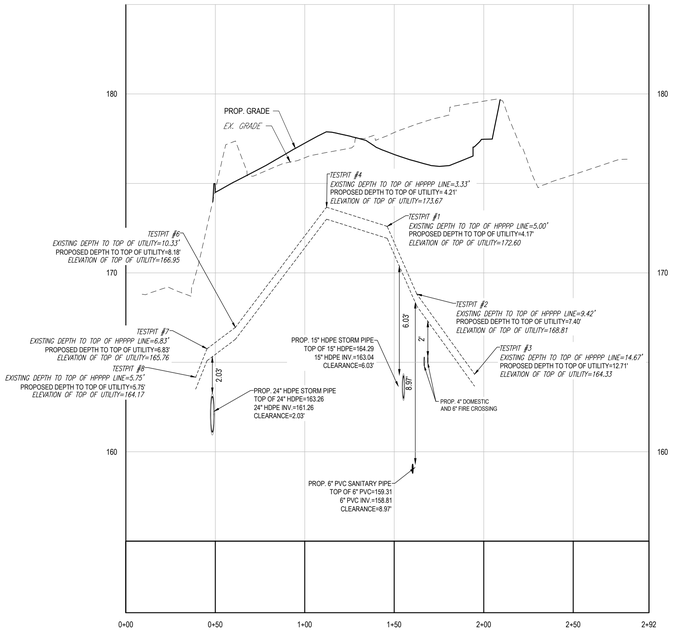
SHEET NUMBER:

C-804
30 OF 36

REVISION 2 - 9/25/2020

FIELD EXCAVATION TABLE

DATE OF EXCAVATION	4/12/18
BUCKEYE EMPLOYEE	BILL BARBER
TB #1	STATION: 1+46 EXISTING GROUND ELEVATION: 5.00' PROPOSED GROUND ELEVATION: 4.17' DIAMETER OF CARRIER PIPE: 8"
TB #2	STATION: 1+46 EXISTING GROUND ELEVATION: 9.42' PROPOSED GROUND ELEVATION: 7.40' DIAMETER OF CARRIER PIPE: 8"
TB #3	STATION: 1+46 EXISTING GROUND ELEVATION: 14.67' PROPOSED GROUND ELEVATION: 12.71' DIAMETER OF CARRIER PIPE: 8"
TB #4	STATION: 1+46 EXISTING GROUND ELEVATION: 3.33' PROPOSED GROUND ELEVATION: 4.21' DIAMETER OF CARRIER PIPE: 8"
TB #6	STATION: 1+46 EXISTING GROUND ELEVATION: 10.33' PROPOSED GROUND ELEVATION: 8.18' DIAMETER OF CARRIER PIPE: 8"
TB #7	STATION: 1+46 EXISTING GROUND ELEVATION: 6.83' PROPOSED GROUND ELEVATION: 6.83' DIAMETER OF CARRIER PIPE: 8"
TB #8	STATION: 1+46 EXISTING GROUND ELEVATION: 5.75' PROPOSED GROUND ELEVATION: 5.75' DIAMETER OF CARRIER PIPE: 8"



GAS PROFILE

SCALE: 1"= 40 ' HORIZONTAL
1"= 4 ' VERTICAL

R:\PPC\191216\DRAWINGS\PLAN SETS\LAND DEVELOPMENT\REVISION 2 (BOROUGH RESUBMISSION)\PC191216-UTL-2.---LAYOUT C-805 BUCKEYE GAS PROFILES
HH

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PE082594
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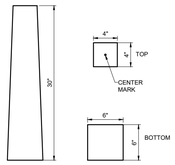
SHEET TITLE:

BUCKEYE GAS PIPELINE PROFILES

SHEET NUMBER:

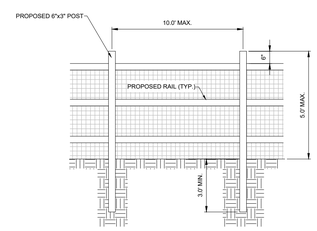
C-805
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REVISION 2 - 9/25/2020



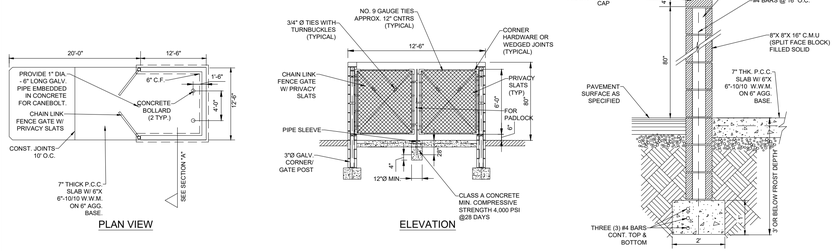
1.) SPECIFICATIONS:
- CLASS 'A' CONCRETE- MINIMUM STRENGTH (3,000 P.S.I. @ 28 DAYS)
- STEEL REINFORCEMENT (#4 REBAR)

A-2 SURVEYOR'S MONUMENT DETAIL



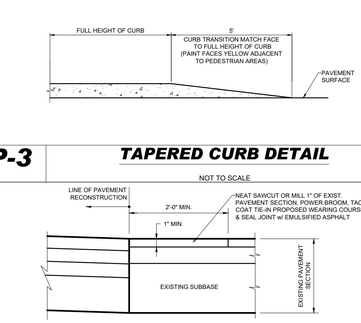
NOTE: ALL WOOD TO BE PRESSURE TREATED LUMBER. GALVANIZED WIRE MESH FENCE (13 GAGE) WITH VINYL COATING TO BE SECURED TO OUTSIDE OF FENCE

A-6 POST & RAIL FENCE DETAIL



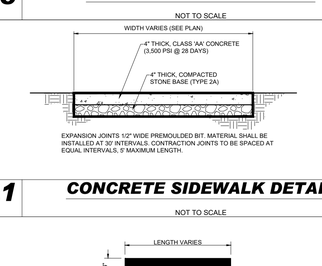
NOTE: TRASH ENCLOSURE FINISH TO BE COORDINATED WITH OWNER.

A-11 12'-6" x 12' 6" CMU TRASH ENCLOSURE DETAIL



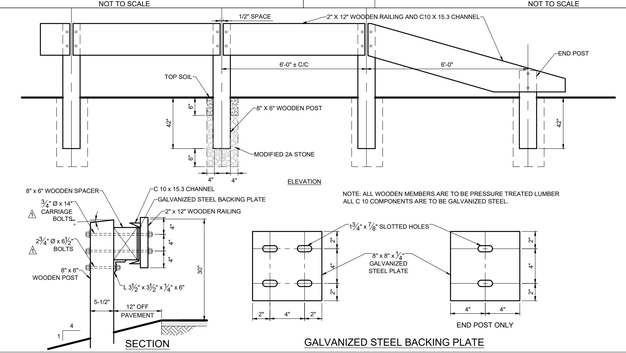
P-3 TAPERED CURB DETAIL

NOT TO SCALE



P-13 PAVEMENT TIE-IN DETAIL

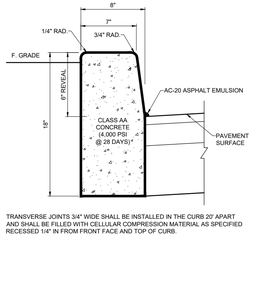
NOT TO SCALE



NOTE: ALL WOODEN MEMBERS ARE TO BE PRESSURE TREATED LUMBER
ALL C 10 COMPONENTS ARE TO BE GALVANIZED STEEL.

A-3 WOODEN GUIDE RAIL DETAIL

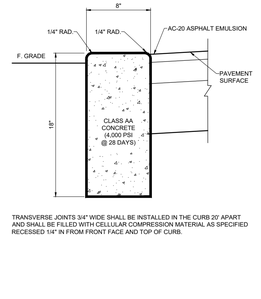
NOT TO SCALE



TRANSVERSE JOINTS 3/4" WIDE SHALL BE INSTALLED IN THE CURB 20' APART AND SHALL BE FILLED WITH CELLULAR COMPRESSION MATERIAL AS SPECIFIED RECESSED 1/4" IN FROM FRONT FACE AND TOP OF CURB.

P-1 TYPICAL CONCRETE CURB DETAIL

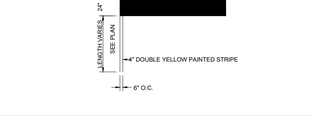
NOT TO SCALE



TRANSVERSE JOINTS 3/4" WIDE SHALL BE INSTALLED IN THE CURB 20' APART AND SHALL BE FILLED WITH CELLULAR COMPRESSION MATERIAL AS SPECIFIED RECESSED 1/4" IN FROM FRONT FACE AND TOP OF CURB.

P-2 TYPICAL FLUSH CONCRETE CURB DETAIL

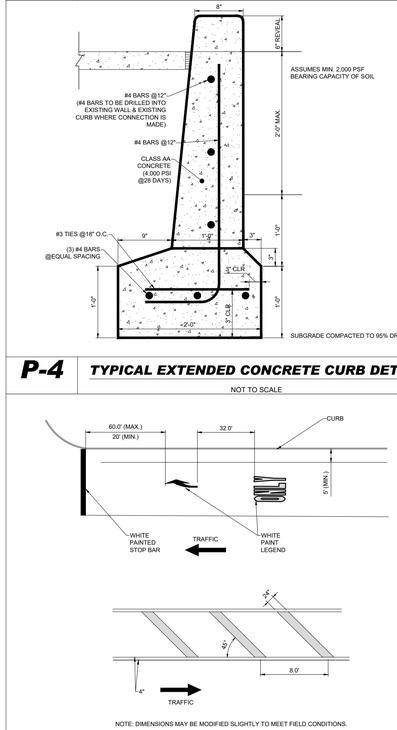
NOT TO SCALE



EXPANSION JOINTS 1/2" WIDE PREMOULDED BIT. MATERIAL SHALL BE INSTALLED AT 30' INTERVALS. CONTRACTION JOINTS TO BE SPACED AT EQUAL INTERVALS, 5' MAXIMUM LENGTH.

P-21 CONCRETE SIDEWALK DETAIL

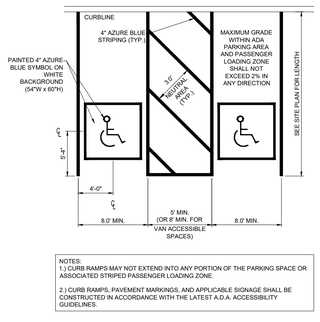
NOT TO SCALE



NOTE: DIMENSIONS MAY BE MODIFIED SLIGHTLY TO MEET FIELD CONDITIONS.

T-8 PAVEMENT MARKING DETAIL

NOT TO SCALE

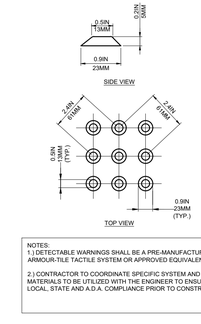


NOTES:
1.) CURB RAMPS MAY NOT EXTEND INTO ANY PORTION OF THE PARKING SPACE OR ASSOCIATED STRIPED PASSENGER LOADING ZONE.

2.) CURB RAMPS, PAVEMENT MARKINGS, AND APPLICABLE SIGNAGE SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST A.D.A. ACCESSIBILITY GUIDELINES.

T-12 ADA ACCESSIBLE PARKING SPACE STRIPING (2 SPACES)

NOT TO SCALE

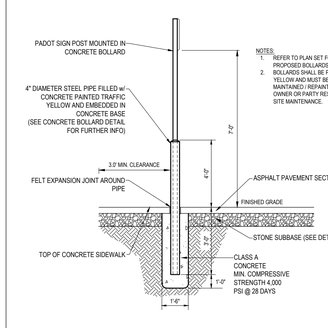


NOTES:
1.) DETECTABLE WARNINGS SHALL BE A PRE-MANUFACTURED ARMOUR-TILE TACTILE SYSTEM OR APPROVED EQUIVALENT.

2.) CONTRACTOR TO COORDINATE SPECIFIC SYSTEM AND MATERIALS TO BE UTILIZED WITH THE ENGINEER TO ENSURE LOCAL, STATE AND A.D.A. COMPLIANCE PRIOR TO CONSTRUCTION.

T-16 TRUNCATED DOME PATTERN FOR ADA DETECTABLE WARNING SURFACES (FOR USE IN DOT ROADWAYS)

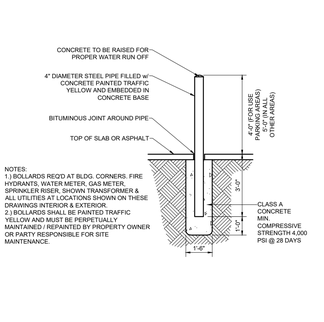
NOT TO SCALE



NOTES:
1. REFER TO PLAN SET FOR LOCATIONS OF PROPOSED BOLLARDS
2. BOLLARDS SHALL BE PAINTED TRAFFIC YELLOW AND MUST BE PERPETUALLY MAINTAINED / REPAINTED BY PROPERTY OWNER OR PARTY RESPONSIBLE FOR SITE MAINTENANCE.

T-19 SIGN WITHIN BOLLARD IN ASPHALT DETAIL

NOT TO SCALE



NOTES:
1.) BOLLARDS REQ'D AT BLDG. CORNERS, FIRE HYDRANTS, WATER METER, GAS METER, SPRINKLER RISER, SHOWN TRANSFORMER & ALL UTILITIES AT LOCATIONS SHOWN ON THESE DRAWINGS INTERIOR & EXTERIOR.
2.) BOLLARDS SHALL BE PAINTED TRAFFIC YELLOW AND MUST BE PERPETUALLY MAINTAINED / REPAINTED BY PROPERTY OWNER OR PARTY RESPONSIBLE FOR SITE MAINTENANCE.

T-20 BOLLARD DETAIL

NOT TO SCALE

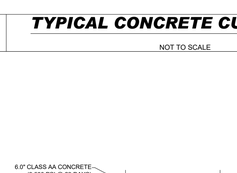
P-4 TYPICAL EXTENDED CONCRETE CURB DETAIL

NOT TO SCALE



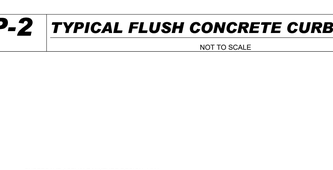
P-15 CONCRETE PAVEMENT DETAIL

NOT TO SCALE



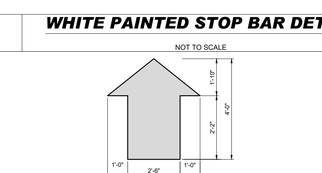
P-16 REINFORCED CONCRETE PAVING DETAIL

NOT TO SCALE



P-17 STANDARD ASPHALT PAVEMENT DETAIL

NOT TO SCALE



T-7 WHITE PAINTED TRAFFIC ARROW DETAIL

NOT TO SCALE



24"x24"
(R1-1)
STOP SIGN

T-27 STANDARD SIGN DETAILS

NOT TO SCALE

T-6 WHITE PAINTED STOP BAR DETAIL

NOT TO SCALE

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NEW JERSEY LICENSE No. 24GE04644600

SHEET TITLE:

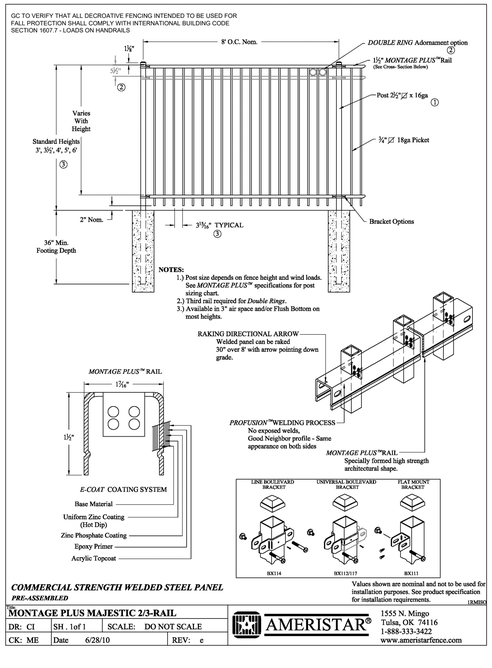
DETAILS

SHEET NUMBER:

C-901
32 OF 36

REVISION 2 - 9/25/2020

GC TO VERIFY THAT ALL DECROATIVE FENCING INTENDED TO BE USED FOR FALL PROTECTION SHALL COMPLY WITH INTERNATIONAL BUILDING CODE SECTION 1607.7 - LOADS ON HANDRAILS



COMMERCIAL STRENGTH WELDED STEEL PANEL
PRE-ASSEMBLED

Values shown are nominal and not to be used for installation purposes. See product specification for installation requirements.

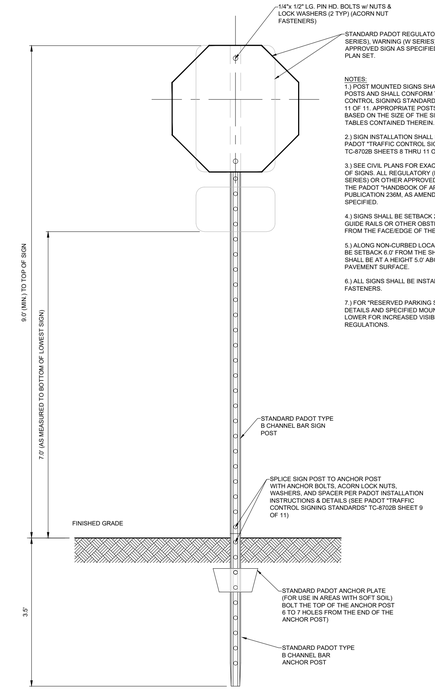
(EMDE)

MONTAGE PLUS MAJESTIC 2/3-RAIL			
DR: CI	SH , 1of 1	SCALE: DO NOT SCALE	
CK: ME	Date 6/28/10	REV: e	

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1-888-333-3422
www.ameristarfence.com

A-13 DECORATIVE ALUMINUM GUARD FENCE (5' HIGH) (BLACK)

NOT TO SCALE



NOTES:
1.) POST MOUNTED SIGNS SHALL BE TYPE B CHANNEL BAR POSTS AND SHALL CONFORM TO PADOT "TRAFFIC CONTROL SIGNING STANDARDS" TC-8702B SHEET 8 THRU 11 OF 11. APPROPRIATE POSTS SHALL BE SELECTED BASED ON THE SIZE OF THE SIGN USING THE SELECTION TABLES CONTAINED THEREIN.

2.) SIGN INSTALLATION SHALL BE IN ACCORDANCE WITH PADOT "TRAFFIC CONTROL SIGNING STANDARDS" TC-8702B SHEETS 8 THRU 11 OF 11, AS AMENDED.

3.) SEE CIVIL PLANS FOR EXACT LOCATION, TYPE AND SIZE OF SIGNS. ALL REGULATORY (R SERIES) WARNING (W SERIES) OR OTHER APPROVED SIGNS SHALL CONFORM TO THE PADOT "HANDBOOK OF APPROVED SIGNS", PUBLICATION 236M, AS AMENDED, UNLESS OTHERWISE SPECIFIED.

4.) SIGNS SHALL BE SETBACK 2.0' FROM CURB LINES, GUIDE RAILS OR OTHER OBSTRUCTIONS AS MEASURED FROM THE FACE/EDGE OF THE SIGN.

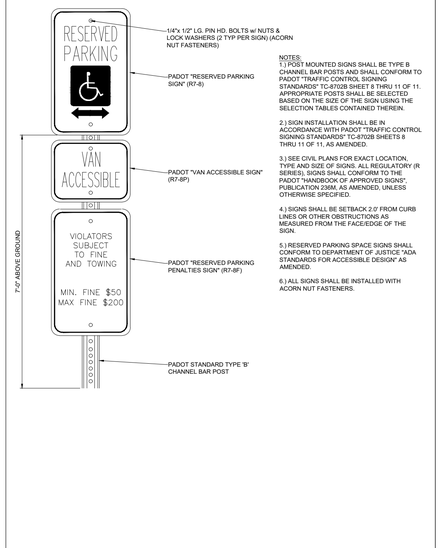
5.) ALONG NON-CURBED LOCAL ROADWAYS SIGNS SHALL BE SETBACK 6.0' FROM THE SHOULDER/PAVING EDGE AND SHALL BE AT A HEIGHT 5.0' ABOVE THE EDGE OF PAVEMENT SURFACE.

6.) ALL SIGNS SHALL BE INSTALLED WITH ACORN NUT FASTENERS.

7.) FOR "RESERVED PARKING SIGN" (R7-8) REFER TO DETAILS AND SPECIFIED MOUNTING HEIGHTS WHICH ARE LOWER FOR INCREASED VISIBILITY PER ADA REGULATIONS.

T-11 STANDARD POLE MOUNTED SIGN INSTALLATION DETAIL

NOT TO SCALE



NOTES:
1.) POST MOUNTED SIGNS SHALL BE TYPE B CHANNEL BAR POSTS AND SHALL CONFORM TO PADOT "TRAFFIC CONTROL SIGNING STANDARDS" TC-8702B SHEET 8 THRU 11 OF 11. APPROPRIATE POSTS SHALL BE SELECTED BASED ON THE SIZE OF THE SIGN USING THE SELECTION TABLES CONTAINED THEREIN.

2.) SIGN INSTALLATION SHALL BE IN ACCORDANCE WITH PADOT "TRAFFIC CONTROL SIGNING STANDARDS" TC-8702B SHEETS 8 THRU 11 OF 11, AS AMENDED.

3.) SEE CIVIL PLANS FOR EXACT LOCATION, TYPE AND SIZE OF SIGNS. ALL REGULATORY (R SERIES), SIGNS SHALL CONFORM TO THE PADOT "HANDBOOK OF APPROVED SIGNS", PUBLICATION 236M, AS AMENDED, UNLESS OTHERWISE SPECIFIED.

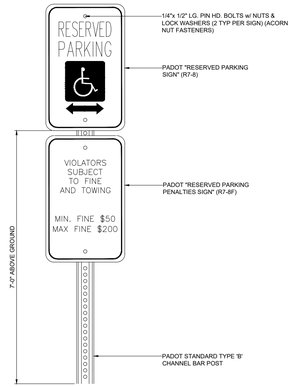
4.) SIGNS SHALL BE SETBACK 2.0' FROM CURB LINES OR OTHER OBSTRUCTIONS AS MEASURED FROM THE FACE/EDGE OF THE SIGN.

5.) RESERVED PARKING SPACE SIGNS SHALL CONFORM TO DEPARTMENT OF JUSTICE "ADA STANDARDS FOR ACCESSIBLE DESIGN" AS AMENDED.

6.) ALL SIGNS SHALL BE INSTALLED WITH ACORN NUT FASTENERS.

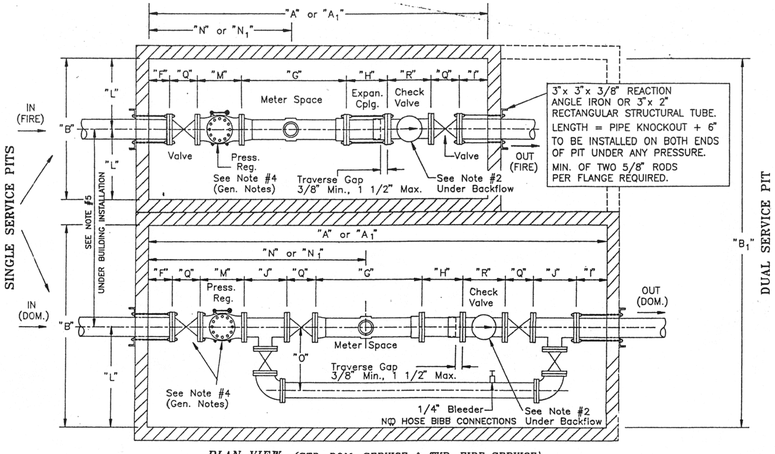
T-14 RESERVED PARKING SPACE WITH PENALTIES & VAN ACCESSIBLE SIGNS

NOT TO SCALE



T-15 RESERVED PARKING SPACE & PENALTIES SIGNS

NOT TO SCALE



PLAN VIEW (STD. DOM. SERVICE & TYP. FIRE SERVICE)

PIT OR BUILDING INSTALLATION

SUFFICIENT PATHWAY TO AND AROUND METER SPACE MUST BE PROVIDED AND MAINTAINED, AT ALL TIMES, FOR INSTALLATION AND MAINTENANCE OF METER.

PIT INSTALLATION:
For details and notes, refer to PSW Co. Plan C-5558.

SINGLE – SERVICE PIT DIMENSIONS (MINIMUM)

DESCRIPTION	CODE	FIRE 1 1/2"	FIRE 2"	FIRE 4"	FIRE 6"	FIRE 8"	FIRE 10"	DOMESTIC (STANDARD) 1 1/2"	DOMESTIC (STANDARD) 2"	DOMESTIC (STANDARD) 3"	DOMESTIC (STANDARD) 4"	DOMESTIC (STANDARD) 6"	DOMESTIC (STANDARD) 8"
LENGTH (HIGH PRESSURE)	"A"	*6'-0"	*6'-0"	9'-2"	11'-1"	12'-0"	15'-1"	6'-0"	7'-4"	11'-5"	12'-0"	13'-1"	16'-9"
LENGTH (LOW PRESSURE)	"A_1"	*6'-0"	*6'-0"	8'-0"	9'-7"	10'-0"	12'-7"	*6'-0"	*6'-0"	9'-8"	10'-0"	10'-0"	13'-0"
WIDTH	"B"	4'-0"	4'-0"	4'-0"	4'-0"	5'-0"	6'-0"	4'-0"	4'-0"	5'-2"	5'-2"	5'-4"	5'-7"
ACCESS DOOR	"C"	3' x 3'	3' x 3'	3' x 3'	3' x 3'	3' x 3'	4' x 4'	3' x 3'	3' x 3'	3' x 3'	3' x 3'	3' x 3'	3' x 3'
MAX. LENGTH OFF WALL (INLET)	"F"	6"	6"	9"	9"	9"	9"	6"	6"	9"	9"	9"	9"
LAYING LENGTH OF METER (SEE GENERAL NOTE #6)	"G"	13"	17"	35 1/4"	45"	53"	68"	13"	17"	33"	33 1/4"	36 1/2"	53"
EXPANSION COUPLING	"H"	6"	6"	15"	15"	15"	15"	6"	6"	15"	15"	15"	15"
MIN. LENGTH OFF WALL (OUTLET)	"I"	6"	6"	9"	9"	9"	9"	6"	8"	9"	9"	9"	9"
BY–PASS TEE	"J"	——	——	——	——	——	——	1 1/2"(4")	2"x2"(4")	3"x2"(11")	4"x3"(13")	6"x4"(18")	8"x8"(18")
℄ PIPE TO FLOOR	"K"	1'-8"	1'-8"	1'-8"	1'-8"	1'-8"	1'-8"	1'-8"	1'-8"	1'-8"	1'-8"	1'-8"	1'-8"
℄ PIPE TO SIDE WALL	"L"	15"	15"	2'-0"	2'-0"	2'-6"	3'-0"	2'-0"	2'-0"	3'-2"	3'-2"	3'-3"	3'-4"
AVG. LAYING LENGTH OF PRESSURE REGULATOR	"M"	6 1/2"	7"	13"	18"	24 1/2"	2'-6"	6 1/2"	7"	12"	13"	18"	24 1/2"
℄ METER TO FRONT WALL (HIGH PRESS.)	"N"	2'-6"	2'-6"	4'-0"	5'-0"	6'-0"	7'-0"	2'-6"	3'-0"	5'-6"	6'-0"	7'-0"	8'-0"
℄ METER TO FRONT WALL (LOW PRESS.)	"N_1"	2'-0"	2'-6"	3'-0"	3'-6"	4'-0"	5'-0"	2'-0"	2'-0"	4'-0"	4'-0"	4'-6"	5'-0"
AVG. LAYING LENGTH OF VALVE	"Q"	4"	4"	9"	10 1/2"	11 1/2"	13"	4"	4"	9"	9"	10 1/2"	11 1/2"
AVG. LAYING LENGTH OF CHECK VALVE	"R"	6"	6"	13"	16 1/2"	19 1/2"	24 1/2"	6"	6"	10"	13"	16 1/2"	19 1/2"
℄ PIPE TO ℄ BY–PASS	"O"	——	——	——	——	——	——	9" MIN.	9" MIN.	2' MIN.	2' MIN.	2' MIN.	2' MIN.

* SEE NOTE #8 UNDER GENERAL NOTES

GENERAL NOTES FOR ALL INSTALLATIONS:
1. All meters and strainers to be supplied, maintained, owned and installed by PSW Co.
2. For all domestic and fire service lines 3" and larger, a minimum of two Clow F–1608 adjustable pipe supports, or equal, shall be installed by owner. They shall be placed under the inlet & outlet flanges of the meter space, prior to the meter being set. Add'l supports may be needed.
3. All meters must be set level in a horizontal plane.
4. On fire service lines 2" and smaller, and domestic service lines, when pressure may exceed 100 psi, a pressure regulator and an add'l valve on the inlet side of the PRV are req'd. On fire service lines over 2", when pressure may exceed 150 psi, a pressure regulator is req'd. By–pass around regulator not allowed.
5. On domestic service lines, 1 1/2" and larger, a by–pass is required. P.S.W. Co. will determine the exceptions.
6. Where domestic meter size is smaller than service size, the meter opening "C" dim. shall be the "C" dim. of the meter size plus the laying length of the reducers. Avg. laying length of reducers: 8"x6" (11"), 6"x4" (9"), 4"x3" (7").
7. Expansion couplings are req'd for pit installations. On expansion cplg's 3" and larger, a Smith Blair #912 adaptor w/flg'd tail pce. or a Ford flanged coupling adaptor style FFCA w/flanged tail pce. or equal, shall be used.(tail piece must abut meter) On 2" and smaller, a Ford Lock–Pac cplg, or equal, is req'd, except when using a "Special" Custom Setter or equal.
8. For 1 1/2" and 2" meters (low pressure), a 36" dia. pit made of Rigid PVC Pipe (Ribbed Const.) may be used, along with a Ford "Special" Custom Setter. See PSW Co. plan No. 6–18119.
9. Butterfly valves are NOT permitted in meter arrangement.
10. Victaulic flanges and joints are NOT acceptable in the meter arrangement or in meter pits.

BUILDING INSTALLATION:
1. Expansion coupling not req'd. for meters set inside buildings.
2. When the dom. meter is installed in the building, the by–pass line must be installed either on the wall side and parallel with the meter, or above the meter.
3. The meter location shall NOT be within a closet crawl space, garage, unheated area or any enclosure not approved by PSW CO.
4. In buildings, concrete blocking under bends are to be poured AFTER meter is set.
5. The distance between the domestic and fire lines (when laid parallel) shall be twice the "L" dimension of the fire line.

BACKFLOW PREVENTERS:
1. If a backflow prevention device is required, as indicated on the water service application form, and/or service approval letter, please contact PSW Co. Cross–Connection Dept. for type of device, location and installation information.
2. On all service lines, if a backflow prevention device is required (protecting the entire service line) then the check valve by the meter is not required.
3. Backflow preventers are to be installed downstream of the meter and before any outlet or branch connections.

NOTE: IF BUILDER SELECTS TO USE A DUAL–SERVICE PIT, THEN DIM. "A" OR "A_1" OF THE DUAL–SERVICE PIT SHOULD BE THE LARGER OF THE SINGLE–SERVICE PIT "A" OR "A_1" DIM. FOR FIRE AND DOMESTIC LINE.

DUAL–SERVICE PIT – "B_1" DIM. (MINIMUM)
(Combination Dom. and Fire)

DOMESTIC SIZE OF SERV.	FIRE 1 1/2"	FIRE 2"	FIRE 4"	FIRE 6"	FIRE 8"	FIRE 10"
1 1/2"	6'–0"	6'–0"	7'–0"	7'–0"	8'–0"	8'–0"
2"	6'–0"	6'–0"	7'–0"	7'–0"	8'–0"	8'–0"
3"	7'–0"	7'–0"	8'–0"	8'–0"	9'–0"	10'–0"
4"	7'–0"	7'–0"	8'–0"	8'–0"	9'–0"	10'–0"
6"	8'–0"	8'–0"	8'–0"	8'–0"	10'–0"	10'–0"
8"	8'–0"	8'–0"	9'–0"	9'–0"	10'–0"	10'–0"

W5 CONSTRUCTION DETAILS BOROUGH OF PHOENIXVILLE CHESTER COUNTY, PENNSYLVANIA

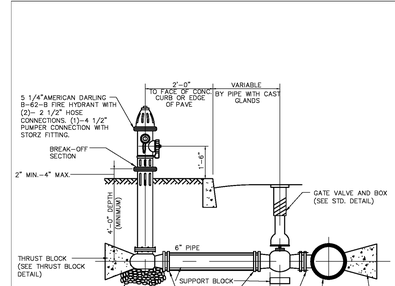
LIST OF APPLICABLE PADOT DETAILS & STANDARDS

ALL PAVEMENT MARKINGS SHOULD BE IN ACCORDANCE WITH PennDOT PUBLICATION 111, TC-8600 & TC-8700 STANDARDS, LATEST EDITION.

SIGNAGE: PA.D.O.T. PUBLICATION 236
"STOP" SIGN - R1-1 (24" x 24")

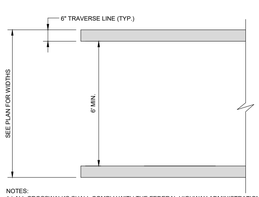
ADDITIONAL DETAILS ASSOCIATED WITH PADOT ROAD IMPROVEMENTS ARE ON THE FOLLOWING STANDARD DETAILS FROM THE LATEST EDITION OF PennDOT PUBLICATION 72M:
(THE PERMITTEE IS REQUIRED TO PROVIDE THE CONTRACTOR WITH COPIES OF THE MOST CURRENT APPLICABLE RC DRAWINGS)

STANDARD DRAWING NUMBER	DRAWING NAME
RC – 45M	INLET TOPS, GRATES AND FRAMES
RC – 67M	CURB RAMPS AND SIDEWALKS



NOTES:
1. IF CURB IS NOT PRESENT THAN PROVIDE 3'x3'x4" CONCRETE PAD ON GRADE BUT BELOW BREAK AWAY FLANGE.
2. FIRE HYDRANT TO COMPLY WITH AWWA C502.
3. NOZZLE THREADS AND ADAPTORS SHALL COMPLY WITH MUNICIPAL AND FIRE DEPARTMENT REGULATIONS.

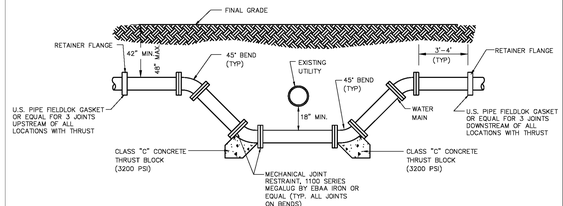
FIRE HYDRANT ASSEMBLY DETAIL
N. T. S.



NOTES:
1.) ALL CROSSWALKS SHALL COMPLY WITH THE FEDERAL HIGHWAY ADMINISTRATION'S "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", AS AMENDED.
2.) TRAVERSE LINES SHALL EXTEND ACROSS THE FULL WIDTH OF PAVEMENT OR TO THE EDGE OF THE INTERSECTING CROSSWALK TO DISCOURAGE DIAGONAL WALKING BETWEEN CROSSWALKS.
3.) ALL CROSSWALK TRAVERSE LINES SHALL BE WHITE THERMOPLAST AND SHALL BE OF EQUAL WIDTHS.

T-24 STANDARD CROSSWALK DETAIL

NOT TO SCALE



WATER MAIN OFF–SET DETAIL
N.T.S.

W3 CONSTRUCTION DETAILS BOROUGH OF PHOENIXVILLE CHESTER COUNTY, PENNSYLVANIA

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

THE INFORMATION CONTAINED ON THIS PLAN IS THE PROPERTY OF BOHLER AND SHALL NOT BE USED IN WHOLE OR IN PART FOR ANY PURPOSE WITHOUT THE WRITTEN CONSENT OF BOHLER

REVISIONS

REV	DATE	COMMENT	DRAWN BY / CHECKED BY
1	8/04/2020	PER NPDES SUBMISSION	HH / RE
2	9/25/2020	PER BOROUGH RESUBMISSION	HH / RE

Know what's below. Call before you dig.
PENNSYLVANIA
YOU MUST CALL 811 BEFORE ANY EXCAVATION WHETHER IT'S ON PRIVATE OR PUBLIC LAND.
1-800-242-1776
www.paclall.org
20163262551, 2016326552

NOT APPROVED FOR CONSTRUCTION

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.:	PC191216
DRAWN BY:	CCP
CHECKED BY:	JRH
DATE:	03/04/2020
CAD I.D.:	PC191216-CND-2

PROJECT:

REVISED PRELIMINARY/ FINAL LAND DEVELOPMENT PLANS

FOR

113 CORPORATION

ELAND POINT CROSSING

ROUTE 113 & DAWSON DRIVE
BOROUGH OF PHOENIXVILLE
CHESTER COUNTY
PHOENIXVILLE, PA

BOHLER
1600 MANOR DRIVE, SUITE 200
CHALFONT, PA 18914
Phone: (215) 996-9100
Fax: (215) 996-9102
www.BohlerEngineering.com

JOHN R. HORNICK
COMMONWEALTH OF PENNSYLVANIA
PROFESSIONAL ENGINEER
EXPIRATION DATE: 06/30/2021
NEW JERSEY LICENSE No. 24GE04643000

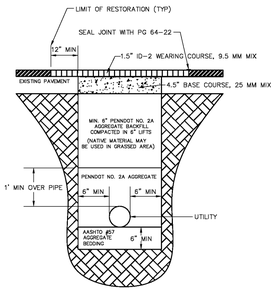
SHEET TITLE:

DETAILS

SHEET NUMBER:

C-902
33 OF 36

REVISION 2 - 9/25/2020



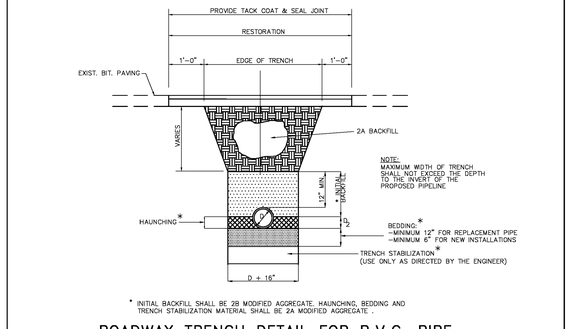
UTILITY LATERAL TRENCH RESTORATION
(PERPENDICULAR TO ROADWAY)

N.T.S.

NOTE:
1. THE CONTRACTOR SHALL MAKE EVERY EFFORT TO MINIMIZE WIDTH OF TRENCH.
2. 3/4in:1V (MAX SLOPE) FOR TRENCHES UP TO 8 FEET IN DEPTH.
3. TRENCHES IN EXCESS OF 8 FEET DEEP SHALL BE SLOPED OR STEPPED PER OSHA STANDARDS.
4. FOR UTILITY MAIN TRENCH RESTORATION SEE DETAIL-12
5. RESTORATIONS ON STATE HIGHWAYS REQUIRE PENNDOT APPROVAL.
6. TRENCHES SHALL BE PUMPED THROUGH A FILTER BAG.

SPECIAL NOTE:
1. UTILITY PATCHES WITHIN FIVE (5) FEET OF OTHER UTILITY PATCHES SHALL BE JOINED IN ORDER TO LIMIT THE NUMBER OF JOINTS IN THE PAVEMENT. THE PAVEMENT INTERFACE WITH THE CURB IS CONSIDERED A JOINT. PATCHES WITHIN FIVE (5) OF THE CURB SHALL BE EXTENDED TO THE CURB.

G11
CONSTRUCTION DETAILS
BOROUGH OF PHOENIXVILLE
CHESTER COUNTY, PENNSYLVANIA

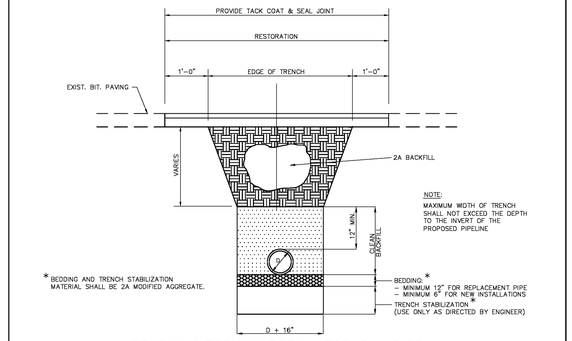


* INITIAL BACKFILL SHALL BE 2B MODIFIED AGGREGATE. HAUNCHING, BEDDING AND TRENCH STABILIZATION MATERIAL SHALL BE 2A MODIFIED AGGREGATE .

ROADWAY TRENCH DETAIL FOR P.V.C. PIPE

NOT TO SCALE

S9
CONSTRUCTION DETAILS
BOROUGH OF PHOENIXVILLE
CHESTER COUNTY, PENNSYLVANIA

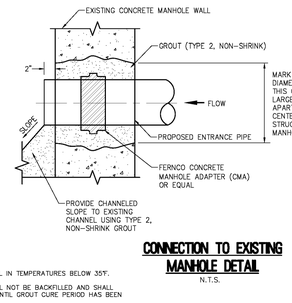


* BEDDING AND TRENCH STABILIZATION MATERIAL SHALL BE 2A MODIFIED AGGREGATE.

ROADWAY TRENCH DETAIL FOR D.I. PIPE

NOT TO SCALE

S10
CONSTRUCTION DETAILS
BOROUGH OF PHOENIXVILLE
CHESTER COUNTY, PENNSYLVANIA

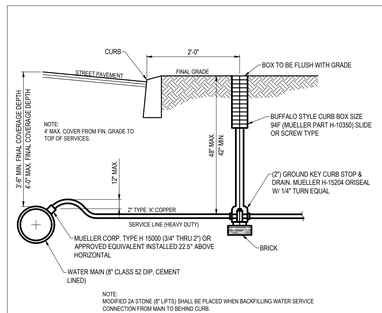


CONNECTION TO EXISTING MANHOLE DETAIL

N.T.S.

NOTES:
1. DO NOT INSTALL IN TEMPERATURES BELOW 35°F.
2. MANHOLE SHALL NOT BE BACKFILLED AND SHALL BE KEPT DRY UNTIL GROUT CURE PERIOD HAS BEEN ACHIEVED.

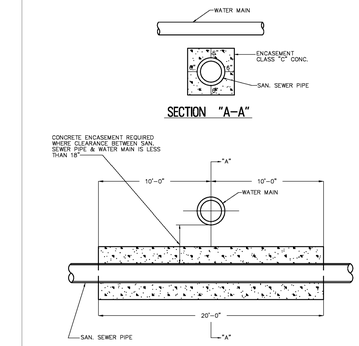
S11
CONSTRUCTION DETAILS
BOROUGH OF PHOENIXVILLE
CHESTER COUNTY, PENNSYLVANIA



NOTE:
MODIFIED 2A STONE (6" LIFTS) SHALL BE PLACED WHEN BACKFILLING WATER SERVICE CONNECTION FROM MAIN TO BEHIND CURB.

W-2 ***WATER SERVICES CONNECTION DETAIL***

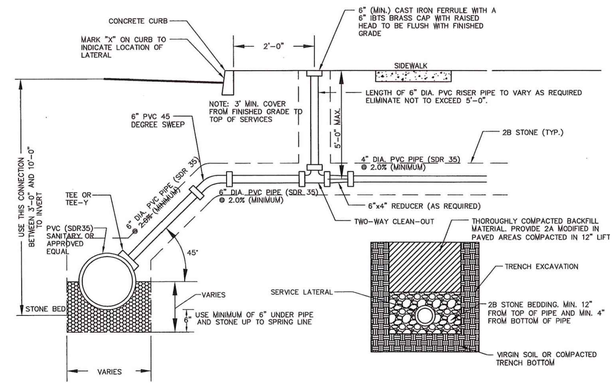
NOT TO SCALE



CONCRETE ENCASEMENT DETAIL

NTS
(IF AND WHERE DIRECTED)

W1
CONSTRUCTION DETAILS
BOROUGH OF PHOENIXVILLE
CHESTER COUNTY, PENNSYLVANIA



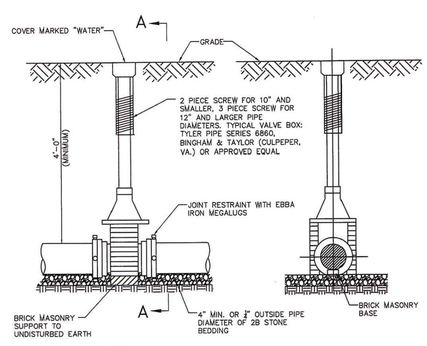
NOTE: LATERALS MAY BE SDR35 OR SCH40 PVC IN ACCORDANCE WITH THE BOROUGH PLUMBING CODE

TYPICAL LATERAL DETAIL
3' TO 10' IN DEPTH

N.T.S.

DRAFT

DETAIL –
CONSTRUCTION DETAILS
BOROUGH OF PHOENIXVILLE
CHESTER COUNTY, PENNSYLVANIA



NOTES
1. ALL VALVES SHALL CONFORM TO AWWA C515 FOR RESILIENT SEATED GATE VALVES AS MANUFACTURED BY AMERICAN FLOW CONTROL OR APPROVED EQUAL.
2. VALVE BOX BASES TO BE:
   No. 4 DOME – VALVES 4" AND SMALLER
   No. 6 ROUND – 6" AND 8" VALVES
   No. 160 OVAL – 10" TO 24" VALVES
3. MECHANICAL JOINTS WITH JOINT RESTRAINT FOR ALL VALVES AND FITTINGS.

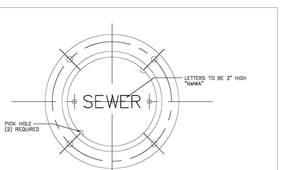
GATE VALVE DETAIL

N. T. S.

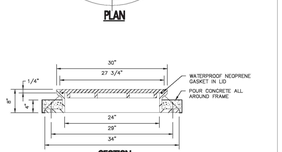
DRAFT

DETAIL –
CONSTRUCTION DETAILS
BOROUGH OF PHOENIXVILLE
CHESTER COUNTY, PENNSYLVANIA

SUBDIVISION AND LAND DEVELOPMENT



PLAN



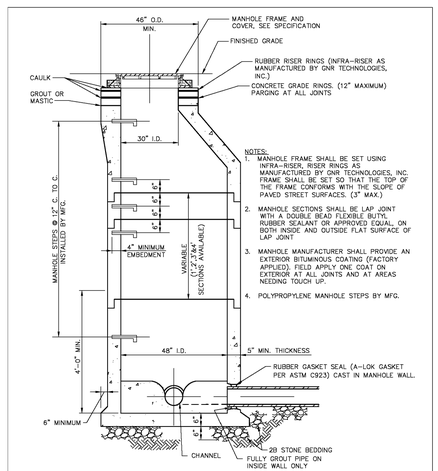
SECTION

NOTE:
WATERTIGHT MANHOLE FRAME AND COVER PATTERN NO. 1210N WHT MFG. BY E.A. QUINN FOUNDRY CO. OR APPROVED EQUAL

CAST IRON WATERTIGHT MANHOLE FRAME & COVER

NO SCALE

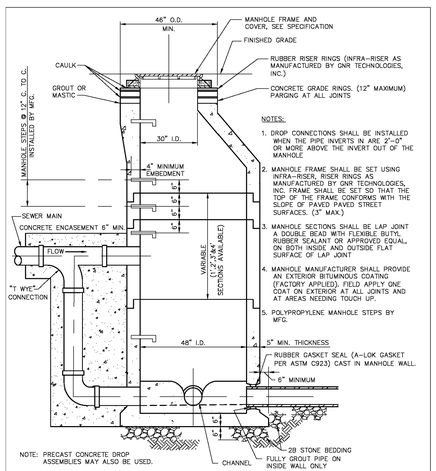
S8
CONSTRUCTION DETAILS
BOROUGH OF PHOENIXVILLE
CHESTER COUNTY, PENNSYLVANIA



STANDARD SANITARY MANHOLE SECTION DETAIL

NO SCALE

S6
CONSTRUCTION DETAILS
BOROUGH OF PHOENIXVILLE
CHESTER COUNTY, PENNSYLVANIA

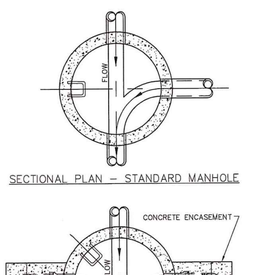


NOTE: PRECAST CONCRETE DROP ASSEMBLIES MAY ALSO BE USED.

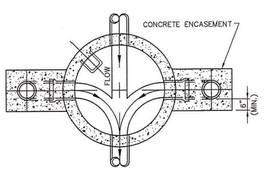
STANDARD DROP SANITARY MANHOLE SECTION DETAIL

NO SCALE

S7
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SECTIONAL PLAN – STANDARD MANHOLE



NOTE: MANHOLE INVERTS OR CHANNELS TO BE PRECAST OR FORMED IN BASE, BY THE INSTALLATION OF CHANNEL PIPE AND FITTINGS, CHANGES IN SIZE, GRADE, AND DIRECTION TO BE MADE SMOOTHLY AND EVENLY WITH AS LARGE OF A RADIUS AS POSSIBLE.

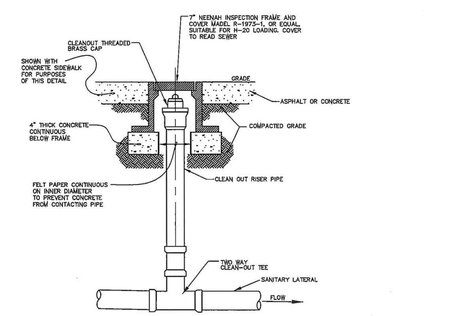
SECTIONAL PLAN – DROP MANHOLE

SECTIONAL PLANS
STANDARD & DROP MANHOLES

NO SCALE

DRAFT

DETAIL –
CONSTRUCTION DETAILS
BOROUGH OF PHOENIXVILLE
CHESTER COUNTY, PENNSYLVANIA



NOTE: FOR CLEANOUTS IN GRASSED AREAS, TERMINATE VERTICAL PIPE AT GRADE LEVEL AND PROVIDE THREADED CAP.

SEWER LATERAL CLEANOUT DETAIL – ASPHALT OR CONCRETE

N.T.S.

DETAIL – S
CONSTRUCTION DETAILS
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2	9/25/2020	PER BOROUGH RESUBMISSION	HH / RE

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PROJECT No.: PC191216
DRAWN BY: CCP
CHECKED BY: JRH
DATE: 03/04/2020
CAD I.D.: PC191216-CND-2

PROJECT:

REVISED PRELIMINARY/ FINAL LAND DEVELOPMENT PLANS

FOR

113 CORPORATION

ELAND POINT CROSSING

ROUTE 113 & DAWSON DRIVE
BOROUGH OF PHOENIXVILLE
CHESTER COUNTY
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JOHN R. HORNICK
PROFESSIONAL ENGINEER
REGISTERED
NEW JERSEY LICENSE No. 24GE04610000

SHEET TITLE:

DETAILS

SHEET NUMBER:

C-903
34 OF 36

REVISION 2 - 9/25/2020

BUCKEYE PARTNERS, L.P. AND AFFILIATES
Five TEK Park, 9999 Hamilton Boulevard
Breinigsville, PA 18031

Right-of-Way Use Restrictions Specification
Revision 5

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Buckeye Partners, L.P. and Affiliates
Right-of-Way Use Restrictions Specification
Revision 5

Purpose and Scope

This Right-of-Way Use Restrictions Specification (hereinafter called "Specification") has been developed by Buckeye Partners, L.P. and Affiliates (hereinafter called "Buckeye") and is intended for landowners, utility owners, general contractors and their sub-contractors, pipeline/utility contractors, real estate developers, brokers and agents, lending officers and title underwriters, engineers, architects, surveyors, and local / governmental elected staffs (hereinafter called "Crossing Party") as a guideline for the design and construction of proposed land development.

Buckeye appreciates this opportunity to work with you in the planning stages of your development (or construction activity), and we look forward to working with you proactively. Buckeye's primary concern when activities are taking place near our pipeline is public safety and environmental protection. The intent of this Specification is to provide a clear and consistent set of requirements that will: (1) reduce the risk of damage to our pipeline and related facilities; (2) ensure unencumbered access to our right-of-way and pipeline facilities and the availability of adequate workspace for routine maintenance, future inspection, and/or repair work on our pipeline; and (3) enable the effective corrosion protection of our pipeline.

All such activities and projects that are performed near Buckeye's pipeline facilities are subject to formal review by Buckeye prior to issuance of final written approval. Depending on the scope of the project and its impact on Buckeye's pipeline facilities, additional engineering requirements and protective measures may apply. Furthermore, any damage caused by the encroaching party to Buckeye's pipeline(s), the pipeline cathodic protection system, or other Buckeye assets is the sole responsibility of the encroaching party. Buckeye will pursue reimbursement for all costs associated with the event including, but not limited to, excavation services, inspection services, pipeline repairs, and loss of operations.

The following requirements are not only the policy of Buckeye, but comply with regulations set forth by the United States Department of Transportation, Safety Regulations, 49 CFR, Parts 192 and 195.

We want to be a good neighbor, but to do so requires us to act responsibly in protecting our right-of-way and preventing damage to the pipeline system. While we want to make every effort to accommodate your desired use of your property, our responsibility for public safety is paramount. Through proper planning and communications, we can ensure the safety and integrity of our pipeline system and the welfare of our neighbors.

The transmittal of this Specification does not constitute Buckeye's approval or permission for the Crossing Party to begin construction or work within or across the pipeline right-of-way. Work may not commence until written authorization approving such work has been issued by Buckeye.

1.0 General Guidelines

1.1 The safety of the pipeline must be considered at all times. No attempt to probe for or engage in any construction activities which might damage the pipeline is permitted.

1.2 Before any preliminary field work or construction begins in the vicinity of Buckeye's pipeline, a determination of the exact location and elevation of the pipeline must be made. To coordinate this procedure, please contact our local Field Operations Manager at the Buckeye facility nearest to your proposed project (see Attachment 1 for a listing of Buckeye's facilities and telephone numbers). Buckeye makes no assurance that its permanent pipeline markers are positioned directly over its pipeline(s). Line markers should be placed at intervals determined by "line of sight". The relocation, removal, or destruction of Buckeye's pipeline markers are prohibited by federal law. Pipeline markers damaged or made unusable shall be repaired or replaced at the Encroaching Party's expense.

1.3 All proposed drawings/plans must be submitted to Buckeye's Right of Way Department for review to determine to what extent, if any, the pipeline or right-of-way will be affected by the proposed construction and/or development. These drawings/plans should be prepared in strict compliance to Attachment 4, "Requirements for Submission of Design Plans".

1.4 Buckeye may require the property owner to provide proof of current ownership of the land where the proposed encroachment is to occur. Such proof may be in the form of a Title Commitment, Title Policy, or a certified copy of a recorded Conveyance Deed.

1.5 When any construction activity is conducted in or around our pipeline right-of-way, Buckeye's On-Site Inspector must be present at all times. **NO WORK SHALL TAKE PLACE WITHOUT A BUCKEYE ON-SITE INSPECTOR PRESENT.** For this fee-of-charge service, contact our local Field Operations Manager at the Buckeye facility nearest to your proposed project.

1.6 The Crossing Party shall contact Buckeye for re-marking of a pipeline if the existing markers are inadequate for any reason, including disturbance due to construction activities.

Note: Federal law prohibits the removal of pipeline markers.

1.7 The Crossing Party shall not burn trash, brush, or other items or substances within 50 feet of the pipeline.

1.8 The Crossing Party shall not store any equipment or materials on the right-of-way. Full access must be maintained to the pipeline(s) at all times. The stockpiling of items including soil, or topsoil over the pipeline(s) is not permitted.

1.9 During routine or emergency maintenance on the pipeline, the cost to restore approved surface improvements (e.g., pavement, landscaping, sidewalks, etc.) shall be the responsibility of the Crossing Party.

1.10 Depending on the type and nature of the encroachment, Buckeye may require the pipeline(s) within the proposed encroachment to be exposed, visually inspected, and backfilled by a Buckeye representative at the full expense of the Crossing Party. Buckeye will evaluate the pipeline(s)' cathodic protection system, including the coating type and condition, for suitability of service in relation to the proposed encroachment. Should Buckeye deem that the cathodic protection system and/or coating system is insufficient for any reason, Buckeye will repair or upgrade the system at the Crossing Party's expense to accommodate the proposed encroachment. Potential cathodic protection modifications can include, but are not limited to equipment such as rectifiers, anode systems, test stations, casing pipe, and coating.

2.0 Excavation and Construction Restrictions

2.1 Excavation operations shall be performed in accordance with appropriate State "One-Call" utility locating system requirements. As a matter of State law, anyone undertaking excavation work is required to call three (3) working days before excavating in MA, ME, MI, MO, NJ, PA, RI, SC, TN, and WI; two (2) working days in all other states (see Attachment 3 for State "One-Call" numbers).

811 Know what's below. Call before you dig.

2.2 The Crossing Party will conduct "white-lining" of any proposed excavation areas. Buckeye will erect temporary pipeline markers/flags (yellow) identifying the location of the pipeline within the work area, and will provide information on how to respond should the pipeline be damaged or a commodity release occur. All personnel operating equipment over or around the pipeline must be made aware of its location and what to do if they make contact with the pipeline.

Note: The Encroaching Party must utilize a qualified contractor of Buckeye's choice to locate and mark the existing Buckeye operated pipeline(s) using current industry practices and agrees to mark the location of the pipeline with buoys or by electronic location methods as approved by Buckeye for the duration of the construction activity in the vicinity of Buckeye's operated pipeline(s). If proposing dredging activities within 150-feet of Buckeye's pipeline(s), a dredging plan must be submitted to Buckeye for review and approval.

2.3 When a Crossing Party excavates near Buckeye's pipeline, a Buckeye representative must locate the pipeline and determine the depth of cover before the Crossing Party begins excavation. The Buckeye representative and the excavator must review and complete an Excavation Safety Checklist (Attachment 9). The Crossing Party shall not perform any excavation, crossing, backfilling, or construction operations until Buckeye's On-Site Inspector has reviewed the proposed work on site and given approval for work to proceed. Buckeye's On-Site Inspector shall have full authority to stop the work if it is determined that the work is being performed in an unsafe manner.

2.4 No equipment shall work directly over the pipeline. The Crossing Party shall install temporary fencing along Buckeye's right-of-way boundaries so that equipment will not inadvertently pass over the pipeline at locations other than those established for crossing (see Section 3.6).

2.5 When excavating within the right-of-way, the Crossing Party's backhoe shall have a plate welded over the teeth of the backhoe bucket, and the side cutters must be removed prior to excavation. However, if within 24 inches of the outer edge of the pipe (this "tolerance zone" extends on all sides of the pipe), only hand excavation, air cutting, and vacuum excavation are permitted.

2.6 No excavations shall be made on land adjacent to the pipeline that will in any way impair, withdraw lateral support, cause subsidence, create the accumulation of water, or cause damage to the pipeline or right-of-way.

2.7 The Crossing Party shall ensure all excavation work complies with OSHA's excavation standards outlined in 29 CFR 1926 and correct any noncompliant excavation site before Buckeye's On-Site Inspector or the Crossing Party enters the site to perform work.

2.8 If conditions require, the Crossing Party shall be directed by Buckeye to install sand or cement bags or other suitable insulating materials to maintain proper vertical clearance from the pipeline.

2.9 At any location where the pipeline is exposed, the Crossing Party shall provide Buckeye the opportunity to inspect the pipeline condition, install cathodic protection test leads, and/or install underground warning mesh.

2.10 The maximum unsupported exposed length of pipe shall be 20 feet for 4-inch-diameter pipe, 25 feet for 6-inch- to 10-inch-diameter pipe, and 35 feet for 12-inch- to 24-inch-diameter pipe. When required, the pipeline shall be supported with grout and sand bags or padded skids. At no time shall the pipeline be used as a brace to support equipment or sheeting/shoring materials.

Note: The Crossing Party shall submit a support plan for Buckeye's review and approval.

2.11 No buried pipeline may be left exposed for any duration of time without concurrence of Buckeye's On-Site Inspector.

2.12 Backfill and compaction shall be performed to the satisfaction and in the presence of Buckeye's On-Site Inspector. Within 5 feet of the pipeline crossing location, the Crossing Party shall place at least 12 inches of sand with no sharp gravel, rock, hard clods, vegetation, or other debris on all sides of any pipeline, and remaining backfill shall be placed so as not to disturb this padding material or damage the pipeline (see Attachment 7 for Foreign Utility Crossing Detail). Backfill over the pipe shall be compacted by hand until 18 inches of cover is achieved. The disturbed ground shall be compacted to the same degree of compaction of surrounding areas. The Crossing Party shall restore the site to its original condition except for items that are part of the Buckeye approved change.

3.0 Specific Guidelines

3.1 Cover, Grading, and Drainage

3.1.1 **Cover and Grading:**
a. The existing cover over the pipeline shall not be modified without Buckeye's written approval.
b. The final grading shall not a minimum cover of 36 inches over the pipeline.
c. In areas where buildings are proposed within 50 feet of the pipeline or due to other surface improvements and/or in areas determined by Buckeye, final grading shall not a minimum cover of 48 inches over the pipeline.
d. The maximum allowable constructed cross-slope within the ROW shall be 5H:1V and shall never be greater than the existing cross-slope.
e. The maximum allowable cover/soil shall not exceed six (6) feet without Buckeye's written approval.
f. Use of vibratory equipment larger than walk-behind units are not permitted within 25 feet of the pipeline.

3.1.2 **Drainage:**
a. Detention ponds, lakes, structures or any type of impoundment of water, temporary or permanent, are prohibited within the right-of-way.
b. Culverts are not permitted within the right-of-way.

c. Any modifications to an existing drainage pattern shall be designed such that the erosion of the pipeline cover is controlled.
d. For streams, drainage channels, and ditches, a minimum of cover of 60 inches is required between the pipeline and the bottom of the drainage canal or ditch (see Section 3.3.1.f for road drainage ditches).

3.2 Aboveground and Underground Structures

3.2.1 **General Requirements:**
a. Buildings or other structures, including, but without limitation, overhanging balconies, patios, decks, swimming pools, wells, walls, septic systems, propane tanks, transformer pads, manholes, valve boxes, storm drain inlets, utility poles, the storage of materials, or any item which will create an obstruction or prevent the inspection of the right-of-way by air or foot, shall not be erected within the right-of-way.
b. The Crossing Party shall not develop or build retaining walls, drive piling or sheeting, or install an engineered structure that develops or controls overburden loads that will impose additional side loads (see Section 3.9).
c. Deep foundations which include piers, caissons, drilled shafts, bored piles, and cast-in-situ piles located within 500 feet of the pipeline shall be installed/drilled using an auger.
d. Occupied structures shall not be located within 50 feet of the pipeline unless a minimum cover of 48 inches is provided above the top of the pipeline.
e. Any deviation for aboveground and underground structures will be reviewed by Buckeye on a ***case-by-case basis***.

3.2.2 **Gardening and Landscaping:**
a. Trees, shrubs, and vines are not permitted within the right-of-way. Trees planted outside of the right-of-way should be placed so branches and limbs will not overhang the pipeline right-of-way as the tree matures. Buckeye may trim/remove overhanging branches and limbs that encroach into the right-of-way.
b. Flowerbeds, vegetable gardens and lawns, are permitted within the right-of-way. Buckeye is not responsible for replacing any plantings located within the right-of-way.

3.2.3 **Fences and Walls:**
a. Privacy fences or fences that prevent access to the right-of-way are not permitted.
b. All other fence installations within the right-of-way will be reviewed for approval by Buckeye on a ***case-by-case basis***. Upon Buckeye's written approval, fences shall be constructed with a 14-foot gate or removable sections across the right-of-way.
c. Fence posts shall not be installed within 5 feet of the pipeline and must be equidistant if crossing the pipeline.
d. No fence shall cross the right-of-way at less than a 60-degree angle.
e. Fences that run parallel to the pipeline shall be installed outside the right-of-way.
f. Masonry, brick, or stone walls are not permitted on the right-of-way.

3.3 Roads, Driveways, Sidewalks, and Parking Areas

3.3.1 **General Requirements:**
a. Roads, driveways, sidewalks, or parking areas shall not be constructed across the right-of-way without Buckeye's written approval. Upon Buckeye's approval, roads, driveways, and sidewalks shall cross perpendicular to the pipeline.

REVISIONS

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FOR

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ELAND POINT CROSSING

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SHEET TITLE:

BUCKEYE PIPELINE DETAILS

SHEET NUMBER:

C-904
35 OF 36

REVISION 2 - 9/25/2020

Attachment 1: Buckeye Facility Locations and Phone Numbers

Alabama	Birmingham	(205) 369-0179
	Montgomery	(334) 309-4710
California	San Diego	(714) 269-9028
	Wethersfield	(860) 529-7781
Connecticut & Massachusetts	New Haven	(203) 469-3479
Florida	Port Everglades	(954) 522-8464
Georgia	Birmingham (AL)	(205) 369-0179
	Argo	(708) 259-1352
Illinois	Lemont (West Shore)	(708) 227-0962
	Kankakee	(815) 932-3029
	Hartford	(618) 255-1100
Indiana	Hammond	(219) 989-8601
	Hammond (West Shore)	(708) 227-0962
	Huntington	(260) 356-5802
Iowa	Cedar Rapids	(708) 259-1352
	Counsil Bluffs	(712) 366-9461
	Des Moines	(515) 226-4017
	Ottumwa	(641) 684-6789
Louisiana	Liberty (TX)	(936) 336-5773
Maine	South Portland	(207) 808-4533
Michigan	Wayne	(734) 721-8834
Missouri	North St. Louis	(314) 231-2000
	Sugar Creek	(816) 836-6000
	Burlington Junction	(660) 725-3386
Nevada	Reno	(760) 602-1535
New Jersey	Linden	(908) 374-5301
New York	Auburn	(315) 253-5395
	New York City	(718) 656-5746
North Carolina	Goldsboro	(919) 778-2712
	Lima	(419) 993-8025
Ohio	Mantua	(330) 274-2234
	Toledo	(419) 698-1190
Pennsylvania	Boothwyn	(610) 459-3441
	Coraopolis	(412) 264-7432
	Duncansville	(814) 695-4852
	Malvern	(610) 695-8000
	Mechanicsburg	(717) 766-7633
	Macungie	(484) 232-4218
Tennessee	Memphis	(901) 395-0122
Texas	Liberty	(936) 336-5773
Wisconsin	Milwaukee (West Shore)	(708) 227-0962
	Madison (West Shore)	(815) 964-3727

Attachment 2: Right of Way & Engineering Contacts

Name	Responsibility	Phone / Address / Email
David Boone	**Sr. Manager, Right of Way, Real Estate, and Damage Prevention**	(610) 904-44015 TEK Park, 9999 Hamilton Blvd. Breinigsville, PA 18031 dboone@buckeye.com
Chris McPike	**Sr. Specialist, Right of Way** *Central District*: Eastern Ohio, Pennsylvania (Central & Western)	(216) 271-8103 4800 East 49th Street Cleveland, OH 44125 CMcPike@buckeye.com
Marty White	**Sr. Specialist, Right of Way** *West/Central District*: Michigan, Ohio (except for Eastern Ohio), Indiana (except for Northwestern Indiana)	(419) 993-8008 940 Buckeye Road Lima, OH 45804 MWhite@buckeye.com
Michael Norris	**Sr. Specialist, Right of Way** *West District*: Northern & Central Illinois, Northwestern Indiana, Wisconsin	(219) 313-5321 12920 Bell Road Lemont, IL 60439 MRNorris@buckeye.com
Wesley Pekarek	**Specialist, Right of Way II** *West District*: Iowa, Missouri, Southern Illinois	(816) 836-6096 1315 N. Sterling Ave. Sugar Creek, MO 64054 WPekarek@buckeye.com
Chris Scheid	**Specialist, Right of Way I** *East District*: Northeast Pennsylvania, New York (Upstate), Maine, Massachusetts, Maryland, Virginia	(484) 232-4454 5002 Buckeye Road Emmaus, PA 18049 CScheid@buckeye.com
Jeannette Fluke	**Specialist, Right of Way I** *East District*: Southeastern and Central Pennsylvania, Maryland, Virginia	(610) 904-4404 5 TEK Park, 9999 Hamilton Blvd. Breinigsville, PA 18031 JFluke@buckeye.com
Emily Litwa	**Specialist, Right of Way I** *Northeast District*: New Jersey, Connecticut, Massachusetts, New York	(732)-692-5243 750 Cliff Rd Port Reading, NJ 07064 ELitwa@buckeye.com

Dave Jones	**Specialist, Right of Way II** *Encroachment Design Review*: East, Northeast, Central, West Districts	(610) 904-4409 5 TEK Park, 9999 Hamilton Blvd. Breinigsville, PA 18031 DAJones@buckeye.com
Daniel Mangum	**Sr. Specialist, Right of Way & Development** *South District*: Texas, Louisiana, Tennessee, Alabama, Georgia, South Carolina, Nevada, Florida, North Carolina	(832) 325-1626 One Greenway Plaza, Suite 600 Houston, Texas 77046 DMangum@buckeye.com
Teriann Williams	**Right of Way Coordinators** *Easements and Records*: Supporting East, Northeast, Central, and West Districts	(610) 904-4418 5 TEK Park, 9999 Hamilton Blvd. Breinigsville, PA 18031 TEWilliams@buckeye.com

Attachment 9: Excavation Safety Checklist
195 F-09, FORM A – EXCAVATION SAFETY CHECKLIST

The information noted on this form is intended to communicate general information about our pipeline(s) and is not intended to be solely relied upon by any party for the purpose of excavation or any similar purpose.

By law, to enable all participating utilities time to mark their facilities, the **One Call Center** in your state requires notification by calling 811 prior to any excavation. Buckeye Partners, L.P. is a member of this One Call enterprise and will automatically be notified through this system. In addition, a Buckeye inspector will perform and/or review with the excavator representative the applicable checklist items below.

Pipeline Locate Activity:

☐ If plans are available, requested a copy of the written project plans and drawings for review with the excavator and/or engineer. Had the excavator and/or engineer explain the extent of the work area, location and depth of the excavation, type of proposed utilities, location of proposed utilities, number of utility crossings, etc.

☐ Established the pipeline(s) location and marked the line(s) per state One Call requirements throughout the entire work area.

☐ Photographed all established pipeline markings throughout the work area.

Communication with the Excavator and/or Engineer:

☐ **The excavator and/or engineer was advised that a Buckeye inspector must:**

- **Monitor the excavation site daily when work is performed within 25 feet of a Buckeye pipeline.**
- **Observe continuously all excavation and backfill activity performed within 10 feet of a Buckeye pipeline or during the installation of any utility across a Buckeye pipeline facility.**
- **In addition, the excavator was instructed to call 800-313-4115 if they were ready to excavate within either above distance of a Buckeye pipeline and a Buckeye inspector was not present. When called a Buckeye inspector will be sent to perform the inspection, which is free of charge.**

☐ The excavator was advised that only backhoes or trackhoes with a steel plate welded across the teeth of the bucket are permitted to be used during excavation work around a Buckeye pipeline.

☐ The excavator was advised that the Buckeye inspector is required by law to perform an external inspection of any Buckeye pipeline exposed during excavation activity. The excavator understands that he/she is responsible to provide an OSHA compliant excavation, allowing the Buckeye inspector safe ingress and egress to examine our exposed pipeline.

☐ Walked through the work area with the excavator and communicated the locations of all Buckeye pipelines in the planned work area.

☐ Discussed the number of pipelines, pipe size(s), approximate pressures, approximate depths, excavation tolerance zones, hand digging requirements, and the hazards and characteristics of product(s) in the pipeline system(s) located in the planned work area.

☐ The excavator was advised to call the One Call Center 811 or contact Buckeye, if the Buckeye markings are destroyed or need to be refreshed in the planned work area. This service is provided free of charge.

☐ The excavator was advised that before any exposed Buckeye pipeline can be backfilled, the Buckeye inspector will direct the placement of an orange warning mesh over the pipeline.

☐ The excavator was advised that **any contact** with the pipeline, pipeline coating, test station wiring, or anode beds **must be reported to Buckeye prior to backfilling the excavation** to permit further inspection of the damage to assure continued safe pipeline operations.

☐ The excavator was advised that failure to comply with the conditions outlined above would result in Buckeye requiring the excavator to expose the pipeline again to allow an examination of the pipeline at the excavator's expense. If damage to the pipeline is discovered, Buckeye will have mandatory compensation for all repair costs. Buckeye may also report this activity to all concerned parties (State One Call Center, Regulatory Agencies, Principal Contractor, Excavator's Insurance Company, etc).

If you are unable to reach the representative designated below, or in case of an emergency, request assistance by calling **1-800-331-4115**.

One Call Ticket#:		**Line Segments:**	
Work Order:		**Mile Posts:**	
Nearest Street			

Buckeye Information		**Property Owner / Excavator /Engineer**	
Date:		**Name:**	
Name:		**Phone:**	
Cell Phone:		**Signature:**	

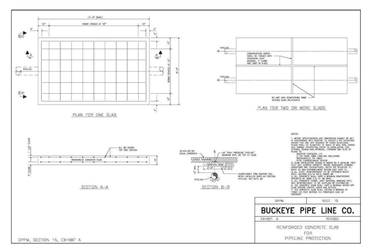
Attachment 3: State One Call Systems

Alabama	Alabama One-Call System	811
Alaska	Alaska One-Call System	811
Arizona	Arizona Blue Stake, Inc.	811
Arkansas	Arkansas One-Call System	811
California	Underground Service Alert of Northern California and Nevada	811
	Underground Service Alert of Southern California	811
Colorado	Utility Notification Center of Colorado	811
Connecticut	Call Before You Dig	811
Delaware	Miss Utility of Delmarva	811
Florida	Sunshine State One-Call of Florida, Inc.	811
Georgia	Georgia Utility Facility Protection Center	811
Hawaii	Hawaii One Call System	811
Idaho	Idaho One-Call System	811
Illinois	J.U.L.I.E.	811
Indiana	Indiana One-Call System	811
Iowa	Iowa One-Call	811
Kansas	Kansas One-Call System	811
Kentucky	Kentucky Underground Protection	811
Louisiana	Louisiana One-Call System	811
Maine	Dig Safe System	811
Maryland	Miss Utility of Delmarva	811
Massachusetts	Dig Safe System	811
Michigan	Michigan One-Call System	811
Minnesota	Gopher State One-Call	811
Mississippi	Mississippi One-Call System	811
Missouri	Missouri One-Call System	811
Montana	Montana One-Call System	811
Nebraska	Diggers Hotline of Nebraska	811
Nevada	Underground Service Alert of Northern California and Nevada	811
New Hampshire	Dig Safe System	811
New Jersey	New Jersey One-Call System	811
New Mexico	New Mexico One-Call System	811
New York	New York One-Call System	811
North Carolina	North Carolina One-Call Center	811
North Dakota	North Dakota One-Call	811
Ohio	Ohio Utilities Protection Service	811
Oklahoma	Oklahoma One-Call System	811
Oregon	Oregon Utility Notification Center	811
Pennsylvania	Pennsylvania One-Call System	811
Rhode Island	Dig Safe System	811
South Carolina	South Carolina Utility Notification Center	811
South Dakota	South Dakota One-Call	811
Tennessee	Tennessee One-Call System	811
Texas	Texas One-Call System	811
Utah	Blue Stakes of Utah	811
Vermont	Dig Safe System	811
Virginia	Miss Utility of Virginia	811
Washington	Washington One-Call System	811
West Virginia	West Virginia One-Call System	811
Wisconsin	Diggers Hotline	811
Wyoming	Wyoming One-Call System	811

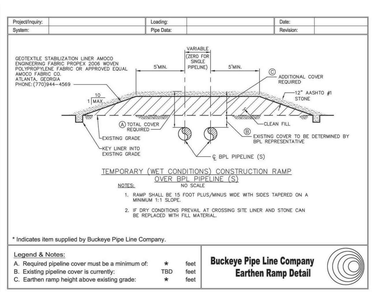
Attachment 4: Application for Design Plan Submission and Encroachment Review

Buckeye requires a minimum of 14 days for technical review upon receipt of complete and accurate submittal packages.

Attachment 5: Temporary Crossing Reinforced-Concrete Slab Detail



Attachment 6: Earthen Ramp Detail



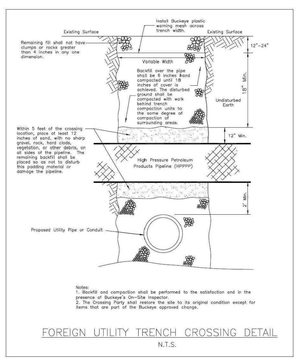
Project/Inquiry:		Loading:		Date:	
System:		Pipe Data:		Revision:	

* Indicates item supplied by Buckeye Pipe Line Company.

Legend & Notes:

A. Required pipeline cover must be a minimum of:	★	feet	**Buckeye Pipe Line Company**
B. Existing pipeline cover is currently:	TBD	feet	**Earthen Ramp Detail**
C. Earthen ramp height above existing grade:	★	feet	

Attachment 7: Foreign Utility Trench Crossing Detail



FOREIGN UTILITY TRENCH CROSSING DETAIL
N.T.S.

conditioned or withheld, and, upon approval such reasonable cost will be prepaid by CROSSING PARTY to BUCKEYE.

4.0 Deviations and Exceptions

4.1 When and where special circumstances dictate, deviation from these requirements must be formally approved by Buckeye in writing prior to commencement of any excavation or other construction activity that may impact the pipeline. Any such deviations must be explained and documented and provided to Buckeye for review and approval.

5.0 Additional Information and Buckeye Contacts

5.1 Should you have any questions regarding pipeline rights-of-way or your specific easement, contact Buckeye's Right of Way Department at the applicable phone number listed in Attachment 2.

5.2 Should you have any questions regarding Buckeye's engineering requirements, contact Buckeye's Encroachment Design Reviewer at encroachmentreviews@buckeye.com .

Attachment 8: Blasting Plan Submission Form

INFORMATION SECTION

Blasting Contractor -	Contracted by -
Company Name:	Company Name:
Phone:	Address:
Email Address:	
Contact Person:	Contact Person:

Project Name:
Address:
*Latitude:
*Longitude:
Location and Distance (in feet) to Nearest Buckeye Pipeline:
Date of Blasting:

EXPLOSIVES SECTION

Type of Explosives:
Max. Charge / Hole (lbs):
Charge Delay (ms):
No. of Holes:
Max. Depth of Charge (ft):
Max. Diameter of Charge (in):

Calculated Particle Velocity at a point -

Depth of Blast Area (ft):	300 feet from blasting event (in/sec):
Depth of Overburden (ft):	200 feet from blasting event (in/sec):
Type of Rock to be Blasted:	100 feet from blasting event (in/sec):
Density of Rock (lbs/cu-ft):	Directly above pipeline (in/sec): @ ft

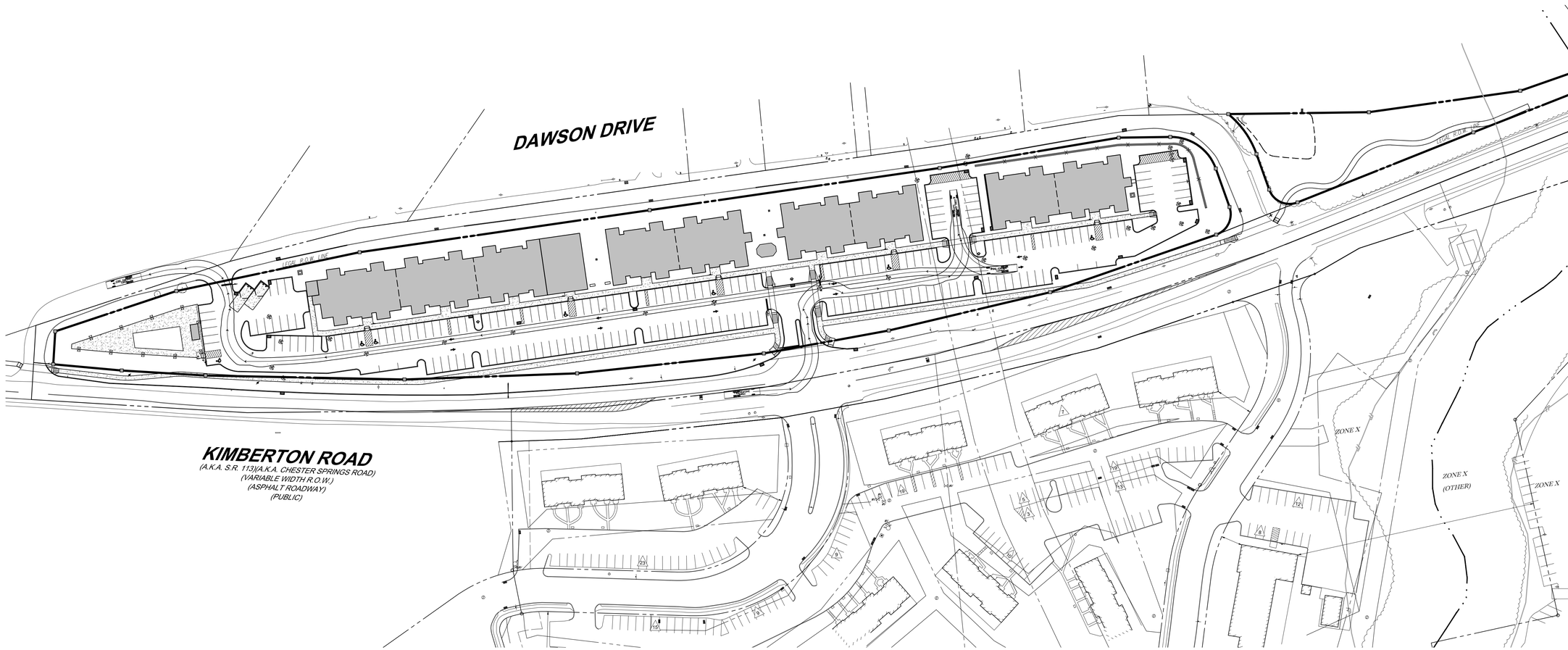
ATTACHMENT CHECKLIST

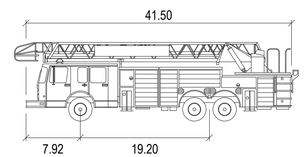
☐ Drilling/Blasting Pattern Sketch - include all depths, measurements, and delay patterns relative to Buckeye facility involved and each phase.
☐ State Approval Letter
☐ Blasting Contractor's Qualifications
☐ Blasting Contractor's Insurance Certificate
☐ Blasting Contractor's Safety Plan

OMMISSION OF ANY INFORMATION REQUESTED ABOVE WILL DELAY YOUR BLASTING PLAN REVIEW
Buckeye requires a minimum of 14 days for technical review upon receipt of complete and accurate blasting plans

3.4 Foreign Utility Crossings

3.4.1 **General Requirements:**
a. Utilities shall cross perpendicular to the pipeline.
b. Utilities are required to cross beneath the pipeline with a minimum clearance of 24 inches. Exceptions to Buckeye's clearance requirements for underground service entrances to single family dwellings will be reviewed on a ***case-by-case basis***.
c. Sand or select fill shall be placed between the pipeline and utility (see Section 2.8).
d. Utilities installed parallel to the pipeline shall be reviewed by Buckeye on a ***case-by-case basis***. If approved, the utility shall be no closer than 15 feet from the pipeline.
e. Warning tape, in accordance with A.P.W.A. Uniform Color Code, shall be placed above utility, 12 inches below ground, for a distance of 25 feet on either side of crossing.
f. Signage shall be placed at crossing as determined appropriate by Buckeye.
g. Splice boxes, service risers, energized equipment, etc., are not permitted within the right-of-way.
h. Trenchless Excavations:
[1] Utilities installed by a trenchless excavation method (directional drilling, jacking, slick boring, etc.) shall be reviewed by Buckeye on a ***case-by-case basis***.
[2] Bu





FIRE ENGINE

		feet
Width	:	8.00
Track	:	8.00
Lock to Lock Time	:	6.0
Steering Angle	:	40.0



60 30 15 0 60

1"= 60'

BOHLER

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

THE WORK (IDEA, DESIGN AND CONTENT OF THIS PLAN) IS PROPRIETARY AND SHALL NOT BE COPIED OR USED FOR ANY PURPOSE WITHOUT THE WRITTEN AUTHORIZATION FROM BOHLER. ONLY APPROVED AND SEALED PLANS SHALL BE UTILIZED FOR CONSTRUCTION PURPOSES.

REVISIONS

REV	DATE	COMMENT	DRAWN BY / CHECKED BY
1	8/04/2020	PER NPDES SUBMISSION	HH / RE
2	9/25/2020	PER BOROUGH RESUBMISSION	HH / RE

Know what's below. Call before you dig.
PENNSYLVANIA
YOU MUST CALL 811 BEFORE ANY EXCAVATION WHETHER IT'S ON PRIVATE OR PUBLIC LAND.
1-800-242-1776
www.pa1call.org
20163262551, 20163265552

NOT APPROVED FOR CONSTRUCTION

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.: PC191216
DRAWN BY: CCP
CHECKED BY: JRH
DATE: 03/04/2020
CAD I.D.: PC191216-SPP-2

PROJECT:

REVISED PRELIMINARY/ FINAL LAND DEVELOPMENT PLANS

FOR

113 CORPORATION

ELAND POINT CROSSING

ROUTE 113 & DAWSON DRIVE
BOROUGH OF PHOENIXVILLE
CHESTER COUNTY
PHOENIXVILLE, PA

BOHLER
1600 MANOR DRIVE, SUITE 200
CHALFONT, PA 18914
Phone: (215) 996-9100
Fax: (215) 996-9102
www.BohlerEngineering.com

COMMONWEALTH OF PENNSYLVANIA
JAY R. HORNICK
PROFESSIONAL ENGINEER
No. PE072584
NEW JERSEY LICENSE No. 24GE04633000

SHEET TITLE:

FIRE TRUCK CIRCULATION PLAN

SHEET NUMBER:

C-905

36 OF 36

REVISION 2 - 9/25/2020

I:\BPC\191216\DRAWINGS\PLANSETS\LAND DEVELOPMENT\REVISION 2 (BOROUGH RESUBMISSION)\PC191216-SPP-2 — LAYOUT: C-905 TRUCK

HH