CONSTRUCTION DRAWINGS
PANTHER HOLLOW LAKE REHABILITATION PROJECT
CITY OF PITTSBURGH, ALLEGHENY COUNTY, PENNSYLVANIA

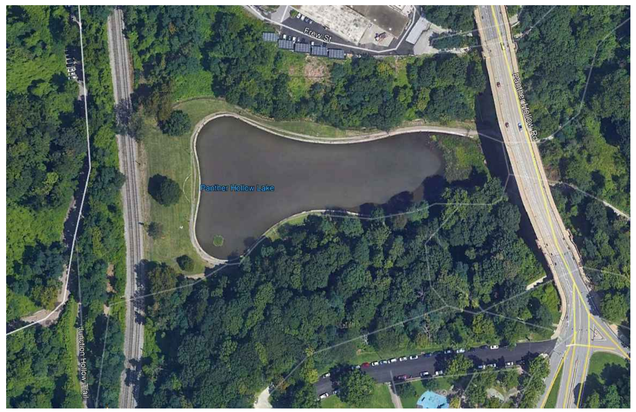
PREPARED FOR:
CITY OF PITTSBURGH, DEPARTMENT OF
PUBLIC WORKS-PARKS MAINTENANCE
DIVISION

AND

PITTSBURGH WATER & SEWER AUTHORITY
1200 PENN AVENUE
PITTSBURGH, PA 15222

OCTOBER 2019

NORTH



SITE AERIAL PHOTO

REFERENCE

1. AERIAL HAS BEEN GENERATED REFERENCING GOOGLE EARTH
2. APPROXIMATE SCALE 1"=500'

DRAWING LIST

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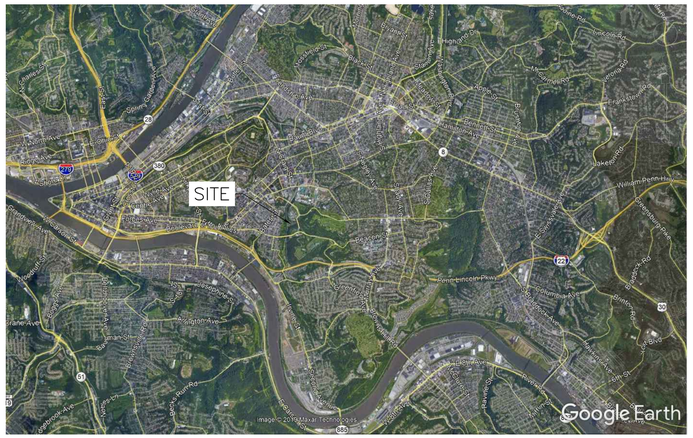
NORTH



VICINITY AERIAL PHOTO

REFERENCE

1. VICINITY MAP HAS BEEN GENERATED REFERENCING GOOGLE EARTH
2. APPROXIMATE SCALE 1"=2.5 MILE

PREPARED BY:
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REVISION RECORD

NO	DATE	DESCRIPTION

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PITTSBURGH PENNSYLVANIA
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CITY OF PITTSBURGH
DEPARTMENT OF PUBLIC WORKS
PITTSBURGH WATER & SEWER AUTHORITY
PITTSBURGH, ALLEGHENY COUNTY, PA

DRAWN BY:	CLR	CHECKED BY:	JAL	APPROVED BY:	PJS
DATE:	OCTOBER 2019	DWG SCALE:		PROJECT NO:	174-960

COVER SHEET
PANTHER HOLLOW LAKE
REHABILITATION PROJECT

DRAWING NO.: **G100**

P:\2017\174-960\--CAD\Dwg\Civil2 -- Dsm Permit\174960--CV01--TITLE-SHEET.dwg[G100] LS(10/21/2019 -- jlipowski) -- LP: 10/21/2019 4:53 PM

GENERAL NOTES

1. BEFORE ANY EARTHWORK ACTIVITIES ARE ALLOWED TO BEGIN ONSITE, THE CONTRACTOR SHALL CONTACT THE PENNSYLVANIA ONE CALL SYSTEM AT 1-800-962-7962 OR 811 A MINIMUM OF 3 DAYS PRIOR TO EARTHWORK ACTIVITIES TO ALLOW THE UTILITY COMPANIES TO MARK THE LOCATIONS OF EXISTING LINES OWNED AND MAINTAINED BY THE UTILITY COMPANIES.

2. THE FOLLOWING PERMIT APPLICATIONS HAVE BEEN SUBMITTED FOR WORK TO BE PERFORMED UNDER THIS CONTRACT. THE OWNER HAS RECEIVED PERMISSION FROM THE APPROPRIATE AGENCY TO PROCEED WITH WORK IN ADVANCE OF PERMIT APPROVAL. THE CONTRACTOR SHALL FOLLOW ALL STIPULATIONS OF THE PERMIT APPLICATIONS.

   A. NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT FROM PADEP FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITIES.

   B. STORMWATER POLLUTION PROTECTION PLAN (SWPPP).

   C. EROSION AND SEDIMENT CONTROL PLAN.

   D. PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION (PADEP) DAM PERMIT.

3. EXISTING TOPOGRAPHY AND DIMENSIONS WERE OBTAINED FROM A COMPILATION OF TOPOGRAPHIC GROUND SURVEY AND GIS DATA INFORMATION. TOPOGRAPHIC ELEVATIONS AND DIMENSIONS SHOULD BE VERIFIED IN THE FIELD AND INVERTS SHOULD BE CHECKED IN THE FIELD AND REPORT ANY DISCREPANCIES TO THE OWNER AND THE OWNER'S REPRESENTATIVE PRIOR TO BEGINNING WORK.

4. EXACT PLAN LOCATION, SURFACE ELEVATION, AND INVERT ELEVATION LOCATION OF ALL EXISTING UTILITIES SHOULD BE VERIFIED.

5. A SMOOTH TRANSITION BETWEEN EXISTING PAVEMENT, GRAVEL AREAS OR TOPOGRAPHY, AND NEW PAVEMENT, GRAVEL AREAS OR TOPOGRAPHY SHOULD BE PROVIDED. FIELD ADJUSTMENT OF FINAL GRADES MAY BE NECESSARY.

6. ONE SET OF AS-BUILT / RECORD DRAWINGS SHOULD BE MAINTAINED ON THE JOB SITE DURING CONSTRUCTION FOR DISTRIBUTION TO THE OWNER AND/OR OWNER'S REPRESENTATIVE UPON COMPLETION.

7. EARTHWORK SHALL INCLUDE CLEARING AND GRUBBING, STRIPPING AND STOCKPILING TOPSOIL, GRADING, EXCAVATION, FILLING, UNDERCUT AND REPLACEMENT, AND COMPACTION.

8. ALL AREAS NOT PAVED OR GRAVELED SHALL BE STABILIZED IN ACCORDANCE WITH THE SPECIFICATIONS, UNLESS NOTED OTHERWISE.

9. DISTANCES SHOWN ON PIPING ARE HORIZONTAL DISTANCES FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE, UNLESS OTHERWISE NOTED.

10. ALL STORMWATER MANAGEMENT FACILITIES, INCLUDING COLLECTION AND CONVEYANCE STRUCTURES, SHALL BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE STATE CODES AND REGULATIONS.

11. REFER TO AND FOLLOW THE RECOMMENDATIONS OF THE "GEOTECHNICAL ENGINEERING REPORT" PREPARED FOR THIS PROJECT BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC.

12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH THE INSTALLATION, INSPECTION, TESTING AND FINAL ACCEPTANCE OF ALL NEW STORMWATER FACILITIES CONSTRUCTION. CONTRACTOR SHALL COORDINATE WITH ALL APPLICABLE REGULATING AGENCIES CONCERNING INSTALLATION, INSPECTION AND APPROVAL OF THE STORMWATER CONSTRUCTION.

LAYOUT GENERAL NOTES

1. CARE SHALL BE TAKEN TO PROTECT UTILITIES THAT ARE TO REMAIN. RELOCATE EXISTING UTILITIES AS INDICATED, OR AS NECESSARY FOR CONSTRUCTION. INSTALL ALL UTILITIES, INCLUDING CONDUITS, PRIOR TO INSTALLATION OF PAVED SURFACES.

2. PROVIDE A SMOOTH TRANSITION BETWEEN EXISTING PAVEMENT AND NEW PAVEMENT. FIELD ADJUSTMENT OF FINAL GRADES MAY BE NECESSARY.

3. 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.

4. CONTRACTOR SHALL ADJUST THE PROPOSED ELEVATION AT THE TOP OF EXCAVATION SLOPES AS NEEDED TO TIE INTO EXISTING GROUND.

5. CLEARING LIMITS SHALL BE PHYSICALLY MARKED IN THE FIELD.

DEMOLITION GENERAL NOTES

1. ALL UTILITY DISCONNECTION, REMOVAL, RELOCATION, CUTTING, CAPPING AND/OR ABANDONMENT SHALL BE COORDINATED WITH THE APPROPRIATE UTILITY COMPANY/AGENCY. UTILITY CONTACTS ARE LISTED BELOW.

2. CONTRACTOR SHALL PROTECT ALL CORNER PINS, MONUMENTS, PROPERTY CORNERS AND BENCHMARKS DURING DEMOLITION ACTIVITIES. IF DISTURBED, CONTRACTOR SHALL HAVE DISTURBED ITEMS RESET BY A LICENSED SURVEYOR AT NO ADDITIONAL COST TO THE OWNER.

3. 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 NO ADDITIONAL COST TO OWNER.

4. 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.

5. PROVIDE NEAT, STRAIGHT, FULL DEPTH, SAW CUTS OF EXISTING PAVEMENT WHERE INDICATED ALONG LIMITS OF PAVEMENT DEMOLITION.

6. ALL UTILITY AND STRUCTURE REMOVAL, RELOCATION, CUTTING, CAPPING AND/OR ABANDONMENT SHALL BE COORDINATED AND PROPERLY DOCUMENTED BY A CERTIFIED PROFESSIONAL, WHEN APPLICABLE, WITH THE APPROPRIATE UTILITY COMPANY, MUNICIPALITY AND/OR AGENCY.

7. NO TREES SHALL BE REMOVED, NOR VEGETATION DISTURBED BEYOND THE LIMITS OF CONSTRUCTION WITHOUT THE EXPRESS WRITTEN APPROVAL OF THE OWNER'S REPRESENTATIVE.

8. THE CONTRACTOR SHALL USE SUITABLE METHODS TO CONTROL DUST AND DIRT CAUSED BY THE DEMOLITION ACTIVITY.

UTILITY GENERAL NOTES

1. ALL PROPOSED UTILITY LINES AND EXTENSIONS ARE TO BE CONSTRUCTED IN ACCORDANCE WITH ALL APPLICABLE UTILITY COMPANY SPECIFICATIONS. CONTRACTOR SHALL COORDINATE UTILITY DISCONNECTIONS WITH THE APPROPRIATE AGENCY.

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. SHOULD UNCHARTED UTILITIES BE ENCOUNTERED DURING EXCAVATION OPERATIONS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY FOR INSTRUCTIONS. THE CONTRACTOR SHALL CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION AND REQUEST FIELD VERIFICATION OF UTILITY LOCATIONS.

3. THE CONTRACTOR SHALL OBTAIN ALL REQUIRED UTILITY WORK PERMITS PRIOR TO COMMENCEMENT OF CONSTRUCTION.

4. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE SEQUENCING OF CONSTRUCTION FOR ALL UTILITY LINES SO THAT WATER LINES AND UNDERGROUND ELECTRIC CONDUITS DO NOT CONFLICT WITH SANITARY SEWERS OR STORM SEWERS. INSTALL UTILITIES PRIOR TO PAVEMENT CONSTRUCTION.

5. ADJUST ALL EXISTING UTILITY SURFACE FEATURES INCLUDING BUT NOT LIMITED TO CASTINGS, VALVE BOXES, PEDESTALS, CLEANOUTS, ETC. TO MATCH PROPOSED FINISHED GRADES, UNLESS OTHERWISE INDICATED.

6. CONTRACTOR IS TO COORDINATE WITH EACH UTILITY PROVIDER REGARDING INSTALLATION OF UTILITY CONDUITS FOR ELECTRICAL WORK. 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.

DATUM AND TOPOGRAPHIC SURVEY

VERTICAL DATUM: NAVD88 (GEIOD 12A)

HORIZONTAL DATUM: NAD83 NORTH ZONE (2011)

BENCHMARKS TABLE:

CONTROL POINTS			
CONTROL POINT NO.	NORTHING	EASTING	ELEVATION
16	1356619.682'	409503.329'	811.576'
17	1357146.573'	409614.972'	816.632'
1000	1356377.623'	409670.92'	808.985'
1001	1356664.538'	409548.924'	806.256'

DATUM NOTES:

1. SITE BENCHMARKS OBTAINED FROM AWK CONSULTING ENGINEERS, INC. USING GROUND SURVEY TECHNIQUES IN MAY 2018.

REFERENCE

1. PANTHER HOLLOW LAKE BATHYMETRICAL SURVEY PERFORMED BY AWK CONSULTING ENGINEERS, INC., DATED OCTOBER 2017.
2. POTHOLING UTILITY INVESTIGATION PERFORMED BY TERRA TESTING INC., DATED OCTOBER AND NOVEMBER 2018.
3. EXISTING TOPOGRAPHY AND CONTOURS DERIVED FROM PHOTOGRAMETRY SURVEY PERFORMED BY LAND MAPPING, INC. DATED NOVEMBER 2016, AWK CONSULTING ENGINEERS, INC. FIELD SURVEY, DATED JUNE 2018, CIVIL & ENVIRONMENTAL CONSULTANTS, INC. FIELD SURVEY, DATED JULY-AUGUST 2018, AND ALLEGHENY COUNTY, PA LIDAR, DATED 2017.
4. STREAM AND WETLAND DELINEATION PERFORMED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC. DATED MAY-JULY 2018.

STANDARD ABBREVIATIONS

ACI	AMERICAN CONCRETE INSTITUTE
ALT	ALTERNATE
APPROX	APPROXIMATE
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
B.O.	BY OTHERS
℄	CENTERLINE
CIP	CAST-IN-PLACE, CAST IRON PIPE
CONC	CONCRETE
CWL	CONTRACTOR WORK LIMITS
CY	CUBIC YARD
DIA	DIAMETER
DWG	DRAWING
E&S	EROSION AND SEDIMENT
EL	ELEVATION
EXIST	EXISTING
FT	FOOT, FEET
GA	GAGE
HDPE	HIGH-DENSITY POLYETHYLENE
HORIZ	HORIZONTAL
IN	INCH, INCHES
LB	POUND, POUNDS
LOD	LIMITS OF DISTURBANCE
MAX	MAXIMUM
MIN	MINIMUM
MISC	MISCELLANEOUS
N/A	NOT APPLICABLE
NAD	NORTH AMERICAN DATUM
NAVD	NORTH AMERICAN VERTICAL DATUM
NGVD	NATIONAL GEODETIC VERTICAL DATUM
NO	NUMBER
NTS	NOT TO SCALE
O&M	OPERATION AND MAINTENANCE
OD	OUTSIDE DIAMETER
OPNG	OPENING
PA	PENNSYLVANIA
PI	POINT OF INTERSECTION
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	POINT
PVI	POINT OF VERTICAL INTERSECTION
PVT	POINT OF VERTICAL TANGENCY
REINF	REINFORCEMENT
REQ'D	REQUIRED
SCH	SCHEDULE
STA	STATION
STD	STANDARD
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
VERT	VERTICAL
WP	WORK POINT

STANDARD LEGEND

- EXISTING PROPERTY LINE
- EXISTING BUILDING
- EXISTING AUXILIARY BUILDING
- EXISTING INDEX CONTOUR (820)
- EXISTING INTERMEDIATE CONTOUR
- EXISTING CURB
- EXISTING EDGE ROAD
- EXISTING EDGE OF SIDEWALK
- EXISTING EDGE OF CONCRETE TRAIL
- EXISTING EDGE OF UNPAVED TRAIL
- EXISTING EDGE OF PAVED DRIVEWAY
- EXISTING ROAD CENTERLINE
- EXISTING BRIDGE
- EXISTING RAILROAD
- EXISTING WALL
- EXISTING BODY OF WATER
- EXISTING STREAM
- EXISTING GUIDERAIL
- EXISTING FENCE
- EXISTING TREE/SHRUB LINE
- EXISTING TREE
- EXISTING POST/SIGN
- EXISTING GIS WETLAND
- PROPOSED PAVED LIMITS
- PROPOSED ROADSIDE DITCH
- PROPOSED WETLAND
- PROPOSED INDEX CONTOUR (780)
- PROPOSED INTERMEDIATE CONTOUR
- PROPOSED STORM SEWER LINE
- PROPOSED RIPRAP OUTFALL APRON
- PROPOSED HEADWALL/ENDWALL
- PROPOSED WATERLINE (W)
- GEOTECHNICAL BORING LOCATION (B-#)
- PIEZOMETER INSTALLATION LOCATION (PZ-#)
- PROPOSED CONTRACTOR LIMITS OF DISTURBANCE
- CONCRETE
- EARTH
- GRAVEL
- RIPRAP

REVISION RECORD

NO	DATE	DESCRIPTION

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PITTSBURGH WATER & SEWER AUTHORITY
PITTSBURGH, ALLEGHENY COUNTY, PA

DRAWN BY:	CLR	CHECKED BY:	JAL
APPROVED BY:	PJS	DATE:	OCTOBER 2019
DWG SCALE:	AS-SHOWN	PROJECT NO:	174-960

GENERAL NOTES/LEGEND/ABBREVIATIONS
PANTHER HOLLOW LAKE
REHABILITATION PROJECT

DRAWING NO.: **G101**

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NORTH

CABLE PIPE
STEEL CONDUIT
CABLE PIPE

EXISTING MANHOLE

EXISTING SINGLE TREE

EXISTING LAKE CONCRETE EDGE/STEPS PERIMETER

EXISTING PANTHER HOLLOW LAKE NORMAL POOL WSEL=±804.00

APPROXIMATE LIMITS OF EXISTING CONCRETE BYPASS CHANNEL

EXISTING ASPHALT PEDESTRIAN TRAIL

EXISTING SITE LIGHT POLE (TYP.)

EXISTING COMBINED SEWER

MCSAN
ELEV=806.759
INV ELEV=xx
(INVERT UNOBTAINABLE)

INLET
ELEV=804.823
INV. ELEV=xx
NO FIELD NOTE

EXISTING LAKE DRAIN IN CONCRETE EDGE

EXISTING 15" OUTLET PIPE

CONTOURS SHOWN WITHIN LIMITS OF PANTHER HOLLOW LAKE REPRESENT TOP OF SEDIMENT ZONE OBTAINED BY BATHYMETRIC SURVEY PERFORMED BY AWK DATED MAY 2018

APPROXIMATE LIMITS OF EXISTING WETLAND (TYP.)

EXISTING 8'x10' CONCRETE BRIDGE DECK

APPROXIMATE LOCATION OF EXISTING WEIR OVERFLOW STRUCTURE

EXISTING 12'x35' STONE BRIDGE NOT TO BE DISTURBED

EXISTING SINGLE TREE (TYP.)

EXISTING RETAINING WALL

APPROXIMATE CENTERLINE OF EXISTING PANTHER HOLLOW LAKE DAM EMBANKMENT

EXISTING CSX RAIL ROAD DITCH

EXISTING SINGLE TREE (TYP.)

EXISTING SITE LIGHT POLE (TYP.)

EXISTING GRAVEL PEDESTRIAN TRAIL

APPROXIMATE LOCATION OF EXISTING TREELINE (TYP.)

POTHOLE LOCATION

EXISTING 50" WATERLINE

EXISTING CSX RAIL ROAD (FURTHER COORDINATION REQUIRED WITH CSX FOR RAILROAD CROSSING APPROVAL)

EXISTING 15" WATERLINE

EXISTING PROPERTY LINE

B-4, B-5, B-6, B-7, B-13, B-14, B-15, B-30, B-31, AWK B-10, PZ-1

SOLAR ARRAY

RWALL

TRAIL

HOLLOW RUN TRAIL

PANTHER HOLLOW TRAIL

DENSE TREES

SIDEWALK/STEPS

SITE PREPARATION PLAN

SCALE: 1" = 30'

0 30 60

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DRAWN BY:	CLR	CHECKED BY:	JAL	APPROVED BY:	PJS
DATE:	OCTOBER 2019	DWG SCALE:	1"=30'	PROJECT NO:	174-960

EXISTING CONDITIONS PLAN
PANTHER HOLLOW LAKE
REHABILITATION PROJECT

DRAWING NO.: **C100**

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NORTH

SITE CONSTRUCTION ACCESS "OPTION B" OBTAIN PERMISSION FROM OWNER TO UTILIZE EXISTING CSX RAILROAD CROSSING AND CONSTRUCT APPROXIMATELY 1,600 LF ACCESS ROAD PARALLEL TO CSX RAILROAD TRACKS (FURTHER COORDINATION REQUIRED)

EX. SEWER PIPE TO REMAIN

EX. LAKE OUTFALL STRUCTURE TO REMAIN

REMOVE EX. LAKE INLET STRUCTURE

INLET ELEV=804.823 INV ELEVxxx *NO FIELD NOTE*

REMOVE EX. LAKE OUTLET PIPES

REMOVE EXISTING LIGHT POLE, CONCRETE PEDESTAL, AND UNDERGROUND ELECTRICAL CONDUIT BETWEEN POLES IN ACCORDANCE WITH SPECIFICATIONS (TYP.)

EXISTING CSX RAIL ROAD (FURTHER COORDINATION REQUIRED WITH CSX FOR RAILROAD CROSSING APPROVAL)

UPON COMPLETION OF CLEARING AND GRUBBING AND LIGHT POLE REMOVAL, DEWATER LAKE IN ACCORDANCE WITH SPECIFICATIONS

EXISTING PANTHER HOLLOW LAKE NORMAL POOL WSEL=±804.00

UTILIZE EXISTING CONCRETE CHANNEL FOR ROUTING STREAM FLOW AND STORMWATER AROUND LAKE

CLEAR AND GRUB TO APPROXIMATE LIMITS SHOWN IN ACCORDANCE WITH SPECIFICATIONS

DEMOLISH AND REMOVE EXISTING ASPHALT TRAIL

EXCAVATE SUMPS AND INSTALL FILTER BAGS TO MANAGE STORMWATER DURING DEWATERING AND SUBSEQUENT SEDIMENT EXCAVATION. PUMP SEDIMENT FREE WATER TO EXISTING DRAINAGE CHANNEL. SEE DETAIL 5 ON SHEET C800 AND TECHNICAL SPECIFICATIONS

DEMOLISH AND REMOVE EXISTING CONCRETE STEPS/EDGE AT LAKE PERIMETER IN ACCORDANCE WITH SPECIFICATIONS

DEMOLISH AND REMOVE EXISTING RETAINING WALLS TO APPROXIMATE LIMITS SHOWN

DEMOLISH AND REMOVE EXISTING RETAINING WALL

EXISTING CSX RAILROAD TO BE PROTECTED DURING CONSTRUCTION

REMOVE EXISTING TREE AND STUMP

EXISTING UTILITY POLES ALONG CSX ROW TO BE PROTECTED

DEMO AND RELOCATE EX. 15" WATERLINE (SEE SHEET C300)

DEMOLISH AND REMOVE EXISTING GRAVEL TRAIL

PROTECT EXISTING FIRE HYDRANT

UTILITY POLE TO REMAIN UNDISTURBED

RELOCATE EXISTING UTILITY POLES TO APPROXIMATE LOCATIONS SHOWN IN ACCORDANCE WITH SPECIFICATIONS (TYP.)

DEMOLISH AND REMOVE EXISTING RETAINING WALL AND WEIR OVERFLOW STRUCTURE

CLEAR AND GRUB TO APPROXIMATE LIMITS SHOWN IN ACCORDANCE WITH SPECIFICATIONS

CLEAR AND GRUB TO APPROXIMATE LIMITS SHOWN IN ACCORDANCE WITH SPECIFICATIONS

SITE CONSTRUCTION ACCESS "OPTION A" PROVIDE TEMPORARY CROSSING AT CSX RAILROAD TRACKS (FURTHER COORDINATION REQUIRED)

WORK WITHIN THIS LOD LIMIT IS PART OF A DIFFERENT PROJECT.

SITE PREPARATION PLAN

SCALE: 1" = 30'

0 30 60

REVISION RECORD		
NO	DATE	DESCRIPTION

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DRAWN BY:	CLR	CHECKED BY:	JAL	APPROVED BY:	PJS
DATE:	OCTOBER 2019	DWG SCALE:	1"=30'	PROJECT NO:	174-960

SITE PREPARATION PLAN
PANTHER HOLLOW LAKE
REHABILITATION PROJECT

DRAWING NO.: **C200**

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NORTH

PROPERTY OWNER: CITY OF PITTSBURGH

PROPERTY LINE (TYP)

N: 409884.93
E: 1356316.74

PRIOR TO EMBANKMENT RAISE, ADD CONIC SEGMENTS TO RAISE EXISTING MANHOLE FROM 806.8 TO 814.8. SEE DETAIL 4 ON SHEET C800.

UPON COMPLETION OF SEDIMENT EXCAVATION, DEMOLISH AND REMOVE CONCRETE CHANNEL IN ACCORDANCE WITH SPECIFICATIONS AND PERFORM GRADE TO MEET PROPOSED CONTOURS. SEE DETAIL 5 ON SHEET C800.

UPON COMPLETION OF DEWATERING, EXCAVATE SEDIMENT BELOW EL 806.0 FT FROM LAKE TO SLOPES SHOWN. STAGE SEDIMENT AT ON-SITE LOCATIONS ADJACENT TO LAKE PERIMETER TO DEWATER TO EXTENT POSSIBLE. SEE SECTIONS ON SHEET C301.

IN CONNECTION WITH SEDIMENT EXCAVATION, EXCAVATE SOILS ABOVE EL 806.0 FT TO MEET PROPOSED CONTOURS. UTILIZE SOIL AT FILL PLACEMENT LOCATIONS AS SHOWN.

PROPOSED STORMWATER PRE-TREATMENT WETLAND

EXISTING BRIDGE NOT TO BE DISTURBED

PROPOSED FOREBAY AND WEIR

PROPOSED PANTHER HOLLOW LAKE WSEL=806.0

EXISTING CSX RAIL ROAD (FURTHER COORDINATION REQUIRED WITH CSX FOR RAILROAD CROSSING APPROVAL)

VEGETATE DISTURBED AREA ABOVE EL. 807 IN ACCORDANCE WITH SPECIFICATIONS

VEGETATE DISTURBED AREA BETWEEN EL. 804 AND EL. 807 SEE DETAIL 8 ON SHEET C801.

COMPACT STRUCTURAL COHESIVE FILL

CONSTRUCT EMBANKMENT RAISE AT LOCATION SHOWN. USE 3H:1V DOWNSLOPE AND 15 FT WIDE CREST AT EL. 814.0 FT. USE STRUCTURAL COHESIVE FILL TO CONSTRUCT BASE EMBANKMENT SECTION. SEE SECTIONS ON SHEET C302.

CONSTRUCT 20 FT WIDE EMERGENCY SPILLWAY. ESTABLISH CONTROL SECTION EL. AT 813.0 FT. SEE DETAIL 16 ON SHEET C802.

PROVIDE 5' EXTENSION OF PIPE BEYOND MANHOLE WITH TEMPORARY CAP.

ADD 6" OF R3-RIPRAP TO SUPPLEMENT EXISTING RIP

112 LF 30" HDPE @ 1.37%

112 LF 30" HDPE @ 1.50%

181 LF 30" HDPE @ 1.50%

INSTALL LOW LEVEL OUTLET PIPE. USE 10" HDPE DR 26 DIPS PIPE. ESTABLISH PIPE INVERT AT EL 800.0 FT. TIE OUTLET PIPE INTO PRINCIPAL SPILLWAY PIPE. SEE DETAIL 9 ON SHEET C801.

INSTALL PRECAST MANHOLE AND VALVE FOR LOW LEVEL OUTLET PIPE. ESTABLISH INVERT EL AT 799.07 FT AND RIM EL. AT 812.70 FT. SEE DETAIL 7 ON SHEET C801.

INSTALL 30"x10" WYE FOR CONNECTION OF LOW LEVEL OUTLET PIPE

INSTALL THRUST BLOCK. SEE DETAIL 2 ON SHEET C800.

IN CONJUNCTION WITH SEDIMENT AND SOIL EXCAVATION, CONSTRUCT MORNING GLORY RISER STRUCTURE. USE 30" HDPE DR26 DIPS PIPE. ESTABLISH TOP OF RISER AT EL 806.0 FT. TIE RISER INTO PRINCIPAL SPILLWAY PIPE. SEE DETAIL 1 ON SHEET C800.

PLACE AND COMPACT SATISFACTORY MATERIALS GENERATED FROM EXCAVATED SOILS AT LOCATIONS SHOWN IN ACCORDANCE WITH SPECIFICATIONS

INSTALL 30" DIA. DR26 DPIS HDPE PRINCIPAL SPILLWAY PIPE AT SLOPES AND LOCATION SHOWN. SEE DETAIL 13 ON SHEET C802

INSTALL PRECAST MANHOLE AT TERMINAL END OF PRINCIPAL SPILLWAY PIPE. ESTABLISH PIPE INV. EL AT 793.84 AND MANHOLE RIM EL. AT 807.5. SEE DETAIL 4 ON SHEET C800.

EXTEND 30" HDPE PIPE AND STEEL CASING PIPE BENEATH TRACK (BY OTHERS)

PANTHER HOLLOW LAKE

PANTHER HOLLOW TRAIL

HOLLOW RUN TRAIL

DENSE TREES

SOLAR ARRAY

RWALL

PANTHER HOLLOW LAKE AND FOREBAY POND PLAN

SCALE 1"=30'

0 30 60

REVISION RECORD		
NO	DATE	DESCRIPTION

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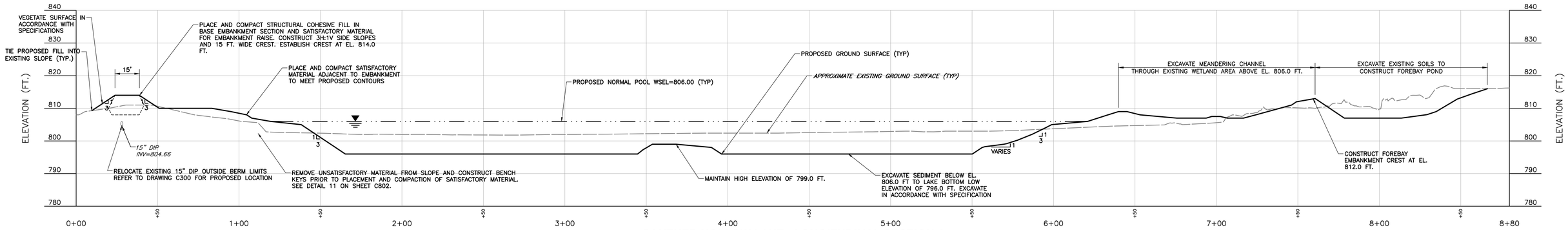
PITTSBURGH, ALLEGHENY COUNTY, PA

DRAWN BY:	CLR	CHECKED BY:	JAL	APPROVED BY:	PJS
DATE:	OCTOBER 2019	DWG SCALE:	1"=30'	PROJECT NO:	174-960

PROPOSED SITE GRADING PLAN
PANTHER HOLLOW LAKE DAM RESTORATION AND FOREBAY POND

DRAWING NO.: **C300**

P:\2017\174-960\-CADD\dwg\CVSD - Dam Permit\174960-CV01-C300.dwg[C300] LS(10/21/2019 - cross) - LP: 10/21/2019 4:35 PM

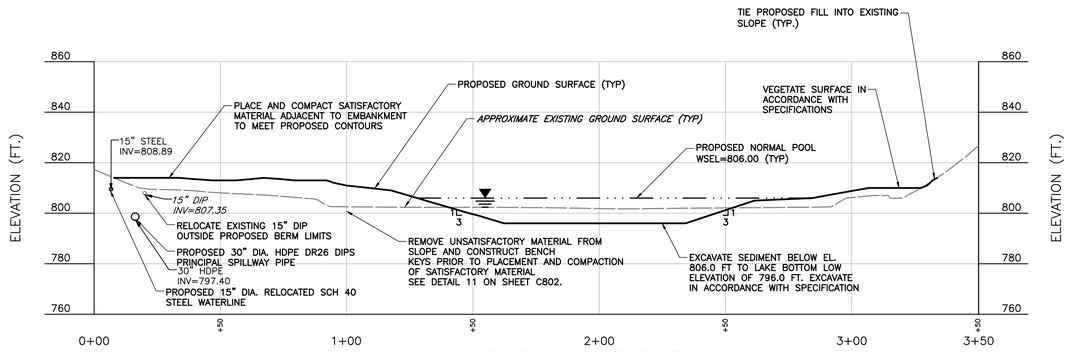


PANTHER HOLLOW LAKE - LONGITUDINAL SECTION A

SCALE H:1"=30'; V:1"=15'

SCALE IN FEET
0 30 60

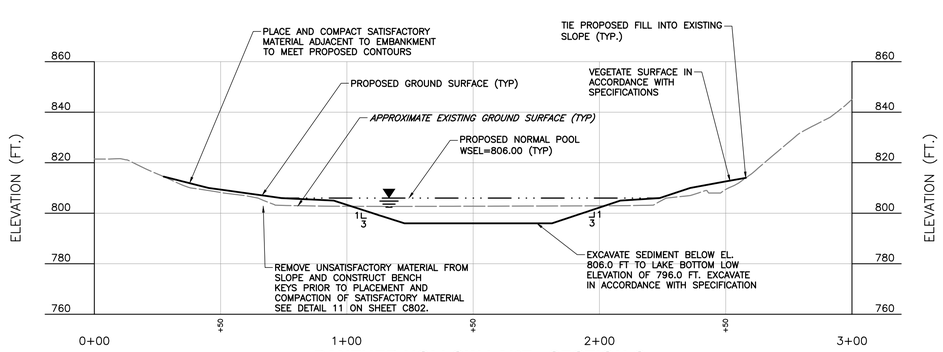
SCALE IN FEET
0 15 30



PANTHER HOLLOW LAKE - SECTION B

SCALE H:1"=30'; V:1"=30'

SCALE IN FEET
0 30 60



PANTHER HOLLOW LAKE - SECTION C

SCALE H:1"=30'; V:1"=30'

SCALE IN FEET
0 30 60

REVISION RECORD

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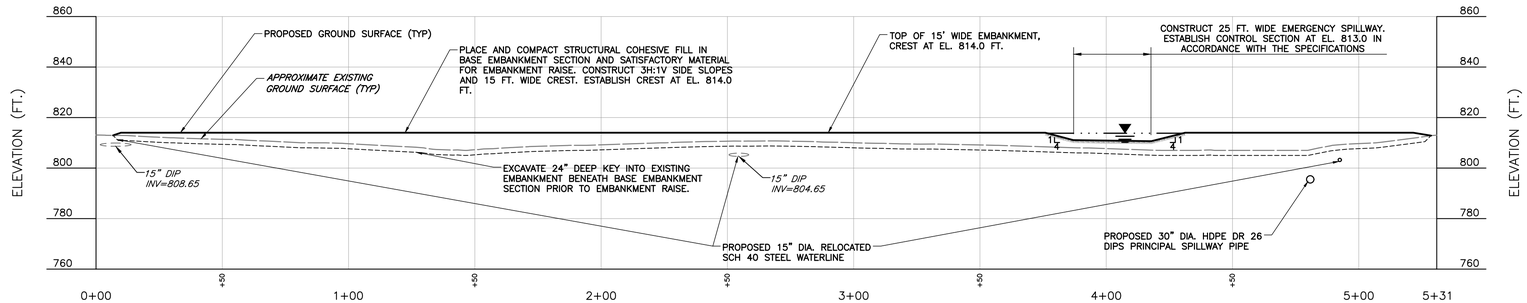
DATE:	OCTOBER 2019	DWG SCALE:	AS-SHOWN	PROJECT NO:	174-960

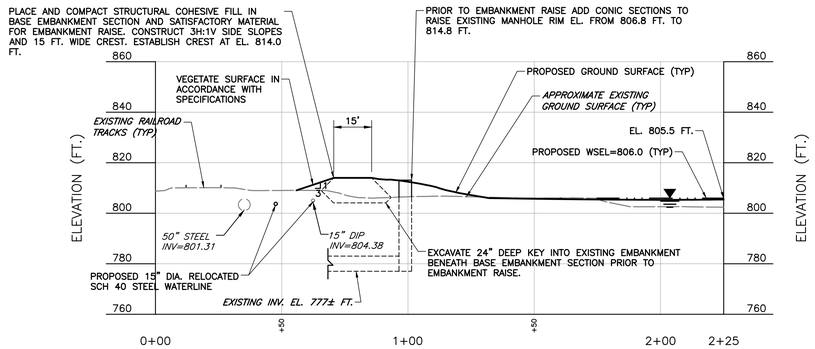
PANTHER HOLLOW LAKE SECTION VIEWS
PANTHER HOLLOW LAKE
REHABILITATION PROJECT

DRAWING NO.:
C301



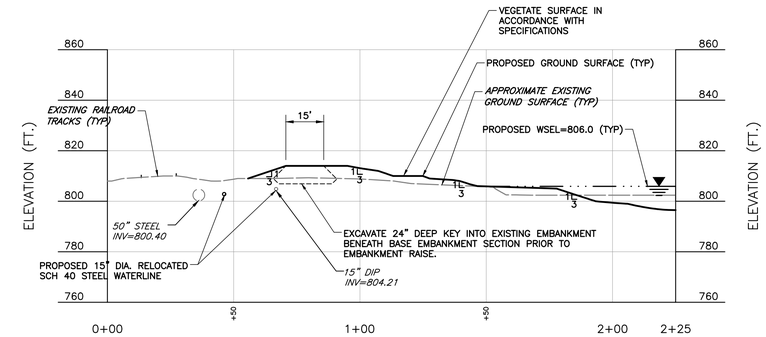
PANTHER HOLLOW LAKE - EMBANKMENT PROFILE

SCALE H:1"=30'; V:1"=30'



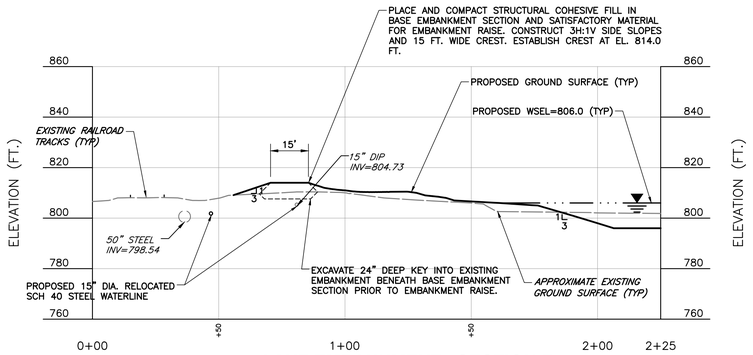
LAKE EMBANKMENT - SECTION D

SCALE H:1"=30'; V:1"=30'



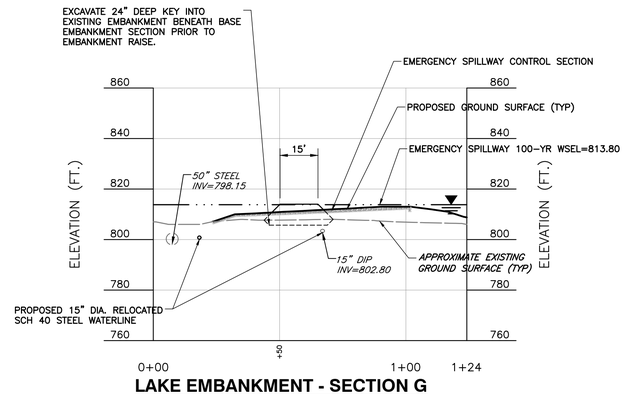
LAKE EMBANKMENT - SECTION E

SCALE H:1"=30'; V:1"=30'



LAKE EMBANKMENT - SECTION F

SCALE H:1"=30'; V:1"=30'



LAKE EMBANKMENT - SECTION G

SCALE H:1"=30'; V:1"=30'

SCALE IN FEET
0 30 60

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DATE:	OCTOBER 2019	DWG SCALE:	AS-SHOWN	PROJECT NO:	174-960

LAKE EMBANKMENT PROFILE AND SECTION VIEWS
PANTHER HOLLOW LAKE
REHABILITATION PROJECT

DRAWING NO.: **C302**

NORTH

PLACE AND COMPACT COHESIVE FILL TO RAISE LAKE EMBANKMENT TO ELEVATION 813 FEET WITH A 15 FOOT WIDE CREST FOR STORMWATER CONTROL.

EXISTING CSX RAIL ROAD (FURTHER COORDINATION REQUIRED WITH CSX FOR RAILROAD CROSSING APPROVAL)

TEST PIT TP-7 ELEV=785.941 INV ELEV=xx ASPH CONC THEN SHALE

ELEC ELEV=778.711 8 5/8" CONDUIT (APPROX)

ELEC ELEV=738.297 10 3/4" CONDUIT

ELEC ELEV=779.63 10 3/4" CONDUIT

50" WATER ELEV=826.305 INV ELEV=802.499 TOP OF PIPE

APPROXIMATE LIMITS OF BOUNDARY STREET AND 3 RIVERS HERITAGE TRAIL INTERSECTION

PADEP JURISDICTION ENDS AT PROPOSED MANHOLE

45° PIPE BEND

101 LF 30" STEEL @ 3.70%

28 LF 30" HDPE @ 3.49%

B-19

PZ-4

B-15

B-14

B-5

B-30

B-6

PZ-1

RADIUS POINT
NORTHING: N40°26'11.7"
EASTING: W079°56'55.8"

N:409500 E:1356000

181 LF 30" HDPE @ 1.50%

PC
NORTHING: N40°26'10.9"
EASTING: W079°56'55.4"

PT
NORTHING: N40°26'10.9"
EASTING: W079°56'55.6"

CONSTRUCT FILTER DIAPHRAM, SEE DETAIL 12 ON SHEET C802

JOINT PERMIT APPLICATION BOUNDARY. WORK WITHIN THIS BOUNDARY LINE WILL BE COMPLETED UNDER A SEPARATE PERMIT.

80 LF 10" HDPE @ 1.16%

MH2 CYLINDRICAL JUNCTION STRUCTURE NF
RIM=814.00
INV IN=799.07(EV1)
INV OUT=799.07(EB5)

112 LF 30" HDPE @ 1.37%

13 LF 10" HDPE @ 1.39%

*HYDRO ELEV=816.082 INV ELEV=xx *NO FIELD NOTES*

45° BEND

12 LF 10" HDPE @ 0.75%

CONNECT TO PROPOSED 30" HDPE OUTLET PIPE USING 30"x10" WYE

67° PIPE BEND

DAM PERMIT BOUNDARY (TYP)

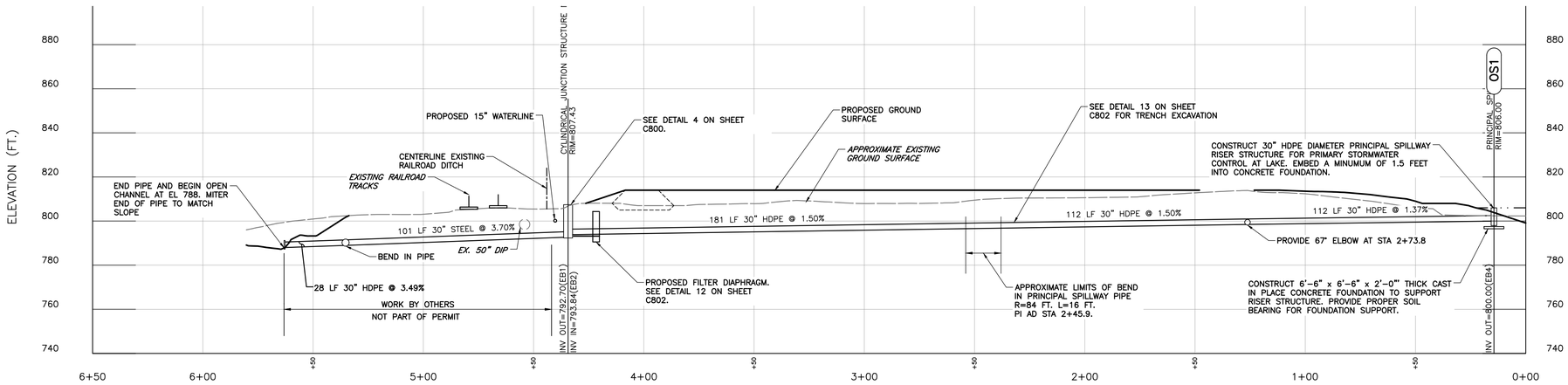
112 LF 30" HDPE @ 1.50%

R=84'

PRINCIPAL SPILLWAY PLAN

SCALE IN FEET

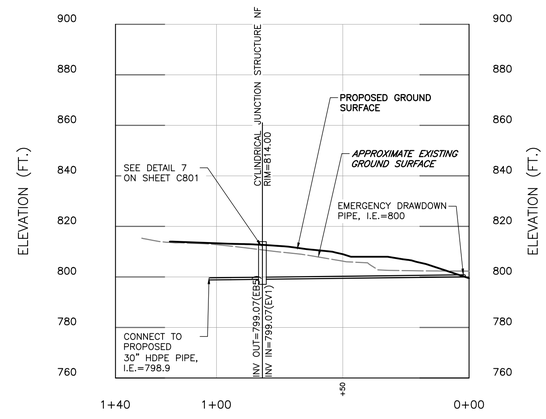
0 30 60



PRINCIPAL SPILLWAY PROFILE

SCALE IN FEET

0 30 60



LOW LEVEL EMERGENCY PIPE PROFILE

SCALE IN FEET

0 30 60

REVISION RECORD		
NO	DATE	DESCRIPTION

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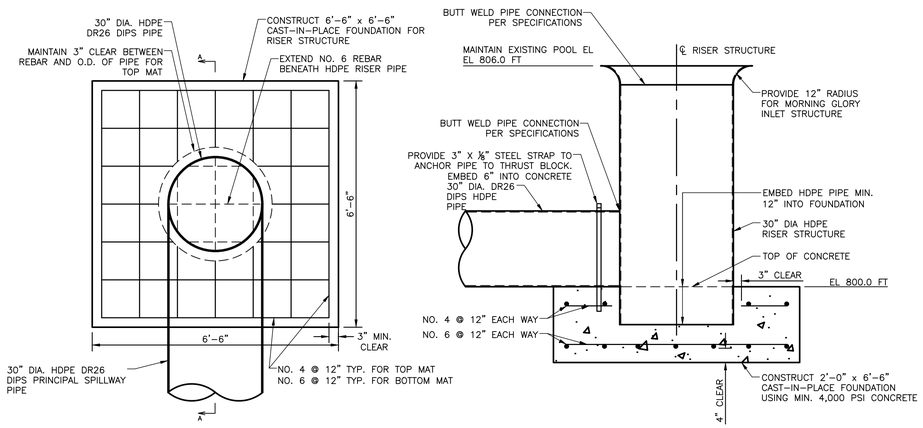
DATE:	OCTOBER 2019	DWG SCALE:		PROJECT NO:	174-960

PANTHER HOLLOW LAKE PRINCIPAL AND EMERGENCY SPILLWAY PLAN & PROFILE VIEW

DRAWING NO.: **C400**

P:\2017\174-960\-CADD\Dwg\C400 - Dam Permit\174960-D01-C400.dwg[C400] LS:(10/21/2019 - cross) - LP: 10/21/2019 4:47 PM

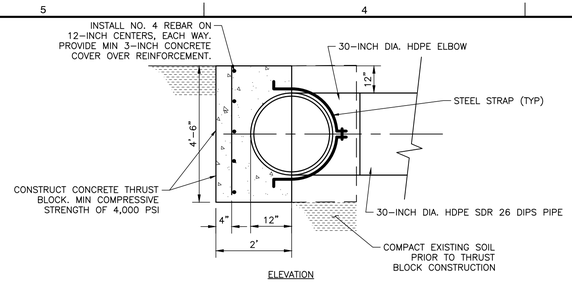


DETAIL 1
RISER STRUCTURE PLAN AND REINFORCEMENT

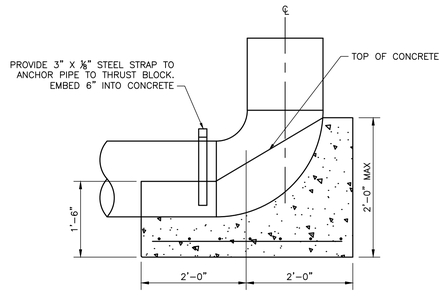
SCALE $\frac{1}{2}$" = 1'-0"

SECTION A-A

SCALE $\frac{1}{2}$" = 1'-0"

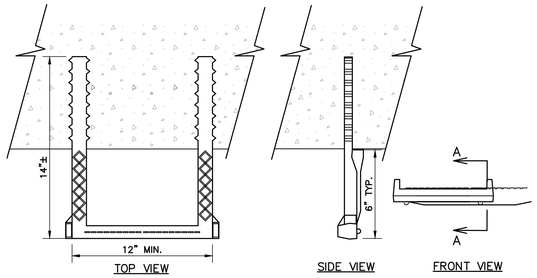


ELEVATION

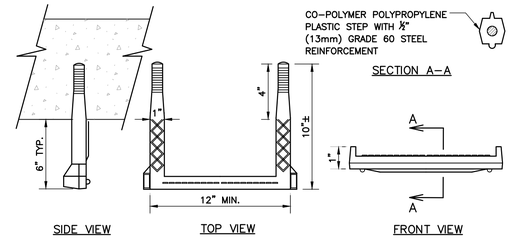


DETAIL 2
THRUST BLOCK - PLAN

N.T.S.



TYPE 1 CAST-IN-PLACE



TYPE 2 PRE-DRILLED HOLE

NOTES:

1. TYPICAL STEPS, SPACING AND MATERIAL AS PER ASTM DESIGNATION C-478, AASHTO M-199.
2. PLASTIC SHALL BE A CO-POLYMER POLYPROPYLENE MEETING THE REQUIREMENTS OUTLINED IN ASTM DESIGNATION D-4101 UNDER TYPE II, GRADE 49108.
3. STEEL REINFORCING BAR SHALL BE A ½" (13mm) DEFORMED BAR, GRADE 60 AND CONFORMING TO THE REQUIREMENTS OF ASTM DESIGNATION A-615.
4. USE TYPE 1 FOR CAST-IN-PLACE VAULTS. USE TYPE 2 FOR NEW PRECAST MANHOLES OR WHEN ADDING STEPS TO EXISTING STRUCTURES.
5. ALL STEPS SHALL BE SET VERTICALLY AT 12" CENTER TO CENTER.

DETAIL 3
PLASTIC MANHOLE STEP

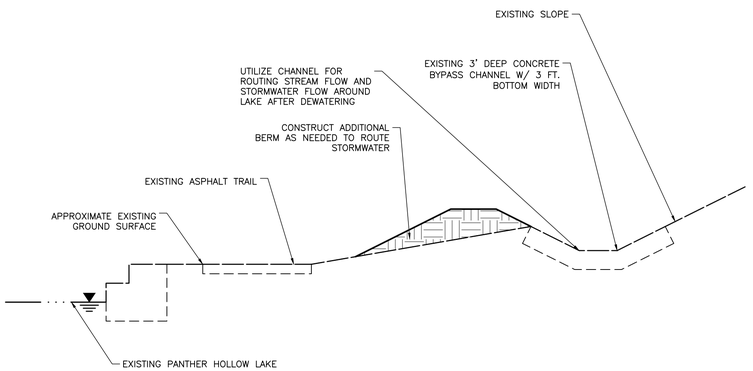
N.T.S.

DETAIL 4
PRE-CAST CONCRETE MANHOLE

N.T.S.

NOTES:

1. CONSTRUCT IN ACCORDANCE WITH THE REQUIREMENTS OF COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF TRANSPORTATION (PADOT) PUBLICATION 408, SECTION 605.
2. REFER TO PADOT BUREAU OF HIGHWAY DESIGN'S STANDARDS FOR ROADWAY CONSTRUCTION, SERIES RC-1 TO RC-100, SHEETS 1 THROUGH 5 OF RC-39, FOR DETAILS OF THE MANHOLE SECTIONS, GRADE ADJUSTMENT RINGS, STEPS, FRAMES AND COVERS.
3. ALL CEMENT CONCRETE USED TO CONSTRUCT THE MANHOLES SHALL BE CLASS AA, AND SATISFY THE REQUIREMENTS OF PADOT PUBLICATION 408, SECTION 704.
4. ALL REINFORCEMENT STEEL USED TO CONSTRUCT THE MANHOLES 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 MANHOLE SECTIONS AND GRADE ADJUSTMENT RINGS SHALL CONFORM TO THE REQUIREMENTS OF PADOT PUBLICATION 408, SECTION 714, AND HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3,500 PSI.
6. ALL FRAMES AND COVERS/GRATES FOR STORM SEWER AND SANITARY SEWER MANHOLES SHALL BE NON-ROCKING AND MADE OF HEAVY DUTY CAST IRON, AND SATISFY THE REQUIREMENTS OF PADOT PUBLICATION 408, SECTION 605.2(b). ALL FRAMES SHALL BE SET IN A FULL BED OF MORTAR AND ANCHORED TO THE CONICAL TOP SECTION USING MINIMUM 4 ANCHOR BOLTS ON OPPOSITE SIDES.
7. ALL GRADE ADJUSTMENT RINGS SHALL BE OF MASONRY OR PRECAST CONCRETE CONSTRUCTION.
8. A RUBBER GASKET THAT SATISFIES THE REQUIREMENTS OF ASTM C-443 SHALL BE INSTALLED BETWEEN ALL STORM SEWER MANHOLE SECTIONS. INSTALL TWO CONTINUOUS RINGS OF BITUMINOUS MASTIC THAT SATISFY ASTM C-443 AT EACH JOINT FOR SANITARY SEWER MANHOLES.
9. ALL MANHOLE SECTIONS SHALL BE SET IN PLACE IN NON-SHRINK MORTAR OR BITUMINOUS MATERIAL AND CONFORM TO THE REQUIREMENTS OF PADOT PUBLICATION 408, SECTION 705.7.
10. ALL MANHOLES SHALL HAVE LADDER RUNGS, SPACED 12 INCHES APART, TO FACILITATE ACCESS TO THE MANHOLE. ALL LADDER RUNGS SHALL BE MINIMUM NO. 4 REINFORCEMENT BARS THAT ARE COATED WITH CO-POLYMER POLYPROPYLENE PLASTIC THAT MEET THE REQUIREMENTS OF PADOT PUBLICATION 408, SECTION 605.2(c). ALL LADDER RUNGS MUST MEET THE PERFORMANCE CRITERIA OF ASTM C478.
11. A MINIMUM OF 12" OF AASHTO #57 STONE SHALL BE USED AS BEDDING FOR THE MANHOLES. THE AASHTO #57 STONE SHALL BE PLACED IN MAXIMUM 6-INCH THICK LOOSE LIFTS AND COMPACTED TO AT LEAST 75% OF ITS RELATIVE DENSITY. ALL AASHTO #57 STONE SHALL BE CRUSHED LIMESTONE AND SATISFY THE REQUIREMENTS OF PADOT PUBLICATION 408, SECTION 703. ALL SOIL BACKFILL PLACED AROUND THE MANHOLES, AND ABOVE THE BEDDING, SHALL BE PLACED IN MAXIMUM 8-INCH THICK LOOSE LIFTS AND COMPACTED TO AT LEAST 95% OF ITS MAXIMUM DRY DENSITY AND WITHIN ±3% OF ITS OPTIMUM MOISTURE CONTENT AS DETERMINED BY ASTM D1557 (MODIFIED PROCTOR).
12. A FLEXIBLE RUBBER MANHOLE SLEEVE OR BOOT SHALL BE INSTALLED IN THE PIPE OPENINGS FOR THE SANITARY SEWER MANHOLES BY THE MANHOLE MANUFACTURER PRIOR TO SITE DELIVERY. THE SANITARY SEWER PIPE SHALL BE SECURED TO THE SLEEVE/BOOT USING STAINLESS STRAPPING UPON INSTALLATION. ANNULAR AREA BETWEEN PIPE OPENING AND CONCRETE BASE SHALL BE RAMMED WITH EMBECO GROUT.



DETAIL 5
DEWATERING BYPASS CHANNEL

N.T.S.

REVISION RECORD

NO	DATE	DESCRIPTION

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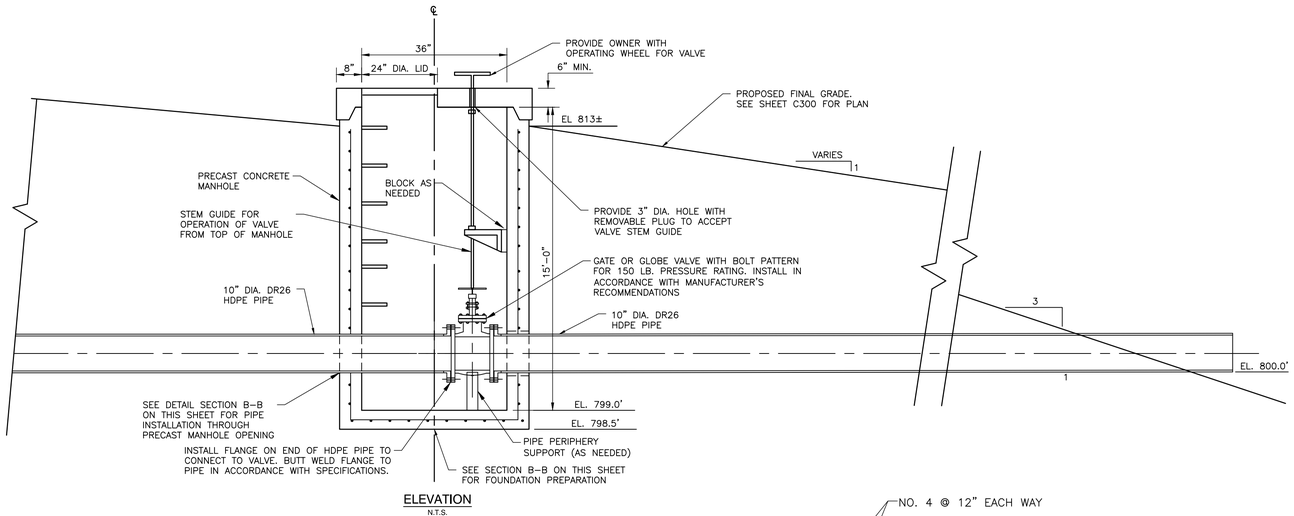
DRAWN BY:	CLR	CHECKED BY:	JAL	APPROVED BY:	PJS
DATE:	OCTOBER 2019	DWG SCALE:		PROJECT NO:	174-960

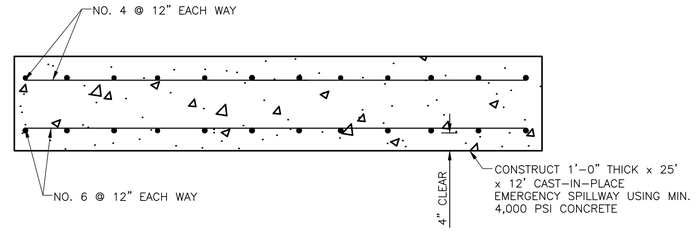
SITE CONSTRUCTION DETAILS

DRAWING NO.: **C800**

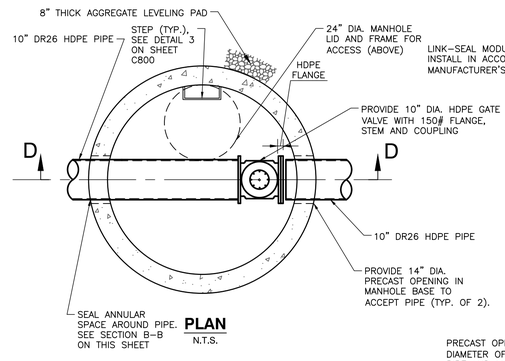


ELEVATION
N.T.S.

DETAIL 7
LOW LEVEL OUTLET
N.T.S.

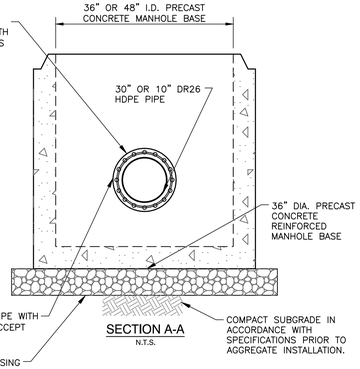


DETAIL 6
EMERGENCY SPILLWAY SECTION AND REINFORCEMENT
N.T.S.

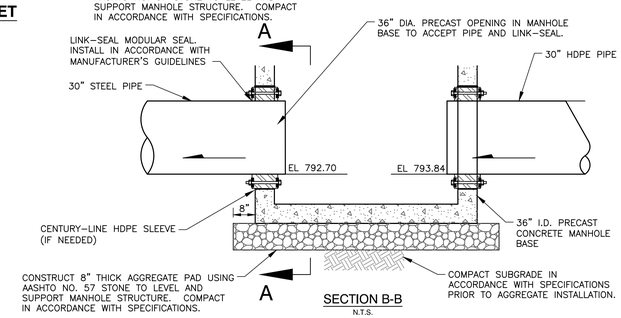


PLAN
N.T.S.

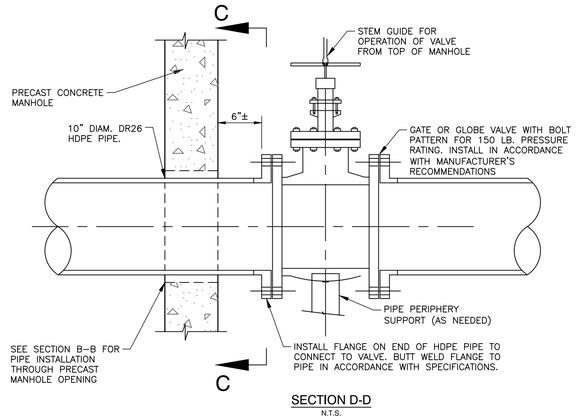
DETAIL 7
LOW LEVEL OUTLET
N.T.S.



SECTION A-A
N.T.S.

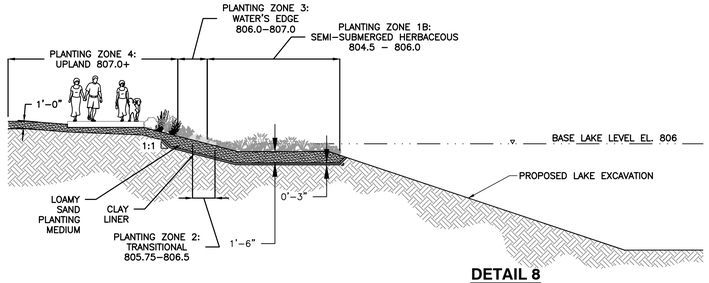


SECTION B-B
N.T.S.

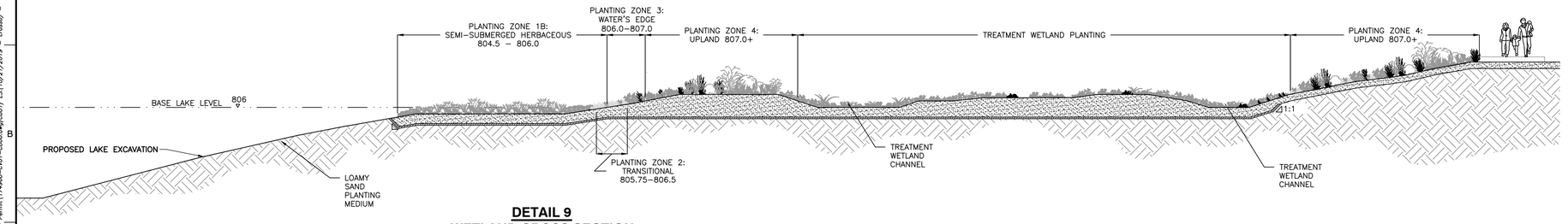


SECTION D-D
N.T.S.

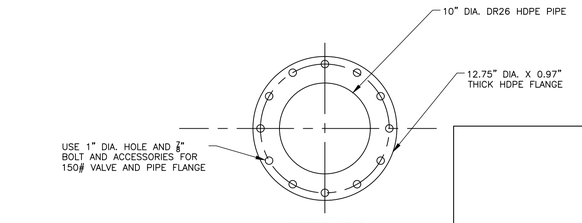
Zone 1: Semi-Submerged	Zone 2: Transitional	Zone 3: Water's Edge	Zone 4: Upland
Zone 1A	**Flowering:**	**Flowering:**	**Flowering:**
Submerged Aquatics:	Chelone glabra turtlehead : white flower, 2'-3' tall	Asclepias incarnata swamp milkweed : pink showy flowers	Aster novae-angliae New England aster
Nuphar spp. Lilly species	Hibiscus moscheutos swamp rose-mallow : white or pink flowers, tall plant to 6' tall	Aster novi-belgii New York aster	Eupatorium coelestinum blue mistflower
Utricularia spp. Bladderwort species	Iris versicolor blueflag iris : iris with blue flowers, 2'-3' tall	Chelone glabra turtlehead : white flower, 2'-3' tall	Eupatorium purpureum purple Joe-pye weed
	Mimulus ringens monkey flower : tubular blue flower, 2'-3' tall	Eupatorium perfoliatum boneset : ivory flowers	Rudbeckia hirta black-eyed susan
Zone 1B	**Sedges and Rushes:**	Hibiscus moscheutos swamp rose-mallow : white or pink flowers, tall plant to 6' tall	**Grasses:**
Herbaceous:	Carex comosa longhair sedge	Iris versicolor blueflag iris : iris with blue flowers, 2'-3' tall	Andropogen gerardii big bluestem
Peltandra virginica arrow arum : broad-leaf, emergent, 2'-4' tall	Carex crinita fringed sedge	Lobelia cardinalis cardinal flower : bright red flowers	Panicum virgatum switchgrass
Pontederia cordata pickerelweed : leafy emergent, purple flower, 2'-4' tall	Carex lurida shallow sedge	Mimulus ringens monkey flower : tubular blue flower, 2'-3' tall	Schizachyrium scoparium little bluestem
Sagittaria latifolia duck potato : leafy emergent, white flower, 2'-4' tall	Carex stricta tussock sedge	Verbena hastata blue vervain : violet flowering spikes	Sorghastrum nutans Indian grass
Scirpus tabernaemontanii soft-stem bulrush : green, long-stemmed, emergent rush, 6'-8' tall	Carex vulpinoidea fox sedge	**Sedges, Rushes, and Grasses:**	**Barrier Plants:**
Shrub:	Juncus canadensis Canada rush	Elymus virginicus Virginia wild-rye : 3' tall	Clethra alnifolia sweet pepperbush
Cephalanthus occidentalis buttonbush : wetland shrub, up to 8' tall in this setting (shallow soil)	Juncus militaris bayanet rush	Juncus effusus soft rush : 3' tall	Cornus amomum silky dogwood
	Barrier Plants:	Scirpus cyperinus woolgrass : 5' tall	
	Cephalanthus occidentalis buttonbush : up to 8' tall shrub	Scirpus pungens common 3 square : 4' tall	
	Leersia oryzoides rice cutgrass : 5' tall, serrated leaves	Barrier Plants:	
	Rosa palustris swamp rose : thorny shrub, 6' tall, pink flowers	Cephalanthus occidentalis buttonbush : up to 8' tall shrub	
		Clethra alnifolia sweet pepperbush : 6' tall	
		Cornus sericea redosier dogwood : 8' tall	
		Ilex verticillata winterberry holly : 8' tall	
		Rhododendron viscosum swamp azalea : 6' tall	
		Salix discolor pussy willow : can get very tall for a shrub, up to 20' tall	



DETAIL 8
NARROW AQUATIC BENCH
SCALE 1"=10'



DETAIL 9
WETLAND CROSS SECTION
SCALE 1"=10'



SECTION C-C
N.T.S.

REVISION RECORD

NO	DATE	DESCRIPTION

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PITTSBURGH PENNSYLVANIA
PGH2O Pittsburgh Water & Sewer Authority

CITY OF PITTSBURGH
DEPARTMENT OF PUBLIC WORKS
PITTSBURGH WATER & SEWER AUTHORITY
PITTSBURGH, ALLEGHENY COUNTY, PA

DRAWN BY:	CLR	CHECKED BY:	JAL	APPROVED BY:	PJS
DATE:	OCTOBER 2019	DWG SCALE:	AS-SHOWN	PROJECT NO:	174-960

SITE CONSTRUCTION DETAILS

DRAWING NO.: **C801**

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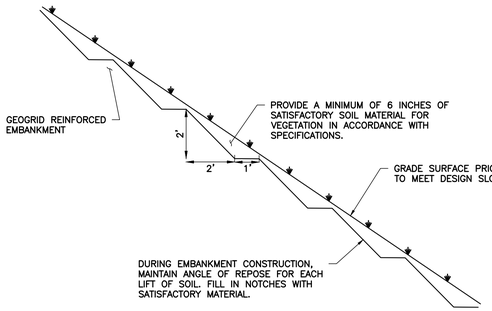
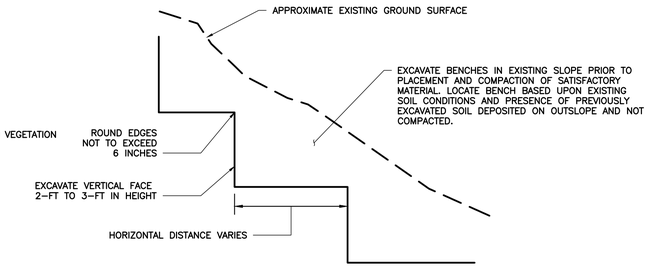
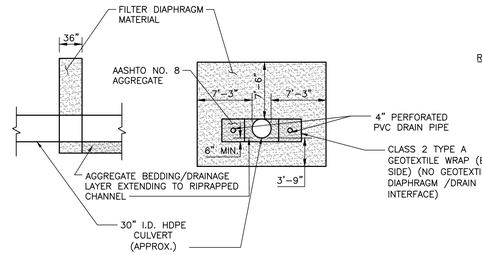


DETAIL 10
FINISHED GRADE DETAIL
N.T.S.



DETAIL 11
BENCHING DETAIL
N.T.S.

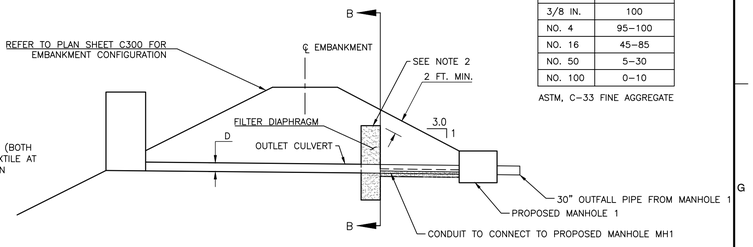


DETAIL 12
FILTER DIAPHRAGM DETAIL
N.T.S

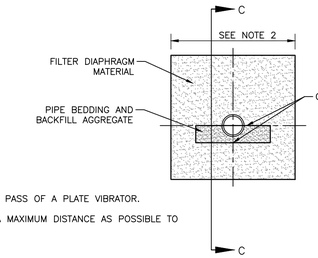
FILTER MATERIAL GRADATION

SIEVE SIZE	% PASSING BY WEIGHT
3/8 IN.	100
NO. 4	95–100
NO. 16	45–85
NO. 50	5–30
NO. 100	0–10

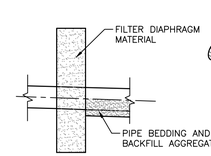
ASTM, C-33 FINE AGGREGATE



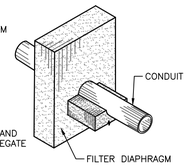
PROFILE ALONG CENTERLINE OF CONDUIT



SECTION B-B



SECTION C-C

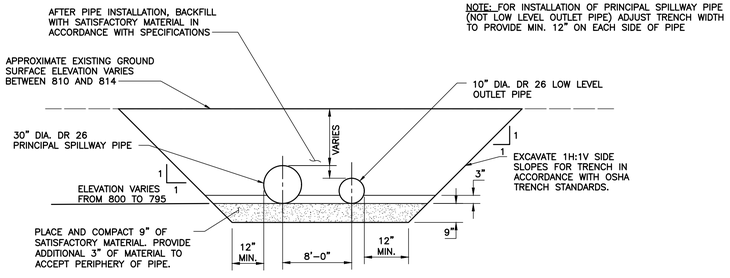


PARTIAL ISOMETRIC

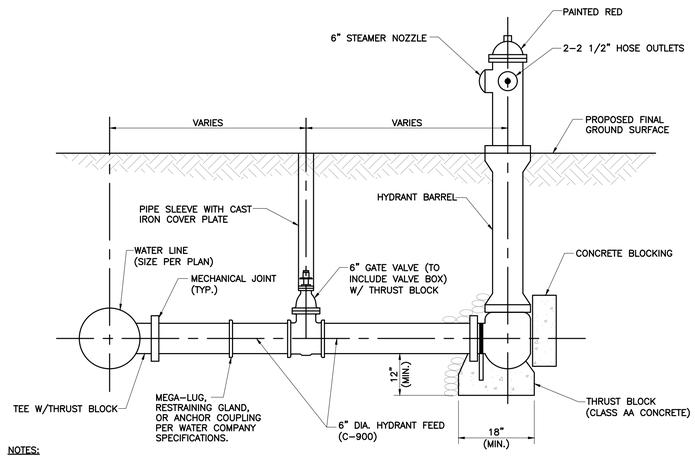
NOTES:

1. THE FILTER MATERIAL SHALL BE PLACED IN 6 INCH LIFTS AND COMPACTED WITH ONE PASS OF A PLATE VIBRATOR.
2. FILTER DIAPHRAGM SHALL BE LOCATED DOWNSTREAM FROM EMBANKMENT CENTERLINE A MAXIMUM DISTANCE AS POSSIBLE TO ACHIEVE A MINIMUM COVER OF 2 FEET.

DETAIL 14
NOT USED
N.T.S



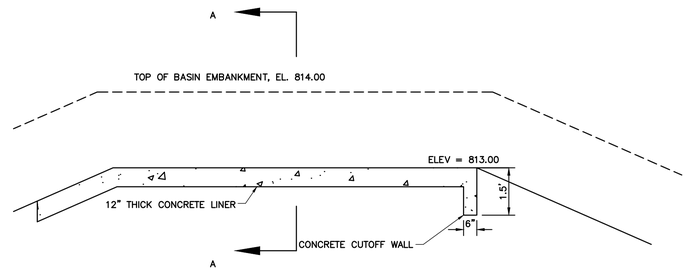
DETAIL 13
PRINCIPAL SPILLWAY PIPE AND LOW LEVEL OUTLET PIPE TRENCH
N.T.S



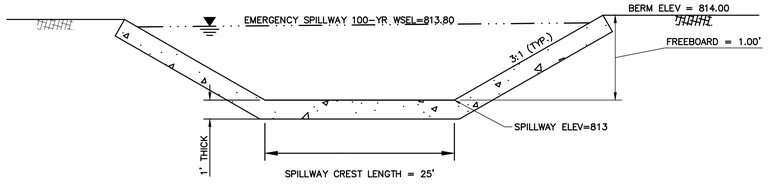
NOTES:

1. FIRE HYDRANT INSTALLATION SHALL BE IN ACCORDANCE WITH THE MUNICIPAL AUTHORITY AND PETERS TOWNSHIP FIRE DEPARTMENT REQUIREMENTS AND SPECIFICATIONS OF PA AMERICAN WATER COMPANY.
2. ALL FITTINGS, VALVES, AND HYDRANTS SHALL BE POLYETHYLENE WRAPPED.
3. FIRE HYDRANT TO MEET TOWNSHIP REQUIREMENT OF 6" FULL FLOW.

DETAIL 15
TYPICAL FIRE HYDRANT INSTALLATION
N.T.S



SPILLWAY



SECTION A-A

DETAIL 16
LAKE EMERGENCY SPILLWAY
N.T.S.

REVISION RECORD		
NO	DATE	DESCRIPTION

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PITTSBURGH PENNSYLVANIA
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CITY OF PITTSBURGH
DEPARTMENT OF PUBLIC WORKS
PITTSBURGH WATER & SEWER AUTHORITY
PITTSBURGH, ALLEGHENY COUNTY, PA

DRAWN BY:	CLR	CHECKED BY:	JAL	APPROVED BY:	PJS
DATE:	OCTOBER 2019	DWG SCALE:	AS-SHOWN	PROJECT NO:	174-960

SITE CONSTRUCTION DETAILS

DRAWING NO.: **C802**

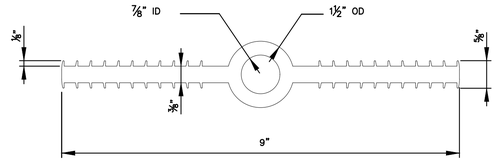
P:\2017\174-960\-CAD\Dwg\C802 - Dam Permit\174960-C001-C800.dwg[C802] LS(10/21/2019 - cross) - LP, 10/21/2019 4:53 PM

GENERAL NOTES

1. ALL ELEVATIONS AND COORDINATES ARE BASED VERTICAL AND HORIZONTAL DATUM INFORMATION PROVIDED ON SHEET G101.
2. ALL STATIONS AND ELEVATIONS ARE IN FEET, UNLESS NOTED OTHERWISE.
3. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FOLLOW ALL APPLICABLE SAFETY CODES, REGULATIONS, AND ORDINANCES DURING ALL PHASES OF CONSTRUCTION.
4. THE STRUCTURES ARE DESIGNED TO BE SELF–SUPPORTING AND STABLE AFTER CONSTRUCTION IS COMPLETED. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN THE STRUCTURES IN A SAFE AND STABLE CONDITION DURING CONSTRUCTION, INCLUDING PROVIDING TEMPORARY BRACING, TIE–DOWNS, PROTECTION AGAINST DAMAGE OR OTHER ITEMS THAT MAY BE NECESSARY.

CONCRETE AND REINFORCEMENT

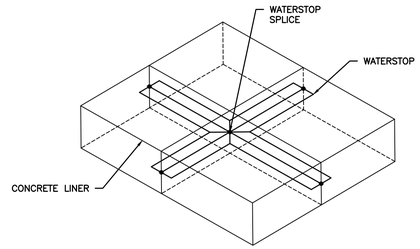
1. ALL MATERIALS SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS, UNLESS NOTED OTHERWISE.
2. STRUCTURAL CONCRETE SHALL CONFORM TO THE REQUIREMENTS OF THE SPECIFICATIONS AND SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH, f'c = 5,000 PSI AT 28 DAYS.
3. ALL REFERENCES TO REFERENCE STANDARDS HEREIN ARE TO MOST RECENT ISSUE IN EFFECT AS OF THE DATE OF THESE DOCUMENTS, UNLESS NOTED OTHERWISE IN PROJECT SPECIFICATIONS OR ON THE DRAWINGS.
4. FORMED AND UNFORMED CONCRETE SURFACE FINISHES SHALL BE AS NOTED IN THE SPECIFICATIONS.
5. PREPARE CONCRETE SURFACES AGAINST WHICH ADDITIONAL CONCRETE IS TO BE PLACED IN ACCORDANCE WITH THE SPECIFICATIONS. HORIZONTAL CONSTRUCTION JOINTS SHALL BE ROUGHENED TO A MINIMUM AMPLITUDE OF 1/4". EXPOSING CLEAN, SOUND AGGREGATE. SURFACE OF CONSTRUCTION JOINTS SHALL BE CLEANED AND LATANCE REMOVED.
6. ALL EXPOSED EDGES SHALL BE FORMED WITH A 3/4 INCH CHAMFER, UNLESS OTHERWISE NOTED.
7. PROVIDE CONCRETE COVER FOR REINFORCEMENT AS FOLLOWS, UNLESS OTHERWISE NOTED:
   - A. UNFORMED CONCRETE PLACED AGAINST EARTH — 4"
   - B. SURFACES TO BE IN CONTACT WITH EARTH OR WATER:
     - LESS THAN OR EQUAL TO 2 FT THICK — 3"
     - GREATER THAN 2 FT THICK — 4"
   - C. SURFACES SUBJECT TO ABRASION BY FLOWING WATER — 6"
   - D. OTHER LOCATIONS, UNO — 2"
8. PROVIDE EMBEDMENT OF CONCRETE REINFORCEMENT AND CLASS B LAP SPLICES IN ACCORDANCE WITH TABLE 1 ON THIS SHEET, UNLESS NOTED OTHERWISE.
9. WHEN BARS OF DIFFERENT SIZES ARE SPLICED, THE SPLICE LENGTH SHALL BE BASED ON THE LARGER OF THE EMBEDMENT LENGTH OF THE LARGER BAR OR THE TENSION LAP SPLICE LENGTH OF THE SMALLER BAR.
10. REINFORCEMENT SPLICES MAY BE REQUIRED THAT ARE NOT SHOWN ON THESE PLANS. SPLICE LOCATIONS AND LENGTHS SHALL BE CLEARLY SHOWN ON THE REINFORCING STEEL SHOP DRAWINGS FOR APPROVAL BY THE OWNER OR OWNER'S REPRESENTATIVE.
11. THE STRUCTURE IS DESIGNED TO BE SELF–SUPPORTING AND STABLE AFTER THE CONSTRUCTION IS FULLY COMPLETED. IT IS THE CONTRACTORS SOLE RESPONSIBILITY TO DETERMINE ERECTION PROCEDURE AND SEQUENCE AND INSURE THE SAFETY OF THE STRUCTURE AND ITS COMPONENT PARTS DURING ERECTION. THIS INCLUDES THE ADDITION OF WHATEVER SHORING, TEMPORARY BRACING, ETC. THAT MAY BE NECESSARY. SUCH MATERIAL SHALL REMAIN THE CONTRACTOR'S PROPERTY AFTER COMPLETION OF THE PROJECT.
12. ADDITIONAL CONSTRUCTION JOINTS (HORIZONTAL AND VERTICAL) SHALL BE SUBMITTED WITH SHOP DRAWINGS FOR APPROVAL BY THE OWNER OR OWNER'S REPRESENTATIVE. ALL CONSTRUCTION JOINTS SHALL HAVE WATERSTOPS, UNLESS NOTED OTHERWISE.
13. ALL REINFORCEMENT SHALL BE DISCONTINUED AT EXPANSION JOINTS, UNLESS NOTED OTHERWISE.
14. SUBJECT TO APPROVAL BY THE OWNER OR OWNER'S REPRESENTATIVE, BARS MAY BE SHIFTED SLIGHTLY TO AVOID EMBEDDED ITEMS AND OTHER OBSTRUCTIONS.
15. REINFORCING BARS: ASTM A615, GRADE 60.
16. BAR SUPPORTS CLASS 1, MAXIMUM PROTECTION (CRSI MANUAL OF STANDARD PRACTICE) FOR ALL SLABS AND BEAMS WITH SOFFITS EXPOSED TO VIEW.
17. ALL REINFORCING STEEL DETAILS SHALL BE IN ACCORDANCE WITH THE ACI CODE REQUIREMENTS (ACI 318 CURRENT EDITIONS).
18. REINFORCING STEEL PLACING DRAWINGS AND BAR LISTS SHALL CONFORM TO THE ACI OR CRSI DETAILING MANUALS. ALL BAR SUPPORTS MUST BE CLEARLY DETAILED.
19. HOOKS AND BENDS SHALL BE ACI STANDARD UNLESS OTHERWISE INDICATED.
20. CONTINUOUS REINFORCING BARS SHALL BE PROVIDED WITH TENSION LAPS AT ALL SPLICES, UNLESS NOTED OTHER WISE NOTED. ALL STEEL REINFORCING LAPS SHALL BE TENSION B LAPS TYPICAL, UNLESS NOTED OTHERWISE.
21. MECHANICAL SPLICES SHALL NOT BE PERMITTED UNLESS APPROVED BY THE ENGINEER.
22. REINFORCING STEEL FABRICATION AND PLACEMENT SHALL BE IN ACCORDANCE WITH CRSI MANUAL OF STANDARD PRACTICE AND CRSI PLACING REINFORCING BARS (LATEST EDITIONS).
23. REINFORCING STEEL IN FOOTINGS SHALL BE ASSEMBLED IN MAT GRILLES EQUALLY SPACED AND SECURELY WIRED TOGETHER BEFORE THE CONCRETE IS POURED.
24. WALL FOOTING DOWELS ARE TO HAVE A FULL TENSION LAP SPLICE WITH THE WALL STEEL UNLESS NOTED OTHERWISE.
25. ALL REINFORCING SHALL BE HELD SECURELY IN POSITION WITH STANDARD ACCESSORIES IN CONCRETE.
26. NO REINFORCING STEEL SHALL BE FIELD BENT WITHOUT THE APPROVAL OF THE STRUCTURAL ENGINEER. FIELD BENDING OF PLAIN REINFORCEMENT, IF PERMITTED, SHALL BE PERFORMED USING AN APPROVED AND APPROPRIATE SIZED PORTABLE HYDRAULIC DEVICE THAT MAKES ACI STANDARD RADIUS BENDS. NO OTHER FIELD BENDING METHOD SHALL BE PERMITTED.
27. WELDING, INCLUDING TACK WELDING, FOR REINFORCING STEEL IS PROHIBITED. WELDING OF REINFORCING STEEL AND HIGH STRENGTH BOLTS (A325, A490) WILL BE PERMITTED ONLY BY WRITTEN APPROVAL OF THE ENGINEER.



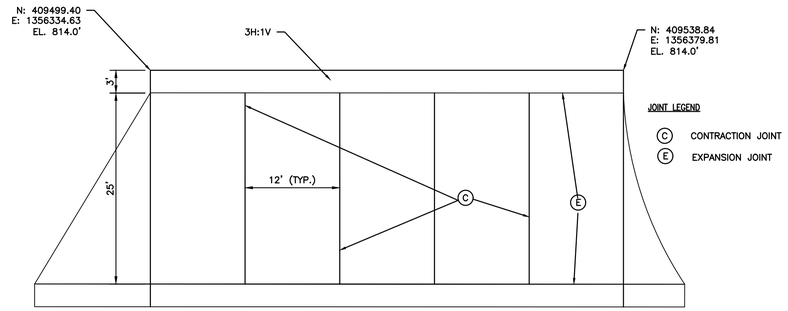
TYPICAL WATERSTOP DETAIL
N.T.S

NOTES (FOR WATERSTOPS):

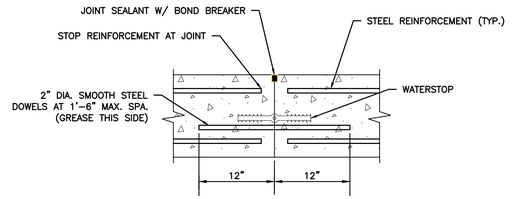
1. USE 9–INCH WATERSTOP AT ALL JOINTS.
2. AT LOCATIONS WHERE WATERSTOPS JOIN AT TWO DIFFERENT ANGLES OR WHERE DIFFERENT SIZE WATERSTOPS MEET OR JOIN, THE USE OF SPLIT OR WELDED SPLICE WATERSTOPS WILL BE PROHIBITED.



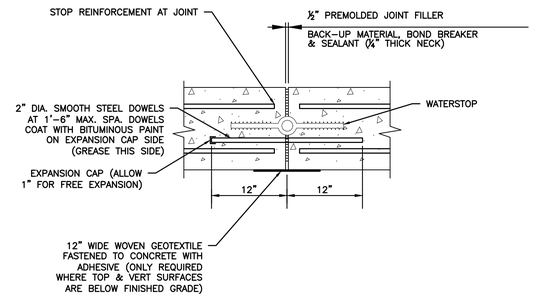
ISOMETRIC WATERSTOP DETAIL
N.T.S



EMERGENCY SPILLWAY PLAN
N.T.S



CONTRACTION JOINT DETAIL - TYPE C JOINT
N.T.S



EXPANSION JOINT DETAIL - TYPE E JOINT
N.T.S

TABLE 1

BAR EMBEDMENT LENGTH AND LAP SPLICE LENGTH

f'c=4,500psi fy=60,000psi				
BAR SIZE	EMBEDMENT LENGTH		SPLICE LENGTH – CLASS B	
	TOP BARS	OTHER BARS	TOP BARS	OTHER BARS
#3	1'–0"	1'–0"	1'–2"	1'–0"
#4	1'–2"	1'–0"	1'–7"	1'–2"
#5	1'–6"	1'–2"	1'–11"	1'–6"
#6	1'–9"	1'–5"	2'–4"	1'–9"
#7	2'–7"	2'–0"	3'–4"	2'–7"
#8	2'–11"	2'–3"	3'–10"	2'–11"

NOTES FOR TABLE 1:

1. TOP BARS ARE DEFINED AS HORIZONTAL BARS (AND BARS INCLINED LESS THAN 45 DEGREES TO THE HORIZONTAL) SO PLACED THAT MORE THAN 12 INCHES OF FRESH CONCRETE IS CAST IN THE MEMBER DIRECTLY BELOW THE BARS.
2. VALUES IN TABLE 1 ARE FOR UNCOATED REINFORCEMENT.
3. FOR CLASS A SPLICES, USE THE EMBEDMENT LENGTH.

REVISION RECORD

NO	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
333 Baldwin Road · Pittsburgh, PA 15205
Ph: 412.429.2324 · 800.365.2324 · Fax: 412.429.2114
www.cecinc.com

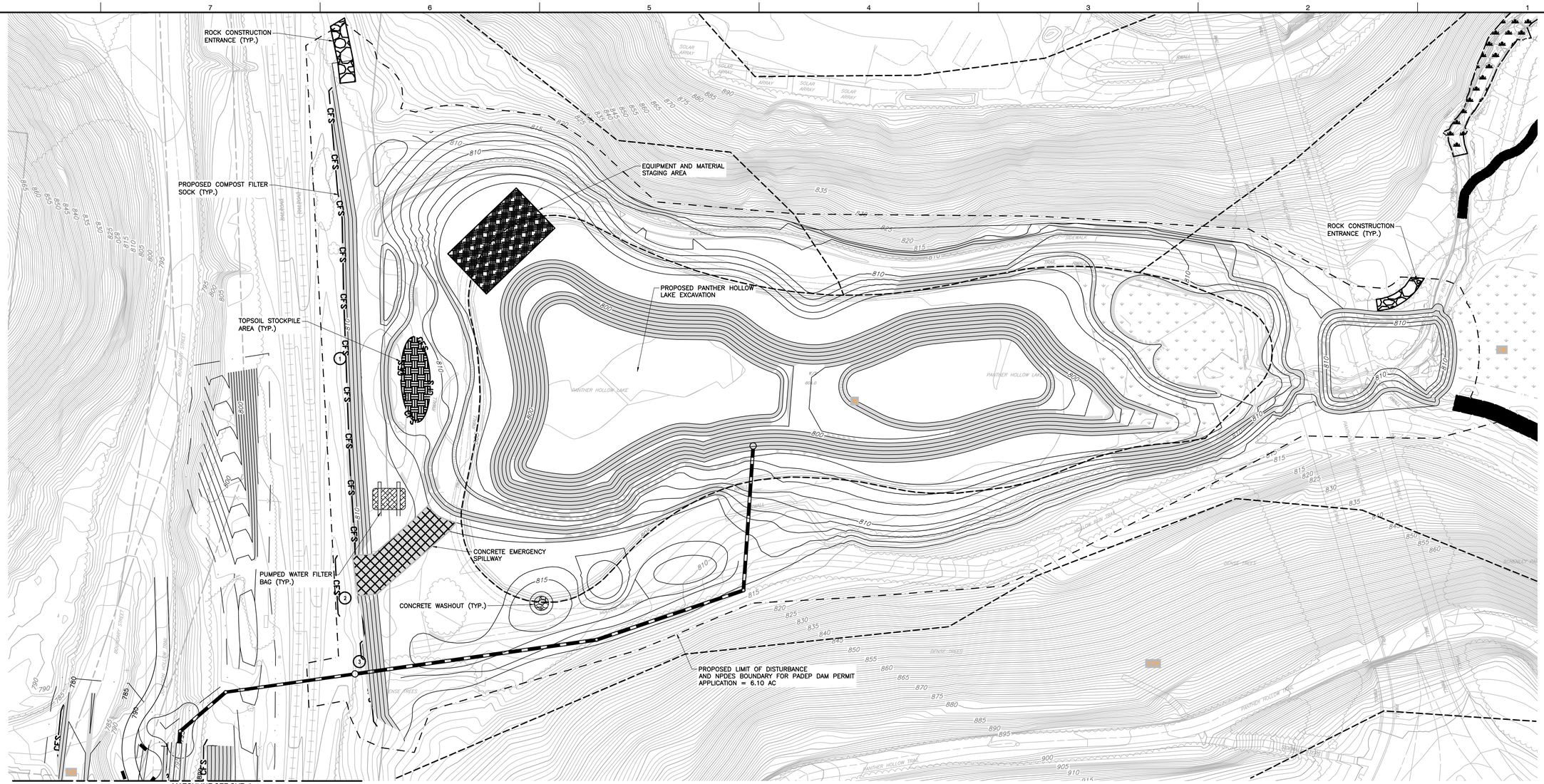
PITTSBURGH PENNSYLVANIA
PGH2O Pittsburgh Water & Sewer Authority

CITY OF PITTSBURGH
DEPARTMENT OF PUBLIC WORKS
PITTSBURGH WATER & SEWER AUTHORITY
PITTSBURGH, ALLEGHENY COUNTY, PA

DRAWN BY:	CLR	CHECKED BY:	JAL	APPROVED BY:	PJS
DATE:	OCTOBER 2019	DWG SCALE:	AS-SHOWN	PROJECT NO:	174-960

SITE CONSTRUCTION DETAILS

DRAWING NO.: **C803**



LEGEND

- COMPOST FILTER SOCK NUMBER, REFER TO C5-301 FOR SCHEDULE
- CFS — COMPOST FILTER SOCK
- LIMIT OF DISTURBANCE
- ROCK CONSTRUCTION ENTRANCE
- SOIL DELINEATION
- DUST COVERS
- IFM — INLET FILTER MAT
- CONCRETE WASHOUT
- PUMPED WATER FILTER BAG
- GQF — SOIL TYPE
- EROSION CONTROL BLANKET
- ROCK CONSTRUCTION ENTRANCE
- MATERIAL AND EQUIPMENT STAGING AREA
- SOIL STOCKPILE AREA

811 Pennsylvania One Call System, Inc.
Call 3 Business Days Before You Dig!
1-800-242-1776 or 8-1-1
POCS Serial NO. :_____
Date:_____

CONTRACTORS ARE REQUIRED TO NOTIFY THE FACILITY OWNERS NOT LESS THAN THREE (3) NOT MORE THAN TEN (10) WORKING DAYS PRIOR TO EXCAVATION OR DEMOLITION WORK WHEN USING POWERED EQUIPMENT ON PUBLIC OR PRIVATE PROPERTY ANYWHERE IN THE COMMONWEALTH. CONTRACTORS ARE RESPONSIBLE FOR PRESERVING THE FACILITY OWNER MARKINGS, TO EXERCISE DUE CARE AND EMPLOY PRUDENT TECHNIQUES WITHIN THE TOLERANCE ZONE. CONTRACTORS SHOULD KEEP EACH OPERATOR AT THE SITE INFORMED AND EVALUATE THE PREMISES IF NECESSARY. NOTIFICATION SHOULD BE MADE THROUGH THE PENNSYLVANIA ONE-CALL SYSTEM (1-800-242-1776 or 8-1-1).

SYMBOL	SOIL TYPE
URB	URBAN LAND-RAINSBORO COMPLEX, GENTLY SLOPING, HYDROLOGIC SOIL GROUP C
UB	URBAN LAND
GQF	GILPIN-UPSHUR COMPLEX, VERY STEEP, HYDROLOGIC SOIL GROUP C

OFF-SITE RECEIVING WATERS OF THE COMMONWEALTH

UNT TO MONONGAHELA RIVER ID: 134839843 - WARM WATER FISHES (WWF)

WATERSHED: LOWER MONONGAHELA

REFERENCE: PA eMap

SOCK NO.	DIAMETER (IN.)	SLOPE (%)	SLOPE LENGTH ABOVE BARRIER (FT.)
1	18	33	12
2	18	7	93
3	18	33	12

REFERENCE: PADEP E&S MANUAL STANDARD E&S WORKSHEET NO. 1

40' 0' 40' 80'
SCALE: 1" = 40'

DRAFT

PRELIMINARY NOT FOR CONSTRUCTION

REVISION RECORD

NO	DATE	DESCRIPTION

SciTek Consultants, Inc.
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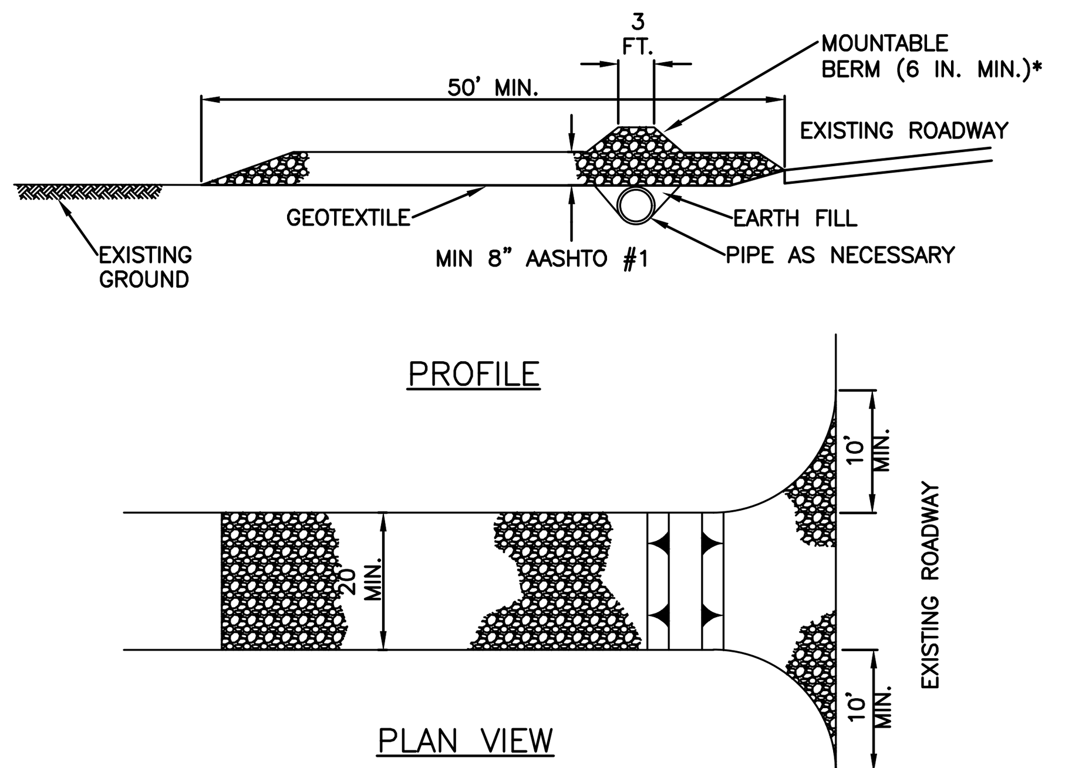
CITY OF PITTSBURGH
DEPARTMENT OF PUBLIC WORKS
PITTSBURGH WATER & SEWER AUTHORITY
PITTSBURGH, ALLEGHENY COUNTY, PA

DRAWN BY:	LJK/KPK	CHECKED BY:	KPK
DATE:	OCTOBER 2019	DWG SCALE:	
APPROVED BY:	KPK	PROJECT NO:	18-840

EROSION AND SEDIMENT CONTROL PLAN

DRAWING NO.: **C900**

S:\customers\KPKPA\18-840 CEC -MAPLE Engineering-Permitting\From CEC\CAD Deisegn Files (layout stormwater networks grading ex limits)\E&S Design Drawing\17X36XR-C101-ES_V1.dwg PANTHER HOLLOW C900-PLAN LS(10/16/2019 - Revised) - LP, 10/21/2019 12:05 PM



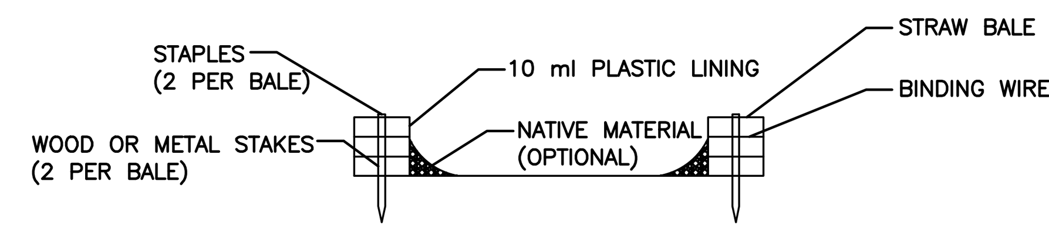
* MOUNTABLE BERM USED TO PROVIDE PROPER COVER FOR PIPE

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.

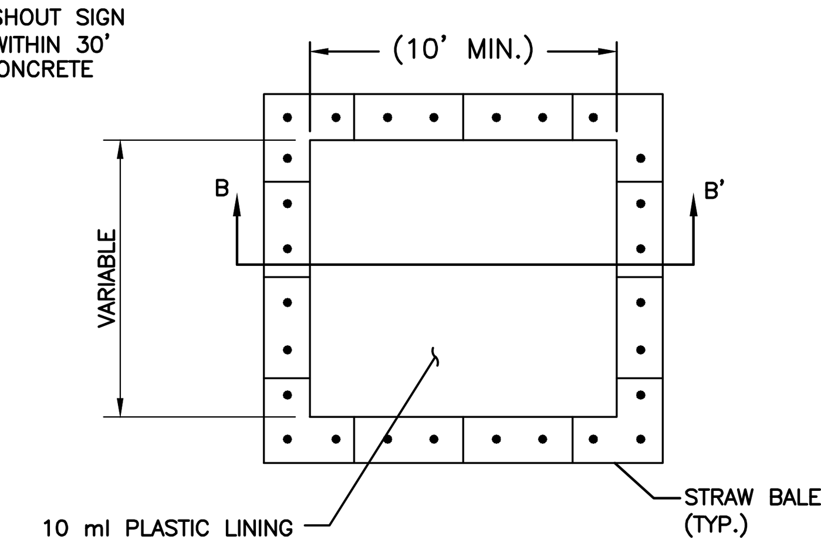
DETAIL 901
PADEP STANDARD CONSTRUCTION DETAIL #3-1
ROCK CONSTRUCTION ENTRANCE

NOT TO SCALE

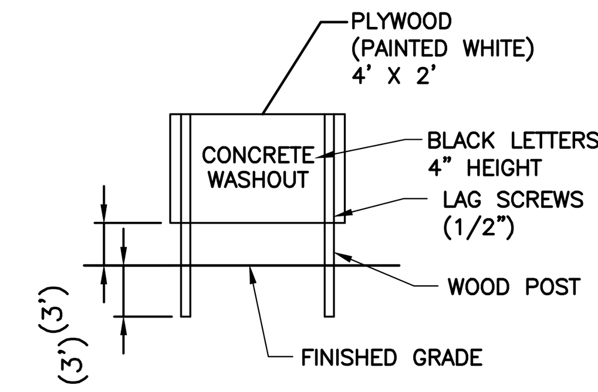


NOTES:

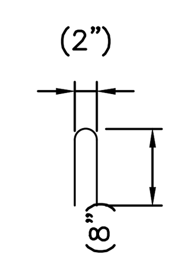
1. ACTUAL LAYOUT DETERMINED IN THE FIELD.
2. THE CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 30' OF THE TEMPORARY CONCRETE WASHOUT FACILITY.



PLAN
TYPE "ABOVE GRADE"
WITH STRAW BALES



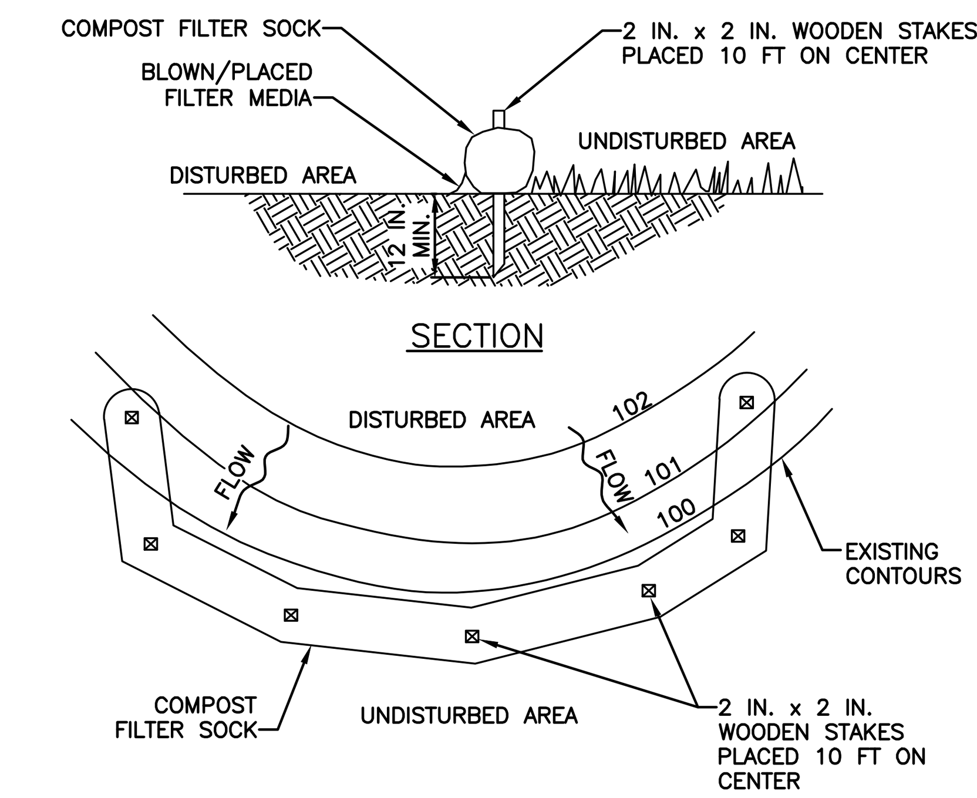
CONCRETE WASHOUT SIGN
DETAIL (OR EQUIVALENT)



STAPLE DETAIL

DETAIL 902
TEMPORARY CONCRETE WASHOUT FACILITY

NOT TO SCALE



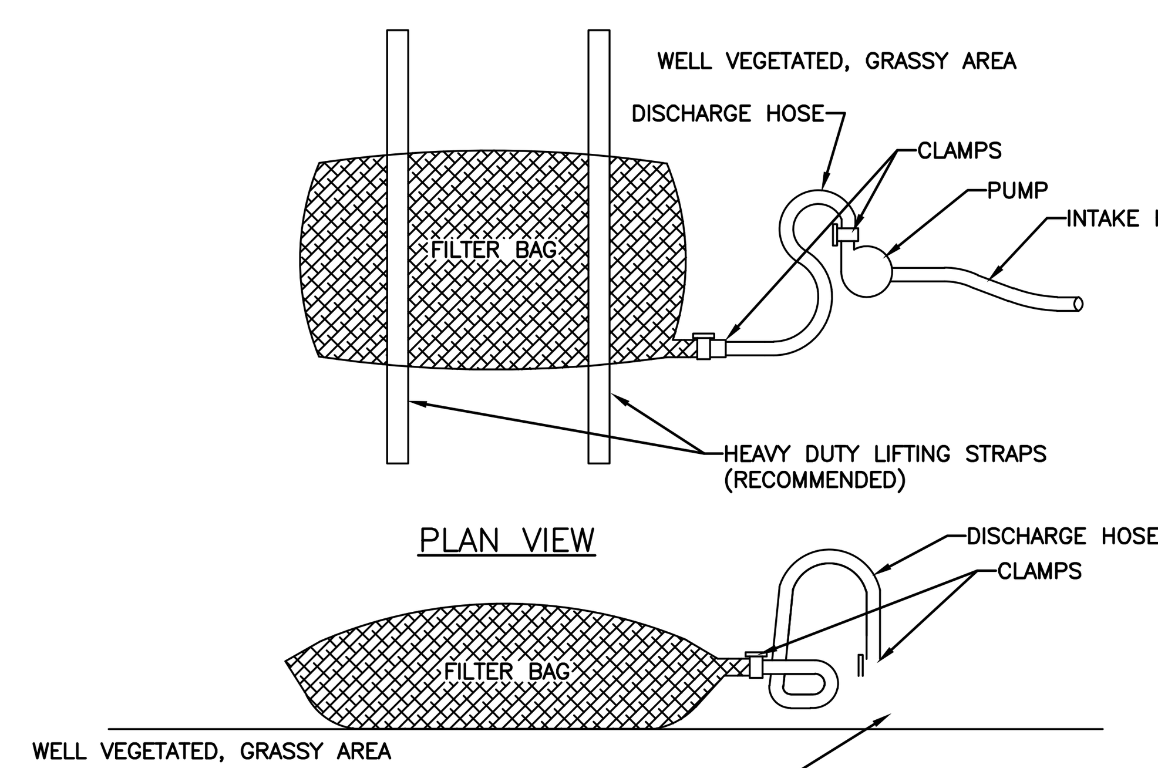
NOTES:

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

SOCK ID	SOCK SIZE
1	18"
2	18"
3	18"

DETAIL 903
PADEP STANDARD CONSTRUCTION DETAIL #4-1
COMPOST FILTER SOCK

NOT TO SCALE



NOTES:

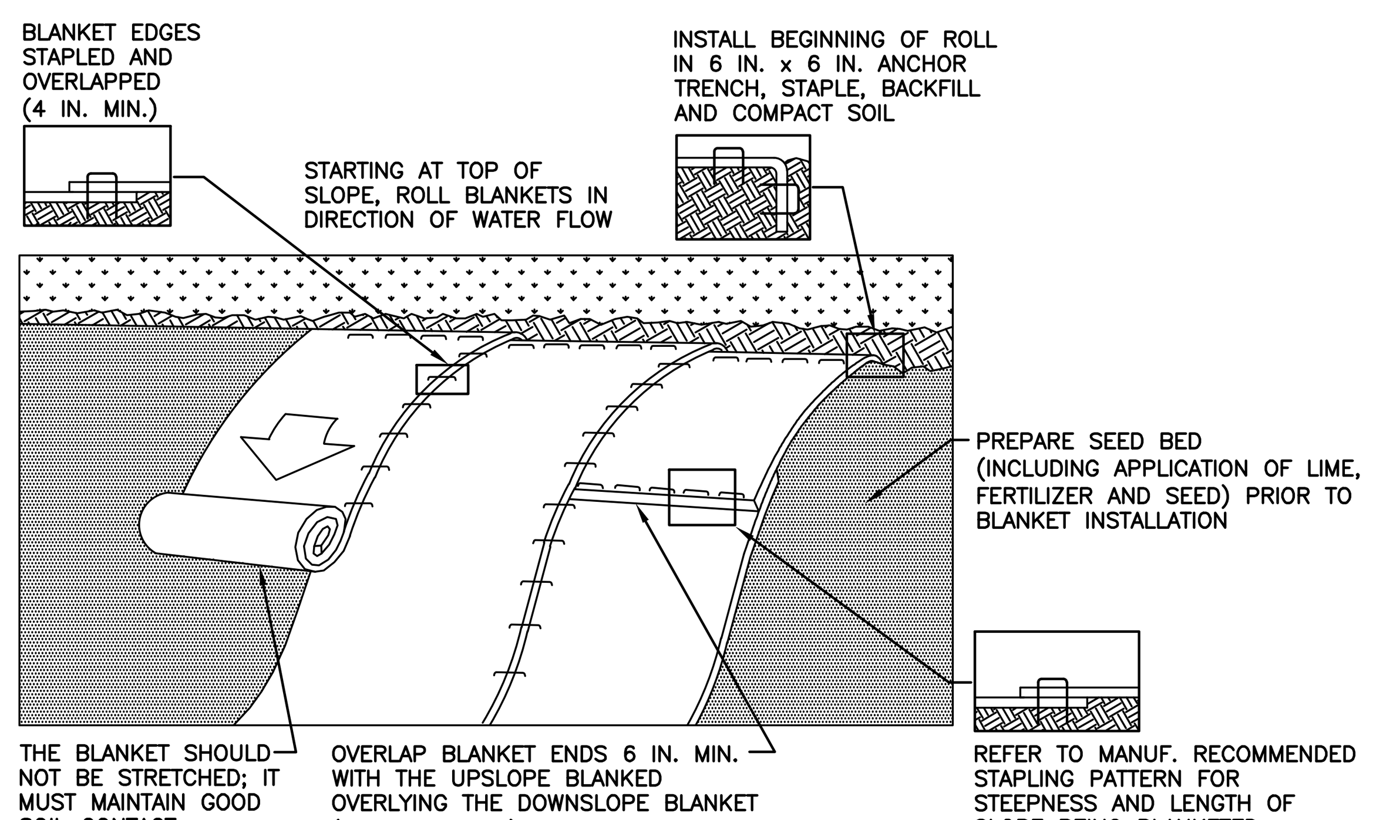
1. LOW VOLUME FILTER BAGS SHALL BE MADE FROM NON-WOVEN GEOTEXTILE MATERIAL SEWN WITH HIGH STRENGTH, DOUBLE STITCHED "J" TYPE SEAMS. THEY SHALL BE CAPABLE OF TRAPPING PARTICLES LARGER THAN 150 MICRONS. HIGH VOLUME FILTER BAGS SHALL BE MADE FROM WOVEN GEOTEXTILES THAT MEET THE FOLLOWING STANDARDS:

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 905
STANDARD CONSTRUCTION DETAIL #3-16
PUMPED WATER FILTER BAG

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.

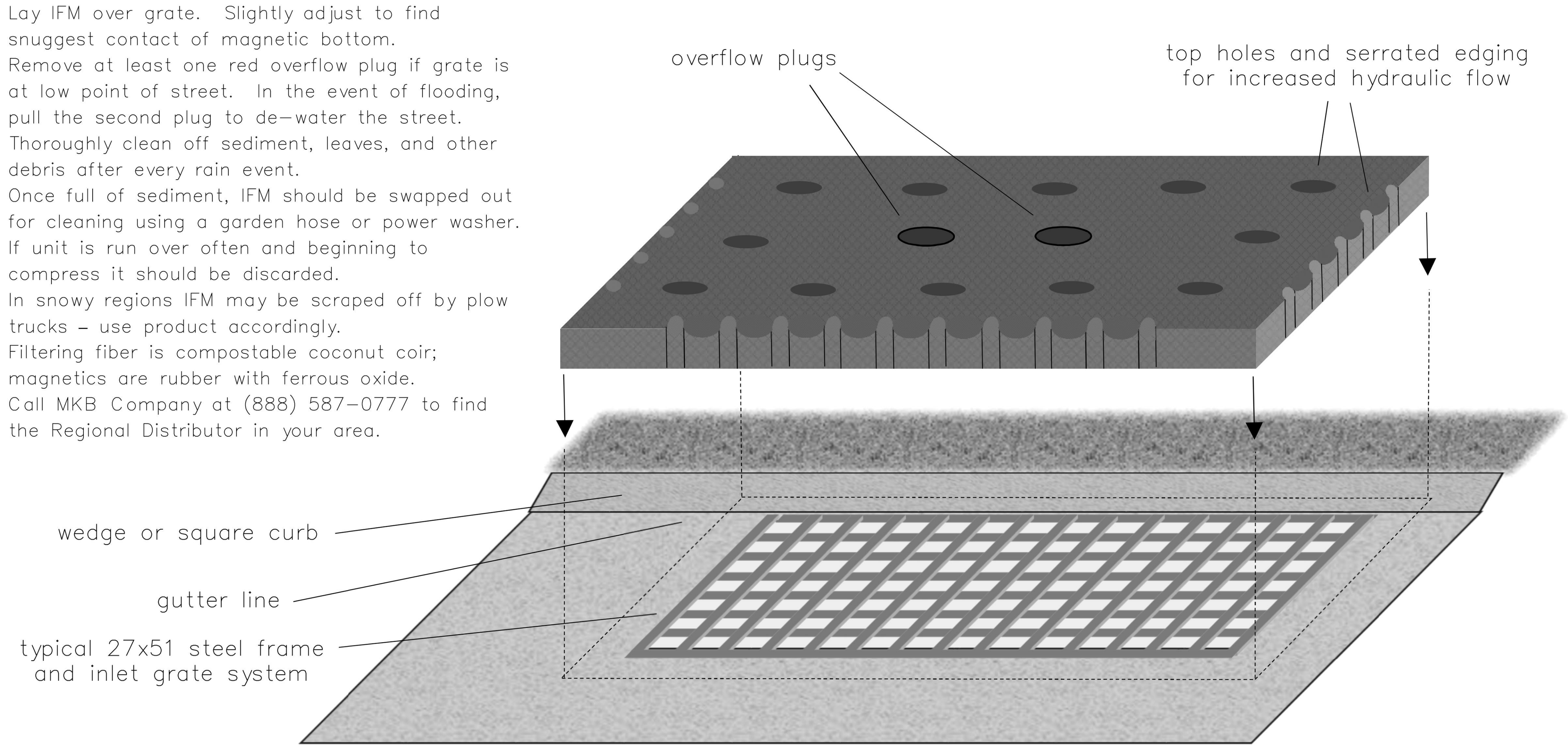
DETAIL 904
PADEP STANDARD CONSTRUCTION DETAIL #11-1
EROSION CONTROL BLANKET INSTALLATION

NOT TO SCALE

INSTRUCTIONS

1. Before covering, make sure grate and surrounding area are free of any debris or grit so magnetic bottom can fully contact grate.
2. Lay IFM over grate. Slightly adjust to find snuggest contact of magnetic bottom.
3. Remove at least one red overflow plug if grate is at low point of street. In the event of flooding, pull the second plug to de-water the street.
4. Thoroughly clean off sediment, leaves, and other debris after every rain event.
5. Once full of sediment, IFM should be swapped out for cleaning using a garden hose or power washer.
6. If unit is run over often and beginning to compress it should be discarded.
7. In snowy regions IFM may be scraped off by plow trucks - use product accordingly.
8. Filtering fiber is compostable coconut coir; magnetics are rubber with ferrous oxide.
9. Call MKB Company at (888) 587-0777 to find the Regional Distributor in your area.

DIAMOND SOCK INLET FILTER MAT
(TYPE-M 2x4 INLET)



DETAIL 906
INLET FILTER MAT

NOT TO SCALE

DRAFT

PRELIMINARY
NOT FOR CONSTRUCTION

REVISION RECORD		
NO	DATE	DESCRIPTION

SciTek Consultants, Inc.
1880 JOHN F. KENNEDY BLVD., SUITE 600
PHILADELPHIA, PA 19103
PHONE: (267) 341-5385 FAX: (267)519-0273
www.scitekanswers.com

CEC
Civil & Environmental Consultants, Inc.
333 Baldwin Road · Pittsburgh, PA 15205
Ph: 412.429.2324 · 800.365.2324 · Fax: 412.429.2114
www.cecinc.com

PITTSBURGH PENNSYLVANIA
PGH2O Pittsburgh Water & Sewer Authority

CITY OF PITTSBURGH
DEPARTMENT OF PUBLIC WORKS
PITTSBURGH WATER & SEWER AUTHORITY
PITTSBURGH, ALLEGHENY COUNTY, PA

DRAWN BY: LJK/KPK	CHECKED BY: KPK	APPROVED BY: KPK
DATE: OCTOBER 2019	DWG SCALE:	PROJECT NO: 18-840
EROSION AND SEDIMENT CONTROL PLAN		DRAWING NO.: C901

GENERAL EROSION CONTROL 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. THE CONTRACTOR SHALL CONTACT PENNSYLVANIA ONE CALL SYSTEM INC. AT (412) 242–1776 AND THE APPROPRIATE UTILITY COMPANIES AT LEAST THREE (3) DAYS PRIOR TO THE INITIATION OF EARTHMOVING AND DEMOLITION ACTIVITIES.

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

4. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE EROSION AND SEDIMENT POLLUTION CONTROL PROGRAM MANUAL PREPARED BY THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION (DEP), BUREAU OF SOIL AND WATER CONSERVATION, LATEST EDITION.

5. ADDITIONAL EROSION AND SEDIMENTATION CONTROL MEASURES MAY BE REQUIRED AS DEEMED NECESSARY BY THE ACCD, OWNER OR TOWNSHIP IN THE EVENT ANY UNFORESEEN PROBLEMS ARISE DURING CONSTRUCTION.

6. THE CONTRACTOR SHALL INSTALL SOIL EROSION AND SEDIMENTATION CONTROL MEASURES PRIOR TO ANY SOIL DISTURBANCE, OR IN THEIR PROPER SEQUENCE AND MAINTAIN THEM UNTIL PERMANENT STABILIZATION IS ESTABLISHED.

7. THE AGGREGATE BASE COURSE SHALL BE APPLIED IMMEDIATELY FOLLOWING ROUGH GRADING AND INSTALLATION OF IMPROVEMENTS IN ORDER TO STABILIZE PARKING AREAS.

8. THE CONTRACTOR SHALL VERIFY ALL EXISTING UTILITIES TO BE REMOVED, RELOCATED AND/OR RAZED ARE DISCONNECTED PRIOR TO INITIATING EARTHMOVING ACTIVITIES.

9. THE CONTRACTOR SHALL LANDSCAPE OR VEGETATE DISTURBED AREAS THAT WILL BE LEFT EXPOSED MORE THAN 4 DAYS, AND NOT SUBJECT TO CONSTRUCTION TRAFFIC. IF THE SEASON PREVENTS THE ESTABLISHMENT OF A TEMPORARY COVER, STRAW MULCH SHALL BE APPLIED AT A RATE OF THREE (3) TONS PER ACRE OVERTOP EXPOSED AREAS.

10. CLEARED AND GRUBBED MATERIAL SHALL BE DISPOSED OF AT AN APPROVED WASTE SITE. BURNING SHALL NOT BE PERMITTED.

11. AT THE TIME WHEN THE SITE PREPARATION FOR PERMANENT VEGETATIVE STABILIZATION IS GOING TO BE ACCOMPLISHED, ANY SOIL THAT WILL NOT PROVIDE A SUITABLE ENVIRONMENT TO SUPPORT ADEQUATE VEGETATIVE GROUND COVER SHALL BE REMOVED OR TREATED BY THE CONTRACTOR TO MAKE IT SUITABLE TO SUPPORT VEGETATIVE GROUND COVER.

12. THE CONTRACTOR SHALL VEGETATE ALL EXPOSED AREAS THAT WILL NOT BE LANDSCAPED WITHIN FOUR (4) DAYS AFTER FINAL GRADING.

13. THE CONTRACTOR SHALL CONTROL DUST WITH WATER OR OTHER METHODS APPROVED BY THE LOCAL SOIL CONSERVATION DISTRICT AND THE OWNER.

14. THE CONTRACTOR SHALL INSTALL COMPOST FILTER SOCKS ALONG THE PERIMETER OF ALL SOIL STOCKPILES.

15. THE CONTRACTOR SHALL INSTALL EROSION CONTROL BLANKETS OVERTOP OF 3:1 (HORIZONTAL: VERTICAL) OR STEEPER SLOPES. EROSION CONTROL BLANKETS SHALL BE NORTH AMERICAN GREEN S150BN OR APPROVED EQUAL.

16. THE CONTRACTOR SHALL SUBMIT A PREPAREDNESS, PREVENTION AND CONTINGENCY (PPC) PLAN TO THE OWNER PRIOR TO CONSTRUCTION IF CHEMICALS, SOLVENTS OR OTHER HAZARDOUS WASTES OR MATERIALS WITH THE POTENTIAL TO CAUSE ACCIDENTAL POLLUTION DURING EARTHMOVING OR OTHER CONSTRUCTION ACTIVITIES ARE STORED OR USED ON SITE. THE PPC PLAN SHALL BE PREPARED IN ACCORDANCE WITH "GUIDELINES FOR THE DEVELOPMENT AND IMPLEMENTATION OF PREPAREDNESS, PREVENTION AND CONTINGENCY (PPC) PLANS", PREPARED BY PADEP BUREAU OF SOLID WASTE MANAGEMENT AND PADEP BUREAU OF WATER QUALITY MANAGEMENT.

17. THE CONTRACTOR SHALL CONSTRUCT A BERM AROUND AREAS WHERE HYDRAULIC FLUID AND DIESEL FUEL WILL BE STORED DURING CONSTRUCTION TO SERVE AS A CONTAINMENT AREA FOR THE CONTROL OF POSSIBLE SPILLS. ANY SPILL WITHIN THE CONTAINMENT AREA SHALL BE IMMEDIATELY CLEANED. TELEPHONE NUMBERS OF EMERGENCY RESPONSE TEAMS ARE TO BE KEPT ON SITE, AND THEY ARE TO BE NOTIFIED IN THE CASE OF A SPILL.

18. THE CONTRACTOR SHALL REFER TO OTHER PLANS WITHIN THIS CONSTRUCTION SET FOR OTHER PERTINENT INFORMATION.

19. THE CONTRACTOR SHALL PROVIDE THE LOCATION AND ANY APPLICABLE PERMIT NUMBERS OF ALL THE OFF SITE DISPOSAL AND BORROW SITES THAT WILL BE UTILIZED DURING CONSTRUCTION TO THE ACCD PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL ALSO IDENTIFY THE EROSION AND SEDIMENTATION CONTROL MEASURES, WHICH WILL BE IMPLEMENTED AT THE DISPOSAL AND/OR BORROW SITES. IF THE DISPOSAL AND/OR BORROW SITES ARE UNPERMITTED, AN EROSION AND SEDIMENTATION PLAN MUST BE APPROVED BY THE ACCD PRIOR TO THEIR USE.

20. RUNOFF DRAINS INTO DOWNSTREAM TO JUNCTION HOLLOW.

21. UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENTATION BMPS MUST BE MAINTAINED PROPERLY. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENTATION BMPS AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. ALL SITE INSPECTIONS WILL BE DOCUMENTED IN AN INSPECTION LOG KEPT FOR THIS PURPOSE. THE COMPLIANCE ACTIONS AND THE DATE, TIME AND NAME OF THE PERSON CONDUCTING THE INSPECTION. THE INSPECTION LOG WILL BE KEPT ONSITE AT ALL TIMES AND MADE AVAILABLE TO THE ACCD UPON REQUEST.

22. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, REMULCHING AND RENETTING, MUST BE PERFORMED IMMEDIATELY. IF EROSION AND SEDIMENTATION BMPS FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMPS OR MODIFICATIONS OF THOSE INSTALLED WILL BE NEEDED.

23. WHERE BMPS ARE FOUND TO FAIL TO ALLEVIATE EROSION OR SEDIMENT POLLUTION, THE PERMITTEE OR CO–PERMITTEE SHALL INCLUDE THE FOLLOWING INFORMATION:
    A. THE LOCATION AND SEVERITY OF THE BMP'S FAILURE AND ANY POLLUTION EVENTS.
    B. ALL STEPS TAKEN TO REDUCE, ELIMINATE AND PREVENT THE RECURRENCE OF THE NON–COMPLIANCE.
    C. THE TIME FRAME TO CORRECT THE NON–COMPLIANCE, INCLUDING THE EXACT DATES WHEN THE ACTIVITY WILL RETURN TO COMPLIANCE.

24. AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENT BMPS MUST BE REMOVED. AREAS DISTURBED DURING REMOVAL OF THE BMPS MUST BE STABILIZED IMMEDIATELY.

25. THE CONTRACTOR IS ADVISED TO BECOME THOROUGHLY FAMILIAR WITH THE PROVISIONS OF THE APPENDIX 64, EROSION CONTROL NOTES RULES AND REGULATIONS, TITLE 25, PART 1, DEPARTMENT OF ENVIRONMENTAL PROTECTION, SUBPART C, PROTECTION OF NATURAL RESOURCES, ARTICLE III, WATER RESOURCES, CHAPTER 102, EROSION CONTROL.

26. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN MUST BE AVAILABLE AT THE PROJECT SITE AT ALL TIMES. THE OPERATOR SHALL ASSURE THAT AN EROSION AND SEDIMENT CONTROL PLAN HAS BEEN PREPARED, APPROVED BY THE ACCD, AND IS BEING IMPLEMENTED AND MAINTAINED FOR ALL SOIL AND/OR ROCK SPOIL AND BORROW AREAS, REGARDLESS OF LOCATION.

27. AN AREA SHALL BE CONSIDERED TO HAVE ACHIEVED FINAL STABILIZATION WHEN IT HAS A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER OR OTHER PERMANENT NON–VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED SURFACE EROSION AND SUBSURFACE CHARACTERISTICS SUFFICIENT TO RESIST SLIDING AND OTHER MOVEMENTS. IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITIES CEASE, THE OPERATOR SHALL STABILIZE ANY AREAS DISTURBED BY THE ACTIVITIES. DURING NON–GERMINATING PERIODS, MULCH MUST BE APPLIED AT THE SPECIFIED RATES. DISTURBED AREAS WHICH ARE NOT AT FINISHED GRADE AND WHICH WILL BE REDISTURBED WITHIN 1 YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY VEGETATIVE STABILIZATION SPECIFICATIONS. DISTURBED AREAS WHICH ARE AT FINISHED GRADE OR WHICH WILL NOT BE REDISTRIBUTED WITHIN 1 YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE PERMANENT VEGETATIVE STABILIZATION SPECIFICATIONS.

28. THE RESPONSIBILITY FOR PERFORMING ENVIRONMENTAL DUE DILIGENCE AND THE DETERMINATION OF CLEAN FILL RESIDES WITH THE OPERATOR.

29. PROCEDURES WHICH ENSURE THAT THE PROPER MEASURES FOR THE RECYCLING OR DISPOSAL OF MATERIALS ASSOCIATED WITH OR FROM THE PROJECT SITE WILL BE UNDERTAKEN IN ACCORDANCE WITH THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTIONS, TITLE 25, CHAPTER 102.4 #5 SECTION XI.

30. A LICENSED PROFESSIONAL OR THEIR DESIGNEE SHALL BE PRESENT ON THE PROJECT SITE DURING THE CONSTRUCTION OF ALL BMP's.

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

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

ANY PERSON PLACING CLEAN FILL THAT HAS BEEN AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE MUST USE FORM FP–001 TO CERTIFY THE ORIGIN OF THE FILL MATERIAL AND THE RESULTS OF THE ANALYTICAL TESTING TO QUALIFY THE MATERIAL AS CLEAN FILL. FORM FP–001 MUST BE RETAINED BY THE OWNER OF THE PROPERTY RECEIVING THE FILL. A COPY OF FORM FP–001 CAN BE FOUND AT THE END OF THESE INSTRUCTIONS.

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, ENVIRONMENTAL QUESTIONNAIRES, TRANSACTION SCREENS, ANALYTICAL TESTING, ENVIRONMENTAL ASSESSMENTS OR AUDITS. ANALYTICAL TESTING IS NOT A REQUIRED PART OF DUE DILIGENCE UNLESS VISUAL INSPECTION AND/OR REVIEW OF THE PAST LAND USE OF THE PROPERTY INDICATES THAT THE FILL MAY HAVE BEEN SUBJECTED TO A SPILL OR RELEASE OF REGULATED SUBSTANCE. IF THE FILL MAY HAVE BEEN AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE, IT MUST BE TESTED TO DETERMINE IF IT QUALIFIES AS CLEAN FILL. TESTING SHOULD BE PERFORMED IN ACCORDANCE WITH APPENDIX A OF THE DEPARTMENT'S POLICY "MANAGEMENT OF FILL".

FILL MATERIAL THAT DOES NOT QUALIFY AS CLEAN FILL IS REGULATED FILL. REGULATED FILL IS WASTE AND MUST BE MANAGED IN ACCORDANCE WITH THE DEPARTMENT'S MUNICIPAL OR RESIDUAL WASTE REGULATIONS BASED ON 25 PA. CODE CHAPTERS 287 RESIDUAL WASTE MANAGEMENT OR 271 MUNICIPAL WASTE MANAGEMENT, WHICHEVER IS APPLICABLE.

TEMPORARY CONTROL MEASURES

THE E&S CONTROL FACILITIES PROPOSED FOR THE PROPOSED PANTHER HOLLOW LAKE PROJECT ARE SHOWN ON THE E&S CONTROL PLAN. CONTROL MEASURES SHOWN ON THIS PLAN ARE MINIMUM CONTROLS 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.

1. ROCK CONSTRUCTION ENTRANCE

ROCK CONSTRUCTION ENTRANCES WILL BE PROVIDED AT THE LOCATIONS SHOWN ON THE PLANS AND IN ACCORDANCE WITH THE STANDARD DETAIL.

INSTALLATION: TO CONSTRUCT THE PAD, PLACE A LAYER OF GEOTEXTILE AND AN INITIAL 2 TO 3 INCHES OF STONE ACROSS THE FULL WIDTH OF THE VEHICLE INGRESS AND EGRESS AREA. THE STONE PAD SHOULD BE AT LEAST 50 FEET IN LENGTH, 20 FEET IN WIDTH, AND 8 INCHES THICK. COMPLETE THE PLACEMENT OF STONE TO THE REQUIRED THICKNESS.

2. SILT SOCK

SILT SOCK SHALL BE INSTALLED IN THE LOCATIONS SHOWN ON THE PLANS AND IN ACCORDANCE WITH THE STANDARD DETAIL PROVIDED. VARIOUS FILTER SOCK SIZES SHALL BE INSTALLED, AS INDICATED, AT THE LOCATIONS SHOWN ON THE PLANS AND IN ACCORDANCE WITH THE STANDARD DETAILS PROVIDED.

INSTALLATION:
1. SILT 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 SILT SOCK ON 10 FT. CENTERS, USING 2–INCH BY 2–INCH BY 3–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 SILT SOCK, FILLING THE SEAM BETWEEN THE SOIL SURFACE AND THE DEVICE, IMPROVING FILTRATION AND SEDIMENT RETENTION.

MAINTENANCE:
1. SILT SOCKS SHOULD BE REGULARLY INSPECTED TO MAKE SURE THEY HOLD THEIR SHAPE AND ARE PRODUCING ADEQUATE FLOW THROUGH.
2. IF PONDING BECOMES EXCESSIVE, AND SEDIMENT REACHES THE TOP OF THE FILTER SOCK, ADDITIONAL FILTER SOCKS SHOULD BE ADDED IN THE AREAS WITHOUT DISTURBANCE OF SOIL OR COLLECTED SEDIMENT.

WHEN CONSTRUCTION IS COMPLETED ON SITE, THE SILT 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.

3. TEMPORARY VEGETATIVE STABILIZATION

IINSTALLATION: 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.

WHERE SLOPES PERMIT, PROMPTLY DISK ALL AMENDMENTS UNDER A 3– TO 6–INCH DEPTH. WHERE SLOPES DO NOT PERMIT TILLAGE, TRACK SLOPE WITH A DOZER AS DESCRIBED UNDER SEEDBED PREPARATION. ON EXTREMELY STEEP SLOPES, AMENDMENTS MAY BE APPLIED WITH THE SEED AND MULCH USING A HYDROSEEDER AS LONG AS SEED AND INOCULANT IS NOT IN A SLURRY WITH FERTILIZERS FOR MORE THAN ONE HOUR.

PREPARE SEEDBED BY CULTIPACKING OR TRACKING WITH A DOZER USING EQUIPMENT (SUCH AS A LIGHT TRACTOR) AND TECHNIQUES THAT MINIMIZE RUTTING OF THE SURFACE. IF TRACKING IS DONE, RUN DOZER SO TRACK MARKS ARE PARALLEL TO SITE CONTOURS. IF A BRILLION SEEDER IS USED, THIS STEP MAY BE SKIPPED.

JUST BEFORE SEEDING, INOCULATE BIRDSFOOT TREFOIL SEED (WHERE APPLICABLE) WITH LEGUME INOCULANT APPROPRIATE FOR BIRDSFOOT TREFOIL USING AT LEAST FIVE TIMES THE MANUFACTURER'S MINIMUM INOCULANT APPLICATION RATES, THEN EVENLY APPLY THE APPROPRIATE SEED MIXTURE.

LIGHTLY CULTIPACK TO PRESS SEED INTO SEEDBED USING EQUIPMENT (SUCH AS A LIGHT TRACTOR) AND TECHNIQUE THAT MINIMIZES RUTTING OF THE SURFACE. IF A BRILLION SEEDER IS USED, THIS STEP MAY BE CONSIDERED COMPLETE. IF SLOPES ARE TOO STEEP TO PERMIT SEED PREPARATION AND PLACEMENT, USE HYDROSEEDING TECHNIQUES.

PROMPTLY AND EVENLY APPLY STRAW (NOT HAY) MULCH AT A RATE OF 3 TONS PER ACRE USING A BALE–BUSTER OR USING WOOD CELLULOSE FIBER (NOT PAPER PULP) HYDROMULCH AT A RATE OF 3,000 POUNDS PER ACRE. PROMPTLY TACK STRAW INTO PLACE USING ONE OF THE FOLLOWING METHODS: 1) APPLY "HYDRORAM" (LINEAR POLYACRILAMIDE POLYMER) DISTRIBUTED BY POLYMERS, INC. (WWW.WATERSORB.COM OR 501–623–9995) WITH WATER OVER STRAW AT A RATE OF 8 POUNDS PER ACRE; 2) APPLY 800 TO 1,000 POUNDS PER ACRE APPLICATION OF WOOD CELLULOSE FIBER MULCH WITH A HYDROSEEDER OVER THE STRAW; OR 3) USE A CRIMPER DISK (A SPECIALLY DESIGNED HEAVY DISK WITH NO OFFSET TO THE DIRECTION OF TRAVEL). MAKE MULTIPLE PASSES WITH THE CRIMPER AS NECESSARY TO SECURE THE STRAW.

4. INLET PROTECTION

INLET PROTECTION FILTERS CONSISTING OF INLET FILTER BAGS OR STONE AND GRAVEL WILL BE PROVIDED AT ALL STORM SEWER INLETS AS THEY ARE INSTALLED TO FILTER SEDIMENT–LADEN WATER PRIOR TO ENTERING THE STORM SEWER SYSTEM.

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

5. 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 AND EXCESS CUT MATERIAL FROM THE SITE SHALL BE STOCKPILED THERE. THE STOCKPILE WILL BE SURROUNDED WITH A MINIMUM 18" SILT SOCK TO PREVENT SEDIMENT–LADEN RUNOFF.

6. 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.

INSTALLATION: INSTALL IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

7. CONSTRUCTION WASTE RECYCLING/DISPOSAL

CONSTRUCTION WASTES ARE REFUSE MATERIALS GENERATED DURING THE COURSE OF CONSTRUCTION AND 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. 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.

TEMPORARY CONTROL MEASURES

10. SILT FILTER BAG

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 SPM, 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.
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.

11. 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.

12. 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.

13. OUTLET PROTECTION

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

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

STANDARD E&S WORKSHEET # 21
Temporary and Permanent Vegetative Stabilization Specifications

PROJECT NAME: Four Mile Run - Panther Hollow Lake
LOCATION: City of Pittsburgh, Allegheny County, PA
PREPARED BY: LJK DATE: 10/17/2019
CHECKED BY: KPK DATE: 10/17/2019

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

(TEMPORARY)

*SPECIES:	ANNUAL RYE (PENNDOT FORMULA)	
% PURE LIVE SEED:	98%	%
APPLICATION RATE:	100	LB./ACRE
FERTILIZER TYPE:	10-20-20	(X-X-X)
FERTILIZER APPL. RATE:	680	LB./ACRE
LIMING RATE:	6.0	T./ACRE
MULCH TYPE:	STRAW	
MULCHING RATE:	3.0	T./ACRE

(PERMANENT)

TOPSOIL PLACEMENT DEPTH:	8"	IN.
*SPECIES:	20% PERENIAL RYE, 50% KENTUCKY BLUE, 30% CREEPING RED FESQUE	
% PURE LIVE SEED:	98%	%
APPLICATION RATE	200	LB./ACRE
FERTILIZER TYPE:	10-20-20	(X-X-X)
FERTILIZER APPL. RATE:	680	LB./ACRE
LIMING RATE:	6.0	T./ACRE
MULCH TYPE:	STRAW	
MULCHING RATE:	3.0	T./ACRE
ANCHOR MATERIAL:	N/A	
ANCHORING METHOD:	N/A	
RATE OF ANCHOR MATERIAL APPL.:	N/A	LB./ACRE
SEEDING SEASON DATES:	MARCH 15 - JUNE 1 / AUG 1 - OCT 15	

(PERMANENT - STEEP SLOPE)

TOPSOIL PLACEMENT DEPTH:	6"	IN.
*SPECIES:	30% ANNUAL RYE, 30% KENTUCKY 31 TALL FESQUE, 15% WHITE CLOVER, 15% CLIMAX TIMOTHY, 10% REDTOP	
% PURE LIVE SEED:	98%	%
APPLICATION RATE:	200	LB./ACRE
FERTILIZER TYPE:	10-20-20	(X-X-X)
FERTILIZER APPL. RATE:	680	LB./ACRE
LIMING RATE:	6.0	T./ACRE
MULCH TYPE:	STRAW	
MULCHING RATE:	3.0	T./ACRE
ANCHOR MATERIAL:	NORTH AMERICAN GREEN S150 STRAW BLANKET	
ANCHORING METHOD:	PER MANUFACTURERS SPECIFICATIONS	
RATE OF ANCHOR MATERIAL APPL.:	PER MANUFACTURERS SPECIFICATIONS	LB./ACRE
SEEDING SEASON DATES:	MARCH 15 - JUNE 1 / AUG 1 - OCT 15	

*If more than one species is used, indicate application rate for each species.
Note: This worksheet should be added to the plan drawings.

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DRAFT

PRELIMINARY
NOT FOR CONSTRUCTION

REVISION RECORD

NO	DATE	DESCRIPTION

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1880 JOHN F. KENNEDY BLVD., SUITE 600
PHILADELPHIA, PA 19103
PHONE: (267) 341-5385 FAX: (267)519-0273
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Civil & Environmental Consultants, Inc.
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www.cecinc.com

PITTSBURGH PENNSYLVANIA
PGH2O Pittsburgh Water & Sewer Authority

CITY OF PITTSBURGH
DEPARTMENT OF PUBLIC WORKS
PITTSBURGH WATER & SEWER AUTHORITY
PITTSBURGH, ALLEGHENY COUNTY, PA

DRAWN BY: LJK/KPK CHECKED BY: KPK APPROVED BY: KPK
DATE: OCTOBER 2019 DWG SCALE: PROJECT NO: 18-840

EROSION AND SEDIMENT CONTROL PLAN

DRAWING NO.: C902

TEMPORARY/PERMANENT VEGETATIVE STABILIZATION

INSTALLATION: FERTILIZING, SEEDING, AND MULCHING WILL BE USED AS A TEMPORARY/PERMANENT E&S CONTROL MEASURE ON ALL NON-PAVED DISTURBED AREAS. EXPOSED SOILS, NOT SUBJECT TO CONSTRUCTION TRAFFIC, SHALL NOT REMAIN UNSEEDED OR UNCOVERED BY MULCH FOR MORE THAN 4 DAYS, INCLUDING STOCKPILED SOIL MATERIALS. WITH REGARD TO THE TEMPORARY/PERMANENT SEED MIXES, REFER TO THE SEEDING MIXTURE TABLES PROVIDED. 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 FOLLOWED BY PERMANENT SEEDING, SUCH AS TOPSOIL STOCKPILES OR INTERIM GRADING PATTERNS, DO NOT REQUIRE THE APPLICATION OF SLOW RELEASE FERTILIZER OR "BIOPAK" INOCULANT.

5. SEEDBED PREPARATION: JUST BEFORE SEEDING, PREPARE SEEDBED BY TRACKING, RAKING, OR OTHER APPROPRIATE METHOD AS NECESSARY TO BREAK UP SOIL CRUSTS. IF TRACKING THE SITE WITH A DOZER, TRACK IN A MANNER THAT LEAVES CLEAT MARKS PARALLEL TO SITE CONTOURS.

6. SEEDING: EVENLY APPLY THE TEMPORARY/PERMANENT SEED MIXTURES USING HYDROSEEDING, BROADCAST, OR DRILL SEEDING METHODS THAT PLANT SEED LESS THAN ¼-INCH BELOW THE GROUND SURFACE: APPLY LEGUME SEED INOCULANTS SPECIFICALLY MADE FOR THE LEGUME SEED TYPE BEING APPLIED AT FIVE TIMES THE MANUFACTURER'S RECOMMENDED RATE. USE NO SEED OR INOCULANT THAT HAS BEEN IMPROPERLY STORED, EXPIRED, OR SEED OLDER THAN 9 MONTHS FROM THE SEED TEST DATE. IF HYDROSEEDING METHODS ARE USED SEED, INOCULANTS, FERTILIZERS, AND POLYMER TACKIFIER/SOIL STABILIZER (BELOW) MAY BE APPLIED IN ONE APPLICATION, PROVIDED THAT SEED AND INOCULANTS ARE NOT HELD IN A SLURRY WITH FERTILIZERS FOR MORE THAN ONE HOUR.

7. MULCHING AND TACKING: PROMPTLY AFTER SEEDING, MULCH USING EITHER: 1) "CURLEX" OR EQUIVALENT BRAND OF WOOD EXCELSIOR EROSION CONTROL BLANKET; 2) SYNTHETIC INDUSTRIES "TRM 450" OR NORTH AMERICAN GREEN "P-300" TURF REINFORCEMENT MAT; 3) STRAW APPLIED AT A RATE OF 6000 POUNDS PER ACRE, OR 4) WOOD/CELLULOSE FIBER HYDROMULCH APPLIED WITH A HYDROSEEDER AT A RATE OF 3000 POUNDS PER ACRE. WOOD/CELLULOSE FIBER HYDROMULCH MUST CONTAIN AT LEAST 50% VIRGIN WOOD FIBER. IF AT LEAST 1000 POUNDS PER ACRE APPROVED PASTEURIZED PPM IS BEING APPLIED WITH A HYDROSEEDER, WOOD/CELLULOSE FIBER HYDROMULCH RATES MAY BE REDUCED TO 2500 POUNDS PER ACRE.

   IN SOME LOCATIONS SHOWN ON THE DRAWINGS, SUCH AS SLOPES STEEPER THAN 3:1 (H:V), EROSION CONTROL BLANKET OR TURF REINFORCEMENT MAT (TRM) MAY BE THE ONLY PERMISSIBLE MULCHING OPTION. INSTALL EROSION CONTROL BLANKETS/TRM PER MANUFACTURER'S INSTRUCTIONS. STAPLE BLANKET/TRM IN PLACE USING 6-INCH (MINIMUM) SOD STAPLES IN ROWS AT THE EDGES AND CENTERLINE OF THE BLANKET AND ON 24-INCH OR CLOSER CENTERS.

   TACK STRAW IN PLACE USING EITHER: 1) A CRIMPER DISK, 2) WOOD/CELLULOSE FIBER HYDROMULCH APPLIED OVER THE STRAW AT A RATE OF 800-1000 POUNDS PER ACRE, OR, 3) WATER SOLUBLE LINEAR POLYACRYLATE (SODIUM ACRYLATE/ACRYLAMIDE) COPOLYMER "POLYMER" AT A RATE OF AT LEAST 8 POUNDS PER ACRE APPLIED IN MIXTURE WITH WATER OVER THE STRAW. APPROVED POLYMER BRANDS INCLUDE "WATERSORBTM PAM" OR "HYDROPAMTM", DISTRIBUTED BY POLYMERS, INC. (WWW.WATERSORB.COM OR 501-623-9995), "TERRAPAMTM", DISTRIBUTED BY PLANT HEALTH CARE, INC. (WWW.PLANTHEALTHCARE.COM OR 800-421-9051), AND "HYDROGEL BTM", DISTRIBUTED BY FINN CORPORATION (WWW.FINNCORP.COM OR 800-543-7166).

   TACK WOOD/CELLULOSE FIBER HYDROMULCH IN PLACE USING "POLYMER" SPECIFIED ABOVE AT A RATE OF AT LEAST 4 POUNDS PER ACRE APPLIED IN A SLURRY WITH THE HYDROMULCH.

8. OVER-SEEDING AND RE-SEEDING: WHEN THE SITE DEVELOPMENT STAGING OR SEASON WILL NOT PERMIT TIMELY SOWING OF THE PERMANENT SEED MIXTURE(S), PREPARE SOILS (FERTILIZERS AND LIME) AS FOR PERMANENT SEEDING, THEN SEED WITH TEMPORARY SEED MIXTURE AND MULCH, THEN OVERSOW THE PERENNIAL SEED MIXTURE INTO THE STUBBLE OF TEMPORARY VEGETATION AT THE NEXT APPROPRIATE SEEDING SEASON.

   IF PERENNIAL SEED IS BEING SOWN INTO THE STUBBLE OF ACTIVELY GROWING TEMPORARY VEGETATION, MOW THE TEMPORARY VEGETATION TO REDUCE COMPETITION EITHER BEFORE OR IMMEDIATELY AFTER SOWING THE PERMANENT SEED.

   MAINTENANCE: WATER AS NECESSARY TO ESTABLISH AND MAINTAIN VEGETATION. IN MOWED AREAS, MOW TO MAINTAIN GRASS HEIGHT BETWEEN 4 AND 6 INCHES TALL FOR FIRST TWO MONTHS OF GROWTH DURING THE ESTABLISHMENT YEAR, AND TO THE DESIRED HEIGHT THEREAFTER. IF STRING TRIMMERS ARE USED, TAKE MEASURES TO AVOID DAMAGE TO BARK OF TREES AND SHRUBS.

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
SOCK DIAMETERS	12" 18"	12" 18" 24" 32"	12" 18" 24" 32"	12" 18" 24" 32"	12" 18" 24" 32"
MESH OPENING	3/8"	3/8"	3/8"	3/8"	1/8"
TENSILE STENGTH		26 PSI	26 PSI	44 PSI	202 PSI
ULTRAVIOLET STABILITY % ORIGINAL STRENGTH (ASTM G-155)	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					

MAINTENANCE PROGRAM

ALL E&S CONTROLS SHALL BE MAINTAINED IN GOOD WORKING ORDER (CLEANED, REPAIRED, ETC.) UNTIL ALL DISTURBED TRIBUTARY AREAS ARE STABILIZED. ALL TEMPORARY E&S CONTROLS WILL REMAIN IN PLACE UNTIL A UNIFORM 70% PERENNIAL VEGETATIVE COVER IS ESTABLISHED. ONCE CONSTRUCTION IS COMPLETE, THE OWNER SHALL BE RESPONSIBLE FOR MAINTENANCE OF ALL PERMANENT FACILITIES.

1. ALL TEMPORARY RUNOFF E&S CONTROLS SHALL BE INSPECTED AT LEAST AT THE BEGINNING AND END OF EACH DAY AND AFTER EACH RUNOFF EVENT TO MAINTAIN THEIR EFFECTIVENESS. ANY DAMAGED CONTROLS SHALL BE REPAIRED OR REPLACED BY THE END OF THE WORKING DAY.

2. ROCK CONSTRUCTION ENTRANCE: ADDITIONAL STONE SHALL BE ADDED TO THE ROCK CONSTRUCTION ENTRANCE AND/OR ACCESS ROADS AS NEEDED TO MAINTAIN THEIR THICKNESS.

3. SILT SOCK: ACCUMULATED SEDIMENTS SHALL BE REMOVED, AS REQUIRED, IN ALL CASES WHERE ACCUMULATIONS HAVE REACHED HALF THE ABOVE-GROUND HEIGHT OF THE SOCK. IF THE SOCK HAS BEEN DAMAGED, IT SHALL BE REPAIRED, OR REPLACED IF BEYOND REPAIR. THE FILTER MEDIA WILL BE DISPERSED ON SITE ONCE THE DISTURBED AREA HAS BEEN PERMANENTLY STABILIZED. ADHERE TO ALL MANUFACTURERS' RECOMMENDATIONS.

4. INLET PROTECTION FILTER BAGS: ALL INLET PROTECTION FILTER BAGS SHALL BE CLEANED AND/OR REPLACED WHEN THE BAG IS HALF FULL IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. ALL DAMAGED FILTER BAGS SHALL BE REPLACED. THE ACCUMULATED SEDIMENT SHALL BE DISTRIBUTED EVENLY AMONG THE SITE AND STABILIZED.

5. SEDIMENT BASIN/TRAP: INSPECT THE SEDIMENT BASINS ON AT LEAST A WEEKLY BASIS AND AFTER EACH RUNOFF EVENT. REPAIR CLOGGED OR DAMAGED SPILLWAYS IMMEDIATELY. THE ACCUMULATED SEDIMENT MUST BE REMOVED WHEN THE SEDIMENT STORAGE (SD) ELEVATION WITHIN THE TRAP/BASIN IS ACHIEVED. DISTRIBUTE THE ACCUMULATED SEDIMENT EVENLY ACROSS THE SITE AND STABILIZE.

6. ALL SLOPES SHALL BE CHECKED FOR SIGNS OF EROSION AND/OR SEDIMENTATION.

7. ALL DISCHARGE LOCATIONS SHALL BE INSPECTED TO ASCERTAIN THE EFFECTIVENESS OF THE CONTROLS. ADDITIONAL CONTROL MEASURES SHALL BE IMPLEMENTED AS NEEDED.

8. DURING CONSTRUCTION, SEDIMENT REMOVED FROM THE EROSION CONTROL DEVICES SHALL BE DISPOSED OF BY SPREADING IT ONSITE. ONCE A UNIFORM 70% PERENNIAL VEGETATIVE COVER IS ESTABLISHED AND THE TEMPORARY E&S CONTROLS ARE REMOVED, ALL ACCUMULATED SEDIMENT WILL BE DISPOSED OF AT A PADEP APPROVED FACILITY.

9. ALL SITE ENTRANCE AND EXIT POINTS SHALL BE INSPECTED FOR EVIDENCE OF OFF-SITE TRACKING OF MUD. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CLEAN STREETS OF MUD AND KEEP THE STREETS IN A CLEAN AND DUST-FREE CONDITION.

10. SEEDED AND VEGETATED AREAS SHALL BE CHECKED REGULARLY TO INSURE THAT A GOOD STAND IS MAINTAINED. AREAS SHALL BE FERTILIZED AND RESEEDED AS NECESSARY.

11. THE CONTRACTOR IS RESPONSIBLE FOR ALL MAINTENANCE AND INSPECTIONS, AND SHALL MAINTAIN RECORDS OF ALL INSPECTIONS. INSPECTIONS SHOULD BE LOGGED ON PADEP FORM 3150-FM-BWEW0083, DATED 2/2012 OR AS UPDATED, AND KEPT ONSITE AT ALL TIMES.

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

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

SEQUENCE OF CONSTRUCTION

THE RENOVATION AND RE-CONSTRUCTION OF THE EXISTING PANTHER HOLLOW POND WILL CONSIST 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. EACH 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.

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, AND A REPRESENTATIVE FROM THE ALLEGHENY COUNTY CONSERVATION DISTRICT TO AN ON-SITE PRECONSTRUCTION MEETING.

2. UPON INSTALLATION OR STABILIZATION OF ALL PERIMETER SEDIMENT BMPS AND AT LEAST 3 DAYS PRIOR TO PROCEEDING WITH THE BULK EARTH DISTURBANCE ACTIVITIES, THE PERMITTEE OR CO-PERMITTEE SHALL PROVIDE NOTIFICATION TO THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT.

3. AT LEAST 3 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, OR EXPANDING INTO AN AREA PREVIOUSLY UNMARKED, THE PENNSYLVANIA ONE CALL SYSTEM IN. SHALL BE NOTIFIED 1-800-242-1776 FOR THE LOCATION OF EXITING UNDERGROUND UTILITIES.

4. ALL EARTH DISTURBANCE ACTIVITIES SHALL PRECEDE IN ACCORDANCE WITH THE SEQUENCE PROVIDED ON THE PLAN DRAWINGS, DEVIATION FROM THE SEQUENCE MUST BE APPROVED BY THE ALLEGHENY COUNTY CONSERVATION DISTRICT OR BY THE DEPARTMENT PRIOR TO IMPLEMENTATION. EACH STEP OF THE SEQUENCE SHALL BE COMPLETED BEFORE PROCEEDING TO THE NEXT STEP, EXCEPT WHERE NOTED.

5. LAYOUT THE LIMITS OF THE CONSTRUCTION SITE AND ESTABLISH BENCHMARKS AND REFERENCE POINTS.

6. STAKE OUT THE LIMITS OF DISTURBANCE (6.1 ACRES) AS INDICATED ON THE CONSTRUCTION PLANS.

7. INSTALL THE ROCK CONSTRUCTION ENTRANCES (2) AS SHOWN ON THE PLAN AND IN ACCORDANCE WITH THE STANDARD DETAIL.

8. INSTALL ORANGE CONSTRUCTION FENCE AROUND AREAS OF PANTHER HOLLOW WHICH ARE NOT TO BE DISTURBED DURING CONSTRUCTION, AS SHOWN ON THE PLANS. ALSO CONSTRUCT ORANGE CONSTRUCTION FENCE AS SHOWN ON THE PLANS AND IN ACCORDANCE WITH THE STANDARD DETAIL.

9. INSTALL SILT SOCK, 1,2,3, IN THE LOCATIONS SHOWN ON THE PLANS AND IN ACCORDANCE WITH THE STANDARD DETAIL BEING CAREFUL NOT TO DISTURB THE EXISTING WOODLANDS THAT ARE OUTSIDE OF THE DELINEATED LIMITS OF DISTURBANCE. ALL COMPOST FILTER SOCK SHALL BE INSTALLED PARALLEL TO THE CONTOURS.

10. CLEARING, GRUBBING, AND EARTH WORK OPERATIONS WITHIN THE DRAINAGE AREAS TO THE PERIMETER CONTROLS MAY COMMENCE WHEN ALL PERIMETER CONTROLS ARE INSTALLED AND OPERATIONAL.

11. BEGIN CLEARING AND GRUBBING ACTIVITIES NEEDED TO RE-CONSTRUCT THE EXISTING PANTHER HOLLOW LAKE, TAKING CARE NOT TO WORK BEYOND THE PERMIT BOUNDARY SHOWN ON THE PLAN. PLACE STRIPPED TOPSOIL IN THE TOPSOIL STOCKPILE AREAS DESIGNATED ON THE PLAN AND/OR REMOVE FROM SITE. 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 AS PER THE STANDARD DETAIL. INSTALL THE CONCRETE WASHOUT FACILITY AS SHOWN ON THE PLANS AND IN ACCORDANCE WITH THE STANDARD DETAIL.

12. PERFORM CUT AND FILL OPERATIONS TO BRING THE PANTHER HOLLOW POND SITE TO THE PROPOSED FINAL SUBGRADE ELEVATIONS. UTILIZE ROCK FILL UNDERDRAINS, AS NECESSARY, TO CARRY THE IMPACTED EXISTING LAKE AND ANY ENCOUNTERED GROUNDWATER THROUGH THE PROPOSED GRADING. STABILIZE STAGING AREA AS SOON AS FINAL SUBGRADE ELEVATIONS ARE REACHED. RE-GRADE TO DESIGN GRADES AND UTILIZE A PUMP AND FILTER BAG TO DEWATER THE LAKE DURING CONSTRUCTION.

13. CONSTRUCT PERMANENT BERM ON THE WESTERN SIDE OF PANTHER HOLLOW LAKE WITH APPROPRIATE SPILLWAY AS SHOWN ON THE PLANS AND IN ACCORDANCE WITH THE STANDARD DETAIL.

14. BEGIN ROUGH GRADING ON SITE AND ALL FILL AREAS SHALL BE PLACED AND COMPACTED ACCORDING TO THE PROJECT EARTHWORK SPECIFICATIONS. CONSTRUCT FILL KEYS AND SUBSURFACE DRAINS AS SHOWN ON THE CONSTRUCTION DRAWINGS AND AS NECESSARY DURING EARTHWORK. PLACE TOPSOIL AND INSTALL EROSION CONTROL BLANKETS ON ALL SLOPES 3H:1V OR GREATER IN ACCORDANCE WITH THE STANDARD DETAIL. AT THE END OF EACH WORKING DAY NO MORE THAN 10 FEET OF SOIL SHALL BE EXPOSED WITHOUT BLANKET ON ANY PERMANENT SLOPES STEEPER THAN OR EQUAL TO 3H:1V. IMMEDIATE STABILIZATION IS REQUIRED UPON TEMPORARY CESSATION OF WORK, 4 OR MORE DAYS, OR AS SOON AS GRADED AREA REACHES FINAL GRADE.

15. AS FILL SLOPES GRADES ARE ACHIEVED BACK-CUT SLOPES TO DIVERT THE RUNOFF TO THE BMP'S SHOWN ON THE PLANS.

16. 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.

17. FINE GRADE AND STABILIZE ALL AREAS OF THE SITE. 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.

18. FILL SLOPES SHOULD BE SEEDED AND MULCHED AT REGULAR VERTICAL INCREMENTS – 15 TO 25 FEET MAXIMUM – AS FILL IS BEING CONSTRUCTED. THIS WILL ALLOW THE BOTTOM OF THE FILL TO PROGRESS TOWARD STABILIZATION WHILE WORK CONTINUES ON THE UPPER PORTION, MAKING STABILIZATION EASIER TO ACHIEVE AND PROVIDING SOME VEGETATIVE BUFFERING AT THE BOTTOM OF THE SLOPE.

19. NOTIFY THE LICENSED PROFESSIONAL OR THEIR DESIGNEE AT LEAST 2 DAYS PRIOR TO THE START OF THE OF THE STORMWATER MANAGEMENT SYSTEM CONSTRUCTION. THE LICENSED PROFESSIONAL OR THEIR DESIGNEE MUST BE PRESENT DURING THE LAKE RE-CONSTRUCTION.

20. ONCE THE SITE IS PERMANENTLY STABILIZED, REMOVE THE DEWATERING DEVICES AND THE COFFERDAMS. REFER TO STORMWATER MANAGEMENT PLAN FOR NOTES AND DETAILS.

21. WATER THAT IS BEING PUMPED FROM WORK AREAS MUST BE TREATED FOR SEDIMENT REMOVAL PRIOR TO DISCHARGING TO SURFACE WATERS UNLESS IT CAN BE SHOWN THAT THE QUALITY OF THE WATER BEING PUMPED ALREADY MEETS DISCHARGE STANDARDS. IF A PROPERLY FUNCTIONING SEDIMENT BASIN OR SEDIMENT TRAP IS AVAILABLE, THE PUMP DISCHARGE MAY BE ROUTED THROUGH THE TRAP OR BASIN.

22. ONCE A UNIFORM 70% PERENNIAL VEGETATIVE COVER IS ACHIEVED ON ALL DISTURBED AREAS BEGIN REMOVAL OF ALL REMAINING TEMPORARY CONTROL MEASURES. REMOVE FILTREXX SOCKS BY SLASHING OPEN AND SPREADING MULCH AND SEEDING. REMOVE THE REMAINDER OF TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES. DISPOSE OF ACCUMULATED SEDIMENT AT A PADEP-APPROVED FACILITY.

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 SLOP.
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.

DRAFT

PRELIMINARY NOT FOR CONSTRUCTION

REVISION RECORD

NO	DATE	DESCRIPTION

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PITTSBURGH PENNSYLVANIA
PGH2O Pittsburgh Water & Sewer Authority

CITY OF PITTSBURGH
DEPARTMENT OF PUBLIC WORKS
PITTSBURGH WATER & SEWER AUTHORITY
PITTSBURGH, ALLEGHENY COUNTY, PA

DRAWN BY:	LJK/KPK	CHECKED BY:	KPK	APPROVED BY:	KPK
DATE:	OCTOBER 2019	DWG SCALE:		PROJECT NO:	18-840

EROSION AND SEDIMENT CONTROL PLAN

DRAWING NO.: **C903**