PRELIMINARY/FINAL LAND DEVELOPMENT PLANS
AMERICAN NATURAL
SOUTH FAYETTE TOWNSHIP, ALLEGHENY COUNTY, PENNSYLVANIA
SEPTEMBER 16, 2019

PROJECT TEAM

OWNER

DORTHY HOLDINGS LLC
100 RYAN COURT, SUITE 21
PITTSBURGH, PA 15205
PH: (212) 359-4485
CONTACT: ANDREA FEINSTEIN

CIVIL ENGINEER & LANDSCAPE ARCHITECT

CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
333 BALDWIN ROAD
PITTSBURGH, PA 15205-9702
PH: (412) 429-2324
FX: (412) 429-2114
CONTACT: ADELE M. BEAVES, P.E.

LIST OF CONTACTS

ELECTRIC SERVICE

FIRST ENERGY
701 WEST NEW CASTLE STREET
ZELIENOPLE, PA 16063
CONTACT: LISA K. NETWICK
(724) 453-3438

TELEPHONE/CABLE SERVICE

VERIZON PENNSYLVANIA LLC
40 S MERCER STREET
NEW CASTLE, PA 16101
CONTACT: ARIN BIONDI
(724) 652-4175

SANITARY TREATMENT

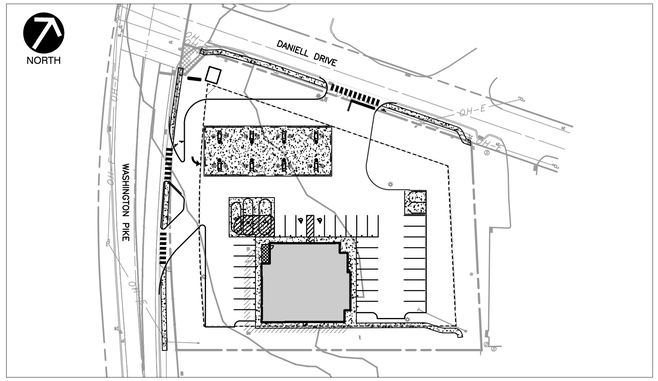
MUNICIPAL AUTHORITY TOWNSHIP SOUTH FAYETTE
900 PRESTO SYGAN ROAD
BRIDGEVILLE, PA 15017
JERRY D. BROWN
(412) 257-5100

GAS SERVICE

PEOPLES GAS
375 NORTH SHORE DRIVE
PITTSBURGH, PA 15212
CONTACT: TIM VITULLO
(878) 645-6892

WATER SERVICE

PA AMERICAN WATER
300 GALLEY ROAD
McMURRAY, PA 15317
CONTACT: TIFFANY REED
(724) 873-3664



SITE MAP
SCALE: 1"=60'

SOUTH FAYETTE TOWNSHIP ZONING INFORMATION	
SITE ZONING CLASSIFICATION:	C-2 HIGHWAY COMMERCIAL DISTRICT
COUNTY LOT AND BLOCK NUMBER:	322-E-11

OFF-STREET LOADING	
REQUIRED:	UNDER 40,000 SF GROSS FLOOR AREA: NONE REQUIRED
PROVIDED:	1 SPACES

AREA AND BULK REQUIREMENTS		
REGULATION	REQUIRED	PROPOSED
MINIMUM LOT AREA	20,000 SF	54,601 SF
MINIMUM LOT WIDTH	60 LF	> 60 LF
MAXIMUM IMPERVIOUS SURFACE COVERAGE	70%	62%
SETBACK – FRONT	25 FEET	> 25 FEET
SETBACK – REAR	40 FEET	N/A CORNER LOT
SETBACK – SIDE	20 FEET	> 20 FEET
SPECIAL YARD REQUIREMENTS – CORNER LOT	WASHINGTON PIKE – FRONT YARD 25 FEET DANIELL DRIVE – FRONT YARD 25 FEET EAST AND SOUTH SIDE YARDS 20'	> 25 FEET > 25 FEET > 20 FEET
PERMITTED PROJECTIONS	PROJECTIONS INTO ANY REQUIRED YARD	N/A NO PROJECTIONS INTO SETBACKS
PRINCIPAL STRUCTURE MAX HEIGHT	80 FEET	20 FEET
ACCESSORY STRUCTURE MAXIMUM HEIGHT	20 FEET	18 FEET 8 INCHES
HEIGHT EXCEPTIONS	PER 240-101	N/A

PARKING REQUIREMENTS				
BUILDING USE AREA	BUILDOUT BUILDING AREA GSF	SOUTH FAYETTE TOWNSHIP ZONING ORDINANCE SECTION 240-112: OFF-STREET PARKING REQUIREMENTS	PARKING SPACES REQUIRED	PARKING SPACES PROVIDED
RETAIL BUSINESS	4,300	ONE SPACE FOR EVERY 250 SQUARE FEET OF GROSS AREA	18	20
FAST FOOD RESTAURANT	500	ONE SPACE PER 50 SQUARE FEET OF NET FLOOR AREA PLUS ONE SPACE PER EMPLOYEE ON PEAK SHIFT	13	13
TOTAL	N/A	N/A	31	33

On December 17, 2019 a variance was granted by the South Fayette Township Director of Planning and Engineering to Ordinance 160, Article V, Section 502, Subsection B, to allow for new construction within an identified floodplain area.

On December 18, 2019 a variance was granted by the South Fayette Township Zoning Hearing Board to Ordinance 240, Article XVII, Section 111, Subsection b, to allow for larger widths at the street line and curbline for the ingress and egress locations along Washington Pike and Daniell Drive.

HANDICAP PARKING REQUIREMENTS				
BUILDING USE AREA	BUILDOUT BUILDING AREA GSF	SOUTH FAYETTE TOWNSHIP ZONING ORDINANCE SECTION 240-112: OFF-STREET PARKING REQUIREMENTS	PARKING SPACES REQUIRED	PARKING SPACES PROVIDED
TOTAL HANDICAPPED PARKING	—	26-50 SPACES	2	2*
HANDICAPPED VAN PARKING	—	1 IN 6 HANDICAPED SPACES	1	1*

*ADA PARKING IS ACCOUNTED FOR IN THE RETAIL BUSINESS/FAST FOOD RESTAURANT TOTAL PARKING SPACES PROVIDED.

GENERAL NOTES

1. MAXIMUM LOT COVERAGE: 70% IMPERVIOUS
2. PROVIDED LOT COVERAGE: 62% IMPERVIOUS
3. EXISTING LOT COVERAGE: 89% IMPERVIOUS

STATE HIGHWAY NOTE

ACCESS TO A STATE HIGHWAY SHALL ONLY BE AUTHORIZED BY A HIGHWAY OCCUPANCY PERMIT ISSUED BY THE PENNSYLVANIA DEPARTMENT OF TRANSPORTATION (PENNDOT) UNDER §420 OF THE STATE HIGHWAY LAW, P.L. 1242, NO. 428 OF JUNE 1, 1945, 36 P.S. §670.420, THE COUNTY OF ALLEGHENY OR OTHER AUTHORITY WHICH MAY HAVE JURISDICTION OVER THE ROAD, AND A PERMIT ISSUED BY THE MUNICIPALITY PURSUANT TO THE TOWNSHIP ORDINANCES.

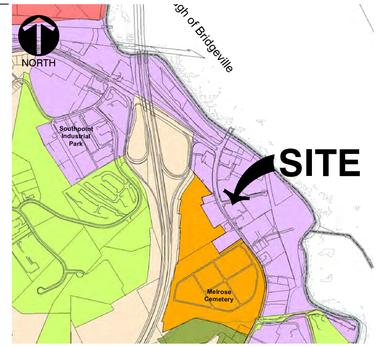
On _____ a modification was granted by the South Fayette Township Board of Commissioners to Ordinance 215, Article VII, Section 63, Subsection B, to allow the use of steel rebar as property corners.

Reviewed by the South Fayette Township Planning Commission on this _____ day of _____, 20___.

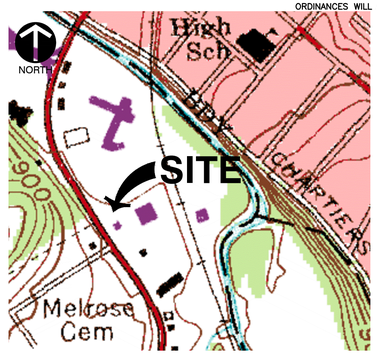
_____ _____
Secretary *Chairperson*

Owner Signature: _____ *Date:*_____

Contractor Signature: _____ *Date:*_____



ZONING MAP
SOUTH FAYETTE TOWNSHIP
1"=1000'



U.S.G.S. MAP
U.S.G.S. 7.5 MIN. TOPOGRAPHIC MAP,
BRIDGEVILLE QUADRANGLE, PA, DATED: 1993
1"=500'



VICINITY MAP
BASE IMAGE FROM BING MAPS
ACCESSED MARCH 2019
1"=500'

Sheet List Table

Sheet Number	Sheet Title
C000	COVER SHEET
C001	GENERAL NOTES
C100	EXISTING CONDITIONS AND DEMO PLAN
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C300	GRADING PLAN
C301	SIDEWALK GRADING PLAN
C400	POST-CONSTRUCTION STORMWATER MANAGEMENT PLAN
C401	STORM SEWER PROFILES
C402	POST-CONSTRUCTION STORMWATER MANAGEMENT NOTES
C500	UTILITY PLAN
C501	SANITARY SEWER PROFILE
C600	SITE LIGHTING PLAN
C601	SITE LIGHTING DETAILS
C700	LANDSCAPE PLAN
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C800	CONSTRUCTION DETAILS
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C803	CONSTRUCTION DETAILS
C804	CONSTRUCTION DETAILS
C805	CONSTRUCTION DETAILS
C900	E&S CONTROL PLAN
C901	E&S CONTROL NOTES
C902	E&S CONTROL DETAILS
C903	E&S CONTROL DETAILS

THESE PLANS AS SUBMITTED ARE INTENDED TO COMPLY WITH ALL REGULATIONS, STANDARDS, AND ORDINANCES OF THE TOWNSHIP OF SOUTH FAYETTE. ANY DEVIATION FROM THOSE REGULATIONS, STANDARDS, AND ORDINANCES IS UNINTENTIONAL, AND AS SUCH IN THE EVENT THAT A CONFLICT IS DISCOVERED IT IS UNDERSTOOD AND AGREED THAT THE TOWNSHIP OF SOUTH FAYETTE'S REGULATIONS, STANDARDS, AND ORDINANCES WILL APPLY.

Reviewed by the South Fayette Township Board of Commissioners on this _____ day of _____, 20___.

_____ _____
Secretary *Chairperson*

I certify that this plan meets all engineering and design requirements of the applicable ordinances of the South Fayette Township, except as departures have been authorized by the appropriate officials of the municipality.

_____ _____
Date *Name*

_____
Registration number

REVISION RECORD

NO	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
333 Baldwin Road · Pittsburgh, PA 15205
412-429-2324 · 800-365-2324
www.cecinc.com

DOROTHY HOLDINGS LLC
SOUTH FAYETTE AMERICAN NATURAL
SOUTH FAYETTE TOWNSHIP
ALLEGHENY COUNTY, PENNSYLVANIA

COVER SHEET

DRAWN BY:	JTL
CHECKED BY:	ARG
DATE:	SEPTEMBER 2019
DWG SCALE:	AS SHOWN
PROJECT NO:	192-386
APPROVED BY:	AMB

DRAWING NO.:
C000

PROFESSIONAL ENGINEER ANDREW R. GUILLONE COMMONWEALTH OF PENNSYLVANIA

P:\2019\192-386_CADD\Dwg\C001\192386-C001-C000.dwg\COVER SHEET\ LS:(9/2/2020 - dtoma) - LP: 9/4/2020 11:45 AM

PROJECT GENERAL NOTES

1. CONTRACTOR SHALL REFER TO OTHER PLANS WITHIN THIS CONSTRUCTION SET FOR OTHER PERTINENT INFORMATION. IT IS NOT THE ENGINEER'S INTENT THAT ANY SINGLE PLAN SHEET IN THIS SET OF DOCUMENTS FULLY DEPICT ALL WORK ASSOCIATED WITH THE PROJECT.
2. EXISTING CONDITIONS AS DEPICTED ON THESE PLANS ARE GENERAL AND ILLUSTRATIVE IN NATURE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO EXAMINE THE SITE AND BE FAMILIAR WITH EXISTING CONDITIONS PRIOR TO BIDDING ON THIS PROJECT. IF CONDITIONS ENCOUNTERED DURING EXAMINATION ARE SIGNIFICANTLY DIFFERENT THAN THOSE SHOWN, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.
3. THE CONTRACTOR AND SUBCONTRACTORS SHALL BE RESPONSIBLE FOR COMPLYING WITH APPLICABLE FEDERAL, STATE AND LOCAL REQUIREMENTS, TOGETHER WITH EXERCISING PRECAUTIONS AT ALL TIMES FOR THE PROTECTION OF PERSONS (INCLUDING EMPLOYEES) AND PROPERTY. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND SUBCONTRACTORS TO INITIATE, MAINTAIN AND SUPERVISE ALL SAFETY REQUIREMENTS, PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK.
4. THE CONTRACTOR SHALL INDEMNIFY AND HOLD HARMLESS THE OWNER AND OWNER'S REPRESENTATIVE FOR ANY AND ALL INJURIES AND/OR DAMAGES TO PERSONNEL, EQUIPMENT AND/OR EXISTING FACILITIES OCCURRING IN THE COURSE OF THE DEMOLITION AND CONSTRUCTION DESCRIBED IN THE PLANS AND SPECIFICATIONS.
5. THE CONTRACTOR SHALL COMPLY WITH ALL LOCAL CODES, OBTAIN ALL APPLICABLE PERMITS, BONDS, AND PAY ALL REQUIRED FEES PRIOR TO BEGINNING WORK.
6. ALL WORK AND MATERIALS TO COMPLY WITH ALL SPECIFICATIONS PROVIDED AND TO ALL LOCAL, COUNTY, STATE, AND FEDERAL REGULATIONS AND CODES; AND O.S.H.A. STANDARDS.
7. ALL WORK PERFORMED BY THE CONTRACTOR SHALL CONFORM TO THE LATEST REGULATIONS OF THE AMERICANS WITH DISABILITIES ACT.
8. CONTRACTOR SHALL REFER TO OTHER PLANS WITHIN THIS CONSTRUCTION SET FOR OTHER PERTINENT INFORMATION. IT IS NOT THE ENGINEER'S INTENT THAT ANY SINGLE PLAN SHEET IN THIS SET OF DOCUMENTS FULLY DEPICT ALL WORK ASSOCIATED WITH THE PROJECT.
9. DESIGNATE AND MAINTAIN ON-SITE A TRAINED COMPETENT PERSON FOR ALL EXCAVATION WORK WHO SHALL BE ON CALL 24-HOURS-PER-DAY-7-DAYS-PER-WEEK IN CASE OF EMERGENCY. PROVIDE 24-HOUR CONTACT INFORMATION FOR THE TRAINED COMPETENT PERSON PRIOR TO ANY WORK.
10. CONTRACTOR TO COMPLY WITH ALL APPLICABLE PENNDOT, TOWNSHIP, UTILITY COMPANY, AND PROJECT SPECIFIC SPECIFICATIONS.
11. EXISTING UTILITIES SHOWN ARE LOCATED ACCORDING TO THE INFORMATION AVAILABLE TO THE ENGINEER AT THE TIME OF THE TOPOGRAPHIC SURVEY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR THE ENGINEER. GUARANTEE IS NOT MADE THAT ALL EXISTING UNDERGROUND UTILITIES ARE SHOWN OR THAT THE LOCATION OF THOSE SHOWN ARE ENTIRELY ACCURATE. FINDING THE ACTUAL LOCATION OF ANY EXISTING UTILITIES IS THE CONTRACTOR'S RESPONSIBILITY AND SHALL BE COMPLETED BEFORE ANY WORK IN THE VICINITY. FURTHERMORE, THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES DUE TO THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES. THE OWNER OR ENGINEER WILL ASSUME NO LIABILITY FOR ANY DAMAGES SUSTAINED OR COST INCURRED BECAUSE OF THE OPERATIONS IN THE VICINITY OF EXISTING UTILITIES OR STRUCTURES, NOR FOR TEMPORARY BRACING AND SHORING OF SAME. IF IT IS NECESSARY TO SHORE, BRACE, SWING OR RELOCATE A UTILITY, THE UTILITY COMPANY OR DEPARTMENT AFFECTED SHALL BE CONTACTED AND THEIR PERMISSION OBTAINED REGARDING THE METHOD TO USE FOR SUCH WORK.
12. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE VARIOUS UTILITY COMPANIES WHICH MAY HAVE BURIED OR AERIAL UTILITIES WITHIN OR NEAR THE CONSTRUCTION AREA BEFORE COMMENCING WORK. THE CONTRACTOR SHALL PROVIDE 3 WORKING DAYS MINIMUM NOTICE TO ALL UTILITY COMPANIES PRIOR TO BEGINNING CONSTRUCTION. A LIST OF THE UTILITY COMPANIES WHICH THE CONTRACTOR MUST CALL BEFORE COMMENCING WORK IS PROVIDED ON THE COVER OF THESE CONSTRUCTION PLANS. THIS LIST SERVES AS A GUIDE ONLY AND IS NOT INTENDED TO LIMIT THE UTILITY COMPANIES WHICH THE CONTRACTOR MAY WISH TO NOTIFY.
13. THE CONTRACTOR SHALL HAVE AVAILABLE AT THE JOB SITE AT ALL TIMES, ONE COPY OF THE CONSTRUCTION DOCUMENTS INCLUDING PLANS, SPECIFICATIONS, SPECIAL CONDITIONS, AND COPIES OF ANY REQUIRED CONSTRUCTION PERMITS.
14. ANY DISCREPANCIES ON THE DRAWINGS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER AND ENGINEER BEFORE COMMENCING WORK. NO FIELD CHANGES OR DEVIATIONS FROM DESIGN ARE TO BE MADE WITHOUT PRIOR APPROVAL OF THE OWNER AND NOTIFICATION TO THE ENGINEER.
15. CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES, STRUCTURES, AND FEATURES TO REMAIN. ANY ITEMS TO REMAIN THAT HAVE BEEN DISTURBED OR DAMAGED AS A RESULT OF CONSTRUCTION SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR AT CONTRACTOR'S EXPENSE.
16. ALL DEMOLITION WASTE AND CONSTRUCTION DEBRIS SHALL BECOME THE PROPERTY OF THE CONTRACTOR UNLESS OTHERWISE DESIGNATED AND SHALL BE REMOVED BY THE CONTRACTOR AND DISPOSED OF OFFSITE IN A STATE APPROVED WASTE SITE AND IN ACCORDANCE WITH ALL LOCAL AND STATE CODES AND PERMIT REQUIREMENTS. TAKE CARE TO PROTECT UTILITIES THAT ARE TO REMAIN. REPAIR DAMAGE ACCORDING TO THE APPROPRIATE UTILITY COMPANY STANDARDS AND AT THE CONTRACTOR'S EXPENSE.
17. THE BURNING OF CLEARED MATERIAL AND DEBRIS SHALL NOT BE ALLOWED UNLESS CONTRACTOR OBTAINS PRIOR WRITTEN AUTHORIZATION FROM THE LOCAL AUTHORITIES.
18. ASBESTOS OR HAZARDOUS MATERIALS ARE NOT EXPECTED TO BE ENCOUNTERED DURING THE COURSE OF WORK OUTLINED HEREIN. IF FOUND ON SITE, SUCH MATERIALS SHALL BE REMOVED BY A LICENSED HAZARDOUS MATERIALS CONTRACTOR. CONTRACTOR SHALL NOTIFY OWNER IMMEDIATELY IF HAZARDOUS MATERIALS ARE ENCOUNTERED.
19. CONTRACTOR SHALL PROTECT ALL CORNER PINS, MONUMENTS, PROPERTY CORNERS AND BENCHMARKS DURING CONSTRUCTION ACTIVITIES. IF DISTURBED, CONTRACTOR SHALL HAVE DISTURBED ITEMS RESET BY A LICENSED SURVEYOR AT NO ADDITIONAL COST TO THE OWNER.
20. CONTRACTOR SHALL PROVIDE AND MAINTAIN TRAFFIC CONTROL MEASURES IN ACCORDANCE WITH STATE DEPARTMENT OF TRANSPORTATION REGULATIONS AND AS REQUIRED BY LOCAL AGENCIES WHEN WORKING IN AND/OR ALONG STREETS, ROADS, HIGHWAYS, ETC. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN APPROVAL AND COORDINATE WITH LOCAL AND/OR STATE AGENCIES REGARDING THE NEED, EXTENT AND LIMITATIONS ASSOCIATED WITH INSTALLING AND MAINTAINING TRAFFIC CONTROL MEASURES.
21. NO TREES SHALL BE REMOVED, NOR VEGETATION DISTURBED BEYOND THE LIMITS OF CONSTRUCTION WITHOUT THE EXPRESS WRITTEN APPROVAL OF THE OWNER'S REPRESENTATIVE.
22. ALL COPIES OF COMPACTION, CONCRETE AND OTHER REQUIRED TEST RESULTS ARE TO BE SENT TO THE OWNER AND DESIGN ENGINEER OF RECORD DIRECTLY FROM THE TESTING AGENCY.
23. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DOCUMENTING AND MAINTAINING AS-BUILT INFORMATION WHICH SHALL BE RECORDED AS CONSTRUCTION PROGRESSES OR AT THE COMPLETION OF APPROPRIATE INTERVALS AND SHALL BE RESPONSIBLE FOR PROVIDING AS-BUILT DRAWINGS TO THE OWNER FOR THE PURPOSE OF CERTIFICATION TO JURISDICTIONAL AGENCIES AS REQUIRED. ALL AS-BUILT DATA SHALL BE COLLECTED BY A STATE OF PENNSYLVANIA PROFESSIONAL LAND SURVEYOR WHOSE SERVICES ARE ENGAGED BY THE CONTRACTOR.
24. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THAT THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS DO NOT CONFLICT WITH ANY KNOWN EXISTING OR OTHER PROPOSED IMPROVEMENTS. IF ANY CONFLICTS ARE DISCOVERED, THE CONTRACTOR SHALL NOTIFY THE OWNER PRIOR TO INSTALLATION OF ANY PORTION OF THE SITE WORK THAT WOULD BE AFFECTED. FAILURE TO NOTIFY OWNER OF AN IDENTIFIABLE CONFLICT PRIOR TO PROCEEDING WITH INSTALLATION RELIEVES OWNER OF ANY OBLIGATION TO PAY FOR A RELATED CHANGE ORDER.

LAYOUT GENERAL NOTES

1. THE CONTRACTOR SHALL CHECK EXISTING GRADES, DIMENSIONS, AND INVERTS IN THE FIELD AND REPORT ANY DISCREPANCIES TO THE OWNER'S REPRESENTATIVE PRIOR TO BEGINNING WORK.
2. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF ALL EXISTING UTILITIES. TAKE CARE TO PROTECT UTILITIES THAT ARE TO REMAIN. RELOCATE EXISTING UTILITIES AS INDICATED, OR AS NECESSARY FOR CONSTRUCTION.
3. PROVIDE A SMOOTH TRANSITION BETWEEN EXISTING PAVEMENT AND NEW PAVEMENT. FIELD ADJUSTMENT OF FINAL GRADES MAY BE NECESSARY. INSTALL ALL UTILITIES, PRIOR TO INSTALLATION OF PAVED SURFACES.
4. THE CONTRACTOR SHALL PROTECT ALL TREES TO REMAIN IN ACCORDANCE WITH THE SPECIFICATIONS.
5. SITE WORK CONCRETE WALKS AND PADS SHALL HAVE A BROOM FINISH TO ALL SURFACES AND SHALL BE A MINIMUM OF 4,000 PSI @ 28 DAYS, AIR-ENTRAINMENT OF (6% +/- 1%), MAXIMUM SLUMP OF 4" +/- 1" UNLESS OTHERWISE NOTED. IF HRWR IS UTILIZED, MAXIMUM SLUMP SHALL BE 8" WITH A CONFIRMED SLUMP OF 2" TO 4" PRIOR TO ADDITION OF HRWR. MAXIMUM WATER/CEMENT RATIO OF 0.47. NO WATER OR OTHER ADDITIVES SHALL BE MIXED ON-SITE.
6. ALL DAMAGE TO EXISTING PAVEMENT TO REMAIN WHICH RESULTS FROM THE CONTRACTOR'S OPERATIONS SHALL BE REPLACED WITH LIKE MATERIALS AT THE CONTRACTOR'S EXPENSE.
7. SITE DIMENSIONS SHOWN ARE TO THE FACE OF CURB, OR EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.
8. REFER TO THE ARCHITECTURAL PLANS FOR EXACT LOCATIONS AND DIMENSIONS OF VESTIBULES, SLOPE PAVING, SIDEWALKS, EXIT PORCHES, TRUCK DOCKS, PRECISE BUILDING DIMENSIONS, EXACT BUILDING UTILITY ENTRANCE LOCATIONS, AND OTHER BUILDING APPURTENANCES. VERIFY DIMENSIONS AND LOCATIONS SHOWN ON THE ARCHITECTURAL PLANS AND NOTIFY THE OWNER AND ENGINEER OF ANY CONFLICTS OR DISCREPANCIES PRIOR TO CONSTRUCTION. REFERENCE BUILDING CONSTRUCTION PLANS FOR EXACT LOCATION OF ALL UTILITY CONNECTIONS TO BUILDINGS, DOOR/STEP LOCATIONS AND TRUCK WELL RETAINING WALLS AND NOTIFY THE OWNER AND ENGINEER OF ANY CONFLICTS OR DISCREPANCIES PRIOR TO CONSTRUCTION.
9. THIS SITE LAYOUT IS SPECIFIC TO THE APPROVALS NECESSARY FOR CONSTRUCTION IN ACCORDANCE WITH SOUTH FAYETTE TOWNSHIP. NO CHANGES TO THE SITE LAYOUT ARE ALLOWED WITHOUT THE WRITTEN APPROVAL OF THE ENGINEER. CHANGES MADE TO THE SITE LAYOUT WITHOUT APPROVAL ARE SOLELY THE RESPONSIBILITY OF THE CONTRACTOR. SUCH CHANGES INCLUDE, BUT ARE NOT LIMITED TO, INCREASED IMPERVIOUS PAVEMENT, ADDITION / DELETION OF PARKING SPACES, MOVEMENT OF CURB LINES, CHANGES TO DRAINAGE STRUCTURES AND PATTERNS, LANDSCAPING, ETC.
10. REQUIRED FORMULA SIGHT DISTANCES ARE BASED ON PENNDOT CRITERIA AND DETERMINED BY THE LEGAL SPEED LIMIT AND GRADE OF THE ROAD.
11. INSTALL PIPE BOLLARDS IN TRAFFIC AND LOADING AREAS AS REQUIRED TO PROTECT PROPOSED IMPROVEMENTS, INCLUDING BUILDING CORNERS, RECEIVING AREAS, HYDRANTS, TRANSFORMERS, METERS, GENERATORS, SWITCH GEARS, COMPACTORS, STEPS, AND RAILINGS AS NECESSARY OR AS DIRECTED BY THE OWNER.

GRADING GENERAL NOTES

1. REFER TO AND FOLLOW THE RECOMMENDATIONS OF THE SUBSURFACE INVESTIGATION REPORT PREPARED FOR THIS PROJECT BY THE GEOTECHNICAL ENGINEER. CONTRACTOR TO REFER TO THE SUBSURFACE INVESTIGATION REPORT FOR ALL CONSTRUCTION DETAILS RELATED TO CUT AND FILL SLOPE AND STORMWATER DETENTION BASIN EMBANKMENTS. ENVIRONMENTAL OR GEOTECHNICAL REPORTS PROVIDED BY THE OWNER OR ENGINEER ARE FOR INFORMATION ONLY AND SHOULD NOT BE RELIED ON AND THE CONTRACTOR MUST MAKE HIS OWN INDEPENDENT VERIFICATION AS HE DETERMINES IS NECESSARY. CONDUCT ADDITIONAL TESTS DETERMINED NECESSARY FOR CONSTRUCTION OF THE IMPROVEMENTS AT NO ADDITIONAL COST TO THE OWNER.
2. CONTRACTOR SHALL STRICTLY ADHERE TO THE EROSION CONTROL PLAN PREPARED FOR THIS PROJECT.
3. EARTHWORK SHALL INCLUDE CLEARING AND GRUBBING, STRIPPING AND STOCKPILING TOPSOIL, MASS GRADING, EXCAVATION, FILLING, UNDERCUT AND REPLACEMENT, IF REQUIRED, AND COMPACTION.
4. CLEARING LIMITS SHALL BE PHYSICALLY MARKED IN THE FIELD.
5. CONTRACTOR TO BACKFILL UNDERCUT AREAS WITH SUITABLE MATERIAL AND COMPACT AS RECOMMENDED BY THE GEOTECHNICAL ENGINEER.
6. PLACE TOPSOIL OVER THE SUBGRADE OF UNPAVED DISTURBED AREAS TO A DEPTH INDICATED ON THE LANDSCAPE PLANS (6" MINIMUM).
7. PRIOR TO BITUMINOUS PAVEMENT CONSTRUCTION VERIFY 2% MAXIMUM SLOPE FOR ALL ADA AREAS. NOTIFY THE OWNER IF SLOPES IN ADA AREAS EXCEED 2%. PROVIDE AN AS-BUILT SURVEY SEALED BY A REGISTERED SURVEYOR OF ALL ADA SPACES AND ROUTES.
8. TRANSITION ALL TEMPORARY PAVING OR GRADE CHANGES IN VEHICULAR OR PEDESTRIAN TRAVEL WAYS TO PROVIDE A SMOOTH TRAVEL WAY AND AVOID TRIP HAZARDS.
9. ALL SLOPES SHALL BE 2:1 (HORIZONTAL:VERTICAL) MAXIMUM UNLESS NOTED OTHERWISE.
10. ALL AREAS NOT PAVED SHALL BE STABILIZED IN ACCORDANCE WITH THE EROSION CONTROL PLAN, UNLESS NOTED OTHERWISE.
11. CONTRACTOR TO PROVIDE SUITABLE DISPOSAL SITE FOR EXCESS SOIL MATERIAL OF THE AMOUNT AGREED UPON AT THE PROJECT BIDDING STAGE. ALL EXCESS SOIL MATERIALS SHALL BECOME THE PROPERTY OF THE CONTRACTOR UNLESS OTHERWISE DESIGNATED. ALL EXCESS SOIL MATERIALS BEYOND THE AGREED UPON AMOUNT SHALL BE REMOVED BY THE CONTRACTOR AND DISPOSED OF OFFSITE AT NO ADDITIONAL COST TO THE OWNER IN ACCORDANCE WITH ALL LOCAL AND STATE CODES AND PERMIT REQUIREMENTS.
12. THE PROPOSED GRADING SHALL BE IN ACCORDANCE WITH THE PENNSYLVANIA DEPARTMENT OF TRANSPORTATION FORM 408, SECTION 206, LATEST EDITION.
13. FURNISH, INSTALL, AND MAINTAIN ALL EROSION AND SEDIMENT CONTROL FACILITIES IN ACCORDANCE WITH COUNTY CONSERVATION DISTRICT AND PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION STANDARDS AND REQUIREMENTS. INSTALL A ROCK CONSTRUCTION ENTRANCE AND KEEP SURFACED STREETS IN A CLEAN CONDITION AT ALL TIMES DURING CONSTRUCTION. ADHERE TO ALL TERMS & CONDITIONS AS OUTLINED IN THE GENERAL N.P.D.E.S. PERMIT FOR STORMWATER DISCHARGE ASSOCIATED WITH CONSTRUCTION ACTIVITIES. MAINTAIN A COPY OF THE EROSION AND SEDIMENTATION CONTROL PLAN ON SITE.
14. ALL EXCAVATION IS CONSIDERED UNCLASSIFIED. THE CONTRACTOR IS RESPONSIBLE FOR ALL MEANS, METHODS, AND MATERIALS OF CONSTRUCTION TO COMPLETE THE WORK. THE CONTRACTOR IS RESPONSIBLE FOR THE OFFSITE DISPOSAL OF ANY AND ALL EXCESS OR UNSUITABLE MATERIAL UNABLE TO BE PLACED ON SITE AND FOR IMPORTING ANY BORROW MATERIAL NECESSARY TO COMPLETE THE WORK.
15. ADJUST PROPOSED PAVEMENT AS NECESSARY TO ASSURE A SMOOTH FIT AND CONTINUOUS GRADE TO EXISTING PAVEMENT. ADJUST TOP ELEVATIONS OF EXISTING UTILITY STRUCTURES AND OTHER EXISTING AT-GRADE STRUCTURES TO REMAIN AS NECESSARY TO PROPOSED FINISHED GRADE AND PAVEMENT ELEVATIONS.
16. ADJUST GRADES AS NECESSARY TO ASSURE POSITIVE DRAINAGE AWAY FROM BUILDINGS AND TOWARD EXISTING OR PROPOSED STORM SEWER STRUCTURES FOR ALL PAVED AND UNPAVED AREAS. ADJUST GRADES AND INLET TOP ELEVATIONS AS NECESSARY TO PROVIDE POSITIVE DRAINAGE.
17. OVEREXCAVATE EXISTING FILL MATERIAL CONTAINING ORGANIC MATERIAL AS DIRECTED BY THE GEOTECHNICAL ENGINEER AND REPLACE WITH COMPACTED SUITABLE FILL.

UTILITY GENERAL NOTES

1. ALL PROPOSED UTILITY LINES AND EXTENSIONS ARE TO BE CONSTRUCTED IN ACCORDANCE WITH ALL APPLICABLE UTILITY COMPANY SPECIFICATIONS. ALL UTILITY DISCONNECTION, REMOVAL, RELOCATION, CUTTING, CAPPING AND/OR ABANDONMENT SHALL BE COORDINATED WITH THE APPROPRIATE UTILITY COMPANY OR AGENCY. UTILITY CONTACTS ARE LISTED ON THE COVER SHEET.
2. THE CONTRACTOR IS PARTICULARLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF THE EXISTING UTILITIES SHOWN HEREON IS BASED ON TOPOGRAPHIC SURVEYS AND RECORD DRAWINGS. THE CONTRACTOR SHALL NOT RELY UPON THIS INFORMATION AS BEING EXACT OR COMPLETE. IF UNCHARTED UTILITIES BE ENCOUNTERED DURING EXCAVATION OPERATIONS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER AS SOON AS POSSIBLE FOR INSTRUCTIONS. THE CONTRACTOR SHALL CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION AND REQUEST FIELD VERIFICATION OF UTILITY LOCATIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO RELOCATE EXISTING UTILITIES CONFLICTING WITH IMPROVEMENTS SHOWN HEREON IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS GOVERNING SUCH OPERATIONS.
3. THE CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
4. MAINTAIN MINIMUM 10-FOOT HORIZONTAL AND 18-INCH MINIMUM VERTICAL SEPARATION BETWEEN SANITARY SEWER AND WATER SUPPLY LINE, UNLESS OTHERWISE INDICATED.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE SEQUENCING OF CONSTRUCTION FOR ALL UTILITY LINES SO THAT WATER LINES, GAS LINES, AND UNDERGROUND ELECTRIC DO NOT CONFLICT WITH SANITARY SEWERS OR STORM SEWERS. INSTALL UTILITIES PRIOR TO PAVEMENT CONSTRUCTION.
6. BEFORE INSTALLATION OF STORM OR SANITARY SEWER, OR OTHER UTILITY, THE CONTRACTOR SHALL VERIFY ALL CROSSINGS, BY EXCAVATION WHERE NECESSARY, AND INFORM THE OWNER AND THE ENGINEER OF ANY CONFLICTS. THE ENGINEER WILL BE HELD HARMLESS IN THE EVENT HE IS NOT NOTIFIED OF DESIGN CONFLICTS PRIOR TO CONSTRUCTION.
7. ALL TRENCH SPOILS SHALL BECOME THE PROPERTY OF THE CONTRACTOR UNLESS OTHERWISE DESIGNATED. TRENCH SPOILS SHALL BE REMOVED BY THE CONTRACTOR AND DISPOSED OF OFF SITE AT NO ADDITIONAL COST TO THE OWNER IN ACCORDANCE WITH ALL LOCAL AND STATE CODES AND PERMIT REQUIREMENTS.
8. ADJUST ALL EXISTING UTILITY SURFACE FEATURES INCLUDING BUT NOT LIMITED TO CASTINGS, VALVE BOXES, PEDESTALS, CLEANOUTS, ETCETERA. TO MATCH PROPOSED FINISHED GRADES, UNLESS OTHERWISE INDICATED. AVOID LOCALIZED DEPRESSIONS.
9. THE CONTRACTOR SHALL PROVIDE RECORD DRAWINGS OF ALL IMPROVEMENTS. INCLUDE AT LEAST TWO DIMENSIONS TO EACH VALVE AND MANHOLE FROM KNOWN SITE FEATURES. DRAWINGS SHALL INCLUDE HORIZONTAL AND VERTICAL INFORMATION ON ALL NEW UTILITIES AS WELL AS EXISTING UTILITIES ENCOUNTERED.
10. CONTRACTOR SHALL COORDINATE WITH EACH UTILITY PROVIDER REGARDING INSTALLATION OF UTILITY CONDUITS FOR TELEPHONE, ELECTRIC, GAS, IRRIGATION, ETCETERA. CONTRACTOR SHALL PROVIDE ALL MATERIALS AND LABOR FOR THE TRENCHING AND CONDUIT INSTALLATION. COST FOR INSTALLATION AND MATERIALS SHALL BE INCLUDED IN VARIOUS BID ITEMS.
11. NOTIFY THE UTILITY OR AUTHORITY'S INSPECTORS 72 HOURS BEFORE CONNECTING TO ANY EXISTING LINE.
12. ALL CONCRETE FOR ENCASEMENTS SHALL HAVE A MINIMUM 28 DAY COMPRESSION STRENGTH AT 3000 P.S.I.
13. SUBMIT SHOP DRAWINGS AND OTHER PRODUCT SUBMITTALS TO UTILITY COMPANIES PRIOR TO ORDERING MATERIALS. APPROVAL OF ALL MATERIALS AND EQUIPMENT BY UTILITY COMPANIES IS REQUIRED PRIOR TO ORDERING AND DELIVERY OF MATERIALS TO THE SITE.
14. FURNISH AND INSTALL ALL MATERIALS IN ACCORDANCE WITH THE UTILITY COMPANY'S REGULATIONS, SPECIFICATIONS, STANDARD DETAILS UNLESS OTHERWISE NOTED ON THE PLANS.

REVISION RECORD

NO	DATE	DESCRIPTION

CEC
Civil & Environmental Consultants, Inc.
333 Baldwin Road · Pittsburgh, PA 15205
412-429-2324 · 800-365-2324
www.cecinc.com

DOROTHY HOLDINGS LLC
SOUTH FAYETTE AMERICAN NATURAL
SOUTH FAYETTE TOWNSHIP
ALLEGHENY COUNTY, PENNSYLVANIA

GENERAL NOTES

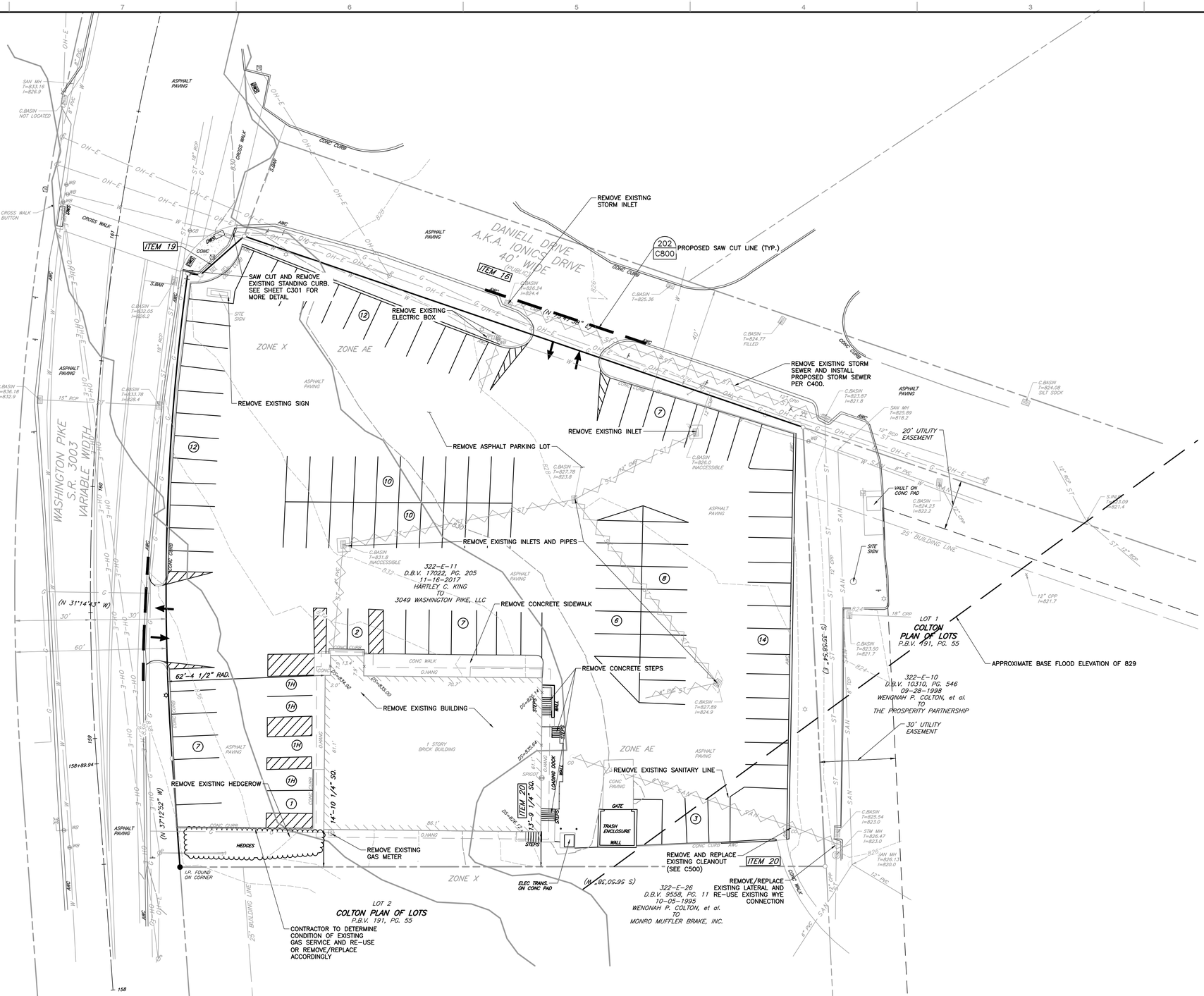
DATE:	SEPTEMBER 2019
DWG SCALE:	N/A
PROJECT NO:	192-386
DRAWN BY:	DRH
CHECKED BY:	ARG
APPROVED BY:	AMB

DRAWING NO.:
C001

COMMONWEALTH OF PENNSYLVANIA
REGISTERED
ANDREW R. GULLONE
PROFESSIONAL ENGINEER

P:\2019\192-386\-CADD\Dwg\CV01\192386-CV01-C000.dwg[GENERAL NOTES] LS(6/2/2020 - drawdy) - LP: 6/4/2020 11:45 AM

NORTH



LEGEND

- EXISTING INDEX CONTOUR
- EXISTING INTERMEDIATE CONTOUR
- EXISTING PROPERTY LINE
- EXISTING RIGHT-OF-WAY LINE
- EXISTING PAVEMENT
- EXISTING PAVEMENT MARKING
- EXISTING FLOODPLAIN BOUNDARY
- EXISTING OVERHEAD UTILITY
- EXISTING UTILITY POLE
- EXISTING STORM INLET
- EXISTING SANITARY MANHOLE
- EXISTING SANITARY LINE
- EXISTING WATERLINE
- SAW CUT LINE
- EXISTING PIPE TO BE REMOVED

REFERENCE

1. EXISTING CONTOURS DERIVED FROM A BARE-EARTH DIGITAL ELEVATION MODEL CONSTRUCTED FROM PAMAP LIDAR (LIGHT DETECTION AND RANGING) ELEVATION POINTS. TOPOGRAPHIC CONTOURS MAPPED AT AN INTERVAL OF 2 FEET; DEVELOPED BY PAMAP PROGRAM, PA DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES, BUREAU OF TOPOGRAPHIC AND GEOLOGIC SURVEY; DATED 2010.
2. SURVEY INFORMATION COMPLETED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC (CEC). DATED SEPTEMBER 2019. VERTICAL DATUM IS BASED UPON NAVD88, AS DETERMINED BY CEC USING SURVEY GRADE GPS MEASUREMENTS AND OPUS POST-PROCESSING.

ONE CALL SERIAL NO.: 20192403397-000

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

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SCALE IN FEET
0 20 40

REGISTERED PROFESSIONAL ENGINEER ANDREW R. GUILLONE PENNSYLVANIA

REVISION RECORD

NO	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
333 Baldwin Road · Pittsburgh, PA 15205
412-429-2324 · 800-365-2324
www.cecinc.com

DOROTHY HOLDINGS LLC
SOUTH FAYETTE AMERICAN NATURAL
SOUTH FAYETTE TOWNSHIP
ALLEGHENY COUNTY, PENNSYLVANIA

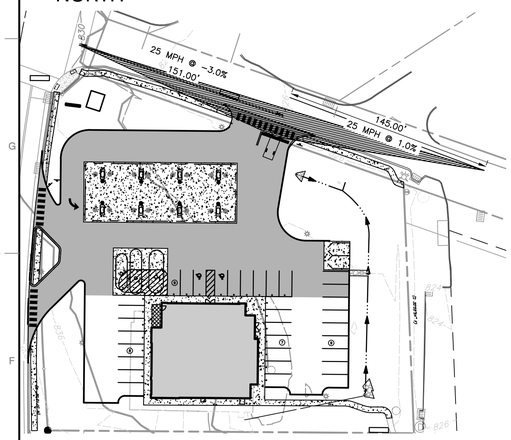
EXISTING CONDITIONS AND DEMO PLAN

DATE:	SEPTEMBER 2019
DRAWN BY:	JTL
DWG SCALE:	1" = 20'
CHECKED BY:	ARG
PROJECT NO:	192-386
APPROVED BY:	AMB

DRAWING NO.:
C100

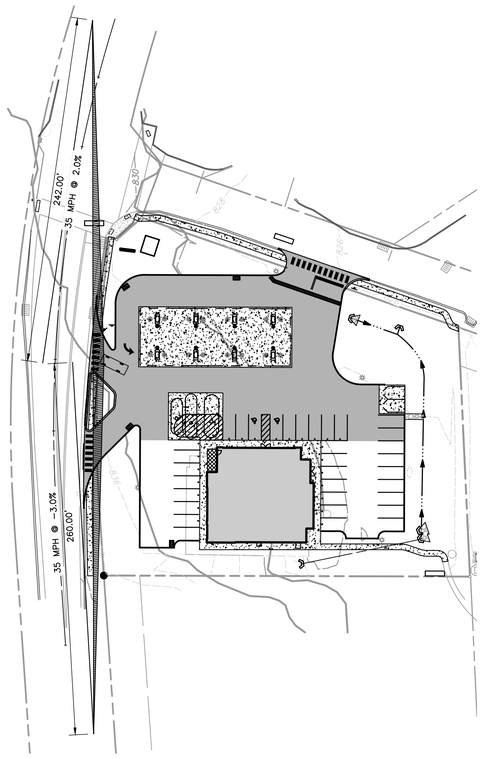
P:\2019\192-386\-CADD\Dwg\Civil\192386-Civil-C100.dwg[EXISTING CONDITIONS AND DEMO PLAN] LS:(6/2/2020 - dtorok) - LD: 6/4/2020 11:45 AM

NORTH



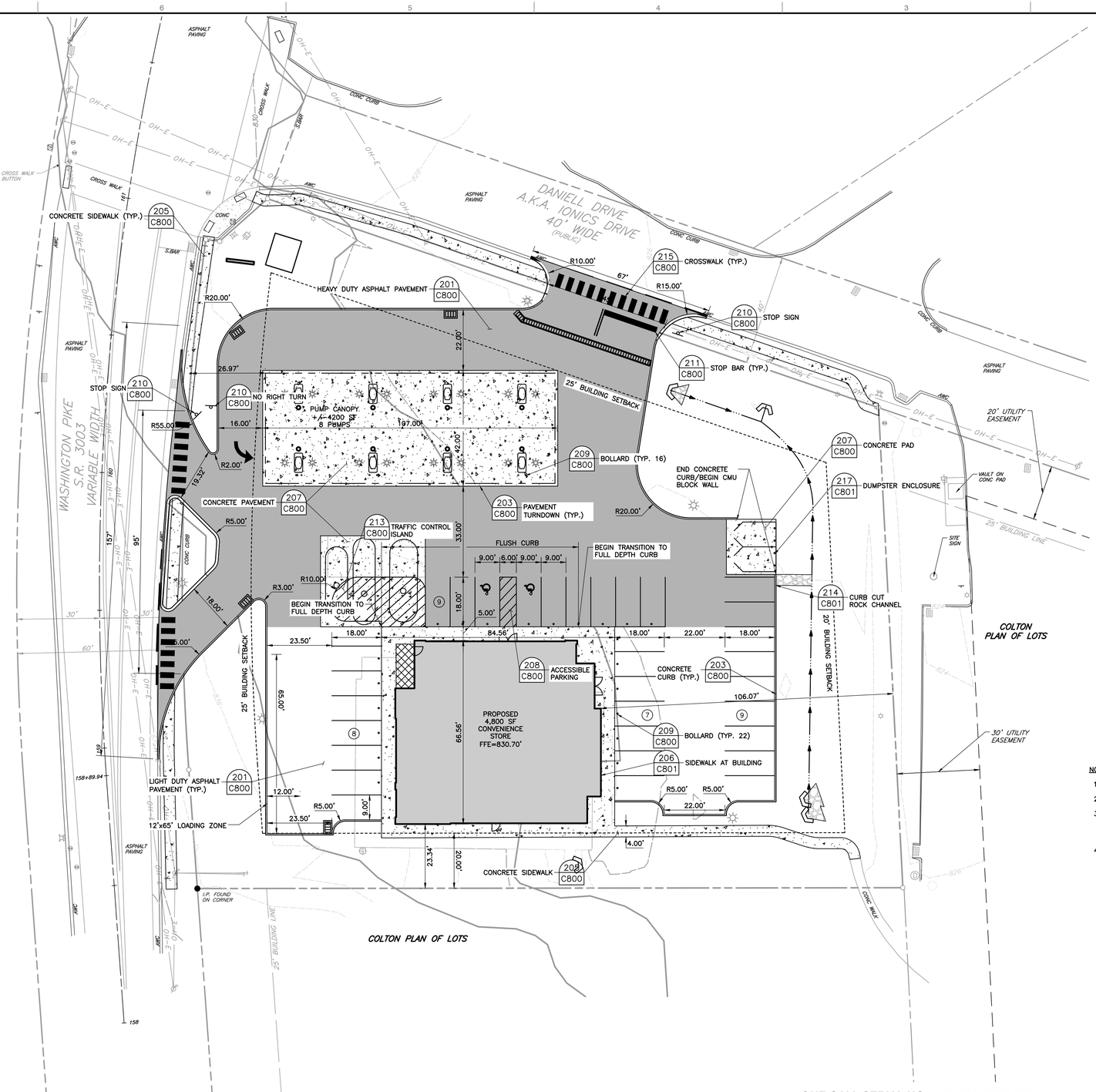
SIGHT DISTANCE TRIANGLE 1

DANIELL DRIVE
1"=50'



SIGHT DISTANCE TRIANGLE 2

WASHINGTON PIKE
1"=50'



LEGEND

- 1220 — EXISTING INDEX CONTOUR
- EXISTING INTERMEDIATE CONTOUR
- EXISTING PROPERTY LINE
- EXISTING RIGHT-OF-WAY LINE
- EXISTING PAVEMENT
- EXISTING PAVEMENT MARKING
- EXISTING FLOODPLAIN BOUNDARY
- OH-E — EXISTING OVERHEAD UTILITY
- EXISTING UTILITY POLE
- EXISTING STORM INLET
- EXISTING SANITARY MANHOLE
- PROPOSED HEAVY DUTY PAVEMENT
- PROPOSED CONCRETE
- PROPOSED BUILDING
- PROPOSED EASEMENT
- PROPOSED SETBACK
- PROPOSED PARKING COUNT
- PROPOSED ADA PARKING SPACE
- SIGHT DISTANCE TRIANGLE
- PROPOSED INLET
- PROPOSED CHANNEL
- PROPOSED RIPRAP

REVISION RECORD

NO	DATE	DESCRIPTION

REFERENCE

1. EXISTING CONTOURS DERIVED FROM A BARE-EARTH DIGITAL ELEVATION MODEL CONSTRUCTED FROM PAMAP LIDAR (LIGHT DETECTION AND RANGING) ELEVATION POINTS. TOPOGRAPHIC CONTOURS MAPPED AT AN INTERVAL OF 2 FEET; DEVELOPED BY PAMAP PROGRAM, PA DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES, BUREAU OF TOPOGRAPHIC AND GEOLOGIC SURVEY; DATED 2010.
2. SURVEY INFORMATION COMPLETED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC (CEC), DATED SEPTEMBER 2019. VERTICAL DATUM IS BASED UPON NAVD88, AS DETERMINED BY CEC USING SURVEY GRADE GPS MEASUREMENTS AND OPUS POST-PROCESSING.

NOTES:

1. THERE SHALL BE NO OUTDOOR STORAGE ON SITE.
2. THE PROPOSED DUMPSTER SHALL BE VERMIN PROOF.
3. THE SITE IS WITHIN FEMA SPECIAL FLOOD HAZARD AREA DESIGNATION OF ZONE X AND ZONE AE PER THE FLOOD INSURANCE RATE MAP 42003C0451H DATED SEPTEMBER 26, 2014. THE APPROXIMATE BASE FLOOD ELEVATION IS 829.00.
4. THE EXISTING SITE IS EITHER IMPERVIOUS SURFACE OR MAINTAINED VEGETATION AND NO WETLANDS EXIST ONSITE.

ONE CALL SERIAL NO.: 20192403397-000

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SCALE IN FEET
0 20 40

Civil & Environmental Consultants, Inc.
333 Baldwin Road · Pittsburgh, PA 15205
412-429-2324 · 800-365-2324
www.cecinc.com

DOROTHY HOLDINGS LLC
SOUTH FAYETTE AMERICAN NATURAL
SOUTH FAYETTE TOWNSHIP
ALLEGHENY COUNTY, PENNSYLVANIA

SITE LAYOUT

DATE:	SEPTEMBER 2019
DWG SCALE:	1"=20'
PROJECT NO:	192-386
DRAWN BY:	JTL
CHECKED BY:	ARG
APPROVED BY:	AMB

DRAWING NO.: **C200**

ANDREW R. GUILLONE — REGISTERED PROFESSIONAL ENGINEER — COMMONWEALTH OF PENNSYLVANIA

P:\2019\192-386\-CADD\Dwg\C001\192386-C001-C200.dwg(C200 SITE LAYOUT LS)(5/12/2020 - sguillone) - LP: 6/4/2020 11:45 AM

NORTH

SEE SHEET C301 FOR MORE DETAIL

PROPOSED 4,800 SF CONVENIENCE STORE FFE=830.70'

PUMP CANOPY +/-4200 SF 8 PUMPS

WASHINGTON PIKE S.R. 3003 VARIABLE WIDTH

DANIELL DRIVE A.K.A. IONICS DRIVE 40' WIDE (PUBLIC)

322-E-11 D.B.V. 17022, PG. 205 11-16-2017 HARTLEY C. KING TO 3045 WASHINGTON PIKE, LLC

20' UTILITY EASEMENT

30' UTILITY EASEMENT

COLTON PLAN OF LOTS

ZONE AE

ZONE X

I.P. FOUND ON CORNER

VAULT ON CONC PAD

SITE SIGN

C.BASIN T=824.08 SILT SOCK

LEGEND

- EXISTING INDEX CONTOUR
- EXISTING INTERMEDIATE CONTOUR
- EXISTING PROPERTY LINE
- EXISTING RIGHT-OF-WAY LINE
- EXISTING PAVEMENT
- EXISTING PAVEMENT MARKING
- EXISTING FLOODPLAIN BOUNDARY
- EXISTING OVERHEAD UTILITY
- EXISTING UTILITY POLE
- EXISTING STORM INLET
- EXISTING SANITARY MANHOLE
- EXISTING SANITARY LINE
- EXISTING WATERLINE
- SAW CUT LINE
- EXISTING PIPE TO BE REMOVED
- PROPOSED HEAVY DUTY PAVEMENT
- PROPOSED CONCRETE
- PROPOSED BUILDING
- PROPOSED EASEMENT
- PROPOSED SETBACK
- PROPOSED STORM PIPE
- PROPOSED INLET
- PROPOSED CHANNEL
- PROPOSED RIPRAP
- PROPOSED INDEX CONTOUR
- PROPOSED INTERMEDIATE CONTOUR
- PROPOSED WATER LINE
- PROPOSED GAS LINE
- PROPOSED ELECTRIC LINE
- PROPOSED COMMUNICATIONS LINE
- PROPOSED SANITARY LINE

REFERENCE

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2. SURVEY INFORMATION COMPLETED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC (CEC). DATED SEPTEMBER 2019. VERTICAL DATUM IS BASED UPON NAVD88, AS DETERMINED BY CEC USING SURVEY GRADE GPS MEASUREMENTS AND OPUS POST-PROCESSING.

ONE CALL SERIAL NO.: 20192403397-000

CALL BEFORE YOU DIG!
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SCALE IN FEET
0 20 40

REVISION RECORD

NO	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
333 Baldwin Road · Pittsburgh, PA 15205
412-429-2324 · 800-365-2324
www.cecinc.com

DOROTHY HOLDINGS LLC
SOUTH FAYETTE AMERICAN NATURAL
SOUTH FAYETTE TOWNSHIP
ALLEGHENY COUNTY, PENNSYLVANIA

GRADING PLAN

DATE:	SEPTEMBER 2019	DRAWN BY:	JTL
DWG SCALE:	AS SHOWN	CHECKED BY:	ARG
PROJECT NO:			192-386
APPROVED BY:			AMB

DRAWING NO.: C300

COMMONWEALTH OF PENNSYLVANIA ANDREW R. GULLONE REGISTERED PROFESSIONAL ENGINEER

P:\2019\192-386\-CAD\Dwg\CIVIL\192386-CIV01-C300.dwg[C300 GRADING PLAN] LS(16/2/2020 - dtaval) - LP: 6/4/2020 11:45 AM

NORTH

MATCH EXISTING SIDEWALK ELEVATION. SAWCUT AND REMOVE EXISTING CURB.

MATCH EXISTING SIDEWALK ELEVATION. SAWCUT AND REMOVE EXISTING CURB.

ZONE X

LEGEND

- EXISTING INDEX CONTOUR
- EXISTING INTERMEDIATE CONTOUR
- EXISTING PROPERTY LINE
- EXISTING RIGHT-OF-WAY LINE
- EXISTING PAVEMENT
- EXISTING PAVEMENT MARKING
- EXISTING FLOODPLAIN BOUNDARY
- EXISTING OVERHEAD UTILITY
- EXISTING UTILITY POLE
- EXISTING STORM INLET
- EXISTING SANITARY MANHOLE
- EXISTING SANITARY LINE
- EXISTING WATERLINE
- SAW CUT LINE
- EXISTING PIPE TO BE REMOVED
- PROPOSED HEAVY DUTY PAVEMENT
- PROPOSED CONCRETE
- PROPOSED BUILDING
- PROPOSED EASEMENT
- PROPOSED SETBACK
- PROPOSED STORM PIPE
- PROPOSED INLET
- PROPOSED CHANNEL
- PROPOSED RIPRAP
- PROPOSED INDEX CONTOUR
- PROPOSED INTERMEDIATE CONTOUR
- PROPOSED WATER LINE
- PROPOSED GAS LINE
- PROPOSED ELECTRIC LINE
- PROPOSED COMMUNICATIONS LINE
- PROPOSED SANITARY LINE

REFERENCE

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ONE CALL SERIAL NO.: 20192403397-000

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SCALE IN FEET
0 5 10

REVISION RECORD

NO	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
333 Baldwin Road · Pittsburgh, PA 15205
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DOROTHY HOLDINGS LLC
SOUTH FAYETTE AMERICAN NATURAL
SOUTH FAYETTE TOWNSHIP
ALLEGHENY COUNTY, PENNSYLVANIA

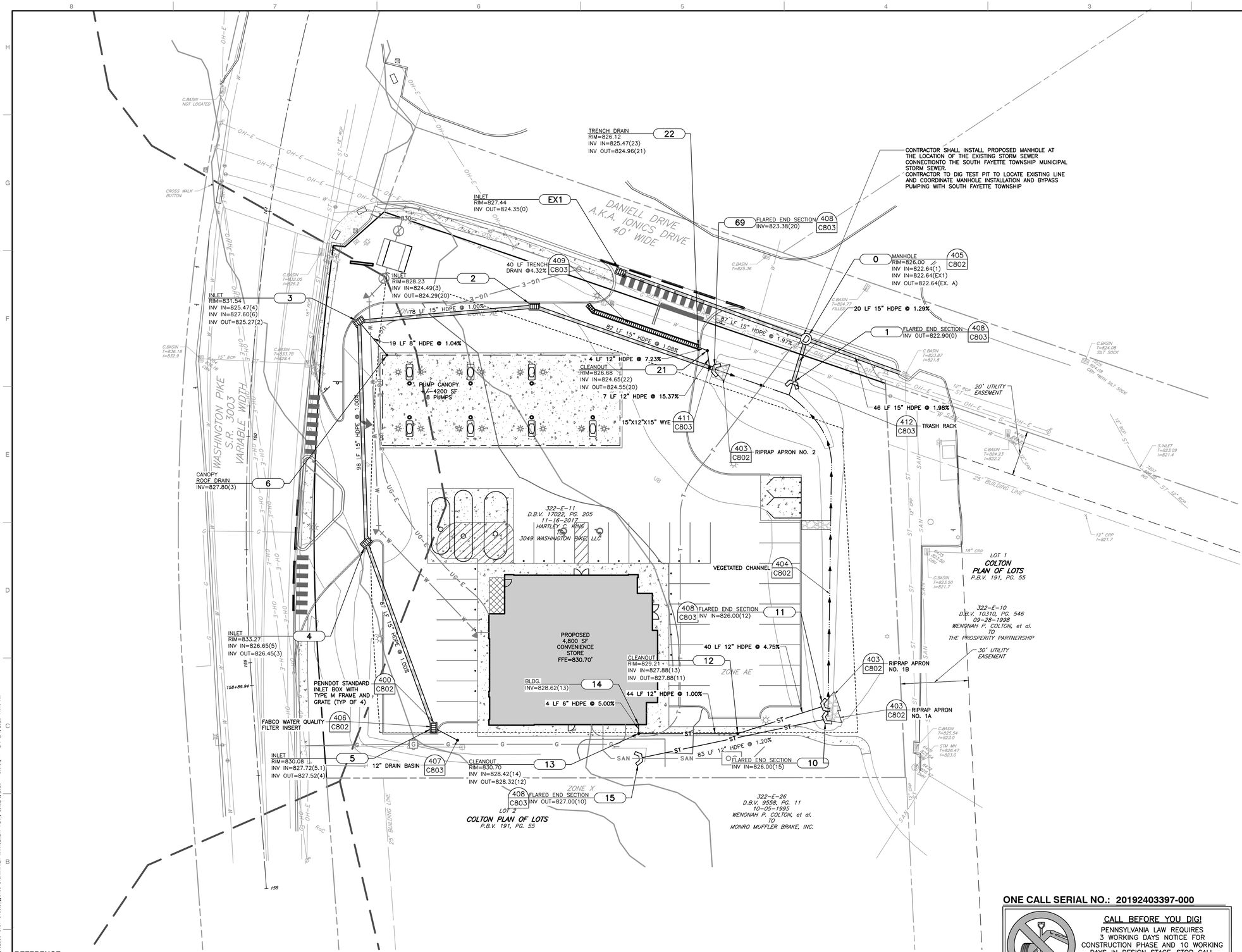
SIDEWALK GRADING PLAN

DATE:	MAY 2020
DWG SCALE:	1" = 5'
PROJECT NO:	192-386
DRAWN BY:	JTL
CHECKED BY:	ARG
APPROVED BY:	AMB

COMMONWEALTH OF PENNSYLVANIA
ANDREW R. GULLONE
REGISTERED
PROFESSIONAL
ENGINEER

DRAWING NO.:
C301

P:\2019\192-386\-CAD\Dwg\C301\192386-C301-SPP.dwg(C301) LS(6/2/2020 - dtonk) - LP: 6/4/2020 11:45 AM



NOTES:

1. TYPE OF COVER: ASPHALT, LAWN, VEGETATED SLOPES
2. CHAPTER 93: CHARTIERS CREEK– WARM WATER FISHES (WWF)
3. THE PROPOSED STORMWATER MANAGEMENT BEST MANAGEMENT PRACTICES (BMP) CANNOT BE REMOVED OR MODIFIED WITHOUT WRITTEN PERMISSION FROM THE TOWNSHIP.

ONE CALL SERIAL NO.: 20192403397-000

CALL BEFORE YOU DIG!
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SCALE IN FEET
0 20 40

REFERENCE

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2. SURVEY INFORMATION COMPLETED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC (CEC). DATED SEPTEMBER 2019. VERTICAL DATUM IS BASED UPON NAVD88, AS DETERMINED BY CEC USING SURVEY GRADE GPS MEASUREMENTS AND OPUS POST-PROCESSING.

" _____, ON THIS DATE _____, HAS REVIEWED AND HEREBY CERTIFIES THAT THE SWM SITE PLAN MEETS ALL DESIGN STANDARDS AND CRITERIA OF THE MUNICIPAL ORDINANCE NO. (_____, EXCEPT WHERE WAIVERS HAVE BEEN GRANTED AS NOTED ON THE PLAN). THE REVIEW IS BASED ON A SURVEY AND PLAN PREPARED BY OTHERS AND ASSUMES THAT ALL INFORMATION IS CORRECT AND VALID AS SUBMITTED."

REVISION RECORD

NO	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
333 Baldwin Road · Pittsburgh, PA 15205
412-429-2324 · 800-365-2324
www.cecinc.com

DOROTHY HOLDINGS LLC
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ALLEGHENY COUNTY, PENNSYLVANIA

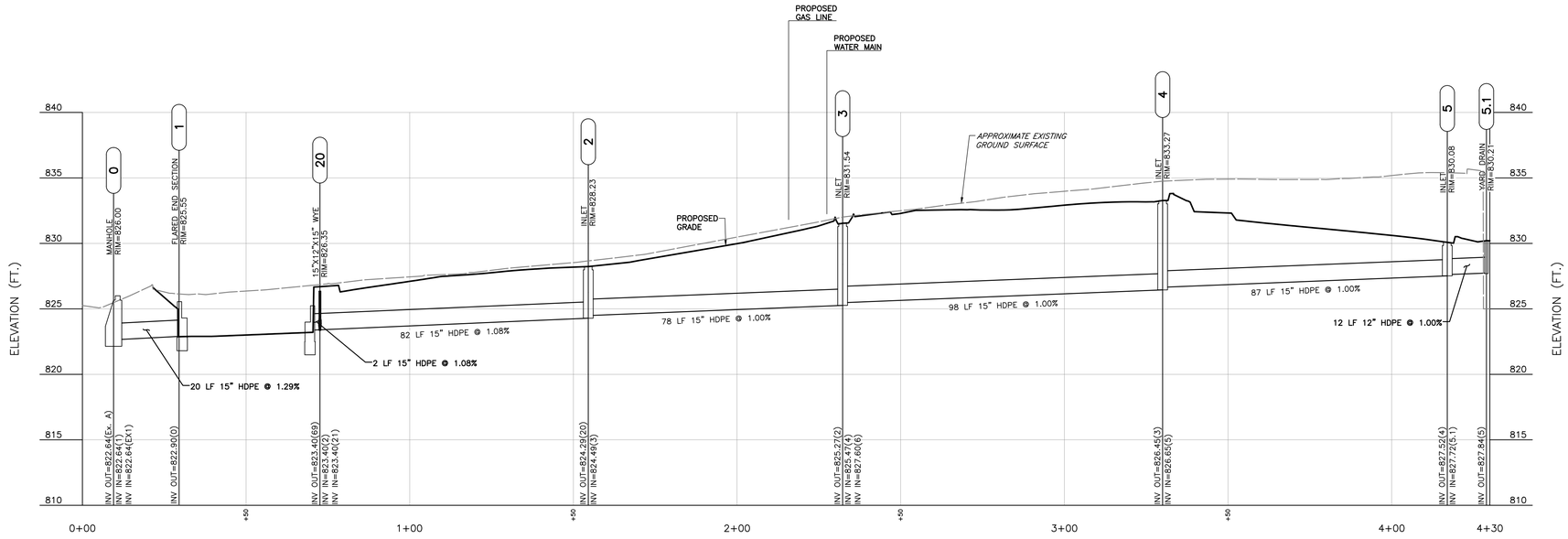
POST-CONSTRUCTION
STORMWATER MANAGEMENT PLAN

DATE:	SEPTEMBER 2019
DWG SCALE:	1" = 20'
PROJECT NO:	192-386
APPROVED BY:	AMB
DRAWN BY:	JTL
CHECKED BY:	ARG

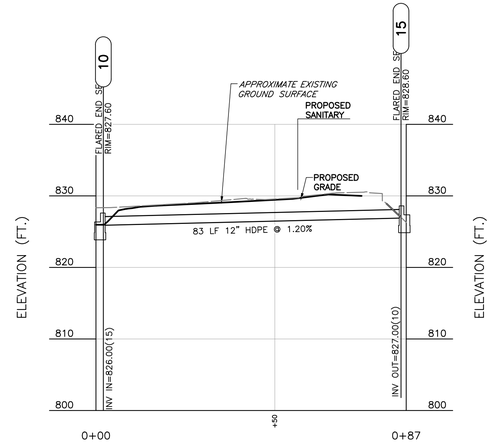
DRAWING NO.:
C400

COMMONWEALTH OF PENNSYLVANIA
ANDREW R. GUILLONE
ENGINEER

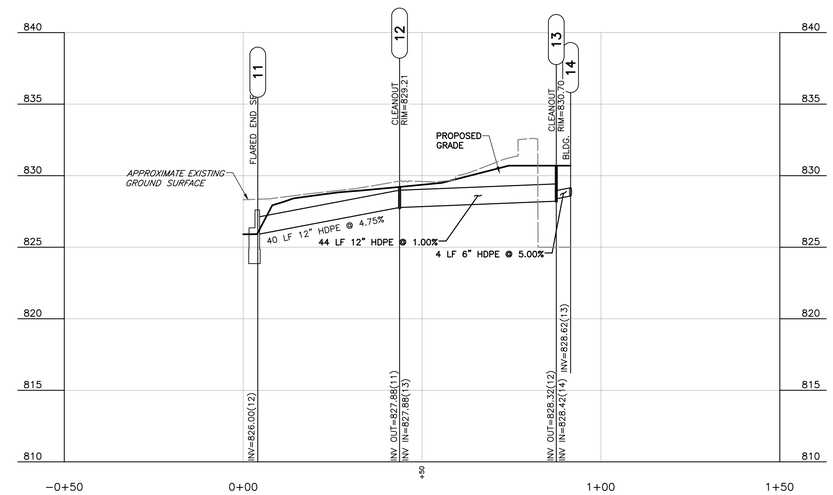
P:\2019\192-386\-CAD\(Dwg)\CIVIL\192386-CIVIL-C400.dwg(C400 STORMWATER MANAGEMENT PLAN) LS:(5/5/2020 - dtorok) - LP: 5/4/2020 11:46 AM



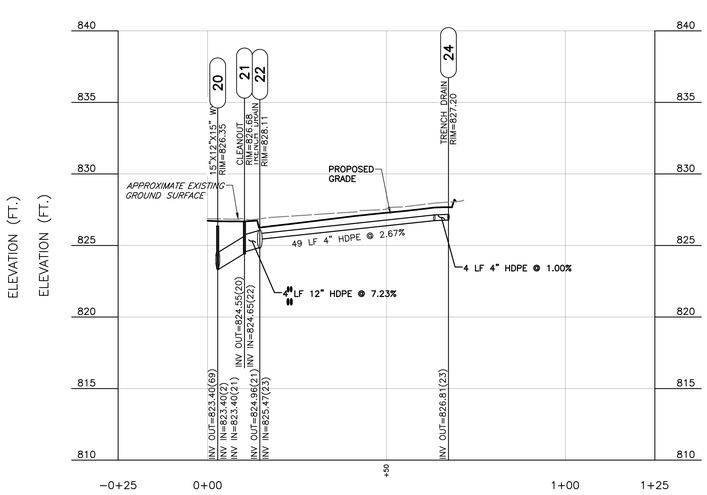
INLET 1 TO INLET 5 PROFILE
SCALE H:1"=20'; V:1"=5'



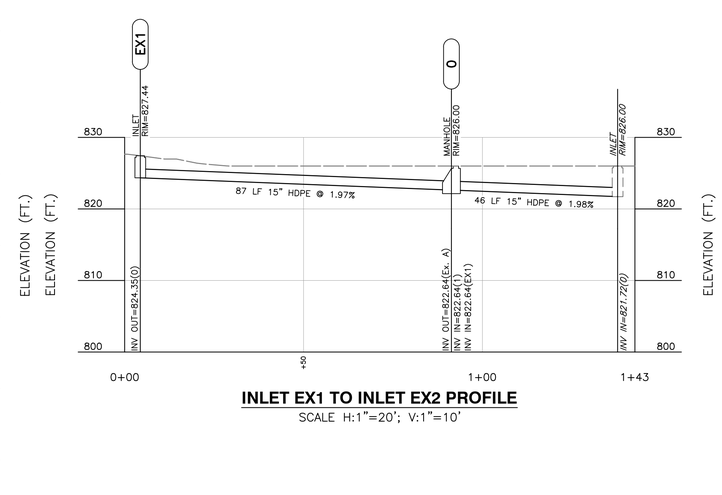
YARD DRAIN 15 PROFILE
SCALE H:1"=20'; V:1"=10'



ROOF DRAIN PROFILE
SCALE H:1"=20'; V:1"=5'



TRENCH DRAIN PROFILE
SCALE H:1"=20'; V:1"=5'



INLET EX1 TO INLET EX2 PROFILE
SCALE H:1"=20'; V:1"=10'

REFERENCE

1. EXISTING CONTOURS DERIVED FROM A BARE–EARTH DIGITAL ELEVATION MODEL CONSTRUCTED FROM PAMAP LIDAR (LIGHT DETECTION AND RANGING) ELEVATION POINTS. TOPOGRAPHIC CONTOURS MAPPED AT AN INTERVAL OF 2 FEET; DEVELOPED BY PAMAP PROGRAM, PA DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES, BUREAU OF TOPOGRAPHIC AND GEOLOGIC SURVEY; DATED 2010.
2. SURVEY INFORMATION COMPLETED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC (CEC), DATED SEPTEMBER 2019. VERTICAL DATUM IS BASED UPON NAVD88, AS DETERMINED BY CEC USING SURVEY GRADE GPS MEASUREMENTS AND OPUS POST–PROCESSING.

SCALE IN FEET
0 20 40
10 5 0

ONE CALL SERIAL NO.: 20192403397-000

CALL BEFORE YOU DIG!
PENNSYLVANIA LAW REQUIRES 3 WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND 10 WORKING DAYS IN DESIGN STAGE–STOP CALL PENNSYLVANIA ONE CALL SYSTEM, INC.
1–800–242–1776

PENNSYLVANIA ACT 287 (1974) AS AMENDED BY ACT 50 (2017). REQUIRES NO LESS THAN 3 WORKING DAYS NOTICE NOR MORE THAN 10 WORKING DAYS NOTICE FROM EXCAVATORS WHO ARE ABOUT TO: DIG, DRILL, BLAST, AUGER, BORE, GRADE, TRENCH, OR DEMOLISH WHEN IN THE CONSTRUCTION PHASE. FOR LOCATION REQUESTS IN THE STATE OF PENNSYLVANIA, CALL TOLL FREE 1–800–242–1776. UNDERGROUND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE INFORMATION AND THE LOCATION MUST BE CONSIDERED APPROXIMATE. OTHER UNDERGROUND UTILITIES MAY EXIST WHICH ARE NOT SHOWN. IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO ASCERTAIN ALL PHYSICAL LOCATIONS OF UTILITY LINES PRIOR TO THE TIME OF CONSTRUCTION. IN NO WAY SHALL THE CONTRACTOR HOLD THE SURVEYOR RESPONSIBLE FOR ANY UTILITY LOCATION SHOWN ON THIS PLAN.

REVISION RECORD

NO	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
333 Baldwin Road · Pittsburgh, PA 15205
412-429-2324 · 800-365-2324
www.cecinc.com

DOROTHY HOLDINGS LLC
SOUTH FAYETTE AMERICAN NATURAL
SOUTH FAYETTE TOWNSHIP
ALLEGHENY COUNTY, PENNSYLVANIA

STORM SEWER PROFILES

DATE:	SEPTEMBER 2019	DRAWN BY:	JTL
DWG SCALE:	1"=20'	CHECKED BY:	ARG
PROJECT NO:			192-386
APPROVED BY:			AMB

DRAWING NO.:
C401

COMMONWEALTH OF PENNSYLVANIA
PROFESSIONAL
ANDREW R. GUILLONE
SURVEYOR
PENNSYLVANIA

P:\2019\192-386_CADD\Dwg\C401\192386-CV01-C400.dwg[C401 STORMWATER MANAGEMENT PROFILES] 12/5/2020 - dtrunk - LP: 6/4/2020 11:48 AM

PROJECT OBJECTIVES

1. PRESERVE THE INTEGRITY OF STREAM CHANNELS AND MAINTAIN AND PROTECT THE PHYSICAL, BIOLOGICAL AND CHEMICAL QUALITIES OF THE RECEIVING STREAM.
   – THE PROJECT STORMWATER MANAGEMENT PLAN PROTECTS CHARTIERS CREEK FROM ANY INCREASE IN ADVERSE EFFECTS BY DECREASING THE EXISTING IMPERVIOUS AREA AND BY UTILIZING A VEGETATED CHANNEL, INLET FILTERS, STREETSWEEPING, AND PERMANENT STABILIZATION/NATIVE GRASSES ON STEEP SLOPES.

2. PREVENT AN INCREASE IN THE RATE OF STORMWATER RUNOFF.
   – THERE IS NO INCREASE IN THE RATE OF STORMWATER RUNOFF. THE AMOUNT OF IMPERVIOUS SURFACES HAVE BEEN SIGNIFICANTLY REDUCED IN THE POST–DEVELOPMENT CONDITION, THEREBY DECREASING THE RATE OF STORMWATER RUNOFF.

3. MINIMIZE ANY INCREASE IN STORMWATER RUNOFF VOLUME.
   – THE STORMWATER RUNOFF VOLUME FOR THE 2–YEAR RAINFALL EVENT IS DECREASED BY THE DECREASE IN IMPERVIOUS SURFACES IN THE POST–DEVELOPMENT CONDITIONS.

4. MINIMIZE IMPERVIOUS AREAS.
   – THE PROPOSED SITE CONDITIONS MINIMIZE THE AMOUNT OF IMPERVIOUS AREAS TO THE EXTENT PRACTICAL FOR THE FINAL USE OF THE PROJECT SITE.

5. MAXIMIZE THE PROTECTION OF EXISTING DRAINAGE FEATURES AND EXISTING VEGETATION.
   – NO VEGETATION OR EXISTING DRAINAGE FEATURES OUTSIDE OF THE LIMIT OF DISTURBANCE WILL BE IMPACTED. STREAMS AND WETLANDS ARE NOT PRESENT ONSITE. CONVEYANCE PIPES ARE UTILIZED TO CARRY RUNOFF TO THE POINT OF INTEREST.

6. MINIMIZE LAND CLEARING AND GRADING.
   – ONLY AREAS NECESSARY FOR CONSTRUCTION WILL BE CLEARED DURING THE PROJECT.

7. MINIMIZE SOIL COMPACTION.
   – SOIL COMPACTION WILL BE MINIMIZED TO THE EXTENT PRACTICAL. CONSTRUCTION VEHICLES/EQUIPMENT WILL BE RESTRICTED TO THE LIMITS OF DISTURBANCE.

8. UTILIZE OTHER STRUCTURAL OR NON–STRUCTURAL BMPS THAT PREVENT OR MINIMIZE CHANGES IN STORMWATER RUNOFF.
   – THE PROJECT UTILIZES A VEGETATED CHANNEL, INLET FILTERS, AND STREETSWEEPING TO REDUCE THE IMPACTS OF STORMWATER RUNOFF.

POST CONSTRUCTION STORMWATER MANAGEMENT MAINTENANCE

TO PROVIDE EFFECTIVE AND CONTINUED OPERATION OF ALL STORMWATER MANAGEMENT FACILITIES, THE FOLLOWING MAINTENANCE PROGRAM HAS BEEN DEVELOPED FOR THE PROJECT. DOROTHY HOLDINGS LLC WILL OPERATE AND MAINTAIN ALL STORMWATER MANAGEMENT FACILITIES AND POST CONSTRUCTION STORMWATER MANAGEMENT BMPS PER THE SOUTH FAYETTE TOWNSHIP STORMWATER MANAGEMENT ORDINANCES, APPROVED PCSM PLAN, AND THE CURRENT PENNSYLVANIA REGULATIONS. INSPECTION OF THE FACILITIES WILL OCCUR AFTER EACH RUNOFF–PRODUCING EVENT, BUT NOT LESS THAN ONCE A MONTH.

AS PER THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION'S (PADEP) DECEMBER 2017 UPDATES TO THE GENERAL (PAG–02) NPDES PERMIT FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITIES, A COVENANT MUST BE RECORDED TO RUN WITH THE LAND TO PROVIDE LONG TERM MAINTENANCE FOR THE PCSM BMP'S AS PART OF FILING OF THE NOTICE OF TERMINATION (NOT) FOR THE GENERAL NPDES PERMIT.

MAINTENANCE OF THE PROJECT AND STORMWATER MANAGEMENT FACILITIES SHALL INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWING:

STORMWATER COLLECTION SYSTEM:
1. INLET GRATES SHALL BE KEPT FREE OF TRASH AND DEBRIS.
2. INLETS SHALL BE INSPECTED A MINIMUM OF TWO TIMES PER YEAR AND BE CLEANED OUT WHEN DEBRIS REACHES HALF THE DISTANCE FROM THE BOTTOM OF THE INLET TO THE INVERT OF THE OUTLET PIPE.
3. PIPES SHALL BE FLUSHED AS NEEDED TO CLEAR BUILD–UP OF DEBRIS THAT MAY INTERFERE WITH THE FLOW OF WATER THROUGH THE PIPES.

VEGETATED CHANNEL:
1. MAINTENANCE ACTIVITIES SHALL BE COMPLETED ANNUALLY AND WITHIN 48 HOURS AFTER EVERY MAJOR STORM EVENT (IN EXCESS OF ONE INCH OF RAINFALL).
2. ACCESS THE CHANNEL FROM THE ADJACENT AMERICAN NATURAL PARKING LOT.
3. CHANNEL SHALL BE CLEANED WHENEVER TOTAL CHANNEL DEPTH IS REDUCED BY 25% AT ANY LOCATION.
4. SEDIMENT DEPOSITS SHALL BE REMOVED WITHIN 24 HOURS OF DISCOVERY OR AS SOON AS SOIL CONDITIONS PERMIT ACCESS TO CHANNEL WITHOUT FURTHER DAMAGE.
5. DAMAGED LINING SHALL BE REPAIRED OR REPLACED WITHIN 48 HOURS OF DISCOVERY.
6. INSPECT AND CORRECT EROSION PROBLEMS, DAMAGE TO VEGETATION, AND SEDIMENT AND DEBRIS ACCUMULATION (ADDRESS WHEN GREATER THAN THREE INCHES AT ANY SPOT OR COVERING VEGETATION).
7. INSPECT VEGETATION ON SIDE SLOPES FOR EROSION AND FORMATION OF RILLS OR GULLIES, CORRECT AS NEEDED.
8. INSPECT FOR POOLS OF STANDING WATER; DEWATER AND DISCHARGE TO AN APPROVED LOCATION AND RESTORE TO DESIGN GRADE.
9. INSPECT FOR UNIFORMITY IN CROSS–SECTION AND LONGITUDINAL SLOPE, CORRECT AS NEEDED.
10. INSPECT CHANNEL INLET AND OUTLET FOR SIGNS OF EROSION OR BLOCKAGE, CORRECT AS NEEDED.
11. MOW AND TRIM VEGETATION TO ENSURE SAFETY, AESTHETICS, PROPER CHANNEL OPERATION, OR TO SUPPRESS WEEDS AND INVASIVE VEGETATION; DISPOSE OF CUTTINGS IN A LOCAL COMPOSTING FACILITY; MOW ONLY WHEN CHANNEL IS DRY TO AVOID RUTTING.
12. INSPECT FOR LITTER; REMOVE PRIOR TO MOWING.
13. NO MORE THAN ONE THIRD OF THE SHOOT (GRASS LEAF) SHALL BE REMOVED IN ANY MOWING.
14. GRASS HEIGHT SHALL BE MAINTAINED BETWEEN 2 AND 3 INCHES UNLESS OTHERWISE SPECIFIED.
15. EXCESS VEGETATION SHALL BE REMOVED FROM PERMANENT CHANNELS TO ENSURE SUFFICIENT CHANNEL CAPACITY.

FABCO WATER QUALITY FILTERS:
1. CLEAN THE UNITS A MINIMUM OF TWICE PER YEAR BY REMOVING THE DEBRIS, SAND, AND SILT, EITHER MANUALLY OR WITH A VACUUM DEVICE.
2. REMOVE THE FILTER CARTRIDGES FROM THE BASIN AND REMOVE ANY LOOSE DEBRIS, SEDIMENT, AND TRASH FROM THE BLUE FOAM PRE–FILTER. REPLACE CARTRIDGES ANNUALLY.
3. FOLLOW ALL MANUFACTURER'S MAINTENANCE INSTRUCTIONS.

MAINTENANCE ACTIVITIES TO BE DONE AS NEEDED:
1. PLANT ALTERNATIVE GRASS SPECIES IN THE EVENT OF UNSUCCESSFUL ESTABLISHMENT.
2. RESEED BARE AREAS: INSTALL APPROPRIATE EROSION CONTROL MEASURES WHEN NATIVE SOIL IS EXPOSED OR EROSION CHANNELS ARE FORMING.
3. VEGETATED CHANNELS SHALL BE INSPECTED FOR AND CLEANED OF DEBRIS AND LITTER ON A MONTHLY BASIS.
4. VEGETATION SHALL BE STABILIZED AS NEEDED.
5. FERTILIZER AND PESTICIDE USE SHALL BE AVOIDED.
6. DURING PERIODS OF EXTENDED DROUGHT, PLANTED AREAS MAY NEED WATERING.

WINTER MAINTENANCE ACTIVITIES:
1. USE NONTOXIC, ORGANIC DEICING AGENTS, APPLIED EITHER AS A BLENDED MAGNESIUM CHLORIDE–BASED LIQUID PRODUCT OR AS PRETREATED SALT.
2. USE SALT–TOLERANT VEGETATION IN CHANNELS.

STORMWATER OUTFALLS:
1. PIPE OUTFALLS SHALL BE INSPECTED A MINIMUM OF TWO TIMES PER YEAR AND BE KEPT FREE OF DEBRIS AND VEGETATION THAT MAY INTERFERE WITH THE DISCHARGE OF WATER.
2. CLEAR THE ENERGY DISSIPATERS/OUTLET PROTECTION APRONS OF ALL DEBRIS.
3. REPLACE ANY DISLODGED ROCK. ROCK SHALL BE REPLACED AS NEEDED TO PREVENT EROSION AND SCOUR AROUND OUTFALL.

GENERAL MAINTENANCE:
1. ALL PROPOSED PAVED SURFACES SHALL BE SWEPT 1 TO 2 TIMES A MONTH USING BOTH A MECHANICAL BROOM AND A VACUUM FILTER OR A COMBINATION THEREOF.
2. SEDIMENT AND DEBRIS REMOVED FROM STORMWATER FACILITIES SHALL BE DISPOSED OF IN AN APPROPRIATE LOCATION IN ACCORDANCE WITH THE LOCAL AND STATE CODES. UNDER NO CIRCUMSTANCE SHALL SEDIMENT BE DISPOSED OF IN OR NEAR WATERS OF THE COMMONWEALTH.

POST CONSTRUCTION STORMWATER MANAGEMENT NOTES

1. DISTANCES SHOWN ON PIPING ARE HORIZONTAL DISTANCES FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE, UNLESS OTHERWISE NOTED.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH THE INSTALLATION, INSPECTION, TESTING AND FINAL ACCEPTANCE OF ALL NEW STORMWATER MANAGEMENT FACILITIES CONSTRUCTION. CONTRACTOR SHALL COORDINATE WITH ALL APPLICABLE REGULATING AGENCIES CONCERNING INSTALLATION, INSPECTION AND APPROVAL OF THE STORM DRAINAGE SYSTEM CONSTRUCTION.
3. ALL STORMWATER MANAGEMENT FACILITIES, INCLUDING COLLECTION AND CONVEYANCE STRUCTURES SHALL BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE LOCAL AND STATE CODES AND REGULATIONS.
4. ANY WORK PERFORMED IN THE LOCAL OR STATE RIGHTS OF WAY SHALL BE IN ACCORDANCE WITH THE APPLICABLE LOCAL OR STATE REQUIREMENTS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN THE NECESSARY PERMITS FOR THE WORK, SCHEDULE NECESSARY INSPECTIONS, AND PROVIDE THE NECESSARY TRAFFIC CONTROL MEASURES AND DEVICES, ETC., FOR WORK PERFORMED IN THE RIGHTS OF WAY.
5. STORM PIPE MATERIAL OPTIONS ARE AS FOLLOWS: HDPE. ALL INLETS ARE TO BE PENNDOT TYPE M OR TYPE M MODIFIED INLETS UNLESS OTHERWISE SPECIFIED. CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR APPROVAL FOR ALL INLETS, MANHOLES, YARD DRAINS, DRAIN BASINS, ENDWALLS, AND FLARED END SECTIONS.
6. BEFORE INSTALLATION OF STORM OR SANITARY SEWER, OR OTHER UTILITY, THE CONTRACTOR SHALL VERIFY ALL CROSSINGS, BY EXCAVATION WHERE NECESSARY, AND INFORM THE OWNER AND THE ENGINEER OF ANY CONFLICTS. THE ENGINEER WILL BE HELD HARMLESS IN THE EVENT HE IS NOT NOTIFIED OF DESIGN CONFLICTS PRIOR TO CONSTRUCTION.
7. APPROVAL OF A STORMWATER MANAGEMENT PLAN BY THE TOWNSHIP SHALL NOT BE CONSTRUED AS AN INDICATION THAT SAID PLAN COMPLIES WITH THE REQUIREMENTS, LAWS, OR STANDARDS OF ANY AGENCY OF THE COMMONWEALTH WHICH MAY OR MAY NOT GOVERN SAID ACTIVITY.
8. IT SHALL BE UNLAWFUL TO ALTER OR REMOVE ANY PERMANENT STORMWATER BMP REQUIRED BY AN APPROVED STORMWATER MANAGEMENT PLAN, OR ALLOW THE PROPERTY TO REMAIN IN A CONDITION WHICH DOES NOT CONFORM TO AN APPROVED STORMWATER MANAGEMENT PLAN, UNLESS THE TOWNSHIP GRANTS AN EXCEPTION IN WRITING.
9. PROCEDURES WHICH ENSURE THAT THE PROPER MEASURES FOR THE RECYCLING OR DISPOSAL OF MATERIALS ASSOCIATED WITH AND/OR FROM THE PROJECT SITE AND POST CONSTRUCTION STORMWATER MANAGEMENT BMPS WILL BE UNDERTAKEN IN ACCORDANCE WITH THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTIONS, TITLE 25, CHAPTER 102.8 (F)(11).
10. ALTHOUGH THERE ARE NO ANTICIPATED POTENTIALS FOR GEOLOGICAL OR SOIL CONDITIONS TO CAUSE POLLUTION DURING CONSTRUCTION ON SITE, IF SUCH A SITUATION IS ENCOUNTERED, CONTRACTOR TO CONTACT DESIGNEE, ALLEGHENY COUNTY CONSERVATION DISTRICT, PADEP, AND SOUTH FAYETTE TOWNSHIP IMMEDIATELY.
11. EFFORTS WILL BE MADE TO MINIMIZE IMPERVIOUS AREAS IN ALL DELINEATED WATERSHEDS.
12. CONTRACTOR IS TO PROTECT ALL VEGETATION, STREAMS, AND WETLANDS THAT ARE OUTSIDE THE DETERMINED LIMIT OF DISTURBANCE AND LIMIT LAND CLEARING AND GRADING TO AREAS NECESSARY TO COMPLETE PROPOSED SITE IMPROVEMENTS.
13. MINIMIZE SOIL COMPACTION TO THE FULLEST EXTENT POSSIBLE IN ALL PROPOSED UNIMPROVED AREAS.

RECYCLING OR DISPOSAL OF MATERIALS

1. DEMOLITION ACTIVITIES ARE ANTICIPATED TO PRODUCE PROJECT WASTES.
2. ALL BUILDING MATERIALS AND WASTES SHALL BE REMOVED FROM THE SITE AND RECYCLED OR DISPOSED OF IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 260.1 ET SEQ., 271.1, AND 287.1 ET. SEQ. NO BUILDING MATERIALS OR WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURNED, BURIED, DUMPED, OR DISCHARGED AT THE SITE. CONSTRUCTION WASTES INCLUDE, BUT ARE NOT LIMITED TO, EXCESS SOIL MATERIALS, BUILDING MATERIALS, CONCRETE WASH WATER, SANITARY WASTES, ETC. THAT COULD ADVERSELY IMPACT WATER QUALITY.
3. PROPER TRASH DISPOSAL, RECYCLING OF MATERIALS, PROPER MATERIALS HANDLING, AND SPILL PREVENTION AND CLEAN–UP REDUCE THE POTENTIAL FOR CONSTRUCTION SITE WASTES TO BE BE MOBILIZED BY STORMWATER RUNOFF AND CONVEYED TO SURFACE WATERS.
4. UNDER NO CIRCUMSTANCES MAY EROSION CONTROL BMPS BE USED FOR TEMPORARY STORAGE OR DEMOLITION MATERIALS OF CONSTRUCTION WASTES.
5. 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 WILL BE RESPONSIBLE FOR THE REMOVAL OF ANY EXCESS MATERIAL AND MAKE SURE THE SITE(S) RECEIVING THE EXCESS HAS AN APPROVED EROSION AND SEDIMENT CONTROL PLAN THAT COMPLIES WITH THE CONDITIONS OF CHAPTER 102 AND/OR OTHER STATE OR FEDERAL REGULATIONS.
6. CLEAN FILL IS DEFINED AS: UNCONTAMINATED, NON–WATER SOLUBLE, NON–DECOMPOSABLE, INERT, SOLID MATERIAL. THE TERM INCLUDES SOIL, ROCK, TONE, DREDGED MATERIALS, USED ASPHALT, AND BRICK. BLOCK OR CONCRETE FROM CONSTRUCTION AND DEMOLITION ACTIVITIES THAT IS SEPARATE FROM OTHER WASTE AND RECOGNIZED AS SUCH. THE TERM DOES NOT INCLUDE MATERIAL PLACED IN OR ON THE WATERS OF THE COMMONWEALTH OF PENNSYLVANIA UNLESS OTHERWISE AUTHORIZED. (THE TERM "USED ASPHALT" DOES NOT INCLUDE MILLED ASPHALT OR ASPHALT THAT HAS BEEN PROCESSED FOR RE–USE.).
7. ANY PLACEMENT OF CLEAN FILL THAT HAS BEEN AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE MUST USE THE DEPARTMENT FORM (PADEP) FP–001 TO CERTIFY THE ORIGIN OF THE FILL MATERIAL AND THE RESULTS OF THE ANALYTICAL TESTING TO QUALIFY THE MATERIAL AS CLEAN FILL. PADEP FORM FP–001 MUST BE RETAINED BY THE OWNER OF THE PROPERTY RECEIVING THE FILL.
8. ENVIRONMENTAL DUE DILIGENCE MUST BE PERFORMED TO DETERMINE IF THE FILL MATERIALS ASSOCIATED WITH THE PROJECT QUALIFY AS CLEAN FILL. ENVIRONMENTAL DUE DILIGENCE IS DEFINED AS: INVESTIGATIVE TECHNIQUES, INCLUDING, BUT NOT LIMITED TO, VISUAL INSPECTION, ELECTRONIC DATA BASE SEARCHES, REVIEW OF THE PROPERTY OWNERSHIP, REVIEW OF PROPERTY USE HISTORY, SANBORN MAPS, ENVIRONMENTAL QUESTIONNAIRES, TRANSACTION SCREENS, ANALYTICAL TESTING, ENVIRONMENTAL ASSESSMENTS OR AUDITS. ANALYTICAL TESTING IS NOT A REQUIRED PART OF DUE DILIGENCE UNLESS VISUAL INSPECTION AND/OR REVIEW OF THE PAST LAND USE OF THE PROPERTY INDICATES THAT THE FILL MAY HAVE BEEN SUBJECTED TO A SPILL OR RELEASE OF A REGULATED SUBSTANCES. IF THE FILL MAY HAVE BEEN AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCES, IT MUST BE TESTED TO DETERMINE IF IT QUALIFIES AS CLEAN FILL. TESTING SHALL BE PERFORMED IN ACCORDANCE WITH APPENDIX A OF THE DEPARTMENT'S POLICY "MANAGEMENT OF CLEAN FILL."

CONSTRUCTION SEQUENCE

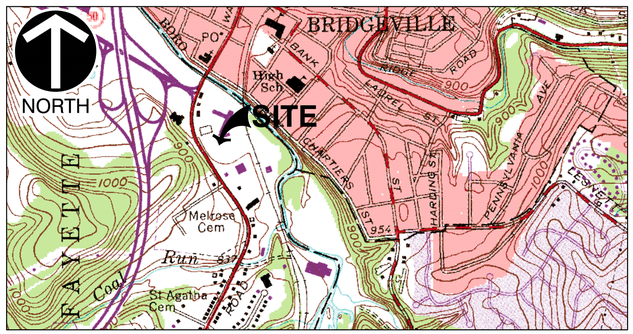
THE CONSTRUCTION OF THE AMERICAN NATURAL PROJECT CONSISTS OF ONE GENERAL PHASE OF CONSTRUCTION. ALL E&S CONTROL FACILITIES SHALL BE INSTALLED IN ACCORDANCE WITH THE APPROVED E&S CONTROL PLAN AND THE PADEP EROSION AND SEDIMENT POLLUTION CONTROL PROGRAM MANUAL DATED MARCH 2012.

A GENERALIZED CONSTRUCTION SEQUENCE IS PROVIDED BELOW. THE CONSTRUCTION SEQUENCE IS INTENDED TO PROVIDE A GENERAL COURSE OF ACTION IN ORDER TO CONFORM TO THE APPLICABLE REGULATORY AGENCY REQUIREMENTS FOR TEMPORARY AND PERMANENT SOIL EROSION AND SEDIMENT POLLUTION CONTROL. ALL NECESSARY PARTS FOR PROPER AND COMPLETE EXECUTION OF WORK PERTAINING TO THIS PLAN, WHETHER SPECIFICALLY MENTIONED OR NOT, ARE TO BE PERFORMED BY THE CONTRACTOR. IT IS NOT INTENDED THAT THE DRAWINGS AND THIS REPORT SHOW EVERY DETAILED PIECE OF MATERIAL OR EQUIPMENT. THE CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS LISTED IN THIS SECTION. THE CONTRACTOR MAY BE REQUIRED TO ALTER CONTROLS BASED ON EFFECTIVENESS OF CONTROLS OR DIFFERING CONDITIONS ENCOUNTERED. THE CONTRACTOR SHALL MAKE EVERY ATTEMPT TO MINIMIZE THE EXTENT AND DURATION OF EARTH DISTURBANCE ACTIVITY AND SOIL COMPACTION, AND SHALL MAXIMIZE THE PROTECTION OF EXISTING DRAINAGE FEATURES AND VEGETATION TO THE GREATEST EXTENT POSSIBLE. EACH STAGE SHALL BE COMPLETED AND IMMEDIATELY STABILIZED BEFORE ANY FOLLOWING STAGE IS INITIATED. CLEARING, GRUBBING, AND TOPSOIL STRIPPING SHALL BE LIMITED ONLY TO THOSE AREAS DESCRIBED IN EACH STAGE. THE CONTRACTOR IS TO MINIMIZE THE EXTENT AND DURATION OF EARTH DISTURBANCE. ANY DEVIATION FROM THE FOLLOWING SEQUENCE MUST BE APPROVED IN WRITING FROM THE ALLEGHENY COUNTY CONSERVATION DISTRICT.

7.2 SITE CONSTRUCTION SEQUENCE

1. AT LEAST 7 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, INCLUDING CLEARING AND GRUBBING, THE OWNER AND/OR OPERATOR SHALL INVITE ALL CONTRACTORS, THE LANDOWNER, APPROPRIATE MUNICIPAL OFFICIALS, THE E&S PLAN PREPARER, THE PCSM PLAN PREPARER, THE LICENSED PROFESSIONAL RESPONSIBLE FOR OVERSIGHT OF CRITICAL STAGES OF IMPLEMENTATION OF THE PCSM PLAN, AND A REPRESENTATIVE FROM THE ALLEGHENY COUNTY CONSERVATION DISTRICT TO AN ON–SITE PRECONSTRUCTION MEETING.
2. 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.
3. LAYOUT THE LIMITS OF THE CONSTRUCTION SITE AND ESTABLISH BENCHMARKS AND REFERENCE POINTS.
4. STAKE OUT THE LIMIT OF DISTURBANCE AS INDICATED ON THE CONSTRUCTION PLANS.
5. INSTALL FILTER BAGS WITHIN ALL EXISTING CATCH BASINS WITHIN AND ADJACENT TO THE PROJECT AREA.
6. INSTALL THE ROCK CONSTRUCTION ENTRANCE IN THE LOCATION SHOWN ON THE PLANS AND IN ACCORDANCE WITH THE STANDARD DETAIL. THIS WILL BE THE ONLY ENTRANCE USED BY CONSTRUCTION VEHICLES.
7. CLEAR ONLY THOSE AREAS NECESSARY TO REACH AND INSTALL PERIMETER E&S CONTROLS SHOWN ON THE EROSION AND SEDIMENTATION CONTROL PLAN. INSTALL SILT SOCK IN THE LOCATIONS SHOWN ON THE PLANS AND IN ACCORDANCE WITH THE SIZE SPECIFICATIONS ON THE E&S PLAN DRAWINGS, THE E&S NARRATIVE AND THE STANDARD DETAIL. ALL PERIMETER COMPOST FILTER SOCK SHALL BE INSTALLED PARALLEL TO THE CONTOURS. TREES SHALL NOT BE REMOVED IN ORDER TO INSTALL COMPOST FILTER SOCKS. SLIGHT DEVIATION FROM INSTALLATION PARALLEL TO CONTOURS IS ACCEPTABLE TO AVOID TREES.
8. BEGIN CLEARING AND GRUBBING THE REMAINDER OF THE SITE WITHIN THE LIMITS OF DISTURBANCE. ALL WASTE MATERIALS SHALL BE DISPOSED OF AT A PADEP–APPROVED WASTE SITE AND IN ACCORDANCE WITH ALL LOCAL AND STATE CODES AND PERMIT REQUIREMENTS (VERIFICATION OF PERMITS TO BE PROVIDED BY THE CONTRACTOR).
9. STRIP TOPSOIL AND PLACE STRIPPED TOPSOIL IN THE TOPSOIL STOCKPILE AREA DESIGNATED ON THE PLANS AND/OR REMOVE FROM SITE. SEED AND MULCH TOPSOIL STOCKPILE. STOCKPILE LOCATIONS MAY VARY IN THE FIELD, AND ADDITIONAL STOCKPILE LOCATIONS MAY BE USED AS NECESSARY. ALL TOPSOIL STOCKPILE AREAS SHALL BE FULLY ENCLOSED WITH SILT SOCK PER THE STANDARD DETAIL.
10. BEGIN ROUGH GRADING OF THE SITE. FILL SLOPES SHALL BE SEEDED AND MULCHED AT REGULAR VERTICAL INCREMENTS – 15 TO 25 FEET MAXIMUM – AS FILL IS BEING CONSTRUCTED. SEEDING AND MULCHING OPERATIONS SHALL BE INITIATED PRIOR TO 15,000 SQUARE FEET OF DISTURBED AREA REACHING FINAL GRADE.
11. INSTALL THE CONCRETE WASHOUT FACILITY IN A LOCATION TO BE SELECTED BY THE CONTRACTOR AND IN ACCORDANCE WITH THE STANDARD DETAIL.
12. CONSTRUCT THE VEGETATED CHANNEL AT THE LOCATION SHOWN ON THE E&S PLAN AND IN ACCORDANCE WITH THE DETAIL, INCLUDING INSTALLATION OF PROTECTIVE LINING. INSTALL COMPOST FILTER SOCK ALONG THE TOP OF THE CHANNEL AS SHOWN ON THE E&S PLAN.
13. BEGIN INSTALLATION OF THE STORM SEWER CONVEYANCE SYSTEM. START AT THE DOWNSTREAM END OF THE SYSTEM, AT THE CONNECTION TO THE EXISTING TOWNSHIP STORM SEWER, AND WORK IN THE UPSTREAM DIRECTION. LEAVE CONCRETE GRADE ADJUSTMENT RINGS OFF TO ENSURE THAT ALL STORMWATER RUNOFF IS DIRECTED TO THE INLETS SUCH THAT PONDING OR FLOODING DOES NOT OCCUR. INSTALL FILTER BAGS WITHIN ALL CATCH BASINS. INSTALL RIP–RAP OUTLET PROTECTION APRONS AS SHOWN ON THE E&S PLAN AND DETAILS. UTILIZE TRENCH PLUGS AND COMPOST FILTER SOCK AS NECESSARY, AND REFER TO THE STANDARD DETAILS PROVIDED ON THE DETAILS SHEET.
14. EXCAVATE TRENCHES ONLY AS REQUIRED. LIMIT DAILY TRENCH EXCAVATION TO THE LENGTH OF PIPE PLACEMENT, PLUG INSTALLATION, AND BACKFILLING THAT CAN BE COMPLETED THE SAME DAY. NO MORE THAN 50 LINEAL FEET OF OPEN TRENCH SHALL EXIT WHEN WORK CEASES AT THE END OF THE WORKING DAY. PLACE EXCAVATED MATERIAL ON THE UPSLOPE SIDE OF THE TRENCH. ANY ACCUMULATED WATER SHALL BE REMOVED BY PUMPING THROUGH A PUMPED WATER FILTER BAG. WATER FROM PUMPED WATER FILTER BAGS MUST BE TREATED FOR SEDIMENT REMOVAL PRIOR TO BEING DISCHARGED TO SURFACE WATERS OF STORMWATER INLETS.
15. CONTINUE GRADING OPERATIONS AND COMMENCE CONSTRUCTION OF BUILDING FOUNDATIONS.
16. CONTINUE GRADING OPERATIONS TO BRING THE REMAINING AREA OF THE SITE TO PROPOSED SUBGRADE. STABILIZE ROADS AND PARKING AREAS IMMEDIATELY AFTER SUBGRADE IS REACHED. UTILIZE PROPER SLOPE AND TRENCH SHORING METHODS TO ALLEVIATE CUTBANK CAVING. STABILIZE SLOPES IMMEDIATELY AFTER REACHING FINAL GRADE.
17. BEGIN CONSTRUCTION OF THE PROPOSED CONVENIENCE STORE AND GAS PUMPS AS PAD GRADING ALLOWS.
18. INSTALL ALL REMAINING UNDERGROUND UTILITY SERVICES INCLUDING SITE SANITARY SEWERS, WATER, GAS, ELECTRIC, TELEPHONE AND CABLE SERVICES AND ALL ASSOCIATED STRUCTURES. UTILIZE TRENCH PLUGS AND COMPOST FILTER SOCK AS NECESSARY, AND REFER TO THE STANDARD DETAILS PROVIDED ON THE DETAIL SHEET. THE TOTAL LENGTH OF EXCAVATED TRENCH OPEN AT ANY ONE TIME SHALL NOT BE GREATER THAN THE TOTAL LENGTH OF UTILITY LINE THAT CAN BE PLACED IN THE TRENCH AND BACKFILLED IN ONE WORKING DAY. UTILIZE A PUMPED WATER FILTER BAG AS NECESSARY. WATER FROM PUMPED WATER FILTER BAGS MUST BE TREATED FOR SEDIMENT REMOVAL PRIOR TO BEING DISCHARGED TO SURFACE WATERS OR STORMWATER INLETS.
19. FINAL GRADE AND STABILIZE ALL AREAS OF THE SITE. AS DISTURBED AREAS WITHIN A PROJECT APPROACH FINAL GRADE, PREPARATIONS SHALL BE MADE FOR SEEDING AND MULCHING TO BEGIN. IN NO CASE SHALL AN AREA EXCEEDING 15,000 SQUARE FEET, WHICH IS TO BE STABILIZED BY VEGETATION, REACH FINAL GRADE WITHOUT BEING SEEDED OR MULCHED. ALL UNPAVED DISTURBED AREAS SHALL BE STABILIZED IMMEDIATELY WITH SEED AND MULCH ONCE GRADING IS COMPLETE OR WITHIN FOUR (4) DAYS ONCE THE CONSTRUCTION HAS BEEN COMPLETED. INSTALL THE APPROPRIATE EROSION CONTROL BLANKETS FOR ALL SLOPES STEEPER THAN 3:1.
20. ALL AREAS NOT PAVED SHALL RECEIVE A MINIMUM OF 6" OF TOPSOIL. INSTALL PLANTINGS IN ACCORDANCE WITH THE LANDSCAPE PLAN.
21. COMPLETE CONSTRUCTION OF ALL PROPOSED CURBS AND SIDEWALKS.
22. REMOVE FILTER BAGS IN AREAS TO BE PAVED. PAVE THE PROPOSED DRIVE AISLES AND PARKING AREAS. REPLACE FILTER BAGS IN INLETS AFTER PAVING IS COMPLETED.
23. ONCE ALL AREAS HAVE BEEN PERMANENTLY STABILIZED, AND A UNIFORM 70% PERENNIAL VEGETATIVE COVER HAS BEEN ESTABLISHED ON ALL GRASSED AREAS AND THE EROSION CONTROL BLANKET HAS BEEN INSTALLED AT LOCATIONS SHOWN ON THE PLANS, REMOVE ALL EROSION AND SEDIMENTATION CONTROL FACILITIES.
24. INSTALL THE FABCO WATER QUALITY FILTERS IN THE INLETS IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.
25. THE SITE CONTRACTOR SHALL CONTACT THE ALLEGHENY COUNTY CONSERVATION DISTRICT (TELEPHONE: 724–241–7645) FOR APPROVAL THAT THE SITE HAS BEEN ADEQUATELY STABILIZED.

SUBMIT THE NOTICE OF TERMINATION (PA DEP FORM 3800–PM–BCW 0229B, DATED 1/2018, OR AS UPDATED) TO THE ALLEGHENY COUNTY CONSERVATION DISTRICT.



REFERENCE:
U.S.G.S. 7.5' TOPOGRAPHIC MAP, BRIDGEVILLE QUADRANGLES, PA DATED: 1993; 1"=1000'

LOCATION MAP

SCALE: 1" = 1000'

POTENTIAL FOR THERMAL IMPACTS

THERMAL IMPACTS WILL BE ADDRESSED REDUCING THE AMOUNT OF IMPERVIOUS AREA ON THE SITE, AND BY THE USE OF STORM SEWERS AND A VEGETATED CHANNEL WHICH WILL CONVEY A PORTION OF THE STORMWATER RUNOFF FROM THE PARKING LOT TO THE PROPOSED STORMWATER PIPING SYSTEM. RUNOFF FROM THE PROPOSED DEVELOPMENT'S IMPERVIOUS SURFACES WILL BE CONVEYED THROUGH A STORMWATER PIPING SYSTEM, CURB CUT ROCK CHANNEL, AND/OR VEGETATED CHANNEL BEFORE BEING DISCHARGED TO THE MUNICIPAL STORMWATER SYSTEM, WHERE IT EVENTUALLY DISCHARGES TO CHARTIERS CREEK. THE TIME REQUIRED FOR RUNOFF TO REACH CHARTIERS CREEK WILL PROVIDE COOLING EFFECTS THAT WILL OFFSET THERMAL IMPACTS GENERATED BY THE PROPOSED IMPERVIOUS SURFACE. FURTHERMORE, FLOW THROUGH THE VEGETATED AREAS WILL ALSO PROVIDE ADDITIONAL OPPORTUNITY FOR THE RUNOFF TO INFILTRATE INTO THE GROUND RATHER THAN BEING DIVERTED DIRECTLY INTO WATERWAYS, FURTHER OFFSETTING POTENTIAL THERMAL IMPACTS. EFFORTS WILL BE MADE TO MINIMIZE SOIL COMPACTION.

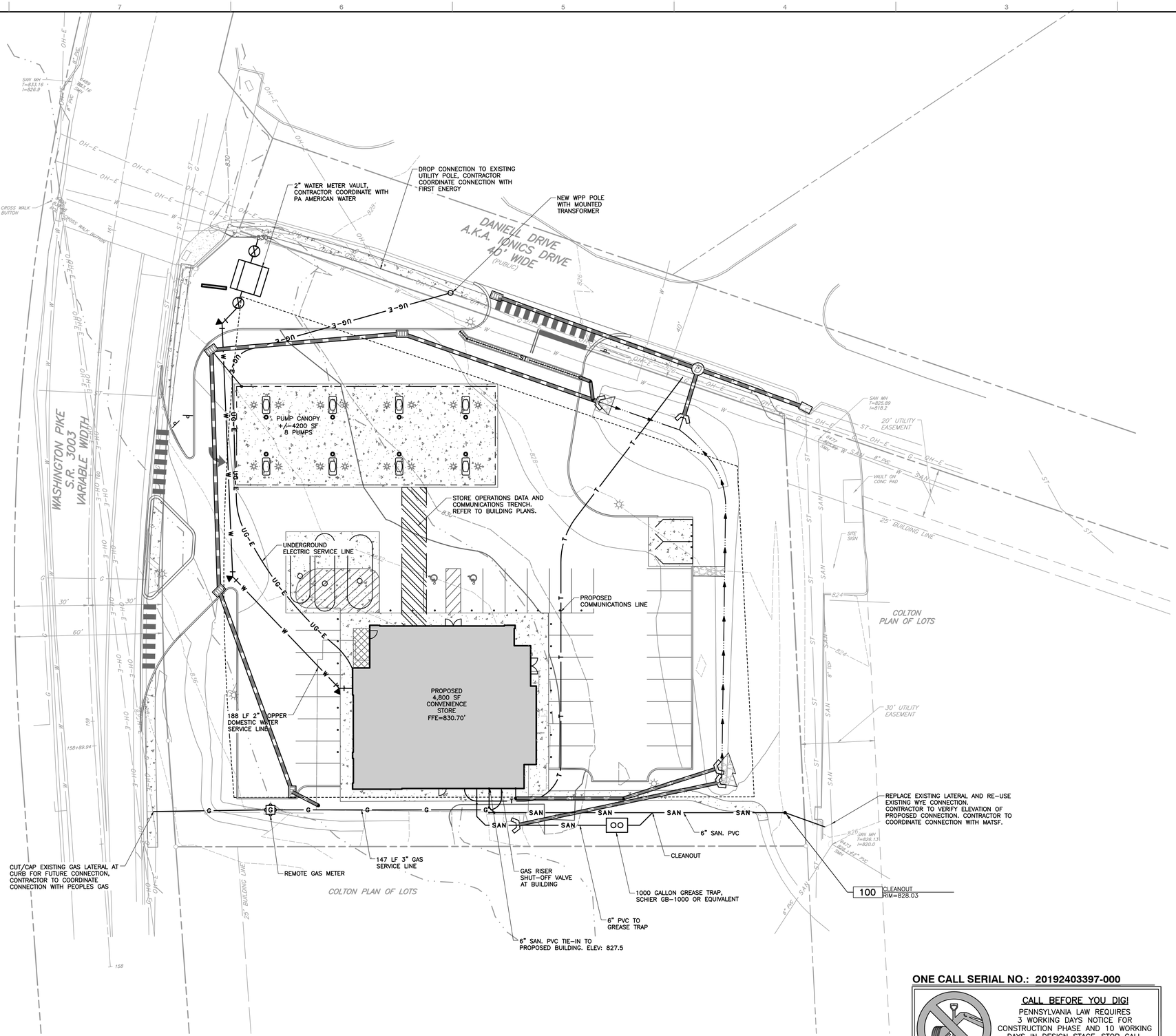
CRITICAL STAGES

1. CONSTRUCTION OF THE VEGETATED CHANNEL
2. INSTALLATION OF STORM SEWERS INCLUDING FABCO WATER QUALITY FILTERS

GEOLOGIC FORMATIONS/SOIL CONDITIONS

THE UNITED STATES DEPARTMENT OF AGRICULTURE (USDA) SOIL SURVEY OF ALLEGHENY COUNTY, PA INDICATES THAT THE SITE SOILS PRIMARILY CONSIST OF THE CULLEOKA, GILPIN, WEIKERT, AND URBAN LAND SERIES OF SOILS. THE CULLEOKA, GILPIN, AND WEIKERT SERIES CONSIST OF RESIDUUM WEATHERED FROM SANDSTONE, SILTSTONE, AND SHALE. THE URBAN LAND ORIGINATES FROM PAVEMENTS, BUILDINGS, AND OTHER ARTIFICIALLY COVERED AREAS. ACCORDING TO THIS RESOURCE, THE DEPTH TO A RESTRICTIVE FEATURE (

NORTH



LEGEND

- EXISTING INDEX CONTOUR
- EXISTING INTERMEDIATE CONTOUR
- EXISTING PROPERTY LINE
- EXISTING RIGHT-OF-WAY LINE
- EXISTING PAVEMENT
- EXISTING PAVEMENT MARKING
- EXISTING FLOODPLAIN BOUNDARY
- EXISTING OVERHEAD UTILITY
- EXISTING UTILITY POLE
- EXISTING STORM INLET
- EXISTING SANITARY MANHOLE
- EXISTING SANITARY LINE
- EXISTING WATERLINE
- PROPOSED HEAVY DUTY PAVEMENT
- PROPOSED CONCRETE
- PROPOSED BUILDING
- PROPOSED EASEMENT
- PROPOSED SETBACK
- PROPOSED STORM PIPE
- PROPOSED INLET
- PROPOSED CHANNEL
- PROPOSED RIPRAP
- PROPOSED INDEX CONTOUR
- PROPOSED INTERMEDIATE CONTOUR
- PROPOSED WATER LINE
- PROPOSED GAS LINE
- PROPOSED ELECTRIC LINE
- PROPOSED COMMUNICATIONS LINE
- PROPOSED SANITARY LINE

REFERENCE

1. EXISTING CONTOURS DERIVED FROM A BARE-EARTH DIGITAL ELEVATION MODEL CONSTRUCTED FROM PAMAP LIDAR (LIGHT DETECTION AND RANGING) ELEVATION POINTS. TOPOGRAPHIC CONTOURS MAPPED AT AN INTERVAL OF 2 FEET; DEVELOPED BY PAMAP PROGRAM, PA DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES, BUREAU OF TOPOGRAPHIC AND GEOLOGIC SURVEY; DATED 2010.
2. SURVEY INFORMATION COMPLETED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC (CEC), DATED SEPTEMBER 2019. VERTICAL DATUM IS BASED UPON NAVD88, AS DETERMINED BY CEC USING SURVEY GRADE GPS MEASUREMENTS AND OPUS POST-PROCESSING.

ONE CALL SERIAL NO.: 20192403397-000

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

PENNSYLVANIA ACT 287 (1974) AS AMENDED BY ACT 50 (2017). REQUIRES NO LESS THAN 3 WORKING DAYS NOTICE NOR MORE THAN 10 WORKING DAYS NOTICE FROM EXCAVATORS WHO ARE ABOUT TO: DIG, DRILL, BLAST, AUGER, BORE, GRADE, TRENCH, OR DEMOLISH WHEN IN THE CONSTRUCTION PHASE. FOR LOCATION REQUESTS IN THE STATE OF PENNSYLVANIA, CALL TOLL FREE 1-800-242-1776. UNDERGROUND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE INFORMATION AND THE LOCATION MUST BE CONSIDERED APPROXIMATE. OTHER UNDERGROUND UTILITIES MAY EXIST WHICH ARE NOT SHOWN. IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO ASCERTAIN ALL PHYSICAL LOCATIONS OF UTILITY LINES PRIOR TO THE TIME OF CONSTRUCTION. IN NO WAY SHALL THE CONTRACTOR HOLD THE SURVEYOR RESPONSIBLE FOR ANY UTILITY LOCATION SHOWN ON THIS PLAN.

SCALE IN FEET
0 20 40

COMMONWEALTH OF PENNSYLVANIA
ANDREW R. GULLONE
REGISTERED
PROFESSIONAL
ENGINEER

REVISION RECORD

NO	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
333 Baldwin Road · Pittsburgh, PA 15205
412-429-2324 · 800-365-2324
www.cecinc.com

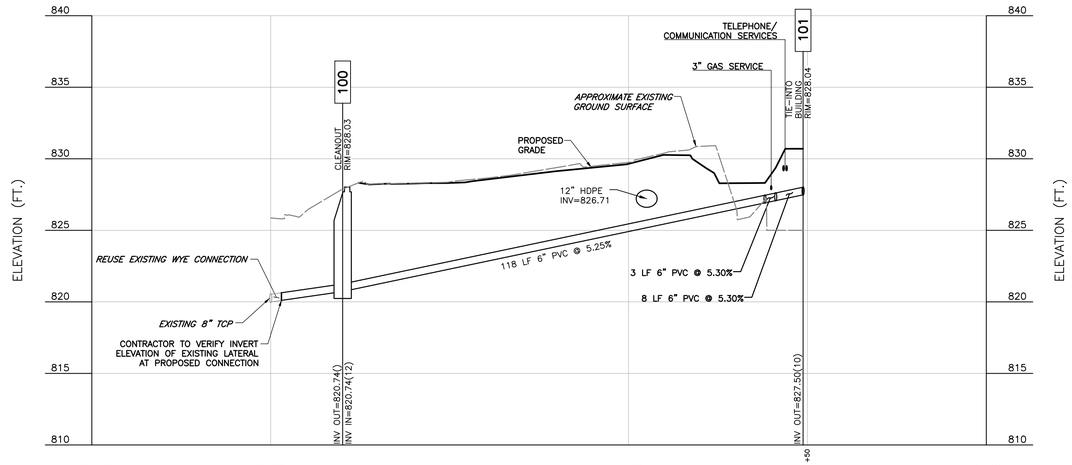
DOROTHY HOLDINGS LLC
SOUTH FAYETTE AMERICAN NATURAL
SOUTH FAYETTE TOWNSHIP
ALLEGHENY COUNTY, PENNSYLVANIA

UTILITY PLAN

DATE:	SEPTEMBER 2019
DRAWN BY:	JTL
DWG SCALE:	1" = 20'
CHECKED BY:	ARG
PROJECT NO:	192-386
APPROVED BY:	AMB

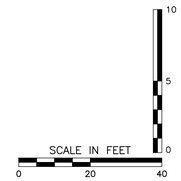
DRAWING NO.: C500

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PROPOSED SANITARY LINE PROFILE

SCALE H:1"=20'; V:1"=5'



REVISION RECORD		
NO	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
333 Baldwin Road · Pittsburgh, PA 15205
412-429-2324 · 800-365-2324
www.cecinc.com

DOROTHY HOLDINGS LLC
SOUTH FAYETTE AMERICAN NATURAL
SOUTH FAYETTE TOWNSHIP
ALLEGHENY COUNTY, PENNSYLVANIA

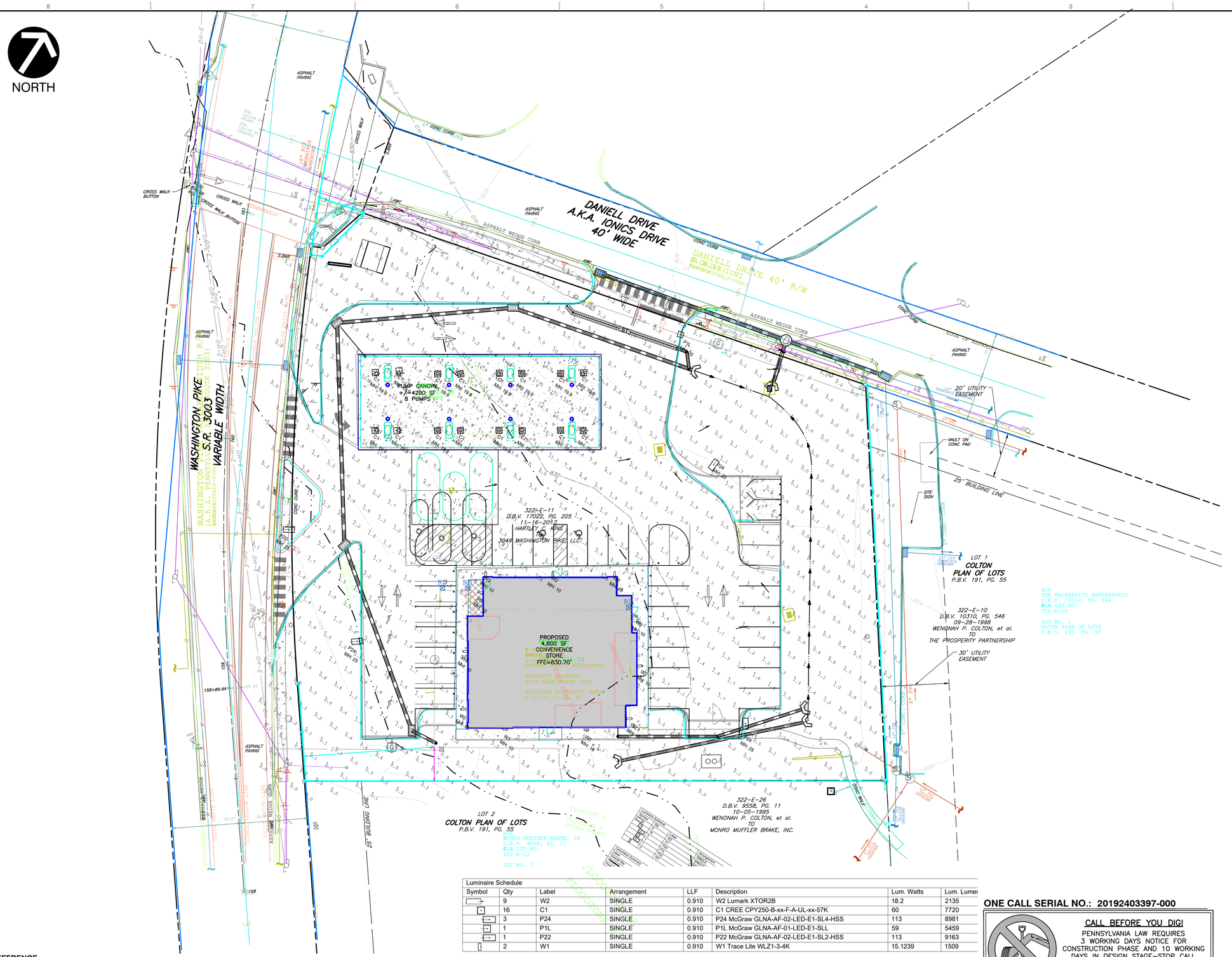
SANITARY SEWER PROFILE

DATE:	SEPTEMBER 2019
DRAWN BY:	JTL
DWG SCALE:	1"=20'
CHECKED BY:	ARG
PROJECT NO:	192-386
APPROVED BY:	AMB

DRAWING NO.:
C501

ANDREW R. GULLONE
REGISTERED
PROFESSIONAL
ENGINEER

P:\2019\192-386\-CADD\Dwg\Civil\192386-CV01-C500.dwg[C501 SANITARY LINE PROFILE] LS:6/2/2020 - dtrout) - LP: 6/4/2020 11:46 AM



Luminaire Schedule							
Symbol	Qty	Label	Arrangement	LLF	Description	Lum. Watts	Lum. Lumer
	9	W2	SINGLE	0.910	W2 Lumark XTOR2B	18.2	2135
	16	C1	SINGLE	0.910	C1 CREE CPY250-B-xx-F-A-UL-xx-57K	60	7720
	3	P24	SINGLE	0.910	P24 McGraw GLNA-AF-02-LED-E1-SL4-HSS	113	8981
	1	P1L	SINGLE	0.910	P1L McGraw GLNA-AF-01-LED-E1-SLL	59	5459
	1	P22	SINGLE	0.910	P22 McGraw GLNA-AF-02-LED-E1-SL2-HSS	113	9163
	2	W1	SINGLE	0.910	W1 Trace Lite WLZ1-3-4K	15.1239	1509

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
Overall Site	Illuminance	Fc	2.65	18.7	0.0	N.A.	N.A.
Paved Area	Illuminance	Fc	4.98	18.7	0.5	9.96	37.40
Paved Area No Canopy	Illuminance	Fc	2.90	12.3	0.2	14.50	61.50

REFERENCE

1. EXISTING CONTOURS DERIVED FROM A BARE-EARTH DIGITAL ELEVATION MODEL CONSTRUCTED FROM PAMAP LIDAR (LIGHT DETECTION AND RANGING) ELEVATION POINTS. TOPOGRAPHIC CONTOURS MAPPED AT AN INTERVAL OF 2 FEET; DEVELOPED BY PAMAP PROGRAM, PA DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES, BUREAU OF TOPOGRAPHIC AND GEOLOGIC SURVEY; DATED 2010.
2. SURVEY INFORMATION COMPLETED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC (CEC). DATED SEPTEMBER 2019. VERTICAL DATUM IS BASED UPON NAVD88, AS DETERMINED BY CEC USING SURVEY GRADE GPS MEASUREMENTS AND OPUS POST-PROCESSING.

ONE CALL SERIAL NO.: 20192403397-000

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SCALE IN FEET
0 20 40

REVISION RECORD

NO	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
333 Baldwin Road · Pittsburgh, PA 15205
412-429-2324 · 800-365-2324
www.cecinc.com

DOROTHY HOLDINGS LLC
SOUTH FAYETTE AMERICAN NATURAL
SOUTH FAYETTE TOWNSHIP
ALLEGHENY COUNTY, PENNSYLVANIA

SITE LIGHTING PLAN

DATE:	NOVEMBER 2019
DWG SCALE:	AS SHOWN
PROJECT NO:	192-386
DRAWN BY:	JTL
CHECKED BY:	ARG
APPROVED BY:	AMB

DRAWING NO.:
C600

COMMONWEALTH OF PENNSYLVANIA
ANDREW R. GULLONE
REGISTERED
PROFESSIONAL
ENGINEER

P:\2019\192-386\-CAD\[Dwg]\C601\192386-C601-C600.dwg(C600 SITE LIGHTING PLAN) LS(10/10/2020 - qpullano) - LP: 6/4/2020 11:46 AM

NORTH

WLZ SERIES
Zero Uplight LED Wallpack

DESCRIPTION
The WLZ Series features an architecturally relevant low-profile LED design in lumen packages ranging from 1500 lumens to over 12,000 lumens. Its high-efficiency light engine is designed for optimal light control and distribution with zero uplight. This family of product is offered in several size housings to complement any building exterior and accommodates mounting heights up to 35'. Integral emergency battery backup available for path of egress with Cold Location operation down to -20°C.

SPECIFICATIONS
Construction
- Sleek die-cast aluminum housing with stainless steel hardware and powder coated black, bronze, silver or white finish
- UV-stabilized polycarbonate optical lens
- Integral heat sink for maximized heat dissipation
- Back box houses drivers away from LEDs and includes three ¾" hubs (WLZ1 and WLZ2 - two ¾" hubs)

Optics/LEDs
- Zero uplight design to minimize light pollution
- 15 to 100 Watt models replace up to 400 Watt HID for up to 70% energy savings
- Efficacies up to 123 LPW at 5000K to maximize utility rebates
- Type III and Type IV distributions for optimal light distribution (WLZ1 - Type III only)
- Available in 3000K, 4000K and 5000K CCT
- L70 of 50,000 hours at 40°C
- CRI of ≥70

Electrical
- Class 2 power supply, 120-277VAC, 50/60Hz
- 347/480VAC Dedicated driver option for WLZ4, WLZ7 and WLZ10
- 0-10V Dimming driver (120-277VAC only)
- Power supply rated Class A EMI rating

Installation
- Housing hinges to back box and is secured with set screws
- Back box is complete with three ½" hubs and internal bubble level for easy installation (WLZ1 and WLZ2 - two ¾" hubs)
- Mounts to a standard 3-1/2" or 4" square electrical J-box
- Suitable for downlight installation only

Options
- **Battery Backup**
  - Integral battery backup (BB) provides over 700 lumens and 90 minutes of runtime for path of egress. Rated for ambient temperatures of 0°C to 40°C (32°F to 104°F). Not available on WLZ1
  - Integral Battery Backup with Internal Heater (BB-IH) provides over 700 lumens and 90 minutes of runtime for path of egress in Cold Locations down to -20°C. Not available on WLZ1 or WLZ2.
- Factory installed dual driver options for WLZ4 and WLZ10 (WLZ7 is standard with two drivers)
- Factory installed 120/277VAC button type photocontrol option (PC)
- Factory installed 10kVA surge protection options (SP or SPH)

Accessories (Field Installed)
- 120/277VAC Button type universal photocontrol options accessory (PCU)
- Dimming occupancy sensor programmable, Wattstopper FSP221 available in multiple finishes (TL-SCES-L2)
- Remote control for occupancy sensor. Optional (TL-FSIR100)

Testing & Compliance
- cULus Listed for Wet Locations
- DesignLights Consortium® (DLC) Qualified (verify QPL for specific models)
- International Dark Sky friendly approved product. (IDA) 3000K only
- Operating temperatures: -40°C to 40°C (-40°F to 104°F)

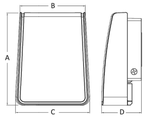


*Specs At A Glance**

Model	WLZ1	WLZ2	WLZ4	WLZ7	WLZ10
Wattage (nominal)	15W	25W	40W	70W	100W
Lumens (lm)	1745	3198	5021	8729	12,393
Efficacy (LPW)	115	118	123	120	116
Equivalency (HID)	50W	100W	150W	250W	400W
Distribution	Type III, IV (WLZ1 Type III only)				
CCT	3000K, 4000K, 5000K				
CRI	≥70				
Input Voltage	120-277VAC, 50/60Hz, 347/480V option				
Operating Temp	-40°C to 40°C (-40°F to 104°F)				
Certifications	UL Listed for Wet Locations, DLC, IDA				
Warranty	5 Years				
Weight	2.6 lbs	3.3 lbs	6.0 lbs	9.9 lbs	12.1 lbs

* Nominal Wattage, tested at 5000K CCT, Type III distribution. Values at 120/277VAC. See performance table for more detailed lumen information.

Note: Environment and application will affect actual performance. Typical values and 25°C (77°F) used for testing. Specifications subject to change without notice.



Model	A (Inches)	B (Inches)	C (Inches)	D (Inches)
WLZ1	6.7	5.0	5.6	3.2
WLZ2	8.0	5.7	6.0	3.2
WLZ4	10.2	6.8	7.8	5.0
WLZ7	11.6	8.3	9.4	5.0
WLZ10	11.6	10.3	11.5	5.0

Model: _____ Date: _____
Accessories: _____
Job Name: _____ Type: _____

TRACE•LITE
commercial & industrial lighting

Lumark

DESCRIPTION
The patented Lumark Crosstour™ LED Wall Pack Series of luminaries provides an architectural style with super bright, energy efficient LEDs. The low-profile, rugged die-cast aluminum construction, universal back box, stainless steel hardware along with a sealed and gasketed optical compartment make the Crosstour impervious to contaminants. The Crosstour wall luminaire is ideal for wall/surface, inverted mount for façade/canopy illumination, post/bollard, site lighting, floodlight and low level pathway illumination including stairs. Typical applications include building entrances, multi-use facilities, apartment buildings, institutions, schools, stairways and loading docks test.

Catalog #	Type
Project	
Comments	Date
Prepared by	

SPECIFICATION FEATURES

Construction
Slim, low-profile LED design with rugged one-piece, die-cast aluminum hinged removable door and back box. Matching housing styles incorporate both a small and medium design. The small housing is available in 12W, 18W and 26W. The medium housing is available in the 38W model. Patented secure lock hinge feature allows for safe and easy tool-less electrical connections with the supplied push-in connectors. Back box includes three half-inch, NPT threaded conduit entry points. The universal back box supports both the small and medium forms and mounts to standard 3-1/2" to 4" round and octagonal, 4" square, single gang and masonry junction boxes. Key hole gasket allows for adaptation to junction box or wall. External fin design extracts heat from the fixture surface. One-piece silicone gasket seals door and back box. Minimum 5" wide pole for site lighting application. Not recommended for car wash applications.

Optical
Silicone sealed optical LED chamber incorporates a custom engineered mirrored anodized reflector providing high-efficiency illumination. Optical assembly includes impact-resistant tempered glass and meets IESNA requirements for full cutoff compliance. Available in seven lumen packages; 5000K, 4000K and 3000K CCT.

Electrical
LED driver is mounted to the die-cast housing for optimal heat sinking. LED thermal management system incorporates both conduction and natural convection to transfer heat rapidly away from the LED source. 12W, 18W, 26W and 38W series operate in -40°C to 40°C [-40°F to 104°F]. High ambient 50°C models available. Crosstour luminaires maintain greater than 89% of initial light output after 72,000 hours of operation. Three half-inch NPT threaded conduit entry points allow for thru-branch wiring. Back box is an authorized electrical wiring compartment. Integral LED electronic driver incorporates surge protection. 120-277V 50/60Hz or 347V 60Hz models.

Finish
Crosstour is protected with a Super durable TGIC carbon bronze or summit white polyester powder coat paint. Super durable TGIC powder coat paint finishes withstand extreme climate conditions while providing optimal color and gloss retention of the installed life.

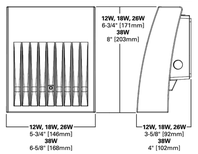
Warranty
Five-year warranty.



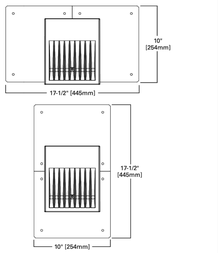
XTOR
CROSSTOUR LED

APPLICATIONS:
WALL / SURFACE
POST / BOLLARD
LOW LEVEL
FLOODLIGHT
INVERTED
SITE LIGHTING

DIMENSIONS



ESCUTCHEON PLATES



CERTIFICATION DATA
UL/cUL Wet Location Listed
LM79 / LM80 Compliant
ROHS Compliant
ADA Compliant
NOM Compliant Models
IP66 Ingressed Protection Rated
Title 24 Compliant
DesignLights Consortium® Qualified*

TECHNICAL DATA
40°C Maximum Ambient Temperature
External Supply Wiring 90°C Minimum

EPA
Effective Projected Area (Sq. Ft.):
XTOR1B, XTOR2B, XTOR3B=0.34
XTOR4B=0.45

SHIPPING DATA:
Approximate Net Weight:
3.7 – 5.25 lbs. [1.7 – 2.4 kgs.]

EATON
Powering Business Worldwide

*www.designlights.org

TD514013EN
September 17, 2018 3:02 PM

McGraw-Edison

Catalog #		Type
Project		
Comments		Date
Prepared by		

DESCRIPTION
The Galleonaire LED luminaire features advanced thermally conductive polymer heatsinks and open frame endcaps for a sleek aesthetic with significant weight reduction. Patented, high-efficiency AccuLED Optics™ system provides uniform and energy conscious illumination to walkways, parking lots, roadways, building areas and security lighting applications. IP66 rated and UL/cUL Listed for wet locations.

SPECIFICATION FEATURES

Construction
Extruded aluminum driver enclosure thermally isolated from Light Squares for optimal thermal performance. Open frame die-cast aluminum end caps provide structural support for the housing and heatsinks. Thermally conductive polymer heatsinks offer significant weight reduction while fully maintaining thermal management of the Light Squares. 3G vibration tested and rated. Optional tool-less hardware available for ease of entry into electrical chamber. Housing is IP66 rated.

Optics
Patented, high-efficiency injection-molded AccuLED Optics technology, Optics are precisely designed to shape the distribution, maximizing efficiency and application spacing. AccuLED Optics create consistent distributions with the scalability to meet customized application requirements. Offered standard in 4000K (+/- 275K) CCT 70 CRI. Optional 2700K, 3000K, 5000K and 6000K CCT.

Electrical
LED drivers are mounted to removable tray assembly for ease of maintenance. 120-277V 50/60Hz, 347V 60Hz or 480V 60Hz operation. 480V is compatible for use with 480V Wye systems only. Standard with 0-10V dimming. Shipped standard with Eaton proprietary circuit module designed to withstand 10kV of transient line surge. The Galleonaire LED luminaire is suitable for operation in -40°C to 40°C ambient environments. Light Squares are IP66 rated. Greater than 90% lumen maintenance expected at 60,000 hours. Available in standard 1A drive current and optional 600mA and 800mA drive currents (nominal).

Mounting
STANDARD ARM MOUNT: Extruded aluminum arm includes internal bolt guides allowing for easy positioning of fixture during mounting. When mounting two or more luminaires at 90° and 120° apart, the EA extended arm may be required. Refer to the arm mounting requirement table. Round pole adapter included. For wall mounting, specify wall mount bracket option. QUICK MOUNT ARM: Adapter is bolted directly to the pole. Quick mount arm slide into place on the adapter and is secured via two screws, facilitating quick and easy installation. The versatile, patent pending, quick mount arm accommodates multiple drill patterns ranging from 1-1/2" to 4-7/8". Removal of the door on the quick mount arm enables wiring of the fixture without having to access the driver compartment. A knock-out enables round pole mounting.

Finish
Housing finished in super durable TGIC polyester powder coat paint, 2.5 mil nominal thickness for superior protection against fade and wear. Heat sink is dark gray, non-paintable. Standard housing colors include black, bronze, grey, white, dark platinum and graphite metallic. RAL and custom color matches available.

Warranty
Five-year warranty.



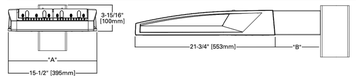
GLNA
GALLEONAIRE

1-10 Light Squares
Solid State LED

AREA/SITE LUMINAIRE

LumenSafe Technology
CLICK HERE

DIMENSIONS

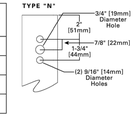


DIMENSION DATA

Number of Light Squares	"A" Width	"B" Standard Arm Length	"B" Optional Arm Length [1]	Weight with Arm (lbs.)	EPA with Arm [2] (Sq. Ft.)
1-4	15-1/2" (394mm)	7" (178mm)	10" (254mm)	28 (12.7 kgs)	0.72
5-6	21-5/8" (549mm)	7" (178mm)	10" (254mm)	38 (16.3 kgs)	0.77
7-8	27-5/8" (702mm)	7" (178mm)	13" (330mm)	43 (19.5 kgs)	0.95
9-10	33-3/4" (857mm)	7" (178mm)	16" (406mm)	49 (22.2 kgs)	1.13

NOTES: 1. Optional arm length to be used when mounting two fixtures at 90° on a single pole. **2.** EPA calculated with optional arm length.

DRILLING PATTERN
TYPE "N"



CERTIFICATION DATA
3G Vibration Rated
IP66 Rated
ISO 9001
LM79 / LM80 Compliant
UL/cUL Wet Location Listed

ENERGY DATA
Electronic LED Driver
≥0.9 Power Factor
<20% Total Harmonic Distortion
120V-277V 50/60Hz
347V, 480V 60Hz
-40°C Min. Temperature
40°C Max. Temperature

TD500064EN
June 26, 2019 3:50 PM

EATON
Powering Business Worldwide

CPY Series - Version B
CPY250® LED Canopy/Soffit Luminaire

Rev. Date: V14 06/03/2019

Product Description
The CPY250® LED Canopy/Soffit Luminaire has an extremely thin profile constructed of rugged cast aluminum. It can be surface mounted easily from below the canopy deck and can be pendant mounted. Direct imaging of the LEDs is eliminated with a highly efficient patterned flat or 0.91" [23mm] drop glass lens.
Applications: Petroleum canopies, CNG fueling stations, soffits

Performance Summary
- Assembled in the U.S.A. of U.S. and imported parts
- **Initial Delivered Lumens:** Up to 20,080
- **Efficacy:** Up to 151 LPW
- **CRI:** Minimum 70 CRI
- **CCT:** 3000K (+/- 300K), 4000K (+/- 300K), 5700K (+/- 500K)
- **Limited Warranty*:** 10 years on luminaire/10 years on Colorfast DeltaGuard® finish
- IP66 Rated (Direct Mount only)
- Class I, Division 2 Hazardous Location for select models

*See http://creelighting.com/warranty for warranty terms

Accessories

Field-Installed

Direct Mount Luminaires
Canopy Upgrade Kits (18 ga. steel, except where noted)
CPY-AP36* - for use with Cree Lighting CAN-36x luminaires, 14 ga. 5052 aluminum
XA-BXCCMW – for use with Jet-Philips, 21.60" (549mm) square, white
XA-BXCCNW – for use with Esco Franciscan, 22.06" (560mm) square, white
XA-BXCCPW – for use with LSI Dakota or Masters, 22.50" (572mm) square, white
XA-BXCCQW – for use with Whiteway Riviera or Rig-A-Lite, 20.60" (523mm) square, white
XA-BXCCRW – for use with Elsco Merrit, 18.06" (459mm) square, white
XA-BXCCSW – for use with LSI Richmond or Whiteway Civic, 23.00" (584mm) L x 13.00" (330mm) W, white
Direct Mount Junction Box/Stem Kit
XA-BXCCJBDK – 6.0" (152mm) H x 3/4" (19mm) NPT Stem
- Watertight
- Rated for feed through 8 (4 in, 4 out) #12 AWG conductors

Direct Mount Beauty Plates
XA-BXCCBPW – 26.17" (665mm) Beauty Plate Only (18 ga. steel), white
XA-BXCCBPB12W – 26.17" (665mm) Beauty Plate (18 ga. steel) w/12" (305mm) Backer Plate (16 ga. steel), white
- For use in canopies where deck opening is larger than what is required for mounting the CPY250 luminaire. Maximum deck opening 10.75" x 15" (183mm x 375mm)

XA-BXCCBPB16W – 26.17" (665mm) Beauty Plate (18 ga. steel) w/16" (406mm) Backer Plate (16 ga. steel), white
- For use in canopies where deck opening is larger than what is required for mounting the CPY250 luminaire. Maximum deck opening 12" x 15" (305mm x 375mm)

Pendant Mount Luminaires
Pendant Mount Kits:
XA-PS12KIT* – 5" [127mm] pendant
XA-PS18KIT* – 11" [279mm] pendant
XA-PS20KIT* – 15" [381mm] pendant
- Includes two conduit fittings and 3/4-14 NPT pipe threaded on two ends

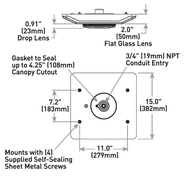
Hand-Held Remote
XA-SENSREM
- For successful implementation of the programmable multi-level option, a minimum of one hand-held remote is required

* Must specify color: BK (Black), BZ (Bronze), SV (Silver) or WH (White)

DM Mount







Weight
12.5 lbs. [5.7kg]

Ordering Information
Example: CPY250-B-DM-D-A-UL-SV

CPY250	B							
Product	**Version**	**Mounting**	**Optic**	**Input Power Designator**	**Voltage**	**Color Options**	**CCT**	**Options**
CPY250	**B**	**DM** Direct **HC** Hook & Cord **PD** Pendant	**D** 0.91" [23mm] Drop Lens **F** Flat Lens	**A** 60W **B** 96W **C** 31W **E** 145W **F** 85W	**UL** Universal 120-277V **UH** Universal 347-480V - Available with B, E & F input power designators only **34*** 347V - A & C input power designators only **48*** 480V - A & C input power designators only	**BK** Black **BZ** Bronze **SV** Silver **WH** White	**30K** 3000K **40K** 4000K **57K** 5700K	**DIM 0-10V Dimming** - Control by others - Refer to Dimming spec sheet for details - Can't exceed wattage of specified Input Power Designator **HZ Class I, Div. 2 Hazardous Location Certification** - Available with DM and PD mounts only - A & C input power designators are available for DM and PD mounts except PD mount with 34 & 48 voltages in Canada - Not available with K or PML options **K NSF 2 Certification** - Luminaires include NSF certification mark - Available with the DM mount only - Not available with the HZ or PML options **PML Programmable Multi-Level** - Available with UL voltage only - Refer to PML spec sheet for details

* 347 and 480V with A & C input power designators utilize a magnetic step-down transformer. For input power for 347 and 480V, refer to the Electrical Data table

US: creelighting.com T (800) 236-6800 F (262) 504-5415
Canada: creelighting-canada.com T (800) 473-1234 F (800) 890-7507

CREE LIGHTING

REVISION RECORD		
NO	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
333 Baldwin Road · Pittsburgh, PA 15205
412-429-2324 · 800-365-2324
www.cecinc.com

DOROTHY HOLDINGS LLC
SOUTH FAYETTE AMERICAN NATURAL
SOUTH FAYETTE TOWNSHIP
ALLEGHENY COUNTY, PENNSYLVANIA

SITE LIGHTING DETAILS

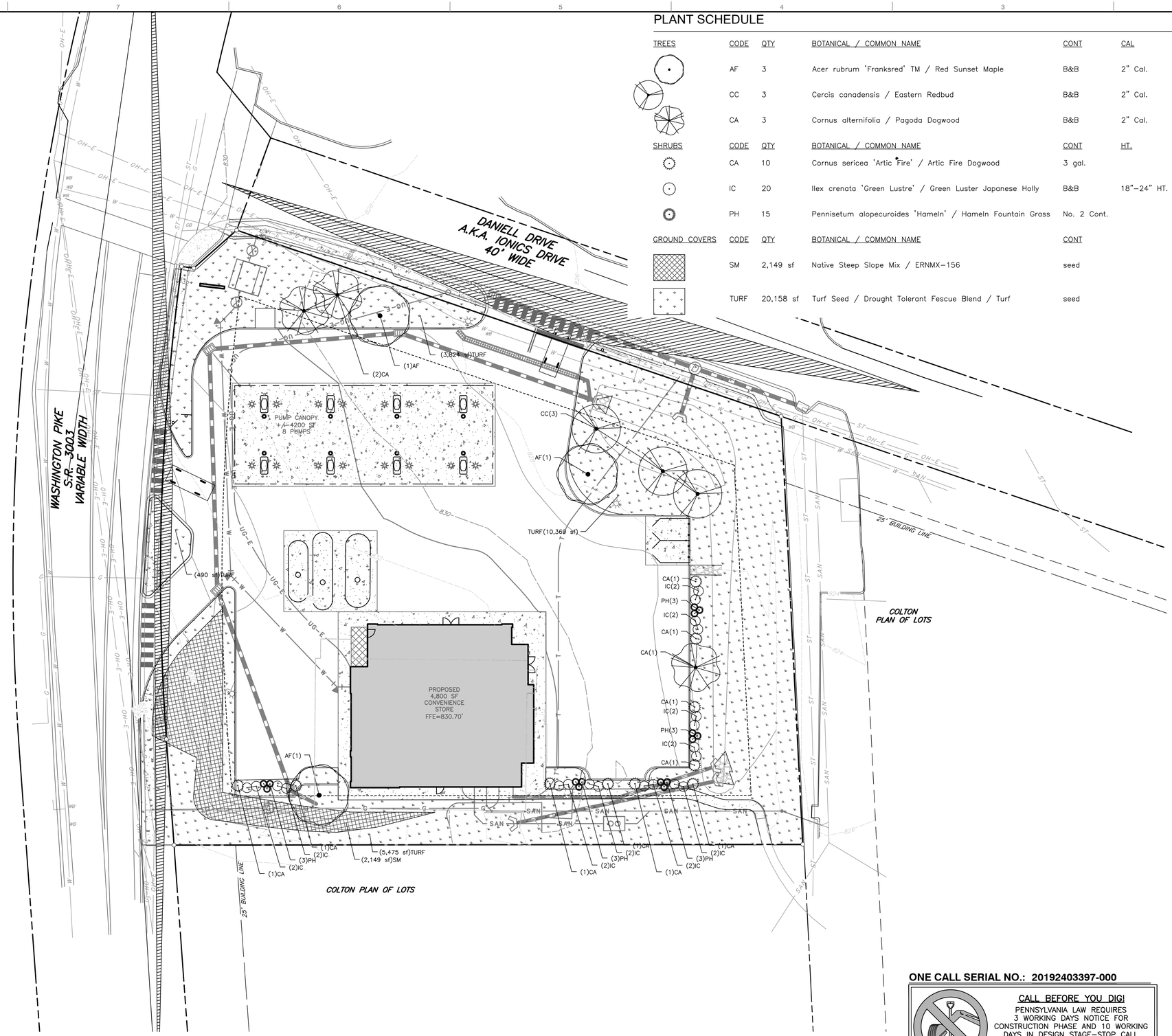
DATE:	NOVEMBER 2019	DRAWN BY:	JTL
DWG SCALE:	AS SHOWN	CHECKED BY:	ARG
PROJECT NO:			192-386
APPROVED BY:			AMB

DRAWING NO.: C601

ANDREW R. GUILLONE
REGISTERED
PROFESSIONAL
ENGINEER
COMMONWEALTH OF PENNSYLVANIA

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NORTH



PLANT SCHEDULE

TREES	CODE	QTY	BOTANICAL / COMMON NAME	CONT	CAL
	AF	3	Acer rubrum 'Franksred' TM / Red Sunset Maple	B&B	2" Cal.
	CC	3	Cercis canadensis / Eastern Redbud	B&B	2" Cal.
	CA	3	Cornus alternifolia / Pagoda Dogwood	B&B	2" Cal.
SHRUBS	**CODE**	**QTY**	**BOTANICAL / COMMON NAME**	**CONT**	**HT.**
	CA	10	Cornus sericea 'Artic Fire' / Artic Fire Dogwood	3 gal.	
	IC	20	Ilex crenata 'Green Lustre' / Green Luster Japanese Holly	B&B	18"–24" HT.
	PH	15	Pennisetum alopecuroides 'Hameln' / Hameln Fountain Grass	No. 2 Cont.	
GROUND COVERS	**CODE**	**QTY**	**BOTANICAL / COMMON NAME**	**CONT**	
	SM	2,149 sf	Native Steep Slope Mix / ERNMX–156	seed	
	TURF	20,158 sf	Turf Seed / Drought Tolerant Fescue Blend / Turf	seed	

LEGEND

- 1220 — EXISTING INDEX CONTOUR
- EXISTING INTERMEDIATE CONTOUR
- EXISTING PROPERTY LINE
- EXISTING RIGHT–OF–WAY LINE
- EXISTING PAVEMENT
- EXISTING PAVEMENT MARKING
- EXISTING FLOODPLAIN BOUNDARY
- OH–E — EXISTING OVERHEAD UTILITY
- EXISTING UTILITY POLE
- EXISTING STORM INLET
- EXISTING SANITARY MANHOLE
- SAN — EXISTING SANITARY LINE
- W — EXISTING WATERLINE
- PROPOSED HEAVY DUTY PAVEMENT
- PROPOSED CONCRETE
- PROPOSED BUILDING
- PROPOSED EASEMENT
- PROPOSED SETBACK
- PROPOSED PARKING COUNT
- PROPOSED ADA PARKING SPACE
- SIGHT DISTANCE TRIANGLE
- PROPOSED STORM PIPE
- PROPOSED INLET
- PROPOSED CHANNEL
- PROPOSED RIPRAP
- 1050 — PROPOSED INDEX CONTOUR
- 1050 — PROPOSED INTERMEDIATE CONTOUR
- W — PROPOSED WATER LINE
- G — PROPOSED GAS LINE
- UG–E — PROPOSED ELECTRIC LINE
- T — PROPOSED COMMUNICATIONS LINE

NOTE: SITE TRIANGLES TO BE MAINTAINED IN ACCORDANCE WITH THE SOUTH FAYETTE TOWNSHIP ORDINANCE.

REFERENCE

1. EXISTING CONTOURS DERIVED FROM A BARE–EARTH DIGITAL ELEVATION MODEL CONSTRUCTED FROM PAMAP LIDAR (LIGHT DETECTION AND RANGING) ELEVATION POINTS. TOPOGRAPHIC CONTOURS MAPPED AT AN INTERVAL OF 2 FEET; DEVELOPED BY PAMAP PROGRAM, PA DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES, BUREAU OF TOPOGRAPHIC AND GEOLOGIC SURVEY; DATED 2010.
2. SURVEY INFORMATION COMPLETED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC (CEC), DATED SEPTEMBER 2019. VERTICAL DATUM IS BASED UPON NAVD88, AS DETERMINED BY CEC USING SURVEY GRADE GPS MEASUREMENTS AND OPUS POST–PROCESSING.

ZONING TABLE - LANDSCAPE		
REQUIREMENT	REQUIRED	PROVIDED
BUILDING FOOTPRINT TREE	1 TREE/1,000 SF; 9,000 SF (9 REQ.)	9 TREES

ONE CALL SERIAL NO.: 20192403397-000

CALL BEFORE YOU DIG!
PENNSYLVANIA LAW REQUIRES 3 WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND 10 WORKING DAYS IN DESIGN STAGE–STOP CALL PENNSYLVANIA ONE CALL SYSTEM, INC.
1–800–242–1776

PENNSYLVANIA ACT 287 (1974) AS AMENDED BY ACT 50 (2017). REQUIRES NO LESS THAN 3 WORKING DAYS NOTICE NOR MORE THAN 10 WORKING DAYS NOTICE FROM EXCAVATORS WHO ARE ABOUT TO: DIG, DRILL, BLAST, AUGER, BORE, GRADE, TRENCH, OR DEMOLISH WHEN IN THE CONSTRUCTION PHASE. FOR LOCATION REQUESTS IN THE STATE OF PENNSYLVANIA, CALL TOLL FREE 1–800–242–1776. UNDERGROUND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE INFORMATION AND THE LOCATION MUST BE CONSIDERED APPROXIMATE. OTHER UNDERGROUND UTILITIES MAY EXIST WHICH ARE NOT SHOWN. IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO ASCERTAIN ALL PHYSICAL LOCATIONS OF UTILITY LINES PRIOR TO THE TIME OF CONSTRUCTION. IN NO WAY SHALL THE CONTRACTOR HOLD THE SURVEYOR RESPONSIBLE FOR ANY UTILITY LOCATION SHOWN ON THIS PLAN.

SCALE IN FEET
0 20 40

REVISION RECORD

NO	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
333 Baldwin Road · Pittsburgh, PA 15205
412-429-2324 · 800-365-2324
www.cecinc.com

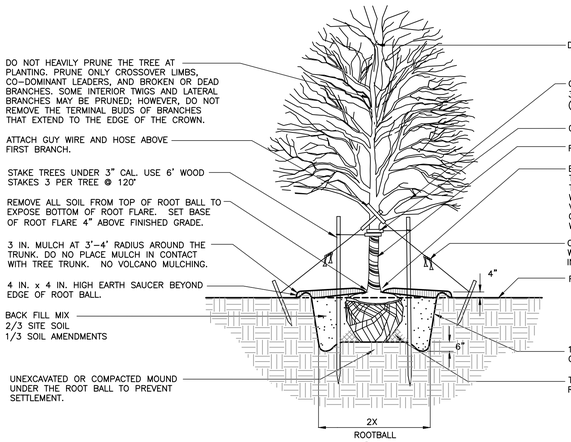
DOROTHY HOLDINGS LLC
SOUTH FAYETTE AMERICAN NATURAL
SOUTH FAYETTE TOWNSHIP
ALLEGHENY COUNTY, PENNSYLVANIA

LANDSCAPE PLAN

DATE:	NOVEMBER 2019	JTL
DWG SCALE:	AS SHOWN	DRAWN BY: ARG
PROJECT NO:	192-386	CHECKED BY: AMB
		APPROVED BY:

DRAWING NO.: C700

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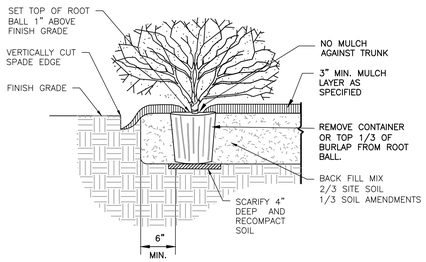


NOTES:

1. PROVIDE POSITIVE DRAINAGE UNDER ALL CIRCUMSTANCES. DRAINAGE SHOULD BE FROM CENTER OF ROOT BALL TO PERIMETER OF ROOT BALL. DO NOT ALLOW PONDING OF WATER UNDER ROOTBALL.
2. REMOVE TOP HALF OF WIRE BASKET AFTER PLACING ROOTBALL IN PLANT PIT.
3. REMOVE ROPE TIES & TOP 1/3 OF BURLAP FROM ROOT BALL AFTER PLANTING.
4. POLYPROPYLENE STRAPS MAY BE SUBSTITUTED IN LIEU OF WIRES, ARBORTIE OR EQUIVALENT.
5. SEE PLANTING SCHEDULE AND PLANTING NOTES FOR ADDITIONAL INFORMATION/REQUIREMENTS.

DECIDUOUS TREE PLANTING DETAIL

N.T.S.

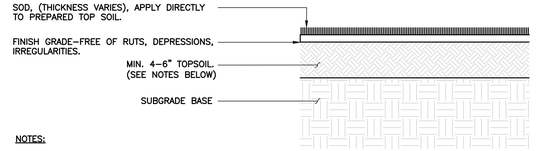


NOTES

1. SEE PLANTING SCHEDULE AND PLANTING NOTES FOR ADDITIONAL INFORMATION/REQUIREMENTS.
2. LIMIT AMOUNT OF PRUNING TO ONLY DEAD OR DAMAGED LIMBS. RETAIN THE NATURAL SHAPE OF SHRUB. IF MORE THAN 1/5 OF TOTAL SHRUB FOLIAGE IS PRUNED, PLANT MAYBE REJECTED.

SHRUB PLANTING DETAIL

N.T.S.



NOTES:

1. MINIMUM TOPSOIL DEPTH IS 4-6 INCHES.
2. TOPSOIL SHOULD HAVE A GOOD HUMUS CONTENT. THIS CAN BE 20 TONS OF COMPOSTED MANURE PER ACRE OR 170 BALES OF PEAT PER ACRE.
3. TOPSOIL WITH A PH OF 6 OR LESS WILL NEED A LIME AMENDMENT. EVENLY APPLY HYDRATED LIME OR GROUND LIMESTONE TO TOP SOIL UNTIL PH IS ADJUSTED TO BETWEEN 6-7. PH BELOW 5.5 OR ABOVE 7.5 IS UNACCEPTABLE FOR LAWNS.
4. 650 LBS OF SLOW RELEASE WELL BALANCED FERTILIZER 10-10-10 PER ACRE SHOULD BE HARROWED INTO THE TOPSOIL PRIOR TO SODING.
5. SODING IS BEST IN THE LATE SUMMER-EARLY AUTUMN. A HARROW MAY BE USED TO OBTAIN AN EVEN SURFACE THAT IS FIRM.
6. CONTRACTOR RESPONSIBLE FOR ENSURING SOD IS WATERED DURING ESTABLISHMENT.
7. SEE SPECIFICATIONS FOR ADDITIONAL NOTES.

SOD PLANTING DETAIL

N.T.S.

NOTES:

1. SUBGRADE SURFACE TO FREE OF ALL DEBRIS AND CLEAN SOIL FILL. LANDSCAPE ARCHITECT TO APPROVE SUBSOIL CONDITIONS PRIOR TO TOPSOIL PLACEMENT.
2. COMPACT PLANTING SOIL AND SUBSOIL AREAS TO 85% MAX. COMPACTION TO AVOID SETTLEMENT ADJACENT TO PAVEMENTS

TOPSOIL BACKFILL DETAIL

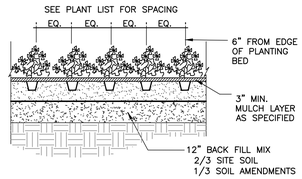
N.T.S.

NOTES

1. INSTALL BED EDGE WHEN MULCHED AREAS ABUT LAWN AREAS. DO NOT INSTALL UNTIL LAWN IS ESTABLISHED AND SOIL IS FIRM. RE-MULCH EDGE IF SOIL GETS ON PREVIOUSLY INSTALLED MULCH DURING EDGE INSTALLATION.

PLANTING BED EDGE DETAIL

N.T.S.



GROUNDCOVER PLANTING DETAIL

N.T.S.

PLANTING NOTES

1. THE QUANTITIES INDICATED ON THE PLANT MATERIALS SCHEDULE ARE PROVIDED FOR THE BENEFIT OF THE LANDSCAPE CONTRACTOR BUT SHOULD NOT BE ASSUMED TO BE CORRECT. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE QUANTITIES INDICATED. ANY DISCREPANCIES NOTED SHALL BE BROUGHT TO THE ATTENTION OF THE OWNERS REPRESENTATIVE PRIOR TO INSTALLATION. IN THE EVENT OF A DISCREPANCY, THE DRAWINGS SHALL GOVERN.
2. NO SUBSTITUTIONS AS TO SIZE, TYPE, SPACING, QUANTITY OR QUALITY OF PLANT MATERIAL SHALL BE MADE WITHOUT THE WRITTEN APPROVAL OF THE LANDSCAPE ARCHITECT. CHANGES IN PLANT MATERIAL MAY REQUIRE RE-APPROVAL BY LOCAL AUTHORITIES. CONTRACTOR IS NOT TO SEEK RE-APPROVAL WITHOUT EXPRESS WRITTEN CONSENT OF THE LANDSCAPE ARCHITECT.
3. ALL PLANTS MUST BE NURSERY GROWN, HEALTHY, VIGOROUS, AND FREE FROM ALL PESTS AND DISEASE. BALL AND BURLAP (B&B) OR CONTAINER GROWN AS SPECIFIED IN THE MATERIALS SCHEDULE. ALL PLANT SHALL CONFORM TO THE AMERICAN STANDARD FOR NURSERY STOCK ANSI Z-60, LATEST EDITION FOR SIZE AND QUALITY.
4. ALL TREES MUST BE STRAIGHT TRUNKED, FULL HEADED, AND MEET THE MINIMUM REQUIREMENTS. TREES WITH A "Y" SHAPE ARE NOT ACCEPTABLE. REFER TO THE WRITTEN SPECIFICATIONS.
5. ALL PLANTS ARE SUBJECT TO REVIEW AND APPROVAL BY THE LANDSCAPE ARCHITECT AND OR OWNERS REPRESENTATIVE AT ANY TIME PRIOR TO FINAL ACCEPTANCE.
6. ALL TREES 2-INCH CALIPER AND LARGER SHALL BE STAKED AND GUYED AS SPECIFIED. STAKE AND GUYED MATERIALS SHALL BE REMOVED BY THE LANDSCAPE CONTRACTOR 12 MONTHS AFTER FINAL ACCEPTANCE.
7. THE DIMENSIONS FOR HEIGHT, SPREAD, AND CALIPER AS SPECIFIED IN THE PLANT MATERIALS SCHEDULE ARE THE MINIMUM DESIRED FOR EACH PLANT. EACH PLANT SHALL BE UNIFORM AND CONSISTENT AS IT PERTAINS TO THE SPECIFICATIONS AND THE INDIVIDUAL SPECIES. ANY PLANT MATERIAL WHICH FAILS THESES SPECIFICATIONS WILL BE REJECTED. THE CONTRACTOR SHALL PROVIDE ACCEPTABLE MATERIAL AT NO ADDITIONAL COST TO THE OWNER. CALIPER SIZE IS NOT TO BE REDUCED. TREES THAT FAIL MINIMUM CALIPER SIZE AS MEASURED IN THE FIELD WILL BE REJECTED AND REPLACEMENTS SHALL BE MADE BY THE CONTRACTOR AT NO ADDITIONAL COST. CALIPER MEASUREMENTS SHALL BE MADE IN ACCORDANCE WITH ANSI STANDARDS.
8. PRIOR TO COMMENCEMENT OF INSTALLATION, THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL EXISTING UTILITIES AND SHALL AVOID DAMAGING UTILITIES DURING INSTALLATION. ANY UTILITIES DAMAGED DURING INSTALLATION SHALL BE REPAIRED BY THE LANDSCAPE CONTRACTOR TO THE SATISFACTION OF THE APPROPRIATE UTILITY COMPANY. ALL REPAIRS SHALL BE AT NO COST TO THE OWNER. NO TREES SHALL BE PLANTED WITHIN 10' OF SITE UTILITY LINES. FIELD ADJUST AS NECESSARY AFTER LANDSCAPE ARCHITECT'S APPROVAL.
9. THE LANDSCAPE CONTRACTOR SHALL FIELD STAKE ALL PLANT LOCATIONS PRIOR TO INSTALLATION. THE LANDSCAPE ARCHITECT SHALL APPROVE ALL STAKED LOCATIONS PRIOR TO INSTALLATION. PLANTS INSTALLED PRIOR TO APPROVAL BY THE LANDSCAPE ARCHITECT ARE SUBJECT TO REJECTION AND/ OR REPLACEMENT AT NO ADDITIONAL COST TO THE OWNER.
10. PRE-EMERGENT HERBICIDES, TREFLAN OR EPTAM, SHALL BE APPLIED TO ALL PLANTING BEDS. APPLY AT MANUFACTURERS RECOMMENDATIONS. HERBICIDES SHALL BE INCORPORATED INTO THE SOIL MIXES.
11. APPLY ROOT STIMULATOR, CONTAINING MICRORHIZZA, TO ALL PLANTS PRIOR TO BACK FILLING. APPLY AT MANUFACTURER'S RECOMMENDATIONS. CONTRACTOR TO SUBMIT SAMPLES OF ROOT STIMULATOR TO THE LANDSCAPE ARCHITECT FOR APPROVAL PRIOR TO USE.
12. SEEDED OR SOD MAINTENANCE: THIS INCLUDES MOWING, WATERING, FERTILIZING, LIMING, AND OTHER REQUIRED MAINTENANCE SUCH AS AERATION, REMOVAL OF THATCH, TOP-DRESSING, WEED CONTROL, PEST AND DISEASE CONTROL. MAINTENANCE PERIOD WILL BE 120 DAYS FROM DATE OF PLANTING COMPLETION.
13. ALL DISTURBED AREAS THAT DO NOT RECEIVE MULCH OR OTHER SPECIFIED IMPROVEMENTS ARE TO BE FINE GRADED TO TRANSITION SMOOTHLY INTO ADJACENT GRADES AND RECEIVE THE FOLLOWING PERMANENT SEED MIX IF NO OTHER PERMANENT SEED MIX IS PROVIDED. PERMANENT SEED MIX SHALL MATCH THE EXISTING LAWN TYPE AND CONSIST OF A MINIMUM 4 NAMED VARIETIES OF EACH SEED TYPE. SUBMIT THE SEED MIX TO THE LANDSCAPE ARCHITECT FOR APPROVAL PRIOR TO SEEDING.
14. THE LANDSCAPE CONTRACTOR SHALL COMPLETELY GUARANTEE ALL PLANTINGS FOR A PERIOD OF ONE (1) YEAR BEGINNING UPON THE WRITTEN DATE OF SUBSTANTIAL COMPLETION OF THE PROJECT. ANY PLANTS SUBJECT TO REPLACEMENT SHALL BE MADE AT THE END OF THE WARRANTY PERIOD OR AT TIME AS DETERMINED BY THE OWNERS REPRESENTATIVE. ALL PLANTS MUST BE ALIVE AND HEALTHY FOR REVIEW AND APPROVAL BY LOCAL AUTHORITIES AS APPROPRIATE FOR OCCUPANCY PERMIT.
15. THE LANDSCAPE CONTRACTOR SHALL UTILIZE ON-SITE TOPSOIL AS AVAILABLE FROM THE CONTRACTOR. ALL IMPORTED TOPSOIL SHALL BE APPROVED BY THE OWNERS REPRESENTATIVE PRIOR TO PLACEMENT.
16. EXISTING GRASS TO BE REMOVED, IF PRESENT, AND TOPSOIL TO BE SPREAD SMOOTH AND HAND-RAKED TO REMOVE ALL ROCKS AND DEBRIS LARGER THAT 1 INCH IN DIAMETER PRIOR TO LAYING SOD OR SEEDING.
17. ALL TREE, SHRUB AND GROUND COVER BEDS (EXISTING AND NEW) TO BE MULCHED WITH A MINIMUM OF 3 INCHES OF AGED, SHREDDED HARDWOOD BARK, SUBMIT SAMPLE TO LANDSCAPE ARCHITECT FOR APPROVAL. ALL PLANTING AREAS MUST BE COMPLETELY MULCHED.
18. THE TYPICAL PLANTING SOIL BACKFILL MIX FOR BEDS AND PLANT BACKFILL SHALL CONSIST OF THE FOLLOWING:
    2/3 SITE SOIL
    1/3 SOIL AMENDMENTS (BY VOLUME AS FOLLOWS)
    2 PARTS HUMUS AND OR PEAT
    1 PART COARSE RIVER SAND
    1 PART STERILIZED COMPOSTED COW MANURE
    COMMERCIAL FERTILIZER AND LIME AS RECOMMENDED BY THE SOILS TEST REPORT. COMPLETELY BLEND BACKFILL SOIL MIX PRIOR TO PLACEMENT.

REVISION RECORD

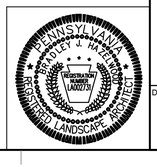
NO	DATE	DESCRIPTION

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DOROTHY HOLDINGS LLC
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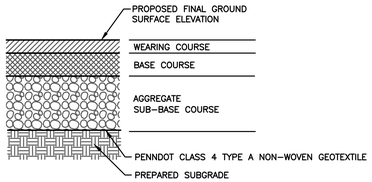
LANDSCAPE DETAILS

DATE:	NOVEMBER 2019
DWG SCALE:	AS SHOWN
PROJECT NO:	192-386
DRAWN BY:	JTL
CHECKED BY:	ARG
APPROVED BY:	AMB



DRAWING NO.:
C701

P:\2019\192-386\1-CAD\Dwg\CIVIL\192386-CIVIL-C700.dwg(C701 LANDSCAPE DETAILS) LS(2/14/2020 - dhamid) - LP: 6/4/2020 11:47 AM



ITEM	LIGHT DUTY PAVEMENT SECTION	HEAVY DUTY PAVEMENT SECTION
PG 64-22 (9.5mm SUPERPAVE MIX WEARING COURSE)	2.0"	2.0"
PG 64-22 (25mm SUPERPAVE MIX BASE COURSE)	3.0"	4.0"
PENNDOT TYPE 2A AGGREGATE SUB-BASE COURSE	6.0"	8.0"

NOTES:

1. PRIOR TO PLACEMENT OF PENNDOT CLASS 4 GEOTEXTILE, THE PAVEMENT SUBGRADE SHALL BE PREPARED AS FOLLOWS:

   A. PAVEMENT SUBGRADE SHALL BE PROOFROLLED USING A FULLY-LOADED DUMP TRUCK PRIOR TO PAVEMENT CONSTRUCTION. ANY SOFT AREAS SHALL BE OVEREXCAVATED TO A FIRM AND COMPETENT MATERIAL AND BACKFILLED AS DESCRIBED IN 1B.

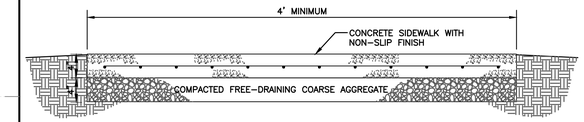
   B. ALL APPROVED FILL SHALL BE PLACED IN MAXIMUM 8" THICK, LOOSE LIFTS AND COMPACTED TO 95% OF ITS MAXIMUM DRY DENSITY AND WITHIN ±3% OF ITS OPTIMUM MOISTURE CONTENT. THE FILL MATERIAL'S MAXIMUM DRY DENSITY AND OPTIMUM MOISTURE CONTENT SHALL BE DETERMINED BY ASTM D1557 (MODIFIED PROCTOR).

   C. AFTER COMPACTION, THE PAVEMENT SUBGRADE SHALL PROVIDE A FIRM UNYIELDING FOUNDATION WITH NO SUDDEN, SHARP OR ABRUPT CHANGES OR BREAKS IN GRADES. NO STANDING WATER OR EXCESS MOISTURE SHALL BE PRESENT. ALL SOFT AND YIELDING AREAS SHALL BE REWORKED BY OVEREXCAVATING TO A FIRM AND COMPETENT MATERIAL, AND BACKFILLED AS DESCRIBED IN 1B.

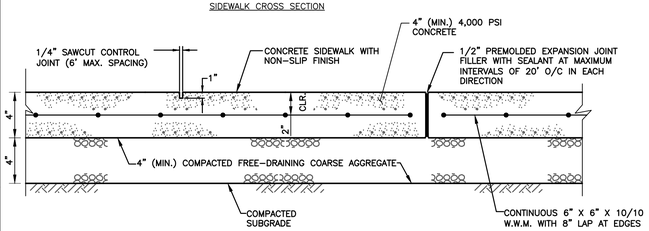
   D. THE SUBGRADE SHALL BE GRADED AND SHAPED AS REQUIRED TO CONSTRUCT THE AGGREGATE BASE COURSE IN CONFORMANCE WITH THE GRADES, LINES AND THICKNESSES SHOWN ON THE DRAWINGS.

2. THE ASPHALT COURSES SHALL BE TAPERED INTO THE STORM SEWER INLETS WHILE MAINTAINING FULL PAVEMENT SECTION DEPTH.

DETAIL 201
ASPHALT PAVEMENT SECTION
N.T.S.



SIDEWALK CROSS SECTION

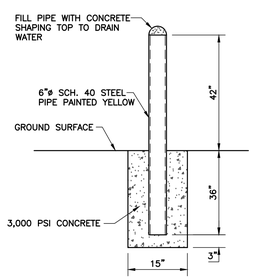


SIDEWALK LONGITUDINAL SECTION

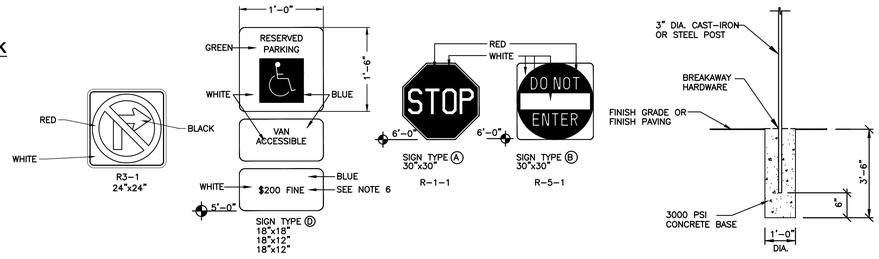
NOTES:

1. PROVIDE AN 8" HAUNCH AND 1/2" EXPANSION JOINT FILLER WITH SEALANT WHERE THE CONCRETE SIDEWALK ABUTS THE BUILDING.
2. REFER TO THE ARCHITECTURAL SPECIFICATIONS FOR SPECIAL FINISHES, AGGREGATE TREATMENT, COLORS, PATTERN FINISHES, ETC.

DETAIL 205
CONCRETE SIDEWALK
N.T.S.



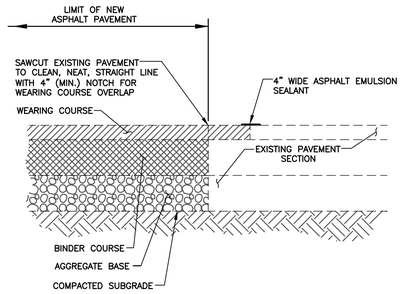
DETAIL 209
BOLLARD
N.T.S.



NOTES:

1. SET POSTS IN CONCRETE TO A MINIMUM DEPTH OF 36". SIGN PANELS SHALL BE 0.100 ALUMINUM WITH RAISED OR SILKSCREEN COPY.
2. FOR POST MOUNTING, USE NON-CORROSIVE 3/8" 2. MACHINE BOLTS W/ WASHERS, 2 PER SIGN; OR IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
3. FOR WALL MOUNTING, USE NON-CORROSIVE 3/8" LAG BOLTS W/ LEAD EXPANSION SHIELD, 4 PER SIGN.
4. ALL TRAFFIC CONTROL SIGNS, SIGN POSTS, AND SIGN HARDWARE SHALL SATISFY THE REQUIREMENTS OF PADOT PUBLICATION 408, SECTION 931 AND SECTION 1103.
5. ALL ACCESSIBLE PARKING SIGNAGE IS TO BE INSTALLED WITH THE BOTTOM EDGE OF THE LOWEST SIGN AT LEAST 60" ABOVE FINISHED GRADE.
6. FINE AMOUNT SHALL BE DISPLAYED IN ACCORDANCE WITH LOCAL LAW. THE AMOUNT SHOWN HEREON IS REPRESENTATIVE ONLY. COORDINATE POSTING OF FINE AMOUNT WITH LOCAL LAW ENFORCEMENT AGENCY.
7. STOP BAR MUST BE PAINTED WHITE

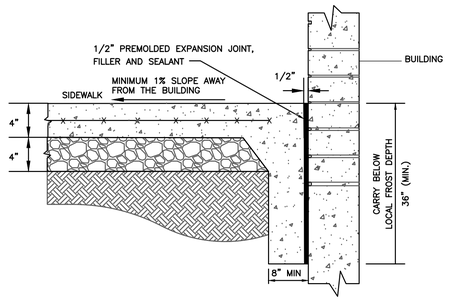
DETAIL 210
SIGNS
N.T.S.



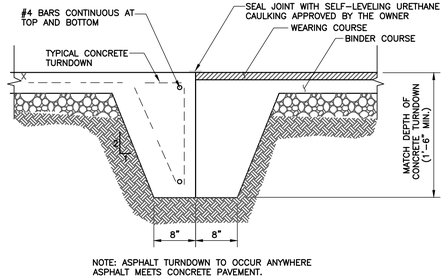
NOTE:

1. PROVIDE TACK COAT ALONG SAWCUT TO BIND EXISTING PAVEMENT TO NEW PAVEMENT. FOR AREAS WITH PATCHING AND OVERLAY, PROVIDE TACK COAT TO BIND EXISTING PAVEMENT WITH NEW ASPHALT.
2. THIS DETAIL APPLIES TO ALL AREAS WHERE PROPOSED PAVEMENT IS INSTALLED ABUTTING EXISTING PAVEMENT, OR AS NOTED ON PLANS.

DETAIL 202
TYPICAL SAWCUT AND PAVEMENT JOINT
N.T.S.

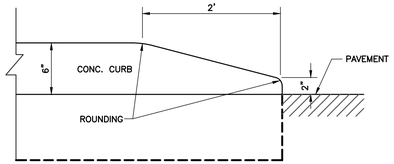


DETAIL 206
TYPICAL SIDEWALK ABUTTING BUILDING
N.T.S.

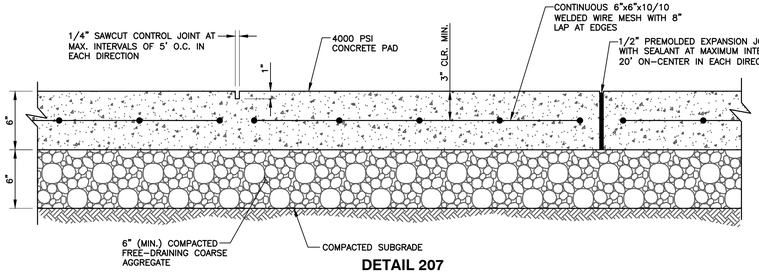


NOTE: ASPHALT TURNDOWN TO OCCUR ANYWHERE ASPHALT MEETS CONCRETE PAVEMENT.

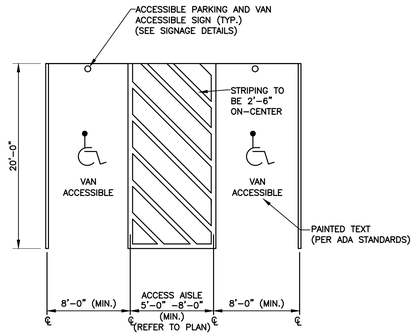
DETAIL 203
ASPHALT TURNDOWN
N.T.S.



DETAIL 204
NOSE DOWN CURB
N.T.S.



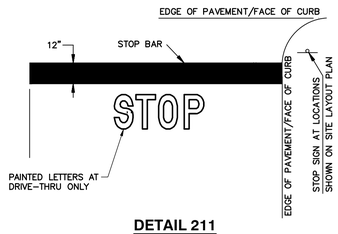
DETAIL 207
CONCRETE PAD
N.T.S.



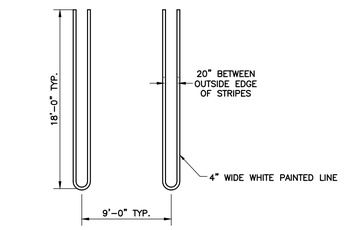
NOTES:

1. ALL STRIPING FOR ACCESSIBLE PARKING STALLS AND ACCESS AISLES SHALL MEET THE REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT.
2. ALL STRIPING FOR STANDARD PARKING SPACES TO BE 4" WIDE PAINTED STRIPES.
3. SEE SHEET LAYOUT PLAN FOR ACCESSIBLE STALL LOCATIONS
4. ALL PARKING STALLS AND CROSSHATCH PAINT STRIPING SHALL BE COLOR WHITE.
5. ACCESS ISLE MUST BE 5'-0" (MIN.) FOR NON-VAN ACCESSIBLE STALLS

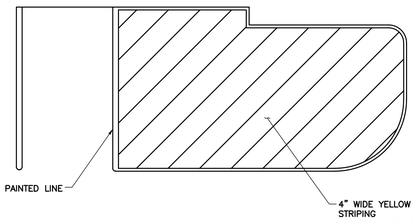
DETAIL 208
ACCESSIBLE PARKING STALL MARKING DETAIL
N.T.S.



DETAIL 211
STOP BAR DETAIL
N.T.S.



DETAIL 212
TYPICAL PARKING STALL
N.T.S.



NOTES:

1. STRIPING SHALL HAVE TWO COATS OF PAINT, ALKYD BASE SYNTHETIC RESIN, FED. SPEC. TTP-115 TYPE 1 (OR APPROVED EQUAL). IF SEAL COAT IS USED, IT SHALL BE COMPATIBLE WITH STRIPING COMPOUND.
2. PARKING LOT MARKINGS AND STRIPING TO MEET THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS.
3. PLACEMENT AND STRIPING SHOWN IN DETAIL IS SCHEMATIC, SEE SITE PLAN FOR CONFIGURATION.
4. CONTRACTOR SHALL FURNISH AND INSTALL ALL PAVEMENT MARKINGS AS SHOWN USING A TEMPLATE OR STRIPING MACHINE.
5. THE CONTRACTOR SHALL GUARANTEE ALL PAINT MARKINGS FOR A PERIOD OF 1 YEAR AND REPLACE, AS NECESSARY, AT NO COST TO OWNER.

DETAIL 213
TYPICAL TRAFFIC CONTROL ISLAND STRIPING DETAIL
N.T.S.

REVISION RECORD

NO	DATE	DESCRIPTION

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DOROTHY HOLDINGS LLC
SOUTH FAYETTE AMERICAN NATURAL
SOUTH FAYETTE TOWNSHIP
ALLEGHENY COUNTY, PENNSYLVANIA

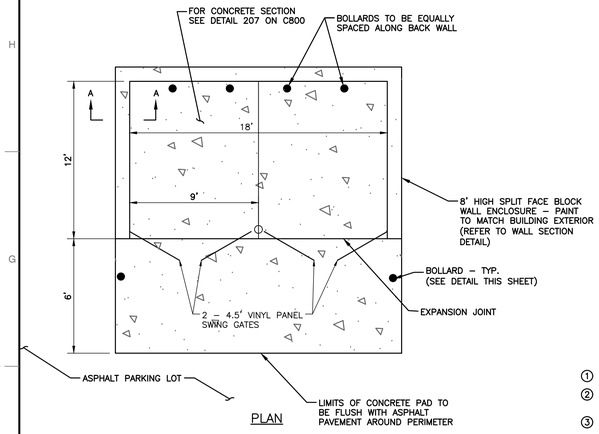
CONSTRUCTION DETAILS

DRAWN BY:	JTL
CHECKED BY:	ARG
DATE:	SEPTEMBER 2019
DWG SCALE:	1"=20'
PROJECT NO:	192-386
APPROVED BY:	AMB

DRAWING NO.: C800

COMMONWEALTH OF PENNSYLVANIA
REGISTERED
ANDREW R. GULLONE
PROFESSIONAL ENGINEER

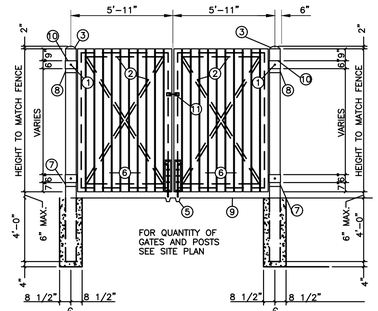
P:\2019\192-386\-CADD\Dwg\C001\192386-CV01-C800.dwg[C800 CONSTRUCTION DETAILS] LS:(5/7/2020 - drorak) - LP: 6/4/2020 11:47 AM



PLAN

NOTE:

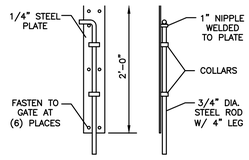
1. THE PROPOSED DUMPSTER SHALL BE VERMIN PROOF.



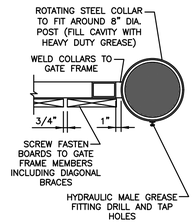
KEYNOTES:

1. HYDRAULIC MALE GREASE FITTING
2. 2"x2"x3/16" RECTANGULAR STEEL TUBE FRAME WITH DIAGONAL BRACING
3. 8" DIA. SCHED. 40 STEEL POST FILL WITH CONCRETE
4. CANE BOLTS (SEE DETAIL AT RIGHT)
5. GALV. SLEEVES (EMBEDDED IN CONC.)
6. 1"x6" LUMBER PER FENCE SPECS.
7. STATIONARY STEEL COLLAR WELDED TO POST
8. STATIONARY STEEL COLLAR BOLTED TO POST
9. CONCRETE PAD (SEE SITE LAYOUT PLAN)
10. ROTATING STEEL COLLAR (SEE HINGE DETAIL AT RIGHT)
11. SELF LATCHING GATE FIXTURE

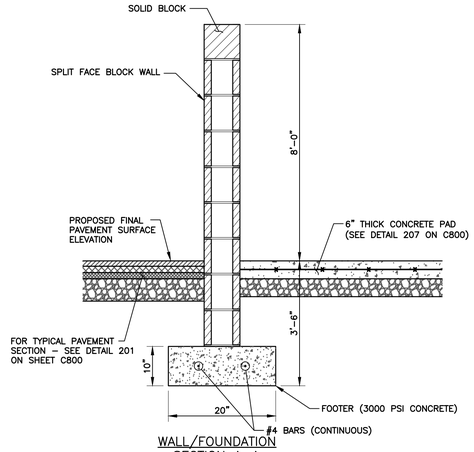
FRONT ELEVATION



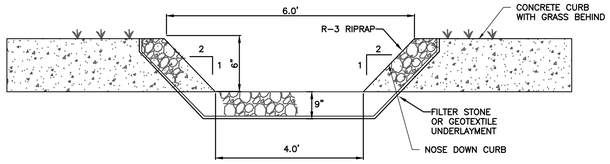
CANE BOLT DETAIL



HINGE DETAIL

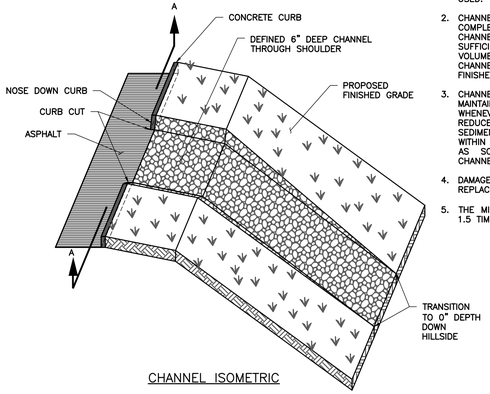


WALL/FOUNDATION SECTION A–A



(LOOKING DOWNSTREAM)

CHANNEL SECTION A–A

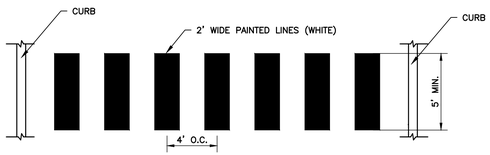


CHANNEL ISOMETRIC

NOTES:

1. FILTER STONE UNDERLAYMENT FOR BED SLOPES ≥ 0.10 FT/FT (10 %) SHALL BE USED.
2. CHANNEL DIMENSIONS ARE FOR THE COMPLETED CHANNEL AFTER ROCK PLACEMENT. CHANNEL MUST BE OVER–EXCAVATED A SUFFICIENT AMOUNT TO ALLOW FOR THE VOLUME OF ROCK PLACED WITHIN THE CHANNEL WHILE PROVIDING THE SPECIFIED FINISHED DIMENSIONS.
3. CHANNEL DIMENSIONS SHALL BE CONSTANTLY MAINTAINED. CHANNEL SHALL BE CLEANED WHENEVER TOTAL CHANNEL DEPTH IS REDUCED BY 25% AT ANY LOCATION. SEDIMENT DEPOSITS SHALL BE REMOVED WITHIN 24 HOURS OF DISCOVERY OR AS SOON AS SOIL CONDITIONS PERMIT ACCESS TO CHANNEL WITHOUT FURTHER DAMAGE.
4. DAMAGED LINING SHALL BE REPAIRED OR REPLACED WITHIN 48 HOURS OF DISCOVERY.
5. THE MINIMUM ROCK THICKNESS (t) SHALL BE 1.5 TIMES THE MAX ROCK SIZE.

DETAIL 214
CURB CUT ROCK CHANNEL DETAIL
NOT TO SCALE

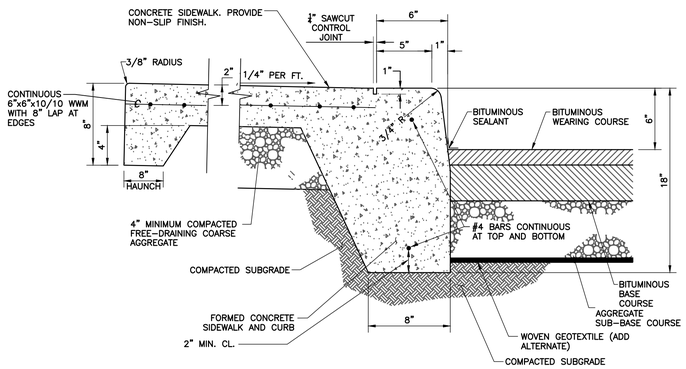


NOTES:

1. ALL PAINTING FOR DRIVEWAYS SHALL BE THERMOPLASTIC AS APPROVED BY PENNDOT.
2. REFERENCE PENNDOT PUBLICATION M111 FOR PAVEMENT MARKING DETAILS.

DETAIL 215
CROSSWALK AND PAVEMENT STRIPING
N.T.S.

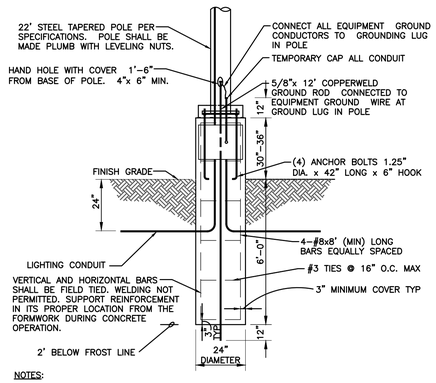
DETAIL 217
DUMPSTER ENCLOSURE W/ SWING GATE
N.T.S.



NOTES:

1. REFER TO DETAIL 201 ON SHEET C800 FOR PAVEMENT DETAIL.
2. REFER TO DETAIL 205 ON SHEET C800 FOR SIDEWALK DETAIL.
3. PROVIDE 1/2" PREMOLDED EXPANSION JOINT FILLER WITH SEALANT AT MAXIMUM INTERVALS OF 20' O/C.
4. PROVIDE 1/4" CONTROL JOINT AT MAXIMUM INTERVALS OF 5' O/C.
5. PROVIDE AN 8" HAUNCH AND 1/2" EXPANSION JOINT FILLER WITH SEALANT WHERE THE CONCRETE SIDEWALK ABUTS THE BUILDING.
6. PROVIDE A 1/2" EXPANSION JOINT FILLER WITH SEALANT AT ALL LOCATIONS WHERE NEW CONCRETE ABUTS EXISTING CONCRETE OR ASPHALT.

DETAIL 216
MONOLITHIC CURB DETAIL
N.T.S.



NOTES:

1. ALL LIGHT POLE BASE FOUNDATIONS SHALL BE CAST–IN–PLACE CONCRETE, 3500 PSI MIN. 28 DAY COMPRESSIVE STRENGTH CONCRETE WITH GRADE 60 REINFORCING STEEL.
2. IF WATER IS PRESENT IN EXCAVATED HOLE, REMOVE BEFORE POURING CONCRETE.
3. FOUNDATION EXCAVATION SHALL BE BY 24" AUGER IN UNDISTURBED OR PROPERLY COMPACTED FILL PER SPECIFICATIONS.
4. FOUNDATION SHALL HAVE A MINIMUM ALLOWABLE END BEARING OF 2000 PSF.
5. FOUNDATION HAS BEEN DESIGNED FOR A COHESIVE SOIL BASED ON A MINIMUM COHESIVE VALUE OF 1000 PSF.
6. FOUNDATION HAS BEEN DESIGNED FOR A GRANULAR SOIL BASED ON A MINIMUM LATERAL SOIL PRESSURE OF 1000 PSF, UTILIZING AASHTO FIGURE 1.8.2C(4) OF "EMBEDMENT OF POSTS WITH OVERTURNING LOADS".

DETAIL 816
SITE LIGHTING POLE BASE
N.T.S.

REVISION RECORD

NO	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
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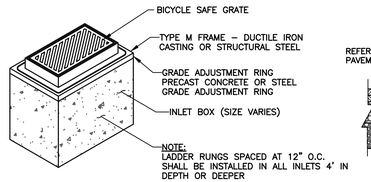
CONSTRUCTION DETAILS

DATE:	SEPTEMBER 2019
DWG SCALE:	1"=20'
PROJECT NO:	192-386
DRAWN BY:	JTL
CHECKED BY:	ARG
APPROVED BY:	AMB

COMMONWEALTH OF PENNSYLVANIA PROFESSIONAL ANDREW R. GUILLONE ENGINEER

DRAWING NO.:
C801

P:\2019\192-386\-CADD\dwg\civil\192386-CV01-C800.dwg(C801 CONSTRUCTION DETAILS) 10/7/2020 - dtorok) - LP: 6/4/2020 11:47 AM

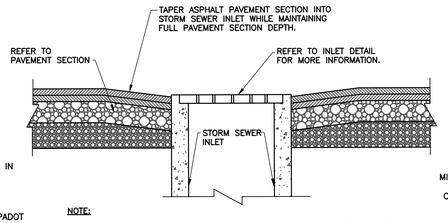


TYPE 'M' INLET

NOTES:

1. INLETS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE REQUIREMENTS OF PADOT PUBLICATION 408 SPECIFICATIONS, SECTIONS 605, 606, AND 714.
2. REFER TO PADOT BUREAU OF HIGHWAY DESIGN STANDARDS FOR ROADWAY CONSTRUCTION, SERIES RC-1 TO RC-100 SHEETS 1 THROUGH 9 OF RC-34, FOR DETAILS OF THE CAST IRON FRAMES AND GRATES, CONCRETE TOP UNITS, GRADE ADJUSTMENT RINGS, AND INLET BOXES.
3. ALL CEMENT CONCRETE USED TO CONSTRUCT THE STORM SEWER INLETS SHALL BE CLASS AA, AND SATISFY THE REQUIREMENTS OF PADOT PUBLICATION 408, SECTION 704.
4. ALL REINFORCEMENT STEEL USED TO CONSTRUCT THE STORM SEWER INLETS SHALL BE ASTM-A615 GRADE 60 DEFORMED OR PLAIN STEEL BARS, AND SATISFY THE REQUIREMENTS OF PADOT PUBLICATION 408, SECTION 709.1 AND 709.2 (IF APPLICABLE).
5. PRE-CAST REINFORCED CONCRETE STORM SEWER INLET BOXES, CONCRETE TOP UNITS, AND GRADE ADJUSTMENT RINGS SHALL CONFORM TO THE REQUIREMENTS OF PADOT PUBLICATION 408, SECTION 714, AND HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI.
6. ALL FRAMES AND GRATES SHALL BE NON-ROCKING AND MADE OF HEAVY DUTY CAST IRON, AND SATISFY THE REQUIREMENTS OF PADOT PUBLICATION 408, SECTION 605.2(e). ALL CASTINGS SHALL BE SET IN A FULL BED OF MORTAR.
7. ALL GRADE ADJUSTMENT RINGS SHALL BE OF MASONRY OR PRECAST CONCRETE CONSTRUCTION.
8. ALL INLETS SHALL BE SIZED TO ACCOMMODATE THE REQUIRED PIPE SIZE. REFER TO SHEET 6 OF 34 OF PADOT STANDARDS FOR ROADWAY CONSTRUCTION RC-46.
9. ALL STORM SEWER INLETS SHALL HAVE WEEP HOLES AT AN ELEVATION WHICH PERMITS DRAINAGE OF THE PAVEMENT AGGREGATE BASE COURSE. THE DIAMETER OF THE WEEP HOLES SHOULD BE LIMITED SO AS NOT TO ALLOW THE CRUSHED STONE TO "WASH" INTO THE INLET.
10. ALL BACKFILL PLACED AROUND THE STORM SEWER INLETS SHALL BE AASHTO NO. 57 CRUSHED LIMESTONE AGGREGATE MEETING THE REQUIREMENTS OF PADOT PUBLICATION 408, SECTION 703. THE AGGREGATE SHALL BE PLACED IN MAXIMUM 8" THICK LOOSE LIFTS AND COMPACTED TO A POINT OF NON-MOVEMENT BENEATH THE COMPACTION EQUIPMENT.
11. TAPER PAVEMENT INTO STORM SEWER INLETS AS SHOWN IN DETAIL ON THIS SHEET.

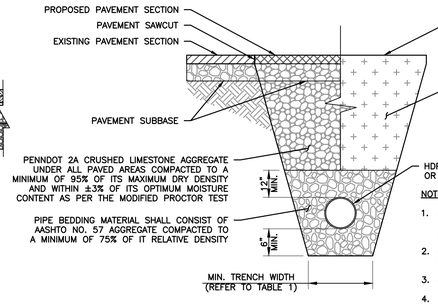
DETAIL 400
PENNDOT INLET ASSEMBLY
N.T.S.



NOTE:

1. ASHTO NO. 57 AGGREGATE SHALL MEET THE REQUIREMENTS OF PENNDOT PUBLICATION 408, SECTION 703.
2. THE CLASS 1 DRAINAGE GEOTEXTILE, WHERE REQUIRED, SHALL MEET THE REQUIREMENTS OF PENNDOT PUBLICATION 408, SECTION 725, AND SHALL BE INSTALLED IN ACCORDANCE WITH PENNDOT PUBLICATION 408, SECTION 212

DETAIL 401
DRAINAGE REQUIREMENTS AT INLETS
N.T.S.



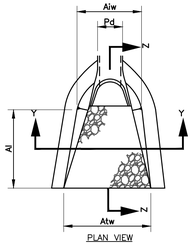
NOTES:

1. ALL MATERIALS EXCAVATED DURING TRENCHING SHALL BE STOCKPILED A SUFFICIENT DISTANCE FROM ALL TRENCHES TO PREVENT SLIDES OR CAVE-INS. THE CONTRACTOR SHALL PROVIDE ADEQUATE TRENCH SHORING (WHERE NECESSARY) IN CONFORMANCE WITH THE LATEST OSHA REQUIREMENTS FOR CONSTRUCTION STANDARD FOR EXCAVATIONS (29 CFR PART 1926.650-.652 SUBPART P).
2. ALL BACKFILL MATERIALS SHALL BE APPROVED BY THE OWNER'S ENGINEER OR THEIR REPRESENTATIVE BEFORE BEING PLACED. BACKFILL MATERIAL SHALL BE PLACED IN MAXIMUM 8" THICK LIFTS FOR FULL-SIZE COMPACTION EQUIPMENT, 4"-6" LIFTS WITH HANDHELD EQUIPMENT.
3. AASHTO NO. 57 CRUSHED LIMESTONE AGGREGATE AND PENNDOT 2A CRUSHED LIMESTONE AGGREGATE SHALL SATISFY THE REQUIREMENTS OF PENNDOT PUBLICATION 408, SECTION 703.
4. THE MAXIMUM DRY DENSITY AND OPTIMUM MOISTURE CONTENT FOR THE BACKFILL MATERIAL AND THE PENNDOT 2A CRUSHED LIMESTONE AGGREGATE SHALL BE DETERMINED BY ASTM D1557. THE RELATIVE DENSITY OF THE AASHTO NO. 57 AGGREGATE SHALL BE DETERMINED BY MAX/MIN RELATIVE DENSITY IN ACCORDANCE WITH ASTM D4253 AND ASTM D4254.
5. THE CONTRACTOR SHALL VERIFY THAT THE MINIMUM SPECIFIED PIPE COVER IS PROVIDED BETWEEN THE FINAL GROUND SURFACE AND TOP OF PIPE BEFORE LAYING PIPE. PROVIDE A MINIMUM 2 FEET OF COVER ABOVE ALL PIPES DURING CONSTRUCTION.
6. INCREASE TRENCH WIDTH AS NECESSARY TO ALLOW FOR PROPER COMPACTION OF BEDDING/BACKFILL.
7. RECOMMENDED MANUFACTURER: ADVANCED DRAINAGE SYSTEMS, INC. (ADS), OR APPROVED EQUAL.

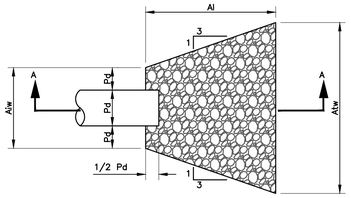
TABLE 1: MINIMUM TRENCH WIDTHS

PIPE DIAMETER (in.)	TRENCH WIDTH (in.)
4–10	28
12	30
15	34
18	39
24	48

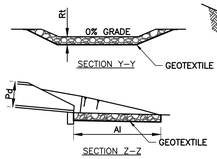
DETAIL 402
TYPICAL HDPE STORM SEWER TRENCH
N.T.S.



PLAN VIEW

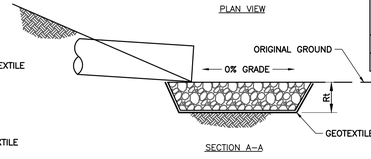


PLAN VIEW



SECTION Y-Y

SECTION Z-Z



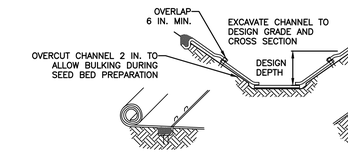
SECTION A-A

NOTES:

1. ALL APRONS SHALL BE CONSTRUCTED TO THE DIMENSIONS SHOWN. TERMINAL WIDTHS SHALL BE ADJUSTED AS NECESSARY TO MATCH RECEIVING CHANNELS.
2. ALL APRONS SHALL BE INSPECTED AT LEAST WEEKLY AND AFTER EACH RUNOFF EVENT. DISPLACED RIPRAP WITHIN THE APRON SHALL BE REPLACED IMMEDIATELY.
3. EXTEND RIPRAP ON BACK SIDE OF APRON TO AT LEAST 1/2 DEPTH OF PIPE ON BOTH SIDES TO PREVENT SCOUR AROUND THE PIPE.

APRON NO.	OUTLET NO.	PIPE DIA Pd (IN)	RIPRAP SIZE R-_	RIPRAP THICK. Rt (IN)	APRON LENGTH Al (FT)	APRON INITIAL WIDTH Aiw (FT)	APRON TERMINAL WIDTH Atw (FT)
1	10	12	3	9	6	3	9
2	30	15	4	18	8	3.75	9.75

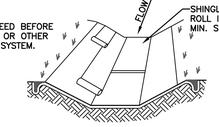
DETAIL 403
RIPRAP APRON
N.T.S.



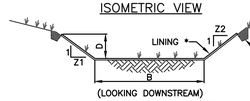
INTERMITTENT CHECK SLOT

PREPARE SOIL AND APPLY SEED BEFORE INSTALLING BLANKETS, MATS, OR OTHER TEMPORARY CHANNEL LINER SYSTEM.

LONGITUDINAL ANCHOR TRENCH



ISOMETRIC VIEW



(LOOKING DOWNSTREAM)

CHANNEL CROSS-SECTION

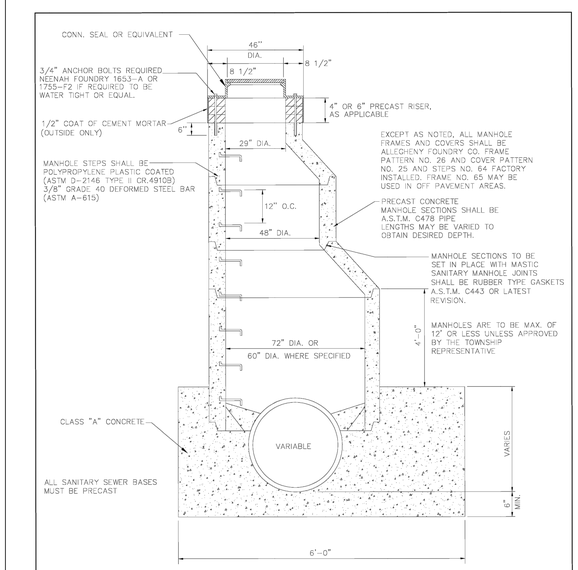
* SEE MANUFACTURER'S LINING INSTALLATION DETAIL FOR STAPLE PATTERNS, VEGETATIVE STABILIZATION FOR SOIL AMENDMENTS, SEED MIXTURES AND MULCHING INFORMATION

CHANNEL NO.	STATIONS	BOTTOM WIDTH B (FT)	DEPTH D (FT)	TOP WIDTH W (FT)	Z1 (FT)	Z2 (FT)	LINING *
1	ALL	4	1.5	10	2	2	NAG P300
2	ALL	4	1.5	10	2	2	NAG P300

NOTES:

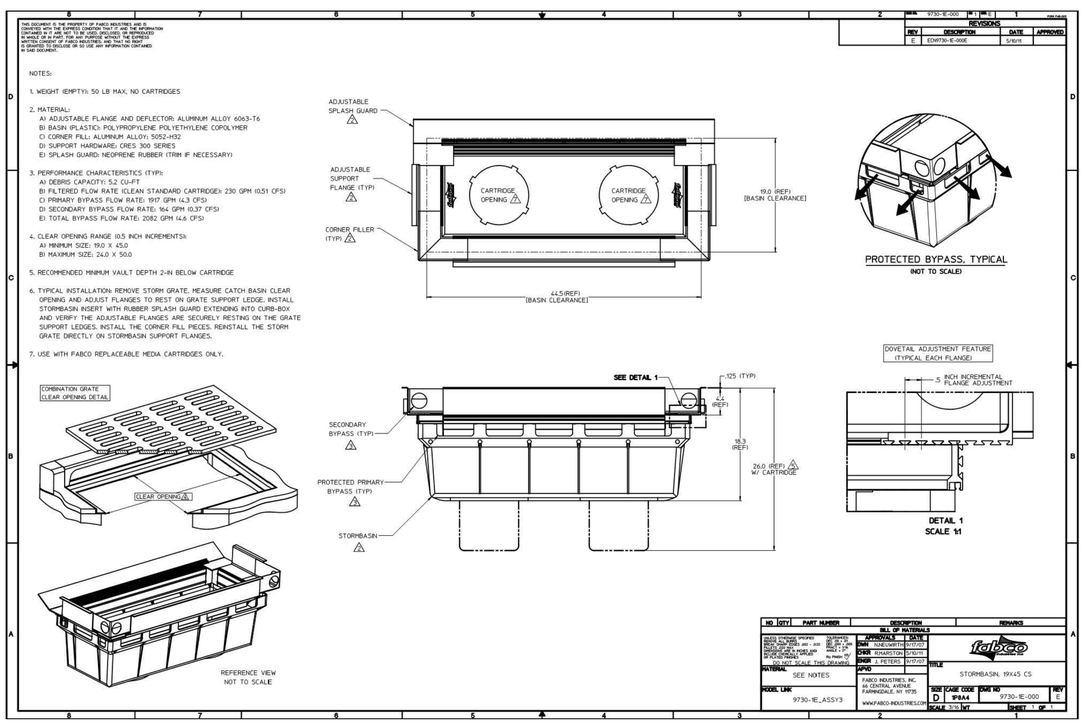
1. ANCHOR TRENCHES SHALL BE INSTALLED AT BEGINNING AND END OF CHANNEL IN THE SAME MANNER AS LONGITUDINAL ANCHOR TRENCHES.
2. CHANNEL DIMENSIONS SHALL BE CONSTANTLY MAINTAINED. CHANNEL SHALL BE CLEANED WHENEVER TOTAL CHANNEL DEPTH IS REDUCED BY 25% AT ANY LOCATION.
3. SEDIMENT DEPOSITS SHALL BE REMOVED WITHIN 24 HOURS OF DISCOVERY OR AS SOON AS SOIL CONDITIONS PERMIT ACCESS TO CHANNEL WITHOUT FURTHER DAMAGE. DAMAGED LINING SHALL BE REPAIRED OR REPLACED WITHIN 48 HOURS OF DISCOVERY.
4. NO MORE THAN ONE THIRD OF THE SHOOT (GRASS LEAF) SHALL BE REMOVED IN ANY MOWING. GRASS HEIGHT SHALL BE MAINTAINED BETWEEN 2 AND 3 INCHES UNLESS OTHERWISE SPECIFIED. EXCESS VEGETATION SHALL BE REMOVED FROM PERMANENT CHANNELS TO ENSURE SUFFICIENT CHANNEL CAPACITY.

DETAIL 404
PADEP STANDARD CONSTRUCTION DETAIL #6-1
VEGETATED CHANNEL
NOT TO SCALE



REVISIONS:	PRE-CAST CONCRETE MANHOLE FOR PIPES UNDER 48" IN DIAMETER
	SOUTH FAYETTE TOWNSHIP STANDARD DETAILS — FIG. SF-10

DETAIL 405
TYPICAL PRE-CAST CONCRETE STORM MANHOLE
N.T.S.



DETAIL 406
FABCO WATER QUALITY FILTER INSERT DETAIL
NOT TO SCALE

REVISION RECORD

NO	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
333 Baldwin Road · Pittsburgh, PA 15205
412-429-2324 · 800-365-2324
www.cecinc.com

DOROTHY HOLDINGS LLC
SOUTH FAYETTE AMERICAN NATURAL
SOUTH FAYETTE TOWNSHIP
ALLEGHENY COUNTY, PENNSYLVANIA

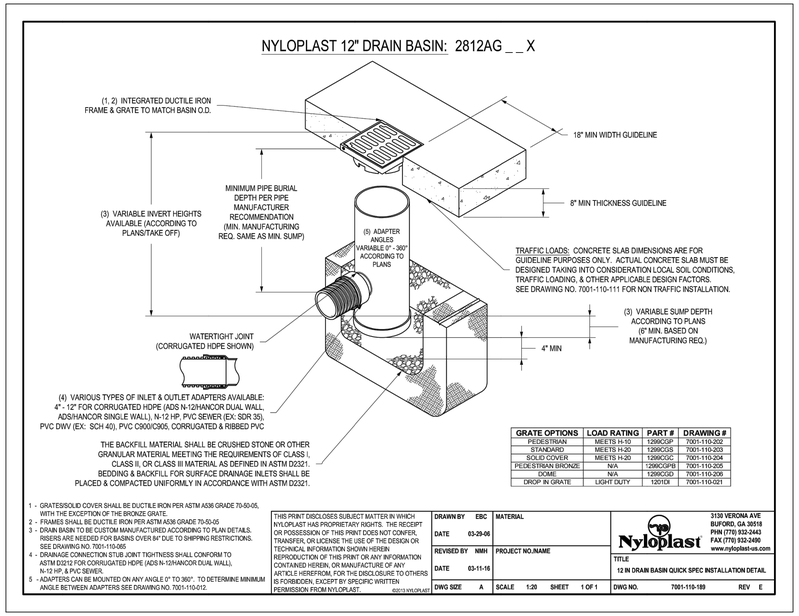
POST-CONSTRUCTION STORMWATER MANAGEMENT DETAILS

DATE:	SEPTEMBER 2019
DRAWN BY:	JTL
DWG SCALE:	1"=20'
CHECKED BY:	ARG
PROJECT NO:	192-386
APPROVED BY:	AMB

DRAWING NO.: C802

COMMONWEALTH OF PENNSYLVANIA — PROFESSIONAL — ANDREW R. GUILLONE — ENGINEER — No. PE079373

P:\2019\192-386_CADD\Dwg\C802 CONSTRUCTION DETAILS.dwg, 6/4/2020 11:47 AM, LP, 1:1



GRATE OPTIONS	LOAD RATING	PART #	DRAWING #
PEDESTRIAN	MEETS H-10	1296CGP	7001-110-202
STANDARD	MEETS H-20	1296CGS	7001-110-203
SOLID COVER	MEETS H-20	1296CGC	7001-110-204
PEDESTRIAN BRONZE	N/A	1296CGPB	7001-110-205
DOME	N/A	1296CGD	7001-110-206
DROP IN GRATE	LIGHT DUTY	1201DI	7001-110-021

1 - GRATES/SOLID COVER SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05, WITH THE EXCEPTION OF THE BRONZE GRATE.
2 - FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05
3 - DRAIN BASIN TB2718 CUSTOM MANUFACTURED (FACTORY) TI PLAN DETAILS. RISERS ARE NEEDED FOR BASINS OVER 84" DUE TO SHIPPING RESTRICTIONS. SEE DRAWING NO. 7001-110-095
4 - DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS N-12/HANCOR DUAL WALL), N-12 HP, & PVC SEWER.
5 - ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 360°. TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 7001-110-012.

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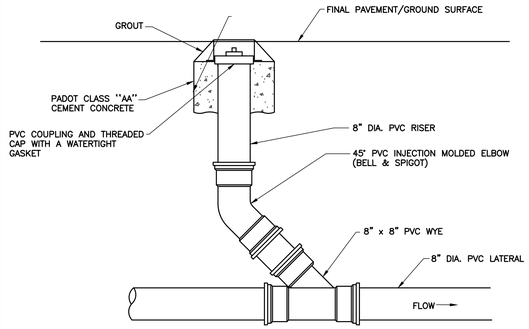
DRAWN BY	EBC	MATERIAL	
DATE	03-29-06		
REVISED BY	NMH	PROJECT NO./NAME	
DATE	03-11-16		
DWG SIZE	A	SCALE 1:20	SHEET 1 OF 1

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BUFORD, GA 30518
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www.nyloplast-us.com

TITLE
12 IN DRAIN BASIN QUICK SPEC INSTALLATION DETAIL

DWG NO. 7001-110-189 REV E

DETAIL 407
12" DRAIN BASIN
N.T.S.



NOTES:

1. THIS DETAIL APPLIES TO STORM AND SANITARY SEWER CLEANOUTS WITH APPROPRIATE CHANGES TO WYE AND PIPE SIZES.
2. ALL PVC PIPE AND FITTINGS SHALL BE SDR 26 WITH RUBBER GASKETED JOINTS.
3. THE CLASS "AA" CEMENT CONCRETE SHALL SATISFY THE REQUIREMENTS OF PADOT PUBLICATION 408, SECTION 704.

DETAIL 410
STORM AND SANITARY SEWER CLEANOUT
N.T.S.

ADS, Inc. Drainage Handbook *Specifications ♦ 1-48*

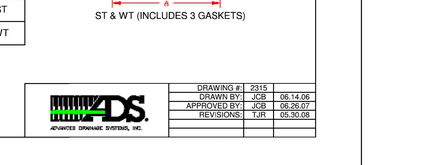
ADS FLARED END SECTION SPECIFICATION

Scope
This specification describes 12- through 36-inch (300 to 900mm) ADS Flared End Sections for use in culvert and drainage outlet applications.

Requirements
The ADS Flared End Section shall be high density polyethylene meeting ASTM D3350 minimum cell classification 213320C; contact manufacturer for additional cell classification information. When provided, the metal threaded fastening rod shall be stainless steel.

Installation
Installation shall be in accordance with ADS installation instructions and with those issued by state or local authorities. Contact your local ADS representative or visit www.ads-pipe.com for the latest installation instructions.

PIPE DIAMETER, in (mm)						
Diameter in (mm)	12 (300)	15 (375)	18 (450)	24 (600)	30 (750)	36 (900)
A in (mm)	6.5 (165)	6.5 (165)	7.5 (191)	7.5 (191)	7.5 (191)	7.5 (191)
B (max) in (mm)	10.0 (254)	10.0 (254)	15.0 (381)	18.0 (475)	22.0 (559)	25.0 (635)
H in (mm)	6.5 (165)	6.5 (165)	6.5 (165)	6.5 (165)	8.6 (218)	8.6 (218)
L in (mm)	25.0 (635)	25.0 (635)	32.0 (813)	36.0 (914)	58.0 (1473)	58.0 (1473)
W in (mm)	29.0 (737)	29.0 (737)	35.0 (889)	45.0 (1143)	63.0 (1600)	63.0 (1600)



Product detail may differ slightly from actual product appearance.

© ADS, Inc., December 2015

DETAIL 408
FLARED END SECTION
N.T.S.

ZURN

Z874-18

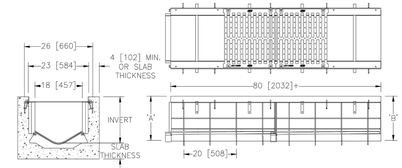
18 [457] WIDE THROAT TRENCH DRAIN SYSTEM

SPECIFICATION SHEET

TAG _____

Dimensional Data (inches and [mm]) are Subject to Manufacturing Tolerances and Change Without Notice

SPECIFYING ENGINEER IS RESPONSIBLE FOR CONCRETE ENCASEMENT AND REINFORCING BASED UPON APPLICATION AND LOCAL CODES



+Actual High Density Polyethylene channel length is 82 [2083] to allow for overlap, with frame attached the length is 84-1/2 [2146] with the exception of P.N. 2101P and 2130P.

ENGINEERING SPECIFICATION: Zurn Z874-18
Channels shall be 80 [2032] long, 23 [584] wide reveal and have an 18 [457] wide throat. Modular channel sections shall be made of 0% water absorbent High Density Polyethylene (HDPE). Shall have a positive mechanical connection between channel sections that will not separate during the installation and shall mechanically lock into the concrete surround every 10 [254]. Channels shall weigh less than 9 lbs. [4.1kg] per linear foot, have smooth 5 [127] radiused self cleaning bottom with a Manning's coefficient of .009 and 1.00% or neutral 0% built-in slope. Channels are available with inverts ranging from 10.25 [260] to 35.21 [894]. Channel shall have all grates locked down. Channels come with clips attached to the frame to accommodate vertical re-bar for positioning and anchoring purposes. Shall be provided with the standard DGC grate, Zurn 23 [584] wide reveal Ductile Iron Slotted Grate, which locks down to the frame with 4 contiguous bolt anchors per grate. Ductile Iron conforms to ASTM specification A536-84, Grade 80-55-06. Ductile Iron grate is rated class C per the DIN EN1433 top load classifications. Supplied in 20 [508] nominal lengths with 1-1/32 [26] wide slots, and 1-3/4 [44] bearing depth. Grate has an open area of 112 sq. in. pr ft. [237078 sq. mm per meter]. The .25 [6] thick Carbon Steel Frame Assembly conforms to ASTM specification A36 with 10 - 4 [102] long concrete anchors per 80 [2032]. The frame is supplied with a powder coated finish. All welds must be performed by a certified welder per ASTM standard AWS D1.1. Frames shall be produced in the USA.

Trench No.	'A' Shallow Inv.	'B' Deep Inv.	Flow (gpm)	(lps)	(cfs)
1801P	10.250 [260]	11.082 [281]	3058	193	6.85
1802P	11.082 [281]	11.914 [303]	3589	226	8.04
1803P	11.914 [303]	12.746 [324]	4132	261	9.26
1804P	12.746 [324]	13.578 [345]	4685	296	10.50
1805P	13.578 [345]	14.410 [366]	5247	331	11.76
1806P	14.410 [366]	15.242 [387]	5816	367	13.04
1807P	15.242 [387]	16.074 [408]	6392	403	14.33
1808P	16.074 [408]	16.906 [429]	6973	440	15.63
1809P	16.906 [429]	17.738 [451]	7559	477	16.94
1810P	17.738 [451]	18.570 [472]	8149	514	18.27
1811P	18.570 [472]	19.402 [493]	8743	552	19.60
1812P	19.402 [493]	20.234 [514]	9340	589	20.93
1813P	20.234 [514]	21.066 [535]	9940	627	22.28
1814P	21.066 [535]	21.898 [556]	10542	665	23.63
1815P	21.898 [556]	22.730 [577]	11147	703	24.98
1816P	22.730 [577]	23.562 [598]	11753	741	26.34
1817P	23.562 [598]	24.394 [620]	12362	780	27.71
1818P	24.394 [620]	25.226 [641]	12972	818	29.08
1819P	25.226 [641]	26.058 [662]	13584	857	30.45
1820P	26.058 [662]	26.890 [683]	14198	896	31.82
1821P	26.890 [683]	27.722 [704]	14812	934	33.20
1822P	27.722 [704]	28.554 [725]	15428	973	34.58
1823P	28.554 [725]	29.386 [746]	16045	1012	35.96
1824P	29.386 [746]	30.218 [768]	16663	1051	37.35
1825P	30.218 [768]	31.050 [789]	17282	1090	38.74
1826P	31.050 [789]	31.882 [810]	17901	1129	40.12
1827P	31.882 [810]	32.714 [831]	18522	1168	41.52
1828P	32.714 [831]	33.546 [852]	19143	1208	42.91
1829P	33.546 [852]	34.378 [873]	19765	1247	44.30
1830P	34.378 [873]	35.210 [894]	20388	1286	45.70

(Neutral channels available for all section numbers)

PREFIX
____ Z 80 [2032] High Density Polyethylene Channel, Heavy-Duty Frame with Anchor Studs*

SUFFIX OPTIONS (Check/specify appropriate options)

Adapters
____ -E1 Closed End Cap
____ -E4 4 [102] No-Hub End Outlet
____ -E6 6 [152] No-Hub End Outlet
____ -E8 8 [203] No-Hub End Outlet
____ -E12 12 [305] No-Hub End Outlet
____ -U4 4 [102] No-Hub Bottom Outlet
____ -U6 6 [152] No-Hub Bottom Outlet
____ -U8 8 [203] No-Hub Bottom Outlet
____ -U18 18 [457] No-Hub Bottom Outlet

Grate Options (Load Classifications are per DIN EN1433)
____ -DCC Ductile Iron Solid Cover - Class C
____ -DCF Ductile Iron Solid Cover - Class F
____ -DGC Ductile Iron Slotted Grate - Class C*
____ -DGF Ductile Iron Slotted Grate - Class F
____ -GDC Galvanized Ductile Iron Grate - Class C
____ -GDF Galvanized Ductile Iron Grate - Class F
____ -GG Fiberglass Grate
____ -HPD Heel-Proof Longitudonal Ductile Iron Grate - Class C

MADE in the U.S.A. (Load Classifications are per DIN EN1433)
____ -DGE-USA Ductile Iron Slotted Grate - Class E
____ -GDE-USA Galvanized Ductile Slotted Grate - Class E

MADE in the U.S.A. Miscellaneous Options
____ -CBF Black Acid Resistant Coated Frame
____ -DB Bottom Dome Strainer

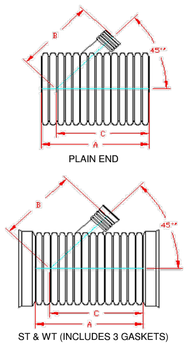
*REGULARLY FURNISHED UNLESS OTHERWISE SPECIFIED

REV. F DATE: 05/05/11 C.N. NO. 121232
DWG. NO. 64386 PRODUCT NO. Z874-18

ZURN INDUSTRIES, LLC ♦ SPECIFICATION DRAINAGE OPERATION ♦ 1801 Pittsburgh Ave. ♦ Erie, PA 16514
Phone: 814/455-0921 ♦ Fax: 814/454-7929 ♦ World Wide Web: www.zurn.com
In Canada: ZURN INDUSTRIES LIMITED ♦ 3544 Nashua Drive ♦ Mississauga, Ontario L4V1L2 ♦ Phone: 905/405-8272 Fax: 905/405-1292

DETAIL 409
TRENCH DRAIN
N.T.S.

DUAL WALL FABRICATED REDUCING WYES 15"×4" - 15"×12" DIAMETER					
PART #	PIPE SIZE	A	B	C	JOINT
1580AN	15 x 4 in (375 x 100 mm)	28.9 in (734 mm)	20.8 in (528 mm)	23.0 in (585 mm)	*
1580AN85B	15 x 4 in (375 x 100 mm)	23.6 in (599 mm)	20.8 in (528 mm)	20.4 in (519 mm)	ST
1580AN65B	15 x 4 in (375 x 100 mm)	23.6 in (599 mm)	20.8 in (528 mm)	20.4 in (519 mm)	WT
1581AN	15 x 6 in (375 x 150 mm)	31.5 in (800 mm)	22.4 in (569 mm)	24.3 in (618 mm)	*
1581AN85B	15 x 6 in (375 x 150 mm)	26.3 in (668 mm)	22.4 in (569 mm)	21.7 in (552 mm)	ST
1581AN65B	15 x 6 in (375 x 150 mm)	26.3 in (668 mm)	22.4 in (569 mm)	21.7 in (552 mm)	WT
1582AN	15 x 8 in (375 x 200 mm)	34.2 in (869 mm)	24.5 in (622 mm)	25.6 in (651 mm)	*
1582AN85B	15 x 8 in (375 x 200 mm)	28.9 in (734 mm)	24.5 in (622 mm)	23.0 in (585 mm)	ST
1582AN65B	15 x 8 in (375 x 200 mm)	28.9 in (734 mm)	24.5 in (622 mm)	23.0 in (585 mm)	WT
1583AN	15 x 10 in (375 x 250 mm)	39.4 in (1001 mm)	26.1 in (663 mm)	28.2 in (717 mm)	*
1583AN85B	15 x 10 in (375 x 250 mm)	34.1 in (866 mm)	26.1 in (663 mm)	25.6 in (651 mm)	ST
1583AN65B	15 x 10 in (375 x 250 mm)	34.1 in (866 mm)	26.1 in (663 mm)	25.6 in (651 mm)	WT
1584AN	15 x 12 in (375 x 300 mm)	42.0 in (1067 mm)	29.7 in (754 mm)	29.5 in (749 mm)	*
1584AN85B	15 x 12 in (375 x 300 mm)	36.8 in (935 mm)	27.8 in (706 mm)	26.9 in (684 mm)	ST
1584AN65B	15 x 12 in (375 x 300 mm)	36.8 in (935 mm)	27.8 in (706 mm)	26.9 in (684 mm)	WT



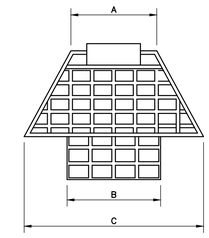
* = PLAIN END
ST = SOIL TIGHT
WT = WATER TIGHT

NOTE: ALL FITTINGS DIMENSIONS ARE FOR REFERENCE ONLY

ADS ADVANCED DRAINAGE SYSTEMS, INC.

DRAWING #:	2315	
DRAWN BY:	JCB	06.14.06
APPROVED BY:	JCB	06.26.07
REVISIONS:	TJR	05.30.08

DETAIL 411
WYE CONNECTION
N.T.S.



NOTES:

1. REFER TO STORMRAX FOR EXACT DIMENSIONS.

DETAIL 412
HPDE END SECTION GRATE
N.T.S.

REVISION RECORD

NO	DATE	DESCRIPTION

CEC
Civil & Environmental Consultants, Inc.
333 Baldwin Road · Pittsburgh, PA 15205
412-429-2324 · 800-365-2324
www.cecinc.com

DOROTHY HOLDINGS LLC
SOUTH FAYETTE AMERICAN NATURAL
SOUTH FAYETTE TOWNSHIP
ALLEGHENY COUNTY, PENNSYLVANIA

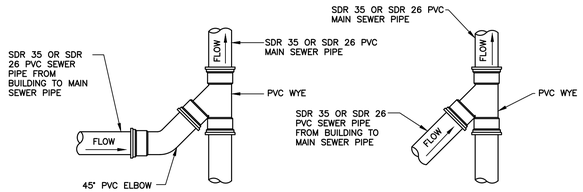
CONSTRUCTION DETAILS

DRAWN BY:	JTL
CHECKED BY:	ARG
DATE:	SEPTEMBER 2019
DWG SCALE:	1" = 20'
PROJECT NO.:	192-386
APPROVED BY:	AMB

DRAWING NO.:
C803

PROFESSIONAL ENGINEER ANDREW R. GULLONE COMMONWEALTH OF PENNSYLVANIA

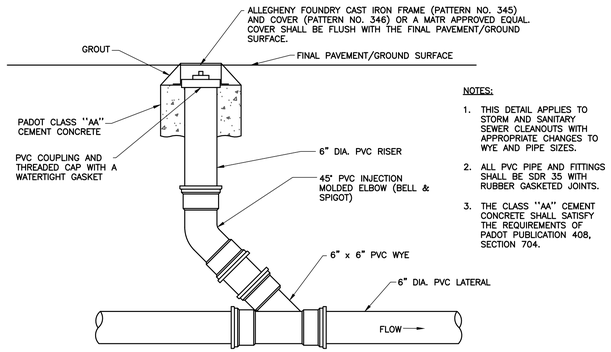
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NOTES:

1. THESE DETAILS APPLY TO STORM AND SANITARY SEWER CONNECTIONS WITH APPROPRIATE CHANGES TO WYE AND PIPE SIZES, AND PIPE MATERIALS.
2. ALL PVC PIPE AND FITTINGS SHALL BE MINIMUM SDR 35 WITH RUBBER GASKETED JOINTS.

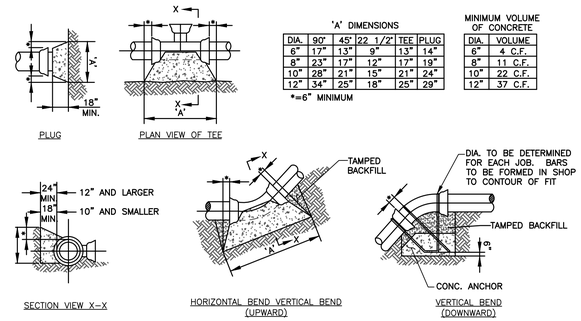
DETAIL 503
WYE CONNECTION
N.T.S.



NOTES:

1. THIS DETAIL APPLIES TO STORM AND SANITARY SEWER CLEANOUTS WITH APPROPRIATE CHANGES TO WYE AND PIPE SIZES.
2. ALL PVC PIPE AND FITTINGS SHALL BE SDR 35 WITH RUBBER GASKETED JOINTS.
3. THE CLASS "AA" CEMENT CONCRETE SHALL SATISFY THE REQUIREMENTS OF PADOT PUBLICATION 408, SECTION 704.

DETAIL 501
SANITARY SEWER CLEANOUT
N.T.S.



'A' DIMENSIONS

DIA.	90°	45°	22 1/2°	TEE	PLUG
6"	17"	13"	9"	13"	14"
8"	23"	17"	12"	17"	19"
10"	28"	21"	15"	21"	24"
12"	34"	25"	18"	25"	29"

*=6" MINIMUM

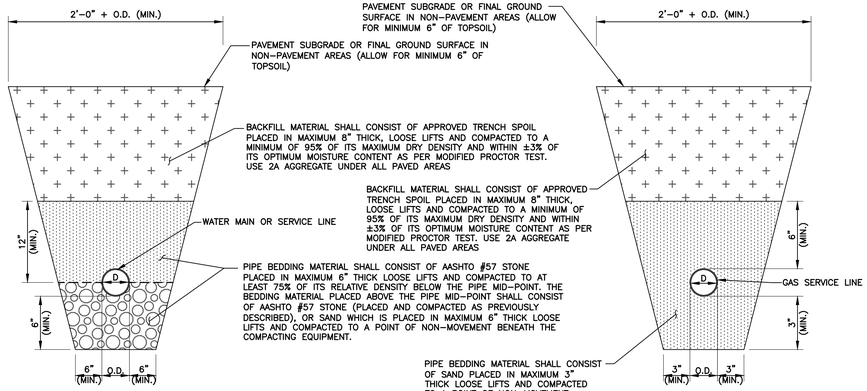
MINIMUM VOLUME OF CONCRETE

DIA.	VOLUME
6"	4 C.F.
8"	11 C.F.
10"	22 C.F.
12"	37 C.F.

NOTES:

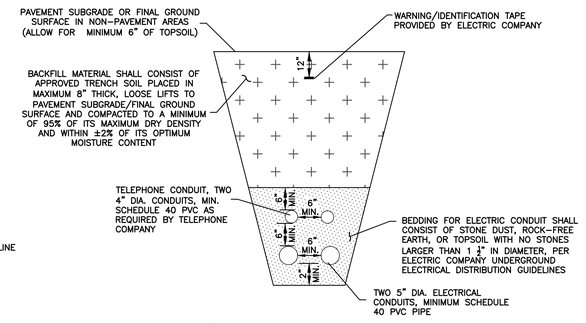
1. CONCRETE, CONCRETE MATERIAL, FORMING, PLACING, FURNISHING, AND CURING FOR THRUST BLOCKS SHALL CONFORM TO THE REQUIREMENTS SET FORTH IN THE SPECIFICATIONS. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE", ACI 318, LATEST EDITION.
2. ALL CONCRETE REINFORCING BARS SHALL HAVE A MINIMUM YIELD STRENGTH OF 60,000 PSI, AND SHALL CONFORM TO THE CURRENT ASTM DESIGNATION A615, "SPECIFICATIONS FOR DEFORMED BILLET–STEEL BARS FOR CONCRETE REINFORCEMENT".
3. TABLES ARE BASED ON ALLOWABLE EARTH PRESSURE OF 2,500 PSF. IF SOILS ENCOUNTERED AT THE TIME OF EXCAVATION DEMONSTRATE LOWER ALLOWABLE BEARING PRESSURE, THE AREA OF THE BLOCK MUST BE INCREASED PROPORTIONALLY.
4. TABLES APPLY TO PRESSURE IN THE PIPE OF NOT MORE THAN 150 PSI.
5. CONCRETE TO BE 3,500 PSI CONCRETE.
6. ALL THRUST BLOCKS TO BE CARRIED TO UNDISTURBED EARTH.
7. CONCRETE ANCHOR DETAIL FOR FIRE LINE SHALL BE PROVIDED IN ACCORDANCE WITH THE LOCAL WATER AUTHORITY REQUIREMENTS.

DETAIL 502
TYPICAL THRUST BLOCK
N.T.S.



ABBREVIATIONS

D = INSIDE DIAMETER
O.D. = OUTSIDE DIAMETER



NOTES:

1. FINAL CONDUIT CONFIGURATION TO BE SPECIFIED BY THE TELEPHONE AND ELECTRIC COMPANY DESIGNS FOR SITE.
2. A 1" HIGH STRENGTH PULL ROPE SHALL BE INSTALLED FOR BOTH ELECTRIC AND TELEPHONE.

ELECTRIC AND TELEPHONE LINES (TYP.)

COVER REQUIREMENTS

UTILITY	MINIMUM COVER REQUIRED *
STORM SEWER	2.0 FT.
SANITARY SEWER	4.0 FT.
WATERLINE	4.0 FT.
GAS LINE	2.0 FT.
ELECTRIC LINE	3.75 FT.
TELEPHONE LINE	2.5 FT.

* AS MEASURED FROM TOP OF PIPE TO FINAL GROUND SURFACE VEGETATED AREA

* AS MEASURED FROM TOP OF PIPE TO FINAL GROUND SURFACE VEGETATED AREA

TABLE 1: MINIMUM TRENCH WIDTHS

PIPE DIAMETER (in.)	TRENCH WIDTH (in.)
4–10	28
12	30
15	34
18	39
24	48
30	56
36	64
42	72
48	80
54	88
60	96

NOTES:

1. ALL MATERIALS EXCAVATED FROM THE UTILITY TRENCH SHALL BE STOCKPILED A MINIMUM SUFFICIENT DISTANCE FROM ALL TRENCHES TO PREVENT SLIDES OR CAVE–INS.
2. ALL BACKFILL MATERIALS SHALL BE APPROVED BY THE GENERAL CONTRACTOR OR HIS REPRESENTATIVE BEFORE BEING PLACED.
3. THE AASHTO #57 STONE SHALL BE CRUSHED LIMESTONE THAT SATISFIES THE REQUIREMENTS OF PADOT PUBLICATION 408, SECTION 703.
4. THE MAXIMUM DRY DENSITY AND OPTIMUM MOISTURE CONTENT FOR THE BACKFILL MATERIALS SHALL BE DETERMINED BY ASTM D1557, AND THE RELATIVE DENSITY OF THE AASHTO #57 STONE SHALL BE DETERMINED BY ASTM D4253 AND ASTM D4254.
5. THE CONTRACTOR SHALL CONSTRUCT THE UTILITY TRENCHES AND PROVIDE ADEQUATE SHORING (WHERE NECESSARY) IN CONFORMANCE WITH THE LATEST REQUIREMENTS FOR CONSTRUCTION STANDARD FOR EXCAVATIONS (29 CFR PART 1926.650–.652 SUBPART P) PROMULGATED BY OSHA.
6. THE CONTRACTOR SHALL VERIFY THAT THE MINIMUM SPECIFIED PIPE COVER IS PROVIDED BETWEEN THE FINAL GROUND SURFACE AND TOP OF PIPE BEFORE LAYING PIPE. PROVIDE A MINIMUM OF 3 FT. OF COVER ABOVE ALL PIPES DURING CONSTRUCTION.
7. THE TELEPHONE AND ELECTRIC CONDUIT WILL NOT SHARE THE SAME UTILITY TRENCH WHERE THEY ARE SEPARATED AT THE MANHOLE/VAULT LOCATIONS.
8. INCREASE TRENCH WIDTH AS NECESSARY TO ALLOW FOR PROPER COMPACTION OF BEDDING/BACKFILL.
9. HDPE AND HCP STORM SEWER PIPE SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS' RECOMMENDATIONS.

TABLE 2: BACKFILL MATERIAL AND COMPACTION REQUIREMENTS

DESCRIPTION	SOIL CLASSIFICATIONS			MIN. MODIFIED PROCTOR DENSITY %
	ASTM D2321	ASTM D487	AASHTO M43	
GRADED OR CRUSHED STONE, GRAVEL	CLASS I	–	5 56	N/A SEE NOTES FOR VISUAL CRITERIA
WELL–GRADED SAND, GRAVELS AND GRAVEL/SAND MIXTURES; POORLY GRADED SAND, GRAVELS AND GRAVEL/SAND MIXTURES; LITTLE TO NO FINES	CLASS II	GW GP SW SP	57 6	95%
SILTY OR CLAYEY GRAVELS, GRAVEL/SAND/SILT OR GRAVEL AND CLAY MIXTURES; SILTY OR CLAYEY SANDS, SAND/CLAY OR SAND/SILT MIXTURES	CLASS III	GW GP SW SP	GRAVEL AND SAND (<10% FINES)	95%

DETAIL 503
UTILITY TRENCH DETAILS
N.T.S.

Civil & Environmental Consultants, Inc.
333 Baldwin Road · Pittsburgh, PA 15205
412-429-2324 · 800-365-2324
www.cecinc.com

REVISION RECORD

NO	DATE	DESCRIPTION

DOROTHY HOLDINGS LLC
SOUTH FAYETTE AMERICAN NATURAL
SOUTH FAYETTE TOWNSHIP
ALLEGHENY COUNTY, PENNSYLVANIA

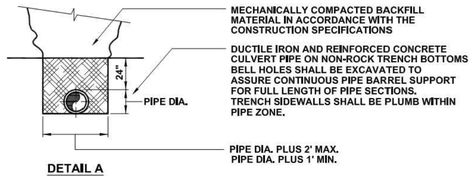
CONSTRUCTION DETAILS

DATE:	SEPTEMBER 2019
DRAWN BY:	JTL
DWG SCALE:	N.T.S.
CHECKED BY:	ARG
PROJECT NO:	192-386
APPROVED BY:	AMB

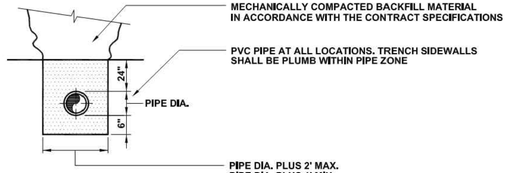
DRAWING NO.:
C804



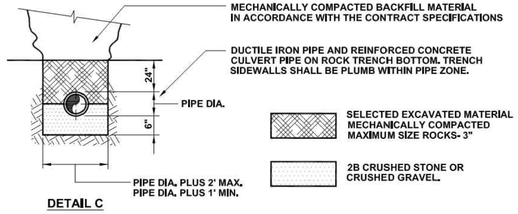
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DETAIL A



DETAIL B



DETAIL C

Municipal Authority Of The Township Of South Fayette 900 Presto Sygan Road Bridgeville, Pa 15017		TRENCH PIPE ZONE DETAILS
Not to scale	March 2014	Standard Detail SD-001

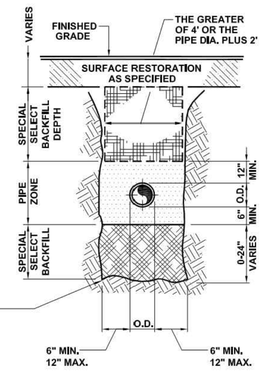
NOTE:
WHERE SPECIAL SELECT BACKFILL IS REQUIRED BETWEEN THE PIPE ZONE AND THE SURFACE MATERIAL, THE PIPE ZONE SHALL EXTEND 12" ABOVE THE PIPE REGARDLESS OF PIPE MATERIAL

SELECTED EXCAVATED MATERIAL MECHANICALLY COMPACTED MAXIMUM SIZE ROCKS- 3"

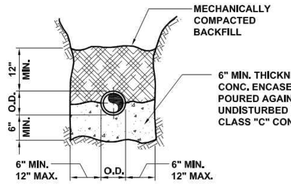
2B CRUSHED STONE OR CRUSHED GRAVEL.

CLASS "C" CONCRETE OR BETTER

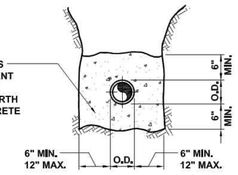
WHERE EXCAVATION EXPOSES THE BOTTOM OF PROPOSED TRENCHES WHERE VERY SOFT OR OTHER UNSTABLE PIPE FOUNDATION MATERIALS EXIST, THE CONTRACTOR WILL BE DIRECTED TO OVERCUT OR STABILIZE / OVERCUT AND REPLACE WITH R4 RIP RAP CHOCKED WITH AASHTO #57 STONE. THE CONTRACTOR SHALL BE COMPENSATED FOR THE ADDITIONAL EXCAVATION IN ACCORDANCE WITH THE PROVISIONS SPECIFIED IN THE GENERAL CONDITIONS.



SPECIAL BACKFILL
DETAIL A

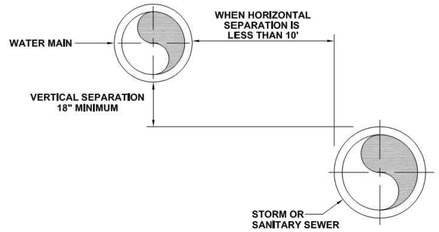


TYPICAL CONCRETE CRADLE
DETAIL B



TYPICAL CONCRETE ENCASEMENT
DETAIL C

Municipal Authority Of The Township Of South Fayette 900 Presto Sygan Road Bridgeville, Pa 15017		PIPE BEDDING DETAILS
Not to scale	March 2014	Standard Detail SD-002

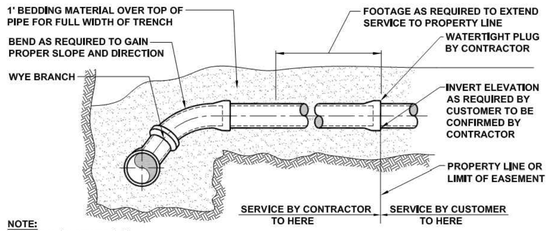


NOTES:

1. WHEN THE HORIZONTAL SEPARATION OF THE WATER MAIN AND SEWER LINE IS LESS THAN 10', THE VERTICAL SEPARATION BETWEEN THE TOP (CROWN) OF THE SEWER LINE AND THE BOTTOM (INVERT) OF THE WATER MAIN SHALL BE AT LEAST 18". SEWER LINE SHALL BE ENCASED IN CONCRETE FOR 10' ON EITHER SIDE OF THE WATER MAIN WHERE SEWER / WATER LINE CROSSINGS OCCUR AND WHERE CONDITIONS PREVENT AN 18" VERTICAL SEPARATION.

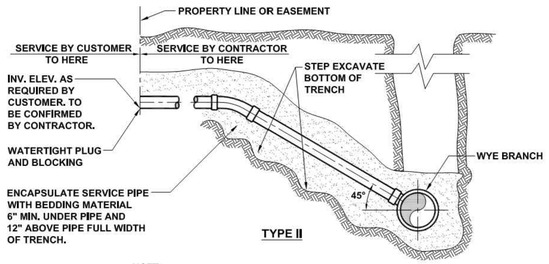
2. THERE SHALL BE AT LEAST A 10' HORIZONTAL SEPARATION BETWEEN WATER MAINS AND SANITARY SEWER FORCE MAINS. FORCE MAINS CROSSING WATER MAINS SHALL BE LAID TO PROVIDE A MINIMUM VERTICAL DISTANCE OF 18" BETWEEN THE OUTSIDE OF THE FORCE MAIN AND THE OUTSIDE OF THE WATER MAIN.

Municipal Authority Of The Township Of South Fayette 900 Presto Sygan Road Bridgeville, Pa 15017		DESIRED DISTANCES BETWEEN WATER AND SEWER PIPES
Not to scale	March 2014	Standard Detail SD-006



NOTE:
WHERE MAIN SEWER IS IN PRIVATE PROPERTY, FOOTAGE OF LATERAL PIPE WILL EXTEND TO THE EDGE OF SEWER RIGHT-OF-WAY.

TYPE I



TYPE II

NOTE:
ALL SERVICE SEWERS SHALL BE 6" DIAMETER AND SHALL BE PVC PIPE. CHANGES IN ALIGNMENT AND CONNECTIONS TO MAIN SEWER SHALL BE ACCOMPLISHED WITH PREFABRICATED FITTINGS.

Municipal Authority Of The Township Of South Fayette 900 Presto Sygan Road Bridgeville, Pa 15017		TYPICAL SERVICE LATERAL CONNECTIONS
Not to scale	March 2014	Standard Detail SD-023

REVISION RECORD

NO	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
333 Baldwin Road · Pittsburgh, PA 15205
412-429-2324 · 800-365-2324
www.cecinc.com

DOROTHY HOLDINGS LLC
SOUTH FAYETTE AMERICAN NATURAL
SOUTH FAYETTE TOWNSHIP
ALLEGHENY COUNTY, PENNSYLVANIA

CONSTRUCTION DETAILS

DATE:	SEPTEMBER 2019
DRAWN BY:	JTL
DWG SCALE:	1"=20'
CHECKED BY:	ARG
PROJECT NO:	192-386
APPROVED BY:	AMB

COMMONWEALTH OF PENNSYLVANIA
Professional
ANDREW R. GUILLONE
ENGINEER
PE075911

DRAWING NO.:
C805

P:\2019\192-386\--CADD\Dwg\C#01\192386-CV01-C800.dwg/C805 CONSTRUCTION DETAILS\ 12/17/2020 - dtorok) - LP, 6/4/2020 11:47 AM

NORTH

PROPOSED LIMIT OF DISTURBANCE: 1.4 AC.

904 C903 TEMPORARY FILTER SOCK
CONCRETE WASHOUT FACILITY

902 C903 INLET PROTECTION (TYP.)

LIMITS OF DISTURBANCE/NPDES PERMIT BOUNDARY 1.4 ACRES

DANIELL DRIVE
A.K.A. IONICS DRIVE
40' WIDE

WASHINGTON PIKE
S.R. 3003
VARIABLE WIDTH

PUMP CANOPY
+/-4200 SF
8 PUMPS

PROPOSED 4,800 SF CONVENIENCE STORE FFE=830.70'

ROCK CONSTRUCTION ENTRANCE (TYP.) 900 C902

906 C903 VEGETATED CHANNEL

907 C903 RIPRAP APRON (#1)

901 C902 COMPOST FILTER SOCK (TYP.)

905 C903 EROSION CONTROL BLANKET (TYP.)

20' UTILITY EASEMENT

30' UTILITY EASEMENT

322-E-11
D.B.V. 17022, PG. 205
11-16-2017
HARPLEY C. KING
TO
3049 WASHINGTON PIKE, LLC

322-E-10
D.B.V. 10310, PG. 546
09-28-1998
WENONAH P. COLTON, et al.
TO
THE PROSPERITY PARTNERSHIP

322-E-26
D.B.V. 9558, PG. 11
10-05-1995
WENONAH P. COLTON, et al.
TO
MONRO MUFFLER BRAKE, INC.

LOT 1
COLTON
PLAN OF LOTS
P.B.V. 191, PG. 55

LOT 2
COLTON PLAN OF LOTS
P.B.V. 191, PG. 55

ZONE AE

ZONE X

25' BUILDING LINE

LEGEND

- EXISTING INDEX CONTOUR
- EXISTING INTERMEDIATE CONTOUR
- EXISTING PROPERTY LINE
- EXISTING RIGHT-OF-WAY LINE
- EXISTING PAVEMENT
- EXISTING PAVEMENT MARKING
- EXISTING FLOODPLAIN BOUNDARY
- EXISTING OVERHEAD UTILITY
- EXISTING UTILITY POLE
- EXISTING STORM INLET
- EXISTING SANITARY MANHOLE
- EXISTING SANITARY LINE
- EXISTING WATERLINE
- PROPOSED HEAVY DUTY PAVEMENT
- PROPOSED CONCRETE
- PROPOSED BUILDING
- PROPOSED EASEMENT
- PROPOSED SETBACK
- PROPOSED STORM PIPE
- PROPOSED INLET
- PROPOSED CHANNEL
- PROPOSED RIPRAP
- PROPOSED INDEX CONTOUR
- PROPOSED INTERMEDIATE CONTOUR
- PROPOSED WATER LINE
- PROPOSED GAS LINE
- PROPOSED ELECTRIC LINE
- PROPOSED COMMUNICATIONS LINE
- PROPOSED SANITARY LINE
- PROPOSED NPDES PERMIT BOUNDARY
- PROPOSED LIMIT OF DISTURBANCE
- PROPOSED COMPOST FILTER SOCK
- PROPOSED INLET PROTECTION
- PROPOSED ROCK CONSTRUCTION ENTRANCE
- PROPOSED EROSION CONTROL BLANKET

SEDIMENT BARRIER TABLE	
BARRIER ID	SIZE
A	18" COMPOST FILTER SOCK
B	18" COMPOST FILTER SOCK
C	18" COMPOST FILTER SOCK
D	18" COMPOST FILTER SOCK
E	18" COMPOST FILTER SOCK
F	18" COMPOST FILTER SOCK

REFERENCE

1. EXISTING CONTOURS DERIVED FROM A BARE-EARTH DIGITAL ELEVATION MODEL CONSTRUCTED FROM PAMAP LIDAR (LIGHT DETECTION AND RANGING) ELEVATION POINTS. TOPOGRAPHIC CONTOURS MAPPED AT AN INTERVAL OF 2 FEET; DEVELOPED BY PAMAP PROGRAM, PA DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES, BUREAU OF TOPOGRAPHIC AND GEOLOGIC SURVEY; DATED 2010.
2. SURVEY INFORMATION COMPLETED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC (CEC). DATED SEPTEMBER 2019. VERTICAL DATUM IS BASED UPON NAVD88, AS DETERMINED BY CEC USING SURVEY GRADE GPS MEASUREMENTS AND OPUS POST-PROCESSING.

ONE CALL SERIAL NO.: 20192403397-000

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

PENNSYLVANIA ACT 287 (1974) AS AMENDED BY ACT 50 (2017). REQUIRES NO LESS THAN 3 WORKING DAYS NOTICE NOR MORE THAN 10 WORKING DAYS NOTICE FROM EXCAVATORS WHO ARE ABOUT TO: DIG, DRILL, BLAST, AUGER, BORE, GRADE, TRENCH, OR DEMOLISH WHEN IN THE CONSTRUCTION PHASE. FOR LOCATION REQUESTS IN THE STATE OF PENNSYLVANIA, CALL TOLL FREE 1-800-242-1776. UNDERGROUND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE INFORMATION AND THE LOCATION MUST BE CONSIDERED APPROXIMATE. OTHER UNDERGROUND UTILITIES MAY EXIST WHICH ARE NOT SHOWN. IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO ASCERTAIN ALL PHYSICAL LOCATIONS OF UTILITY LINES PRIOR TO THE TIME OF CONSTRUCTION. IN NO WAY SHALL THE CONTRACTOR HOLD THE SURVEYOR RESPONSIBLE FOR ANY UTILITY LOCATION SHOWN ON THIS PLAN.

SCALE IN FEET
0 20 40

COMMONWEALTH OF PENNSYLVANIA
ANDREW R. GULLONE
REGISTERED PROFESSIONAL ENGINEER

REVISION RECORD

NO	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
333 Baldwin Road · Pittsburgh, PA 15205
412-429-2324 · 800-365-2324
www.cecinc.com

DOROTHY HOLDINGS LLC
SOUTH FAYETTE AMERICAN NATURAL
SOUTH FAYETTE TOWNSHIP
ALLEGHENY COUNTY, PENNSYLVANIA

E&S CONTROL PLAN

DATE:	SEPTEMBER 2019
DRAWN BY:	JTL
DWG SCALE:	1" = 20'
CHECKED BY:	ARG
PROJECT NO:	192-386
APPROVED BY:	AMB

DRAWING NO.: C900

P:\2019\192-386\-CAD\Dwg\C901\192386-C901-C903.dwg(C900 E&S CONTROL PLAN) LS:(5/10/2020 - allexus) - LP: 6/4/2020 11:47 AM

STANDARD E&S PLAN NOTES

1. THE LOCATION OF EXISTING UTILITIES AND UNDERGROUND STRUCTURES SHOWN ARE APPROXIMATE AND THOSE SHOWN ARE NOT NECESSARILY ALL THE EXISTING UTILITIES AND STRUCTURES. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE EXACT LOCATION OF ALL ABOVE AND BELOW GROUND UTILITIES AND STRUCTURES PRIOR TO INITIATING CONSTRUCTION ACTIVITIES.
2. ALL EARTH DISTURBANCES, INCLUDING CLEARING AND GRUBBING AND CUTS AND FILLS, SHALL BE DONE IN ACCORDANCE WITH THE APPROVED E&S PLAN. A COPY OF THE APPROVED DRAWINGS (STAMPED, SIGNED AND DATED BY THE REVIEWING AGENCY) MUST BE AVAILABLE AT THE PROJECT SITE AT ALL TIMES. THE REVIEWING AGENCY SHALL BE NOTIFIED OF ANY CHANGES TO THE APPROVED PLAN PRIOR TO IMPLEMENTATION OF THOSE CHANGES. THE REVIEWING AGENCY MAY REQUIRE A WRITTEN SUBMITTAL OF THOSE CHANGES FOR REVIEW AND APPROVAL AT ITS DISCRETION.
3. AT LEAST 7 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, INCLUDING CLEARING AND GRUBBING, THE OWNER AND/OR OPERATOR SHALL INVITE ALL CONTRACTORS, THE LANDOWNER, APPROPRIATE MUNICIPAL OFFICIALS, THE E&S PLAN PREPARER, THE PCSM PLAN PREPARER, THE LICENSED PROFESSIONAL RESPONSIBLE FOR OVERSIGHT OF CRITICAL STAGES OF IMPLEMENTATION OF THE PCSM PLAN, AND A REPRESENTATIVE FROM THE LOCAL CONSERVATION DISTRICT TO AN ON-SITE PRECONSTRUCTION MEETING.
4. THE CONTRACTOR MUST NOTIFY THE PENNSYLVANIA ONE CALL SYSTEM INC. AT 1-800-242-1776 FOR THE LOCATION OF EXISTING UNDERGROUND UTILITIES AT LEAST 3 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, OR EXPANDING INTO AN AREA PREVIOUSLY UNMARKED.
5. 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.
6. AREAS TO BE FILLED ARE TO BE CLEARED, GRUBBED, AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS AND OTHER OBJECTIONABLE MATERIAL.
7. CLEARING, GRUBBING, AND TOPSOIL STRIPPING SHALL BE LIMITED TO THOSE AREAS DESCRIBED IN EACH STAGE OF THE CONSTRUCTION SEQUENCE. GENERAL SITE CLEARING, GRUBBING AND TOPSOIL STRIPPING MAY NOT COMMENCE IN ANY STAGE OR PHASE OF THE PROJECT UNTIL THE E&S BMPS SPECIFIED BY THE BMP SEQUENCE FOR THAT STAGE OR PHASE HAVE BEEN INSTALLED AND ARE FUNCTIONING AS DESCRIBED IN THIS E&S PLAN.
8. 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.
9. TOPSOIL REQUIRED FOR THE ESTABLISHMENT OF VEGETATION SHALL BE STOCKPILED AT THE LOCATION(S) SHOWN ON THE PLAN MAPS(S) IN THE AMOUNT NECESSARY TO COMPLETE THE FINISH GRADING OF ALL EXPOSED AREAS THAT ARE TO BE STABILIZED BY VEGETATION. EACH STOCKPILE SHALL BE PROTECTED IN THE MANNER SHOWN ON THE PLAN DRAWINGS. STOCKPILE HEIGHTS SHALL NOT EXCEED 35 FEET. STOCKPILE SLOPES SHALL BE 2H:1V OR FLATTER.
10. IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE OPERATOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES TO MINIMIZE THE POTENTIAL FOR EROSION AND SEDIMENT POLLUTION AND NOTIFY THE LOCAL CONSERVATION DISTRICT AND/OR THE REGIONAL OFFICE OF THE DEPARTMENT.
11. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ANY MATERIAL BROUGHT ON SITE IS CLEAN FILL. FORM FP-001 MUST BE RETAINED BY THE PROPERTY OWNER FOR ANY FILL MATERIAL AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE BUT QUALIFYING AS CLEAN FILL DUE TO ANALYTICAL TESTING.
12. ALL PUMPING OF WATER FROM ANY WORK AREA SHALL BE DONE ACCORDING TO THE PROCEDURE DESCRIBED IN THIS PLAN, OVER UNDISTURBED VEGETATED AREAS.
13. UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENT BMPS SHALL BE MAINTAINED PROPERLY. MAINTENANCE SHALL INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENT BMPS AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, REMULCHING AND RENETTING MUST BE PERFORMED IMMEDIATELY. IF THE E&S BMPS FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMPS, OR MODIFICATIONS OF THOSE INSTALLED WILL BE REQUIRED.
14. 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. INSPECTIONS SHOULD BE LOGGED ON PADEP FORM 3800-FM-BCW0127d REV. 1/2019.
15. SEDIMENT TRACKED ONTO ANY PUBLIC ROADWAY OR SIDEWALK SHALL BE RETURNED TO THE CONSTRUCTION SITE BY THE END OF EACH WORK DAY AND DISPOSED IN THE MANNER DESCRIBED IN THIS PLAN. IN NO CASE SHALL THE SEDIMENT BE WASHED, SHOVELED, OR SWEPT INTO ANY ROADSIDE DITCH, STORM SEWER, OR SURFACE WATER.
16. ALL SEDIMENT REMOVED FROM BMPS SHALL BE DISPOSED OF IN THE MANNER DESCRIBED ON THE PLAN DRAWINGS.
17. AREAS WHICH ARE TO BE TOPSOILED SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 3 TO 5 INCHES – 6 TO 12 INCHES ON COMPACTED SOILS – PRIOR TO PLACEMENT OF TOPSOIL. AREAS TO BE VEGETATED SHALL HAVE A MINIMUM 4 INCHES OF TOPSOIL IN PLACE PRIOR TO SEEDING AND MULCHING. FILL OUTSLOPES SHALL HAVE A MINIMUM OF 2 INCHES OF TOPSOIL.
18. ALL FILLS SHALL BE COMPACTED AS REQUIRED TO REDUCE EROSION, SLIPPAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED PROBLEMS. FILL INTENDED TO SUPPORT BUILDINGS, STRUCTURES AND CONDUITS, ETC. SHALL BE COMPACTED IN ACCORDANCE WITH LOCAL REQUIREMENTS OR CODES.
19. ALL EARTHEN FILLS SHALL BE PLACED IN COMPACTED LAYERS NOT TO EXCEED 9 INCHES IN THICKNESS.
20. FILL MATERIALS SHALL BE FREE OF FROZEN PARTICLES, BRUSH, ROOTS, SOD, OR OTHER FOREIGN OR OBJECTIONABLE MATERIALS THAT WOULD INTERFERE WITH OR PREVENT CONSTRUCTION OF SATISFACTORY FILLS.
21. FROZEN MATERIALS OR SOFT, MUCKY, OR HIGHLY COMPRESSIBLE MATERIALS SHALL NOT BE INCORPORATED INTO FILLS.
22. FILL SHALL NOT BE PLACED ON SATURATED OR FROZEN SURFACES.
23. SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE HANDLED IN ACCORDANCE WITH THE STANDARD AND SPECIFICATION FOR SUBSURFACE DRAIN OR OTHER APPROVED METHOD.
24. ALL GRADED AREAS SHALL BE PERMANENTLY STABILIZED IMMEDIATELY UPON REACHING FINISHED GRADE. CUT SLOPES IN COMPETENT BEDROCK AND ROCK FILLS NEED NOT BE VEGETATED. SEEDED AREAS WITHIN 50 FEET OF A SURFACE WATER, OR AS OTHERWISE SHOWN ON THE PLAN DRAWINGS, SHALL BE BLANKETED ACCORDING TO THE STANDARDS OF THIS PLAN.
25. IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITIES CEASE IN ANY AREA OR SUBAREA OF THE PROJECT, THE OPERATOR SHALL STABILIZE ALL DISTURBED AREAS. DURING NON-GERMINATING MONTHS, MULCH OR PROTECTIVE BLANKETING SHALL BE APPLIED AS DESCRIBED IN THE PLAN. AREAS NOT AT FINISHED GRADE, WHICH WILL BE REACTIVATED WITHIN 1 YEAR, MAY BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY STABILIZATION SPECIFICATIONS. THOSE AREAS WHICH WILL NOT BE REACTIVATED WITHIN 1 YEAR SHALL BE STABILIZED IN ACCORDANCE WITH THE PERMANENT STABILIZATION SPECIFICATIONS.
26. PERMANENT STABILIZATION IS DEFINED AS A 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.
27. 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.
28. CONCRETE WASH WATER SHALL BE HANDLED IN THE MANNER DESCRIBED ON THE PLAN DRAWINGS. IN NO CASE SHALL IT BE ALLOWED TO ENTER ANY SURFACE WATERS OR GROUNDWATER SYSTEM.
29. 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.
30. UNDERGROUND UTILITIES CUTTING THROUGH ANY ACTIVE CHANNEL SHALL BE IMMEDIATELY BACKFILLED AND THE CHANNEL RESTORED TO ITS ORIGINAL CROSS-SECTION AND PROTECTIVE LINING. ANY BASE FLOW WITHIN THE CHANNEL SHALL BE CONVEYED PAST THE WORK AREA IN THE MANNER DESCRIBED NI THIS PLAN UNTIL SUCH RESTORATION IS COMPLETE.
31. CHANNELS HAVING RIPRAP MUST BE SUFFICIENTLY OVER-EXCAVATED SO THAT THE DESIGN DIMENSIONS WILL BE PROVIDED AFTER PLACEMENT OF THE PROTECTIVE LINING.
32. ANY DAMAGE THAT OCCURS IN WHOLE OR IN A PART AS A RESULT OF BASIN DISCHARGE SHALL BE IMMEDIATELY REPAIRED BY THE PERMITTEE IN A PERMANENT MANNER SATISFACTORY TO THE MUNICIPALITY, LOCAL CONSERVATION DISTRICT, AND THE OWNER OF THE DAMAGE PROPERTY.
33. EROSION CONTROL BLANKETING SHALL BE INSTALLED ON ALL SLOPES 3H:1V OR STEEPER WITHIN 50 FEET OF A SURFACE WATER AND ON ALL OTHER DISTURBED AREAS SPECIFIED ON THE PLAN MAPS AND/OR DETAIL SHEETS.
34. 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.
35. 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.
36. UPON COMPLETION OF ALL EARTH DISTURBANCE ACTIVITIES AND PERMANENT STABILIZATION OF ALL DISTURBED AREAS, THE OWNER AND/OR OPERATOR SHALL CONTACT THE LOCAL CONSERVATION DISTRICT TO SCHEDULE A FINAL INSPECTION.
37. FAILURE TO CORRECTLY INSTALL E&S BMPS, FAILURE TO PREVENT SEDIMENT-LADEN RUNOFF FROM LEAVING THE CONSTRUCTION SITE, OR FAILURE TO TAKE IMMEDIATE CORRECTIVE ACTION TO RESOLVE FAILURE OF E&S BMPS MAY RESULT IN ADMINISTRATIVE, CIVIL, AND/OR CRIMINAL PENALTIES BEING INSTITUTED BY THE DEPARTMENT AS DEFINED IN SECTION 602 OF THE PENNSYLVANIA CLEAN STREAMS LAW. THE CLEAN STREAMS LAW PROVIDES FOR UP TO $10,000 PER DAY IN CIVIL PENALTIES, UP TO $10,000 IN SUMMARY CRIMINAL PENALTIES, AND UP TO $25,000 IN MISDEMEANOR CRIMINAL PENALTIES FOR EACH VIOLATION.
38. IF A SPILL OR RELEASE OF A REGULATED SUBSTANCE OCCURS ON-SITE AND CONTAMINATES THE SOIL, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO TEST THE SOIL TO DETERMINE IF IT QUALIFIES AS CLEAN FILL. TESTING SHOULD BE PERFORMED IN ACCORDANCE WITH PADEP'S POLICY ON "MANAGEMENT OF FILL". SEE BELOW DEFINITIONS FOR CLEAN FILL AND ENVIRONMENTAL DUE DILIGENCE.
39. CLEAN FILL: UNCONTAMINATED, NON-WATER SOLUBLE, NON-DECOMPOSABLE, INERT, SOLID MATERIAL. THE TERM INCLUDES SOIL, ROCK, STONE, DREDGED MATERIAL, USED ASPHALT, AND BRICK, BLOCK OR CONCRETE FROM CONSTRUCTION AND DEMOLITION ACTIVITIES THAT IS SEPARATE FROM OTHER WASTE AND IS RECOGNIZABLE AS SUCH. THE TERM DOES NOT INCLUDE MATERIALS PLACED IN OR ON THE WATERS OF THE COMMONWEALTH UNLESS OTHERWISE AUTHORIZED. (THE TERM "USED ASPHALT" DOES NOT INCLUDE MILLED ASPHALT OR ASPHALT THAT HAS BEEN PROCESSED FOR RE-USE.)
40. ENVIRONMENTAL DUE DILIGENCE: INVESTIGATIVE TECHNIQUES INCLUDING, BUT NOT LIMITED TO, VISUAL PROPERTY INSPECTIONS, ELECTRONIC DATA BASE SEARCHES, REVIEW OF PROPERTY OWNERSHIP, REVIEW OF PROPERTY USE HISTORY, SANBORN MAPS, ENVIRIMENTAL QUESTIONNAIRES, TRANSACTION SCREENS, ANALYTICAL TESTING, ENVIRONMENTAL ASSESSMENTS OR AUDITS. IF THE FILL MAY HAVE BEEN AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE, IT MUST BE TESTED TO DETERMINE IF IT QUALIFIES AS CLEAN FILL.

TEMPORARY CONTROL MEASURES

THE E&S CONTROL FACILITIES PROPOSED FOR THE PROJECT ARE SHOWN ON THE E&S CONTROL PLAN. CONTROL MEASURES SHOWN ON THIS PLAN ARE MINIMUM CONTROLS NECESSARY TO REDUCE THE POTENTIAL FOR OFFSITE AREAS TO RECEIVE SEDIMENT-LADEN RUNOFF. ADDITIONAL CONTROLS MAY BE REQUIRED DEPENDING ON THE PROGRESS OF CONSTRUCTION AND VARYING CONDITIONS ENCOUNTERED.

ROCK CONSTRUCTION ENTRANCE

A ROCK CONSTRUCTION ENTRANCE WILL BE PROVIDED AT THE LOCATION SHOWN ON THE PLANS AND IN ACCORDANCE WITH THE STANDARD DETAIL.

INSTALLATION:

1. EXCAVATE THE AREA WHERE THE ROCK CONSTRUCTION ENTRANCE WILL BE CONSTRUCTED A MINIMUM OF 8 INCHES.
2. PLACE A LAYER OF SEPARATION GEOTEXTILE ALONG THE FULL LENGTH AND WIDTH OF THE PAD. THE STONE PAD SHOULD BE AT LEAST 50 FEET IN LENGTH AND 20 FEET IN WIDTH.
3. PLACE STONE ACROSS THE FULL LENGTH AND WIDTH OF THE VEHICLE INGRESS AND EGRESS AREA. STONE IS TO BE A MINIMUM OF 8 INCHES THICK.

COMPOST FILTER SOCK

COMPOST FILTER SOCK SHALL BE INSTALLED IN THE LOCATIONS SHOWN ON THE PLANS AND IN ACCORDANCE WITH THE STANDARD DETAIL AND SPECIFICATIONS PROVIDED.

INSTALLATION:

1. COMPOST FILTER SOCK SHALL BE INSTALLED PARALLEL TO THE BASE OF THE SLOPE OR OTHER DISTURBED AREA, PERPENDICULAR TO SHEET FLOW.
2. STAKES SHALL BE INSTALLED THROUGH THE MIDDLE OF THE FILTER SOCK ON 10 FT. CENTERS, USING 2-INCH BY 2-INCH BY 4-FOOT WOODEN STAKES.
3. STAKING DEPTH FOR SAND AND SILT LOAM SOILS SHALL BE 12-INCH, AND 8-INCH FOR CLAY SOILS.
4. LOOSE COMPOST MAY BE BACKFILLED ALONG THE UPSLOPE SIDE OF THE FILTER SOCK, FILLING THE SEAM BETWEEN THE SOIL SURFACE AND THE DEVICE, IMPROVING FILTRATION AND SEDIMENT RETENTION.

MAINTENANCE:

1. COMPOST FILTER SOCKS SHOULD BE REGULARLY INSPECTED TO MAKE SURE THEY HOLD THEIR SHAPE AND ARE PRODUCING ADEQUATE FLOW THROUGH.
2. ACCUMULATED SEDIMENTS SHALL BE REMOVED IN ALL CASES WHERE ACCUMULATIONS HAVE REACHED HALF THE ABOVE-GROUND HEIGHT OF THE SOCK.
3. IF THE SOCK HAS BEEN DAMAGED, IT SHALL BE REPAIRED, OR REPLACED IF BEYOND REPAIR.

WHEN CONSTRUCTION IS COMPLETED ONSITE, THE COMPOST FILTER SOCKS MAY BE DISPERSED WITH A LOADER, RAKE, BULLDOZER OR OTHER DEVICE TO BE INCORPORATED IN THE SOIL OR LEFT ON TOP OF THE SOIL FOR FINAL SEEDING TO OCCUR. THE MESH NETTING MATERIAL SHALL BE COLLECTED AND DISPOSED OF IN A NORMAL TRASH CONTAINER OR REMOVED BY THE CONTRACTOR. IN CASES WHERE BIODEGRADABLE OR PHOTODEGRADABLE PRODUCTS ARE USED, THEY MAY BE LEFT ONSITE AT THE DIRECTION OF THE OWNER.

CONSTRUCTION WASTE RECYCLING/DISPOSAL

CONSTRUCTION WASTES ARE REFUSE MATERIALS THAT ARE EXISTING ON-SITE OR GENERATED DURING THE COURSE OF CONSTRUCTION AND MAY INCLUDE, BUT ARE NOT LIMITED TO, PAPER, PLASTIC, WOOD, FOOD, TEXTILE, AND METAL PRODUCTS.

INSTALLATION: THE CONTRACTOR SHALL BE RESPONSIBLE FOR IDENTIFYING WASTE RECYCLING/DISPOSAL AREAS ON THE EROSION AND SEDIMENT CONTROL PLANS ONCE THEY HAVE BEEN DETERMINED. WASTE DISPOSAL STOCKPILES SHALL BE PLACED UPSTREAM OF TEMPORARY E&S CONTROL MEASURES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL WASTE RECYCLING/DISPOSAL PERMITS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION ACTIVITIES.

MAINTENANCE: ALL CONSTRUCTION WASTE SHALL BE REMOVED BY THE CONTRACTOR AND DISPOSED OF AT A STATE APPROVED WASTE SITE AND IN ACCORDANCE WITH ALL LOCAL AND STATE CODES AND PERMIT REQUIREMENTS. THE BURNING OF WASTE MATERIALS SHALL NOT BE PERMITTED.

TOPSOIL STOCKPILE AREA

INSTALLATION: THERE WILL BE A DESIGNATED TOPSOIL STOCKPILE AREA LOCATED ON THE PROPERTY. THE LOCATION SHALL BE AS SHOWN ON THE E&S SITE PLANS AND ALL TOPSOIL FROM THE SITE SHALL BE STOCKPILED THERE UNTIL BEING RE-SPREAD OR REMOVED FROM THE SITE. THE STOCKPILE WILL BE SURROUNDED WITH A MINIMUM 12' COMPOST FILTER SOCK TO PREVENT SEDIMENT-LADEN RUNOFF FROM ENTERING NATURAL DRAINAGE PATHWAYS.

OUTLET PROTECTION

INSTALLATION: OUTLET PROTECTION APRONS WILL BE INSTALLED AT THE LOCATION SHOWN ON THE PLANS AND IN ACCORDANCE WITH THE STANDARD DETAIL TO PREVENT SCOUR FROM EXCESSIVE VELOCITIES.

MAINTENANCE: ADDITIONAL STONE MAY NEED TO BE ADDED PERIODICALLY TO MAINTAIN THE PROPER FUNCTIONING OF THE APRON.

EROSION CONTROL BLANKET

THE NORTH AMERICAN GREEN S150BN EROSION CONTROL BLANKET, OR AN APPROVED EQUAL, SHALL BE INSTALLED ON ALL SLOPES 3:1 OR STEEPER. THE EROSION CONTROL BLANKETS WILL PROVIDE EROSION PROTECTION AND ASSIST WITH VEGETATION ESTABLISHMENT FOR UP TO 12 MONTHS. AFTER A 12 MONTH PERIOD THE BLANKETS WILL BIODEGRADE LEAVING A STABLE VEGETATED ROOT STRUCTURE.

TEMPORARY CONTROL MEASURES (CONTINUED)

INSTALLATION:

1. PREPARE SOIL ON ALL ESTABLISHED TEMPORARY AND PERMANENT SLOPES AND ANY NECESSARY APPLICATION OF FERTILIZER AND SEED. SEE THE "SEEDING CRITERIA" TABLE LOCATED ON THE EROSION AND SEDIMENTATION CONTROL NOTES DRAWING BEFORE INSTALLING EROSION CONTROL BLANKET.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE EROSION CONTROL BLANKET IN A 6 INCH BY 6 INCH WIDE TRENCH WITH APPROXIMATELY 12 INCHES OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES APPROXIMATELY 12 INCHES APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12 INCH PORTION OF THE EROSION CONTROL BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES SPACED APPROXIMATELY 12 INCHES APART ACROSS THE WIDTH OF THE BLANKET.
3. ROLL THE EROSION CONTROL BLANKET DOWN THE SLOPE. BLANKET WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES IN APPROPRIATE LOCATIONS AS RECOMMENDED BY THE MANUFACTURER.
4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2 TO 5 INCH OVERLAP.

INLET PROTECTION

CURB AND GRATED INLETS ARE PROTECTED FROM THE INTRUSION OF SEDIMENT THROUGH A VARIETY OF MEASURES AS SHOWN ON THE DETAILS INCLUDED IN THE CONSTRUCTION DRAWINGS. THE PRIMARY MECHANISM IS TO PLACE CONTROLS IN THE PATH OF FLOW SUFFICIENT TO SLOW THE SEDIMENT-LADEN WATER TO ALLOW SETTLEMENT OF SUSPENDED SOILS BEFORE DISCHARGING INTO THE STORM SEWER. IT IS POSSIBLE THAT AS CONSTRUCTION PROGRESSES FROM STORM SEWER INSTALLATION THROUGH TO PAVING THAT THE INLET PROTECTION DEVICES WILL CHANGE. NOTE TO GENERAL CONTRACTOR: ALL INLET PROTECTION DEVICES CREATE PONDING OF STORMWATER THAT CAN RESULT IN FLOODING OR BY-PASS CONDITIONS.

INSTALLATION: THE INLET PROTECTION FILTERS SHALL BE INSTALLED IN THE LOCATIONS SHOWN ON THE PLAN AND IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

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

PUMPED WATER FILTER BAG

PUMPED WATER FILTER BAGS MAY BE USED, IF NECESSARY, TO PREVENT SEDIMENT LADEN WATER THAT MAY BE PUMPED FROM TRENCHES FROM DISCHARGING INTO WETLANDS AND STREAMS OR OFFSITE. THEY SHALL BE MADE FROM NON-WOVEN GEOTEXTILE MATERIAL AND SHALL TRAP PARTICLES LARGER THAN 150 MICRONS. PUMPING RATES SHALL NOT EXCEED ONE-HALF MANUFACTURER'S SPECIFICATIONS, OR 750 GPM, WHICHEVER IS LESS. THE FOLLOWING INSTRUCTIONS SHALL SPECIFY CONDITIONS FOR ITS USE.

INSTALLATION:

1. INSTALL BAGS ON A WELL-VEGETATED, EROSION-RESISTANT AREA.
2. BAGS SHALL NOT BE PLACED ON A SLOPE GREATER THAN 5%.
3. BAGS MUST BE PLACED ON A DRY AREA, AWAY FROM STREAMS AND WETLANDS.
4. PUMP INTAKES SHOULD BE FLOATING AND SCREENED.

MAINTENANCE:

1. FILTER BAGS SHALL BE INSPECTED DAILY. IF ANY PROBLEM IS DETECTED, PUMPING SHALL CEASE UNTIL THE PROBLEM IS CORRECTED.
2. FILTER BAGS SHALL BE REPLACED WHEN THEY BECOME HALF FULL WITH SEDIMENT.
3. A SUITABLE MEANS OF ACCESSING THE BAG WITH MACHINERY REQUIRED FOR DISPOSAL PURPOSES MUST BE PROVIDED.
4. SPARE BAGS SHALL BE KEPT AVAILABLE ONSITE.
5. ALL CLEAN OUT MATERIAL SHALL BE DISCARDED IN AN UPLAND AREA, REMOTE OF ANY STREAM OR WETLAND, WITHIN THE CONSTRUCTION RIGHT-OF-WAY. ALL AREAS WILL BE STABILIZED.

CONCRETE WASHOUT

CONCRETE WASHOUTS SHALL BE CONSTRUCTED ONSITE TO CONTAIN ALL WASHOUT WATER FROM CONCRETE CONSTRUCTION ACTIVITIES. WASHOUTS SHALL BE CLEARLY MARKED.

INSTALLATION: WASHOUTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE STANDARD DETAIL PROVIDED.

MAINTENANCE: WASHOUTS SHALL BE CLEANED OUT WHEN ACCUMULATED MATERIALS TAKE UP TWO-THIRDS OF THE AVAILABLE STORAGE CAPACITY. MATERIALS SHALL BE DISPOSED OF IN A PADEP-APPROVED FACILITY. MAKE ANY REPAIRS TO THE CONTAINMENT FACILITY AS NEEDED.

TRENCH PLUGS

TRENCH PLUGS SHALL BE INSTALLED AS NEEDED DURING ALL TRENCHING ACTIVITIES, IN ACCORDANCE WITH THE STANDARD DETAILS.

INSTALLATION:

1. PIPELINES WITH JOINTS THAT ALLOW A MANUFACTURED LENGTH OF PIPE TO BE PLACED IN THE TRENCH WITH THE PIPE JOINT ASSEMBLED IN THE TRENCH REQUIRE AN OPEN TRENCH THAT IS ONLY SLIGHTLY LONGER THAN THE LENGTH OF PIPE BEING INSTALLED.
2. THE TOTAL LENGTH OF EXCAVATED TRENCH OPEN AT ANY ONE TIME SHOULD NOT BE GREATER THAN THE TOTAL LENGTH OF PIPELINE/UTILITY LINE THAT CAN BE PLACED IN THE TRENCH AND BACKFILLED IN ONE WORKING DAY.
3. NO MORE THAN 50 FEET OF OPEN TRENCH SHOULD EXIST WHEN PIPELINE/UTILITY LINE INSTALLATION CEASED AT THE END OF THE WORKDAY.
4. TRENCH PLUGS ARE REQUIRED AT ALL WATER-BODY CROSSINGS REGARDLESS OF TRENCH SLOPE.
5. TOPSOIL MAY NOT BE USED TO FILL SACKS.

MAINTENANCE: DAMAGED OR ERODED TRENCH PLUGS SHALL BE RESTORED TO ORIGINAL DIMENSIONS WITHIN 24 HOURS OF INSPECTION. MAINTENANCE OF TRENCH PLUGS SHALL BE PROVIDED UNTIL TRENCH HAS ACHIEVED PERMANENT STABILIZATION.

VEGETATIVE STABILIZATION

INSTALLATION: FERTILIZING, SEEDING, AND MULCHING WILL BE USED AS A TEMPORARY E&S CONTROL MEASURE ON ALL NON-PAVED DISTURBED AREAS. EXPOSED SOILS NOT SUBJECT TO CONSTRUCTION TRAFFIC SHALL NOT REMAIN UNSEEDED OR COVERED BY MULCH FOR MORE THAN 4 DAYS, INCLUDING STOCKPILED SOIL MATERIALS. WITH REGARD TO THE TEMPORARY SEED MIX, REFER TO THE SEEDING MIXTURE TABLE PROVIDED ON THE E&S CONTROL PLAN DETAIL SHEET. UNLESS THE OWNER'S REPRESENTATIVE DIRECTS OTHERWISE, VEGETATION SHALL BE ESTABLISHED AS FOLLOWS.

1. SOIL PLACEMENT: SOIL SHALL BE PLACED TO THE DESIGN THICKNESS AND GRADE AND TRACKED AND ROLLED INTO PLACE IN A MANNER THAT WILL NOT CAUSE EXCESSIVE COMPACTION. IF SOIL DENSITY IS VERIFIED IN THE FIELD, SOIL SHALL BE COMPACTED TO A DRY DENSITY BETWEEN 75 AND 100 POUNDS PER CUBIC FOOT, AFTER CORRECTION TO ZERO PERCENT COARSE FRAGMENT (PARTICLES LARGER THAN 2 MILLIMETERS) CONTENT.
2. SOIL TESTING AND SOIL AMENDMENT (LIME AND FERTILIZER) RATES: UNLESS SOIL TEST RESULTS AND RECOMMENDATIONS FROM THE STATE AGRICULTURAL EXTENSION SERVICE LABORATORY (PENN STATE AGRICULTURAL ANALYTICAL SERVICES LABORATORY [814-863-0841] OR EQUIVALENT SOIL TESTING LABORATORY) INDICATE OTHERWISE, EVENLY APPLY: 1) AGRICULTURAL GRADE GROUND LIMESTONE AT A RATE OF 6 TONS PER ACRE (CALCIUM CARBONATE EQUIVALENT BASIS); 2) FERTILIZERS TO SUPPLY 100-200-200 POUNDS PER ACRE N-P205-K20 (EXAMPLE: 10-20-20 FERTILIZER AT A RATE OF 1000 POUNDS PER ACRE); AND, 3) "BIOPAK" MICROBIAL SOIL INOCULANT (DISTRIBUTED BY PLANT HEALTH CARE, INC. [WWW.PLANTHEALTHCARE.COM OR 800-421-9051]). IF APPROVED PASTEURIZED PELLETIZED POULTRY MANURE (PASTEURIZED PPM) WITH AN ANALYSIS OF AT LEAST 4-2-3 (PERCENT N-P205-K20) IS USED, IT WILL BE ASSUMED THAT ONE TON MANURE WILL SUBSTITUTE FOR 60-40-60 POUNDS N-P205-K20 AVAILABLE IN THE FIRST YEAR. A PRE-APPROVED SOURCE OF PASTEURIZED PPM IS "MICRO-START60" AS MANUFACTURED BY PERDUE AGRIRECYCLE, LLC (WWW.MICROSTART60.COM <HTTP://WWW.MICROSTART60.COM>) OR 302-628-2360).
3. SOIL AMENDMENT INCORPORATION: PROMPTLY TILL UNDER THE LIME AND FERTILIZER TO A DEPTH OF 2 TO 4 INCHES USING A DISK, HARROW, PLOW, ROTOTILLER OR OTHER SUITABLE EQUIPMENT. IF LIME REQUIREMENTS ARE LESS THAN 4 TONS PER ACRE OR SLOPES ARE TOO STEEP TO PERMIT SAFE TILLAGE, THE SOIL AMENDMENTS CAN BE MIXED INTO A HYDROMULCH SLURRY OR CAN BE TRACKED IN WITH A DOZER IN LIEU OF INCORPORATION. IF TRACKING THE SITE WITH A DOZER, TRACK IN A MANNER THAT LEAVES CLEAT MARKS PARALLEL TO SITE CONTOURS.
4. TEMPORARY SEEDING THAT WILL NOT BE FOLLO

SEED MIXTURE

TABLE 1 MOWED PERMANENT SEED MIXTURE

Apply all of the following mixture components: TO BE SEEDED BETWEEN APRIL 1 AND MAY 30, OR BETWEEN SEPTEMBER 1 AND OCTOBER 1.

SCIENTIFIC NAME	COMMON NAME	MINIMUM % PURITY	MINIMUM % GERMINATION	SEEDING RATE (lbs/1000SF)	SEEDING RATE (lbs/ACRE)
Lolium perenne	perennial ryegrass (A mixture of at least 2 fine–leaf, turf type varieties.)	98	90	1.2	52
Festuca rubra	red fescue (Pennlawn)	98	85	2.4	105
Poa pratensis	Kentucky Blue Grass (mix atleast 4 named varieties)	98	80	2.4	105
			TOTAL:	6.0	262

NOTE: If the above seeding dates cannot be observed, use appropriate temporary seeding mixture.

TABLE 2 NON–MOWED SLOPE SEED MIXTURE

Apply all of the following mixture components. TO BE SEEDED BETWEEN APRIL 1 AND MAY 30 OR BETWEEN SEPTEMBER 1 AND OCTOBER 1.

SCIENTIFIC NAME	COMMON NAME	MINIMUM % HARDSEED	MINIMUM % PURITY	MINIMUM % GERMINATION	SEEDING RATE (lbs/1000SF)	SEEDING RATE (lbs/ACRE)
Lolium perenne	perennial ryegrass (A mixture of at least 2 fine–leaf, turf type varieties.)	N/A	98	80	0.8	35
Festuca rubra	red fescue (Pennlawn)	N/A	98	85	0.8	35
Lotus corniculatus	birdsfoot trifoil ("Viking")	20	98	80	0.7	30
plus, depending on the season, and on the seed availability, add one of these nurse crops.						
Avena sativa	Oats– April 1 To Sept 1	N/A	98	85	1.5	64
Secale cereale	Winter Rye April 1 to October 1	N/A	98	85	1.3	56
Secale cereale	Winter Rye October 1 to April 1	N/A	98	85	2.6	112
				TOTAL:	7.7	332

NOTE: If above seeding dates cannot be observed, use the appropriate temporary seeding mixture.

Apply one of the following species within the time frame specified.

TABLE 3 TEMPORARY SEED MIX

SCIENTIFIC NAME	COMMON NAME	MINIMUM % PURITY	MINIMUM % GERMINATION	SEEDING RATE (lbs/1000SF)	SEEDING RATE (lbs/ACRE)
Avena sativa	Oats– April 1 TO Sept 1	98	85	2.2	96
or Secale cereale	Winter Rye– April 1 – October 30	98	85	2.6	112
			TOTAL:	4.8	208

NOTE: If seeding after October 30, increase straw mulch rate to 4 tons per acre.

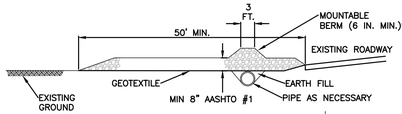
TOPSOIL REPLACEMENT SPECIFICATIONS

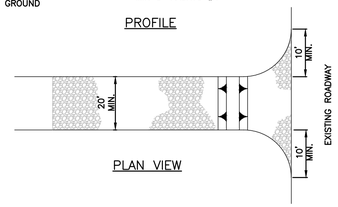
1. GRADED AREAS SHOULD BE SCARIFIED OR OTHERWISE LOOSENED TO A DEPTH OF 3 TO 5 INCHES TO PERMIT BONDING OF THE TOPSOIL TO THE SURFACE AREAS AND TO PROVIDE A ROUGHENED SURFACE TO PREVENT TOPSOIL FROM SLIDING DOWN THE SLOPE.
2. TOPSOIL SHOULD BE UNIFORMLY DISTRIBUTED ACROSS THE DISTURBED AREA TO A DEPTH OF 4 TO 8 INCHES MINIMUM, 2 INCHES ON FILL OUTSLOPES.
3. SPREADING SHOULD BE DONE THAT SODDING/SEEDING CAN PROCEED WITH A MINIMUM OF ADDITIONAL PREPARATION OR TILLAGE.
4. IRREGULARITIES IN THE SURFACE RESULTING FROM TOPSOIL PLACEMENT SHOULD BE CORRECTED IN ORDER TO PREVENT FORMATION OF DEPRESSIONS UNLESS SUCH DEPRESSIONS ARE PART OF THE PCSM PLAN.
5. TOPSOIL SHALL NOT BE PLACED IF TOPSOIL OR SUBSOIL IS FROZEN OR MUDDY, EXCESSIVELY WET, OR IN A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING AND SEEDBED PREPARATION.
6. COMPACTED SOILS SHOULD BE SCARIFIED 6 TO 12 INCHES ALONG CONTOUR WHEREVER POSSIBLE PRIOR TO SEEDING.

TABLE 11.1 TOPSOIL REPLACEMENT SPECIFICATIONS

CUBIC YARDS OF TOPSOIL REQUIRED FOR APPLICATION TO VARIOUS DEPTHS

DEPTH (in)	PER 1,000 SQUARE FEET	PER ACRE
1	3.1	134
2	6.2	268
3	9.3	403
4	12.4	537
5	15.5	672
6	18.6	806
7	21.7	940
8	24.8	1,074





* MOUNTABLE BERM USED TO PROVIDE PROPER COVER FOR PIPE

NOTES:

1. REMOVE TOPSOIL PRIOR TO INSTALLATION OF ROCK CONSTRUCTION ENTRANCE. EXTEND ROCK OVER FULL WIDTH OF ENTRANCE.
2. RUNOFF SHALL BE DIVERTED FROM ROADWAY TO A SUITABLE SEDIMENT REMOVAL BMP PRIOR TO ENTERING ROCK CONSTRUCTION ENTRANCE.
3. MOUNTABLE BERM SHALL BE INSTALLED WHEREVER OPTIONAL CULVERT PIPE IS USED AND PROPER PIPE COVER AS SPECIFIED BY MANUFACTURER IS NOT OTHERWISE PROVIDED. PIPE SHALL BE SIZED APPROPRIATELY FOR SIZE OF DITCH BEING CROSSED.
4. MAINTENANCE: ROCK CONSTRUCTION ENTRANCE THICKNESS SHALL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK. A STOCKPILE SHALL BE MAINTAINED ON SITE FOR THIS PURPOSE. ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE IMMEDIATELY. IF EXCESSIVE AMOUNTS OF SEDIMENT ARE BEING DEPOSITED ON ROADWAY, EXTEND LENGTH OF ROCK CONSTRUCTION ENTRANCE BY 50 FOOT INCREMENTS UNTIL CONDITION IS ALLEVIATED OR INSTALL WASH RACK. WASHING THE ROADWAY OR SWEEPING THE DEPOSITS INTO ROADWAY DITCHES, SEWERS, CULVERTS, OR OTHER DRAINAGE COURSES IS NOT ACCEPTABLE.

PROJECT OBJECTIVES

1. PRESERVE THE INTEGRITY OF STREAM CHANNELS AND MAINTAIN AND PROTECT THE PHYSICAL, BIOLOGICAL AND CHEMICAL QUALITIES OF THE RECEIVING STREAM.
   - THE PROJECT STORMWATER MANAGEMENT PLAN PROTECTS CHARTIERS CREEK FROM ANY INCREASE IN ADVERSE EFFECTS BY DECREASING THE EXISTING IMPERVIOUS AREA AND BY UTILIZING A VEGETATED CHANNEL, INLET FILTERS, STREETSWEEPING, AND PERMANENT STABILIZATION/NATIVE GRASSES ON STEEP SLOPES.
2. PREVENT AN INCREASE IN THE RATE OF STORMWATER RUNOFF.
   - THERE IS NO INCREASE IN THE RATE OF STORMWATER RUNOFF. THE AMOUNT OF IMPERVIOUS SURFACES HAVE BEEN SIGNIFICANTLY REDUCED IN THE POST–DEVELOPMENT CONDITION, THEREBY DECREASING THE RATE OF STORMWATER RUNOFF.
3. MINIMIZE ANY INCREASE IN STORMWATER RUNOFF VOLUME.
   - THE STORMWATER RUNOFF VOLUME FOR THE 2–YEAR RAINFALL EVENT IS DECREASED BY THE DECREASE IN IMPERVIOUS SURFACES IN THE POST–DEVELOPMENT CONDITIONS.
4. MINIMIZE IMPERVIOUS AREAS.
   - THE PROPOSED SITE CONDITIONS MINIMIZE THE AMOUNT OF IMPERVIOUS AREAS TO THE EXTENT PRACTICAL FOR THE FINAL USE OF THE PROJECT SITE.
5. MAXIMIZE THE PROTECTION OF EXISTING DRAINAGE FEATURES AND EXISTING VEGETATION.
   - NO VEGETATION OR EXISTING DRAINAGE FEATURES OUTSIDE OF THE LIMIT OF DISTURBANCE WILL BE IMPACTED. STREAMS AND WETLANDS ARE NOT PRESENT ONSITE. CONVEYANCE PIPES ARE UTILIZED TO CARRY RUNOFF TO THE POINT OF INTEREST.
6. MINIMIZE LAND CLEARING AND GRADING.
   - ONLY AREAS NECESSARY FOR CONSTRUCTION WILL BE CLEARED DURING THE PROJECT.
7. MINIMIZE SOIL COMPACTION.
   - SOIL COMPACTION WILL BE MINIMIZED TO THE EXTENT PRACTICAL. CONSTRUCTION VEHICLES/EQUIPMENT WILL BE RESTRICTED TO THE LIMITS OF DISTURBANCE.
8. UTILIZE OTHER STRUCTURAL OR NON–STRUCTURAL BMPS THAT PREVENT OR MINIMIZE CHANGES IN STORMWATER RUNOFF.
   - THE PROJECT UTILIZES A VEGETATED CHANNEL, INLET FILTERS, AND STREETSWEEPING TO REDUCE THE IMPACTS OF STORMWATER RUNOFF.

CONSTRUCTION SEQUENCE

THE CONSTRUCTION OF THE AMERICAN NATURAL PROJECT CONSISTS OF ONE GENERAL PHASE OF CONSTRUCTION. ALL E&S CONTROL FACILITIES SHALL BE INSTALLED IN ACCORDANCE WITH THE APPROVED E&S CONTROL PLAN AND THE PADEP EROSION AND SEDIMENT POLLUTION CONTROL PROGRAM MANUAL DATED MARCH 2012.

A GENERALIZED CONSTRUCTION SEQUENCE IS PROVIDED BELOW. THE CONSTRUCTION SEQUENCE IS INTENDED TO PROVIDE A GENERAL COURSE OF ACTION IN ORDER TO CONFORM TO THE APPLICABLE REGULATORY AGENCY REQUIREMENTS FOR TEMPORARY AND PERMANENT SOIL EROSION AND SEDIMENT POLLUTION CONTROL. ALL NECESSARY PARTS FOR PROPER AND COMPLETE EXECUTION OF WORK PERTAINING TO THIS PLAN, WHETHER SPECIFICALLY MENTIONED OR NOT, ARE TO BE PERFORMED BY THE CONTRACTOR. IT IS NOT INTENDED THAT THE DRAWINGS AND THIS REPORT SHOW EVERY DETAILED PIECE OF MATERIAL OR EQUIPMENT. THE CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS LISTED IN THIS SECTION. THE CONTRACTOR MAY BE REQUIRED TO ALTER CONTROLS BASED ON EFFECTIVENESS OF CONTROLS OR DIFFERING CONDITIONS ENCOUNTERED. THE CONTRACTOR SHALL MAKE EVERY ATTEMPT TO MINIMIZE THE EXTENT AND DURATION OF EARTH DISTURBANCE ACTIVITY AND SOIL COMPACTION, AND SHALL MAXIMIZE THE PROTECTION OF EXISTING DRAINAGE FEATURES AND VEGETATION TO THE GREATEST EXTENT POSSIBLE. EACH STAGE SHALL BE COMPLETED AND IMMEDIATELY STABILIZED BEFORE ANY FOLLOWING STAGE IS INITIATED. CLEARING, GRUBBING, AND TOPSOIL STRIPPING SHALL BE LIMITED ONLY TO THOSE AREAS DESCRIBED IN EACH STAGE. THE CONTRACTOR IS TO MINIMIZE THE EXTENT AND DURATION OF EARTH DISTURBANCE. ANY DEVIATION FROM THE FOLLOWING SEQUENCE MUST BE APPROVED IN WRITING FROM THE ALLEGHENY COUNTY CONSERVATION DISTRICT.

SITE CONSTRUCTION SEQUENCE

1. AT LEAST 7 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, INCLUDING CLEARING AND GRUBBING, THE OWNER AND/OR OPERATOR SHALL INVITE ALL CONTRACTORS, THE LANDOWNER, APPROPRIATE MUNICIPAL OFFICIALS, THE E&S PLAN PREPARER, THE PCSM PLAN PREPARER, THE LICENSED PROFESSIONAL RESPONSIBLE FOR OVERSIGHT OF CRITICAL STAGES OF IMPLEMENTATION OF THE PCSM PLAN, AND A REPRESENTATIVE FROM THE ALLEGHENY COUNTY CONSERVATION DISTRICT TO AN ON–SITE PRECONSTRUCTION MEETING.
2. 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.
3. LAYOUT THE LIMITS OF THE CONSTRUCTION SITE AND ESTABLISH BENCHMARKS AND REFERENCE POINTS.
4. STAKE OUT THE LIMIT OF DISTURBANCE AS INDICATED ON THE CONSTRUCTION PLANS.
5. INSTALL FILTER BAGS WITHIN ALL EXISTING CATCH BASINS WITHIN AND ADJACENT TO THE PROJECT AREA.
6. INSTALL THE ROCK CONSTRUCTION ENTRANCE IN THE LOCATION SHOWN ON THE PLANS AND IN ACCORDANCE WITH THE STANDARD DETAIL. THIS WILL BE THE ONLY ENTRANCE USED BY CONSTRUCTION VEHICLES.
7. CLEAR ONLY THOSE AREAS NECESSARY TO REACH AND INSTALL PERIMETER E&S CONTROLS SHOWN ON THE EROSION AND SEDIMENTATION CONTROL PLAN. INSTALL SILT SOCK IN THE LOCATIONS SHOWN ON THE PLANS AND IN ACCORDANCE WITH THE SIZE SPECIFICATIONS ON THE E&S PLAN DRAWINGS, THE E&S NARRATIVE AND THE STANDARD DETAIL. ALL PERIMETER COMPOST FILTER SOCK SHALL BE INSTALLED PARALLEL TO THE CONTOURS. TREES SHALL NOT BE REMOVED IN ORDER TO INSTALL COMPOST FILTER SOCKS. SLIGHT DEVIATION FROM INSTALLATION PARALLEL TO CONTOURS IS ACCEPTABLE TO AVOID TREES.
8. BEGIN CLEARING AND GRUBBING THE REMAINDER OF THE SITE WITHIN THE LIMITS OF DISTURBANCE. ALL WASTE MATERIALS SHALL BE DISPOSED OF AT A PADEP–APPROVED WASTE SITE OR RECYCLED IN ACCORDANCE WITH ALL LOCAL AND STATE CODES AND PERMIT REQUIREMENTS (VERIFICATION OF PERMITS TO BE PROVIDED BY THE CONTRACTOR).
9. STRIP TOPSOIL AND PLACE STRIPPED TOPSOIL IN THE TOPSOIL STOCKPILE AREA DESIGNATED ON THE PLANS AND/OR REMOVE FROM SITE. SEED AND MULCH TOPSOIL STOCKPILE. STOCKPILE LOCATIONS MAY VARY IN THE FIELD, AND ADDITIONAL STOCKPILE LOCATIONS MAY BE USED AS NECESSARY. ALL TOPSOIL STOCKPILE AREAS SHALL BE FULLY ENCLOSED WITH SILT SOCK PER THE STANDARD DETAIL.
10. BEGIN ROUGH GRADING OF THE SITE. FILL SLOPES SHOULD BE SEEDED AND MULCHED AT REGULAR VERTICAL INCREMENTS — 15 TO 25 FEET MAXIMUM — AS FILL IS BEING CONSTRUCTED. SEEDING AND MULCHING OPERATIONS SHOULD BE INITIATED PRIOR TO 15,000 SQUARE FEET OF DISTURBED AREA REACHING FINAL GRADE.
11. INSTALL THE CONCRETE WASHOUT FACILITY IN A LOCATION TO BE SELECTED BY THE CONTRACTOR AND IN ACCORDANCE WITH THE STANDARD DETAIL.

HALT ALL ACTIVITIES AND CONTACT CEC PRIOR TO THE BEGINNING OF THE NEXT STEP IN THE CONSTRUCTION SEQUENCE. THE INSTALLATION OF THE STORMWATER CONVEYANCE SYSTEM CONSISTS OF CRITICAL STAGES THAT A LICENSED PROFESSIONAL OR DESIGNEE MUST BE ONSITE TO INSPECT. LICENSED PROFESSIONALS MUST BE LICENSED IN THE COMMONWEALTH OF PENNSYLVANIA.

12. CONSTRUCT THE VEGETATED CHANNEL AT THE LOCATION SHOWN ON THE E&S PLAN AND IN ACCORDANCE WITH THE DETAIL, INCLUDING INSTALLATION OF PROTECTIVE LINING. INSTALL COMPOST FILTER SOCK ALONG THE TOP OF THE CHANNEL AS SHOWN ON THE E&S PLAN.
13. BEGIN INSTALLATION OF THE STORM SEWER CONVEYANCE SYSTEM. START AT THE DOWNSTREAM END OF THE SYSTEM, AT THE CONNECTION TO THE EXISTING TOWNSHIP STORM SEWER, AND WORK IN THE UPSTREAM DIRECTION. LEAVE CONCRETE GRADE ADJUSTMENT RINGS OFF TO ENSURE THAT ALL STORMWATER RUNOFF IS DIRECTED TO THE INLETS SUCH THAT PONDING OR FLOODING DOES NOT OCCUR. INSTALL FILTER BAGS WITHIN ALL CATCH BASINS. INSTALL RIP–RAP OUTLET PROTECTION APRONS AS SHOWN ON THE E&S PLAN AND DETAILS. UTILIZE TRENCH PLUGS AND COMPOST FILTER SOCK AS NECESSARY, AND REFER TO THE STANDARD DETAILS PROVIDED ON THE DETAILS SHEET.
14. EXCAVATE TRENCHES ONLY AS REQUIRED. LIMIT DAILY TRENCH EXCAVATION TO THE LENGTH OF PIPE PLACEMENT, PLUG INSTALLATION, AND BACKFILLING THAT CAN BE COMPLETED THE SAME DAY. NO MORE THAN 50 LINEAL FEET OF OPEN TRENCH SHOULD EXIT WHEN WORK CEASES AT THE END OF THE WORKING DAY. PLACE EXCAVATED MATERIAL ON THE UPSLOPE SIDE OF THE TRENCH. ANY ACCUMULATED WATER SHALL BE REMOVED BY PUMPING THROUGH A PUMPED WATER FILTER BAG. WATER FROM PUMPED WATER FILTER BAGS MUST BE TREATED FOR SEDIMENT REMOVAL PRIOR TO BEING DISCHARGED TO SURFACE WATERS OF STORMWATER INLETS.
15. CONTINUE GRADING OPERATIONS AND COMMENCE CONSTRUCTION OF BUILDING FOUNDATIONS.
16. CONTINUE GRADING OPERATIONS TO BRING THE REMAINING AREA OF THE SITE TO PROPOSED SUBGRADE. STABILIZE ROADS AND PARKING AREAS IMMEDIATELY AFTER SUBGRADE IS REACHED. UTILIZE PROPER SLOPE AND TRENCH SHORING METHODS TO ALLEVIATE CUTBANK CAVING. STABILIZE SLOPES IMMEDIATELY AFTER REACHING FINAL GRADE.
17. BEGIN CONSTRUCTION OF THE PROPOSED CONVENIENCE STORE AND GAS PUMPS AS PAD GRADING ALLOWS.
18. INSTALL ALL REMAINING UNDERGROUND UTILITY SERVICES INCLUDING SITE SANITARY SEWERS, WATER, GAS, ELECTRIC, TELEPHONE AND CABLE SERVICES AND ALL ASSOCIATED STRUCTURES. UTILIZE TRENCH PLUGS AND COMPOST FILTER SOCK AS NECESSARY, AND REFER TO THE STANDARD DETAILS PROVIDED ON THE DETAIL SHEET. THE TOTAL LENGTH OF EXCAVATED TRENCH OPEN AT ANY ONE TIME SHOULD NOT BE GREATER THAN THE TOTAL LENGTH OF UTILITY LINE THAT CAN BE PLACED IN THE TRENCH AND BACKFILLED IN ONE WORKING DAY. UTILIZE A PUMPED WATER FILTER BAG AS NECESSARY. WATER FROM PUMPED WATER FILTER BAGS MUST BE TREATED FOR SEDIMENT REMOVAL PRIOR TO BEING DISCHARGED TO SURFACE WATERS OR STORMWATER INLETS.
19. FINAL GRADE AND STABILIZE ALL AREAS OF THE SITE. AS DISTURBED AREAS WITHIN A PROJECT APPROACH FINAL GRADE, PREPARATIONS SHOULD BE MADE FOR SEEDING AND MULCHING TO BEGIN. IN NO CASE SHOULD AN AREA EXCEEDING 15,000 SQUARE FEET, WHICH IS TO BE STABILIZED BY VEGETATION, REACH FINAL GRADE WITHOUT BEING SEEDED OR MULCHED. ALL UNPAVED DISTURBED AREAS SHALL BE STABILIZED IMMEDIATELY WITH SEED AND MULCH ONCE GRADING IS COMPLETE OR WITHIN FOUR (4) DAYS ONCE THE CONSTRUCTION HAS BEEN COMPLETED. INSTALL THE APPROPRIATE EROSION CONTROL BLANKETS FOR ALL SLOPES STEEPER THAN 3:1.
20. ALL AREAS NOT PAVED SHALL RECEIVE A MINIMUM OF 6" OF TOPSOIL. INSTALL PLANTINGS IN ACCORDANCE WITH THE LANDSCAPE PLAN.
21. COMPLETE CONSTRUCTION OF ALL PROPOSED CURBS AND SIDEWALKS.
22. REMOVE FILTER BAGS IN AREAS TO BE PAVED. PAVE THE PROPOSED DRIVE AISLES AND PARKING AREAS. REPLACE FILTER BAGS IN INLETS AFTER PAVING IS COMPLETED.
23. ONCE ALL AREAS HAVE BEEN PERMANENTLY STABILIZED, AND A UNIFORM 70% PERENNIAL VEGETATIVE COVER HAS BEEN ESTABLISHED ON ALL GRASSED AREAS AND THE EROSION CONTROL BLANKET HAS BEEN INSTALLED AT LOCATIONS SHOWN ON THE PLANS, REMOVE ALL EROSION AND SEDIMENTATION CONTROL FACILITIES.
24. INSTALL THE FABCO WATER QUALITY FILTERS IN THE INLETS IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.
25. THE SITE CONTRACTOR SHALL CONTACT THE ALLEGHENY COUNTY CONSERVATION DISTRICT (TELEPHONE: 724–241–7645) FOR APPROVAL THAT THE SITE HAS BEEN ADEQUATELY STABILIZED.
26. SUBMIT THE NOTICE OF TERMINATION (PA DEP FORM 3800–PM–BCW 0229B, DATED 1/2018, OR AS UPDATED) TO THE ALLEGHENY COUNTY CONSERVATION DISTRICT.

RECYCLING OR DISPOSAL OF MATERIALS

1. DEMOLITION ACTIVITIES ARE ANTICIPATED TO PRODUCE PROJECT WASTES.
2. ALL BUILDING MATERIALS AND WASTES SHALL BE REMOVED FROM THE SITE AND RECYCLED OR DISPOSED OF IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 260.1 ET SEQ., 271.1, AND 287.1 ET. SEQ. NO BUILDING MATERIALS OR WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURNED, BURIED, DUMPED, OR DISCHARGED AT THE SITE. CONSTRUCTION WASTES INCLUDE, BUT ARE NOT LIMITED TO, EXCESS SOIL MATERIALS, BUILDING MATERIALS, CONCRETE WASH WATER, SANITARY WASTES, ETC. THAT COULD ADVERSELY IMPACT WATER QUALITY.
3. PROPER TRASH DISPOSAL, RECYCLING OF MATERIALS, PROPER MATERIALS HANDLING, AND SPILL PREVENTION AND CLEAN–UP REDUCE THE POTENTIAL FOR CONSTRUCTION SITE WASTES TO BE BE MOBILIZED BY STORMWATER RUNOFF AND CONVEYED TO SURFACE WATERS.
4. UNDER NO CIRCUMSTANCES MAY EROSION CONTROL BMPS BE USED FOR TEMPORARY STORAGE OR DEMOLITION MATERIALS OF CONSTRUCTION WASTES.
5. 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 WILL BE RESPONSIBLE FOR THE REMOVAL OF ANY EXCESS MATERIAL AND MAKE SURE THE SITE(S) RECEIVING THE EXCESS HAS AN APPROVED EROSION AND SEDIMENT CONTROL PLAN THAT COMPLIES WITH THE CONDITIONS OF CHAPTER 102 AND/OR OTHER STATE OR FEDERAL REGULATIONS.
6. CLEAN FILL IS DEFINED AS: UNCONTAMINATED, NON–WATER SOLUBLE, NON–DECOMPOSABLE, INERT, SOLID MATERIAL. THE TERM INCLUDES SOIL, ROCK, STONE, DREDGED MATERIALS, USED ASPHALT, AND BRICK. BLOCK OR CONCRETE FROM CONSTRUCTION AND DEMOLITION ACTIVITIES THAT IS SEPARATE FROM OTHER WASTE AND RECOGNIZED AS SUCH. THE TERM DOES NOT INCLUDE MATERIAL PLACED IN OR ON THE WATERS OF THE COMMONWEALTH OF PENNSYLVANIA UNLESS OTHERWISE AUTHORIZED. (THE TERM "USED ASPHALT" DOES NOT INCLUDE MILLED ASPHALT OR ASPHALT THAT HAS BEEN PROCESSED FOR RE–USE.).
7. ANY PLACEMENT OF CLEAN FILL THAT HAS BEEN AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE MUST USE THE DEPARTMENT FORM (PADEP) FP–001 TO CERTIFY THE ORIGIN OF THE FILL MATERIAL AND THE RESULTS OF THE ANALYTICAL TESTING TO QUALIFY THE MATERIAL AS CLEAN FILL. PADEP FORM FP–001 MUST BE RETAINED BY THE OWNER OF THE PROPERTY RECEIVING THE FILL.
8. ENVIRONMENTAL DUE DILIGENCE MUST BE PERFORMED TO DETERMINE IF THE FILL MATERIALS ASSOCIATED WITH THE PROJECT QUALIFY AS CLEAN FILL. ENVIRONMENTAL DUE DILIGENCE IS DEFINED AS: INVESTIGATIVE TECHNIQUES, INCLUDING, BUT NOT LIMITED TO, VISUAL INSPECTION, ELECTRONIC DATA BASE SEARCHES, REVIEW OF THE PROPERTY OWNERSHIP, REVIEW OF PROPERTY USE HISTORY, SANBORN MAPS, ENVIRONMENTAL QUESTIONNAIRES, TRANSACTION SCREENS, ANALYTICAL TESTING, ENVIRONMENTAL ASSESSMENTS OR AUDITS. ANALYTICAL TESTING IS NOT A REQUIRED PART OF DUE DILIGENCE UNLESS VISUAL INSPECTION AND/OR REVIEW OF THE PAST LAND USE OF THE PROPERTY INDICATES THAT THE FILL MAY HAVE BEEN SUBJECTED TO A SPILL OR RELEASE OF A REGULATED SUBSTANCES. IF THE FILL MAY HAVE BEEN AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCES, IT MUST BE TESTED TO DETERMINE IF IT QUALIFIES AS CLEAN FILL. TESTING SHOULD BE PERFORMED IN ACCORDANCE WITH APPENDIX A OF THE DEPARTMENT'S POLICY "MANAGEMENT OF CLEAN FILL."

GEOLOGIC FORMATIONS/SOIL CONDITIONS

THE UNITED STATES DEPARTMENT OF AGRICULTURE (USDA) SOIL SURVEY OF ALLEGHENY COUNTY, PA INDICATES THAT THE SITE SOILS PRIMARILY CONSIST OF THE CULLEOKA, GILPIN, WEIKERT, AND URBAN LAND SERIES OF SOILS. THE CULLEOKA, GILPIN, AND WEIKERT SERIES CONSIST OF RESIDUUM WEATHERED FROM SANDSTONE, SILTSTONE, AND SHALE. THE URBAN LAND ORIGINATES FROM PAVEMENTS, BUILDINGS, AND OTHER ARTIFICIALLY COVERED AREAS. ACCORDING TO THIS RESOURCE, THE DEPTH TO A RESTRICTIVE FEATURE (I.E. LITHIC BEDROCK OR DENSIC MATERIAL) RANGES FROM APPROXIMATELY 10 TO 40 INCHES AND THE DEPTH TO WATER TABLE BEING THAN 80 INCHES FOR THE SOIL SERIES.

1. IF DURING CONSTRUCTION GEOLOGIC FORMATIONS ARE ENCOUNTERED, THE CONTRACTOR IS TO CONTACT THE OWNER, THE DESIGN PROFESSIONAL, THE LOCAL CONSERVATION DISTRICT, AND THE PADEP FOR PROPER HANDLING OF THESE MATERIALS.
2. IF HIGH WATER TABLE IS ENCOUNTERED:
   - KEEP EXCAVATIONS AS SHALLOW AS PRACTICAL;
   - CONSTRUCT DURING DRY WEATHER;
   - PUMPS AND WATER FILTER BAGS SHALL BE UTILIZED IF GROUNDWATER IS ENCOUNTERED;
   - CONSTRUCT INTERMEDIATE DRAINS, IF NECESSARY TO CONTROL AND DISCHARGE WATER FROM FILLS.
3. IF ERODIBLE SOILS ARE ENCOUNTERED:
   - UTILIZE EROSION CONTROL BLANKETS, SILT SOCKS, TEMPORARY AND PERMANENT SEEDING, AND DIVERSION CHANNELS TO MINIMIZE EROSION.
4. SOIL COMPACTION
   - MINIMIZE SOIL COMPACTION TO THE FULLEST EXTENT POSSIBLE IN ALL UNIMPROVED AREAS.

POTENTIAL FOR THERMAL IMPACTS

THERMAL IMPACTS WILL BE ADDRESSED REDUCING THE AMOUNT OF IMPERVIOUS AREA ON THE SITE, AND BY THE USE OF STORM SEWERS AND A VEGETATED CHANNEL WHICH WILL CONVEY A PORTION OF THE STORMWATER RUNOFF FROM THE PARKING LOT TO THE PROPOSED STORMWATER PIPING SYSTEM. RUNOFF FROM THE PROPOSED DEVELOPMENT'S IMPERVIOUS SURFACES WILL BE CONVEYED THROUGH A STORMWATER PIPING SYSTEM, CURB CUT ROCK CHANNEL, AND/OR VEGETATED CHANNEL BEFORE BEING DISCHARGED TO THE MUNICIPAL STORMWATER SYSTEM, WHERE IT EVENTUALLY DISCHARGES TO CHARTIERS CREEK. THE TIME REQUIRED FOR RUNOFF TO REACH CHARTIERS CREEK WILL PROVIDE COOLING EFFECTS THAT WILL OFFSET THERMAL IMPACTS GENERATED BY THE PROPOSED IMPERVIOUS SURFACE. FURTHERMORE, FLOW THROUGH THE VEGETATED AREAS WILL ALSO PROVIDE ADDITIONAL OPPORTUNITY FOR THE RUNOFF TO INFILTRATE INTO THE GROUND RATHER THAN BEING DIVERTED DIRECTLY INTO WATERWAYS, FURTHER OFFSETTING POTENTIAL THERMAL IMPACTS. EFFORTS WILL BE MADE TO MINIMIZE SOIL COMPACTION.

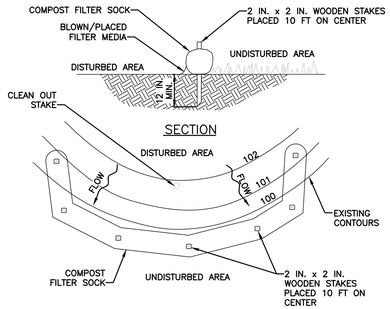
COMPOST FILTER SOCK SPECIFICATIONS

TABLE 4.1 COMPOST FILTER SOCK FABRIC MINIMUM SPECIFICATION

MATERIAL TYPE	3 MIL HDPE	5 MIL HDPE	5 MIL HDPE	MULTI–FILAMENT POLYPROPYLENE (MFPP)	HEAVY DUTY MULTI–FILAMENT POLYPROPYLENE (HDMFPP)
MATERIAL CHARACTERISTICS	PHOTO–DEGRADABLE	PHOTO–DEGRADABLE	BIO–DEGRADABLE	PHOTO–DEGRADABLE	PHOTO–DEGRADABLE
	12" 18"	12" 18" 24" 32"	12" 18" 24" 32"	12" 18" 24" 32"	12" 18" 24" 32"
	3/8"	3/8"	3/8"	3/8"	1/8"
		26 PSI	26 PSI	44 PSI	202 PSI
ULTRAVIOLET STABILITY %	23% AT 1000 HR.	23% AT 1000 HR.		100% AT 1000 HR.	100% AT 1000 HR.
MINIMUM FUNCTIONAL LONGGEVITY	6 MONTHS	9 MONTHS	6 MONTHS	1 YEAR	2 YEARS
TWO–PLY SYSTEMS					
INNER CONTAINMENT NETTING	HDPE BIAXIAL NET				
	CONTINUOUSLY WOUND				
	FUSION–WELDED JUNCTURES				
	3/4" X 3/4" MAX. APERTURE SIZE				
OUTER FILTRATION MESH	COMPOSITE POLYPROPYLENE FABRIC (WOVEN LAYER AND NON–WOVEN FLEECE MECHANICALLY FUSED VIA NEEDLE PUNCH)				
	3/16" MAX. APERTURE SIZE				
SOCK FABRICS COMPOSED OF BURLAP MAY BE USED ON PROJECTS LASTING 6 MONTHS OR LESS					

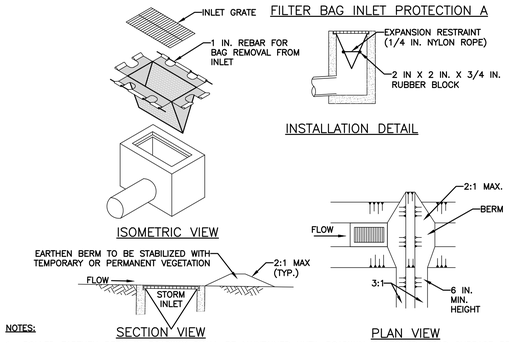
TABLE 4.2 COMPOST FILTER SOCK STANDARDS

ORGANIC MATTER CONTENT	25%–100% (DRY WEIGHT BASIS)
ORGANIC PORTION	FIBROUS AND ELONGATED
pH	5.5–8.5
MOISTURE CONTENT	30%–60%
PARTICLE SIZE	30%–50% PASS THROUGH 3/8" SIEVE
SOLUBLE SALT CONCENTRATION	5.0 dS/M (MMHOS/CM) MAXIMUM



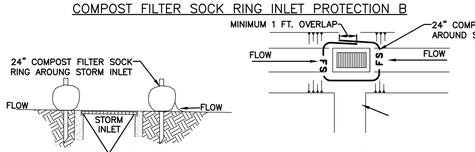
NOTES:

1. 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.
2. COMPOST FILTER SOCK SHALL BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF THE BARRIER SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45 DEGREES TO THE MAIN BARRIER ALIGNMENT. MAXIMUM SLOPE LENGTH ABOVE ANY BARRIER SHALL NOT EXCEED THAT SPECIFIED FOR THE SIZE OF THE SOCK AND THE SLOPE OF ITS TRIB



NOTES:

1. ROLLED EARTHEN BERM IN ROADWAY SHALL BE MAINTAINED UNTIL ROADWAY IS STONED. ROAD SUBBASE BERM ON ROADWAY SHALL BE MAINTAINED UNTIL ROADWAY IS PAVED. EARTHEN BERM IN CHANNEL SHALL BE MAINTAINED UNTIL PERMANENT STABILIZATION IS COMPLETED OR REMAIN PERMANENTLY.
2. AT A MINIMUM, THE FABRIC SHALL HAVE A MINIMUM GRAB TENSILE STRENGTH OF 120 LBS., A MINIMUM BURST STRENGTH OF 200 PSI, AND A MINIMUM TRAPEZOIDAL TEAR STRENGTH OF 50 LBS. FILTER BAGS SHALL BE CAPABLE OF TRAPPING ALL PARTICLES NOT PASSING A NO. 40 SIEVE.
3. INLET FILTER BAGS SHALL BE INSPECTED ON A WEEKLY BASIS AND AFTER EACH RUNOFF EVENT. BAGS SHALL BE EMPTIED AND RINSED OR REPLACED WHEN HALF FULL OR WHEN FLOW CAPACITY HAS BEEN REDUCED SO AS TO CAUSE FLOODING OR BYPASSING OF THE INLET. DAMAGED OR CLOGGED BAGS SHALL BE REPLACED. A SUPPLY SHALL BE MAINTAINED ON SITE FOR REPLACEMENT OF BAGS. ALL NEEDED REPAIRS SHALL BE INITIATED IMMEDIATELY AFTER THE INSPECTION. DISPOSE ACCUMULATED SEDIMENT AS WELL AS ALL USED BAGS ACCORDING TO THE PLAN NOTES.
4. DO NOT USE ON MAJOR PAVED ROADWAYS WHERE PONDING MAY CAUSE TRAFFIC HAZARDS.

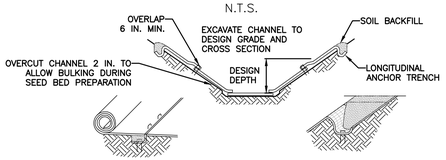


NOTES:

1. 24" COMPOST FILTER SOCKS WILL BE PLACED IN A RING AROUND INLETS. OVERLAP 24" COMPOST FILTER SOCK AT LEAST 1 FOOT TO ENSURE PROPER FILTRATION.
2. 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.
3. TRAFFIC SHALL NOT BE PERMITTED TO CROSS COMPOST FILTER SOCKS.
4. 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.
5. 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.
6. 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.
7. UPON STABILIZATION OF THE AREA TRIBUTARY TO THE SOCK, STAKES AND SOCK SHALL BE REMOVED.

DETAIL 902
MODIFIED PADEP CONSTRUCTION DETAIL #4-16
FILTER BAG/COMPOST FILTER SOCK INLET PROTECTION TYPE M INLET

N.T.S.



* SEE MANUFACTURER'S LINING INSTALLATION DETAIL FOR STAPLE PATTERNS, VEGETATIVE STABILIZATION FOR SOIL AMENDMENTS, SEED MIXTURES AND MULCHING INFORMATION

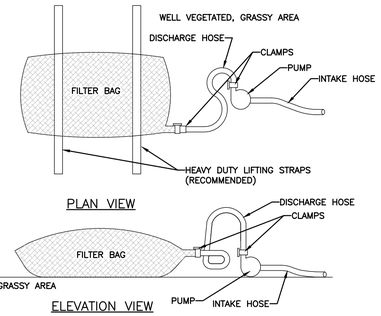
CHANNEL NO.	STATIONS	BOTTOM WIDTH B (FT)	DEPTH D (FT)	TOP WIDTH W (FT)	Z1 (FT)	Z2 (FT)	LINING *
1	ALL	1	1.75	8	2	2	NAG P300

NOTES:

1. ANCHOR TRENCHES SHALL BE INSTALLED AT BEGINNING AND END OF CHANNEL IN THE SAME MANNER AS LONGITUDINAL ANCHOR TRENCHES.
2. CHANNEL DIMENSIONS SHALL BE CONSTANTLY MAINTAINED. CHANNEL SHALL BE CLEANED WHENEVER TOTAL CHANNEL DEPTH IS REDUCED BY 25% AT ANY LOCATION.
3. SEDIMENT DEPOSITS SHALL BE REMOVED WITHIN 24 HOURS OF DISCOVERY OR AS SOON AS SOIL CONDITIONS PERMIT ACCESS TO CHANNEL WITHOUT FURTHER DAMAGE. DAMAGED LINING SHALL BE REPAIRED OR REPLACED WITHIN 48 HOURS OF DISCOVERY.
4. NO MORE THAN ONE THIRD OF THE SHOOT (GRASS LEAF) SHALL BE REMOVED IN ANY MOWING. GRASS HEIGHT SHALL BE MAINTAINED BETWEEN 2 AND 3 INCHES UNLESS OTHERWISE SPECIFIED. EXCESS VEGETATION SHALL BE REMOVED FROM PERMANENT CHANNELS TO ENSURE SUFFICIENT CHANNEL CAPACITY.

DETAIL 906
PADEP STANDARD CONSTRUCTION DETAIL #6-1
VEGETATED CHANNEL

NOT TO SCALE



NOTES:

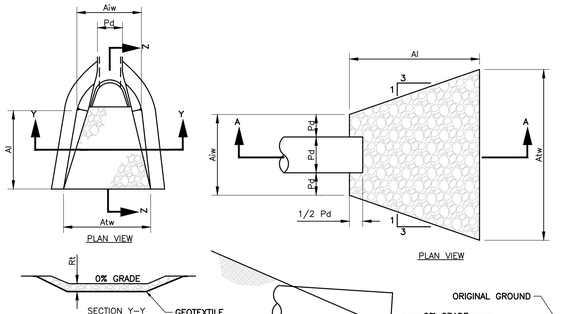
1. LOW VOLUME FILTER BAGS SHALL BE MADE FROM NON-WOVEN GEOTEXTILE MATERIAL SEWN WITH HIGH STRENGTH, DOUBLE STITCHED "J" TYPE SEAMS. THEY SHALL BE CAPABLE OF TRAPPING PARTICLES LARGER THAN 150 MICRONS. HIGH VOLUME FILTER BAGS SHALL BE MADE FROM WOVEN GEOTEXTILES THAT MEET THE FOLLOWING STANDARDS:

PROPERTY	TEST METHOD	MINIMUM STANDARD
AVG. WIDE WIDTH STRENGTH	ASTM D-4884	60 LB/IN
GRAB TENSILE	ASTM D-4632	205 LB
PUNCTURE	ASTM D-4833	110 LB
MULLEN BURST	ASTM D-3786	350 PSI
UV RESISTANCE	ASTM D-4355	70%
AOS % RETAINED	ASTM D-4751	80 SIEVE

2. A SUITABLE MEANS OF ACCESSING THE BAG WITH MACHINERY REQUIRED FOR DISPOSAL PURPOSES SHALL BE PROVIDED. FILTER BAGS SHALL BE REPLACED WHEN THEY BECOME 1/2 FULL OF SEDIMENT. SPARE BAGS SHALL BE KEPT AVAILABLE FOR REPLACEMENT OF THOSE THAT HAVE FAILED OR ARE FILLED. BAGS SHALL BE PLACED ON STRAPS TO FACILITATE REMOVAL UNLESS BAGS COME WITH LIFTING STRAPS ALREADY ATTACHED.
3. BAGS SHALL BE LOCATED IN WELL-VEGETATED (GRASSY) AREA, AND DISCHARGE ONTO STABLE, EROSION RESISTANT AREAS. WHERE THIS IS NOT POSSIBLE, A GEOTEXTILE UNDERLAYMENT AND FLOW PATH SHALL BE PROVIDED. BAGS MAY BE PLACED ON FILTER STONE TO INCREASE DISCHARGE CAPACITY. BAGS SHALL NOT BE PLACED ON SLOPES GREATER THAN 5%. FOR SLOPES EXCEEDING 5%, CLEAN ROCK OR OTHER NON-ERODIBLE AND NON-POLLUTING MATERIAL MAY BE PLACED UNDER THE BAG TO REDUCE SLOPE STEEPNESS.
4. NO DOWNSLOPE SEDIMENT BARRIER IS REQUIRED FOR MOST INSTALLATIONS. COMPOST BERM OR COMPOST FILTER SOCK SHALL BE INSTALLED BELOW BAGS LOCATED IN HQ OR EV WATERSHEDS, WITHIN 50 FEET OF ANY RECEIVING SURFACE WATER OR WHERE GRASSY AREA IS NOT AVAILABLE.
5. 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.
6. 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.
7. FILTER BAGS SHALL BE INSPECTED DAILY. IF ANY PROBLEM IS DETECTED, PUMPING SHALL CEASE IMMEDIATELY AND NOT RESUME UNTIL THE PROBLEM IS CORRECTED.

DETAIL 903
PADEP STANDARD CONSTRUCTION DETAIL #3-16
PUMPED WATER FILTER BAG

N.T.S.



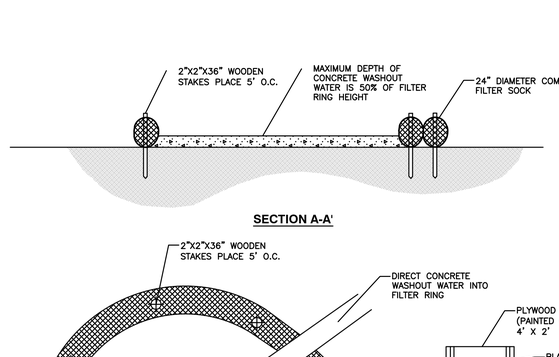
NOTES:

1. ALL APRONS SHALL BE CONSTRUCTED TO THE DIMENSIONS SHOWN. TERMINAL WIDTHS SHALL BE ADJUSTED AS NECESSARY TO MATCH RECEIVING CHANNELS.
2. ALL APRONS SHALL BE INSPECTED AT LEAST WEEKLY AND AFTER EACH RUNOFF EVENT. DISPLACED RIPRAP WITHIN THE APRON SHALL BE REPLACED IMMEDIATELY.
3. EXTEND RIPRAP ON BACK SIDE OF APRON TO AT LEAST 1/2 DEPTH OF PIPE ON BOTH SIDES TO PREVENT SCOUR AROUND THE PIPE.

APRON NO.	OUTLET NO.	PIPE DIA Pd (IN)	RIPRAP SIZE R--	RIPRAP THICK. Rt (IN)	APRON LENGTH Al (FT)	APRON INITIAL WIDTH Aiw (FT)	APRON TERMINAL WIDTH Atw (FT)
1	10	12	3	9	6	3	9
2	20	12	3	9	6	3	9

DETAIL 907
RIPRAP APRON

N.T.S.

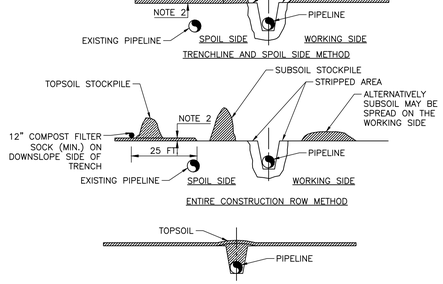


NOTES:

1. ACTUAL LAYOUT DETERMINED IN THE FIELD.
2. THE CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 30' OF THE TEMPORARY CONCRETE WASHOUT FACILITY.
3. INSTALL ON FLAT GRADE FOR OPTIMUM PERFORMANCE
4. 18" DIAMETER FILTER SOCK MAY BE STACKED ONTO DOUBLE 24" DIAMETER SOCKS IN PYRAMIDAL CONFIGURATION FOR ADDED HEIGHT.
5. A SUITABLE IMPERVIOUS GEOMEMBRANE SHALL BE PLACED AT THE LOCATION OF THE WASHOUT PRIOR TO INSTALLING THE SOCKS.

DETAIL 904
TEMPORARY FILTER SOCK CONCRETE WASHOUT FACILITY

N.T.S.

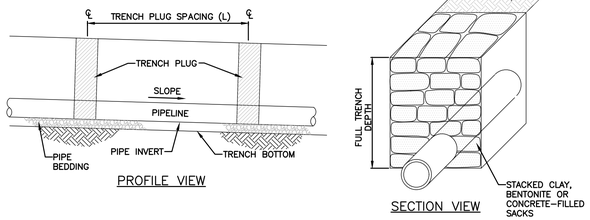


NOTES:

1. OTHER CONFIGURATIONS OF TOPSOIL AND SUBSOIL ARE ACCEPTABLE PROVIDED THEY ARE KEPT SEPERATE AND APPROPRIATE EROSION AND SEDIMENT CONTROL DEVICES ARE EMPLOYED.
2. UP TO 12 INCHES OF TOPSOIL REMOVED
3. TOPSOIL AND SUBSOIL PILES WILL BE ADEQUATELY PROTECTED FROM EROSION AND SEDIMENTATION BY THE USE OF COMPOST FILTER SOCKS.

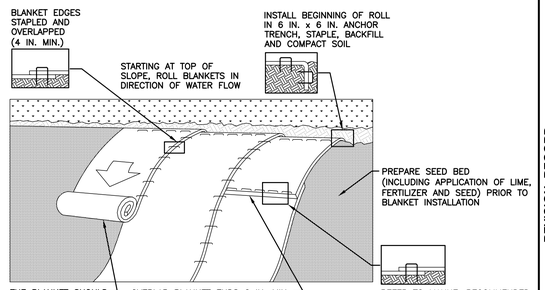
DETAIL 908
UTILITY LINE TRENCH STAGING

N.T.S.



DETAIL 909
PADEP STANDARD CONSTRUCTION DETAIL #13-4
TRENCH PLUG INSTALLATION

NOT TO SCALE

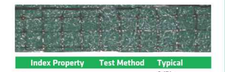


NOTES:

1. SEED AND SOIL AMENDMENTS SHALL BE APPLIED ACCORDING TO THE RATES IN THE PLAN DRAWINGS PRIOR TO INSTALLING THE BLANKET.
2. PROVIDE ANCHOR TRENCH AT TOE OF SLOPE IN SIMILAR FASHION AS AT TOP OF SLOPE.
3. SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS, AND GRASS.
4. BLANKET SHALL HAVE GOOD CONTINUOUS CONTACT WITH UNDERLYING SOIL THROUGHOUT ENTIRE LENGTH. LAY BLANKET LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH SOIL. DO NOT STRETCH BLANKET.
5. THE BLANKET SHALL BE STAPLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
6. BLANKETED AREAS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT UNTIL PERENNIAL VEGETATION IS ESTABLISHED TO A MINIMUM UNIFORM 70% COVERAGE THROUGHOUT THE BLANKETED AREA. DAMAGED OR DISPLACED BLANKETS SHALL BE RESTORED OR REPLACED WITHIN 4 CALENDAR DAYS.

ROLLMAX™
ROLLED EROSION CONTROL

Specification Sheet
EroNet™ P300® Permanent Erosion Control Blanket



DESCRIPTION

The permanent erosion control blanket shall be a machine-produced mat of 100% UV stable polypropylene fiber. The matting shall be of consistent thickness with the synthetic fibers evenly distributed over the entire area of the mat. The matting shall be covered on the top side with black heavyweight UV-stabilized polypropylene netting having ultraviolet additives to delay breakdown and an approximate 0.50 x 0.50 inch (1.27 x 1.27 cm) mesh. The bottom net shall also be UV-stabilized polypropylene with a 0.63 x 0.63 inch (1.57 x 1.57 cm) mesh size. The blanket shall be sewn together on 1.5 inch (3.81 cm) centers with non-degradable thread. All mats shall be manufactured with a colored thread stitched along both outer edges as an overlap guide for adjacent mats. The P300 shall meet Type 5A, 5B, specification requirements established by the Erosion Control Technology Council (ECTC) and Federal Highway Administration's (FHWA) FP-03 Section 713.18

Index Property	Test Method	Typical
Thickness	ASTM D6525	0.47 in. (11.94 mm)
Resiliency	ASTM D6524	91.5%
Density	ASTM D792	0.916 g/cm³
Mass/Unit Area	ASTM 6566	13.03 oz/sy (443 g/m2)
UV Stability	ASTM D4355/ 1000 hr	90%
Porosity	ECTC Guidelines	95.89%
Stiffness	ASTM D1388	0.94 in-lb (1085378 mg-cm)
Light Penetration	ASTM D6567	17.9%
Tensile Strength - MD	ASTM D6818	438 lbs/ft (6.49 kN/m)
Elongation - MD	ASTM D6818	28.1%
Tensile Strength - TD	ASTM D6818	291.9 lbs/ft (4.32 kN/m)
Elongation - TD	ASTM D6818	26.7%
Biomass Improvement	ASTM D7322	497%

Material Content		
Matrix	100% UV stable Polypropylene Fiber	0.7 lbs/sq yd (0.38 kg/sm)
Netting	Top: UV-stabilized Polypropylene	5 lbs/1000 sq ft (24.4 g/sm)
	Bottom: UV-stabilized Polypropylene	3 lbs/1000 sq ft (14.7 g/sm)
Thread	Polypropylene, UV stable	

Standard Roll Sizes		
Width	6.67 ft (2.03 m)	8 ft (2.44 m)
Length	108 ft (32.92 m)	112 ft (35.14 m)
Weight ± 10%	61 lbs (27.66 kg)	76.25 lbs (34.59 kg)
Area	80 sq yd (66.0 sm)	100 sq yd (83.61 sm)

Slope Design Data: C Factors	Slope Gradients (S)		
Slope Length (L)	≤ 3:1	3:1 – 2:1	≥ 2:1
≤ 20 ft (6 m)	0.001	0.029	0.082
20-50 ft	0.036	0.060	0.086
≥ 50 ft (15.2 m)	0.070	0.090	0.110

Design Permissible Shear Stress	Short Duration	Long Duration
Phase 1: Unvegetated	3.0 psf (144 Pa)	2.0 psf (96 Pa)
Phase 2: Partially Veg.	8.0 psf (383 Pa)	8.0 psf (383 Pa)
Phase 3: Fully Veg.	8.0 psf (383 Pa)	8.0 PSF (383 Pa)
Unvegetated Velocity	9.0 fps (2.7 m/s)	
Vegetaged Velocity	16 fps (4.9 m/s)	

Roughness Coefficients - Unveg.	
Flow Depth	Manning's n
≤ 0.50 ft (0.15 m)	0.034
0.50 – 2.0 ft	0.034-0.020
≥ 2.0 ft (0.60 m)	0.020

NORTH AMERICAN GREEN
Western Green
4609 E. Boonville-New Harmony Rd.
Evansville, IN 47725
nagreen.com
800-772-2040

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DETAIL 905
PADEP STANDARD CONSTRUCTION DETAIL #11-1
EROSION CONTROL BLANKET INSTALLATION

N.T.S.

PA DEP EROSION CONTROL MANUAL TABLE 13.1
MAXIMUM SPACING AND MATERIALS FOR TRENCH PLUGS

TRENCH SLOPE (%)	SPACING L (FT)	PLUG MATERIAL
< 5	1000	* CLAY, BENTONITE, OR CONCRETE FILLED SACKS
5 – 15	500	* CLAY, BENTONITE, OR CONCRETE FILLED SACKS
15 – 25	300	* CLAY, BENTONITE, OR CONCRETE FILLED SACKS
25 – 35	200	* CLAY, BENTONITE, OR CONCRETE FILLED SACKS
35 – 100	100	* CLAY, BENTONITE, OR CONCRETE FILLED SACKS
> 100	50	CEMENT BAGS (WETTED) OR MORTARED STONE

* TOPSOIL MAY NOT BE USED TO FILL SACKS

NOTES:

1. IMPERVIOUS TRENCH PLUGS ARE REQUIRED FOR ALL STREAM, RIVER, WETLAND, OR OTHER WATER BODY CROSSINGS.

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ANDREW R. GULLONE
ENGINEER

REVISION RECORD

NO	DATE	DESCRIPTION

CEC
Civil & Environmental Consultants, Inc.
333 Baldwin Road · Pittsburgh, PA 15205
412-429-2324 · 800-365-2324
www.cecinc.com

DOROTHY HOLDINGS LLC
SOUTH FAYETTE AMERICAN NATURAL
SOUTH FAYETTE TOWNSHIP
ALLEGHENY COUNTY, PENNSYLVANIA

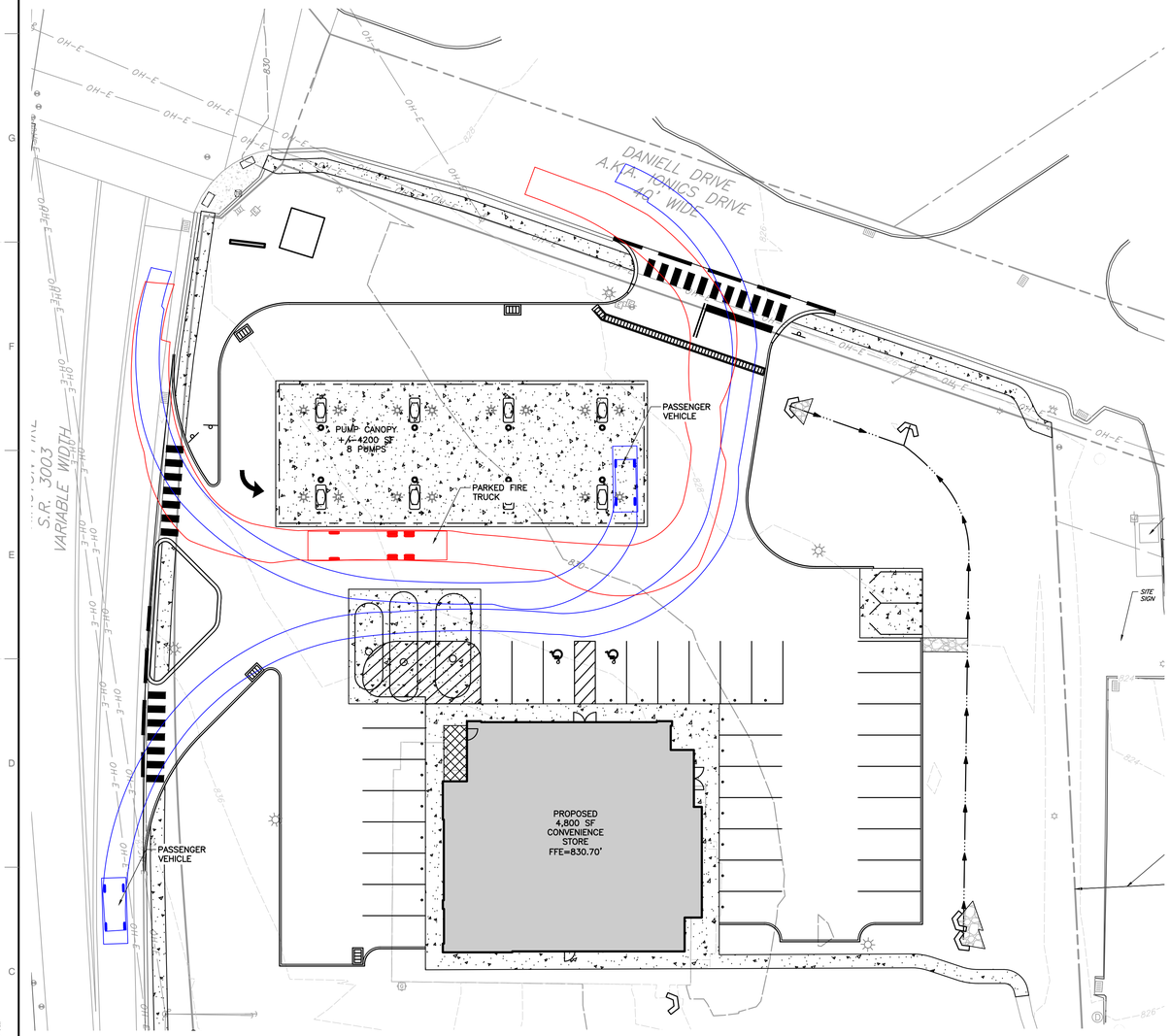
E&S CONTROL DETAILS

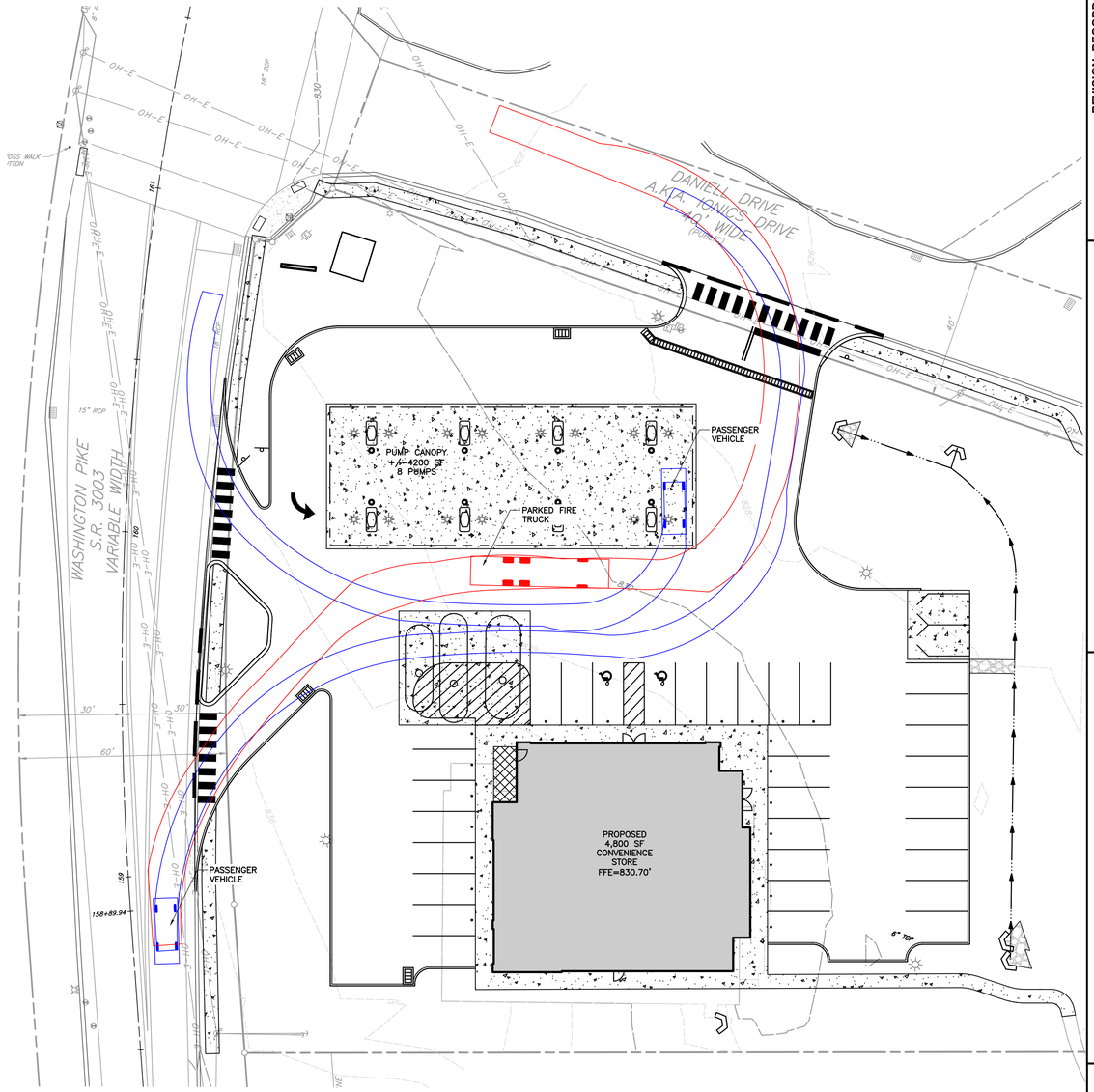
DATE: SEPTEMBER 2019
DRAWN BY: JTL
DWG SCALE: N.T.S.
CHECKED BY: ARG
PROJECT NO: 192-386
APPROVED BY: AMB

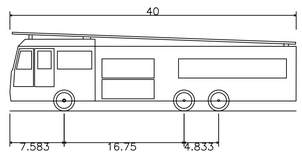
DRAWING NO.: C903

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NORTH







E-ONE HP100 Aerial	840	
Overall Length		40.000ft
Overall Width		8.333ft
Overall Body Height		11.000ft
Min Body Ground Clearance		1.393ft
Track Width		8.333ft
Lock-to-lock time		6.00s
Max Wheel Angle		45.00°
	835	

REFERENCE

1. EXISTING CONTOURS DERIVED FROM A BARE-EARTH DIGITAL ELEVATION MODEL CONSTRUCTED FROM PAMAP LIDAR (LIGHT DETECTION AND RANGING) ELEVATION POINTS. TOPOGRAPHIC CONTOURS MAPPED AT AN INTERVAL OF 2 FEET; DEVELOPED BY PAMAP PROGRAM, PA DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES, BUREAU OF TOPOGRAPHIC AND GEOLOGIC SURVEY; DATED 2010.
2. SURVEY INFORMATION COMPLETED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC (CEC), DATED SEPTEMBER 2019. VERTICAL DATUM IS BASED UPON NAVD88, AS DETERMINED BY CEC USING SURVEY GRADE GPS MEASUREMENTS AND OPUS POST-PROCESSING.

ONE CALL SERIAL NO.: 20192403397-000

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

PENNSYLVANIA ACT 287 (1974) AS AMENDED BY ACT 50 (2017) REQUIRES NO LESS THAN 3 WORKING DAYS NOTICE NOR MORE THAN 10 WORKING DAYS NOTICE FROM EXCAVATORS WHO ARE ABOUT TO: DIG, DRILL, BLAST, AUGER, BORE, GRADE, TRENCH, OR DEMOLISH WHEN IN THE CONSTRUCTION PHASE. FOR LOCATION REQUESTS IN THE STATE OF PENNSYLVANIA, CALL TOLL FREE 1-800-242-1776. UNDERGROUND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE INFORMATION AND THE LOCATION MUST BE CONSIDERED APPROXIMATE. OTHER UNDERGROUND UTILITIES MAY EXIST WHICH ARE NOT SHOWN. IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO ASCERTAIN ALL PHYSICAL LOCATIONS OF UTILITY LINES PRIOR TO THE TIME OF CONSTRUCTION. IN NO WAY SHALL THE CONTRACTOR HOLD THE SURVEYOR RESPONSIBLE FOR ANY UTILITY LOCATION SHOWN ON THIS PLAN.

SCALE IN FEET
0 20 40

REVISION RECORD

NO	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
333 Baldwin Road · Pittsburgh, PA 15205
412-429-2324 · 800-365-2324
www.cecinc.com

DOROTHY HOLDINGS LLC
SOUTH FAYETTE AMERICAN NATURAL
SOUTH FAYETTE TOWNSHIP
ALLEGHENY COUNTY, PENNSYLVANIA

FIRE TRUCK TURN EXHIBIT

DATE:	NOVEMBER 2019	DRAWN BY:	DWT
DWG SCALE:	AS SHOWN	CHECKED BY:	ARG
PROJECT NO:			192-386
APPROVED BY:			AMB

DRAWING NO.:
SP-04

P:\2019\192-386\<ADD\Dwg\Civil\192386-CVI1-SP4.dwg[SP-04] LS(3/11/2020 - squillone) - LP, 6/4/2020 11:47 AM

NORTH

WASHINGTON PIKE
S.R. 3003
VARIABLE WIDTH

DANIELL DRIVE
A.K.A. IONICS DRIVE
40' WIDE

PUMP CANOPY
+/- 4200 SF
8 PUMPS

PASSENGER VEHICLE

WB-50 Intermediate Semi-Trailer

PARKED WB-50
FUEL TRUCK

PROPOSED
4,800 SF
CONVENIENCE
STORE
FFE=830.70'

PASSENGER VEHICLE

WB-50 Intermediate Semi-Trailer

20' UTILITY EASEMENT

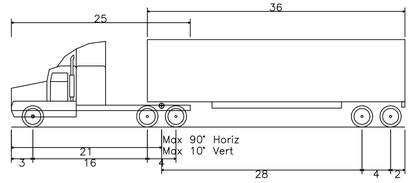
VAULT ON CONC. PAD

25' BUILDING LINE

SITE SIGN

30' UTILITY EASEMENT

25' BUILDING LINE



WB-50 - Large Semi-Trailer

Overall Length	55.000ft
Overall Width	8.500ft
Overall Body Height	12.227ft
Min Body Ground Clearance	1.422ft
Track Width	8.500ft
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	45.000ft

REFERENCE

1. EXISTING CONTOURS DERIVED FROM A BARE-EARTH DIGITAL ELEVATION MODEL CONSTRUCTED FROM PAMAP LIDAR (LIGHT DETECTION AND RANGING) ELEVATION POINTS. TOPOGRAPHIC CONTOURS MAPPED AT AN INTERVAL OF 2 FEET; DEVELOPED BY PAMAP PROGRAM, PA DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES, BUREAU OF TOPOGRAPHIC AND GEOLOGIC SURVEY; DATED 2010.

2. SURVEY INFORMATION COMPLETED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC (CEC). DATED SEPTEMBER 2019. VERTICAL DATUM IS BASED UPON NAVD88, AS DETERMINED BY CEC USING SURVEY GRADE GPS MEASUREMENTS AND OPUS POST-PROCESSING.

ONE CALL SERIAL NO.: 20192403397-000

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3 WORKING DAYS NOTICE FOR
CONSTRUCTION PHASE AND 10 WORKING
DAYS IN DESIGN STAGE-STOP CALL
PENNSYLVANIA ONE CALL SYSTEM, INC.
1-800-242-1776

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SCALE IN FEET
0 20 40

REVISION RECORD

NO	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
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DOROTHY HOLDINGS LLC
SOUTH FAYETTE AMERICAN NATURAL
SOUTH FAYETTE TOWNSHIP
ALLEGHENY COUNTY, PENNSYLVANIA

WB-50 TRUCK TURN EXHIBIT

DATE:	NOVEMBER 2019	DRAWN BY:	DWT
DWG SCALE:	AS SHOWN	CHECKED BY:	ARG
PROJECT NO:			192-386
APPROVED BY:			AMB

DRAWING NO.:
SP-05

P:\2019\192-386\-CADD\Dwg\Civil\192386-Civil-SP5.dwg[SP-05] LS(3/1/2020 - qgutkow) - LP: 6/4/2020 11:48 AM

NORTH

PASSENGER VEHICLE

WASHINGTON PIKE
S.R. 3003
VARIABLE WIDTH

DANIEL DRIVE
A.K.A. JONES DRIVE
40' WIDE

PUMP CANOPY
+/- 4200 SF
8 PUMPS

PASSENGER VEHICLE

25.31'

Intermediate Semi-Trailer

PARKED WB-50
FUEL TRUCK

PROPOSED
4,800 SF
CONVENIENCE
STORE
FFE=830.70'

PASSENGER VEHICLE

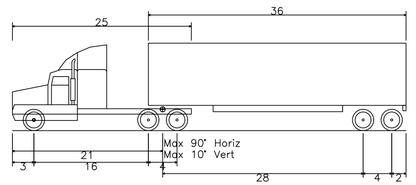
25' BUILDING LINE

20' UTILITY EASEMENT

VAULT ON CONC. PAD

SITE SIGN

30' UTILITY EASEMENT



WB-50 - Large Semi-Trailer

Overall Length	55.000ft
Overall Width	8.500ft
Overall Body Height	12.227ft
Min Body Ground Clearance	1.422ft
Track Width	8.500ft
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	45.000ft

REFERENCE

1. EXISTING CONTOURS DERIVED FROM A BARE-EARTH DIGITAL ELEVATION MODEL CONSTRUCTED FROM PAMAP LIDAR (LIGHT DETECTION AND RANGING) ELEVATION POINTS. TOPOGRAPHIC CONTOURS MAPPED AT AN INTERVAL OF 2 FEET; DEVELOPED BY PAMAP PROGRAM, PA DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES, BUREAU OF TOPOGRAPHIC AND GEOLOGIC SURVEY; DATED 2010.
2. SURVEY INFORMATION COMPLETED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC (CEC). DATED SEPTEMBER 2019. VERTICAL DATUM IS BASED UPON NAVD88, AS DETERMINED BY CEC USING SURVEY GRADE GPS MEASUREMENTS AND OPUS POST-PROCESSING.

ONE CALL SERIAL NO.: 20192403397-000

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SCALE IN FEET
0 20 40

REVISION RECORD

NO	DATE	DESCRIPTION

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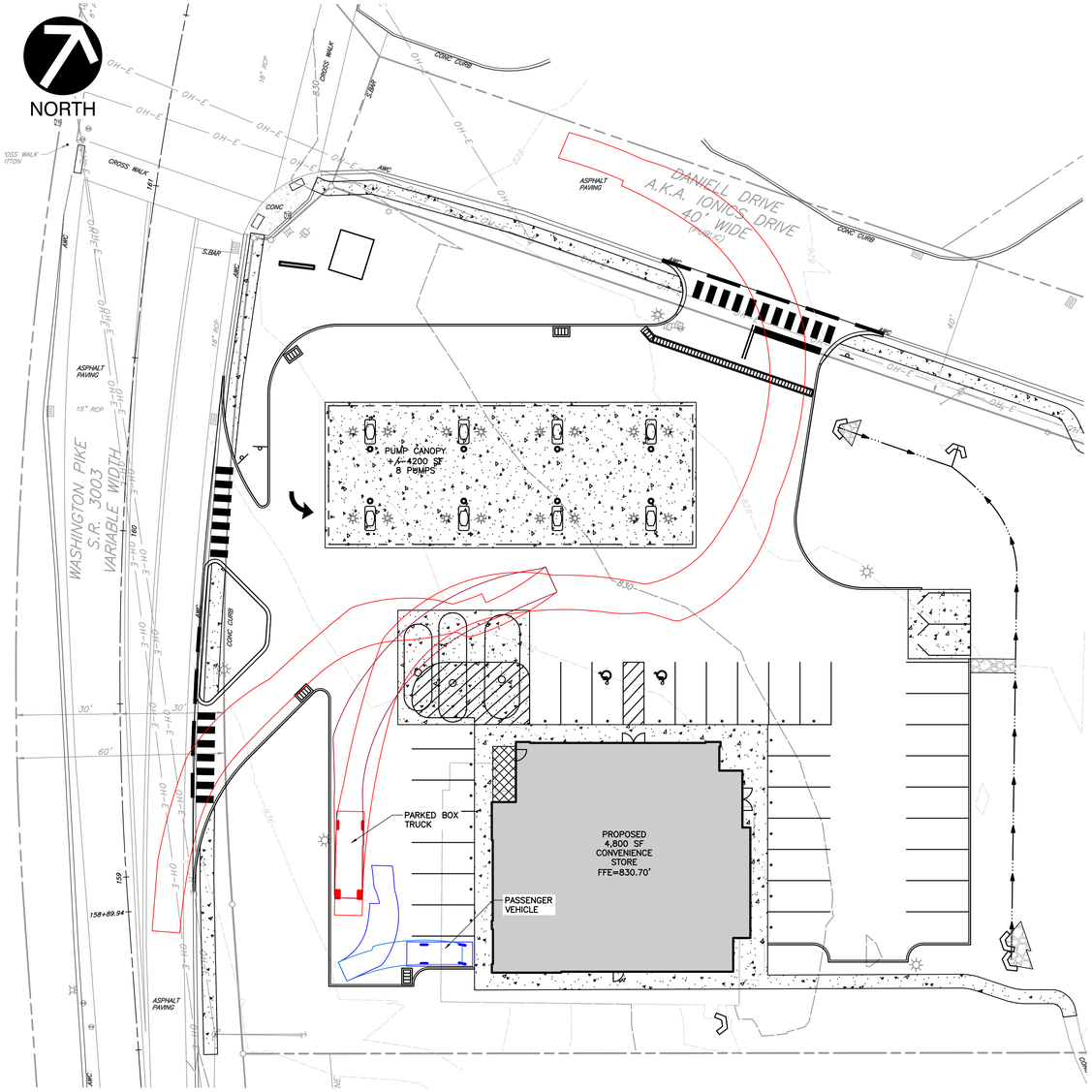
DOROTHY HOLDINGS LLC
SOUTH FAYETTE AMERICAN NATURAL
SOUTH FAYETTE TOWNSHIP
ALLEGHENY COUNTY, PENNSYLVANIA

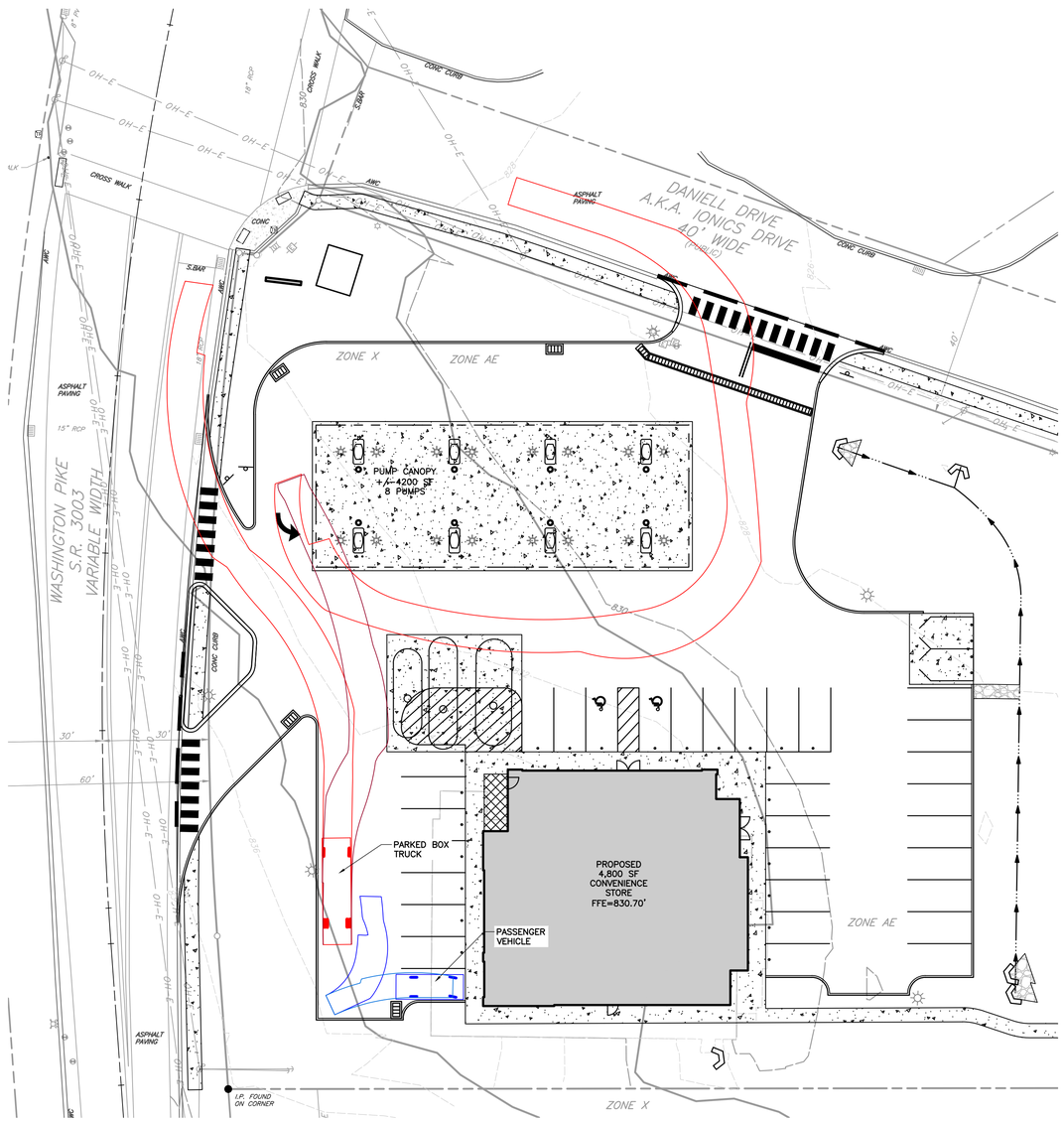
WB-50 TRUCK TURN EXHIBIT

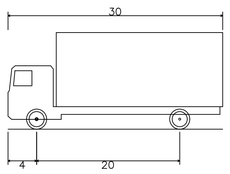
DATE:	NOVEMBER 2019
DRAWN BY:	DWT
CHECKED BY:	ARG
DWG SCALE:	AS SHOWN
PROJECT NO:	192-386
APPROVED BY:	AMB

DRAWING NO.:
SP-06

P:\2019\192-386\-CAD\Dwg\CIVIL\192386-CIVIL-SP6.dwg[SP-06] LS(3/11/2020 - aguiano) - LP: 8/4/2020 11:48 AM







SU-30 – Single Unit Truck	
Overall Length	30.000ft
Overall Width	8.000ft
Overall Body Height	13.500ft
Min Body Ground Clearance	1.367ft
Track Width	8.000ft
Lock-to-lock time	5.00s
Max Steering Angle (Virtual)	31.80°

REFERENCE

1. EXISTING CONTOURS DERIVED FROM A BARE-EARTH DIGITAL ELEVATION MODEL CONSTRUCTED FROM PAMAP LIDAR (LIGHT DETECTION AND RANGING) ELEVATION POINTS. TOPOGRAPHIC CONTOURS MAPPED AT AN INTERVAL OF 2 FEET; DEVELOPED BY PAMAP PROGRAM, PA DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES, BUREAU OF TOPOGRAPHIC AND GEOLOGIC SURVEY; DATED 2010.
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ONE CALL SERIAL NO.: 20192403397-000

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

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SCALE IN FEET
0 20 40

REVISION RECORD

NO	DATE	DESCRIPTION

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333 Baldwin Road · Pittsburgh, PA 15205
412-429-2324 · 800-365-2324
www.cecinc.com

DOROTHY HOLDINGS LLC
SOUTH FAYETTE AMERICAN NATURAL
SOUTH FAYETTE TOWNSHIP
ALLEGHENY COUNTY, PENNSYLVANIA

FIXED UNIT BOX TRUCK
DELIVERY TURN EXHIBIT

DATE:	NOVEMBER 2019	DRAWN BY:	DWT
DWG SCALE:	AS SHOWN	CHECKED BY:	ARG
PROJECT NO:			192-386
APPROVED BY:			AMB

DRAWING NO.:
SP-07

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