

Parkland School District New Operations Center-Phase 4

MAJOR PLAN 2024-105

Planning Commission, October 10, 2024

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Project Narrative

Waiver Requests

Memorandum

TO: PLANNING COMMISSION

FROM: David Manhardt, AICP, Director of Community Development

SUBJECT: PARKLAND SCHOOL DISTRICT NEW OPERATIONS CENTER-PHASE 4
MAJOR PLAN 2024-105
PRELIMINARY/FINAL PLAN REVIEW

DATE: September 18, 2024

COPIES: BOARD OF COMMISSIONERS, T. PETRUCCI, D. MANHARDT, L. HARRIER, J. ZATOR,
ESQ., J. ALDERFER, ESQ, A. TALLARIDA, S. PIDCOCK, APPLICANT, SUB. FILE 2024-
101

Location and Intent

An application to further develop the property located at 2619 Stadium Drive. The plan proposes an additional 21,4558 square feet of impervious surface for the expansion of the northern parking lot on the 8.70-acre parcel. The property is served by public water and is zoned Rural Residential RR-2. Parkland School District is the owner and applicant.



Previous Township Consideration

At their August 7, 2024 meeting, the Board of Commissioners, through Resolution 2024-100, approved PSD New Operations Center Phase 3 Major Plan 2024-101, an application proposing a 12,832 square foot addition to the second floor of the new Operations Center building on the 8.70-acre parcel.

At their April 19, 2023 meeting, the Board of Commissioners, through Resolution 2023-56, approved PSD New Operations Center Major Plan 2022-108, an application proposing to raze the existing structure and construct a two-story, 39,295 square-foot building, 90 parking spaces, and associated stormwater management facilities on the 8.70-acre parcel.

At their February 28, 2024 hearing, the Zoning Hearing Board granted a 100-space variance to the off-street parking requirement with four conditions, through Appeal 2023-07.

Reviewing Agencies Comments Summaries

Township Engineer

The comments of the Township Engineer are contained in Mr. Anthony Tallarida's review dated October 3, 2024. His comments primarily pertain to waiver requests, stormwater, outside agency approvals, and additional Township policies.

Township Water & Sewer Engineer

The comments of the Township Water and Sewer Engineer are contained in Mr. Jason Newhard's review dated October 4, 2024. He has no comments at this time.

Township Geotechnical Consultant

The comments of the Township Geotechnical Consultant have not been received at this time.

Public Works Department

The comments of the Township Public Works Department are contained in Mr. Herb Bender's review dated September 27, 2024. He had no comments on the proposed project.

Public Safety Committee

This plan is on the October 7, 2024 agenda of the Public Safety Committee.

Landscape and Shade Tree Commission

The Landscape and Shade Tree Commission will review this plan at their October 28, 2024 meeting.

Parks and Recreation Board

The Parks and Recreation Board will review this plan at their October 14, 2024 meeting.

Lehigh Valley Planning Commission

The comments of the Lehigh Valley Planning Commission have not been received at this time.

Lehigh County Conservation District

The comments of the Lehigh County Conservation District have not been received at this time.

South Whitehall Planning Document Review

The comments of the South Whitehall Township Planning Document Review are contained in Mr. Christopher Stroehler's review dated October 3, 2024.

Zoning Review

The comments of the South Whitehall Township Zoning Officer are contained in Ms. Laura Harrier's review dated September 30, 2024. Her comments pertain to the PPL Easement and the parking space relief granted on April 5, 2024, by the Zoning Hearing Board. That Decision and Order is included in this packet.

Community Development Department Recommendation

The Community Development Department is not recommending approval at this time.

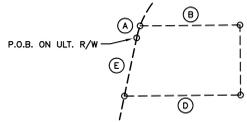
Planning Commission deadline to act on the plan: November 14, 2024

Board of Commissioners deadline to act on the plan: December 11, 2024

Site Plan

PROPOSED STORMWATER MANAGEMENT EASEMENT

- S 54°59'16" W 212.44'
S 88°42'05" W 60.97'
R=215.00' L=109.92'
T=56.19' D=29°17'35"
CHB=N 76°39'08" W 108.73'



PROPOSED WATER EASEMENT DETAIL

- A R=25.00' L=3.57'
T=1.79' D=08°10'43"
CHB=N 57°54'59" W 3.57'
B N 15°44'40" E 28.27'
C S 74°15'20" E 20.00'
D S 15°44'40" W 32.87'
E N 62°00'20" W 16.96'

ZONING COMPLIANCE CHART table with columns for ZONING REGULATION, EXISTING, and PROPOSED. Rows include MIN. LOT AREA, MIN. LOT FRONTAGE, MAX. IMPERVIOUS COVERAGE, etc.

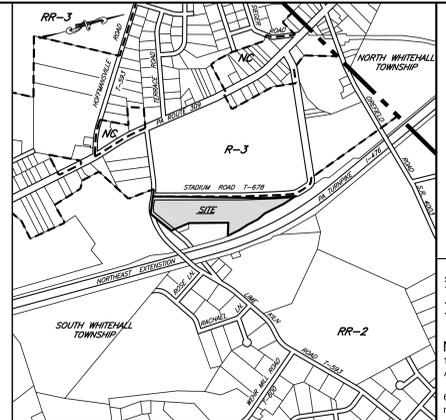
THE FOLLOWING WAIVERS FROM THE SOUTH WHITEHALL TOWNSHIP SUBDIVISION AND LAND DEVELOPMENT ORDINANCE AND STORMWATER MANAGEMENT ORDINANCE WERE GRANTED BY SOUTH WHITEHALL TOWNSHIP ON APRIL 19, 2023.

- 1. SECTION 312-12(b)(20) REQUIREMENT OF SHOWING THE LOCATION, CHARACTER AND ELEVATION OF ANY BUILDING WITHIN 100 FEET OF THE TRACT.
2. SECTION 312-12(x)(15) REQUIREMENT FROM THE SHOWING OF CONTOURS WITHIN 400 FEET OF THE TRACT.
3. SALDO 312-26(a) AND 312-35(b), REQUIREMENT FROM SIDEWALK IMPROVEMENTS ALONG LIME KILN ROAD. THIS HAS BEEN DEFERRED TILL REQUIRED BY THE TOWNSHIP.

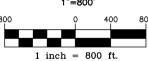
SOUTH WHITEHALL TOWNSHIP NOTE

THIS PLAN HAS BEEN REVIEWED BY THE TOWNSHIP STAFF AND TOWNSHIP ENGINEER FOR CONSISTENCY WITH MUNICIPAL REGULATIONS AND ORDINANCES RELATING TO LAND USE AND DIMENSIONAL REQUIREMENTS OF ZONING INVESTIGATIONS REGARDING PERIPHERAL LAND AND PLAN ISSUES WHICH ARE REQUIRED AS PART OF A REVIEW PROCESS SUCH AS CLARITY OF TITLE SUBSURFACE CONDITIONS INCLUDING, BUT NOT LIMITED TO, SOIL AND WATER QUALITY, HARST GEOLOGICAL ACTIVITY, AND HISTORIC AND ARCHITECTURAL ISSUES, OR SUCH OTHER ISSUES (AS APPROPRIATE THAT MAY AFFECT THE MERCHANTABILITY OF THE LAND, HAVE NOT BEEN INVESTIGATED OR REVIEWED BY THE TOWNSHIP OR THE TOWNSHIP ENGINEER.

NOTE: PERMITS AND APPROVALS FROM THE FOLLOWING AGENCIES ARE REQUIRED: LEHIGH VALLEY PLANNING COMMISSION (RECEIVED MARCH 15, 2023) PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION (RECEIVED MAY 1, 2023) LEHIGH COUNTY CONSERVATION DISTRICT (RECEIVED MAY 1, 2023).



LOCATION MAP



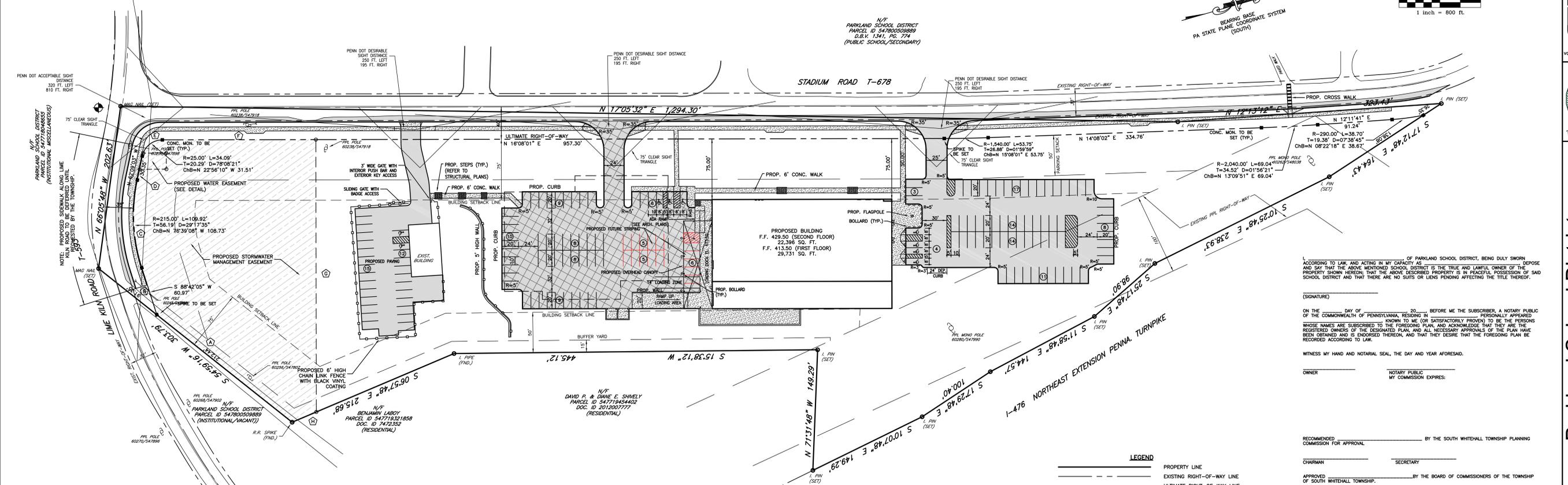
Silvia A. Hoffman, AIA
Todd O. Chambers, AIA
Jill P. Hewes, AIA
Jessica E. Klocek, AIA

MKSD, LLC
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Allentown, PA 18104

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VOID UNLESS GREEN PROFESSIONAL SEAL IS AFFIXED



I, SCOTT P. McMANCKIN, A LICENSED PROFESSIONAL ENGINEER IN THE COMMONWEALTH OF PENNSYLVANIA, DO HEREBY CERTIFY THAT THE ABOVE DESCRIBED PROPERTY IS IN PEACEFUL POSSESSION OF SAID SCHOOL DISTRICT AND THAT THERE ARE NO SUITS OR LIENS PENDING AFFECTING THE TITLE THEREOF.

(SIGNATURE)
ON THE DAY OF 20, BEFORE ME THE SUBSCRIBER, A NOTARY PUBLIC OF THE COMMONWEALTH OF PENNSYLVANIA, RESIDING IN THE COUNTY OF LEHIGH AND STATE OF PENNSYLVANIA, WHOSE NAMES ARE SUBSCRIBED TO KNOW TO ME (OR SATISFACTORILY PROVEN) TO BE THE PERSONS WHOSE NAMES ARE SUBSCRIBED TO THE FOREGOING PLAN, AND ACKNOWLEDGE THAT THEY ARE THE REGISTERED OWNERS OF THE DESIGNATED PLAN, AND ALL NECESSARY APPROVALS OF THE PLAN HAVE BEEN OBTAINED AND IS ENDORSED THEREON, AND THAT THEY DESIRE THAT THE FOREGOING PLAN BE RECORDED ACCORDING TO LAW.

WITNESS MY HAND AND NOTARIAL SEAL, THE DAY AND YEAR AFORESAID.

OWNER: NOTARY PUBLIC
MY COMMISSION EXPIRES:

RECOMMENDED BY THE SOUTH WHITEHALL TOWNSHIP PLANNING COMMISSION FOR APPROVAL

CHAIRMAN: SECRETARY

APPROVED BY THE BOARD OF COMMISSIONERS OF THE TOWNSHIP

CHAIRMAN: SECRETARY

APPROVED BY THE SOUTH WHITEHALL TOWNSHIP ENGINEER

REVIEWED BY THE LEHIGH VALLEY PLANNING COMMISSION

I, TODD R. MYERS, A REGISTERED SURVEYOR OF THE COMMONWEALTH OF PENNSYLVANIA, DO HEREBY CERTIFY THAT THE PLAN, PREPARED FROM A FIELD SURVEY ON MARCH 8, 2022, CORRECTLY REPRESENTS THE PROPERTY.

I, SCOTT P. McMANCKIN, A LICENSED PROFESSIONAL ENGINEER IN THE COMMONWEALTH OF PENNSYLVANIA, DO HEREBY CERTIFY THAT THE ACCOMPANYING APPLICATION, PLANS AND SUPPORTING DOCUMENTATION ARE TRUE AND ACCURATE, TO THE BEST OF MY KNOWLEDGE.

PLAN RECORDED IN THE OFFICE OF THE RECORDER OF DEEDS OF LEHIGH COUNTY, PENNSYLVANIA, AS DOCUMENT NO. 20, ON THE DAY OF 20.

DRAWING TITLE: RECORD SITE PLAN

PROJECT NUMBER: 22.149

DRAWN BY: SSWW

SCALE: 1"=50'

DATE: 08.27.2024

DRAWING NUMBER

811 Know what's below Call before you dig

BEFORE YOU DIG ANYWHERE IN PENNSYLVANIA CALL 1-800-242-1778

NON-MEMBERS MUST BE CONTACTED DIRECTLY BY PA LAW REQUIRES THREE WORKING DAYS NOTICE TO UTILITIES BEFORE YOU EXCAVATE, DRILL, BLAST OR DEMOLISH.

SERIAL NUMBER 2022250251

Parkland School District
New Operations Center (Phase 4)
2619 Stadium Road
Orefield, PA 18069

TMPE 54771927143-1

REVISIONS

XX.XX.XX - Issued for Permit

Table with columns: No, Date, Description

DRAWING TITLE

RECORD SITE PLAN

PROJECT NUMBER

22.149

DRAWN BY

SSWW

SCALE

1"=50'

DATE

08.27.2024

DRAWING NUMBER

SP-1

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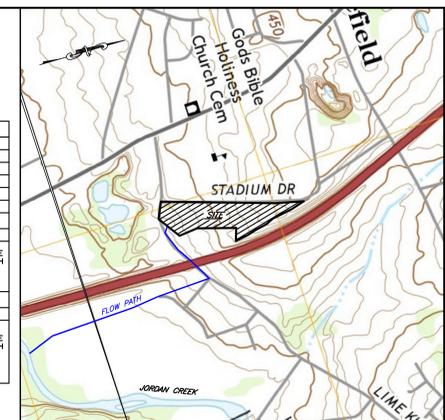
www.mkdsdarchitects.com

V:\PROJECTS\161371 MKSD Parkland School District Operations Center\STRIELANSKI\2023-21 NPDES MAJOR MOD\REV 19-24\SP-1 RECORD PLAN.dwg

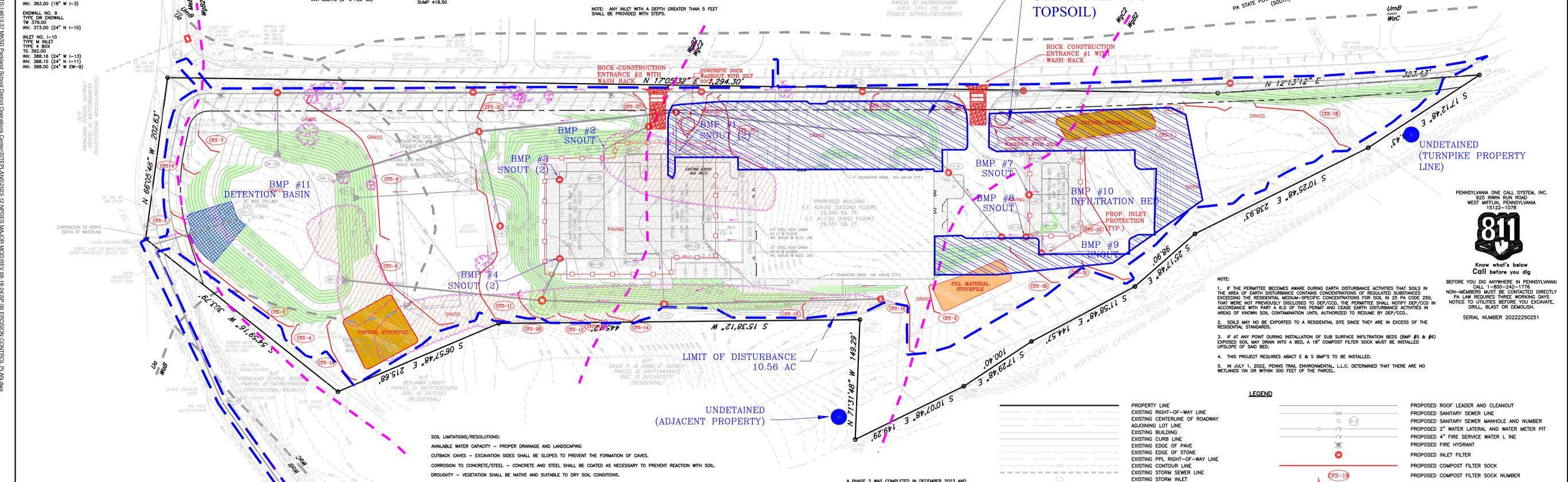
STORM SEWER TABULATION table listing storm manholes (MH-1 to MH-31), inlets, and various pipe specifications including diameters, materials, and invert elevations.

EXISTING INLET TO STORM MH NO. MH-31 table listing existing inlets and storm manholes with their respective elevations and materials.

PLANTING SCHEDULE (BASIN BOTTOM PLANTINGS) table listing botanical names, common names, quantities, sizes, and remarks for various plants like Clethra alnifolia and Carex pennsylvanica.



USGS QUAD MAP RECEIVING WATER CHAPTER 93 CLASSIFICATION JORDAN CREEK TSE-16 IMPAIRMENT CAUSE: SILTATION IMPROVED SOURCE: URBAN RUNOFF, STORM SEWERS



24" MIN SOIL CAP AREA (24" TOPSOIL OR 18" CLEAN FILL W/ 6" TOPSOIL)

- NOTE: 1. IF THE PERMITTEE BECOMES AWARE DURING EARTH DISTURBANCE ACTIVITIES THAT SOILS IN THE AREA OF EARTH DISTURBANCE CONTAINS CONCENTRATIONS OF REGULATED SUBSTANCES EXCEEDING THE RESIDENTIAL, MEDIUM-SPECIFIC CONCENTRATIONS FOR SOIL IN 25 PA CODE 250...

LEGEND table defining symbols for property lines, sewer lines, storm inlets, and various soil and stockpile areas.

SOIL LIMITATIONS/RESOLUTIONS: AVAILABLE WATER CAPACITY - PROPER DRAINAGE AND LANDSCAPING. OUTBACK CAVES - EXCAVATION SIDES SHALL BE SLOPED TO PREVENT THE FORMATION OF CAVES.

SOILS LOG table with columns for SOILS LOG SYMBOL, TYPE, SLOPES, LANDFORM, DEPTH TO RESTRICTIVE FEATURES, DRAINAGE CLASS, and various soil characteristics.

MKSD, LLC 1209 Hausman Road, Suite A Allentown, PA 18104 610.366.2081 phone mksdarchitects.com web

Parkland School District New Operations Center (Phase 4) 2619 Stadium Road Orefield, PA 18069

REVISIONS table with columns for No, Date, and Description. Includes drawing title 'EROSION AND SEDIMENT CONTROL PLAN' and project number '22.149'.

1. STANDARD EROSION AND SEDIMENT CONTROL PLAN NOTES

- ALL EARTH DISTURBANCES, INCLUDING CLEARING AND GRUBBING AS WELL AS CUTS AND FILLS SHALL BE DONE IN ACCORDANCE WITH THE APPROVED E&S PLAN. A COPY OF THE EMPLOYED E&S PLAN DATED BY THE REVIEWING AGENCY MUST BE AVAILABLE AT THE PROJECT SITE AT ALL TIMES. THE REVIEWING AGENCY SHALL BE NOTIFIED OF ANY CHANGES TO THE APPROVED PLAN PRIOR TO IMPLEMENTATION OF THOSE CHANGES. THE REVIEWING AGENCY MAY REQUIRE A WRITTEN PLAN FOR REVIEW AND APPROVAL AT ITS DISCRETION.
- AT LEAST 7 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, INCLUDING CLEARING AND GRUBBING, THE DEVELOPER'S CONTRACTOR SHALL WRITE ALL CONTRACTORS, THE LANDOWNER, APPROPRIATE MUNICIPAL OFFICIALS, THE E&S PLAN PREPARER, THE PCSM PLAN PREPARER, THE LICENSED PROFESSIONAL RESPONSIBLE FOR OVERSIGHT OF CRITICAL STAGES OF IMPLEMENTATION OF THE PCSM PLAN, AND A REPRESENTATIVE FROM THE LOCAL CONSERVATION DISTRICT TO AN ON-SITE PRECONSTRUCTION MEETING.
- AT LEAST 3 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, OR EXPANDING INTO AN AREA PREVIOUSLY UNMARKED, THE PENNSYLVANIA ONE CALL SYSTEM INC. SHALL BE NOTIFIED AT 1-800-242-1776 FOR THE LOCATION OF EXISTING UNDERGROUND UTILITIES.
- ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE SEQUENCE PROVIDED ON THE PLAN DRAWINGS. DEVIATION FROM THAT SEQUENCE MUST BE APPROVED IN WRITING FROM THE LOCAL CONSERVATION DISTRICT OR BY THE DEPARTMENT PRIOR TO IMPLEMENTATION.
- AREAS TO BE FILLED ARE TO BE CLEARED, GRUBBED, AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS AND OTHER OBJECTIONABLE MATERIAL.
- CLEARING, GRUBBING, AND TOPSOIL STRIPPING SHALL BE LIMITED TO THOSE AREAS DESCRIBED IN EACH STAGE OF THE CONSTRUCTION SEQUENCE. GENERAL SITE CLEARING, GRUBBING AND TOPSOIL STRIPPING MAY NOT COME IN ANY STAGE OR PHASE OF THE PROJECT UNTIL THE E&S BMPs SPECIFIED BY THE BMP SEQUENCE FOR THAT STAGE OR PHASE HAVE BEEN INSTALLED AND ARE FUNCTIONING AS DESCRIBED IN THIS E&S PLAN.
- AT NO TIME SHALL CONSTRUCTION VEHICLES BE ALLOWED TO ENTER AREAS OUTSIDE THE LIMIT OF DISTURBANCE BOUNDARIES SHOWN ON THE PLAN MAPS. THESE AREAS MUST BE CLEARLY MARKED AND FENCED OFF BEFORE CLEARING AND GRUBBING OPERATIONS BEGIN.
- TOPSOIL REQUIRED FOR THE ESTABLISHMENT OF VEGETATION SHALL BE MAPPED AT THE LOCATION(S) SHOWN ON THE PLAN MAPS IN THE APPROVED E&S PLAN. A COPY OF THE EMPLOYED E&S PLAN DATED BY THE REVIEWING AGENCY MUST BE AVAILABLE AT THE PROJECT SITE AT ALL TIMES. THE REVIEWING AGENCY SHALL BE NOTIFIED OF ANY CHANGES TO THE APPROVED PLAN PRIOR TO IMPLEMENTATION OF THOSE CHANGES. THE REVIEWING AGENCY MAY REQUIRE A WRITTEN PLAN FOR REVIEW AND APPROVAL AT ITS DISCRETION.
- IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE DEVELOPER'S CONTRACTOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES TO MINIMIZE THE POTENTIAL FOR EROSION AND SEDIMENT POLLUTION AND NOTIFY THE LOCAL CONSERVATION DISTRICT AND/OR THE REGIONAL OFFICE OF THE DEPARTMENT.
- ALL BUILDING MATERIALS AND WASTES SHALL BE REMOVED FROM THE SITE AND RECYCLED OR DISPOSED OF IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 260.1 ET SEQ., 271.1, AND 271.1 ET. SEQ. NO BUILDING MATERIALS OR WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURNED, BURIED, DUMPED, OR DISCHARGED AT THIS SITE.
- ALL OFF-SITE WASTE AND BORROW AREAS MUST HAVE AN E&S PLAN APPROVED BY THE LOCAL CONSERVATION DISTRICT OR THE DEPARTMENT FULLY IMPLEMENTED PRIOR TO BEING ACTIVATED.
- THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ANY MATERIAL BROUGHT ON SITE IS CLEAN FILL. FORM FP-001 MUST BE RETAINED BY THE PROPERTY OWNER FOR ANY FILL MATERIAL AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE BUT QUALIFYING AS CLEAN FILL. FILL TO ANALYTICAL TESTING.
- ALL PUMPING OF WATER FROM ANY WORK AREA SHALL BE DONE ACCORDING TO THE PROCEDURE DESCRIBED IN THIS PLAN. OVER UNDISTURBED VEGETATED AREAS, ALL PUMPING OF SEDIMENT LADEN WATER SHALL BE THROUGH A SEDIMENT CONTROL BASIN WHICH A PUMPED WATER FILTER BAG DISCHARGING OVER NON-DISTURBED AREAS.
- VEHICLES AND EQUIPMENT MAY ONLY ENTER AND EXIT THE CONSTRUCTION SITE VIA A STABILIZED ROCK CONSTRUCTION ENTRANCE.
- UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENT BMPs SHALL BE MAINTAINED PROPERLY. MAINTENANCE SHALL INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENT BMPs AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. THE DEVELOPER'S CONTRACTOR WILL MAINTAIN AND MAKE AVAILABLE TO LEHIGH COUNTY CONSERVATION DISTRICT COMPLETE, WRITTEN INSPECTION LOGS OF ALL THOSE INSPECTIONS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, REMULCHING AND RENETTING MUST BE PERFORMED IMMEDIATELY IF THE E&S BMPs FAIL TO PERFORM AS EXPECTED. REPLACEMENT BMPs, OR MODIFICATIONS OF THOSE INSTALLED WILL BE REQUIRED.
- A LOG SHOWING DATES THAT E&S BMPs WERE INSPECTED AS WELL AS ANY DEFICIENCIES FOUND AND THE DATE THEY WERE CORRECTED SHALL BE MAINTAINED ON THE SITE AND BE MADE AVAILABLE TO REGULATORY AGENCY OFFICIALS AT THE TIME OF INSPECTION.
- SEDIMENT TRACKED ONTO ANY PUBLIC ROADWAY OR SIDEWALK SHALL BE RETURNED TO THE CONSTRUCTION SITE BY THE END OF EACH WORK DAY AND DISPOSED IN THE MANNER DESCRIBED IN THIS PLAN. IN NO CASE SHALL THE SEDIMENT BE WASHED, SHOVELED, OR SWEEP INTO ANY ROADSIDE DITCH, STORM SEWER, OR SURFACE WATER.
- ALL SEDIMENT REMOVED FROM BMPs SHALL BE DISPOSED OF IN THE MANNER DESCRIBED ON THE PLAN DRAWINGS.
- SEDIMENT REMOVED FROM BMPs SHALL BE DISPOSED OF IN LANDSCAPED AREAS OUTSIDE OF STEEP SLOPES, WETLANDS, FLOODPLAINS OR DRAINAGE SWALES AND IMMEDIATELY STABILIZED, OR PLACED IN TOPSOIL STOCKPILES.
- AREAS WHICH ARE TO BE TOPSOILED SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 3 TO 5 INCHES - 6 TO 12 INCHES ON COMPACTED SOILS PRIOR TO PLACEMENT OF TOPSOIL. AREAS TO BE VEGETATED SHALL HAVE A MINIMUM 4 INCHES OF TOPSOIL IN PLACE PRIOR TO SEEDING AND MULCHING. FILL OUTCROPS SHALL HAVE A MINIMUM OF 2 INCHES OF TOPSOIL.
- ALL FILLS SHALL BE COMPACTED AS REQUIRED TO REMOVE EROSION, SLUFFAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED PROBLEMS. FROZEN MATERIALS, FOUND BUILDINGS, STRUCTURES AND CONDUITS, ETC. SHALL BE COMPACTED IN ACCORDANCE WITH LOCAL REQUIREMENTS OR CODES.
- ALL EARTHEN FILLS SHALL BE PLACED IN COMPACTED LAYERS NOT TO EXCEED 9 INCHES IN THICKNESS.
- FILL MATERIALS SHALL BE FREE OF FROZEN PARTICLES, BRUSH, ROOTS, SOIL, OR OTHER FOREIGN OR OBJECTIONABLE MATERIALS THAT WOULD INTERFERE WITH OR PREVENT CONSTRUCTION OF SATISFACTORY FILLS.
- FROZEN MATERIALS OR SOFT, MUCKY, OR HIGHLY COMPRESSIBLE MATERIALS SHALL NOT BE INCORPORATED INTO FILLS.
- FILL SHALL NOT BE PLACED ON SATURATED OR FROZEN SURFACES.
- SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE HANDLED IN ACCORDANCE WITH THE STANDARD AND SPECIFICATION FOR SUBSURFACE DRAIN OR OTHER APPROPRIATE METHOD.
- ALL GRADED AREAS SHALL BE PERMANENTLY STABILIZED IMMEDIATELY UPON REACHING FINISHED GRADE. CUT SLOPES IN CUTS AND IN ROCK FILLS NEED NOT BE VEGETATED. SEEDED AREAS WITHIN 50 FEET OF A SURFACE WATER, OR AS OTHERWISE SHOWN ON THE PLAN DRAWINGS, SHALL BE BLANKETED ACCORDING TO THE STANDARDS OF THIS PLAN.
- IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITIES CEASE IN ANY AREA OR SUBAREA OF THE PROJECT, THE DEVELOPER'S CONTRACTOR SHALL STABILIZE ALL DISTURBED AREAS, DURING NON-GERMINATING MONTHS, MULCH OR OTHER PROTECTIVE BLANKETING SHALL BE APPLIED AS DESCRIBED IN THE PLAN. AREAS NOT AT FINISHED GRADE WHICH WILL BE REACTIVATED WITHIN 1 YEAR, MAY BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY STABILIZATION SPECIFICATIONS. THOSE AREAS WHICH WILL NOT BE REACTIVATED WITHIN 1 YEAR SHALL BE STABILIZED IN ACCORDANCE WITH THE PERMANENT STABILIZATION SPECIFICATIONS.
- PERMANENT STABILIZATION IS DEFINED AS A MINIMUM UNIFORM, PERENNIAL 70% VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED EROSION. CUT AND FILL SLOPES SHALL BE CAPABLE OF RESISTING FAILURE DUE TO SLUMPING, SLIDING, OR OTHER MOVEMENTS.
- EROSION AND SEDIMENT BMPs MUST BE CONSTRUCTED, STABILIZED, AND FUNCTIONAL BEFORE SITE DISTURBANCE BEGINS WITH THE TRIBUTARY AREAS OF THOSE BMPs. E&S BMPs SHALL REMAIN FUNCTIONAL AS SUCH UNTIL ALL AREAS TRIBUTARY TO THEM ARE PERMANENTLY STABILIZED OR UNTIL THEY ARE REPLACED BY ANOTHER BMP APPROVED BY THE LOCAL CONSERVATION DISTRICT OR THE DEPARTMENT.
- UPON COMPLETION OF ALL EARTH DISTURBANCE ACTIVITIES AND PERMANENT STABILIZATION OF ALL DISTURBED AREAS, THE OWNER AND/OR OPERATOR SHALL CONTACT THE LOCAL CONSERVATION DISTRICT FOR AN INSPECTION PRIOR TO REMOVAL/CONVERSION OF THE E&S BMPs.
- AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENT BMPs MUST BE REMOVED OR CONVERTED TO PERMANENT POST CONSTRUCTION STORMWATER MANAGEMENT BMPs. AREAS DISTURBED DURING REMOVAL OR CONVERSION OF THE BMPs SHALL BE STABILIZED IMMEDIATELY IN ORDER TO ENSURE RAPID REVEGETATION OF DISTURBED AREAS, SUCH REMOVAL/CONVERSIONS ARE TO BE DONE ONLY DURING THE GERMINATING SEASON.
- UPON COMPLETION OF ALL EARTH DISTURBANCE ACTIVITIES AND PERMANENT STABILIZATION OF ALL DISTURBED AREAS, THE DEVELOPER'S CONTRACTOR SHALL CONTACT THE LOCAL CONSERVATION DISTRICT TO SCHEDULE A FINAL INSPECTION.
- FAILURE TO CORRECTLY INSTALL E&S BMPs, FAILURE TO PREVENT SEDIMENT-LADEN RUNOFF FROM LEAVING THE CONSTRUCTION SITE OR FAILURE TO TAKE IMMEDIATE CORRECTIVE ACTION TO RESOLVE FAILURE OF E&S BMPs MAY RESULT IN ADMINISTRATIVE, CIVIL, AND/OR CRIMINAL PENALTIES BEING INSTITUTED BY THE DEPARTMENT AS DEFINED IN SECTION 602 OF THE CLEAN STREAMS LAW. THE CLEAN STREAMS LAW PROVIDES FOR UP TO \$10,000 PER DAY IN CIVIL PENALTIES, UP TO \$10,000 IN SUMMARY CRIMINAL PENALTIES, AND UP TO \$25,000 IN MISDEMEANOR CRIMINAL PENALTIES FOR EACH VIOLATION.
- IN THE EVENT OF SINKHOLE DISCOVERY A PROFESSIONAL GEOLOGIST OR ENGINEER WILL BE CONTACTED CONCERNING MITIGATION. ADDITIONALLY, THE LEHIGH COUNTY CONSERVATION DISTRICT WILL BE MADE AWARE OF THE SINKHOLE DISCOVERY IMMEDIATELY.
- THE DEVELOPER'S CONTRACTOR SHALL ASSURE THAT THE APPROVED EROSION AND SEDIMENT CONTROL PLAN IS PROPERLY AND COMPLETELY IMPLEMENTED.
- THE CONTRACTOR IS ADVISED TO BECOME THOROUGHLY FAMILIAR WITH THE PROVISIONS OF THE APPENDIX 64, EROSION CONTROL RULES AND REGULATIONS, TITLE 25, PART 1, DEPARTMENT OF ENVIRONMENTAL PROTECTION, SUBPART C, PROTECTION OF NATURAL RESOURCES, ARTICLE III, WATER RESOURCES, CHAPTER 102, EROSION CONTROL.
- AT STREAM CROSSINGS, 50' BUFFER AREAS SHOULD BE MAINTAINED. ON BUFFERS, CLEARING, SOIL DISTURBANCES, EXCAVATION AND EQUIPMENT TRAFFIC SHOULD BE MINIMIZED. ACTIVITIES SUCH AS STAKING LOGS, BURNING CLEARED BRUSH, DISCHARGING RAINWATER FROM TRENCHES, WELDING PIPE SECTIONS, REFUELING AND MAINTAINING EQUIPMENT SHOULD BE ACCOMPLISHED OUTSIDE OF BUFFERS.
- ALL WETLANDS MUST BE DELINEATED AND PROTECTED WITH ORANGE SAFETY FENCE PRIOR TO ANY EARTHMOVING ACTIVITY.
- STRAW MULCH SHALL BE APPLIED IN LONG STRANDS, NOT CHOPPED OR FINELY BROKEN.
- ALL CHANNELS SHALL BE KEPT FREE OF OBSTRUCTIONS INCLUDING BUT NOT LIMITED TO FILL, ROCKS, LEAVES, WOODY DEBRIS, ACCUMULATED SEDIMENT, EXCESS VEGETATION, AND CONSTRUCTION MATERIAL/WASTES.

TEMPORARY CONTROL MEASURES

- LIMITING EXPOSURE AREAS.
- SURFACE WATER ROUTING. ALL ON-SITE SURFACE WATER SHOULD BE ROUTED AWAY FROM EXCAVATIONS.
- STABILIZATION. ANY DISTURBED AREA SHALL BE STABILIZED AS SOON AS POSSIBLE.
- INTERIM STABILIZATION, WHEN IT IS NOT POSSIBLE TO PERMANENTLY STABILIZE A DISTURBED AREA, INTERIM STABILIZATION MEASURES SHALL BE IMPLEMENTED PROMPTLY.
- COLLECTION AND RUNOFF. ALL RUNOFF FROM SUBJECT PROJECT AREA SHALL BE COLLECTED AND DIVERTED TO FACILITIES FOR THE REMOVAL OF SEDIMENT. RUNOFF SHALL NOT BE DISCHARGED TO THE WATERS OF THE COMMONWEALTH WITHOUT MEASURES TO PREVENT SEDIMENTATION. REQUIREMENTS FOR TEMPORARY COVER SHALL BE ACCORDING TO TEMPORARY SEEDING NOTES, EROSION CONTROL PLAN, AND SHALL CONFORM TO STANDARDS AND REQUIREMENTS SET FORTH IN THE SOIL EROSION AND SEDIMENTATION CONTROL MANUAL.
- IN THE EVENT THAT GROUNDWATER IS ENCOUNTERED DURING CONSTRUCTION, SAID GROUNDWATER SHALL BE PUMPED TO A DIRT BAG FOR REMOVAL OF ANY SEDIMENT.
- TEMPORARY CONTROLS SHALL BE PERIODICALLY CHECKED, CLEANED AND/OR REPLACED, AS CONDITIONS DICTATE. MAINTENANCE CONTROL PROGRAM THE CONTRACTOR SHALL SEE TO IT THAT ALL PROCEDURES ARE ADHERED TO CONCERNING EROSION AND SEDIMENT CONTROL MAINTENANCE.

THE FOLLOWING INFORMATION RELATIVE TO MATERIAL RECYCLING & DISPOSAL, AND FILL IS PROVIDED FOR THE SOLE PURPOSE OF GUIDANCE ONLY. COMPLIANCE WITH THESE GUIDELINES DOES NOT IMPLY OR PROVIDE ANY WARRANTY FOR ANY RELEASE OF LIABILITY FROM STATE, OR FEDERAL REQUIREMENTS, REGULATIONS, AND/OR STATUTES, AND/OR DOES NOT IMPLY OR PROVIDE ANY WARRANTY FOR ANY RELEASE FROM COMPLIANCE WITH OBLIGATIONS AS MAY BE SET FORTH BY CONTRACTUAL SPECIFICATIONS.

RECYCLING & DISPOSAL

- BUILDING MATERIALS & WASTES: THE OPERATOR/CONTRACTOR/LAND OWNER SHALL REMOVE FROM THE SITE, RECYCLE, AND/OR DISPOSE OF ALL BUILDING MATERIALS AND WASTES IN ACCORDANCE WITH DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS (25 PA CODE 260.1 ET SEQ., 271.1 ET SEQ., AND 287.1 ET SEQ.) AND/OR IN ACCORDANCE WITH ANY LOCAL, COMMONWEALTH, OR FEDERAL REGULATIONS. THE OPERATOR/CONTRACTOR/LAND OWNER SHALL NOT ILLEGALLY BURY, DUMP, BURN, OR DISCHARGE ANY BUILDING MATERIAL OR WASTES AT THE SITE.
- TREES, STUMPS AND BRUSH: CLEARING WASTE SHALL NOT BE BURIED OR BURNED. SUCH MATERIALS SHALL BE GROUND AND USED AS MULCH OR HAULED TO A MULCH RECYCLING FACILITY.
- CEMENT CONCRETE WASTE MATERIAL: CEMENT CONCRETE WASTE MATERIALS MAY BE CRUSHED AND USED AS FILL WHEN POSSIBLE.
- BITUMINOUS CONCRETE AND PAVING WASTE MATERIAL: SUCH MATERIALS SHALL NOT BE BURIED IN BULK ON-SITE. BITUMINOUS PAVING WASTE MAY BE CRUSHED/MILLED AND MIXED WITH AGGREGATE MATERIALS USED FOR CONSTRUCTION OF SIDEWALKS OR PARKING AREAS OUTSIDE OF PUBLIC RIGHT-OF-WAY OR IN THE ALTERNATE HAULED TO A FACILITY EQUIPPED TO RECYCLE SUCH MATERIAL. BITUMINOUS MATERIALS SUCH AS PAVEMENT SEALER, ROOFING MATERIAL, ETC. MUST BE DISPOSED OF AS BUILDING WASTE MATERIAL.
- ROCK WASTE: ALL ROCK THAT IS SUITABLE FOR LANDSCAPING PURPOSES MAY BE UTILIZED ON-SITE OR AT ANOTHER FACILITY. ROCK MAY ALSO BE CRUSHED AND UTILIZED AS AGGREGATE CONSTRUCTION MATERIAL PROVIDED IT MEETS REQUIRED SPECIFICATIONS FOR SUCH USE, AND IS APPROVED FOR USE BY THE MUNICIPALITY AND/OR PENN DOT. ROCK MAY ALSO BE BURIED ON-SITE PROVIDED DISPOSAL PIT IS LOCATED OUTSIDE OF PUBLIC RIGHT-OF-WAY AND ANY GASMENTS, AND PROVIDED THE EXCAVATION, PLACEMENT AND BACKFILLING IS ACCOMPLISHED IN SUCH A MANNER THAT VOIDING IS ELIMINATED.
- SOIL WASTE: ALL EXCAVATED CLEAN FILL SOILS SHALL BE UTILIZED ON-SITE AS FILL MATERIAL. EXCESS MATERIAL REMOVED FROM A SITE MAY BE DISPOSED OF AT AN OFF-SITE LOCATION THAT HAS AN APPROVED NPDES PERMIT (WHERE APPLICABLE); AN EROSION CONTROL PLAN APPROVED BY THE COUNTY CONSERVATION DISTRICT; AND WHERE ALL APPLICABLE EROSION CONTROL BMPs HAVE BEEN PROPERLY INSTALLED AND IMPLEMENTED.
- BMP SEDIMENT DISPOSAL: SEDIMENT REMOVED FROM BMPs SHALL BE DISPOSED OF IN LANDSCAPED AREAS OUTSIDE OF STEEP SLOPES, WETLANDS, FLOOD PLAINS OR DRAINAGE SWALES AND IMMEDIATELY STABILIZED; OR PLACED IN TOPSOIL STOCKPILES.
 - LANDSCAPED AREAS SHALL BE UPLAND AREAS OUTSIDE OF ALL OTHER REGULATED WATERS OF THE COMMONWEALTH OF PA, AND ALL OTHER REGULATED WATERS OF THE UNITED STATES.
 - DOWNGRADE PERIMETER OF THE LANDSCAPED AREAS SHALL BE PROTECTED WITH SILT FENCE.
 - SEEDMENTS USED AS A TOPSOIL COVER IN LANDSCAPED AREAS SHALL BE EVENLY SPREAD OVER THE DISPOSAL AREA.
 - IF THE LANDSCAPED AREA GRADING IS TEMPORARY, AREA SHALL BE IMMEDIATELY STABILIZED IN ACCORDANCE WITH TEMPORARY (INTERIM) REQUIREMENTS.
 - IF THE LANDSCAPED AREA GRADING IS PERMANENT, AREA SHALL BE IMMEDIATELY STABILIZED IN ACCORDANCE WITH PERMANENT (FINAL) REQUIREMENTS.
 - WHEN THE LANDSCAPED AREA HAS 70% UNIFORM PERENNIAL VEGETATIVE COVER OF SUFFICIENT DENSITY TO RESIST ACCELERATED EROSION, ALL TEMPORARY CONTROL WILL BE REMOVED, AND DISPOSED OF PROPERLY.

IMPORTED FILL

THE OPERATOR SHALL BE RESPONSIBLE TO THE OWNER, TO PERFORM ENVIRONMENTAL DUE DILIGENCE AND DETERMINE THAT ALL FILL EXPORTED TO THE SITE MEETS THE PA DEP DEFINITION OF CLEAN FILL.

EXPORTED FILL

THE PROPERTY OWNER/APPLICANT IS RESPONSIBLE FOR PERFORMING ENVIRONMENTAL DUE DILIGENCE TO DETERMINE THAT ANY FILL EXPORTED FROM THE SITE WILL BE CERTIFIED AS CLEAN FILL. THE OPERATOR SHALL NOT HAUL ANY MATERIAL FROM THE SITE UNLESS AND UNTIL THE PROPERTY OWNER/APPLICANT HAS DETERMINED THAT THE MATERIAL IS CLEAN FILL. IN THE ALTERNATE, THE OPERATOR SHALL NOT HAUL ANY FILL FROM THE SITE UNLESS AND UNTIL THE OPERATOR HAS PERFORMED THE NECESSARY ENVIRONMENTAL DUE DILIGENCE AND CAN CERTIFY TO THE PROPERTY OWNER/APPLICANT THAT ALL FILL EXPORTED FROM THE SITE MEETS THE PA DEP DEFINITION OF CLEAN FILL.

PA DEP BUREAU OF LAND RECYCLING AND WASTE MANAGEMENT DOCUMENT NO. 258-2182-773 (EFFECTIVE 02-29-96) POLICY: CLEAN FILL IS DEFINED IN THE MUNICIPAL REGULATIONS AS "UNCONTAMINATED, NONWATER-SOLUBLE, INERT SOLID MATERIAL USED TO LEVEL AN AREA OR BRING AN AREA TO GRADE". UNDER THE MUNICIPAL WASTE REGULATIONS, THE DEFINITION OF "CLEAN FILL" INCLUDES NON-DECOMPOSABLE MATERIALS. THE TERM DOES NOT INCLUDE MATERIAL PLACED INTO OR ON WATERS OF THE COMMONWEALTH OR FEDERAL WATERS BY SETTING UP CRITERIA FOR CERTAIN CONTAMINANTS, DEFINES WHAT IS MEANT BY "CONTAMINATED" SOILS, ROCK, STONE, GRAVEL, UNUSED BRICK AND BLOCK, CONCRETE, AND USED ASPHALT. CLEAN MATERIALS THAT MEET THESE CRITERIA MAY BE CONSIDERED UNCONTAMINATED FOR USE AS CLEAN FILL.

THE USE OF THESE CLEAN MATERIALS IS UNRESTRICTED AND ITS USE TO BRING AN AREA TO GRADE WILL NOT REQUIRE DEPARTMENT APPROVAL EXCEPT THAT THE CONTAMINATED SOIL, ROCK, STONE, GRAVEL, UNUSED BRICK AND BLOCK, CONCRETE, AND USED ASPHALT ARE PROHIBITED FROM BEING PLACED DIRECTLY INTO OR ON WATERS OF THE COMMONWEALTH.

PA DEP CLEAN FILL POLICY AND GUIDELINES

- CLEAN FILL IS DEFINED IN THE DEPARTMENT'S POLICY "MANAGEMENT OF FILL", AS CONTAMINATED, NONWATER SOLUBLE, NON-DECOMPOSABLE INERT SOLID MATERIAL. CLEAN FILL INCLUDED SOIL, ROCK, STONE, DREGGED MATERIAL, USED ASPHALT, AND BRICK, BLOCK OR CONCRETE FROM CONSTRUCTION AND DEMOLITION ACTIVITIES THAT IS SEPARATE FROM OTHER WASTE AND RECOGNIZABLE AS SUCH.
- CLEAN FILL USED IN ACCORDANCE WITH THE MANAGEMENT OF FILL POLICY IS NOT MANAGED AS WASTE AND THEREFORE, NOT SUBJECT TO A SOLID WASTE MANAGEMENT ACT PERMIT. THE MATERIAL MAY BE USED UNRESTRICTED AND UNREGULATED UNDER THE ACT AND ITS REGULATIONS. THE USE OF CLEAN FILL INCLUDES THE TRANSPORTATION, PROCESSING, STORAGE, MANAGEMENT AND PLACEMENT OF CLEAN FILL.
- THE CLEAN FILL DEFINITION COULD ALSO INCLUDE UNUSED MATERIAL SUCH AS BAGHOUSE DUST FROM ROCK CRUSHING OPERATIONS, DRY PIECES OF NON-SPEC. CONCRETE PRODUCTS FROM MATCH PLANTS, AND MATERIALS OF NATURAL ORIGIN THAT HAS BEEN PHYSICALLY PROTECTED FROM CONTAMINATION AND OTHER SPEC. OR BROKEN BRICKS FROM STANDARD MANUFACTURING PROCESSES, THAT ARE BEING DETERMINED TO BE CLEAN FILL IN ACCORDANCE WITH THE MANAGEMENT OF FILL POLICY.
- IT SHOULD BE NOTED THAT UNUSED ASPHALT WOULD NOT MEET THE DEFINITION OF CLEAN FILL.
- ANY PERSON PLACING CLEAN FILL THAT HAS BEEN AFFECTED BY A SPILL, OR RELEASE OF REGULATED SUBSTANCE MUST USE DEPARTMENT FORM FP-001 TO CERTIFY TO THE ORIGIN OF THE FILL MATERIAL AND THE RESULTS OF THE ANALYTICAL TESTING TO QUALIFY THE MATERIALS AS CLEAN FILL. THE FORM MUST BE RETAINED BY THE OWNER OF THE PROPERTY RECEIVING THE FILL. MATERIAL NOT QUALIFYING AS CLEAN FILL IS REGULATED FILL AND MUST BE MANAGED IN ACCORDANCE WITH THE DEPARTMENT'S MUNICIPAL OR RESIDUAL WASTE REGULATIONS BATED ON 25 PENNSYLVANIA CODE CHAPTERS 267 OR 271, WHICHEVER IS APPLICABLE.

DETERMINATION OF CLEAN FILL

SOIL NOTES- A Site-Specific Health and Safety plan (HASP) is to be provided to all contractors noting the potential for impacts and the protection measures/material handling for the potential contaminants of concern. Earth disturbance activities should be suspended if suspected impacted soils are encountered until the material can be properly characterized.

IF THE PERMITEE BECOMES AWARE DURING EARTH DISTURBANCE ACTIVITIES THAT SOILS IN THE AREA OF EARTH DISTURBANCE CONTAINS CONCENTRATIONS OF REGULATED SUBSTANCES EXCEEDING THE RESIDENTIAL MEDIUM-SPECIFIC CONCENTRATIONS FOR SOIL IN 25 pa code 250, THAT WERE NOT PREVIOUSLY DISCLOSED TO DEP/COD, THE PERMITEE SHALL NOTIFY DEP/COD IN ACCORDANCE WITH PART A.III.3 OF THIS PERMIT AND CEASE EARTH DISTURBANCE ACTIVITIES IN AREAS OF KNOWN SOIL CONTAMINATION UNTIL AUTHORIZED TO RESUME BY DEP/COD.

SOILS MAY NOT BE EXPORTED TO A RESIDENTIAL SITE SINCE THEY ARE IN EXCESS OF THE RESIDENTIAL STANDARDS.

- ENVIRONMENTAL DUE DILIGENCE, AS DEFINED IN THE MANAGEMENT OF FILL POLICY, MUST BE PERFORMED TO DETERMINE WHETHER MATERIAL CAN BE MANAGED AS CLEAN FILL, OR WILL BE SUBJECT TO REGULATION UNDER A SOLID WASTE MANAGEMENT PERMIT. IF THE DUE DILIGENCE SHOWS THAT THERE IS NO EVIDENCE THAT THE MATERIAL WAS SUBJECT TO A RELEASE OF A REGULATED SUBSTANCE, THE MATERIAL MAY QUALIFY AS CLEAN FILL.
- IF DUE DILIGENCE SHOWS EVIDENCE OF A RELEASE OF A REGULATED SUBSTANCE, TESTING MUST BE PERFORMED TO DEMONSTRATE THAT THE MATERIAL DOES NOT CONTAIN CONCENTRATIONS OF REGULATED SUBSTANCES THAT EXCEED THE CONCENTRATION LIMITS FOR CLEAN FILL SPECIFIED IN THE MANAGEMENT OF FILL POLICY.
- MATERIALS THAT CONTAIN INTENTIONALLY RELEASED REGULATED SUBSTANCES CANNOT BE MANAGED UNDER THIS POLICY. DREGGED MATERIALS IN PARTICULAR CONTAIN DIFFERENT CONTAMINANTS DEPENDING ON THEIR SOURCE. ALTHOUGH NOT MANDATORY, IT IS ADVISABLE TO CONTACT THE DEPARTMENT'S REGIONAL OFFICE FOR ADVICE PRIOR TO QUALIFYING DREGGED MATERIAL AS CLEAN FILL.
- CLEAN FILL DOES NOT INCLUDE DECOMPOSABLE MATERIAL SUCH AS DIMENSIONAL LUMBER, LAND CLEARING WOOD MATERIALS OR MIXED DEMOLITION WASTE THAT IS NOT RECOGNIZABLE AS INERT SOLID MATERIAL. SUCH MATERIALS MUST BE MANAGED UNDER A PERMIT, A GENERAL PERMIT FOR BENEFICIAL USE, A PERMIT-BY-RULE, OR UNDER EXISTING TECHNICAL GUIDANCE.
- ANY MATERIALS PLACED IN WATERS OF THE COMMONWEALTH ARE NOT CONSIDERED CLEAN FILL UNLESS OTHERWISE AUTHORIZED BY THE DEPARTMENT.

ADDITIONAL INFORMATION IS AVAILABLE IN A QUESTION-AND-ANSWER FORMAT ON THE DEPARTMENT'S WEBSITE: HTTP://WWW.DEP.STATE.PA/DEP/DEPUTATE/AR/WDSTATE/WM/MRW/DOC/CLEANFILLQ&A.HTM

PERMANENT CONTROL MEASURES

- PERMANENT GRASS AREAS WILL BE ESTABLISHED BY SEEDING AND MULCHING FOLLOWING FINAL GRADING. WHEN 70% STABILIZATION HAS BEEN ACHIEVED, AS DETERMINED BY THE CONSERVATION DISTRICT, THE CONTRACTOR WILL REMOVE ALL TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES STILL ON THE SITE AND NO LONGER UTILIZED. OTHER LANDSCAPED AREAS WILL BE PROPERLY STABILIZED AFTER PLANTING OF GROUND COVER.
- SEEDED AREAS THAT HAVE WASHED AWAY WILL BE FILLED AND GRADED AS NECESSARY, AND THEN RE-SEED. STRAW OR BURLAP WILL BE PLACED UNTIL STABILIZATION OF THE AREA IS ACCOMPLISHED. ANY GRADING AND RE-SEEDING WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- ALL EXPOSED SOIL WILL BE SEEDDED AFTER EXCAVATION AND BACKFILL ACTIVITIES. SEEDING, MULCHING, AND FERTILIZING SHALL BE ACCORDING TO PERMANENT SEEDING NOTES, SHOWN ON THE PLANS AND SHALL BE IN ACCORDANCE WITH COUNTY CONSERVATION DISTRICT RECOMMENDATIONS.

EROSION AND SEDIMENTATION CONTROL STANDARD NOTES

- STOCKPILE HEIGHTS MUST NOT EXCEED 35 FT. STOCKPILE SLOPES MUST NOT EXCEED 2:1.
- THE OPERATOR/RESPONSIBLE PERSON (O/RP) ON SITE SHALL ASSURE THAT THE APPROVED EROSION AND SEDIMENT CONTROL PLAN IS PROPERLY AND COMPLETELY IMPLEMENTED.
- IMMEDIATELY UPON DISCOVERY UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE O/RP SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES TO ELIMINATE THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION.
- THE DEVELOPER'S CONTRACTOR SHALL ASSURE THAT AN EROSION AND SEDIMENT CONTROL PLAN HAS BEEN PREPARED, APPROVED BY THE LEHIGH COUNTY CONSERVATION DISTRICT, AND IS BEING IMPLEMENTED AND MAINTAINED FOR ALL SOIL AND/OR ROCK SPOIL AND BORROW AREAS REGARDLESS OF THEIR LOCATIONS.
- ALL PUMPING OF SEDIMENT-LADEN WATER SHALL BE THROUGH A SEDIMENT CONTROL BMP SUCH AS A PUMPED WATER FILTER BAG DISCHARGING OVER UNDISTURBED AREAS.
- A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN MUST BE AVAILABLE ON THE PROJECT SITE AT ALL TIMES.
- EROSION AND SEDIMENT BMPs MUST BE CONSTRUCTED, STABILIZED AND FUNCTIONAL BEFORE SITE DISTURBANCE BEGINS WITH THE TRIBUTARY AREAS OF THOSE BMPs.
- AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENT BMP CONTROLS MUST BE REMOVED. AREAS DISTURBED DURING THE REMOVAL OF THE BMPs MUST BE STABILIZED IMMEDIATELY.
- AT LEAST SEVEN DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITY, THE DEVELOPER'S CONTRACTOR SHALL WRITE ALL CONTRACTORS INVOLVED IN THAT ACTIVITY, THE LANDOWNER, ALL APPROPRIATE MUNICIPAL OFFICIALS, THE EROSION AND SEDIMENT CONTROL PLAN PREPARER AND THE LEHIGH COUNTY CONSERVATION DISTRICT TO A PRE-CONSTRUCTION MEETING. ALSO, AT LEAST THREE DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITY, ALL CONTRACTORS INVOLVED IN THAT ACTIVITY SHALL NOTIFY THE PENNSYLVANIA ONE-CALL SYSTEM, INC. 1-800-242-1776 TO DETERMINE ANY UNDERGROUND UTILITIES LOCATIONS.
- IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITY CEASES, THE DEVELOPER'S CONTRACTOR SHALL STABILIZE ANY AREAS DISTURBED BY THE ACTIVITY, DURING NON-GERMINATING PERIODS, MULCH MUST BE APPLIED AT SPECIFIED RATES. DISTURBED AREAS THAT ARE NOT AT FINISHED GRADE AND WHICH WILL BE RE-DISTURBED WITHIN ONE YEAR MUST BE STABILIZED IN ACCORDANCE WITH TEMPORARY VEGETATIVE STABILIZATION SPECIFICATIONS. DISTURBED AREAS THAT ARE AT FINISHED GRADE AND WHICH WILL NOT BE RE-DISTURBED WITHIN ONE YEAR MUST BE STABILIZED IN ACCORDANCE WITH PERMANENT VEGETATIVE STABILIZATION SPECIFICATIONS.
- AN AREA SHALL BE CONSIDERED TO HAVE ACHIEVED FINAL STABILIZATION WHEN IT HAS A MINIMUM UNIFORM 70% VEGETATIVE OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED SURFACE EROSION AND SUBSURFACE CHARACTERISTICS SUFFICIENT TO RESIST SLIDING THE OTHER MOVEMENTS.
- UNTIL A SITE IS STABILIZED, ALL EROSION AND SEDIMENT BMPs MUST BE MAINTAINED PROPERLY. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL EROSION CONTROL BMPs AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEANOUT, REPAIR, REPLACEMENT, RE-GRADING, RE-WELDING, RE-MULCHING, AND RE-NETTING MUST BE PERFORMED IMMEDIATELY IF EROSION AND SEDIMENT CONTROL BMPs FAIL TO PERFORM AS EXPECTED. REPLACEMENT BMPs, OR MODIFICATIONS OF THOSE INSTALLED, WILL BE REQUIRED.
- SEDIMENT REMOVED FROM BMPs SHALL BE DISPOSED OF ON-SITE IN LANDSCAPED AREAS OUTSIDE OF STEEP SLOPES, WETLANDS, FLOODPLAINS OR DRAINAGE SWALES AND IMMEDIATELY STABILIZED OR PLACED IN SOIL STOCKPILES AND STABILIZED.

Seeding and Earthmoving Activities

All earth disturbance activities shall proceed in accordance with the following sequence. Each stage must be completed prior to initiation of following stages. Clearing and grubbing is considered ground disturbance and shall only occur in areas described in each stage. The Contractor shall be responsible for any suspected alterations to the earthmoving activities and/or the sequencing of earthmoving activities. All changes must be approved by the landowner, Conservation District, and the Engineer.

At least seven (7) days before starting any earth disturbance activities, the operator should invite all contractors involved in those activities, the landowner, all appropriate municipal officials, the erosion and sediment control plan preparer, and a representative of the Lehigh County Conservation District to an on-site meeting.

ABACT BMPs ARE REQUIRED TO BE USED.

At least three (3) days before starting any earth disturbance activities, all contractors involved in those activities shall notify the Pennsylvania One Call System Incorporated.

SOIL NOTES- A Site-Specific Health and Safety plan (HASP) is to be provided to all contractors noting the potential for impacts and the protection measures/material handling for the potential contaminants of concern. Earth disturbance activities should be suspended if suspected impacted soils are encountered until the material can be properly characterized.

IF THE PERMITEE BECOMES AWARE DURING EARTH DISTURBANCE ACTIVITIES THAT SOILS IN THE AREA OF EARTH DISTURBANCE CONTAINS CONCENTRATIONS OF REGULATED SUBSTANCES EXCEEDING THE RESIDENTIAL MEDIUM-SPECIFIC CONCENTRATIONS FOR SOIL IN 25 pa code 250, THAT WERE NOT PREVIOUSLY DISCLOSED TO DEP/COD, THE PERMITEE SHALL NOTIFY DEP/COD IN ACCORDANCE WITH PART A.III.3 OF THIS PERMIT AND CEASE EARTH DISTURBANCE ACTIVITIES IN AREAS OF KNOWN SOIL CONTAMINATION UNTIL AUTHORIZED TO RESUME BY DEP/COD.

SOILS MAY NOT BE EXPORTED TO A RESIDENTIAL SITE SINCE THEY ARE IN EXCESS OF THE RESIDENTIAL STANDARDS.

- Contractor shall field mark limits of disturbance prior to any activity on site.
- Install Construction Entrance #1& 2 (WITH WASH RACKS AND CFS 26 & 27), compost filter sox 1-19, 28, & 30-32, and concrete washouts as shown on the plan.
- Install temporary construction fence at Subsurface Infiltration Bed (BMP #5 & 6) to protect the area from construction vehicles. Remove trees as shown on the plans.
- Strip topsoil from BMP #11 detention basin and stockpile as shown on the plans. Fertilizer, seed and mulch stockpile. Strip topsoil from BMP # 5 & 6 and stockpile as shown on the plans. Fertilizer, seed and mulch stockpile.

- This is a CRITICAL STAGE. Install BMP # 11 in entirety, basin liner, outlet pipe with outlet structure, anti-slope collar, and piping from EW-9 to I-12, EW2 to I-7, I-3 to I-8, EW-24 to I-25 all with inlet filters and those snouts as shown on the plans. BMP #7 seeding, erosion control matting, and rip rap. Install trench drain at maintenance building, downspout storm sewer and rip rap apron. If at any time a pipe is open to receive runoff without an inlet filter or rock filter shall be placed at the exposed end. Install to BMPs #5 & 6, and I-25, endwalls and riprap. Install BMP #5 & 6 to completion placing geotextile, stone infiltration pipes, outlet pipes and upspout storm sewer, placing filters on inlets as shown on the plan. (If at any time the placement of infiltration beds BMP 5 & 6 exposed soil may drain into a bed a 18' compost filter sock must be installed uplope of said bed). Place remaining excavated material to bring south parking lot to grade. Seal pipes to BMP #5 & 6 to prevent sediment from entering the BMPs. (refer to sp-12 for construction sequence of all bmp's). Install Trench drains in upper parking lot, and storm sewer with filters and snouts, and infiltration bed BMP #10 THIS IS A CRITICAL STAGE. VERIFY TRIBUTARY AREA TO PCSM BMP'S.

- Excavate from the remaining area of disturbance and stockpile as shown on the plans fertilizer, seed and mulch stockpile.
- Excavate building and northern parking lot. Begin building construction, install water and sanitary sewer to building.
- Install parking lot curbing, stone base and paving to stabilize all parking lots. Place topsoil on all areas except adjacent to building and Stadium Drive. Upon stabilization allow runoff to enter BMP #5 & 6. THIS IS A CRITICAL STAGE. VERIFY TRIBUTARY AREA TO PCSM BMP'S.

- Excavate Stadium drive to install storm sewer beginning at I-25 only excavate that area can be completed in a single day as follows:
 - Strip topsoil, excavate right of way as shown on the plans.
 - Install compost filter sock 20-25 as shown on the plans.
 - Install storm sewer with inlet filters as shown on the plans. THIS IS A CRITICAL STAGE. VERIFY TRIBUTARY AREA TO PCSM BMP'S.
 - Place stone subbase to stabilize the area.
 - Replace any compost filter sock disturbed during construction.

- Repeat one each way until the roadway excavation is completed.
- Place Stadium Drive storm in being installed, install curb, sidewalk, topsoil, pavement base course and erosion control matting to stabilize area.
- Complete building construction, place final pavement surface, place soils with elevated levels of arsenic into area as shown on the plan and cap as noted. Place erosion control matting on slopes fertilize seed and mulch all disturbed areas.

- Place topsoil (4 minimum) on all disturbed areas that are not above covered for arsenic disposal and fertilizer seed and mulch. All areas disturbed during the prior site construction should be stabilized.
- Upon completion of and when a uniform erosion resistant perennial vegetative cover of at least 70% of the disturbed area is established, a site is considered to be permanently stabilized with vegetation. Until such time as this standard is achieved, interim stabilization measures and temporary erosion and sedimentation control measures and facilities that are used to treat project runoff may not be removed until stabilization is achieved, all temporary erosion control BMPs are to be removed (compost filter socks, stone within staging area, rock construction entrances, concrete washouts / Fertilize, seed and mulch any areas disturbed during the removal of the silt socks. THIS IS A CRITICAL STAGE. VERIFY TRIBUTARY AREA TO PCSM BMP'S.

- Sediment removed from BMPs must be disposed of at site with a valid NPDES permit.
- Submit NPDES NOT, and all required as-built plans to LCDD for final approval.

SEEDING SPECIFICATIONS

GENERAL NOTES:

- FOR GRASS AND LANDSCAPED AREAS, PLACE TOPSOIL TO A MINIMUM DEPTH OF FOUR INCHES (4") WHERE THE TEXTURE OF THE EXPOSED SOIL IS NOT SUITABLE FOR VEGETATIVE GROWTH, WHERE TOPSOIL DEPTH IS INSUFFICIENT FOR SUPPORTING ROOT ZONE, OR WHERE SOIL IS TOO ACIDIC OR TOXIC TO BE TREATED. SCARIFY AREAS TO RECEIVE TOPSOIL TO A DEPTH OF TWO INCHES (2") TO PERMIT BONDING OF THE TOPSOIL TO THE SUBSOIL.
- LIME AND FERTILIZE ACCORDING TO SOIL TESTS AT THE RATES INDICATED BELOW.
- LOOSEN SURFACE SOIL TO A DEPTH OF FOUR TO SIX INCHES (4-6") WITH SUITABLE EQUIPMENT. APPLY SEEDS UNIFORMLY BY BROADCASTING OR HYDROSEEDING. USE FOUR (4) TIMES THE NORMAL RATE WHEN HYDROSEEDING.
- MULCH ALL SEEDED AREAS.

APPLICATION TABLE:

AREA	TEMPORARY SEEDING	PERMANENT SEEDING	AGRICULTURAL	FERTILIZER	MULCH
LAWN AREAS	ANNUAL RYEGRASS @ 40lbs./ACRE	60% RAVEN KENTUCKY BLUEGRASS 20% SEVEN SEAS CHEWINGS FESCUE 20% SOPRANO PERENNIAL RYEGRASS	TEMP. SEEDING= 1 TON / ACRE PERM. SEEDING= 6 TONS / ACRE	FERTILIZER TEMP. SEEDING= 10-10-10 85000 LB/ AC PERM. SEEDING= 10-20-20 81000 LB/ AC	STRAW MULCH 3 TONS / ACRE

SEEDING DATES:

MARCH 1 TO OCT. 31 PERMANENT SEEDING
MID APRIL - MID OCTOBER TEMPORARY SEEDING

CRITICAL STAGES:

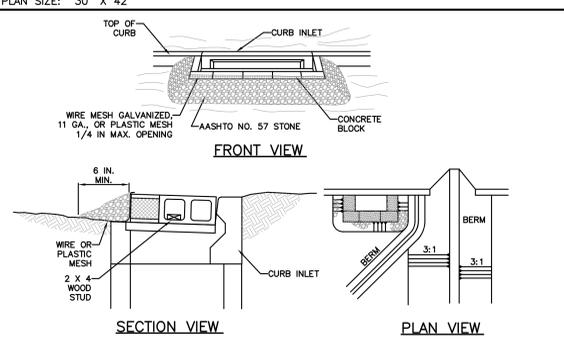
FOLLOW STAGING OF EARTH ACTIVITIES FOR TIMING OF INSTALLATION OF CRITICAL STAGES: NOTE: A LICENSED ENGINEER SHALL BE PRESENT ON SITE FOR IMPLEMENTATION OF THE CRITICAL STAGES OF THE PCSM PLAN. THESE CRITICAL STAGES ARE: CONSTRUCTION OF BMP #5 & 6 TO SUBSURFACE INFILTRATION FROM SUBGRADE TO COMPLETION INCLUDING SNOUTS. CONSTRUCTION OF BMP # 11 DETENTION BASIN FROM SUBGRADE TO COMPLETION INSTALLATION OF STORM SEWERS WITH SNOUTS AND VERIFICATION OF TRIBUTARY AREAS TO PCSM BMP'S. PAST USE 50 YEARS - RESIDENTIAL DWELLING, MATERIAL STORAGE (TOPSOIL, FILL MATERIAL) LANDSCAPING CONTRACTOR PAST USE 5 YEARS - MAINTENANCE GARAGE AND STORAGE LAWN AREAS PRESENT USE - MAINTENANCE GARAGE AND STORAGE LAWN AREAS FUTURE USE - MAINTENANCE GARAGE, ADMINISTRATION OFFICES, PARKING AND LAWN AREAS

THERMAL IMPACT MITIGATION-

DURING CONSTRUCTION - THERMAL IMPACT WILL BE MITIGATED BY LIMITING THE DISTURBED AREAS, SILT SOXX ALLOW STORMWATER TO FLOW THROUGH AND THEREFORE WILL NOT INCREASE THE STORMWATER TEMPERATURE, INFILTRATION AND DETAINING RUNOFF IN UNDERGROUND FACILITIES TO PROMOTE COOLING LIMIT DISTURBED AREAS AND IMMEDIATE STABILIZATION.

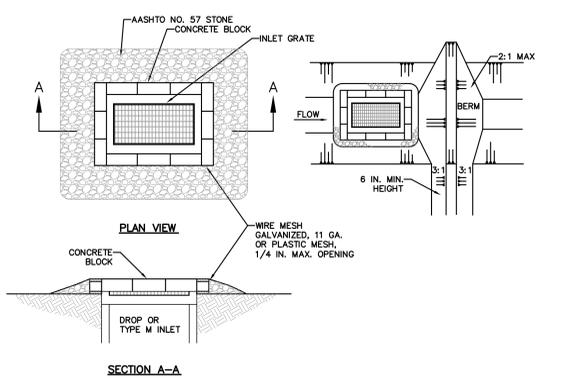
- Concrete wash water

V:\PROJECTS\04137 MKSD\Paramount School District Operations Center\STERLING\0212\12 NPDES MAJOR\MOORE\09-19-24\08 EROSION CONTROL DETAILS.dwg



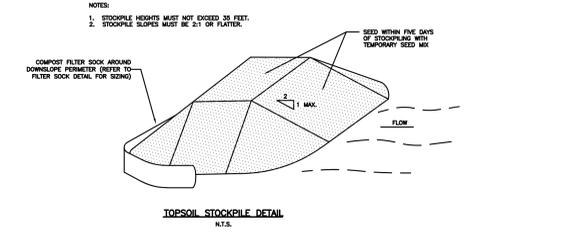
NOTES:
 MAXIMUM DRAINAGE AREA = 1 ACRE.
 INLET PROTECTION SHALL NOT BE REQUIRED FOR INLET TRIBUTARY TO SEDIMENT BASIN OR TRAP. BERMS SHALL BE REQUIRED FOR ALL INSTALLATIONS.
 ROLLED EARTHEN BERM SHALL BE PROVIDED AND MAINTAINED IMMEDIATELY DOWN GRADIENT OF THE PROTECTED INLET UNTIL ROADWAY IS STONED. ROAD SUBBASE BERM SHALL BE MAINTAINED UNTIL ROADWAY IS PROVED. SIX INCH MINIMUM HEIGHT ASPHALT BERM SHALL BE MAINTAINED UNTIL ROADWAY SURFACES FINES FINAL COAT.
 SEDIMENT SHALL BE REMOVED WHEN IT REACHES HALF THE HEIGHT OF THE STONE. DAMAGED OR CLOGGED INSTALLATIONS SHALL BE REPAIRED OR REPLACED IMMEDIATELY.
 FOR SYSTEMS DISCHARGING TO HO OR DV SURFACE WATER, A 6 INCH THICK COMPOST LAYER SHALL BE SECURELY ANCHORED ON OUTSIDE AND OVER TOP OF STONE.
 DO NOT USE ON MAJOR PAVED ROADWAYS WHERE PONDING MAY CAUSE TRAFFIC HAZARDS.

STANDARD CONSTRUCTION DETAIL #4-17
STONE AND CONCRETE BLOCK INLET PROTECTION - TYPE C INLET
 NOT TO SCALE



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 GRADIENT OF THE PROTECTED INLET UNTIL ROADWAY IS STONED. ROAD SUBBASE BERM ON ROADWAY SHALL BE MAINTAINED UNTIL ROADWAY IS PAVED. EARTHEN BERM IN CHANNEL SHALL BE MAINTAINED UNTIL PERMANENT STABILIZATION IS COMPLETED OR TO REMAIN PERMANENTLY.
 TOP OF BERM SHALL BE AT LEAST 6 INCHES BELOW ADJACENT ROADS IF PONDING WATER WOULD POSE A SAFETY HAZARD TO TRAFFIC.
 SEDIMENT SHALL BE REMOVED WHEN IT REACHES HALF THE HEIGHT OF THE STONE. DAMAGED OR CLOGGED INSTALLATIONS SHALL BE REPAIRED OR REPLACED IMMEDIATELY.
 FOR SYSTEMS DISCHARGING TO HO OR DV SURFACE WATER, A 6 INCH THICK COMPOST LAYER SHALL BE SECURELY ANCHORED ON OUTSIDE AND OVER TOP OF STONE. COMPOST SHALL MEET THE STANDARDS IN TABLE 4.2 OF THE PA DEP EROSION CONTROL MANUAL.

STANDARD CONSTRUCTION DETAIL #4-18
STONE AND CONCRETE BLOCK INLET PROTECTION - TYPE M INLET
 NOT TO SCALE



NOTES:
 1. STOCKPILE HEIGHT MUST NOT EXCEED 30 FEET.
 2. STOCKPILE SLOPE MUST BE 2:1 ON FLAT.

COMPOST FILTER SOCK AROUND DOWN-SLOPE PROMOTER (REFER TO FILTER SOCK DETAIL FOR SIZING)

SEE WITHIN ONE (1) FOOT OF STOCKPILE WITH TEMPORARY SEED MIX

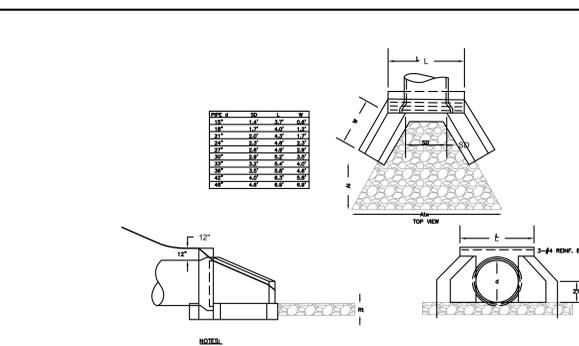
FIGURE 17.4 Sinkhole Repair with Soil Cover
 Adapted from USDA NRCS

Loose material shall be excavated from the sinkhole and expose solution void(s) if possible. Expose sinkhole if necessary to allow for installation of filter materials. OSHA regulations must be followed at all times during excavation.

Select field stone(s) about 1.5 times larger than solution void(s) to form "bridges." Place rock(s) so no large openings exist along the sides. Stones used for the "bridges" and filters shall have a moderately hard rock strength and be resistant to abrasion and degradation. Shale and similar soft and/or non-durable rock are not acceptable.

Minimum thickness of R-4 rock is 18". ASHTO #57 stone thickness shall be a minimum of 9" thick. Minimum thickness of type A sand shall be 9". NOTE: A non-woven geotextile with a tensile strength between 100 and 200 psi may be substituted for the ASHTO #57 stone and type A sand.

Soil shall be mineral soil with at least 1% fines and overlaid by 1% to allow for settlement. Suitable soil from the excavation may be used. Any available topsoil shall be placed on top surface.



CONSTRUCTION DETAIL #3-1
RIPRAP APRON AT PIPE OUTLET WITH FLARED END SECTION OR ENDWALL
 NOT TO SCALE

NO.	PIPE DIA. (IN.)	TAIL WATER COND. (MAX. OR MIN.)	MAN. PIPE (FT/FT)	PIPE SLOPE TO THE RIPRAP (FPS)	V% (FPS)	RIPRAP SIZE	R1 (IN)	A1 (IN)	A1w (IN)	A1w (IN)
EW 2	30	MIN	0.012	0.0505	5.81	R-5	13.5	10	7.5	17.5
EW 9	24	MIN	0.012	0.0625	6.51	R-6	16.5	10	6.0	16.0
EW 24	18	MIN	0.012	0.0807	4.35	R-5	13.5	10	4.5	14.5
FES 35	8	MIN	0.012	0.0358	.30	R-4	8.4	10	1.32	11.32

RIP-RAP APRONS ARE REFERENCED BY THE ENDWALL NUMBERS (EW) SHOWN ON THE PLANS.

ROLLMAX
 EROSION CONTROL

Specification Sheet - BioNet® S150BN™ Erosion Control Blanket

DESCRIPTION: The BioNet S150BN™ erosion control blanket shall be a machine produced mat of 100% recycled polypropylene fibers with a length of 12' and a width of 4'. The fibers shall be 1/8" thick and 1/16" wide. The mat shall be 1/2" thick and 1/4" wide. The mat shall be 1/2" thick and 1/4" wide. The mat shall be 1/2" thick and 1/4" wide.

Material Property	Test Method	Typical
Tensile	ASTM D6876	90 lbs
Stretch	ASTM D6876	12%
Denier	ASTM D6876	6.0 gsm
Moisture Absorbance	ASTM D6876	98%
UV Stability	ASTM D6876	98%
Light Penetration	ASTM D6876	2.0%
Tensile Strength - 100	ASTM D6876	500 lbs
Tensile Strength - 180	ASTM D6876	600 lbs
Tensile Strength - 70	ASTM D6876	90 lbs

Design Permissible Shear Stress

Material	Shear Stress (lb/ft²)	Length (ft)
Phase 1 (Topsoil)	12.0	12.0
Phase 2 (Topsoil)	12.0	12.0
Phase 3 (Topsoil)	12.0	12.0
Phase 4 (Topsoil)	12.0	12.0
Phase 5 (Topsoil)	12.0	12.0
Phase 6 (Topsoil)	12.0	12.0
Phase 7 (Topsoil)	12.0	12.0
Phase 8 (Topsoil)	12.0	12.0
Phase 9 (Topsoil)	12.0	12.0
Phase 10 (Topsoil)	12.0	12.0

ROLLMAX
 EROSION CONTROL

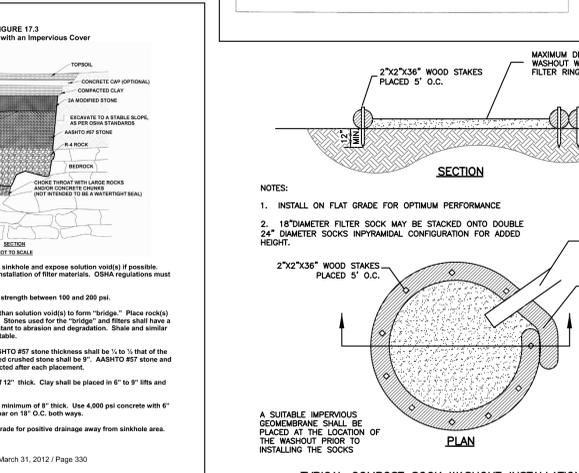
Specification Sheet - VMMax® C350™ Turf Reinforcement Mat

DESCRIPTION: The VMMax C350™ turf reinforcement mat is a machine produced mat of 100% recycled polypropylene fibers with a length of 12' and a width of 4'. The fibers shall be 1/8" thick and 1/16" wide. The mat shall be 1/2" thick and 1/4" wide. The mat shall be 1/2" thick and 1/4" wide.

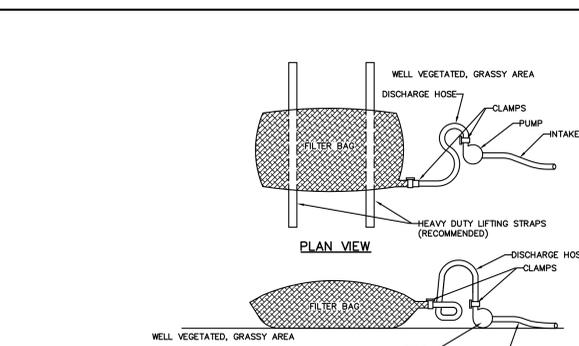
Material Property	Test Method	Typical
Tensile	ASTM D6876	90 lbs
Stretch	ASTM D6876	12%
Denier	ASTM D6876	6.0 gsm
Moisture Absorbance	ASTM D6876	98%
UV Stability	ASTM D6876	98%
Light Penetration	ASTM D6876	2.0%
Tensile Strength - 100	ASTM D6876	500 lbs
Tensile Strength - 180	ASTM D6876	600 lbs
Tensile Strength - 70	ASTM D6876	90 lbs

Design Permissible Shear Stress

Material	Shear Stress (lb/ft²)	Length (ft)
Phase 1 (Topsoil)	12.0	12.0
Phase 2 (Topsoil)	12.0	12.0
Phase 3 (Topsoil)	12.0	12.0
Phase 4 (Topsoil)	12.0	12.0
Phase 5 (Topsoil)	12.0	12.0
Phase 6 (Topsoil)	12.0	12.0
Phase 7 (Topsoil)	12.0	12.0
Phase 8 (Topsoil)	12.0	12.0
Phase 9 (Topsoil)	12.0	12.0
Phase 10 (Topsoil)	12.0	12.0



TYPICAL COMPOST SOCK WASHOUT INSTALLATION #3-18
 NOT TO SCALE



NOTES:
 LOW VOLUME FILTER BAGS SHALL BE MADE FROM NON-WOVEN GEOTEXTILE MATERIAL SEWN WITH HIGH STRENGTH, DOUBLE STITCHED "J" TYPE SEAMS. THEY SHALL BE CAPABLE OF TRAPPING PARTICLES LARGER THAN 150 MICRONS. HIGH VOLUME FILTER BAGS SHALL BE MADE FROM WOVEN GEOTEXTILES THAT MEET THE FOLLOWING STANDARDS:

BAGS SHALL BE LOCATED IN WELL-VEGETATED (GRASSY) AREA, AND DISCHARGE ONTO STABLE, EROSION RESISTANT AREAS, WHERE THIS IS NOT POSSIBLE, A GEOTEXTILE UNDERLAYER AND FLOW PATH SHALL BE PROVIDED. BAGS MAY BE PLACED ON FILTER STONE TO INCREASE DISCHARGE CAPACITY. BAGS SHALL NOT BE PLACED ON SLOPES GREATER THAN 5% FOR SLOPES EXCEEDING 5% CLEAN ROCK OR OTHER NON-ERODIBLE AND NON-POLLUTING MATERIAL MAY BE PLACED UNDER THE BAG TO REDUCE SLOPE STEEPNESS.

COMPOST FILTER SOCK SHALL BE INSTALLED DOWNSLOPE OF ALL BAGS.

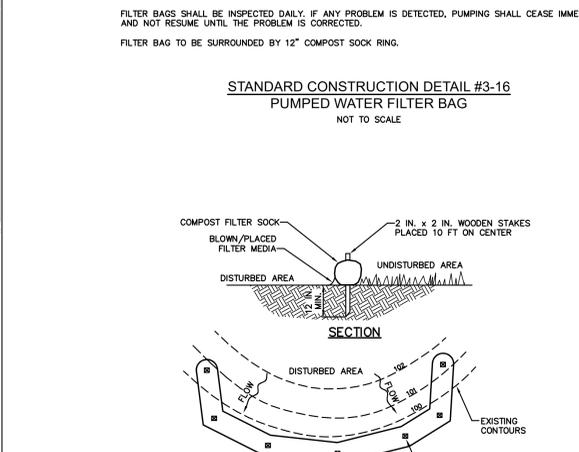
THE PUMP DISCHARGE HOSE SHALL BE INSERTED INTO THE BAGS IN THE MANNER SPECIFIED BY THE MANUFACTURER AND SECURELY CLAMPED. A PIECE OF PVC PIPE IS RECOMMENDED FOR THIS PURPOSE.

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

FILTER BAGS SHALL BE INSPECTED DAILY; IF ANY PROBLEM IS DETECTED, PUMPING SHALL CEASE IMMEDIATELY AND NOT RESUME UNTIL THE PROBLEM IS CORRECTED.

FILTER BAG TO BE SURROUNDED BY 12" COMPOST SOCK RING.

STANDARD CONSTRUCTION DETAIL #3-16
PUMPED WATER FILTER BAG
 NOT TO SCALE



STANDARD CONSTRUCTION DETAIL #3-16
PUMPED WATER FILTER BAG
 NOT TO SCALE

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

COMPOST FILTER SOCK SHALL BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF THE BARRIER SHALL BE EXTENDED AT LEAST 6 FEET UP SLOPE AT 45 DEGREES TO THE MAIN BARRIER ALIGNMENT. MAXIMUM SLOPE LENGTH ABOVE ANY BARRIER SHALL NOT EXCEED THAT SPECIFIED FOR THE SIZE OF THE SOCK AND THE SLOPE OF ITS TRIBUTARY AREA.

TRAFFIC SHALL NOT BE PERMITTED TO CROSS COMPOST FILTER SOCKS.

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

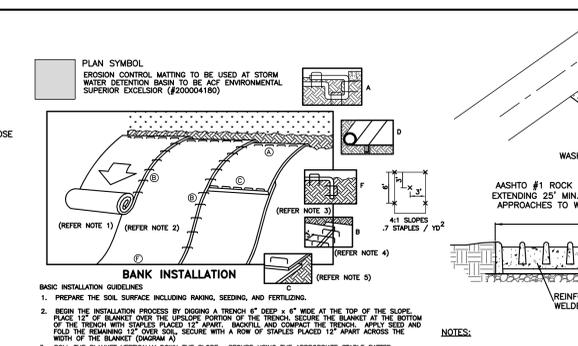
COMPOST FILTER SOCKS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION.

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

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

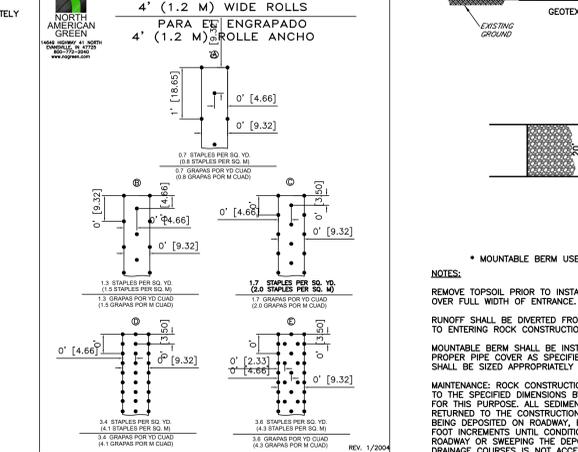
STANDARD CONSTRUCTION DETAIL #4-1
COMPOST FILTER SOCK
 NOT TO SCALE

SOCK NO.	DIA. IN.	LOCATION	SLOPE PERCENT	SLOPE LENGTH ABOVE BARRIER (FT.)
1	12	TOPSOIL STOCKPILE	33.0	30
2	12	FILL STOCKPILE	33.0	30
3	12	BASIN	33.0	25
4	18	BASIN	8.0	200
5	12	LIME KILN ROAD	6.3	160
6	12	LIME KILN ROAD	6.3	100
7	12	LIME KILN ROAD	6.3	100
8	24	BASIN	3.7	720
9	24	BASIN	3.8	690
11	24	INLET NO. 1-10	4.1	520
12	24	EASTERN PROPERTY LINE	3.9	450
13	24	EASTERN PROPERTY LINE	3.9	480
14	24	EASTERN PROPERTY LINE	3.9	480
15	24	EASTERN PROPERTY LINE	3.9	270
16	24	EASTERN PROPERTY LINE	5.8	300
17	12	STADIUM DRIVE	20.0	30
18	12	STADIUM DRIVE	20.0	90
19	12	TOPSOIL STOCKPILE	33.0	30
20	12	STADIUM DRIVE	6.0	50
21	12	STADIUM DRIVE	5.2	70
22	12	STADIUM DRIVE	8.5	270
23	12	STADIUM DRIVE	6.6	120
24	12	STADIUM DRIVE	6.6	60
25	12	STADIUM DRIVE	6.6	60
26	12	RCE #1 WASH RACK	6.6	60
27	12	RCE #2 WASH RACK	6.6	60
28	12	EASTERN PROPERTY LINE	6.6	60
30	24	SOUTHERN PROPERTY LINE	7.0	210
31	24	SOUTHERN PROPERTY LINE	7.0	155
32	24	BIFF#10	7.0	117



NOTES:
 WASH RACK SHALL BE 20 FEET (MIN.) WIDE OR TOTAL WIDTH OF ACCESS. WASH RACK SHALL BE DESIGNED AND CONSTRUCTED TO ACCOMMODATE ANTICIPATED CONSTRUCTION VEHICULAR TRAFFIC. A WATER SUPPLY SHALL BE MADE AVAILABLE TO WASH THE WHEELS OF ALL VEHICLES EXITING THE SITE. MAINTENANCE ROCK CONSTRUCTION ENTRANCE THICKNESS SHALL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK. A STOCKPILE OF ROCK MATERIAL SHALL BE MAINTAINED ON SITE FOR THIS PURPOSE. DRAIN SPACE UNDER WASH RACK SHALL BE KEPT OPEN AT ALL TIMES. DRAINAGE OF THE WASH RACK SHALL BE REPAIRED PRIOR TO FURTHER USE OF THE RACK. ALL SEDIMENT DEPOSITED ON ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE IMMEDIATELY. WASHING THE ROADWAY OR SWEEPING THE DEPOSITS INTO ROADWAY DITCHES, SEWERS, CULVERTS, OR OTHER DRAINAGE COURSES IS NOT ACCEPTABLE.

STANDARD CONSTRUCTION DETAIL #3-2
ROCK CONSTRUCTION ACCESS WITH WASH RACK
 NOT TO SCALE



STANDARD CONSTRUCTION DETAIL #3-2
ROCK CONSTRUCTION ACCESS WITH WASH RACK
 NOT TO SCALE

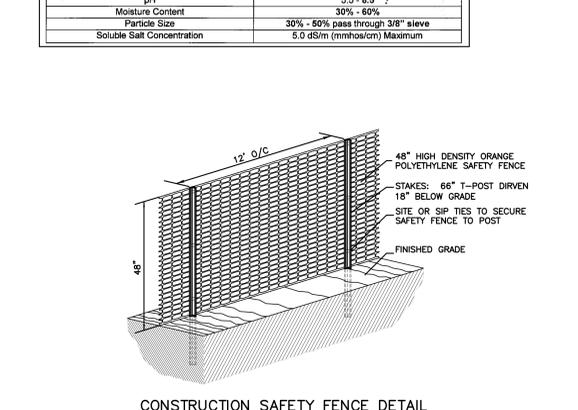
TABLE 4.1
Compost Sock Fabric Minimum Specifications

Material Type	3 mil HDPE	5 mil HDPE	5 mil HDPE	Multi-Filament Polypropylene (MFPP)	Multi-Filament Polypropylene (HMFFPP)
Material Characteristics	Photo-degradable	Photo-degradable	Bio-degradable	Photo-degradable	Photo-degradable
Diaphragm	12"	18"	12"	12"	12"
Diaphragm Diameter	18"	24"	24"	18"	24"
Mesh Opening	3/8"	3/8"	3/8"	3/8"	1/8"
Tensile Strength	26 psi	26 psi	44 psi	202 psi	202 psi
UV Stability %	23% at 1000 hr.	23% at 1000 hr.	100% at 1000 hr.	100% at 1000 hr.	100% at 1000 hr.
Original Strength (ASTM G-155)	9 months	9 months	6 months	1 year	2 years
Minimum Functional Longevity	6 months	9 months	6 months	1 year	2 years

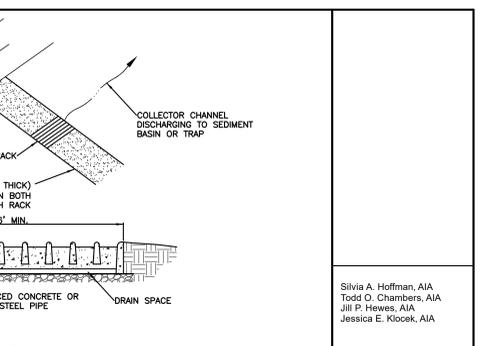
TABLE 4.2
Compost Standards

Material	25% - 100% (dry weight basis)
Organic Matter Content	Fibrous and elongated
Organic Portion	5.5 - 8.5 %
Moisture Content	30% - 60%
Particle Size	30% - 60% pass through 3/8" sieve
Soluble Salt Concentration	5.0 ds/m (mhos/cm) Maximum

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

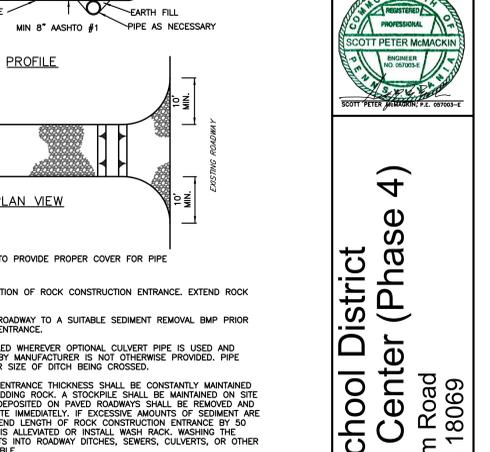


STANDARD CONSTRUCTION DETAIL #3-1
ROCK CONSTRUCTION ENTRANCE
 NOT TO SCALE



NOTES:
 A SUITABLE IMPERVIOUS GEOMEMBRANE SHALL BE PLACED AT THE LOCATION OF THE WASHOUT PRIOR TO INSTALLING THE SOCKS.

TYPICAL COMPOST SOCK WASHOUT INSTALLATION #3-18
 NOT TO SCALE



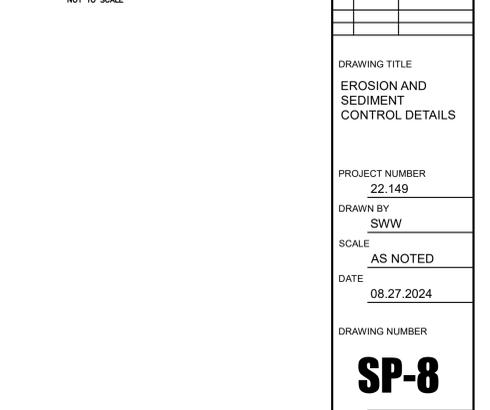
TYPICAL COMPOST SOCK WASHOUT INSTALLATION #3-18
 NOT TO SCALE

USE MFPP SOCK FABRIC

TABLE 4.2
Compost Standards

Material	25% - 100% (dry weight basis)
Organic Matter Content	25% - 100% (dry weight basis)
Organic Portion	Fibrous and elongated
Moisture Content	5.5 - 8.5 %
Particle Size	30% - 60% pass through 3/8" sieve
Soluble Salt Concentration	5.0 ds/m (mhos/cm) Maximum

CONSTRUCTION SAFETY FENCE DETAIL
 NOT TO SCALE



CONSTRUCTION SAFETY FENCE DETAIL
 NOT TO SCALE

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SCOTT PETER MACKMCKIN
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 LICENSE NO. 1003043
 CIVIL ENGINEER
 1000 N. 10TH STREET, SUITE 100
 ALLENTOWN, PA 18102
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 FAX: 610.486.1434

Parkland School District
 New Operations Center (Phase 4)
 2619 Stadium Road
 Orefield, PA 18069

TMFP 547719272143-1

REVISIONS

No.	Date	Description
XX-XX-XX	Issued for Permit	

DRAWING TITLE
 EROSION AND SEDIMENT CONTROL DETAILS

PROJECT NUMBER
 22-149

DRAWN BY
 SSW

SCALE
 AS NOTED

DATE
 08.27.2024

DRAWING NUMBER
SP-8

www.mkdsdarchitects.com

SOILS LOG																										
SOILS LOG SYMBOL	TYPE	SLOPES	LANDFORM	DEPTH TO RESTRICTIVE FEATURES	DRAINAGE CLASS	DEPTH TO HIGH WATER TABLE	AVAILABLE WATER CAPACITY	HYDROLOGIC SOIL GROUP	FARMLAND CLASSIFICATION	HYDRIC SOIL	OUTBANKS CAVE	CORROSIVE TO CONCRETE/STEEL	DROUGHTY	EASILY ERODIBLE	FLOODING	DEPTH TO SATURATED ZONE/SEASONAL HIGH WATER TABLE	HYDRIC/HYDRIC INCLUSIONS	LOW STRENGTH/LANDSLIDE PRONE	SLOW PERCOLATION	PIPING	POOR SOURCE OF TOPSOIL	FROST ACTION	SHRINK-SWELL	POTENTIAL SINKHOLE	PONDING	WETNESS
Us	UPOURMENTS	0%-8%	VALLEYS, RIDGES, HILLS	10"-100" TO LITHIC BEDROCK	MODERATELY WELL DRAINED	80"+	---	---	NOT PRIME FARMLAND	NO	X	C/S	X	X							X	X	X	X		
UwB	URBAN LAND-OUTFIELD COMPLEX	0%-8%	HILLS	10"-100" TO LITHIC BEDROCK	WELL DRAINED	80"+	VERY LOW	B	NOT PRIME FARMLAND	YES	X	C/S	X	X							X	X	X	X		X
WbB	WASHINGTON SILT LOAM	3%-8%	VALLEYS	60"-99" TO LITHIC BEDROCK	WELL DRAINED	80"+	HIGH	B	PRIME FARMLAND	NO	X	S				X	X	X	X	X	X	X	X	X		
WcC	WASHINGTON SILT LOAM	8%-15%	VALLEYS	60"-99" TO LITHIC BEDROCK	WELL DRAINED	80"+	HIGH	B	PRIME FARMLAND	NO	X	S				X	X	X	X	X	X	X	X	X		

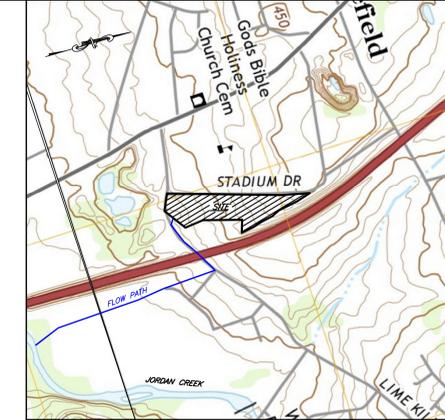
SOILS INFORMATION SHOWN ON THE PLAN WAS TAKEN FROM THE U.S. DEPARTMENT OF AGRICULTURE, NATURAL RESOURCES CONSERVATION SERVICE, SOIL SURVEY WEB SITE ON MARCH 29, 2022.

- SOIL LIMITATIONS/RESOLUTIONS:**
- AVAILABLE WATER CAPACITY - PROPER DRAINAGE AND LANDSCAPING
 - OUTBACK CAVES - EXCAVATION SIDES SHALL BE SLOPES TO PREVENT THE FORMATION OF CAVES.
 - CORROSION TO CONCRETE/STEEL - CONCRETE AND STEEL SHALL BE COATED AS NECESSARY TO PREVENT REACTION WITH SOIL.
 - DROUGHTY - VEGETATION SHALL BE NATIVE AND SUITABLE TO DRY SOIL CONDITIONS.
 - EASILY ERODIBLE - PROPER EROSION CONTROL MEASURES ARE TO BE USED DURING CONSTRUCTION.
 - DEPTH TO HIGH WATER TABLE - PROPER FILTRATION OF PUMPED WATER FROM UTILITY TRENCHES.
 - HYDRIC INCLUSIONS - PROPER DRAINAGE.
 - LOW STRENGTH - PROPER COMPACTION IS REQUIRED.
 - SLOW PERCOLATION - INFILTRATION FACILITIES SHALL BE PROPERTY DESIGNED. SITE SHALL BE GRADED TO PROVIDE DRAINAGE.
 - PIPING - TRENCHES SHALL BE COMPACTED.
 - POOR SOURCE OF TOPSOIL - ADDITIONAL TOPSOIL SHALL BE ADDED AS NECESSARY.
 - FROST ACTION - ALL IMPROVEMENTS SHALL BE CONSTRUCTED WITH PROPER FOUNDATIONS TO RESIST FROST ACTION.
 - SHRINK-SWELL - SITE SHALL BE GRADED TO PROVIDE DRAINAGE. STRUCTURES SHALL HAVE PROPER FOUNDATIONS.
 - SINKHOLES - SITE SHALL BE GRADED TO PROVIDE DRAINAGE, PROPERLY COMPACTED, STANDING WATER LIMITED, INFILTRATION AREAS SHALL BE PROPERTY DESIGNED.
 - WETNESS - SITE SHALL BE GRADED TO PROVIDE DRAINAGE, PROPERLY COMPACTED.

SOILS LOG																											
SOILS LOG SYMBOL	TYPE	SLOPES	LANDFORM	DEPTH TO RESTRICTIVE FEATURES	DRAINAGE CLASS	DEPTH TO HIGH WATER TABLE	AVAILABLE WATER CAPACITY	HYDROLOGIC SOIL GROUP	FARMLAND CLASSIFICATION	HYDRIC SOIL	OUTBANKS CAVE	CORROSIVE TO CONCRETE/STEEL	DROUGHTY	EASILY ERODIBLE	FLOODING	DEPTH TO SATURATED ZONE/SEASONAL HIGH WATER TABLE	HYDRIC/HYDRIC INCLUSIONS	LOW STRENGTH/LANDSLIDE PRONE	SLOW PERCOLATION	PIPING	POOR SOURCE OF TOPSOIL	FROST ACTION	SHRINK-SWELL	POTENTIAL SINKHOLE	PONDING	WETNESS	
MbB	MADE LAND	3%-8%	ROADS, PAVING						NOT PRIME FARMLAND	NO																	
MwB2	WASHINGTON SILT LOAM	3%-8%	VALLEYS	60"-99" TO LITHIC BEDROCK	WELL DRAINED	80"+	HIGH	B	PRIME FARMLAND	NO	X	S				X	X	X	X	X	X	X	X	X			
WcC2	WASHINGTON SILT LOAM	8%-15%	VALLEYS	60"-99" TO LITHIC BEDROCK	WELL DRAINED	80"+	HIGH	B	PRIME FARMLAND	NO	X	S				X	X	X	X	X	X	X	X	X			

SOILS INFORMATION TAKEN FROM NOV 1963 USDA SOIL SURVEY - LEHIGH COUNTY PENNSYLVANIA

- THERMAL IMPACT MITIGATION-**
- DURING CONSTRUCTION - THERMAL IMPACT WILL BE MITIGATED BY LIMITING THE DISTURBED AREAS, SILT SOXX ALLOW STORMWATER TO FLOW THROUGH AND THEREFORE WILL NOT INCREASE THE STORMWATER TEMPERATURE, INFILTRATION AND DETAINING RUNOFF IN UNDERGROUND FACILITIES TO PROMOTE COOLING, LIMIT DISTURBED AREAS AND IMMEDIATE STABILIZATION.
 - POST DEVELOPMENT - THERMAL IMPACT WILL BE MITIGATED BY INFILTRATION AND TREE PLANTINGS.
- PAST USE 50 YEARS - AGRICULTURE**
PAST USE 5 YEARS - AGRICULTURE, GARAGE AND LAWN AREAS
PRESENT USE - MAINTENANCE GARAGE AND LAWN AREAS
FUTURE USE - MAINTENANCE GARAGE, ADMINISTRATION OFFICES, PARKING AND LAWN AREAS
1. THERE IS KNOWN GEOLOGIC OR SOIL CONDITIONS THAT MAY HAVE THE POTENTIAL TO CAUSE POLLUTION - KARST BEDROCK, SITE CONTAINS ARSENIC WITHIN THE SOIL. SOIL WITH ELEVATED LEVELS SHALL BE TREATED AS NOTED IN THE SOIL MANAGEMENT REPORT AND SP-4, SP-9 AND SP-B.
 2. THERMAL IMPACT WILL BE MITIGATED BY RESTORING THE GROUND COVER TO EXISTING CONDITIONS.
 3. THIS PROJECT WAS DESIGNED TO MINIMIZE NEW IMPERVIOUS AREAS
 4. THIS PROJECT WAS DESIGNED TO PROTECT EXISTING VEGETATION, LIMIT LAND CLEARING AND GRADING.
 5. THIS PROJECT WAS DESIGNED TO MINIMIZE SOIL COMPACTION.
 6. THIS PROJECT WAS DESIGNED TO MINIMIZE EXTENT AND DEURATION OF EARTH DISTURBANCE.
 7. THIS PROJECT WAS DESIGNED TO MINIMIZE GENERATION OF INCREASED STORM WATER RUNOFF.
 8. THERE ARE NO WETLANDS WITHIN THE PROJECT.
 9. THERE ARE NOT RIPARIAN BUFFERS WITHIN THE PROJECT.
 10. THIS PLAN PRESERVES THE INTEGRITY OF STREAM CHANNELS AND MAINTAIN AND PROTECT THE PHYSICAL, BIOLOGICAL AND CHEMICAL QUALITIES OF THE RECEIVING STREAM.



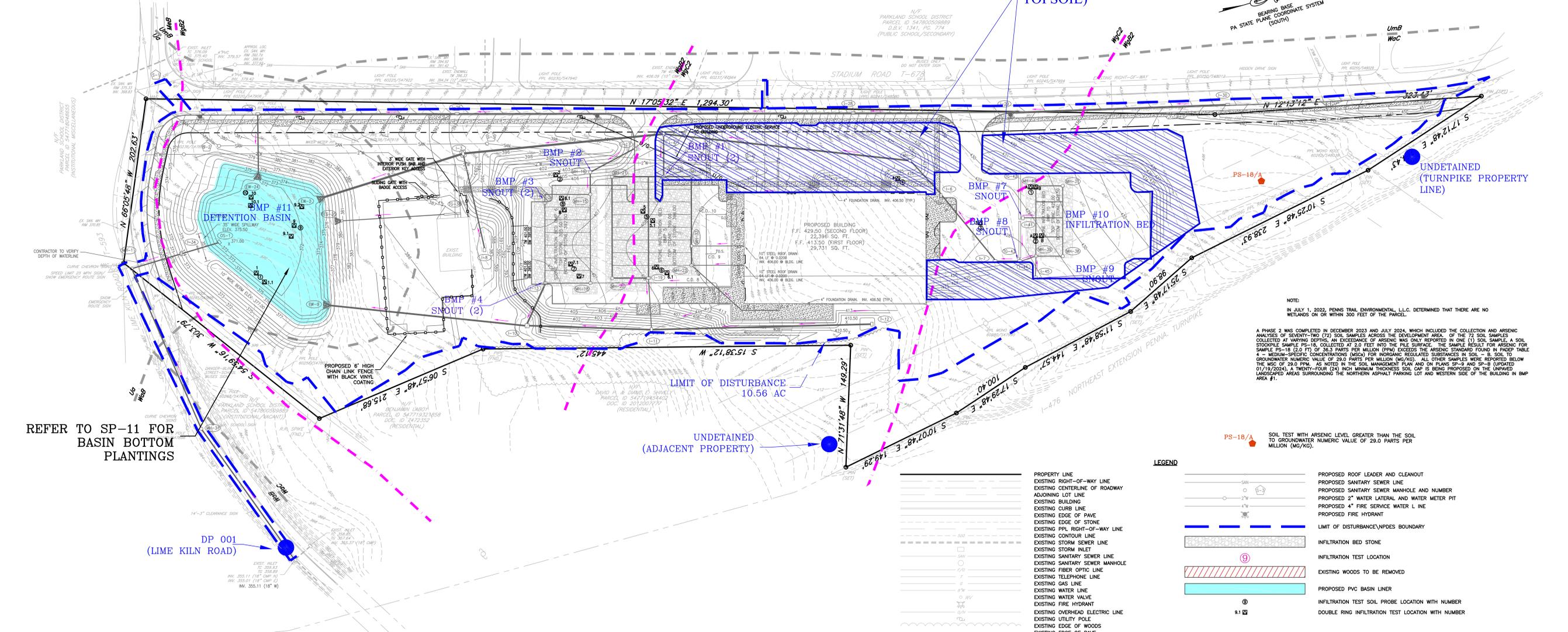
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 Jessica E. Klocak, AIA

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 1209 Hausman Road, Suite A
 Allentown, PA 18104

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VOID UNLESS GREEN PROFESSIONAL SEAL IS AFFIXED

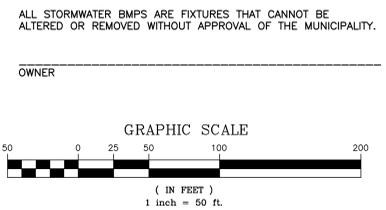


NOTE:
 IN JULY 1, 2022, PENNS TRAIL ENVIRONMENTAL, L.L.C. DETERMINED THAT THERE ARE NO WETLANDS ON OR WITHIN 300 FEET OF THE PARCEL.

A PHASE 2 WAS COMPLETED IN DECEMBER 2023 AND JULY 2024, WHICH INCLUDED THE COLLECTION AND ARSENIC ANALYSES OF SEVENTY-TWO (72) SOIL SAMPLES ACROSS THE DEVELOPMENT AREA. OF THE 72 SOIL SAMPLES COLLECTED AT VARIOUS DEPTHS, AN EXCESSANCE OF ARSENIC WAS ONLY REPORTED IN ONE (1) SOIL SAMPLE. A SOIL STOCKPILE SAMPLE PS-18, COLLECTED AT 2.0 FEET INTO THE PILE SURFACE, THE SAMPLE RESULT FOR ARSENIC FOR SAMPLE PS-18 (2.0 FT) OF 29.3 PARTS PER MILLION (PPM) EXCEEDS THE STANDARD FOUND IN TABLE 4 - MEDIUM-SPECIFIC CONCENTRATIONS (MSCs) FOR INORGANIC REGULATED SUBSTANCES IN SOIL - B. SOIL TO GROUNDWATER NUMERIC VALUE OF 29.3 PARTS PER MILLION (PPM). ALL OTHER SAMPLES WERE REPORTED BELOW THE MSC OF 29.0 PPM. AS NOTED IN THE SOIL MANAGEMENT PLAN AND ON PLANS SP-9 AND SP-B (UPDATED 01/15/2024), A TWENTY-FOUR (24) INCH MINIMUM THICKNESS SOIL CAP IS BEING PROPOSED ON THE UNPAVED LANDSCAPED AREAS SURROUNDING THE NORTHERN ASPHALT PARKING LOT AND WESTERN SIDE OF THE BUILDING IN BMP AREA #1.

PS-18/A SOIL TEST WITH ARSENIC LEVEL GREATER THAN THE SOIL TO GROUNDWATER NUMERIC VALUE OF 29.0 PARTS PER MILLION (MG/KG).

- NOTES:**
- 1 REFER TO SP-10 THRU SP-12 FOR POST CONSTRUCTION STORMWATER MANAGEMENT NOTES AND DETAILS
 - 2 NO PERSON SHALL INSTALL, CREATE, MODIFY, REMOVE, FILL, LANDSCAPE OR OTHERWISE ALTER OR PLACE ANY STRUCTURE OR VEGETATION IN ANY STORMWATER BMP OR WITHIN A DRAINAGE EASEMENT WITHOUT THE WRITTEN APPROVAL OF THE MUNICIPALITY. ADDITIONALLY, THE OWNER SHALL IMPOSE COVENANTS AND RESTRICTIONS UPON SUBSEQUENT OWNERS, TRANSFERREES AND OCCUPANTS IN A FORM SATISFACTORY TO THE MUNICIPALITY.



Parkland School District
 New Operations Center (Phase 4)
 2619 Stadium Road
 Orefield, PA 18069

TMPS# 54771922143-1

REVISIONS

No.	Date	Description
XX-XX-XX		Issued for Permit

DRAWING TITLE
 POST CONSTRUCTION STORMWATER MANAGEMENT PLAN

PROJECT NUMBER
 22-149

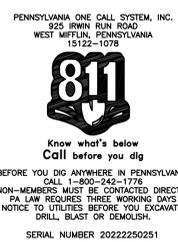
DRAWN BY
 S/W

SCALE
 1"=50'

DATE
 08.27.2024

DRAWING NUMBER
SP-9

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Events for Pond 3P: INFILTRATION BED BMP #5

Event	Inflow (cfs)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)	Elevation (feet)	Storage (cubic-feet)
2 yr	5.36	0.17	0.17	0.00	396.95	6,066
5 yr	6.37	0.17	0.17	0.00	397.36	6,672
10 yr	6.69	0.32	0.17	0.15	397.69	10,742
25 yr	7.05	0.89	0.17	0.72	397.93	12,263
50 yr	7.33	1.54	0.17	1.37	398.12	13,478
100 yr	7.66	2.26	0.17	2.09	398.31	14,696

Events for Pond 16P: INFILTRATION BED BMP #6

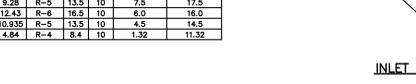
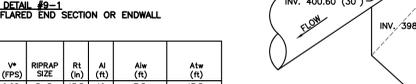
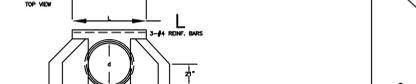
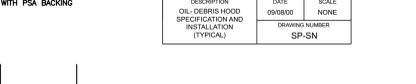
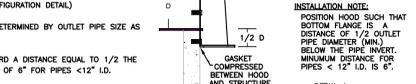
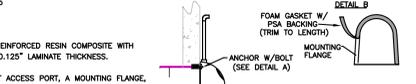
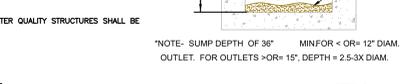
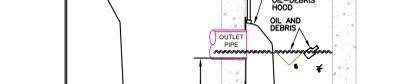
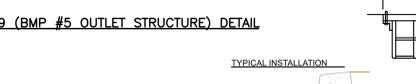
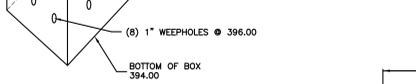
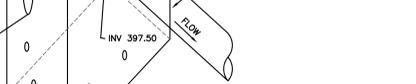
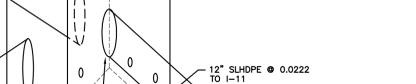
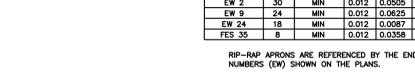
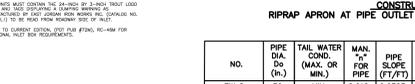
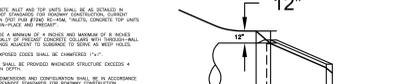
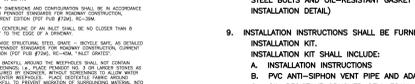
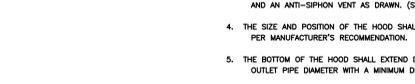
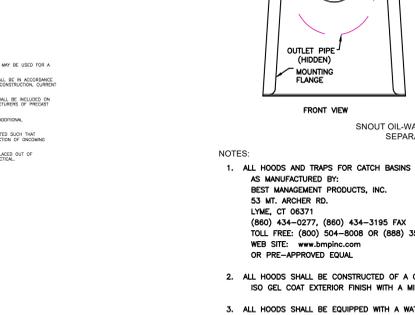
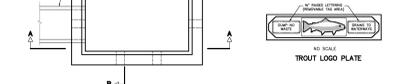
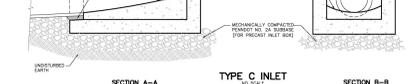
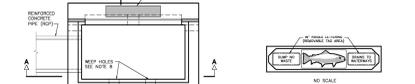
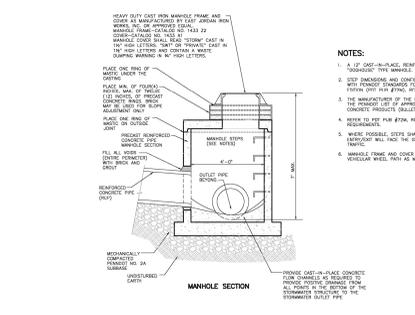
Event	Inflow (cfs)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)	Elevation (feet)	Storage (cubic-feet)
2 yr	3.94	0.09	0.09	0.00	393.82	5,054
5 yr	4.95	0.11	0.09	0.02	394.26	6,712
10 yr	5.79	0.30	0.09	0.22	394.39	7,216
25 yr	7.04	1.06	0.09	0.97	394.60	8,039
50 yr	8.13	2.47	0.09	2.38	394.84	8,960
100 yr	9.33	4.29	0.09	4.21	395.07	9,845

Stage-Area-Storage for INFILTRATION BED BMP #5

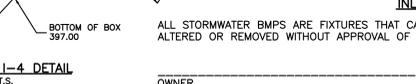
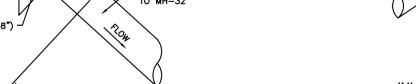
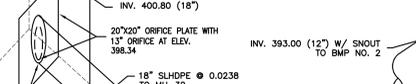
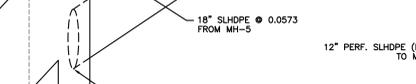
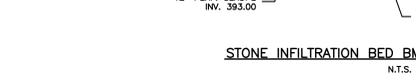
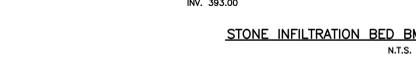
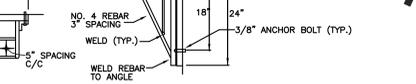
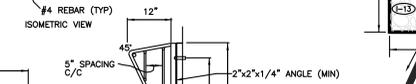
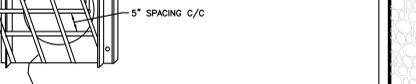
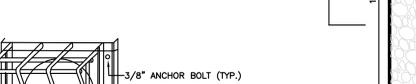
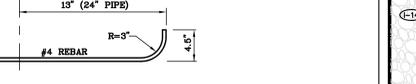
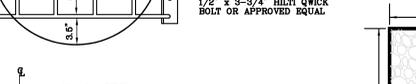
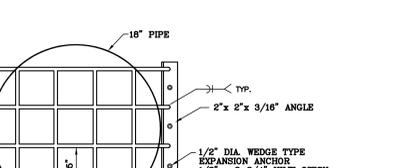
Elevation (feet)	Surface (sq-ft)	Horizontal (sq-ft)	Storage (cubic-feet)
396.00	15,900	15,900	0
396.10	15,900	15,900	636
396.20	15,900	15,900	1,272
396.30	15,900	15,900	1,908
396.40	15,900	15,900	2,544
396.50	15,900	15,900	3,180
396.60	15,900	15,900	3,816
396.70	15,900	15,900	4,452
396.80	15,900	15,900	5,088
396.90	15,900	15,900	5,724
397.00	15,900	15,900	6,360
397.10	15,900	15,900	6,996
397.20	15,900	15,900	7,632
397.30	15,900	15,900	8,268
397.40	15,900	15,900	8,904
397.50	15,900	15,900	9,540
397.60	15,900	15,900	10,176
397.70	15,900	15,900	10,812
397.80	15,900	15,900	11,448
397.90	15,900	15,900	12,084
398.00	15,900	15,900	12,720
398.10	15,900	15,900	13,356
398.20	15,900	15,900	13,992
398.30	15,900	15,900	14,628
398.40	15,900	15,900	15,264
398.50	15,900	15,900	15,900
398.60	15,900	15,900	16,536
398.70	15,900	15,900	17,172
398.80	15,900	15,900	17,808
398.90	15,900	15,900	18,444
399.00	15,900	15,900	19,080

Stage-Area-Storage for INFILTRATION BED BMP #6

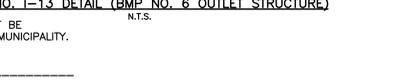
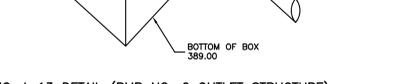
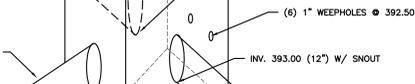
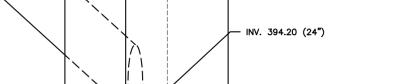
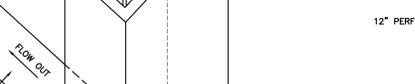
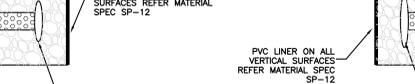
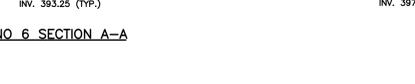
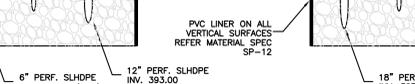
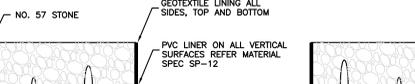
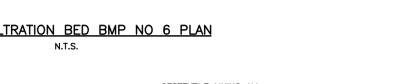
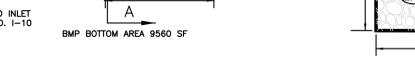
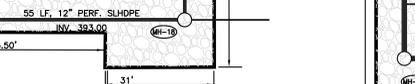
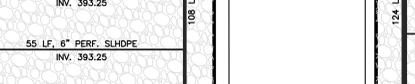
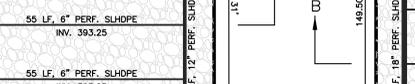
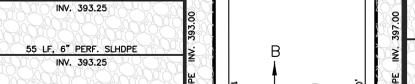
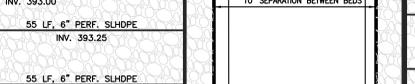
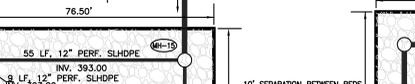
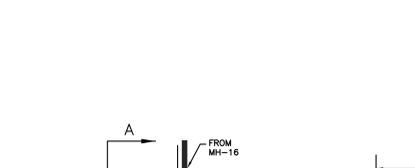
Elevation (feet)	Surface (sq-ft)	Horizontal (sq-ft)	Storage (cubic-feet)
392.50	9,560	9,560	0
392.70	9,560	9,560	382
392.90	9,560	9,560	765
393.10	9,560	9,560	1,147
393.30	9,560	9,560	1,530
393.50	9,560	9,560	1,912
393.70	9,560	9,560	2,294
393.90	9,560	9,560	2,677
394.10	9,560	9,560	3,059
394.30	9,560	9,560	3,442
394.50	9,560	9,560	3,824
394.70	9,560	9,560	4,206
394.90	9,560	9,560	4,589
395.10	9,560	9,560	4,971
395.30	9,560	9,560	5,354
395.50	9,560	9,560	5,736
395.70	9,560	9,560	6,118
395.90	9,560	9,560	6,501
396.10	9,560	9,560	6,883
396.30	9,560	9,560	7,266
396.50	9,560	9,560	7,648
396.70	9,560	9,560	8,030
396.90	9,560	9,560	8,413
397.10	9,560	9,560	8,795
397.30	9,560	9,560	9,178
397.50	9,560	9,560	9,560
397.70	9,560	9,560	9,942
397.90	9,560	9,560	10,325
398.10	9,560	9,560	10,707
398.30	9,560	9,560	11,090
398.50	9,560	9,560	11,472



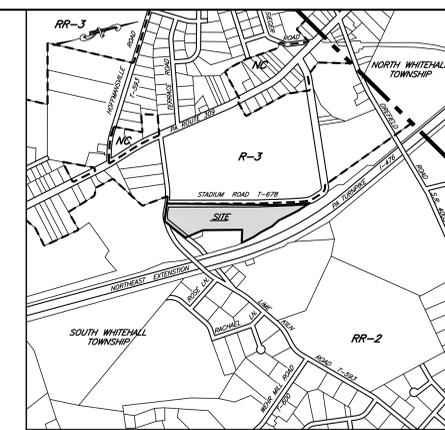
NO.	PIPE DIA. (IN.)	TAIL WATER COND. (MAX. OR MIN.)	MAN. FOR PIPE (FT/FT)	PIPE SLOPE (CFS)	Q (FPS)	V ² (FPS)	RIP-RAP SIZE	R ₁ (FT)	R ₂ (FT)	Alw (FT)	Atw (FT)
EW 2	30	MIN	0.012	0.0505	5.81	9.28	R-5	13.5	10	7.5	17.5
EW 9	24	MIN	0.012	0.0525	6.51	12.43	R-6	16.5	10	6.0	16.0
EW 24	18	MIN	0.012	0.0087	4.35	10.935	R-5	13.5	10	4.5	14.5
FE 35	8	MIN	0.012	0.0358	3.0	4.84	R-4	8.4	10	1.32	11.32



NO.	PIPE DIA. (IN.)	TAIL WATER COND. (MAX. OR MIN.)	MAN. FOR PIPE (FT/FT)	PIPE SLOPE (CFS)	Q (FPS)	V ² (FPS)	RIP-RAP SIZE	R ₁ (FT)	R ₂ (FT)	Alw (FT)	Atw (FT)
EW 2	30	MIN	0.012	0.0505	5.81	9.28	R-5	13.5	10	7.5	17.5
EW 9	24	MIN	0.012	0.0525	6.51	12.43	R-6	16.5	10	6.0	16.0
EW 24	18	MIN	0.012	0.0087	4.35	10.935	R-5	13.5	10	4.5	14.5
FE 35	8	MIN	0.012	0.0358	3.0	4.84	R-4	8.4	10	1.32	11.32



NO.	PIPE DIA. (IN.)	TAIL WATER COND. (MAX. OR MIN.)	MAN. FOR PIPE (FT/FT)	PIPE SLOPE (CFS)	Q (FPS)	V ² (FPS)	RIP-RAP SIZE	R ₁ (FT)	R ₂ (FT)	Alw (FT)	Atw (FT)
EW 2											



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VOID UNLESS GREEN PROFESSIONAL SEAL IS AFFIXED

SCOTT PETER McMACKIN
 PROFESSIONAL ENGINEER
 LICENSE NO. 0030254
 STATE OF PENNSYLVANIA

Parkland School District New Operations Center (Phase 4)

2619 Stadium Road
 Orefield, PA 18069

TMP# 54771922143-1

REVISIONS

No.	Date	Description
XX.XX.XX	-	Issued for Permit

DRAWING TITLE
 POST DEVELOPMENT DRAINAGE AREA PLAN

PROJECT NUMBER
 22.149

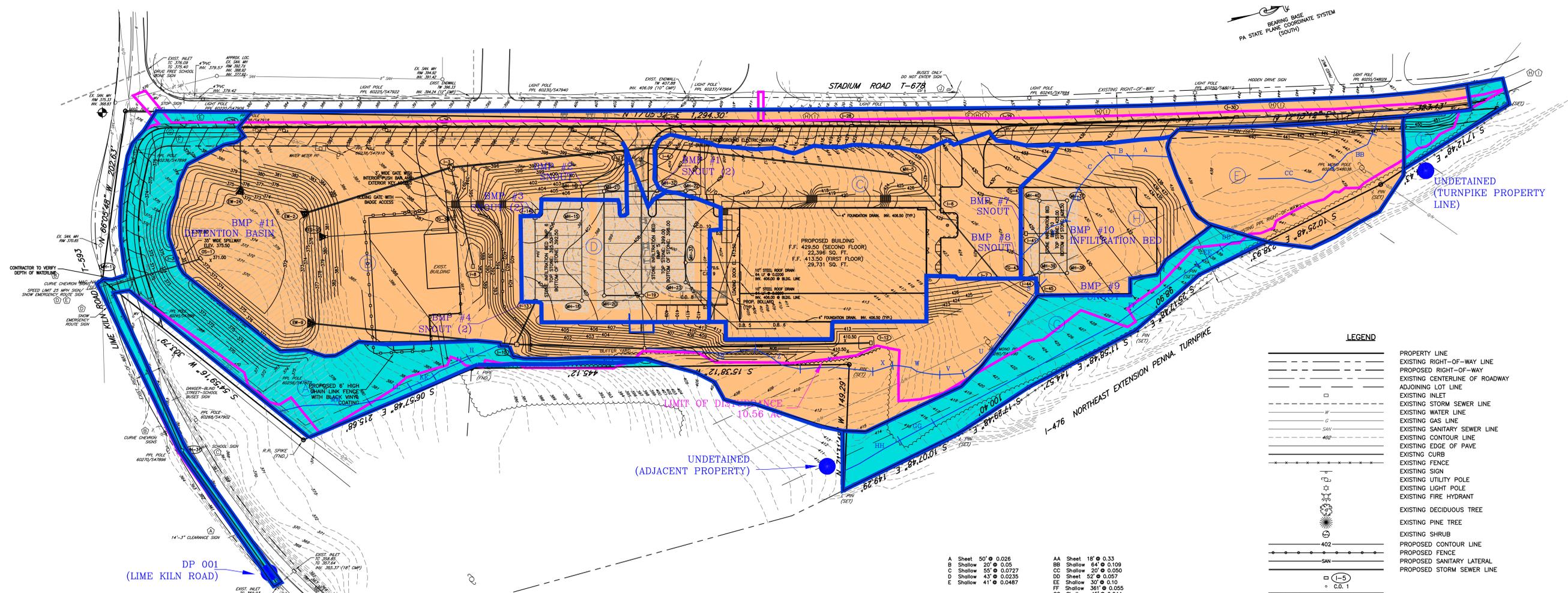
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SCALE
 1"=50'

DATE
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DRAWING NUMBER
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LEGEND

---	PROPERTY LINE
- - - -	EXISTING RIGHT-OF-WAY LINE
- · - · -	PROPOSED RIGHT-OF-WAY LINE
- · - · -	EXISTING CENTERLINE OF ROADWAY
- · - · -	ADJOINING LOT LINE
□	EXISTING INLET
□	EXISTING STORM SEWER LINE
□	EXISTING WATER LINE
□	EXISTING GAS LINE
□	EXISTING SANITARY SEWER LINE
□	EXISTING CONTOUR LINE
□	EXISTING EDGE OF PAVE
□	EXISTING CURB
□	EXISTING FENCE
□	EXISTING SIGN
□	EXISTING UTILITY POLE
□	EXISTING LIGHT POLE
□	EXISTING FIRE HYDRANT
□	EXISTING DECIDUOUS TREE
□	EXISTING PINE TREE
□	EXISTING SHRUB
□	PROPOSED CONTOUR LINE
□	PROPOSED FENCE
□	PROPOSED SANITARY LATERAL
□	PROPOSED STORM SEWER LINE
□	PROPOSED SUBSURFACE INFILTRATION BED
□	BMP DRAINAGE SHED BOUNDARY
□	Tc PATH
□	EXISTING WOODS TO BE REMOVED
□	DRAINAGE AREA TO DISCHARGE POINT 001 (DP 001)
□	UNDETAILED DRAINAGE AREA

A	Sheet	50'	0.026
B	Shallow	20'	0.035
C	Shallow	55'	0.0727
D	Shallow	43'	0.0235
E	Shallow	41'	0.0487
F	Shallow	361'	0.055
G	Shallow	45'	0.044
H	Shallow	75'	0.0133
I	Shallow	60'	0.033
J	Sheet	22'	0.091
K	Shallow	45'	0.0444
L	Shallow	18'	0.333
M	Shallow	180'	0.0667
N	Shallow	45'	0.0222
O	Shallow	32'	0.3125
P	Shallow	55'	0.636
Q	Sheet	50'	0.08
R	Shallow	39'	0.05
S	Shallow	103'	0.0107
T	Sheet	50'	0.010
U	Shallow	42'	0.0714
V	Shallow	63'	0.0435
W	Shallow	28'	0.0714
X	Shallow	59'	0.118
Y	Shallow	24'	0.0417
Z	Shallow	72'	0.01369
ZZ	Swale	100'	0.035

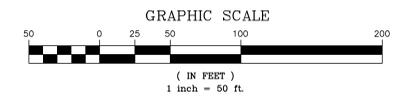
DRAINAGE AREA TO PCSM BMPs=

BMP #1	SNOUT - 1.66 AC
BMP #2	SNOUT - 0.15 AC
BMP #3	SNOUT - 0.42 AC
BMP #4	SNOUT - 0.42 AC
BMP #5	INFILTRATION BED - 1.798 AC (INCLUDES UPSLOPE WQ BMPs)
BMP #6	INFILTRATION BED - 0.846 AC (INCLUDES UPSLOPE WQ BMPs)
BMP #7	SNOUT - 0.09 AC
BMP #8	SNOUT - 0.42 AC
BMP #9	SNOUT - 0.20 AC
BMP #10	INFILTRATION BED - 0.716 AC (INCLUDES UPSLOPE WQ BMPs)
BMP #11	DETENTION BASIN - 4.772 AC

DRAINAGE SHED AREAS

A	1.071 ACRES (INCLUDED STORM SEWER WITHIN LIME KILN)
B	4.772 ACRES
C	1.798 ACRES
D	0.846 ACRES
E	0.752 ACRES
F	0.685 ACRES
G	0.065 ACRES
H	0.716 ACRES

10.559 ACRES



ALL STORMWATER BMPs ARE FIXTURES THAT CANNOT BE ALTERED OR REMOVED WITHOUT APPROVAL OF THE MUNICIPALITY.

OWNER

PENNSYLVANIA ONE CALL SYSTEM, INC.
 925 IRWIN RUN ROAD
 WEST MIFFLIN, PENNSYLVANIA
 15122-1078

Know what's below
 Call before you dig

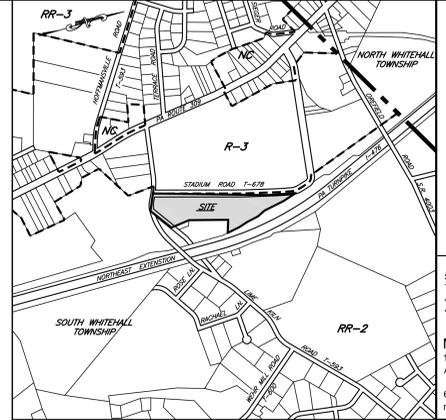
BEFORE YOU DIG ANYWHERE IN PENNSYLVANIA CALL 1-800-242-1376
 NON-MEMBERS MUST BE CONTACTED DIRECTLY
 PA LAW REQUIRES THREE WORKING DAYS NOTICE TO UTILITIES BEFORE YOU EXCAVATE, DRILL, BLAST OR DEMOLISH.

SERIAL NUMBER 2022220251

V:\PROJECTS\14613-57\MKSD Parkland School District Operations Center\STEP\ANS\2024\12\INPES\MKSD\MOORE\08-19-24\09-14-POST DETACHMENT DRAINAGE PLAN.dwg

INLET NUMBER	TOTAL AREA (sf)	TOTAL AREA (ac)
3	11680	0.268135904
4	25599	0.587672176
6	9593	0.220224877
7	11425	.26228
8	8380	0.192378329
10	9220	0.119834711
11	35135	0.806588613
12	9507	0.218250689
13	18425	0.423
14	18425	0.423
17	6319	0.145064279
19	BOLT DOWN MANHOLE LID	
25	10700	0.2456382
26	12873	0.295523416
27	8038	0.184527089
28	8946	0.205371901
29	9424	0.216345271
30	7104	0.163855399
TG42	3241	0.07440
TG43	19332	0.44357
45	8956	0.20330

MAXIMUM DRAINAGE AREA TO A STRUCTURE DURING AND POST CONSTRUCTION

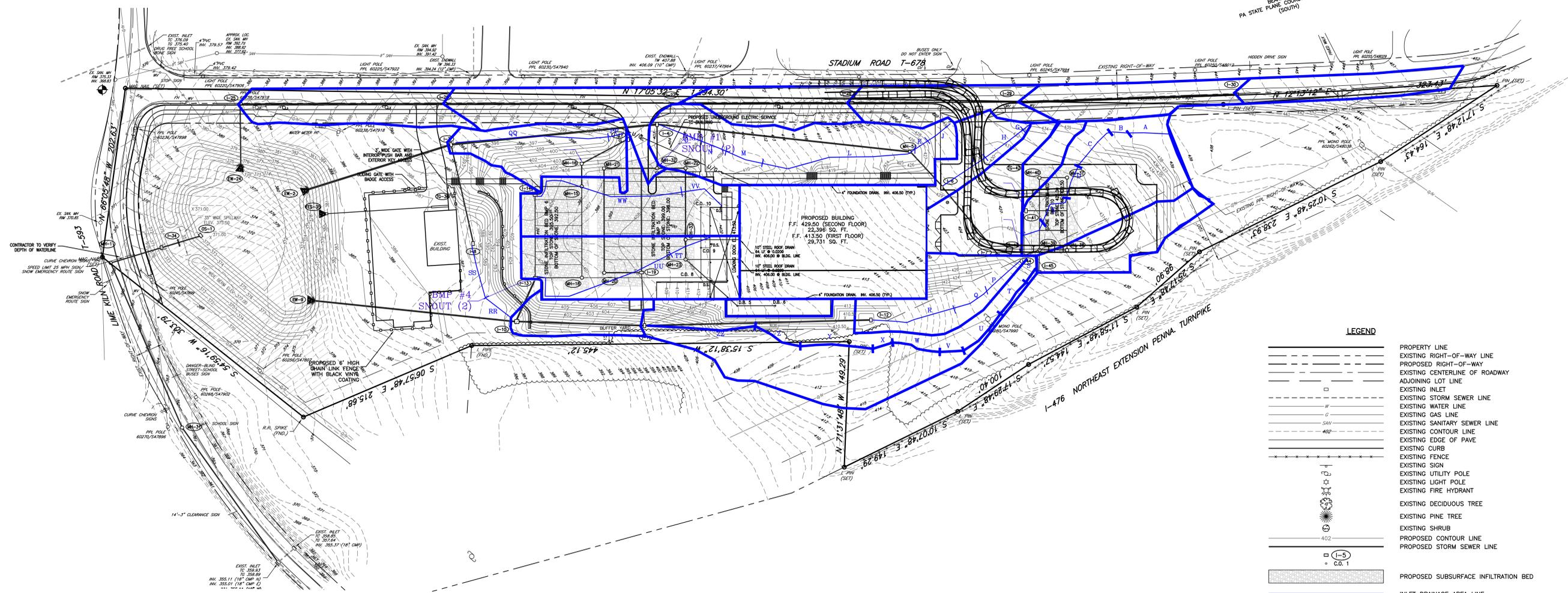
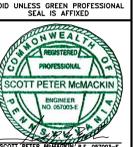


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SCOTT PETER MCMACKIN
 REGISTERED PROFESSIONAL ENGINEER
 CIVIL ENGINEERING
 LICENSE NO. 148327



LEGEND

	PROPERTY LINE
	EXISTING RIGHT-OF-WAY LINE
	PROPOSED RIGHT-OF-WAY LINE
	EXISTING CENTERLINE OF ROADWAY
	ADJOINING LOT LINE
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	EXISTING SIGN
	EXISTING UTILITY POLE
	EXISTING LIGHT POLE
	EXISTING FIRE HYDRANT
	EXISTING DECIDUOUS TREE
	EXISTING PINE TREE
	EXISTING SHRUB
	PROPOSED CONTOUR LINE
	PROPOSED STORM SEWER LINE
	PROPOSED SUBSURFACE INFILTRATION BED
	INLET DRAINAGE AREA LINE

**Parkland School District
 New Operations Center (Phase 4)**
 2619 Stadium Road
 Orefield, PA 18069

TMP# 54771922143-1

REVISIONS

No.	Date	Description
XX.XX.XX		Issued for Permit

DRAWING TITLE
 INLET DRAINAGE AREA PLAN

PROJECT NUMBER
 22.149

DRAWN BY
 SWW

SCALE
 1"=50'

DATE
 08.27.2024

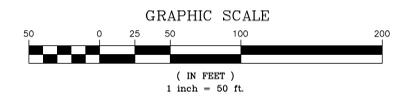
DRAWING NUMBER
 SP-15

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BEFORE YOU DIG ANYWHERE IN PENNSYLVANIA
 CALL 1-800-242-1378
 NON-MEMBERS MUST BE CONTACTED DIRECTLY
 PA LAW REQUIRES THREE WORKING DAYS
 NOTICE TO UTILITIES BEFORE YOU EXCAVATE,
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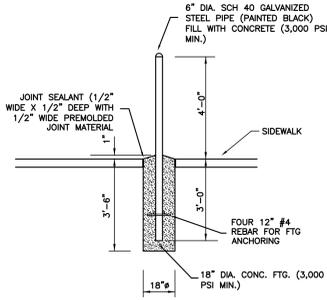
SERIAL NUMBER 2022220251



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OWNER

V:\PROJECTS\166157\MKSD\Parkland School District Operations Center\SP-15\INLET DRAINAGE PLAN.dwg



BOLLARD DETAIL
N.T.S.

D3-1 STREET NAME SIGN

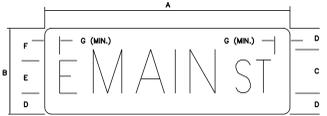
THE STREET NAME SIGN (D3-1) SHALL BE AUTHORIZED FOR USE AS A POST-MOUNTED SIGN TO IDENTIFY NAMES OF STREETS FOR MOTORISTS AND PEDESTRIANS. THE D3-1 SIGN, OR OTHER OFFICIAL TYPE OF STREET NAME SIGN, SHOULD BE PLACED AT ALL STREET INTERSECTIONS REGARDLESS OF OTHER ROUTE MARKING THAT MAY BE PRESENT.

WHEN THE D3-1 SIGNS ARE USED IN BUSINESS DISTRICTS, THEY SHOULD BE PLACED AT LEAST ON THE DIAGONALLY OPPOSITE CORNERS SO THAT THEY WILL BE ON THE FAR RIGHT-HAND SIDE OF THE INTERSECTION FOR TRAFFIC ON THE MORE IMPORTANT STREET. SIGNS NAMING BOTH STREETS SHOULD BE ERECTED AT EACH LOCATION. THEY SHOULD BE MOUNTED WITH THEIR FACES PARALLEL TO THE STREETS THEY NAME, AS CLOSE TO THE CORNER AS PRACTICAL WITH THE NEAREST PART OF EACH SIGN NOT LESS THAN 1 FT. AND PREFERABLY 2 FT. BACK FROM BOTH CURB LINES.

IN RESIDENTIAL DISTRICTS, D3-1 SIGNS SHOULD BE MOUNTED AS IN BUSINESS DISTRICTS, BUT A SINGLE LOCATION AT EACH INTERSECTION SHALL ORDINARILY SUFFICE ON ALL BUT THE MOST IMPORTANT THOROUGHFARES.

THE STANDARD FOR STREET NAME LETTERING SHALL BE 6" HIGH UPPER/LOWER-CASE LETTERS. THE OVERALL WIDTH OF THE SIGN IS VARIABLE, EXCEPT WHEN NECESSARY TO AVOID CONFUSION, SUFFIXES SUCH AS "RD", "CIR", AND "WAY" OR SECTIONS OF THE CITY SUCH AS "TWP" SHOULD NOT BE USED. WHEN USED, THIS SUPPLEMENTAL LETTERING MAY BE IN SMALLER LETTERING, AT LEAST 4" HIGH. FOR ROADS FUNCTIONALLY CLASSIFIED AS LOCAL WITH SPEED LIMITS OF 25 MPH OR LESS, THE LETTERING MAY BE 4" HIGH HIGH UPPER AND LOWER CASE LETTERS.

THE STREET NAME SIGN BE REFLECTORIZED OR ILLUMINATED AND SHOULD HAVE A WHITE LEGEND ON A GREEN BACKGROUND OR OTHER CONTRASTING COLORS AS APPROVED BY THE DEPARTMENT.

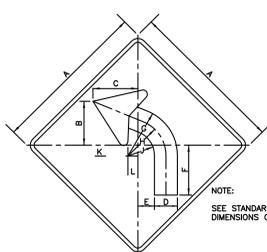


DIMENSIONS - INCHES						
SIGN SIZE A X B	C	D	E	F	G	H
VAR. X 8"	4"	1"	3"	2"	1"	
VAR. X 8"	4"	1"	4"	3"	1.4"	

* CHOSED UPPER/LOWER CASE CLEARWAY FONT FOR BEST FIT

W1-2L LEFT CURVE SIGN

THE LEFT CURVE SIGN (W1-2L) MAY BE USED IN ADVANCE OF A CURVE TO THE LEFT WHERE THE RECOMMENDED SPEED ON THE CURVE IS GREATER THAN 30 MPH BUT LESS THAN OR EQUAL TO THE LEGAL SPEED LIMIT. THE W1-2L SIGN SHALL BE USED IN ACCORDANCE WITH MUTCD CHAPTER 20 WARNING SIGNS.



DIMENSIONS - INCHES													
SIGN SIZE A X B	C	D	E	F	G	H	J	K	L	MARGIN	BORDER	BLANK STD.	
18" X 18"	5.4	5.1	2.6	2	6.2	6	4.7	3.4	1.8	2.1	0.4	0.6	B3-18
30" X 30"	9	9.2	4.4	3.4	10.4	10	7.8	5.6	3	2.2	0.5	0.8	B3-30
36" X 36"	10.8	10.9	5.3	4.1	12.4	12	9.4	6.8	3.5	2.6	0.6	0.8	B3-36
48" X 48"	14.4	14.7	7	5.5	16.6	16	12.5	9	4.8	3.5	0.8	1.2	B3-48

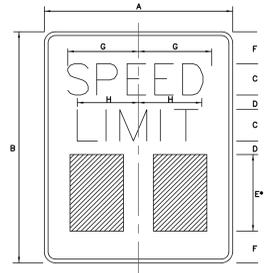
COLOR: ARROW AND BORDER: BLACK (NON-REFLECTORIZED) BACKGROUND: YELLOW (REFLECTORIZED)

R2-1 SPEED LIMIT SIGN

THE SPEED LIMIT SIGN (R2-1) SHALL BE AUTHORIZED FOR USE TO DISPLAY THE MAXIMUM LEGAL SPEED LIMIT ON A HIGHWAY. WHEN USED AS A VARIABLE SPEED LIMIT SIGN, SPEED LIMIT DISPLAY MODULE(S) MAY BE ATTACHED TO THE SIGN OR INSERTED THROUGH CUT-OUTS IN THE SIGN SUBSTRATE.

THE R2-1 SIGN SHALL BE PLACED AT INTERVALS SPECIFIED IN DEPARTMENT REGULATIONS. THE STANDARD SIGN SIZE SHALL BE AS FOLLOWS:

- 24"x30". ALL SINGLE LANE CONVENTIONAL HIGHWAYS HAVING ANY SPEED LIMIT.
- 30"x36". MULTI-LANE CONVENTIONAL HIGHWAYS REGARDLESS OF SPEED LIMIT.
- 48"x30". EXPRESSWAYS AND FREETWAYS.



DIMENSIONS - INCHES									
SIGN SIZE A X B	C	D	E	F	G	H	MAR-GIN	BOR-DER	BLANK STD.
24 X 30	4E	2	10E	4	9.6	7.3	0.4	0.6	B5-3024
30 X 36	5E	2	12E	5	12	9.1	0.6	0.8	B5-3630
48 X 60	8E	6	20E	6	19.1	14.6	0.8	1.2	B5-6048

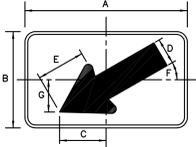
* OPTICALLY SPACE NUMERALS ABOUT VERTICAL C

COLOR: LEGEND AND BORDER: BLACK (NON-REFLECTORIZED) BACKGROUND: WHITE (REFLECTORIZED)

W16-7P DIAGONAL DOWNWARD POINTING ARROW PLAQUE

THE DIAGONAL DOWNWARD POINTING PLAQUE (W16-7P) MAY BE USED BELOW THE PEDESTRIAN SIGN (W11-2), THE SCHOOL SIGN (S1-1) AND OTHER CROSSING SIGNS WHEN THE CROSSING IS INSTALLED AT THE CROSSING LOCATION.

THE W16-7P SIGN MAY BE USED BELOW ANY STANDARD WARNING OR REGULATORY SIGN. WHEN USED WITH A WARNING SIGN, THE W16-7P SIGN SHALL HAVE THE SAME LEGEND, BORDER AND BACKGROUND COLOR AS THE WARNING SIGN WITH WHICH IT IS DISPLAYED. WHEN USED WITH A REGULATORY SIGN, THE W16-7P SIGN SHALL HAVE A BLACK LEGEND AND BORDER ON A WHITE BACKGROUND.



DIMENSIONS - INCHES									
SIGN SIZE A X B	C	D	E	F	G	MARGIN	BORDER	BLANK STD.	
24" X 12"	5.8	3	5.9	30"	3.9	0.4	0.6	B5-2412	
30" X 18"	8.7	4.5	8.8	30"	5.9	0.8	0.8	B5-3018	

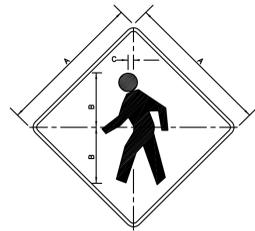
COLOR: LEGEND AND BORDER: BLACK (NON-REFLECTORIZED) BACKGROUND: YELLOW OR FLUORESCENT YELLOW GREEN (REFLECTORIZED) OR WHITE (REFLECTORIZED)

W11-2 PEDESTRIAN SIGN

THE PEDESTRIAN SIGN (W11-2) MAY BE USED TO WARN OF THE UNEXPECTED HAZARD OF PEDESTRIANS ENTERING, OR SHARING THE USE OF, OR CROSSING THE ROADWAY. THE W11-2 SIGN MAY BE INSTALLED IN ADVANCE OF THE CROSSING, IN WHICH CASE IT MAY BE SUPPLEMENTED WITH THE DISTANCE AREA (W16-10P) OR THE AREA PLAQUE (W16-9P).

IF THE SIGN IS USED AT THE CROSSING, THE W11-2 SIGN SHALL BE SUPPLEMENTED WITH A DIAGONAL DOWNWARD POINTING ARROW PLAQUE (W16-7P) SHOWING THE LOCATION OF THE CROSSING, WHICH MAY OR MAY NOT HAVE CROSSWALK MARKINGS. IF A W11-2 SIGN HAS BEEN POST-MOUNTED AT THE CROSSWALK LOCATION WHERE A YIELD TO PEDESTRIAN SIGN (R11-2) OR R11-30 IS USED ON THE APPROACH, THE R11-2 OR R11-30 SIGN SHALL NOT BE PLACED ON THE SAME POST AS, OR BLOCK THE ROAD USER'S VIEW OF THE R11-2 SIGN.

FLUORESCENT YELLOW-GREEN BACKGROUND MAY BE USED FOR THE W11-2 SIGN, IN WHICH CASE ALL ASSOCIATED PLAQUES SHALL BE THE SAME COLOR.



DIMENSIONS - INCHES									
SIGN SIZE A X B	C	D	E	F	G	H	MARGIN	BORDER	BLANK STD.
18" X 18"	8	0.9	0.4	0.6	0.6	0.6	0.4	0.6	B3-18
30" X 30"	13.6	1.5	0.5	0.8	0.8	0.8	0.4	0.8	B3-30
36" X 36"	16.3	1.8	0.6	0.8	0.8	0.8	0.4	0.8	B3-36

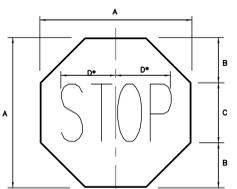
COLOR: SYMBOL AND BORDER: BLACK (NON-REFLECTORIZED) BACKGROUND: YELLOW OR FLUORESCENT YELLOW GREEN (REFLECTORIZED)

R1-1 STOP SIGN

(A) JUSTIFICATION. THE STOP SIGN (R1-1) IS AUTHORIZED FOR USE ON THOSE STREETS OR HIGHWAYS WHICH INTERSECT WITH A THROUGH HIGHWAY OR AT A STOP INTERSECTION SO DESIGNATED BY THE DEPARTMENT WITH REFERENCE TO STATE-DESIGNATED HIGHWAYS OR LOCAL AUTHORITIES WITH REFERENCE TO HIGHWAYS UNDER THEIR JURISDICTION. THE R1-1 SIGN IS ALSO AUTHORIZED FOR USE IN WORK ZONES INVOLVING ONE-LANE, TWO-WAY ROADWAYS. AT INTERSECTIONS WHERE ALL APPROACHES ARE CONTROLLED BY AN R1-1 SIGN, A SUPPLEMENTAL ALL-WAY PLAQUE (R1-39) SHALL BE MOUNTED BELOW EACH R1-1 SIGN.

(B) AUTHORIZATION. BEFORE LOCAL AUTHORITIES DESIGNATE ANY HIGHWAY AS A THROUGH HIGHWAY OR STOP INTERSECTION WHICH WILL INTERSECT OR AFFECT A STATE-DESIGNATED HIGHWAY, APPROVAL OF SUCH DESIGNATION SHALL FIRST BE OBTAINED FROM THE DEPARTMENT. APPROVAL TO INSTALL R1-1 SIGNS IN WORK AHEAD SHALL NOT REQUIRE THE APPROVAL OF THE DEPARTMENT OR LOCAL AUTHORITIES WHEN THE CONDITIONS STIPULATED IN THE DEPARTMENT'S TEMPORARY TRAFFIC CONTROL GUIDELINES ARE SATISFIED.

(C) SIZE. THE STANDARD SIZE R1-1 SIGN SHALL BE 30" X 30" FOR SINGLE LANE CONVENTIONAL HIGHWAYS AND 36" X 36" FOR MULTI-LANE CONVENTIONAL HIGHWAYS. THE 24" X 24" SIZE SHALL ONLY BE USED FOR ALLEYS WITH RESTRICTIVE PHYSICAL CONDITIONS AND VEHICLE USAGE THAT PROHIBITS THE INSTALLATION OF THE STANDARD SIZE R1-1. A SIGN THAT IS MOUNTED BACK-TO-BACK WITH AN R1-1 SIGN SHOULD START WITHIN THE EDGES OF THE R1-1 SIGN. IF NECESSARY, THE SIZE OF THE R1-1 SIGN SHOULD BE INCREASED SO THAT THE OTHER SIGN INSTALLED BACK-TO-BACK WITH IT REMAINS WITHIN THE EDGES OF THE R1-1 SIGN.



DIMENSIONS - INCHES									
SIGN SIZE A X B	C	D	E	F	G	H	MAR-GIN	BOR-DER	BLANK STD.
18" X 18"	6	6	8	8	0.4	0.4	0.4	0.4	---
24" X 24"	8	8	8	8	0.6	0.6	0.6	0.6	B1-24
30" X 30"	10	10	10	10	0.6	0.6	0.6	0.6	B1-30
36" X 36"	12	12	12	12	0.6	0.6	0.6	0.6	B1-36
48" X 48"	16	16	16	16	1.2	1.2	1.2	1.2	B1-48

* REDUCE SPACING 40%

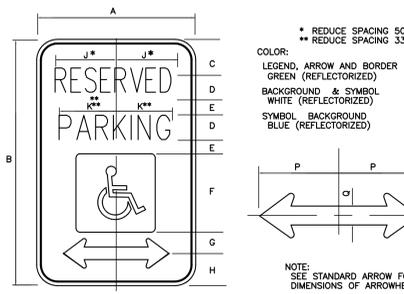
COLOR: LEGEND AND BORDER: WHITE (REFLECTORIZED) BACKGROUND: RED (REFLECTORIZED)

R7-8 RESERVED PARKING SIGN

THE RESERVED PARKING SIGN (R7-8) IS AUTHORIZED TO MARK THE LOCATION OF A PARKING SPACE WHICH IS RESERVED FOR HANDICAPPED PERSONS OR SEVERELY DISABLED VETERANS.

WHEN USED, THE R7-8 SIGN SHOULD GENERALLY BE INSTALLED AT THE FRONT OF EACH RESERVED PARKING STALL, EXCEPT IN THE CASE OF PARALLEL PARKING. IT SHOULD BE INSTALLED AT INTERVALS NOT EXCEEDING 100' ALONG THE SIDE OF THE STALLS. WHEN INSTALLED AT THE FRONT OF THE PARKING STALLS, THE SINGLE OR DOUBLE HEADED ARROW MAY BE DELETED FROM THE R7-8 SIGN AND THE MESSAGE MAY BE SPACED ACCORDINGLY.

THE RESERVED PARKING PENALTIES SIGN (R7-8P) SHALL BE POSTED IN CONJUNCTION WITH THE R7-8 SIGN. WHEN USED, THE R7-8P SIGN SHALL BE PLACED BELOW THE R7-8 SIGN.



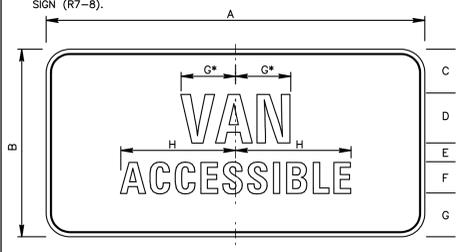
DIMENSIONS (INCHES)																	
SIGN SIZE A X B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	MARGIN	BORDER	BLANK STD.
12"x18"	2	2	1	6	1.6	2.4	4.9	4.3	3	0.4	4	3.8	8	4	4	4	B5-1218

RESERVED PARKING SIGN
R7-8

R7-8P VAN ACCESSIBLE SIGN

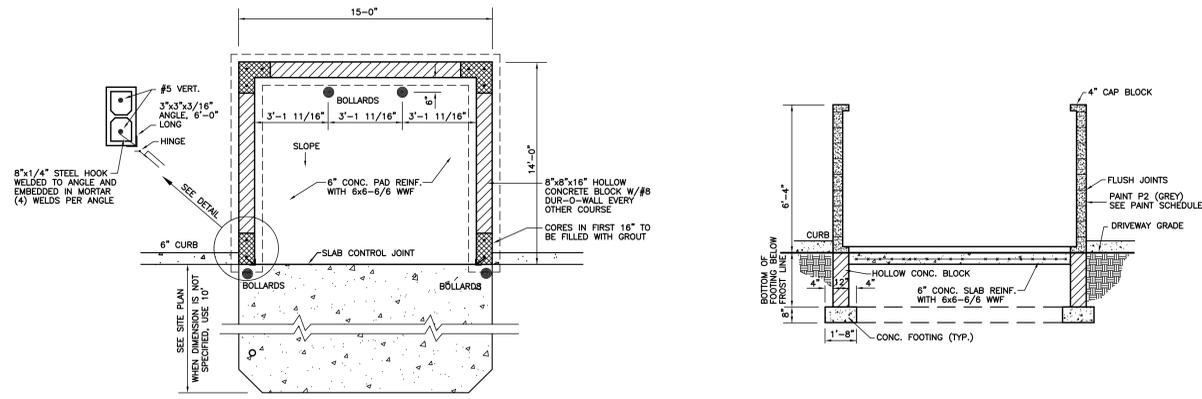
THE VAN ACCESSIBLE SIGN (R7-8P) MAY BE USED AS A SUPPLEMENTAL SIGN TO INDICATE THAT A PARKING SPACE SIGNED WITH THE RESERVED PARKING SIGN (R7-8) IS OF SUFFICIENT SIZE FOR USE BY THE DISABLES TO ACCOMMODATE VANS DISPLAYING A HANDICAPPED OR SEVERELY DISABLED VETERAN REGISTRATION PLATE OR PLACARD.

ONE IN EVERY EIGHT RESERVED PARKING SPACES FOR THE DISABLES, BUT NOT LESS THAN ONE, SHALL BE DESIGNATED WITH THE R7-8P SIGN. WHEN USED, THE R7-8P SIGN SHALL BE PLACED IMMEDIATELY BELOW THE RESERVED PARKING SIGN (R7-8).



DIMENSIONS - mm (in)									
SIGN SIZE A X B	C	D	E	F	G	H	MARGIN	BORDER	BLANK STD.
12' X 6'	1.4	1.6D	0.6	1D	2.1	4	0.4	0.4	B5-1206

COLOR: SYMBOL AND BORDER: BLACK (NON-REFLECTORIZED) BACKGROUND: YELLOW OR FLUORESCENT YELLOW GREEN (REFLECTORIZED)



TRASH ENCLOSURE DETAIL
N.T.S.

Silvia A. Hoffman, AIA
Todd O. Chambers, AIA
Jill P. Hewes, AIA
Jessica E. Kloczek, AIA

MKSD, LLC
1209 Hausman Road, Suite A
Allentown, PA 18104
610.366.2081 phone
mkdsarchitects.com web



Parkland School District
New Operations Center (Phase 4)
2619 Stadium Road
Orefield, PA 18069

TMP# 54771927143-1

REVISIONS

No.	Date	Description
XX.XX.XX		Issued for Permit

DRAWING TITLE
CONSTRUCTION DETAILS

PROJECT NUMBER
22.149

DRAWN BY
SIWW

SCALE
AS NOTED

DATE
08.27.2024

DRAWING NUMBER
SP-21

©MKSD, LLC
www.mkdsarchitects.com

Township Engineer Review

THE PIDCOCK COMPANY

CIVIL ENGINEERING AND LAND PLANNING

ARCHITECTURE

LAND SURVEYING

Oxford Drive at Fish Hatchery Road
2451 Parkwood Drive Allentown, Pennsylvania 18103-9608
Telephone: 610-791-2252
Telefacsimile: 610-791-1256
E-mail: info@pidcockcompany.com
Website: www.pidcockcompany.com

Established 1924
J. Scott Pidcock, P.E., R.A.

Bruce E. Anderson, P.E., LEED AP
Brian A. Dillman, P.E.
Ronald J. Gawlik, P.E.
Brian E. Harman, P.E., PTOE
James A. Rothdeutsch, P.E., LEED AP
John R. Russek, Jr., P.E.
Brent C. Tucker, P.E.

Douglas E. Haberbosch, P.E.
William G. Kmetz, P.L.S.
Jeffrey R. Matyus
John M. McRoberts, P.E.
Brent D. Shriver, P.E.
Todd L. Sonntag, R.A., LEED AP
Anthony F. Tallarida, P.E.
Ryan R. Troutman, P.E.

G. Edwin Pidcock, P.E., P.L.S. 1924-1967
John S. Pidcock, P.E., P.L.S. 1954-1999
Ralph M. Pidcock, P.L.S. 1952-2000 (Retired)

MEMORANDUM

TO: Mr. David Manhardt, AICP via e-mail
Director of Community Development
South Whitehall Township

FROM: Mr. Anthony F. Tallarida, PE *AFT*
Manager, Municipal Engineering Services

SUBJECT: South Whitehall Township
Parkland School District New Operations Center Phase 4
Major Plan #2024-105
Preliminary/Final Plan Review

DATE: October 3, 2024

COPIES: Mr. Thomas R. Petrucci, MPA
Township Manager
South Whitehall Township

Mr. Herb Bender
Director of Township Operations
South Whitehall Township

Mr. Mike Elias
Public Works Utility and MS4 Program Coordinator
South Whitehall Township

Ms. Tracy J.B. Fehnel
Insurance Administrator & Executive Assistant
South Whitehall Township

Ms. Laura M. Harrier, BCO
Building Code Official/Zoning Officer
South Whitehall Township

Mr. John G. Frantz, CFEI, BCO
Fire Marshal, Building Code Official
South Whitehall Township

Joseph A. Zator, II, Esq.
South Whitehall Township Solicitor
Zator Law

Jennifer R. Alderfer, Esq.
Assistant South Whitehall Township Solicitor
Zator Law

Mr. Denjam Khadka
Senior Civil/Environmental Engineer
Lehigh Valley Planning Commission

Mr. Christopher A. Taylor, PG
Senior Geologist
Hanover Engineering Associates, Inc.

Mr. Scott P. McMackin, P.E., LEED AP
Vice President
Cowan Associates, Inc.

Mr. Arthur J. Oakes
Director of Facilities and Operations
Parkland School District

(all via e-mail)

Mr. Ronald J. Gawlik, PE, Township Engineer

REPORT:

South Whitehall Township Ordinances:

Zoning Ordinance (ZO)

Subdivision and Land Development Ordinance (SALDO)

Stormwater Management Plan (SMP)

See attached list for documents reviewed.

Proposal:

Phase 4 includes a 21,459 s.f. expansion to the northern parking lot with associated stormwater management facilities and paving modifications at the southern building;

Phases 1 through 3 for this site/project have been previously approved and is under construction;

Project/Site was approved in 2023;

RR-2 – Rural Residential-2 Zoning District;

Public Water; and

Private Sewer (Parkland School District).

Waivers/Deferrals/Variances Granted:

None to date.

Recommendation:

Engineering approval not recommended at this time.

jfw/laf

Enclosures

THE PIDCOCK COMPANY

South Whitehall Township
Parkland School District New Operations Center Phase 4
Major Plan #2024-105
Preliminary/Final Plan Review

October 3, 2024

REVIEW COMMENTS

A. Planning

1. The Plans should clearly delineate between previously approved Phases 1 through 3 and the improvements proposed in Phase 4;
2. In a letter dated August 27, 2024, the Design Engineer requested waivers from the following SALDO and SMP requirements:
 - a. SALDO §312-11 and §312-12 – Waiver from the requirement of a separate preliminary plan submission. The applicant is submitting as a Preliminary/Final Plan. The Township does not require a waiver for this type of submission, SALDO §312-8(d);
 - b. SALDO §312-12(b)(20) – Waiver from the requirement of showing the location, character, and elevation of any building within 100 feet of the tract. We note this request has been granted for this project in previous phases;
 - c. SALDO §312-12(b)(15) and §312-12(b)(21) – Waiver from the requirement of showing contours and sidewalks, trails, driveways, streets, easements, etc. within 400 feet of the tract. We note this request has been granted for this project in previous phases;
 - d. SALDO §312-13(f)(3) and §312-43 – Waiver from the requirement that Plans be recorded prior to the issuance of a building permit. We defer to the Building Code Official and Zoning Officer. We note this request has been granted for this project in previous phases;
 - e. SALDO §312-26(a) and §312-35(b) – Waiver from the requirement of frontage improvements along Lime Kiln Road. We note a deferral has been granted for this project in previous phases;
 - f. SALDO §312-39(d)(2) – Waiver from the requirement of the basin bottom being 2% longitudinal slope. We defer to the Township Geotechnical Consultant and note this request has been granted for this project in previous phases;
 - g. SALDO §312-39(g) – Waiver from the requirement that storm pipes be a minimum 15-inch in diameter. We note this request has been granted for this project in previous phases;

- h. SMP §296-9(j) – Waiver from the requirement of having a permeability rate of 1×10^{-7} cm/SEC or less. We defer to the Township Geotechnical Consultant and note this request has been granted for this project in previous phases; and
- i. SMP §296-9(k) – Waiver from the requirement that ground water recharge not be permitted. We defer to the Township Geotechnical Consultant and note this request has been granted for this project in previous phases.

In the event waivers or deferrals are granted, add a note to the Plan listing the ordinance sections and the date of approval.

- 3. The previously submitted Transportation Impact Assessment Supplement (TIAS) as part of Phase 3, recommends the School District and Township monitor the operation of the Route 309 and Lime Kiln Road intersection after the opening of the Operations Center, and in the absence of the proposed improvements by PennDOT, pursue timing improvements at the intersection as necessary. The analyses presented in the TIAS assumes adjusted timings for the PM peak of adjacent street traffic. This should be included in the Conditions of Approval for the development, similar to Phase 3. Additionally, provide justification for the additional parking being proposed with respect to additional traffic generation;
- 4. Identify all applicable setback distances from all rear and side property lines; and
- 5. Confirm with the Township Building Code Official that the modifications to the proposed retaining wall do not require additional review, and provide a detail for the proposed fence on top of the wall.

B. Stormwater Management

- 1. A diversion should be added in the post-development analysis for Inlet I-44 as the calculations show that runoff is diverted from Infiltration Bed #10 beyond the 2-year storm event. We recommend that the Infiltration Bed #10 outlet control structure be a separate component from the inflow to Bed #10;
- 2. Revise the Rate and Volume Summary Table in the Report to provide consistency with the supporting stormwater management calculations, SMP §296-17.A and §296-15.B;
- 3. Check the post-development tributary areas for Undetained (Subcatchment A) and Undetained to Adjacent Parcel (Subcatchment F) for consistency between the Plans and the Report;
- 4. Confirm the following dimensions and/or elevations to provide consistency between the Report, Plans and Details:
 - a. Basin #11 outlet control structure top elevation;
 - b. Basin #11 emergency spillway length;
 - c. Basin #11 emergency spillway elevation;
 - d. Bed #10 top of stone bed elevation; and

- e. Bed #10 outlet control structure outfall pipe size.
5. Verify the post-development impervious area calculations in the DEP Spreadsheets for the 2- and 10-year storm events, SMP §296-15.B(2);
6. Revise the storm sewer calculations to include the Phase 4 storm sewer system additions, SMP §296-18.R(2)(j);
7. Provide trench drain calculations in the Report, SMP §296-18.R(2)(j);
8. We recommend that a proposed swale be graded at the discharge point of FES-35 to convey the runoff to the Detention Basin bottom elevation;
9. Infiltration Bed #10 should be added to the overall site stormwater management blanket easement, SMP §296-30.C; and
10. A BMP Operations and Maintenance Plan, describing the proposed procedures, identifying the person responsible, and noting any applicable easements, should be provided, SMP §296-28 and §296-30. The Plan should include a statement, signed by the property owner, acknowledging that stormwater BMPs are fixtures that cannot be altered or removed without approval by the Township, SMP §296-29. Additionally, an Operations and Maintenance Agreement should be executed for the proposed stormwater BMPs, SMP §296-32.

C. Policy and Information

1. Provide correspondence from PPL stating that the proposed additional parking areas and stormwater management facilities can be placed in the existing PPL right-of-way;
2. Update the Board of Commissioners' Signature Block to be in accordance with SALDO §312-13(e);
3. Confirm all outside agency permits and approvals obtained for prior Phases 1 through 3 are still applicable for Phase 4. Any copies of correspondence, including any data submitted to outside agencies regarding permits and approvals, should be provided to the Township and our office;
4. Provide Lighting Plans. We defer to the Township Electrical Consultant to review the proposed site lighting;
5. We have not reviewed and would defer to the Township Fire Marshal and emergency response personnel regarding the acceptability of emergency access and fire protection requirements;
6. We defer to the Township Geotechnical Consultant for review of all geotechnical aspects of the design including, but not limited to, the basin liner details, the sinkhole mitigation details, proposed retaining walls, etc.; and

7. Upon submission of plans for recording, all Statements and Certifications shall be signed and sealed/notarized as applicable, SALDO §312-12(b)(6) and §312-14(b)(2).

The comments noted above are the result of our engineering review. We have not reviewed items associated with legal, geotechnical, lighting, water/sanitary sewerage systems, environmental, building code, public safety, and other non-engineering issues, which should be reviewed by the appropriate Township Staff and Consultants.

THE PIDCOCK COMPANY

South Whitehall Township
Parkland School District New Operations Center Phase 4
Major Plan #2024-105
Preliminary/Final Plan Review

List of Plans and Supplemental Information
Prepared by Cowan Associates, Inc. and
dated or last revised August 27, 2024, except as noted

1. Cover Sheet;
2. Record Site Plan, Sheet SP-1;
3. Existing Features/Demolition Plan, Sheet SP-2;
4. Grading Plan, Sheet SP-3;
5. Utility Plan, Sheet SP-4;
6. Landscape and Signage Plan, Sheet SP-5;
7. Erosion and Sediment Control Plan, Sheet SP-6;
8. Erosion and Sediment Control Notes, Sheets SP-7 and SP-8;
9. PCSM Plan, Sheet SP-9;
10. PCSM Details, Sheets SP-10, SP-10A, and SP-11;
11. PCSM Notes, Sheet SP-12;
12. Pre-Development Drainage Area Plan, Sheet SP-13;
13. Post-Development Drainage Area Plan, Sheet SP-14;
14. Inlet Drainage Area Plan, Sheet SP-15;
15. Utility Profiles, Sheets SP-16 through SP-18;
16. Construction Details, Sheets SP-19 through SP-21;
17. ADA Ramp Details, Sheets SP-22 through SP-24 (cursory review only);
18. Vehicle Turning Template Plan, Sheet SP-25;
19. Retaining Wall Plan and Elevation, Sheet SP-26;
20. Aerial Plan, Sheet SP-27; and
21. Stormwater Management Report, dated August 6, 2023.

In addition, we have received the following information in support of the Application:

1. Preliminary Site Investigation and Infiltration Testing Report, revised August 8, 2024;
2. LANTA Transmittal Letter;
3. LVPC Transmittal Letter, dated September 3, 2024;
4. Township Transmittal Letter, dated September 3, 2024;
5. Waiver Request Letter; and
6. Project Narrative.

Township Water & Sewer Engineer Review

October 4, 2024

Mr. David Manhardt, AICP
Community Development Director
South Whitehall Township
4444 Walbert Avenue
Allentown PA 18104

Re: PASD Ops Center PH4
Land Development #2022-108
Review of Preliminary Plan
SSM File 103400.0083

Dear Mr. Manhardt:

This correspondence is provided as a review of the Preliminary/Final Land Development Plan submitted for the above referenced project revised on 8/27/24. The project is adding parking area to an existing development. We have the following comments regarding the water and sanitary sewer utilities:

General Notes:

1. No comments at this time.

Water Comments:

1. No comments at this time.

Sanitary Sewer Comments:

1. No comments at this time.

Please contact us should you have any questions, or require any additional information regarding our comments.

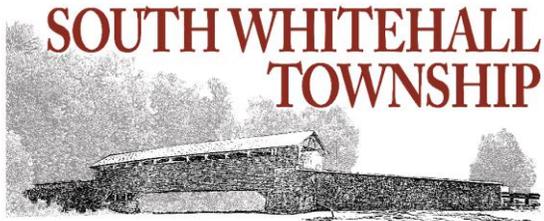
Sincerely,
Spotts, Stevens and McCoy



Jason M. Newhard, CCM, LO
Manager, Construction Management Services
Environmental Engineering
jason.newhard@ssmgroup.com

cc: SWT, PW

Public Works Department Review



INTEROFFICE MEMORANDUM

TO: DAVE MANHARDT, DIRECTOR OF COMMUNITY DEVELOPMENT

FROM: HERB BENDER, PUBLIC WORKS MANAGER

DATE: SEPTEMBER 27, 2024

SUBJECT: PSD Ops. Center Phase 4 Parking Expansion Preliminary/Final 2024-105

The Public Works Dept. reviewed the above project and has the following comments:

1. No Comment.

South Whitehall Planning Document Review

SOUTH WHITEHALL TOWNSHIP

4444 Walbert Avenue, Allentown, PA 18104-1699
www.southwhitehall.com • 610-398-0401

October 3, 2024

Parkland School District
Attn: Arthur Oakes
1210 Springhouse Road
Allentown, PA 18104

**RE: *Parkland School District New Operations Center – Phase 4
Major Plan #2024-105
Request For Preliminary/Final Plan Review***

Dear Mr. Oakes:

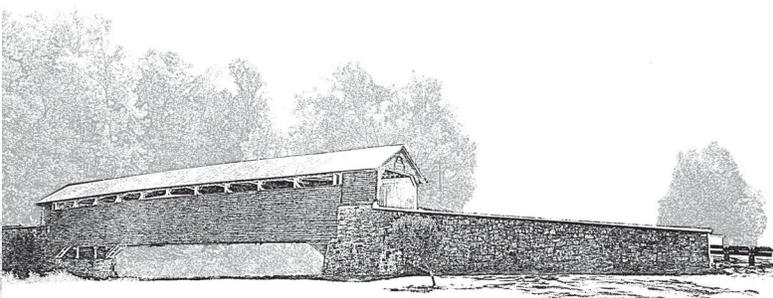
The purpose of this letter is to report on planning and non-engineering related comments from the Community Development Department that are to be addressed. My comments follow:

Open Space and Recreation

1. The plan will be forwarded to the Parks and Recreation Board for a recommendation on how the applicant might best meet the Open Space and Recreation Requirements of Section 312-36(d)(4) of the Subdivision and Land Development Ordinance. This plan is scheduled for review at the October 14, 2024 Parks and Recreation Board meeting.

Landscape and Shade Tree Commission

1. The plan will be forwarded to the Landscape and Shade Tree Commission to confirm the requirements of Section 312-40 of the Subdivision and Land Development Ordinance have been met and to provide recommendations on how to satisfy the buffer, screening, and landscaping requirements of Section 350-48(o)(2)(E)(v) of the Zoning Ordinance.
2. The plan will also be reviewed by the Landscape and Shade Tree Commission to confirm the Township's satisfaction of Decision and Order No. ZHB-2023-07 of the South Whitehall Township Zoning Hearing Board, requiring 46 street trees, 9 parking lot shade trees, 93, parking lot screening shrubs, 30 basin trees, 31 basin shrubs, and 23 buffer trees.
3. This plan is scheduled for review at the October 28, 2024 Landscape and Shade Tree Commission meeting.



Plan Recording Requirements

1. Prior to plan recording, the applicant shall submit a check set of plans in PDF format to the Township Engineer and Township staff to ensure that the standards and requirements of the Lehigh County Recorder of Deeds Office for a recorded plan are met.
2. Signature Blocks and Certifications to appear on each plan sheet to be recorded.
3. The size of the plan sheet shall be noted on the upper left-hand corner of every plan sheet to be recorded.
4. Wherever a Parcel ID is shown on a plan sheet to be recorded, it shall include the appropriate parnum suffix, such as 547677593477-1 or 547687003997-59.
5. Wherever an Owner's signature is required, the Signature shall be accompanied by a Printed Name and Title (Owner or Title within the owning organization), and an area for a Notary stamp. If there are multiple owners, there shall be signature blocks and areas for Notary stamps for each and every owner's name.
6. On the cover sheet or (if no cover sheet is present) the site plan sheet, include a table listing all of the properties involved in the project, including PIN and Parnum. This information may be included with an existing table or a new table may be created.
7. The review date of the Planning Commission and the review date and Resolution number of the Board of Commissioners shall be placed into the appropriate Board endorsement notes on the appropriate plan sheet to be recorded. Dates and Resolution number may be obtained from South Whitehall Township.

Official Map & Comprehensive Plan

1. The Official Map depicts the subject parcel underlain with karst geology.
2. The Comprehensive Plan envisions the tract within the Jordan Valley Land Use Type. The goal of the Jordan Valley is to preserve the rural and historic character of the Jordan Valley by:
 - Preserving natural resources and important landscapes through incentives and cooperation with landowners
 - Enhancing crossroad villages with attention to the surrounding landscape
 - Encouraging the continuation of active agriculture by allowing uses consistent with operations of working farms
 - And incentivizing the utilization of Conservation Subdivisions for future land development.
 - Jordan Valley Place Type supports Open Space, Agriculture, Rural, and Conservation Subdivision place types.

This project proposes the repaving and extension of parking areas and associated stormwater management facilities on an already developed parcel and is considered consistent with the Comprehensive Plan.

Zoning

1. The comments of the Township Zoning Officer are contained in Ms. Laura Harrier's review letter dated August 27, 2024. Her comments pertain to the encroachment of a PPL utility easement and the conditions placed by the South Whitehall Township Zoning Hearing Board.

Your plan is scheduled to be reviewed by the Planning Commission on Thursday, October 10, 2024 at 7:00 p.m. in the South Whitehall Township Municipal Building located at 4444 Walbert Avenue. The meeting will also be livestreamed via GoToMeeting. To access the meeting through your computer, go to <https://global.gotomeeting.com/join/757430189>. To access the meeting through your phone, dial 1-224-501-3412 and, when prompted, enter 757 430 189 to join the meeting.

Should your plan receive a favorable recommendation from the Planning Commission, it will be placed on a future Board of Commissioners meeting agenda for approval. Prior to the meeting you will receive a copy of the agenda packet and approving Resolution. Please direct any questions or concerns about either document to me at your earliest convenience. Should the Resolution be deemed acceptable, please complete the "Acceptance of Conditions" page at the end of the Resolution and return it to me no later than the beginning of the Board of Commissioners meeting. A representative of the applicant shall be required to attend the meeting to present the plan and answer questions.

If you have any questions, please call.

Sincerely,



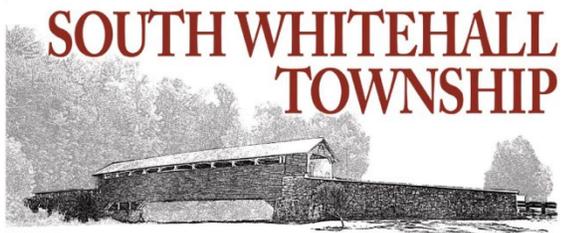
Christopher Strohler, AICP
Long-Range Planner, Community Development Department
South Whitehall Township
610.398.0401
strohlerc@southwhitehall.com

cc: T. Petrucci D. Manhardt L. Harrier J. Frantz H. Bender
M. Elias A. Tallarida E. Bet J. Zator, Esq J. Alderfer, Esq

Zoning Review

Zoning Officer Review Letter, September 30, 2024

Zoning Hearing Board, Written Decision and Order



MEMORANDUM

TO: Planning Commission
FROM: Laura Harrier, Zoning Officer
DATE: September 30, 2024
SUBJECT: Subdivision Plan Review
Parkland School District New Op Center PHASE 4 (parking lot expansion)
Preliminary/Final Plan 2024-105
Plan Dated August 27, 2024
COPIES: D. Manhardt, C. Strohler, J. Alderfer, Esq., A. Tallarida, E. Bet, Applicant

The following zoning observations have been observed:

1. The expansion encroaches into a PPL utility easement. An agreement shall be provided to the Township.
2. On April 5, 2024, the Zoning Hearing Board granted relief for the facility to have 94 parking spaces where 194 are required, therefore a variance of 100 spaces was granted. Conditions were attached to the approval and a copy of the decision is accompanying this review.

Laura Harrier
Zoning Officer, Community Development

7. Attached hereto as **Appendix A** is a list of the exhibits offered by the Board and marked Exhibits B-1 through B-5, and a list of Exhibits offered by the Applicant and marked Exhibits A-1 through A-9. All Exhibits were admitted into evidence and are incorporated into, and made a part of, these findings.

8. The Property is located in the Township's Low Density Residential (R-3) Zoning District and is a part of the Applicant's Orefield Middle School campus and thus permitted as an elementary or secondary school use. (B-1, 5; A-1, 3; McMackin, Oakes).

9. The Applicant is the owner of the Property. (B-1; A-1).

10. The Property comprises approximately 9.87 acres and is improved with a pole building and a partially constructed operations center (the "Building") for which land development plan approval was obtained by the Applicant in various stages starting in 2022 and continuing through the present date due to plan revisions. (A-4; McMackin).

11. The Building is presently under construction and in accordance with a revised land development plan includes a first and second floor with the first floor to be used as storage and the second floor to be used as administrative offices. (McMackin; Hoffman; Oakes; A-1, 8, and 9).

12. Based upon the application of Ordinance Section 350-48(s)(4)(D), the required odd-street parking as determined by the Zoning Officer is 194 spaces, however the Applicant desires to provide only 94. (B-1, 5; A-1; McMackin).

13. The Applicant can provide an additional 16 to 18 spaces by removing the existing pole building. (McMackin; Oakes).

14. The Applicant prefers to not remove the pole building as it houses equipment, including a truck, trailer and backhoe, and outdoor / landscape supplies, such as mulch and stone. (McMackin, Oakes).

15. The Building will serve the entire School District and provide administrative space for various departments, including IT (technology), safety and security, transportation involving supplies and equipment), food service, facilities management, curriculum, and certain student services. (Hoffman; Oakes).

16. The Building will have, among other things, loading docks, storage spaces (refrigerated and dry storage areas), offices, conference rooms, and 3 classrooms for special needs children. (Hoffman; Oakes; A-8, 9).

17. Although the Applicant calculates the maximum number of off-street parking spaces required for the use of this Building as 78 (68 employees and 10 visitors), not all spaces will be used at one time. (Oakes).

18. The total number of Applicant's employees who will be located at the Building (both first and second floors) will not exceed 68 (including 9 maintenance workers), and of the 68 who will be located at the Building, many will travel directly to, and perform their duties off-site at other locations in the School District. (Oakes).

19. Students using the Building will be bused. (Oakes).

20. The required, off-street parking calculation has increased with various iterations of the land development plan as a result of the Applicant's planning and decision to expand the second floor to take advantage of certain efficiencies resulting from the location of all administrative offices in one, geographically centralized location. (McMackin; Hoffman; Oakes).

21. In lieu of expanding the second floor to centralize the administrative staff, the Applicant could construct a second building, however that could cost an estimated ten million dollars, assuming that suitable land is even available. (Oakes).

22. This presents an economic hardship to the Applicant. (Oakes).

23. The Property is subject to a physical hardship as it is long and narrow; subject to right-of-way, buffer, and setback restrictions; is burdened with a PP&L easement; and has slopes and soil limitations requiring substantial stormwater facilities. (McMackin).

24. The proposed use is consistent with the surrounding neighborhood and, according to the Applicant, the 94 spaces to be provided exceeds the amount actually needed. (Oakes).

25. The Board finds Applicant's witnesses credible.

26. The Board takes judicial notice of all applicable sections of the Zoning Ordinance, including but not limited to Section 350-48(s)(4).

II. CONCLUSIONS OF LAW.

1. The hearing was advertised and conducted in accordance with the requirements of the Pennsylvania Municipalities Planning Code as amended (the "MPC").

2. The Applicant has standing as the owner of the Property.

3. Ordinance Section 350-48(s)(4)(d) requires 194 off-street parking spaces while the Applicant provides for 94; thus requiring a 100-space variance.
4. A variance from the minimum number of off-street parking spaces is dimensional.
5. The Applicant bears the burden of proof regarding entitlement to the variance.
6. The Applicant has submitted substantial evidence in support of its Application as set forth in the foregoing findings of fact.
7. The findings of fact are supported by substantial evidence.
8. The Applicant has sustained its burden of proof as supported by the record and as set forth in the foregoing findings of fact and Exhibits thereby incorporated by reference.
9. The Applicant is entitled to a variance to provide 94 off-street parking spaces where 194 are required.
10. The Board may impose conditions upon the award of the variance; provided that they are reasonable and consistent with the intent of the Ordinance.
11. The conditions attached hereto are reasonable and consistent with the intent of the Ordinance.

III. DISCUSSION

For the reasons set forth in the foregoing Findings of Fact and Conclusions of Law and the Exhibits identified in **Appendix A** hereof, the Board concludes that the Applicant has sustained its burden of proof and is entitled to the variance where, as here, the variance sought is dimensional and all elements thereof are supported by substantial evidence of record.

IV. ORDER.

AND NOW, this 5th day of ~~March~~ ^{APRIL} 2024, upon consideration of the Application of the Parkland School District, the Board enters the following **ORDER**:

The Applicant's request for a dimensional variance from Section 350-48(s)(4)(D) of the Zoning Ordinance to permit development of the Property with 94 off-street parking spaces where 194 are required, a variance of 100 spaces, is **GRANTED**.

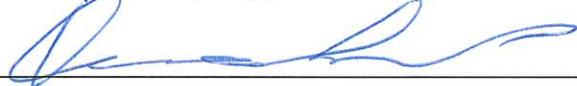
IT IS FURTHER ORDERED that the following conditions are imposed:

- a. The representations, testimony, and exhibits offered by or on behalf of the Applicant in this hearing, including without limitation those set forth in the foregoing Findings of Fact are binding upon the Applicant as conditions of approval of this variance;
- b. The Applicant shall provide the following landscape buffering as stated in paragraph 20 of the Notice of Appeal: 46 street trees, 9 parking lot shade trees, 93 parking lot screening shrubs, 30 basin trees, 31 basin shrubs, and 23 buffer trees, all to the satisfaction of the Township;
- c. As the Applicant has presented evidence concerning the scope of use of the Building and the maximum number of employees (68) who will regularly occupy the building; Applicant's total employees and visitors shall not exceed 94 per day unless further relief is granted by the Board; and
- d. The Applicant shall hold in reserve the Pole building area as designated in Exhibits B-2 and A-5 for future use as off-street parking if the Township Zoning Officer issues a determination that it is necessary.

BY THE BOARD:



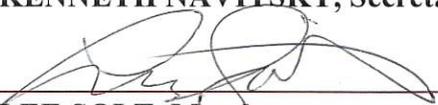
DON S. KLEIN, Esq., Chairman



DAVID EISENBERG, Esq., Vice Chairman



KENNETH NAVITSKY, Secretary



LEE SOLT, Member

/Recused/

DENNIS TOOMEY, P.E., Member

Date of Written Decision:

April 05, 2024

Date of Mailing Decision:

April 05, 2024

Applicant's Correspondence

Project Narrative

Waiver Requests



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James R. Leister, PE/PLS (1936-2006)
William D. Kee, PE (Retired)
Johann F. Szautner, PE/PLS (Retired)
Todd R. Myers, PLS (Semiretired)
Scott P. McMackin, PE
Charles R. Tomko, PE
Michael R. Smith, PE
Wayne V. Doyle, PE

PROJECT NARRATIVE

Parkland School District New Operations Center – Phase 4
2619 Stadium Road
South Whitehall Township
Lehigh County
CAI 14613.37
August 27, 2024

Site Location: 2619 Stadium Road
Orefield, PA 18069
PIN 547719272143

Site Owner & Applicant: Parkland School District
1210 Spring House Road
Allentown, PA 18104

Site Zoning District and Existing Use: RR-2 – Rural Residential 2
Use – Institutional

Frontage Streets: Stadium Road (T-678)
Limekiln Road (T-593)

Proposed Use: Institutional

Existing Lot Size: 8.7048 Acres (Net)

Proposed Lot Size: 8.7048 Acres (Net)

Existing and Proposed Water Service: Public – South Whitehall Township Authority

Existing and Proposed Sewer Service: Private – Orefield Middle School WWTP &
Collection, NPDES PA0052132

Proposed Types of Stormwater BMPs: Subsurface Infiltration Beds (3)
Detention Basin

Project/Site was approved in 2023 with a building modification approval in 2024. This proposal reflects an additional 21,459 square feet of impervious surface for the expansion of the northern parking lot. No building revisions are proposed.

SPM/WVD:aew

V:\PROJECTS\14613.37 MKSD Parkland School District Operations Center\Correspondence\Project Narrative - Phase 4.docx

Cowan Building • 120 Penn-Am Drive • P.O. Box 949 • Quakertown, PA 18951
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August 27, 2024

South Whitehall Township Planning Commission
South Whitehall Township Board of Commissioners
South Whitehall Township
4444 Walbert Avenue
Allentown, PA 18104

Richard S. Cowan, PE (1910-1997)
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Subject: Waiver Requests
Parkland School District Operations Center – Phase 4
2619 Stadium Road (PIN 547719272143)
South Whitehall Township, Lehigh County
CAI 14613.37

Dear Planning Commission Members and Commissioners:

Please accept this correspondence as a Request for Waivers for the Parkland School District Operations Center project from the following sections of the South Whitehall Township Subdivision and Land Development Ordinance:

1. Section 312-11 and 312-12 requiring preliminary plan submission.

Waiver is requested to process the application as preliminary/final.

2. Section 312-12(b)(20) Requiring location, character, and elevation of any building within 100 feet of the tract.

Given the minor nature of the development, a waiver of this requirement is requested to use aerial photographic information.

3. Section 312-12(b)(15) and (21) Requiring location of contours and sidewalks, trails, driveways, streets, easements, etc. within 400 feet of the tract.

Given the minor nature of the development, a waiver of this requirement is requested.

4. Section 312-13.F(3) and 312-43 Requiring plans to be recorded prior to the issuance of a building permit.

Given the minor nature of the development, with site improvement previously approved, a waiver of this requirement is requested to allow the issuance of building permits.

5. Section 312-26(a) and 312-35(b) Requiring property frontage improvements.

Additional improvements along Stadium Road are proposed, a waiver for Limekiln Road is requested. The school district prefers not to encourage pedestrian traffic to Limekiln Road.

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Web Site: www.cowanassociates.com

6. Section 312-39.D.2 Requiring basin bottom to be 2% longitudinal slope.

Due to stormwater management design requirements (dry extended basin), a waiver is requested.

7. Section 312-39.G. Requiring storm pipes to be minimum 15-inch diameter.

Due to the stormwater management design requirements, smaller pipe size is requested.

8. Section 296-9.J. Requiring permeability rate of 1×10^{-7} cm/SEC or less.

Based on on-site soils testing and analysis, infiltration is possible on this site.

9. Section 296-9.K Requiring ground water recharge not be permitted in limestone geology.

Based on site soils testing and analysis, groundwater recharge is possible on this site.

Very truly yours,

COWAN ASSOCIATES, INC.



Scott P. McMackin, P.E.

SPM:aew