MWCD
BID PLANS
CHARLES MILL MARINA
HOUSEBOAT PATH RENOVATIONS
1277 OH-430
MANSFIELD, OH 44903

Kimley»Horn
3875 EMBASSY PKWY, SUITE 280, AKRON, OH 44333
PHONE: 216-505-7775
WWW.KIMLEY-HORN.COM

Ohio Utilities Protection Service
Call 811
before you dig

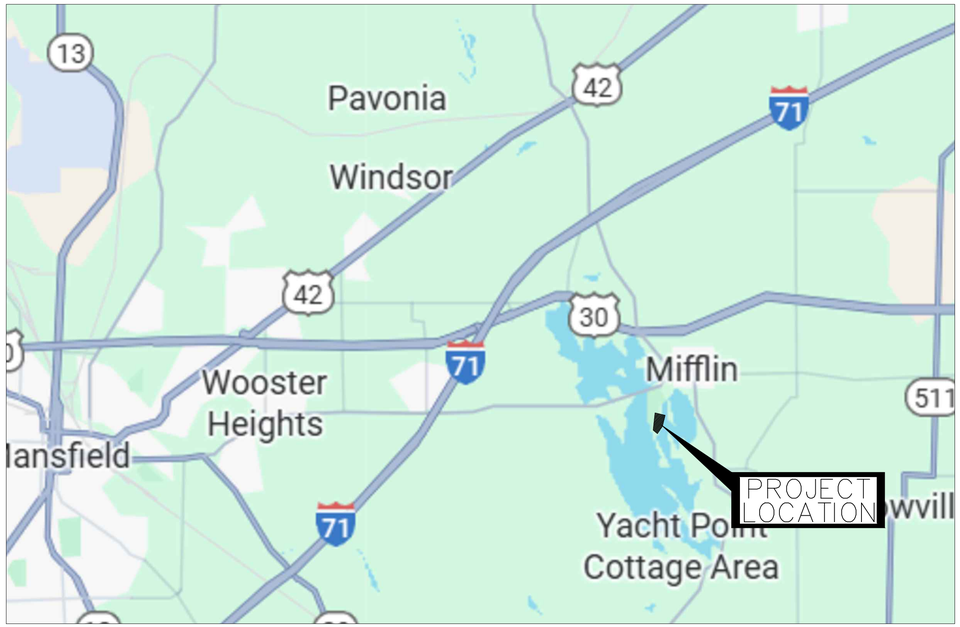
HOUSEBOAT PATH RENOVATIONS
TITLE SHEET

DRAWN:	CHECKED:	DATE:	SCALE:
DCLH	KGH/GS	09/29/25	AS NOTED

1319 THIRD ST. N.W.
P.O. BOX 349
NEW PHILADELPHIA, OHIO
44663

MUSKINGUM WATERSHED CONSERVANCY DISTRICT

INDEX OF SHEETS



VICINITY MAP
SCALE 1" = 5000'

BOARD OF DIRECTORS

RONALD E. DZIEDZICKI	PRESIDENT
KARL R. GEBHARDT	MEMBER
JAMES M. GRESH	MEMBER
ROBERT S. MOOREHEAD, JR.	MEMBER
JENNIFER L. PONCHAK	MEMBER

STAFF

CRIAG W. BUTLER	EXECUTIVE DIRECTOR/SECRETARY
DAVID G. LAUTENSCHLEGER, P.S., G.I.S.P., M.G.I.S.	CHIEF OF ENGINEERING
PETER M. NOVOTNY	CHIEF OF RECREATION

PERMITS:
1. THIS WORK WILL BE PERFORMED AS PER PCN USACE NWP #13.
   - 1.1. TREE REMOVAL SHALL BE PERFORMED ONLY BETWEEN OCTOBER 1ST AND MARCH 31ST. NO TREES SHALL BE REMOVED OUTSIDE OF THIS TIMEFRAME.
   - 1.2. CONTRACTOR SHALL PLACE NO MORE THAN AN AVERAGE OF 1 CY FOR THE MAXIMUM LENGTH OF 500 LINEAR FEET OF FILL BELOW THE ORDINARY HIGH WATER MARK (OHWM) OR THE NORMAL LAKE ELEVATION (NLE) AS IDENTIFIED ON THESE PLANS. THIS RESTRICTION INCLUDES THE PLACEMENT OF TEMPORARY FILL
   - 1.3. ALL IN-WATER REMOVAL OF MATERIALS SHALL BE PERFORMED FROM EQUIPMENT LOCATED ABOVE THE ORDINARY HIGH WATER MARK (OHWM) OR THE NORMAL LAKE ELEVATION (NLE) AS IDENTIFIED ON THESE PLANS.

DAVID G. LAUTENSCHLEGER, P.S., G.I.S.P., M.G.I.S. — DATE
CHIEF OF ENGINEERING

PETER M. NOVOTNY — DATE
CHIEF OF RECREATION

STATE OF OHIO
KATHERINE GLUNTZ HOLMOK
1045
REGISTERED
LANDSCAPE ARCHITECT

09/29/2025

LANDSCAPE ARCHITECT OF RECORD — DATE
NAME: KATHERINE HOLMOK
TITLE: LANDSCAPE ARCHITECT
COMPANY: KIMLEY-HORN & ASSOCIATES

STATE OF OHIO
GEORGE WILLIAM SENDREY
E-70227
REGISTERED
PROFESSIONAL ENGINEER

09/29/2025

ENGINEER OF RECORD — DATE
NAME: GEORGE SENDREY
TITLE: P.E.
COMPANY: KIMLEY-HORN & ASSOCIATES

REV.	DESCRIPTION	DATE	BY

SHEET NO.
T1.0

GENERAL NOTES

1. THE PROJECT MANUAL AND CONTRACT DRAWINGS SHALL GOVERN THIS IMPROVEMENT. WITHIN THIS PROJECT ARE REFERENCES TO THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, CONSTRUCTION AND MATERIALS SPECIFICATIONS (MOST RECENT EDITION). THESE REFERENCES TO ODOT SPECIFICATIONS SHALL GOVERN THIS IMPROVEMENT WHERE NOTED ON THE CONTRACT DRAWINGS OR REFERENCED IN THE TECHNICAL SPECIFICATIONS. OTHERWISE THE PROJECT MANUAL AND CONTRACT DRAWINGS WILL PREVAIL. FOR PURPOSES OF THESE PLANS, REFERENCES TO ENGINEER SHALL BE CONSTRUED TO MEAN MUSKINGUM WATERSHED CONSERVANCY DISTRICT (MWCD) AND/OR THEIR AUTHORIZED REPRESENTATIVES.
2. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR COMPLYING WITH ALL FEDERAL, STATE, AND LOCAL SAFETY REQUIREMENTS, AND EXERCISE PRECAUTIONS AT ALL TIMES FOR THE PROTECTION OF ALL PERSONS, INCLUDING EMPLOYEES, AND PROPERTY.
3. CONTRACTOR SHALL COMPLY WITH ALL OSHA REQUIREMENTS AT ALL TIMES, PARTICULARLY WHEN WORKING NEAR OVERHEAD ELECTRICAL CROSSINGS. MINIMUM CLEARANCE FROM 138kv LINES IS 12 FT. MINIMUM CLEARANCE FROM ALL LINES LESS THAN 138kv IS 10 FT.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS, PAYING ALL FEES, SCHEDULING AND OBTAINING ALL INSPECTIONS. THE CONTRACTOR IS ALSO RESPONSIBLE FOR SHOP DRAWING SUBMITTALS TO THE NECESSARY AGENCIES FOR PERMITS AND APPROVALS. MWCD HAS OBTAINED PERMITS AS PER LIST ON TITLE SHEET.
5. ANY DEFECTS IN CONSTRUCTION, INCLUDING MATERIALS OR WORKMANSHIP, SHALL BE CORRECTED BY REMOVAL AND REPLACEMENT OR OTHER APPROVED METHODS PRIOR TO ACCEPTANCE BY THE OWNER. THE COST SHALL BE AT THE EXPENSE OF THE CONTRACTOR.
6. ANY MODIFICATIONS TO THE WORK AS SHOWN ON THESE APPROVED PLANS SHALL HAVE PRIOR WRITTEN APPROVAL OF THE OWNER.
7. CONTRACTOR SHALL TAKE A PRE-CONSTRUCTION VIDEO OF THE CONSTRUCTION AREA, INCLUDING EXISTING ASPHALT PARK ROADWAYS ON WHICH CONSTRUCTION TRAFFIC WILL TRAVEL. A COPY OF THE VIDEO SHALL BE PROVIDED TO OWNER BEFORE COMMENCEMENT OF ANY WORK ON THE PROJECT. CONTRACTOR WILL BE RESPONSIBLE TO RESTORE TO PRE-CONSTRUCTION CONDITIONS ANY AREAS DISTURBED BY CONSTRUCTION ACTIVITY, INCLUDING DAMAGE TO EXISTING ASPHALT ROADWAY CAUSED BY CONSTRUCTION EQUIPMENT.
8. ANY STAGING AREAS FOR MATERIALS OR EQUIPMENT BEYOND THE CONSTRUCTION LIMITS SHALL BE COORDINATED WITH OWNER PRIOR TO CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR RESTORATION OF STAGING AREAS TO PRE-CONSTRUCTION CONDITIONS.

CONNECTION OF EXISTING DRAINAGE CONDUITS

ANY EXISTING DRAINS ENCOUNTERED OR DISCOVERED DURING THE WORK SHALL BE CONNECTED AND EXTENDED AS NEEDED TO A SUITABLE OUTLET AND ONLY AS APPROVED BY THE MWCD INSPECTOR.

CONSTRUCTION ACCESS

CONTRACTORS SHALL DETERMINE THEIR MEANS FOR CONSTRUCTING THE INDICATED SITE IMPROVEMENTS ANTICIPATING THERE WILL NOT BE ANY ACCESS APPROVALS FROM THE ADJACENT PRIVATE PROPERTY. SHOULD ANY PRIVATE PROPERTY ACCESS BE GRANTED, THE CONTRACTOR SHALL RESTORE ALL ACCESS POINTS TO THEIR ORIGINAL CONDITION AT NO ADDITIONAL COST TO THE PROJECT.

CONTRACTOR SHALL SUBMIT A CONSTRUCTION ACCESS PLAN TO THE OWNER FOR APPROVAL BY THE OWNER IN WRITING, DELINEATING THE LOCATIONS OF CONSTRUCTION EQUIPMENT ENTRY TO THE PROJECT SITE. THE PLAN SHALL BE SUBMITTED AT THE PRECONSTRUCTION MEETING AND PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING SAFETY AT ALL ACCESS POINTS AT ALL TIMES DURING CONSTRUCTION AND MAY BE REQUIRED TO UTILIZE FLAGGERS AS NECESSARY.

ANY LANE OR SHOULDER CLOSURES OR RESTRICTIONS TO ADJACENT ROADWAYS SHALL BE IN ACCORDANCE WITH THE OMUTCD AND ODOT STANDARD CONSTRUCTION DRAWINGS.

CONSTRUCTION FENCE

THE CONTRACTOR SHALL ACCURATELY IDENTIFY THE "LIMITS OF DISTURBANCE" FOR EACH COMPONENT OF THE PROJECTS AND INSTALL CONSTRUCTION FENCE AS DIRECTED BY OWNER, AND WHERE DESIGNATED ON THE PLANS. CONSTRUCTION FENCE SHALL PROTECT THE PUBLIC FROM CONSTRUCTION ACTIVITY WHILE PROTECTING THE NATURAL RESOURCES FROM CONSTRUCTION ACTIVITY EXTENDING BEYOND THE MINIMUM IMPACT AREA NECESSARY TO COMPLETE THE WORK.

CONSTRUCTION LAYOUT

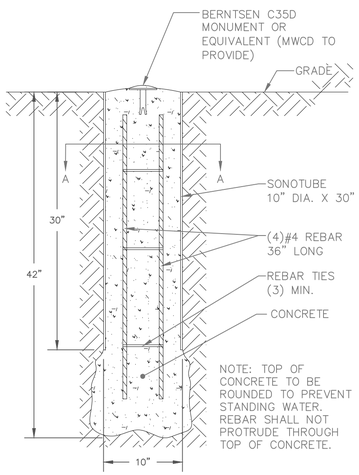
THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING, PLACING AND MAINTAINING CONSTRUCTION LAYOUT STAKES NECESSARY FOR THE PROPER COMPLETION OF THE WORK. BENCH MARKS WILL BE PROVIDED WITHIN AND/OR ADJACENT TO THE PROJECT SITE. THE CONTRACTOR SHALL BE RESPONSIBLE TO COMPLETE A BENCH CIRCUIT BETWEEN AT LEAST TWO (2) SEPARATE BENCH MARKS WHENEVER ELEVATIONS ARE BEING TRANSFERRED AND/OR SET. ANY DISCREPANCIES OUTSIDE NORMAL SURVEYING STANDARDS/LIMITS WITH THE BENCH MARK ELEVATIONS SHOWN SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER.

CONTROL

HORIZONTAL CONTROL IS BASED ON U.S. STATE PLANE COORDINATES 1983 (86), OHIO NORTH ZONE. VERTICAL CONTROL IS BASED ON NGVD29 DATUM TO COINCIDE WITH LAKE LEVEL ELEVATIONS USED BY THE US ARMY CORPS OF ENGINEERS.

CONTROL POINTS IDENTIFIED ON THE PLANS ARE EITHER IRON PINS WITH 1-1/2" DIAMETER RED PLASTIC CAPS MARKED WITH THE WORDS "CONTROL POINT" OR SIMILAR MARKING, OR ALUMINUM DISKS SET IN CONCRETE. UNLESS OTHERWISE MARKED FOR RELOCATION, THE CONTRACTOR SHALL PRESERVE ALL SURVEY CONTROL POINTS AND/OR MONUMENTS SHOWN ON THE DRAWINGS. THE CONTRACTOR SHALL REFERENCE AND PLACE CONSTRUCTION FENCE AROUND ALL CONTROL POINTS AND/OR IRON PINS AND MONUMENTS WITHIN OR ADJACENT TO THE WORK AREA BEFORE STARTING EXCAVATION OR OTHER CONSTRUCTION OPERATIONS. THE CONTRACTOR IS RESPONSIBLE TO REPLACE OR RESET AT HIS OWN COST ANY CONTROL POINTS OR MONUMENTS INTENDED TO BE PRESERVED WHICH ARE DISTURBED BY CONSTRUCTION ACTIVITIES. CONTRACTOR SHALL REVIEW REPLACED MONUMENT LOCATIONS WITH MWCD SURVEY STAFF PRIOR TO INSTALLATION. WORK SHALL BE PERFORMED BY A SURVEYOR REGISTERED IN STATE OF OHIO IN ACCORDANCE WITH DETAIL SHOWN BELOW.

THE CONTRACTOR SHALL INSTALL NEW, PERMANENT CONTROL MONUMENTS AT THE LOCATIONS SHOWN IN THE PLANS AND IN ACCORDANCE WITH THE DETAIL SHOWN ABOVE. INSTALLATION OF THE NEW CONTROL MONUMENTS SHALL BE COMPLETED PRIOR TO DISTURBING EXISTING MONUMENTS. WORK SHALL BE PERFORMED BY A SURVEYOR REGISTERED IN STATE OF OHIO.



CONCRETE MIX:
A. SELECT PROPORTIONS FOR NORMAL WEIGHT CONCRETE IN ACCORDANCE WITH ACI 318 AND ACI 211.1.
B. PROVIDE CONCRETE TO THE FOLLOWING CRITERIA:
   1. COMPRESSIVE STRENGTH: 5,000 PSI AT 28 DAYS.
   2. WATER CEMENT RATIO: MAXIMUM 0.45 BY WEIGHT.
C. ADMIXTURES: INCLUDE ADMIXTURE TYPES AND QUANTITIES INDICATED IN CONCRETE MIX DESIGNS APPROVED THROUGH SSUBMITTAL PROCESS.
   1. DO NOT USE CALCIUM CHLORIDE.

STANDARD SURVEY CONTROL MONUMENT "B"
SCALE: N.T.S.

CHARLES MILL LAKE ELEVATIONS (NGVD29)

EL 1020 – SPILLWAY
EL 1017.11 – POOL OF RECORD
EL 997 – OHWM SPRING/SUMMER
EL 994 – OHWM WINTER

EXCAVATION AND EMBANKMENT

PRIOR TO SITE GRADING, STRIP EXISTING TOPSOIL FROM THE SITE AND STOCKPILE FOR USE DURING FINAL GRADING. FINAL TOPSOIL THICKNESS SHALL BE WITHIN THE LIMITS DESCRIBED BELOW AND ANY EXCESS TOPSOIL SHALL BE REMOVED FROM THE PROJECT SITE.

EXCAVATION AND EMBANKMENT SHALL BE IN ACCORDANCE WITH ODOT ITEM 203 ROADWAY EXCAVATION AND EMBANKMENT.

SUITABLE EXCESS MATERIAL RESULTING FROM THE GRADING OPERATIONS ON THE PROJECT SHALL BE STOCKPILED IN THE LOCATION DESIGNATED IN THE PROJECT PLANS OR AS DIRECTED IN FIELD BY OWNER. NO MATERIAL MAY BE STOCKPILED BELOW THE LAKE SPILLWAY ELEVATION OF 1020. SEPARATE STOCKPILES SHALL BE CREATED FOR EXCESS TOPSOIL AND ALL OTHER SUITABLE EXCESS MATERIAL AS DEFINED IN ODOT CMS 203.02 R. CO-MINGLING OF TOPSOIL AND SUITABLE EMBANKMENT MATERIAL IN THE SAME STOCKPILE WILL NOT BE PERMITTED.

ALL EXCESS EXCAVATED MATERIAL IS THE PROPERTY OF THE CONTRACTOR AND SHALL BE HAULED OFF THE PROJECT SITE AND DISPOSED OF PROPERLY. IN NO EVENT SHALL EXCESS MATERIAL BE DISPOSED OF BELOW SPILLWAY ELEVATION WITHOUT PRIOR WRITTEN APPROVAL FROM OWNER.

EXISTING CONDUITS, SEWERS, PIPES AND DRAINS;

THE CONTRACTOR WILL BE REQUIRED, AT HIS OWN EXPENSE, TO DO EVERYTHING NECESSARY TO PROTECT, SUPPORT AND SUSTAIN ALL SEWERS, WATER, OR GAS PIPES, SERVICE PIPES, ELECTRIC LIGHTS, POWER, TELEPHONE OR TELEGRAPH POLES, CONDUITS AND OTHER FIXTURES LAID UNDER, ACROSS OR ALONG THE SITE OF THE WORK. THE ENGINEER, AS WELL AS THE COMPANY OR CORPORATION OWNING SAID PIPES, POLES, CONDUITS, OR OTHER STRUCTURES, MUST BE NOTIFIED OF THE SAME BY THE CONTRACTOR, BEFORE ANY SUCH FIXTURES ARE REMOVED OR HARMED. THE WATERWORKS SHALL OPERATE ALL EXISTING VALVES WHEN CONNECTIONS ARE MADE TO EXISTING LINES. IN CASE ANY OF THE GAS OR SERVICE PIPES, ELECTRIC LIGHT, POWER, OR TELEPHONE POLES, CONDUITS, OR OTHER FIXTURES BE DAMAGED, THEY SHALL BE REPAIRED BY AUTHORITIES HAVING CONTROL OF THE SAME, AND THE EXPENSE OF SAID REPAIRS SHALL BE DEDUCTED FROM THE MONEYS WHICH ARE DUE OR TO BECOME DUE TO SAID CONTRACTOR UNDER THIS CONTRACT.

SHOULD IT BECOME NECESSARY TO CHANGE THE POSITION OR TEMPORARILY REMOVE ANY ELECTRIC CONDUITS, GAS PIPES, OR OTHER PIPES, OR WIRES, IN ORDER TO PERMIT THE CONTRACTOR TO USE A PARTICULAR METHOD OF CONSTRUCTION OR IN ORDER TO CLEAR THE STRUCTURE BEING BUILT, THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF THE LOCATION AND CIRCUMSTANCES, AND SHALL CEASE WORK IF NECESSARY, UNTIL SATISFACTORY ARRANGEMENTS HAVE BEEN MADE BY THE OWNERS OF THE SAID PIPES OR WIRES TO PROPERLY CARE FOR THE SAME, NO CLAIMS FOR DAMAGES WILL BE ALLOWED ON ACCOUNT OF ANY DELAY OCCASIONED THERBY.

EXISTING DATA

THE CONTRACTOR SHALL VERIFY EXISTING GRADES AND UTILITIES ELEVATIONS AND LOCATIONS PRIOR TO INSTALLATION OF UTILITIES OR FOUNDATIONS. NOTIFY THE ENGINEER IMMEDIATELY OF ANY DISCREPANCY.

EXAMINATION OF SITE

THE CONTRACTOR SHALL BE RESPONSIBLE TO CLOSELY EXAMINE THE PROJECT SITE AND ALL ADJACENT AREA(S) AND APPRISE THEMSELVES OF ANY ITEMS AND/OR CONDITIONS THAT COULD AFFECT HIS/HER BID AND/OR ABILITY TO COMPLETE THE PROPOSED IMPROVEMENTS. THIS SITE INSPECTION/EVALUATION SHALL BE COMPLETED PRIOR TO SUBMITTING A PROPOSAL OR BID.

ITEMS WITH NO PAYMENT METHOD

ALL ITEMS OF WORK CALLED FOR ON THESE PLANS FOR WHICH NO SPECIFIC METHOD OF PAYMENT IS PROVIDED SHALL BE PERFORMED BY THE CONTRACTOR, AND THE COST OF SAME SHALL BE INCLUDED IN THE PRICE BID FOR RELATED ITEMS. ANY QUANTITIES SHOWN ON DRAWINGS ARE APPROXIMATE. THE CONTRACTOR SHALL BE RESPONSIBLE TO CONFIRM ALL QUANTITIES PRIOR TO SUBMITTING A BID AND ALERT OWNER OF ANY DISCREPANCIES. WORK/PAYMENT ITEMS NOT SPECIFICALLY LISTED AND/OR REFERENCED BUT REQUIRED TO PROPERLY COMPLETE THE IMPROVEMENTS SHALL BE PERFORMED AND THE COST INCLUDED IN THE VARIOUS OTHER ASSOCIATED ITEMS.

MAINTENANCE OF TRAFFIC

TRAFFIC SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION. TEMPORARY MWCD ROAD CLOSURES ARE PERMITTED WITH THE APPROVAL OF THE MWCD INSPECTOR. TEMPORARY ROAD CLOSURES SHALL BE LIMITED TO THE MINIMUM PRACTICABLE, AND SHALL HAVE CONTRACTOR PERSONNEL ON LOCATION TO ROUTE TRAFFIC THROUGH THE CONSTRUCTION ZONE. ALL LANE CLOSURES OR RESTRICTIONS SHALL BE DONE IN ACCORDANCE WITH OMUTCD AND ODOT STANDARD DRAWINGS.

PROHIBITED CONSTRUCTION ACTIVITIES

DISPOSING OF EXCESS OR UNSUITABLE EXCAVATED MATERIAL IN WETLANDS OR FLOOD PLAINS, EVEN WITH THE PERMISSION OF THE PROPERTY OWNER.

LOCATING STOCKPILE STORAGE AREAS IN ENVIRONMENTALLY SENSITIVE AREAS.

INDISCRIMINATE, ARBITRARY, OR CAPRICIOUS OPERATION OF EQUIPMENT IN ANY STREAM CORRIDORS, ANY WETLANDS, ANY SURFACE WATERS, OR OUTSIDE THE EASEMENT LIMITS.

PUMPING OF SEDIMENT-LADEN WATER FROM TRENCHES OR OTHER EXCAVATIONS DIRECTLY INTO ANY SURFACE WATERS, ANY STREAM CORRIDORS, ANY WETLANDS, OR STORM SEWERS; ALL SUCH WATER WILL BE PROPERLY FILTERED OR SETTLED TO REMOVE SILT PRIOR TO RELEASE.

DISCHARGING POLLUTANTS SUCH AS CHEMICALS, FUELS, LUBRICANTS, BITUMINOUS MATERIALS, RAW SEWAGE AND OTHER HARMFUL WASTE INTO OR ALONGSIDE OF RIVERS, STREAMS, IMPOUNDMENTS, OR INTO NATURAL OR MAN-MADE CHANNELS LEADING THERETO.

DISPOSING OF TREES, BRUSH AND OTHER DEBRIS IN ANY STREAM CORRIDOR, ANY WETLANDS, ANY SURFACE WATERS, OR AT UNSPECIFIED LOCATIONS.

OPEN BURNING OF PROJECT DEBRIS WITHOUT A PERMIT.

DISCHARGING INJURIOUS SILICA DUST CONCENTRATIONS INTO THE ATMOSPHERE RESULTING FROM BREAKING, CUTTING, CHIPPING, DRILLING, BUFFING, GRINDING, POLISHING, SHAPING OR SURFACING CLOSER THAN 200 FEET TO PLACES OF RESIDENCES OR COMMERCIAL, PROFESSIONAL, QUASI-PUBLIC OR PUBLIC PLACES OF HUMAN OCCUPATION.

STORING CONSTRUCTION EQUIPMENT AND VEHICLES AND/OR STOCKPILING CONSTRUCTION MATERIALS ON PROPERTY, PUBLIC OR PRIVATE, NOT PREVIOUSLY SPECIFIED ON THE PLANS BY THE OWNER'S REPRESENTATIVE FOR SUCH PURPOSES.

RUNNING WELL POINT OR PUMP DISCHARGE LINES THROUGH PRIVATE PROPERTY AND RIGHT-OF-WAY WITHOUT THE WRITTEN PERMISSION OF THE PROPERTY OWNER AND THE CONSENT OF THE OWNER'S REPRESENTATIVE.

OPERATIONS ENTAILING THE USE OF VIBRATORY HAMMERS OR COMPACTORS OUTSIDE THE HOURS OF 8:00 AM AND 5:00 PM OR OUTSIDE THE HOURS ALLOWED FOR CONSTRUCTION BY LOCAL ORDINANCES OR REGULATIONS ARE PROHIBITED, UNLESS APPROVED IN ADVANCE BY THE OWNER.

CLOSING OFF CLEAR ACCESS TO ANY PUBLIC ALLEY, STREET, ROAD, AVENUE OR BOULEVARD WITHOUT THE PRIOR CONSENT OF LOCAL OFFICIALS AND THE OWNER, AND CLOSING CLEAR ACCESS:

- BY FIRE PROTECTION EQUIPMENT AND EMERGENCY VEHICLES;
- BY THE PUBLIC TO ANY COMMERCIAL OR PROFESSIONAL PLACE OF BUSINESS, QUASI-PUBLIC OR PUBLIC ESTABLISHMENT, OR PLACE OF RESIDENCE;
- BY VEHICLES TO DRIVEWAYS WITHOUT THE PROVISION OF ALTERNATIVE MEANS OF BUILDING INGRESS AND EGRESS.

PROTECTION AND RESTORATION OF PROPERTY

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PRESERVATION OF ALL PUBLIC AND PRIVATE PROPERTY.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGE OR INJURY TO PROPERTY OF ANY CHARACTER DURING THE PROSECUTION OF THE WORK, RESULTING FROM ANY ACT, OMISSION, NEGLECT, OR MISCONDUCT OF HIS MANNER OR METHOD OF EXECUTING THE WORK, OR AT ANY TIME DUE TO THE DEFECTIVE WORK OR MATERIALS, AND SAID RESPONSIBILITY WILL NOT BE RELEASED UNTIL THE PROJECT SHALL HAVE BEEN COMPLETED AND ACCEPTED.

WHEN OR WHERE ANY DIRECT OR INDIRECT DAMAGE OR INJURY IS DONE TO PUBLIC OR PRIVATE PROPERTY BY OR ON ACCOUNT OF ANY ACT, OMISSION, NEGLECT, OR MISCONDUCT IN THE EXECUTION OF THE WORK, OR IN CONSEQUENCE OF THE NON-EXECUTION THEREOF BY THE CONTRACTOR, HE SHALL RESTORE, AT HIS OWN EXPENSE, SUCH PROPERTY TO A CONDITION SIMILAR OR EQUAL TO THAT EXISTING BEFORE SUCH DAMAGE OR INJURY WAS DONE, BY REPAIRING, REBUILDING, OR OTHERWISE RESTORING AS MAY BE DIRECTED, OR SHALL MAKE GOOD SUCH DAMAGE OR INJURY IN AN ACCEPTABLE MANNER. THE CONTRACTOR SHALL THOROUGHLY REVIEW THE SITE AND BECOME FAMILIAR WITH ALL PUBLIC UTILITIES (WATER, SEWER, GAS, ELECTRIC, CABLE TV, ETC.) WITHIN THE LIMITS OF THE PROJECT WHICH MAY INTERFERE WITH THE PROPOSED CONSTRUCTION.

PUBLIC SAFETY AROUND CONSTRUCTION AREA

THIS PROJECT IS LOCATED WITHIN A PUBLIC USE AREA. UNLESS OTHERWISE DIRECTED IN THE PLANS OR BY THE OWNER IN WRITING, PEDESTRIAN, BOAT, AND VEHICLE ACCESS FOR THE PUBLIC WILL BE MAINTAINED THROUGH THE CONSTRUCTION ZONE AT ALL TIMES, AND THE CONTRACTOR IS ADVISED TO MAKE ACCOMMODATIONS TO MAINTAIN THE SAFETY OF THE PUBLIC. THE CONTRACTOR SHALL USE CONSTRUCTION FENCING AND/OR PORTABLE CONCRETE BARRIERS OR OTHER APPROVED TRAFFIC CONTROL DEVICES TO PROTECT FROM DROP-OFFS.

ROADWAY CLEANING AND DUST CONTROL

THE CONTRACTOR IS ADVISED THAT THIS WORK IS BEING PERFORMED WITHIN A PARK/MARINA/COTTAGE AREA WHICH IS OPEN TO THE PUBLIC. THE CONTRACTOR SHALL KEEP ALL ROADWAYS (NOT WITHIN A SECURED CONSTRUCTION AREA) FREE OF DEBRIS. ANY MUD TRACKED OR DEPOSITION OF DEBRIS UPON ROADWAYS OPEN TO THE PUBLIC, SHALL BE CLEANED OFF IMMEDIATELY. THE COST OF ROADWAY CLEANING IS INCIDENTAL TO ALL CONTRACT ITEMS. FAILURE TO REMOVE SAID DEBRIS MAY RESULT IN THE OWNER PROVIDING THAT SERVICE AT THE EXPENSE OF THE CONTRACTOR. ROADWAYS MUST BE CLEAN UPON COMPLETION OF EACH DAY'S WORK.

SAFETY PROCEDURES

THE CONTRACTOR SHALL COMPLY WITH ALL FEDERAL OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION REQUIREMENTS DURING ALL PHASES OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INITIATING, MAINTAINING AND SUPERVISING ALL SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS FOR THE SAFETY OF, AND SHALL PROVIDE THE NECESSARY PROTECTION TO PREVENT DAMAGE, INJURY OR LOSS TO: 1. ALL PERSONS ON THE WORK SITE OR WHO MAY BE AFFECTED BY THE WORK. 2. ALL THE WORK AND MATERIALS AND EQUIPMENT TO BE INCORPORATED THEREIN, WHETHER IN STORAGE ON OR OFF THE SITE. 3. OTHER PROPERTY AT THE SITE OR ADJACENT THERETO, INCLUDING TREES, SHRUBS, LAWNS, WALKS, PAVEMENTS, ROADWAYS, STRUCTURES, UTILITIES AND UNDERGROUND FACILITIES NOT DESIGNATED FOR REMOVAL, RELOCATION OR REPLACEMENT IN THE COURSE OF CONSTRUCTION.

CLEARING AND GRUBBING

REMOVE ALL TREES, STUMPS, SHRUBS, AND/OR BRUSH WITHIN THE LIMITS OF THE WORK AS NEEDED TO CONSTRUCT THE PROJECT. BEYOND THE LIMITS OF THE WORK, CLEARING AND GRUBBING SHALL BE MINIMIZED SUCH THAT ONLY THOSE TREES NECESSARY FOR CONSTRUCTION ACCESS OR TO FACILITATE CONSTRUCTION ARE REMOVED.

SEASONAL RESTRICTIONS ON TREE CLEARING

THIS PROJECT SHOULD BE CONSIDERED TO BE WITHIN THE RANGE OF THE FEDERALLY ENDANGERED INDIANA BAT (MYOTIS SODALIST) AND NORTHERN LONG-EARED BAT (MYOTIS SEPTENTRIONALIS), ALL CUTTING OF TREES MUST TAKE PLACE BETWEEN OCTOBER 1 AND MARCH 31.

WORKING AROUND TREES

THE CONTRACTOR IS INSTRUCTED TO USE EXTREME CAUTION WHEN WORKING IN AREAS WHERE TREES ARE DESIGNATED TO REMAIN UPON COMPLETION OF THE WORK. THE CONTRACTOR IS TO AVOID CAUSING DAMAGE TO TRUNKS, BRANCHES, LIMBS AND ROOTS. THE DRIP LINE OF THE TREE IS CONSIDERED TO BE THE ROOT ZONE FOR THE PURPOSES OF THIS NOTE. EXCAVATION AND FILL WITHIN THE DRIP LINE SHALL BE PERFORMED ONLY IN THE LOCATIONS INDICATED ON CONSTRUCTION PLANS. EFFORTS SHALL BE MADE TO AVOID EXCESSIVE CUTTING OF ROOTS. WHEN TRENCHING OR EXCAVATING WITHIN THE DRIP LINE, ANY CUTTING OF ROOTS THAT CAUSES DAMAGE TO MORE THAN 30% OF THE ROOT ZONE SHALL REQUIRE REMOVAL OF THE TREE. LIMITED FILL MAY BE PLACED OVER THE ROOT ZONE IN CONJUNCTION WITH CONSTRUCTION PLANS. FILL SHALL NOT BE PLACED AT A DEPTH GREATER THAN 3 INCHES. IN THE EVENT THAT BRANCHES AND/OR LIMBS ARE INADVERTENTLY DAMAGED, THE CONTRACTOR SHALL PERFORM NECESSARY TRIMMING AS PER MWCD NOTES AND SPECIFICATIONS TO THE APPROVAL OF THE ENGINEER. IN THE EVENT THAT A TREE TRUNK IS INADVERTENTLY DAMAGED, THE CONTRACTOR SHALL ASSESS THE CONDITION OF THE TREE WITH THE MWCD FORESTER. THE MWCD FORESTER WILL MAKE A JUDGMENT WHETHER THE TREE IS TO REMAIN OR BE REMOVED AS A RESULT OF THE DAMAGE. SHOULD THE TREE THEN BE MARKED FOR REMOVAL, THE CONTRACTOR SHALL REMOVE THE TREE, STUMP AND ROOTS TO THE APPROVAL OF THE ENGINEER. STUMPS MAY BE REQUIRED TO BE EITHER PULLED OR GROUND. AN UNDISTURBED AREA OF >= 1 FOOT PER INCH OF TREE DIAMETER SHALL BE DESIGNATED AS "TREE PROTECTION ZONE" AND SHALL BE PROTECTED BY CONSTRUCTION FENCING TO PREVENT ACCIDENTAL IMPACTS TO TREES BEING SAVED. FENCING SHALL BE ERECTED DURING INSTALLATION OF SWPPP DEVICES. PAYMENT FOR FENCING SHALL BE CONSIDERED INCIDENTAL TO THE SWPPP. NO COMPENSATION IS DUE TO THE CONTRACTOR FOR TRIMMING OR REMOVING TREES AS A RESULT OF THESE REQUIREMENTS.

TREE TRIMMING

IN AREAS WHERE TREE TRIMMING IS NEEDED, CONTRACTOR SHALL AVOID SEVERE PRUNING, V-NOTCH TRIMMING, TIPPING, STUB CUTTING, FLUSH CUTTING, AND SIDEWALLING. PRUNING SHALL BE PERFORMED IN ACCORDANCE WITH ODOT ITEM 666, EXCEPT THAT PAINTING OF CUT OR WOUNDED BRANCHES IS NOT PERMITTED. ANY BRANCHES NEEDING TRIMMED TO ALLOW CONTRACTOR ACCESS SHALL BE CUT BACK TO THE PARENT TRUNK.

SEQUENCE OF CONSTRUCTION

THE GENERAL SEQUENCE OF CONSTRUCTION IS ANTICIPATED AS FOLLOWS:

1. INSTALL TEMPORARY SWPP
2. TREE REMOVAL. THIS MUST BE DONE OUTSIDE OF BAT SEASON (PERFORM ONLY BETWEEN OCTOBER 1ST TO MARCH 31ST).
3. REMOVE THE DEMOLISHED CONDITIONS ACCORDING TO SHEET C-1.0.
4. PLACE THE PROPOSED UTILITIES ACCORDING SHEET TO C-2.0.
5. LAY THE CONCRETE PATH AND ABUTMENTS ACCORDING TO SHEET C-2.0.
6. PLACE THE GRASS PAVERS ACCORDING TO SHEET C-2.0.
7. ENSURE ALL POST CONSTRUCTION GRADES MATCH THE GRADES SHOWN ON SHEET C-3.0.
8. CLEAN, INSTALL PLANTS, AND SEED THE WORKSITE.
9. REMOVAL ALL TEMPORARY SWPP

HOUSEBOAT PATH RENOVATIONS
GENERAL NOTES

SCALE: AS NOTED
DATE: 09/29/25
CHECKED: KGH/GS
DRAWN: DCLH

1319 THIRD ST. N.W.
P.O. BOX 349
NEW PHILADELPHIA, OHIO
44663

MUSKINGUM WATERSHED CONSERVANCY DISTRICT

REV. | DESCRIPTION | DATE | BY

SHEET NO.
G1.0

SITE SECURITY

THE WORK AREA IS LOCATED WITHIN AN AREA OPEN TO THE PUBLIC AND/OR WITHIN AN ACTIVE CAMPGROUND. THE CONTRACTOR IS ADVISED TO SECURE ALL EQUIPMENT, TOOLS AND MATERIALS DURING NON-WORKING HOURS. THE CONTRACTOR SHALL PROTECT THE SITE FROM NON-CONTRACT PERSONNEL (PUBLIC). CONSTRUCTION FENCING SHALL BE MAINTAINED AROUND THE PERIMETER OF THE WORK AREA WITH SIGNAGE INDICATING "ACTIVE CONSTRUCTION SITE - AUTHORIZED PERSONNEL ONLY".

SUBSURFACE CONDITIONS

SUBSURFACE INFORMATION IS NOT AVAILABLE FOR THE SITE. NO SOILS REPORT IS INCLUDED WITH THE BID DOCUMENTS.

SURVEY/LAYOUT

DO NOT SCALE FROM THESE DRAWINGS. WRITTEN DIMENSIONS SHALL GOVERN.

CONTRACTOR IS OBLIGATED TO VERIFY ALL DIMENSIONS ON THE GROUND AND REPORT ANY LAYOUT DISCREPANCIES IMMEDIATELY TO THE OWNER'S REPRESENTATIVE.

THE CONTRACTOR'S SURVEYOR SHALL BE RESPONSIBLE FOR LAYOUT "OF ALL SITE IMPROVEMENTS INCLUDING, BUT NOT LIMITED TO ALL UTILITIES, TRAILS AND ROAD CENTERLINES (AND THEIR LIMITS OF GRADING TO DETERMINE THE LOCATIONS FOR THE CONSTRUCTION FENCE INSTALLATION AND LIMITS OF TREE/BRUSH REMOVAL PRIOR TO CLEARING AND GRUBBING ACTIVITIES), DRAINAGE STRUCTURES, ETC." FROM THE REFERENCED HORIZONTAL CONTROL AS SHOWN ON THE PLANS. PRECISE LAYOUT SHALL BE STAKED IN THE SITE BY THE CONTRACTOR'S SURVEYOR AND APPROVED BY THE OWNER PRIOR TO CONSTRUCTION. OWNER WILL PROVIDE CONTRACTOR WITH CAD FILES FOR PROJECT FOR USE IN LAYOUT AND STAKING.

THE CONTRACTOR SHALL CONFINE ALL ACTIVITIES TO THE PROJECT WORK LIMITS AND SHALL NOT TRESPASS UPON PRIVATE PROPERTY WITHOUT WRITTEN PERMISSION OF THE OWNER.

CONTRACTOR SHALL KEEP ALL STREETS, LANES, AND PARKING AREAS ADJACENT TO THE PROJECT AREA CLEAN AND FREE FROM ANY DEBRIS, MUD AND/OR OTHER CONSTRUCTION EQUIPMENT AT ALL TIMES DURING CONSTRUCTION.

THE CONTRACTOR SHALL PROVIDE INFORMATION NECESSARY TO DEVELOP A FINAL SET OF "AS-BUILT" PLANS FOR THE PROJECT. THE CONTRACTOR SHALL PROVIDE A SET OF PLANS MARKED IN RED, CERTIFIED BY THE CONTRACTOR AS INCLUDING ALL FIELD CHANGES WHICH OCCURRED DURING CONSTRUCTION, AS DOCUMENTED BY ANY CHANGE ORDERS OR OTHERWISE. ALL COST SHALL BE INCLUDED WITH VARIOUS RELATED ITEMS.

TRENCH CLOSURE

THE LENGTH OF THE OPEN TRENCH PERMITTED IN ANY LOCATION SHALL NOT EXCEED THE AMOUNT OF PIPE TO BE INSTALLED THAT DAY. BACKFILL TRENCHES COMPLETELY AT THE END OF THE DAY. ALTERNATIVELY, COVER TRENCHES WITH ROAD PLATES.

TOPSOIL AND SEEDING

ALL AREAS TO BE SEEDED SHALL BE PREPARED WITH TOPSOIL.

TOPSOIL FURNISHED BY THE CONTRACTOR SHALL CONSIST OF A LOOSE, FRIABLE, LOAMY TOPSOIL WITHOUT ADMIXTURE OF SUBSOIL OR FOREIGN MATERIALS. IT SHALL BE REASONABLY FREE FROM ROOTS, HARD CLAY, WEEDS, BRUSH, STICKS, COARSE GRAVEL, STONES LARGER THAN ONE INCH IN ANY DIMENSION, AND OTHER MATERIAL WHICH WOULD PREVENT THE PROPER DEVELOPMENT OF VEGETATIVE GROWTH.

IN AREAS WHERE THE EXISTING SOIL WAS REMOVED OR COMPLETELY DESTROYED BY CONSTRUCTION ACTIVITY, PLACE TOPSOIL AT LEAST 4 BUT NOT MORE THAN 6 INCHES DEEP ABOVE THE SURFACE OF THE SUBGRADE. IN AREAS WHERE THE SOD WAS DISTURBED BUT NOT REMOVED AND/OR DESTROYED, PLACE TOPSOIL AT LEAST 1 INCH DEEP ABOVE THE SURFACE OF THE SUBGRADE. ENSURE THE EXISTING GRASS ON THESE AREAS, PRIOR TO PLACING TOPSOIL, DOES NOT EXCEED TWO INCHES IN HEIGHT. THE FINISHED GRADE OF TOPSOIL SHALL NOT CONTAIN HARD LUMPS, ROCKS, ROOTS, OR OTHER FOREIGN MATTER AND SHALL RESULT IN A SMOOTH TRANSITION BETWEEN THE NEW LAWN AND THE UNDISTURBED AREA.

RESTORE ALL DISTURBED AREAS SEEDING AND MULCHING. INCLUDE ALL TOPSOIL, FERTILIZER, SEEDING, AND MULCHING MATERIAL. NO SEPARATE PAYMENT WILL BE MADE FOR REPAIRS TO SEEDING AND MULCHING WITHIN THE ONE YEAR WARRANTY PERIOD.

USACE SPILLWAY MARKERS

THIS PROJECT IS LOCATED WITHIN THE BACKWATERS OF A FLOOD CONTROL RESERVOIR. THE WATER SURFACE ELEVATION IS CONTROLLED BY THE US ARMY CORPS OF ENGINEERS. THE UNITED STATES GOVERNMENT HOLDS A FLOWAGE EASEMENT OVER ALL GROUND ELEVATIONS LOWER THAN THE DAM SPILLWAY. THE DAM SPILLWAY ELEVATION AT CHARLES MILL LAKE IS 1020 (NGVD29). THIS FLOWAGE EASEMENT IS DELINEATED BY INTERMITTENT MONUMENTS REFERRED TO AS "SPILLWAY MARKERS". THE CONTRACTOR SHALL NOT DISTURB ANY SPILLWAY MARKER. IN THE EVENT THAT A SPILLWAY MARKER IS FOUND TO CONFLICT WITH PLAN WORK, THE CONTRACTOR SHALL INFORM THE MWCD INSPECTOR IMMEDIATELY.

WATER SURFACE ELEVATIONS

CHARLES MILL LAKE IS A FLOOD CONTROL RESERVOIR WITH DAM OPERATIONS CONTROLLED BY THE US ARMY CORPS OF ENGINEERS (CORPS). THE DAM SPILLWAY ELEVATION (HIGHEST POSSIBLE WATER SURFACE ELEVATION) IS 1020 FEET. THE TYPICAL SUMMER POOL ELEVATION IS 997 FEET. ACTUAL LAKE LEVELS ARE SUBJECT TO CHANGE WITHOUT NOTICE AS THEY ARE DEPENDENT UPON PRECIPITATION AND WEATHER CONDITIONS.

WORK BELOW SPILLWAY ELEVATION

THE CHARLES MILL LAKE DAM OVERFLOW SPILLWAY ELEVATION IS 1020. A CONSENT PERMIT FROM THE US ARMY CORPS OF ENGINEERS IS ON FILE AT THE MWCD OFFICES FOR ALL WORK BEING PERFORMED WITHIN THE USACE FLOWAGE EASEMENT, DEFINED AS ANY AREA BELOW THE SPILLWAY ELEVATION. NO FILL SHALL BE PERMITTED BELOW THIS ELEVATION EXCEPT AS SHOWN ON THE CONSTRUCTION PLANS. ANY VARIANCE FROM THE CONSTRUCTION PLANS IN EARTHWORK PERFORMED BELOW THIS ELEVATION SHALL BE APPROVED BY THE ENGINEER PRIOR TO ANY WORK.

UTILITIES

THE UTILITIES SHOWN ON THE PLANS CAN NOT BE CERTIFIED AS COMPLETE NOR CORRECT. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE EACH UTILITY WITHIN THE CONSTRUCTION AREA LOCATED AND VERIFIED PRIOR TO CONSTRUCTION. THE CONTRACTOR MUST ALSO VERIFY THAT ANY DISCREPANCIES IN THE UTILITIES, AS MENTIONED ABOVE, WILL NOT AFFECT THE PLANNED CONSTRUCTION. ANY DISCREPANCIES MUST IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE OWNER, IN WRITING.

INVESTIGATION, SUPPORT, PROTECTION AND RESTORATION OF ALL EXISTING UTILITIES AND APPURTENANCES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. COSTS SHALL BE INCLUDED IN BID ITEMS.

THE LOCATION OF EXISTING UTILITIES AND STRUCTURES SHOWN ON THE PLANS ARE BASED ON AVAILABLE RECORDS AT THE TIME OF SURVEY AND INFORMATION PROVIDED BY THE UTILITY COMPANIES. THEY ARE SHOWN AS ACCURATELY AS POSSIBLE AND THE OWNER'S REPRESENTATIVE AND OWNERS ASSUME NO RESPONSIBILITY AS TO THE ACCURACY OF THE UNDERGROUND FACILITIES SHOWN ON THE PLANS.

UTILITIES CONTACTS

ELECTRIC CO.: OHIO EDISON, (888)-544-4877
CHARLES MILL MARINA: (419)-368-5951
MWCD UTILITIES: (330)-340-8401
GAS CO.: COLUMBIA GAS OF OHIO, (800)-344-4077

UTILITIES NOTIFICATION

AT LEAST TWO WORKING DAYS PRIOR TO COMMENCING CONSTRUCTION OPERATIONS IN AN AREA WHICH MAY INVOLVE UNDERGROUND UTILITY FACILITIES, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER, THE OHIO UTILITY PROTECTION SERVICE (OUPS) AT 1-800-362-2764, THE OHIO OIL & GAS PRODUCERS UNDERGROUND PROTECTION SERVICE (OGPUPS) AT 1-800 925-0988, AND THE OWNERS OF EACH UNDERGROUND UTILITY FACILITY SHOWN IN THE PLANS. THE OWNER OF THE UNDERGROUND UTILITY FACILITY SHALL, WITHIN FORTY-EIGHT HOURS, EXCLUDING SATURDAYS, SUNDAYS, AND LEGAL HOLIDAYS, AFTER NOTICE IS RECEIVED, STAKE, MARK OR OTHERWISE DESIGNATE THE LOCATION OF THE UNDERGROUND UTILITY FACILITIES IN THE CONSTRUCTION AREA IN SUCH A MANNER AS TO INDICATE THEIR COURSE TOGETHER WITH THE APPROXIMATE DEPTH AT WHICH THEY WERE INSTALLED. THE MARKING OR LOCATING SHALL BE COORDINATED TO STAY APPROXIMATELY TWO DAYS AHEAD OF THE PLANNED CONSTRUCTION.

WORKING HOURS

CONSTRUCTION SHALL BE PERFORMED BETWEEN 7:00 AM - 7:00 PM, MONDAY-FRIDAY ONLY, EXCLUDING HOLIDAYS. "QUIET TIME" IN CAMPGROUND NEIGHBORHOODS IS 11:00 PM - 7:00 AM AND SHALL BE OBSERVED AT ALL TIMES. MWCD WILL CONSIDER CONTRACTOR'S REQUEST TO CHANGE WORK HOURS ON A CASE BY CASE BASIS. ANY ADDITIONAL WORK BEING PERFORMED OUTSIDE OF THESE REQUIREMENTS SHALL BE APPROVED BY THE MWCD INSPECTOR PRIOR TO THE WORK.

EXISTING LEGEND

BOLLARD	MISC LID	YARD LIGHT
CONTROL BENCHMARK	MONITOR WELL	SANITARY CLEANOUT
ROW MONUMENT	GAS MARKER	SANITARY MANHOLE
FLAG POLE	GAS METER	VENT PIPE
MAIL BOX	GAS VALVE	STORM CURB INLET
UTILITY POLE	AC UNIT	STORM INLET
POST	AREA LIGHT	STORM ROOF DRAIN
SOIL BORING	ELECTRICAL BOX	STORM DRAIN MANHOLE
HANDICAP SYMBOL	ELECTRICAL HAND HOLE	STORM YARD DRAIN
SIGN	ELECTRICAL METER	FIRE DEPT CONNECTION
CABLE MANHOLE	ELECTRICAL MANHOLE	FIRE HYDRANT
CABLE PEDESTAL	ELECTRICAL MARKER	IRRIGATION VALVE
TELEPHONE PEDESTAL	ELECTRICAL TRANS. PAD	POST INDICATOR VALVE
TELEPHONE HAND HOLE	GUY POLE/WIRE	WELL
TELEPHONE POLE	POWER POLE	WATER METER
TELEPHONE MANHOLE	TRAFFIC SIGNAL POLE	WATER VALVE
FIBER OPTIC MARKER	TREE STUMP	GATE VALVE

FENCE LINE	E	UNDERGROUND ELECTRICAL
SS SANITARY SEWER	FIB	UNDERGROUND FIBER OPTIC
SD STORM DRAIN	E	OVERHEAD ELECTRICAL
W WATER LINE	GAS	UNDERGROUND GAS
TREE LINE	TEL	UNDERGROUND TELEPHONE
LOD LIMITS OF DISTURBANCE		
620 EXISTING CONTOURS		
DELINEATED OHWM		
NORMAL WATER ELEVATION		

HOUSEBOAT PATH RENOVATIONS
GENERAL NOTES

SCALE: AS NOTED
DATE: 09/29/25
CHECKED: KGH/GS
DRAWN: DCLH

1319 THIRD ST. N.W.
P.O. BOX 349
NEW PHILADELPHIA, OHIO
44663

MUSKINGUM WATERSHED CONSERVANCY DISTRICT

REV.	DATE	DESCRIPTION	BY

SHEET NO.
G1.1

WATER NOTES:

1. PROVIDE WATER PIPE AND FITTINGS MEETING THE FOLLOWING REQUIREMENTS:

1.A. WATER MAINS LESS THAN 4–INCHES:

1.A.1. PIPE– HDPE, PER AWWA C901, NSF/ANSI 61 AND NSF/ANSI 14, IPS, DR 9 (250 PSI) MINIMUM WITH BUTT FUSION JOINTS.

1.A.2. FITTINGS– HDPE, MOLDED, PER AWWA C901, NSF/ANSI 61 AND NSF/ANSI 14, IPS, DR 9 (250 PSI) MINIMUM WITH BUTT FUSION JOINTS.

1.A.3. ELECTRO–FUSION COUPLINGS ARE ACCEPTABLE FOR USE IN THE REPAIR OF DEFECTIVE BUTT FUSED JOINTS, OR FOR FIELD JOINING OF TWO BORED SEGMENTS OF NEW PIPE OF SIMILAR DIAMETER AND SDR.

1.B. WATER MAINS 4–INCHES AND LARGER:

1.B.1. PIPE– HDPE, PER AWWA C906, NSF/ANSI 61 AND NSF/ANSI 14, DIPS, DR 11 (200 PSI) MINIMUM WITH BUTT FUSION JOINTS.

1.B.2. FITTINGS– HDPE, MOLDED PER AWWA C906. NSF/ANSI 61 AND NSF/ANSI 14, DIPS, SDR 11 (200 PSI) MINIMUM WITH BUTT FUSION JOINTS.

1.B.3. ELECTRO–FUSION COUPLINGS ARE ACCEPTABLE FOR USE IN THE REPAIR OF DEFECTIVE BUTT FUSED JOINTS, OR FOR FIELD JOINING OF TWO BORED SEGMENTS OF NEW PIPE OF SIMILAR DIAMETER AND SDR.

2. WATER SERVICE LINES

2.A. PIPE– HDPE, PER AWWA C901, NSF/ANSI 61 AND NSF/ANSI 14, 1/2–INCH THROUGH 2–INCH, CTS, DR 9 (250 PSI) MINIMUM

2.B. CONNECT SERVICE LINES TO HDPE WATER MAINS

2.B.1. USE HDPE SERVICE SADDLE FUSION OR ELECTROFUSION TAPPING TEES WITH OUTLET STUB APPROPRIATELY SIZED FOR CTS, DR 9 SERVICE LINE.

2.B.2. FOR NEW INSTALLATIONS, SADDLE FUSION OR ELECTROFUSION TEES OR OUTLETS APPROPRIATELY SIZED FOR CTS, DR 9 SERVICE LINE ARE ACCEPTABLE.

2.C. YARD HYDRANT WATER SERVICE CONNECTION DETAILS ARE SHOWN ON YARD HYDRANT DETAIL.

3. CURB VALVES & BOXES

3.A. CURB STOPS SHALL BE PER AWWA C800, BRASS PLUG TYPE, WITH CTS COMPRESSION/CTS COMPRESSION FITTINGS, AS MANUFACTURED BY MUELLER CORPORATION. PROVIDE HDPE INTERNAL STIFFENERS AT ALL COMPRESSION FITTINGS.

5. HYDRANTS

5.A. POST TYPE FLUSH HYDRANTS SHALL BE POST TYPE CONFORMING TO AWWA C502, MUELLER NO, A–411, OR APPROVED EQUAL.

5.A.1. 1 WAY (1– 2–1/2 INCH NOZZLE); HOSE CONNECTION/THREAD TYPE – US STANDARD THREAD WITH 2–1/2 INCH FEMALE STANDARD THREAD X 2–1/2 INCH MALE CAM LOCK HOSE CONNECTION WITH FEMALE LOCKABLE CAP

5.A.2. 5 FOOT DEPTH OF BURY UNLESS OTHERWISE NOTED ON PLANS.

5.A.3. HYDRANT LEADS SHALL BE 2–INCH MINIMUM/3–INCH MAXIMUM WITH CORRESPONDING CURB VALVE/GATE VALVE AND VALVE BOX; HUB OR MJ

5.A.4. 150 PSI MAX OPERATING PRESSURE

5.A.5. HYDRANTS TO OPEN TO LEFT (COUNTER CLOCKWISE)

5.A.6. NOZZLE CAPS AND OPERATING NUTS: NATIONAL STANDARD 1–1/2 INCH PENTAGON

5.A.7. THREAD ON STEM AND NUT: US STANDARD

5.B. PAINTING: ALL MWCD HYDRANTS SHALL BE PAINTED WITH CHROME YELLOW HYDRANT BODIES.

5.B.1. RED TOP/CAPS: FIRE HYDRANTS WITH MAIN PIPING THAT IS 4–INCHES AND LARGER THAT CAN BE USED IN REFILLING OF TANK/PUMPER TRUCKS. WATER SYSTEM CANNOT HANDLE SUCTION PRESSURE OF FIRE TRUCK PUMPING FROM THIS HYDRANT, AND DIRECT CONNECTION OF PUMPS COULD COLLAPSE WATERLINES IN IMMEDIATE AREA.

5.B.2. BLACK TOP/CAPS: POST TYPE FLUSH HYDRANTS THAT ARE NOT RECOMMENDED FOR USE IN REFILLING OF TANK/PUMPER TRUCKS.

5.C. HYDRANT COLOR SCHEME SHALL NOT CONFLICT WITH COLORS OF WATER SUPPLIER'S HYDRANTS THAT ARE LOCATED ON MWCD PROPERTY (CHARLES MILL LAKE PARK & MARINA)

6. TYPICAL 48 INCH MIN. COVER ON PROPOSED WATER LINES IF NOT WINTERIZED.

6.A. ANY EXISTING RAW WATER LINES, FINISHED WATER LINES, AND APPURTENANCES LOCATED IN CUT AREAS (INCLUDING REQUIRED/AGREED UPON COMPENSATORY STORAGE CUTS) THAT WILL REMAIN IN SERVICE REQUIRE A 4–FOOT MINIMUM COVER AT FINAL GRADE.

6.B. COORDINATE ANY WELL/RAW WATER LINE OUTAGES WITH MWCD UTILITIES STAFF. PLEASE NOTE THAT LOWERING OF EXISTING RAW WATER LINES MAY ALSO IMPACT WELL ELECTRICAL AND/OR CONTROL WIRING ALSO LOCATED IN THE SAME PIPE TRENCH.

7. MAINTAIN 10 FEET HORIZONTAL SEPARATION AND 18 INCH VERTICAL SEPARATION (OUTSIDE OF PIPE TO OUTSIDE OF PIPE) BETWEEN WATERLINE AND SANITARY SEWERS.

8. PIPE SHALL BE INSTALLED BY EITHER TRENCH EXCAVATION OR HORIZONTAL DIRECTIONAL DRILLING (HDD) METHODS. HDD SHALL HAVE REMOTE STEERING SYSTEM WITH ELECTRONIC MONITORING OF BORING DEPTH AND LOCATION. DRILLING FLUID TO BE COMPLETELY INERT WITH NO ENVIRONMENTAL RISK. PROVIDE SUMP AREAS TO CONTAIN DRILLING FLUIDS AND REMOVE, TRANSPORT, AND LEGALLY DISPOSE OF DRILLING SPOILS UPON COMPLETION. DO NOT ALLOW FLUIDS/SPOILS TO ENTER SANITARY SEWERS, STORM SEWERS, OR OTHER DRAINAGE SYSTEMS. IF HDD IS USED, PROVIDE TEMPORARY MARKING (SPRAY PAINT, ETC.) OF HORIZONTAL LOCATION AND RECORD ACTUAL DEPTH OF PIPE AT 50 FOOT INTERVALS.

9. A CONTINUOUS AND UNIFORM BEDDING SHALL BE PROVIDED IN THE TRENCH FOR ALL BURIED PIPE. BACKFILL MATERIAL SHALL BE TAMPED IN LAYERS AROUND THE PIPE TO A SUFFICIENT HEIGHT ABOVE THE PIPE TO ADEQUATELY SUPPORT AND PROTECT THE PIPE. STONES FOUND IN THE TRENCH SHALL BE REMOVED FOR A DEPTH OF AT LEAST SIX INCHES BELOW THE BOTTOM OF THE PIPE. SAND BEDDING/INITIAL BACKFILL SHALL HAVE ADEQUATE MOISTURE CONTENT FOR PROPER COMPACTION.

10. PROVIDE REACTION/THRUST BACKING FOR ALL TEES (INCLUDING TAPPING SLEEVES), BENDS, PLUGS, CAPS, AND REDUCERS TO PREVENT MOVEMENT.

11. ENSURE ALL JOINTS ARE RESTRAINED WITHIN 40 FEET OF ALL VALVES, FITTINGS, AND BENDS.

12. MARKING TAPE NOTE: UNDERGROUND UTILITY MARKING TAPE SHALL BE 3–INCH WIDE, NON–DETECTABLE TYPE, ANSI COLOR CODED WITH LETTERING INDICATING THE UTILITY TYPE BURIED BELOW. INSTALL OVER TOP OF PIPE TO DIMENSION SHOWN IN TRENCH DETAIL FOR UTILITY TYPE BEING INSTALLED.

13. PERFORM HYDROSTATIC PRESSURE TEST IN ACCORDANCE WITH ASTM F2164 FOR POLYETHYLENE PIPE. CONDUCT TEST AT 150% OF WORKING PRESSURE OR 150 PSI, WHICHEVER IS GREATER, AT THE POINT OF TESTING. SEE SPECIFICATION 33 11 00.

14. CHLORINATE AND FLUSH ALL NEW LINES IN ACCORDANCE WITH AWWA STANDARDS C651 AND DISPOSE OF RESIDUAL CHLORINATED WATER FLUSHED FROM SYSTEM IN AN ENVIRONMENTALLY SAFE MANNER. CONTRACTOR SHALL BE RESPONSIBLE FOR BACTERIOLOGICAL SAMPLING AND ANALYSIS BY AN OEPA–CERTIFIED LABORATORY, WHICH SHALL PROVIDE CERTIFIED RESULTS.

15. NOTIFY OWNER 48 HOURS PRIOR TO NEEDING TEMPORARY SHUTDOWN OF WATER SYSTEM FOR CONNECTIONS TO NEW PIPING. MAXIMUM SHUTDOWN SHALL BE 2 HOURS.

16. PROVIDE AND MAINTAIN TEMPORARY SEDIMENT AND EROSION CONTROL BEST MANAGEMENT PRACTICES FOR DISTURBED AREAS PRIOR TO COMMENCING WORK. REMOVE EROSION CONTROL MEASURES ONCE THE UP–SLOPE PERMANENT VEGETATION HAS REACHED 70% COVERAGE OR BETTER.

GENERAL ELECTRICAL NOTES

1. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ELECTRICAL INSTALLATIONS WITH ALL OTHER TRADES TO AVOID CONFLICTS WITH PIPING, STRUCTURE, ETC.
2. ALL WIRING SHALL BE INSTALLED IN CONDUIT WITHOUT EXCEPTION. MINIMUM SIZE CONDUCTOR SHALL BE #12AWG AND MIN CONDUIT SHALL BE 3/4" EMT UNLESS OTHERWISE NOTED.
3. ALL CONDUCTORS SHALL BE TYPE THWN/THHN–2 90° C COPPER UNLESS OTHERWISE NOTED.
4. ALL EXTERIOR "GF" RECEPTACLES SHALL BE LISTED FOR WET LOCATION.
5. ALL ELECTRICAL EQUIPMENT SHALL BE GROUNDED IN ACCORDANCE WITH ARTICLE 250 OF THE N.E.C.
6. THE ELECTRICAL CONTRACTOR SHALL PROVIDE MARKING PER NEC 110.21, 110.22 & 110.24 SERVICE EQUIPMENT MUST BE MARKED WITH THE MAXIMUM AVAILABLE FAULT CURRENT.
7. THE CONTRACTOR SHALL PROVIDE ARC–FLASH HAZARD WARNING CABLES PER NEC 110.16 AND NFPA 70E ON ALL ELECTRICAL SWITCHBOARDS AND PANEL BOARDS.
8. ALL ELECTRICAL EQUIPMENT INSTALLED ON THE ROOF OR OUTSIDE OF THE BUILDING SHALL BE NEMA 3R RATED.
9. THE ELECTRICAL WORK SHALL COMPLY WITH ALL APPLICABLE CITY, COUNTY, STATE AND SERVING ELECTRICAL UTILITY CODES, ORDINANCES, RULES AND REGULATIONS. IT SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO MEET WTIH THE ELECTRIC UTILITY PRIOR TO BID DATE IN ORDER TO CONFIRM ALL UTILITY COMPANY REQUIREMENTS. ALL COST FOR SUCH COORDINATION SHALL BE INCLUDED IN THE CONTRACTORS BID. THE ENTIRE ELECTRICAL INSTALLATION SHALL COMPLY WITH OR SURPASS THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE.
10. THE ELECTRICAL CONTRACTOR SHALL FURNISH ALL MATERIALS, TOOLS, LABOR, PLAN CHECK FEES, ETC., FOR A COMPLETE ELECTRICAL INSTALLATION UNLESS OTHERWISE NOTED ON PLANS.
11. ALL MATERIALS FURNISHED BY THE ELECTRICAL CONTRACTOR SHALL BE NEW AND OF FIRST CLASS QUALITY, SHALL BE U.L. LISTED AND FREE OF ANY DEFECTS UNLESS OTHERWISE NOTED ON PLANS.
12. ALL EQUIPMENT SHALL BE RATED FOR USE INTENDED – VOLTAGE, H.P., ETC. ALL DISCONNECT SWITCHES FURNISHED SHALL BE LOAD BREAK RATED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING AND INSTALLING A PROPERLY RATED LOCAL DISCONNECT SWITCH ON ALL ITEMS OF ELECTRICAL EQUIPMENT WHICH DO NOT HAVE AN INTEGRAL LOCAL DISCONNECTING MEANS, WHETHER OR NOT SPECIFICALLY SHOWN ON DRAWINGS. WHERE REQUIRED BY NEC LOCAL DISCONNECT SHALL BE FUSIBLE OR HACR–RATED.
13. ALL NECESSARY PERMITS REQUIRED FOR ELECTRICAL INSTALLATIONS ARE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR AND SHALL BE CONSIDERED TO BE PART OF HIS CONTRACT FEE.
14. THE ELECTRICAL CONTRACTOR SHALL FULLY GUARANTEE HIS INSTALLATION FOR A PERIOD OF ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE BY THE OWNER AGAINST IMPERFECT WORKMANSHIP AND MALFUNCTION OF EQUIPMENT. ANY WORK FOUND TO BE DEFECTIVE WITHIN THIS PERIOD SHALL BE REPAIRED OR REPLACED PROMPTLY AT NO ADDITIONAL COST TO THE OWNER.
15. DRAWINGS ARE DIAGRAMMATIC IN NATURE AND CANNOT SHOW EVERY CONNECTION, JUNCTION BOX, WIRE, CONDUIT, ETC. THE EXACT LOCATION AND ARRANGEMENT OF ALL PARTS SHALL BE DETERMINED AS THE WORK PROGRESSES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING A COMPLETE AND FUNCTIONAL ELECTRICAL SYSTEM.
16. ALL WORK SHALL BE IN ACCORDANCE WITH PROJECT SPECIFICATIONS.
17. THE CONTRACTOR SHALL COORDINATE ALL WORK PERTAINING TO UTILITY SERVICE CONDUCTORS, CONDUIT AND EQUIPMENT WITH FIRELANDS.
18. THE CONTRACTOR SHALL COORDINATE CONDUIT SIZE FOR UNDERGROUND ELECTRICAL SERVICE RUNS WITH FIRELANDS.
19. CONTRACTOR SHALL VISIT SITE AND FAMILIARIZE THEMSELVES WITH SLOPES WITH REGARDS TO DISTANCES SHOWN ON THE DRAWINGS. ALL BID PRICING DISTANCES SHALL INCLUDE ADDITIONAL DISTANCES TO ACCOUNT FOR ELEVATION CHANGES.
20. THE CONTRACTOR MUST IDENTIFY ALL EXISTING UTILITIES RELATED TO THE PROJECT SCOPE.
21. PROVIDE CAUTION WHEN WORKING AROUND EXISTING UTILITIES. AVOID KNOWN AREAS THAT HAVE MAJOR UTILITIES. NOTIFY THE ENGINEER OF ANY COMPLICATION IN ALL CASES, MAINTAIN THE EXISTING SYSTEM AND PROTECT FROM DAMAGES.
22. THE CONTRACTOR MUST PROVIDE A PRIVATE LOCATOR OF UTILITIES. THE OWNER MAY OFFER SOME KNOWLEDGE OF AN AREA AND PROVIDE PREVIOUS CONSTRUCTION DOCUMENTS SHOWING THE APPROXIMATE LOCATION OF SUCH UTILITIES BUT THE CONTRACTOR IS RESPONSIBLE TO VERIFY AND PAY FOR THE DOCUMENTATION OF EXISTING UTILITIES.
23. MULTIPLE CONDUIT RUNS ARE SHOWN GROUPED IN THE SAME TRENCH TO AVOID POTENTIAL CONFLICTS WITH OTHER UNDERGROUND UTILITIES.
24. LOCATION OF ELECTRICAL EQUIPMENT AND CONDUIT RUNS IS DIAGRAMMATIC AND SHOWS THE DESIGN INTENT ONLY. CONTRACTOR SHALL COORDINATE WITH THE PLANS OF OTHER DISCIPLINES AND THEIR INSTALLERS FOR THE EXACT LOCATIONS OF ALL EQUIPMENT. PULL BOXES OR JUNCTION BOXES, THOUGH NOT SHOWN ON PLANS, SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR.
25. ALL EXPOSED CONDUITS SHALL BE SCHEDULE 80 PVC, BELOW GRADE CONDUITS SHALL BE SCHEDULE 40 PVC.
26. EXPANSION SLEEVES ARE REQUIRED AT ALL TRANSITION FROM BELOW GRADE TO DEVICES MOUNTED ABOVE GROUND.
27. REFER TO SHEET D1.1 FOR CONDUIT TRENCH DETAILS.
28. CONTRACTOR IS RESPONSIBLE FOR OPENING AND THEN FILLING THE TRENCHES, INSTALLING ALL PVC CONDUIT, AND PREPARING THE SITES. AEP WILL INSTALL ALL PRIMARY CABLES UP TO THE TRANSFORMER, AND CONTRACTOR WILL INSTALL ALL SECONDARY CABLES FROM THE METER. WARNING TAPE FOR PRIMARY CONDUCTORS WILL BE FURNISHED BY FIRELANDS AND INSTALLED BY THE CONTRACTOR.
29. PRIMARY CABLE CONDUIT MUST BE A MINIMUM OF 42" BELOW THE FINAL GROUND LEVEL.
30. PRIMARY CONDUIT SIZE WILL BE DETERMINED BY AEP, BASED ON SIZE OF CABLE AND LENGTH OF RUN. IF TRENCH IS LONGER THAN 1000' DIRECT BURIAL METHOD MAY BE USED.

GENERAL STORM WATER

1. STORM SEWER PIPE: ALL STORM SEWER PIPE SHALL BE RCP, UNLESS OTHERWISE NOTED ON THE PLANS, IN ACCORDANCE WITH THE FOLLOWING:

PLAN CODE	MATERIAL
12"–66"	RCP REINFORCED CONCRETE PIPE (ASTM C–76)
< 12"	PVC SDR–35, ASTM D–3034

REFER TO PLANS FOR PIPE SIZES.

FOR PIPE SIZES 12" TO 54" WITH COVER BETWEEN 1'–3', USE SEWER CLASS III CONCRETE PIPE. FOR COVER GREATER THAN 3' BUT LESS THAN 9', USE CLASS II CONCRETE PIPE. FOR COVER BETWEEN 9'–13', USE CLASS III CONCRETE PIPE. FOR PIPE SIZES GREATER THAN 54" WITH COVER BETWEEN 1'–9', USE CLASS II CONCRETE PIPE. FOR COVER GREATER THAN 9' BUT LESS THAN 13', USE CLASS III CONCRETE PIPE.

2. BAND–SEAL OR SIMILAR COUPLING SHALL BE USED WHEN JOINING STORM SEWER PIPES OF DISSIMILAR MATERIALS.

3. ALL FOOTING DRAIN DISCHARGE PIPES AND DOWN SPOUTS SHALL DISCHARGE TO THE GROUND/STORM SEWER SYSTEM.

4. CONSTRUCTION: ALL STORM SEWERS ARE TO BE CONSTRUCTED USING A LASER INSTRUMENT TO MAINTAIN LINE AND GRADE.

5. COVER: THE CONTRACTOR SHALL MAINTAIN AT LEAST THREE (3) FEET OF COVER OVER THE TOP OF SHALLOW PIPES AT ALL TIMES DURING CONSTRUCTION. THE CONTRACTOR SHALL MOUND OVER ANY PIPES THAT HAVE LESS THAN THREE (3) FEET OF COVER DURING CONSTRUCTION UNTIL THE AREA IS FINAL GRADED OR PAVED.

6. STRUCTURES: MANHOLE, CATCH BASIN, AND INLET BOTTOMS SHALL BE PRECAST CONCRETE SECTIONAL UNITS OR MONOLITHIC CONCRETE. MANHOLES AND CATCH BASINS SHALL BE A MINIMUM OF FOUR (4) FEET IN DIAMETER UNLESS OTHERWISE SPECIFIED ON THE PLANS. STRUCTURE JOINTS SHALL BE SEALED WITH "O" RING OR BUTYL ROPE. A MAXIMUM OF TWELVE (12) INCHES OF ADJUSTING RINGS SHALL BE USED.

7. A CONCRETE BENCH TO DIRECT FLOWS SHALL BE CONSTRUCTED IN THE BOTTOM OF ALL INLETS AND MANHOLES.

8. THE FRAME, GRATE, AND/OR CLOSED LID SHALL BE CAST IRON OF THE STYLE SHOWN ON THE PLANS.

9. CLEANING: THE STORM SEWER SYSTEM SHALL BE THOROUGHLY CLEANED PRIOR TO FINAL INSPECTION AND TESTING.

10. MANHOLES, CATCH BASINS, INLETS, FRAMES, GRATES, AND OTHER STRUCTURES SHALL BE CONSTRUCTED OF THE TYPE, STYLE, AND SIZE AS SET FORTH WITH THE ORDINANCES AND STANDARDS OF THE MUNICIPALITY.

11. WHEN NOTED ON PLANS OR APPROVED BY ENGINEER, HIGH–DENSITY POLYETHYLENE PIPE (HDPE) IN GENERAL CONFORMANCE WITH ASTM F2648 / F2648M MAY BE UTILIZED.

HOUSEBOAT PATH RENOVATIONS
WATER AND ELECTRICAL NOTES

DRAWN: DCLH
CHECKED: KGH/GS
DATE: 09/29/25
SCALE: AS NOTED

1319 THIRD ST. N.W.
P.O. BOX 349
NEW PHILADELPHIA, OHIO
44663

MUSKINGUM WATERSHED CONSERVANCY DISTRICT

REV.	DATE	DESCRIPTION	BY

SHEET NO.
G1.2

GENERAL LANDSCAPE SPECIFICATIONS

A. SCOPE OF WORK

1. THE WORK CONSISTS OF: FURNISHING ALL LABOR, MATERIALS, EQUIPMENT, TOOLS, TRANSPORTATION, AND ANY OTHER APPURTENANCES NECESSARY FOR THE COMPLETION OF THIS LANDSCAPING AS SHOWN ON THE DRAWINGS AND AS SPECIFIED HEREIN.

2. WORK SHALL INCLUDE MAINTENANCE AND WATERING OF ALL CONTRACT PLANTING AREAS UNTIL CERTIFICATION OF ACCEPTANCE BY THE OWNER.

B. PROTECTION OF EXISTING LANDSCAPING

1. ALL EXISTING PLANTING ALREADY COMPLETED OR ESTABLISHED AND DESIGNATED TO REMAIN SHALL BE PROTECTED FROM DAMAGE BY THE CONTRACTOR UNLESS OTHERWISE SPECIFIED. ALL DAMAGE RESULTING FROM NEGLIGENCE SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE OWNER, AT NO COST TO THE OWNER.

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UTILITIES, WHETHER PUBLIC OR PRIVATE, PRIOR TO LANDSCAPING. THE OWNER AND DESIGN PROFESSIONAL SHALL NOT BE RESPONSIBLE FOR THE ACCURACY AND COMPLETENESS OF ANY SUCH INFORMATION OR DATA. THE CONTRACTOR SHALL HAVE FULL RESPONSIBILITY FOR; REVIEWING AND CHECKING ALL SUCH INFORMATION AND DATA; LOCATING ALL UNDERGROUND FACILITIES DURING CONSTRUCTION; THE SAFETY AND PROTECTION THEREOF; REPAIRING ANY DAMAGE THERETO RESULTING FROM THE WORK. THE COST OF ALL WILL BE CONSIDERED AS HAVING BEEN INCLUDED IN THE CONTRACT PRICE. THE CONTRACTOR SHALL NOTIFY ANY AFFECTED UTILITY COMPANIES OR AGENCIES IN WRITING AT LEAST 48 HOURS PRIOR TO BEGINNING CONSTRUCTION.

C. PROTECTION OF EXISTING PLANT MATERIALS

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL UNAUTHORIZED CUTTING OR DAMAGE TO TREES AND SHRUBS EXISTING OR OTHERWISE, CAUSED BY CARELESS EQUIPMENT OPERATION, MATERIAL STOCKPILING, ETC... THIS SHALL INCLUDE COMPACTION BY DRIVING OR PARKING INSIDE THE DRIP–LINE AND SPILLING OIL, GASOLINE, OR OTHER DELETERIOUS MATERIALS WITHIN THE DRIP–LINE. NO MATERIALS SHALL BE BURNED ON SITE. EXISTING TREES KILLED OR DAMAGED SO THAT THEY ARE MISSHAPEN AND/OR UNSIGHTLY SHALL BE REPLACED AT THE COST TO THE CONTRACTOR OF FOUR HUNDRED DOLLARS ($400) PER CALIPER INCH ON AN ESCALATING SCALE WHICH ADDS AN ADDITIONAL TWENTY (20) PERCENT PER INCH OVER FOUR (4) INCHES CALIPER AS FIXED AND AGREED LIQUIDATED DAMAGES. CALIPER SHALL BE MEASURED SIX (6) INCHES ABOVE GROUND LEVEL FOR TREES UP TO AND INCLUDING FOUR (4) INCHES IN CALIPER AND TWELVE (12) INCHES ABOVE GROUND LEVEL FOR TREES OVER FOUR (4) INCHES IN CALIPER.

D. MATERIALS

1. GENERAL

MATERIAL SAMPLES LISTED BELOW SHALL BE SUBMITTED FOR APPROVAL, ON SITE OR AS DETERMINED BY THE OWNER. UPON APPROVAL, DELIVERY OF MATERIALS MAY COMMENCE.

MATERIAL	SAMPLE SIZE
MULCH	ONE (1) CUBIC FOOT
TOPSOIL MIX	ONE (1) CUBIC FOOT
PLANTS	ONE (1) OF EACH VARIETY (OR TAGGED IN NURSERY)
COMPOST	ONE (1) CUBIC FOOT

2. PLANT MATERIALS

a. FURNISH NURSERY–GROWN PLANTS TRUE TO GENUS, SPECIES, VARIETY, CULTIVAR, STEM FORM, SHEARING, AND OTHER FEATURES INDICATED IN PLANT SCHEDULE SHOWN ON DRAWINGS AND COMPLYING WITH ANSI Z60.1; AND WITH HEALTHY ROOT SYSTEMS DEVELOPED BY TRANSPLANTING OR ROOT PRUNING. PROVIDE WELL–SHAPED, FULLY BRANCHED, HEALTHY, VIGOROUS STOCK, DENSELY FOLIATED WHEN IN LEAF AND FREE OF DISEASE, PESTS, EGGS, LARVAE, AND DEFECTS SUCH AS KNOTS, SUN SCALD, INJURIES, ABRASIONS, AND DISFIGUREMENT.

b. TREES FOR PLANTING SHALL BE UNIFORM IN SIZE AND SHAPE.

c. NO SUBSTITUTIONS SHALL BE MADE WITHOUT WRITTEN PERMISSION FROM THE OWNER.

d. PROVIDE PLANTS OF SIZES, GRADES, AND BALL OR CONTAINER SIZES COMPLYING WITH ANSI Z60.1 FOR TYPES AND FORM OF PLANTS REQUIRED. PLANTS OF A LARGER SIZE MAY BE USED IF ACCEPTABLE TO PROJECT LANDSCAPE ARCHITECT WITH A PROPORTIONATE INCREASE IN SIZE OF ROOTS OR BALLS.

e. PLANTS SHALL BE SUBJECT TO INSPECTION AND APPROVAL AT THE PLACE OF GROWTH, OR UPON DELIVERY TO THE SITE, AS DETERMINED BY THE OWNER, FOR QUALITY, SIZE, AND VARIETY. SUCH APPROVAL SHALL NOT IMPAIR THE RIGHT OF INSPECTION AND REJECTION AT THE SITE DURING PROGRESS OF THE WORK OR AFTER COMPLETION FOR SIZE AND CONDITION OF ROOT BALLS OR ROOTS, LATENT DEFECTS OR INJURIES. REJECTED PLANTS SHALL BE REMOVED IMMEDIATELY FROM THE SITE. NOTICE REQUESTING INSPECTION SHALL BE SUBMITTED IN WRITING BY THE CONTRACTOR AT LEAST ONE (1) WEEK PRIOR TO ANTICIPATED DATE.

f. TREES WITH DAMAGED, CROOKED, OR MULTIPLE LEADERS; TIGHT VERTICAL BRANCHES WHERE BARK IS SQUEEZED BETWEEN TWO BRANCHES OR BETWEEN BRANCH AND TRUNK ("INCLUDED BARK"); CROSSING TRUNKS; CUT–OFF LIMBS MORE THAN ¾ INCH (19 MM) IN DIAMETER; OR WITH STEM GIRDLING ROOTS WILL BE REJECTED.

g. FURNISH TREES AND SHRUBS WITH ROOTS BALLS MEASURED FROM TOP OF ROOT BALL, WHICH SHALL BEGIN AT ROOT FLARE ACCORDING TO ANSI Z60.1. ROOT FLARE SHALL BE VISIBLE BEFORE PLANTING.

h. LABEL AT LEAST ONE PLANT OF EACH VARIETY, SIZE, AND CALIPER WITH A SECURELY ATTACHED, WATERPROOF TAG BEARING LEGIBLE DESIGNATION OF COMMON NAME AND FULL SCIENTIFIC NAME, INCLUDING GENUS AND SPECIES. INCLUDE NOMENCLATURE FOR HYBRID, VARIETY, OR CULTIVAR, IF APPLICABLE FOR THE PLANT AS SHOWN ON DRAWINGS.

i. IF FORMAL ARRANGEMENTS OR CONSECUTIVE ORDER OF PLANTS IS SHOWN ON DRAWINGS, SELECT STOCK FOR UNIFORM HEIGHT AND SPREAD, AND NUMBER THE LABELS TO ASSURE SYMMETRY IN PLANTING.

E. SOIL MIXTURES

1. CONTRACTOR SHALL TEST EXISTING SOIL AND AMEND AS NECESSARY IN ACCORDANCE WITH THE GUIDELINES BELOW:

2. TOPSOIL. CONTRACTOR TO SUBMIT SAMPLES AND PH TESTING RESULTS OF TOPSOIL FOR OWNER'S REPRESENTATIVE APPROVAL PRIOR TO PLANT INSTALLATION OPERATIONS COMMENCE.

a. TOPSOIL SHALL BE FERTILE, FRIABLE, AND OF A LOAMY CHARACTER; REASONABLY FREE OF SUBSOIL, CLAY LUMPS, BRUSH WEEDS AND OTHER LITTER; FREE OF ROOTS, STUMPS, STONES LARGER THAN 2" IN ANY DIRECTION, AND OTHER EXTRANEOUS OR TOXIC MATTER HARMFUL TO PLANT GROWTH. IT SHALL CONTAIN THREE (3) TO FIVE (5) PERCENT DECOMPOSED ORGANIC MATTER, HAVE A PH BETWEEN 5.5 AND 7.5, AND SOLUBLE SALTS LESS THAN 3.0 MMHOS/CM. SUBMIT SOIL SAMPLE AND PH TESTING RESULTS FOR APPROVAL.

b. COMPOST USED FOR SOIL AMENDMENT SHOULD HAVE 35–65% ORGANIC MATTER BY DRY WEIGHT; WITH A PH BETWEEN 6.5 AND 8.5.

F. WATER

1. WATER NECESSARY FOR PLANTING AND MAINTENANCE SHALL BE OF SATISFACTORY QUALITY TO SUSTAIN ADEQUATE PLANT GROWTH AND SHALL NOT CONTAIN HARMFUL, NATURAL OR MAN–MADE ELEMENTS DETRIMENTAL TO PLANTS. WATER MEETING THE ABOVE STANDARD SHALL BE OBTAINED ON THE SITE FROM THE OWNER, IF AVAILABLE, AND THE CONTRACTOR SHALL BE RESPONSIBLE TO MAKE ARRANGEMENTS FOR ITS USE BY HIS TANKS, HOSES, SPRINKLERS, ETC... IF SUCH WATER IS NOT AVAILABLE AT THE SITE, THE CONTRACTOR SHALL PROVIDE SATISFACTORY WATER FROM SOURCES OFF THE SITE AT NO ADDITIONAL COST TO THE OWNER.

H. MULCH

MULCH MATERIAL SHALL BE MOISTENED AT THE TIME OF APPLICATION TO PREVENT WIND DISPLACEMENT. CLEAR MULCH FROM EACH PLANT'S CROWN (BASE) OR AS SHOWN IN PLANTING DETAILS. UNLESS OTHERWISE NOTED ON PLANS, MULCH SHALL BE DOUBLE SHREDDED HARDWOOD MULCH DARK BROWN FINES OR APPROVED EQUAL. DYED MULCH IS NOT ACCEPTABLE. SUBMIT SAMPLES TO PROJECT LANDSCAPE ARCHITECT FOR APPROVAL. MULCH SHALL BE PROVIDED OVER THE ENTIRE AREA OF EACH SHRUB BED, GROUND COVER, VINE BED, AND TREE RING (6' MINIMUM) PLANTED UNDER THIS CONTRACT.

I. DIGGING AND HANDLING

1. ALL TREES SPECIFIED SHALL BE BALLED AND BURLAPPED (B&B) UNLESS OTHERWISE APPROVED BY PROJECT LANDSCAPE ARCHITECT.

2. PROTECT ROOTS OR ROOT BALLS OF PLANTS AT ALL TIMES FROM SUN, DRYING WINDS, WATER AND FREEZING, AS NECESSARY UNTIL PLANTING. PLANT MATERIALS SHALL BE ADEQUATELY PACKED TO PREVENT DAMAGE DURING TRANSIT. TREES TRANSPORTED MORE THAN TEN (10) MILES OR WHICH ARE NOT PLANTED WITHIN THREE (3) DAYS OF DELIVERY TO THE SITE SHALL BE SPRAYED WITH AN ANTITRANSPIRANT PRODUCT ("WILTPRUF" OR EQUAL) TO MINIMIZE TRANSPIRATIONAL WATER LOSS.

3. B&B, AND FIELD GROWN (FG) PLANTS SHALL BE DUG WITH FIRM, NATURAL BALLS OF SOIL OF SUFFICIENT SIZE TO ENCOMPASS THE FIBROUS AND FEEDING ROOTS OF THE PLANTS. NO PLANTS MOVED WITH A ROOT BALL SHALL BE PLANTED IF THE BALL IS CRACKED OR BROKEN. PLANTS SHALL NOT BE HANDLED BY STEMS.

J. CONTAINER GROWN STOCK

1. ALL CONTAINER GROWN MATERIAL SHALL BE HEALTHY, VIGOROUS, WELL–ROOTED PLANTS ESTABLISHED IN THE CONTAINER IN WHICH THEY ARE SOLD. THE PLANTS SHALL HAVE TOPS WHICH ARE OF GOOD QUALITY AND ARE IN A HEALTHY GROWING CONDITION.

2. AN ESTABLISHED CONTAINER GROWN PLANT SHALL BE TRANSPLANTED INTO A CONTAINER AND GROWN IN THAT CONTAINER SUFFICIENTLY LONG ENOUGH FOR THE NEW FIBROUS ROOTS TO HAVE DEVELOPED SO THAT THE ROOT MASS WILL RETAIN ITS SHAPE AND HOLD TOGETHER WHEN REMOVED FROM THE CONTAINER. CONTAINER GROWN STOCK SHALL NOT BE HANDLED BY THEIR STEMS.

3. ROOT BOUND PLANTS ARE NOT ACCEPTABLE AND WILL BE REJECTED.

K. MATERIALS LIST

1. QUANTITIES NECESSARY TO COMPLETE THE WORK ON THE DRAWINGS SHALL BE FURNISHED BY THE CONTRACTOR. QUANTITY ESTIMATES HAVE BEEN MADE CAREFULLY, BUT THE LANDSCAPE ARCHITECT OR OWNER ASSUMES NO LIABILITY FOR OMISSIONS OR ERRORS. SHOULD A DISCREPANCY OCCUR BETWEEN THE PLANS AND THE PLANT LIST QUANTITY, THE PLANS SHALL GOVERN. ALL DIMENSIONS AND/OR SIZES SPECIFIED SHALL BE THE MINIMUM ACCEPTABLE SIZE.

L. FINE GRADING

1. FINE GRADING UNDER THIS CONTRACT SHALL CONSIST OF FINAL FINISHED GRADING OF LAWN AND PLANTING AREAS THAT HAVE BEEN DISTURBED DURING CONSTRUCTION.

2. THE CONTRACTOR SHALL FINE GRADE THE LAWN AND PLANTING AREAS TO BRING THE ROUGH GRADE UP TO FINAL FINISHED GRADE ALLOWING FOR THICKNESS OF SOD, SEED, AND/OR MULCH DEPTH.

3. ALL PLANTING AREAS SHALL BE GRADED AND MAINTAINED FOR POSITIVE DRAINAGE TO SURFACE/SUBSURFACE STORM DRAIN SYSTEMS. AREAS ADJACENT TO BUILDINGS SHALL SLOPE AWAY FROM THE BUILDINGS. REFER TO PLANS FOR FINAL GRADES.

M. PLANTING PROCEDURES

1. THE CONTRACTOR SHALL CLEAR WORK AND SURROUNDING AREAS OF ALL RUBBISH OR OBJECTIONABLE MATTER DAILY. ALL MORTAR, CEMENT, BUILDING MATERIALS, AND TOXIC MATERIAL SHALL BE COMPLETELY REMOVED FROM PLANTING AREAS. THESE MATERIALS SHALL NOT BE MIXED WITH THE SOIL. SHOULD THE CONTRACTOR FIND SUCH EXISTING SOIL CONDITIONS IN PLANTING AREAS WHICH WILL ADVERSELY AFFECT THE PLANT GROWTH, THE CONTRACTOR SHALL IMMEDIATELY CALL IT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE. FAILURE TO DO SO BEFORE PLANTING SHALL MAKE THE CORRECTIVE MEASURES THE RESPONSIBILITY OF THE CONTRACTOR.

2. VERIFY LOCATIONS OF ALL UTILITIES, CONDUITS, SUPPLY LINES AND CABLES, INCLUDING BUT NOT LIMITED TO: ELECTRIC, GAS (LINES AND TANKS), WATER, SANITARY SEWER, STORMWATER SYSTEMS, CABLE, AND TELEPHONE. PROPERLY MAINTAIN AND PROTECT EXISTING UTILITIES. CALL OHIO (811) TO LOCATE UTILITIES AT LEAST 48 HOURS PRIOR TO CONSTRUCTION.

3. CONTRACTOR IS RESPONSIBLE TO REMOVE ALL EXISTING AND IMPORTED SUB–BASE FROM ALL PLANTING AREAS TO A MINIMUM DEPTH OF 36". CONTRACTOR IS RESPONSIBLE TO BACKFILL THESE PLANTING AREAS TO ROUGH FINISHED GRADE WITH PLANTING MIX THAT HAS BEEN SPECIFIED.

4. FURNISH NURSERY'S CERTIFICATE OF COMPLIANCE WITH ALL REQUIREMENTS AS SPECIFIED HEREIN. INSPECT AND SELECT PLANT MATERIALS BEFORE PLANTS ARE DUG AT NURSERY OR GROWING SITE.

5. COMPLY WITH APPLICABLE FEDERAL, STATE, COUNTY, AND LOCAL REGULATIONS GOVERNING LANDSCAPE MATERIALS AND WORK. UPON ARRIVAL AT THE SITE, PLANTS SHALL BE THOROUGHLY WATERED AND PROPERLY MAINTAINED UNTIL PLANTED. PLANTS STORED ONSITE SHALL NOT REMAIN UNPLANTED OR APPROPRIATELY HEALED IN FOR A PERIOD EXCEEDING TWENTY–FOUR (24) HOURS. AT ALL TIMES WORKMANLIKE METHODS CUSTOMARY IN ACCEPTED HORTICULTURAL PRACTICES AS USED IN THE TRADE SHALL BE EXERCISED.

6. WORK SHALL BE COORDINATED WITH OTHER TRADES TO PREVENT CONFLICTS. COORDINATE PLANTING WITH IRRIGATION WORK TO ASSURE AVAILABILITY OF WATER AND PROPER LOCATION OF IRRIGATION APPURTENANCES AND PLANTS, IF APPLICABLE.

7. ALL PLANTING OPENINGS SHALL BE EXCAVATED TO SIZE AND DEPTH IN ACCORDANCE WITH ANSI Z60.1–2014 AMERICAN STANDARD FOR NURSERY STOCK.

8. TEST ALL TREE OPENINGS WITH WATER BEFORE PLANTING TO ASSURE PROPER DRAINAGE PERCOLATION IS AVAILABLE (HOLE MUST DRAIN WITHIN 72 HOURS). NO ALLOWANCE WILL BE MADE FOR LOST PLANTS DUE TO IMPROPER DRAINAGE. IF POOR DRAINAGE EXISTS, NOTIFY PROJECT LANDSCAPE ARCHITECT IMMEDIATELY.

9. TREES SHALL BE SET PLUMB AND HELD IN POSITION UNTIL THE PLANTING MIXTURE HAS BEEN FLUSHED INTO PLACE WITH A SLOW, FULL HOSE STREAM. ALL PLANTING SHALL BE PERFORMED BY PERSONNEL FAMILIAR WITH PLANTING PROCEDURES AND UNDER THE SUPERVISION OF A QUALIFIED LANDSCAPE FOREMEN.

10. PRIOR TO EXCAVATION OF TREE OPENINGS, AN AREA EQUAL TO TWO TIMES THE DIAMETER OF THE ROOT BALL SHALL BE ROTO–TILLED TO A DEPTH EQUAL TO THE DEPTH OF THE ROOT BALL.

11. EXCAVATION OF TREE OPENINGS SHALL BE PERFORMED USING EXTREME CARE TO AVOID DAMAGE TO SURFACE AND SUBSURFACE ELEMENTS SUCH AS UTILITIES OR HARDSCAPE ELEMENTS, FOOTERS AND PREPARED SUB–BASES.

12. IN CONTINUOUS LANDSCAPING BEDS, THE ROTO–TILLED PERIMETER SHOULD EXTEND TO A DISTANCE OF 6" BEYOND THE DIAMETER OF A SINGLE ROOT BALL. THE BED SHALL BE TILLED TO A DEPTH EQUAL TO THE ROOT BALL DEPTH PLUS 6".

13. PLANT PIT WALLS SHALL BE SCARIFIED PRIOR TO PLANT INSTALLATION.

14. TAKE ALL NECESSARY PRECAUTIONS TO AVOID DAMAGE TO BUILDINGS AND BUILDING STRUCTURES WHILE INSTALLING TREES.

15. SOIL MIXTURE SHALL BE AS SPECIFIED IN SECTION 'E'.

16. ALL PLANT MATERIAL SHALL BE SET STRAIGHT AT AN ELEVATION THAT, AFTER SETTLEMENT, THE PLANT CROWN WILL STAND ONE (1) INCH ABOVE GRADE. EACH PLANT SHALL BE SET IN THE CENTER OF THE PIT. SOIL MIXTURE SHALL BE BACK FILLED, THOROUGHLY TAMPED AROUND THE BALL, AND SETTLED BY WATER (AFTER TAMPING).

17. FILL HOLE WITH SOIL MIXTURE, MAKING CERTAIN ALL SOIL IS SATURATED. TO DO THIS, FILL HOLE WITH WATER AND ALLOW TO SOAK MINIMUM TWENTY (20) MINUTES, STIRRING IF NECESSARY TO GET SOIL THOROUGHLY WET. PACK LIGHTLY WITH FEET, ADD MORE WET SOIL MIXTURE. DO NOT COVER TOP OF BALL WITH SOIL MIXTURE.

18. ALL BURLAP, ROPE, WIRES, BASKETS, ETC.., SHALL BE REMOVED FROM THE SIDES AND TOPS OF BALLS, BUT NO BURLAP SHALL BE PULLED FROM UNDERNEATH.

19. TREES SHALL BE PRUNED, IN ACCORDANCE WITH ANSI A–300, TO PRESERVE THE NATURAL CHARACTER OF THE PLANT. ALL SOFT WOOD OR SUCKER GROWTH AND ALL BROKEN OR BADLY DAMAGED BRANCHES SHALL BE REMOVED WITH A CLEAN CUT. ALL PRUNING TO BE PERFORMED BY CERTIFIED ARBORIST.

20. SHRUBS, PERENNIALS, AND GROUND COVER PLANTS SHALL BE EVENLY SPACED IN ACCORDANCE WITH THE DRAWINGS AND AS INDICATED ON THE PLANT LIST. MATERIALS INSTALLED SHALL MEET MINIMUM SPECIMEN REQUIREMENTS OR QUANTITIES SHOWN ON PLANS, WHICHEVER IS GREATER. THOROUGHLY WATER ALL PLANTS AFTER INSTALLATION.

21. TREE GUYING AND BRACING SHALL BE INSTALLED BY THE CONTRACTOR IN ACCORDANCE WITH THE PLANS TO INSURE STABILITY AND MAINTAIN TREES IN AN UPRIGHT POSITION. IF THE CONTRACTOR AND OWNER DECIDE TO WAIVE THE TREE GUYING AND BRACING, THE OWNER SHALL NOTIFY THE PROJECT LANDSCAPE ARCHITECT IN WRITING AND AGREE TO INDEMNIFY AND HOLD HARMLESS THE PROJECT LANDSCAPE ARCHITECT IN THE EVENT UNSUPPORTED TREES PLANTED UNDER THIS CONTRACT FALL AND DAMAGE PERSON OR PROPERTY.

22. ALL PLANT BEDS SHALL BE KEPT FREE OF NOXIOUS WEEDS UNTIL FINAL ACCEPTANCE OF WORK. IF DIRECTED BY THE OWNER, "ROUND–UP" SHALL BE APPLIED FOR WEED CONTROL BY QUALIFIED PERSONNEL TO ALL PLANTING AREAS IN SPOT APPLICATIONS PER MANUFACTURER'S RECOMMENDATIONS.

O. EDGING

1. CONTRACTORS SHALL PERFORM V NOTCH EDGING ON ALL LANDSCAPING BEDS NOT IDENTIFIED TO RECEIVE STEEL, CONCRETE, PLASTIC, OR GRAVEL EDGING.

P. CLEANUP

1. UPON COMPLETION OF ALL PLANTING WORK AND BEFORE FINAL ACCEPTANCE, THE CONTRACTOR SHALL REMOVE ALL MATERIAL, EQUIPMENT, AND DEBRIS RESULTING FROM CONTRACTORS WORK. ALL PAVED AREAS SHALL BE CLEANED AND THE SITE LEFT IN A NEAT AND ACCEPTABLE CONDITION AS APPROVED BY THE OWNER'S REPRESENTATIVE.

Q. PLANT MATERIAL MAINTENANCE

1. ALL PLANTS AND PLANTING INCLUDED UNDER THIS CONTRACT SHALL BE MAINTAINED BY WATERING, CULTIVATING, SPRAYING, PRUNING, AND ALL OTHER OPERATIONS (SUCH AS RE–STAKING OR REPAIRING GUY SUPPORTS) NECESSARY TO INSURE A HEALTHY PLANT CONDITION BY THE CONTRACTOR UNTIL CERTIFICATION OF ACCEPTANCE BY THE OWNER'S REPRESENTATIVE.

R. FINAL INSPECTION AND ACCEPTANCE OF WORK

1. FINAL INSPECTION AT THE END OF THE WARRANTY PERIOD SHALL BE ON PLANTING, CONSTRUCTION AND ALL OTHER INCIDENTAL WORK PERTAINING TO THIS CONTRACT. ANY REPLACEMENT AT THIS TIME SHALL BE SUBJECT TO THE SAME ONE (1) YEAR WARRANTY (OR AS SPECIFIED BY THE LANDSCAPE ARCHITECT OR OWNER IN WRITING) BEGINNING WITH THE TIME OF REPLACEMENT AND ENDING WITH THE SAME INSPECTION AND ACCEPTANCE HEREIN DESCRIBED.

S. WARRANTY

1. THE LIFE AND SATISFACTORY CONDITION OF ALL PLANT MATERIAL INSTALLED (INCLUDING SEED/SOD) BY THE LANDSCAPE CONTRACTOR SHALL BE WARRANTED BY THE CONTRACTOR FOR A MINIMUM OF ONE (1) CALENDAR YEAR COMMENCING AT THE TIME OF CERTIFICATION OF ACCEPTANCE BY THE OWNER'S REPRESENTATIVE.

2. ANY PLANT NOT FOUND IN A HEALTHY GROWING CONDITION AT THE END OF THE WARRANTY PERIOD (AS PER ODOT 659, 660, AND 661) SHALL BE REMOVED FROM THE SITE AND REPLACED AS SOON AS WEATHER CONDITIONS PERMIT. ALL REPLACEMENTS SHALL BE PLANTS OF THE SAME KIND AND SIZE AS SPECIFIED IN THE PLANT LIST. THEY SHALL BE FURNISHED PLANTED AND MULCHED AS SPECIFIED AT NO ADDITIONAL COST TO THE OWNER.

3. IN THE EVENT THE OWNER DOES NOT CONTRACT WITH THE CONTRACTOR FOR LANDSCAPE AND IRRIGATION MAINTENANCE, THE CONTRACTOR SHOULD VISIT THE PROJECT SITE PERIODICALLY DURING THE ONE (1) YEAR WARRANTY PERIOD TO EVALUATE MAINTENANCE PROCEDURES BEING PERFORMED BY THE OWNER. CONTRACTOR SHALL NOTIFY THE OWNER IN WRITING OF MAINTENANCE PROCEDURES OR CONDITIONS WHICH THREATEN VIGOROUS AND HEALTHY PLANT GROWTH.

HOUSEBOAT PATH RENOVATIONS
LANDSCAPE NOTES

DRAWN: DCLH
CHECKED: KGH/GS
DATE: 09/29/25
SCALE: AS NOTED

1319 THIRD ST. N.W.
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44663

MUSKINGUM WATERSHED CONSERVANCY DISTRICT

REV. | DATE | DESCRIPTION | BY

SHEET NO.
G1.3

CONTRACTOR SHALL TEMPORARILY MODIFY EX. CHAIN LINK FENCE TO INSTALL A TEMPORARY DOUBLE GATE FOR CONTRACTOR USE DURING CONSTRUCTION. CONTRACTOR SHALL REMOVE TEMPORARY GATE AND RESTORE FENCE TO EXISTING CONDITION UPON COMPLETION OF THE PROJECT.

EX. ASPHALT ROAD TO BEACH

EX. GRAVEL LOOP ROAD

100 YR FLOOD PLAIN

CONTRACTOR TO PERFORM PARTIAL REMOVAL OF *~10-FEET* EX. CMP PIPE. DISCONNECT AT NEAREST SECTION OR SAW CUT. CONTRACTOR TO RECONNECT PIPE TO NEW DROP MH#1 AS PER PLANS. CONTRACTOR TO MARK PIPE LOCATION AND REMOVAL SECTION IN FIELD FOR OWNER'S APPROVAL PRIOR TO DEMO.

SEE SHEET C1.1

NORMAL LAKE ELEVATION (NLE) 997.00

DELINEATED ORDINARY HIGH WATER MARK (OHWM)

#44 #43 #42 #41 #40 #39 #38 #37 #36 #35 #34 #33 #32 #31 #30 #29 #28 #27 #26 #25 #24 #23 #22 #21 #20 #19

NORTH

GRAPHIC SCALE IN FEET
0 10 20 40

DEMOLITION LEGEND

- A — LIMITS OF DISTURBANCE
- B — UTILITY REMOVAL/ABANDON IN PLACE
- C — TREE TO BE REMOVED
- D — FULL-DEPTH ASPHALT PAVEMENT REMOVAL. CONTRACTOR SHALL MARK LOCATION OF PAVEMENT REMOVAL IN FIELD FOR OWNER APPROVAL PRIOR TO SAW CUTTING OF PAVEMENT.
- E — IN-WATER FILL REMOVAL

REMOVAL KEYNOTES

1	STEPS/STAIRCASE	TO BE REMOVED, IN ENTIRETY
3	TREE STUMP	TO BE REMOVED
4	BLOCK RETAINING WALL	TO BE REMOVED
5	ELECTRICAL POST W/ DROP	TO BE REMOVED
6	STORM SEWER PIPE	12 LF TO BE REMOVED
7	STORM STRUCTURE (INV:1003.68)	TO BE REMOVED
8	LIGHT POLE	TO BE REMOVED
9	ELECTRICAL PANEL	TO BE RELOCATED

DEMOLITION NOTES

GENERAL DEMOLITION NOTES

1. CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL OF THE EXISTING STRUCTURES, RELATED UTILITIES, PAVING, AND ANY OTHER EXISTING IMPROVEMENTS AS NOTED.
2. CONTRACTOR IS TO REMOVE AND DISPOSE OF ALL DEBRIS, RUBBISH AND OTHER MATERIALS RESULTING FROM PREVIOUS AND CURRENT DEMOLITION OPERATIONS. DISPOSAL WILL BE IN ACCORDANCE WITH ALL LOCAL, STATE AND/OR FEDERAL REGULATIONS GOVERNING SUCH OPERATIONS.
3. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO AVOID PROPERTY DAMAGE TO ADJACENT PROPERTIES (MARINA AND CAMPGROUND) DURING THE CONSTRUCTION PHASES OF THIS PROJECT. THE CONTRACTOR WILL BE HELD SOLELY RESPONSIBLE FOR ANY DAMAGES TO THE ADJACENT PROPERTIES OCCURRING DURING THE CONSTRUCTION PHASES OF THIS PROJECT.
4. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED UPON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES.
5. CONTRACTOR SHALL NOT DEMOLISH ANYTHING OUTSIDE THE OWNERS LEASE/PROPERTY LINE UNLESS SPECIFICALLY MENTIONED ON THIS SHEET.
6. QUANTITIES DEPICTED ON THIS SHEET SHALL SERVE AS A GUIDE ONLY. CONTRACTOR TO VERIFY ALL DEMOLITION QUANTITIES.
7. CONTRACTOR SHALL BE AWARE THAT INTERRUPTION OF POWER TO ANY LIGHT POLES OR SIGNS SHALL NOT EXCEED 24 HOURS
8. EROSION CONTROL MUST BE ESTABLISHED PRIOR TO ANY WORK ON SITE INCLUDING DEMOLITION. REFER TO THE EROSION CONTROL SHEET.
9. ALL TREES TO REMAIN SHALL BE PROTECTED BY CONTRACTOR WITH TREE PROTECTION FENCING AS PER DETAILS.
10. CONTRACTOR SHALL COORDINATE THE TEMPORARY STORAGE OF ITEMS TO BE REUSED WITH OWNER.
11. CONTRACTOR SHALL ADHEAR TO ANY PERMIT RESTRICTIONS LISTED ON TITLE SHEET.

THE EXTENT OF SITE DEMOLITION WORK IS AS SHOWN ON THE CONTRACT DOCUMENTS AND AS SPECIFIED HEREIN. FURNISH ALL LABOR, MATERIALS, EQUIPMENT AND SERVICE NECESSARY TO COMPLETE THE WORK.

DISPOSAL OF DEMOLISHED MATERIALS

REMOVE FROM SITE DEBRIS, RUBBISH AND OTHER MATERIALS RESULTING FROM DEMOLITION OPERATIONS. BURNING OF REMOVED MATERIALS FROM DEMOLISHED STRUCTURES WILL NOT BE PERMITTED ON SITE. TRANSPORT MATERIALS REMOVED FROM DEMOLISHED STRUCTURES AND DISPOSE OF OFF SITE IN A LEGAL MANNER.

LANDSCAPE PROTECTION AND REMOVAL

SEE LANDSCAPE PLANS FOR INFORMATION ON LANDSCAPE AND TREE PROTECTION, PRESERVATION AND REMOVAL.

UTILITY SERVICES

EXISTING UTILITIES, WHICH DO NOT SERVICE STRUCTURES BEING DEMOLISHED, ARE TO BE KEPT IN SERVICE AND PROTECTED AGAINST DAMAGE DURING DEMOLITION OPERATIONS. CONTRACTOR SHALL ARRANGE FOR SHUT-OFF OF UTILITIES SERVING STRUCTURES TO BE DEMOLISHED. CONTRACTOR IS RESPONSIBLE FOR TURNING OFF, DISCONNECTING, AND SEALING INDICATED UTILITIES BEFORE STARTING DEMOLITION OPERATIONS. EXISTING UTILITIES TO BE ABANDONED ARE TO BE CAPPED AT BOTH ENDS AND FILLED WITH FLOWABLE FILL OR APPROVED EQUAL. ALL UNDERGROUND UTILITIES TO BE REMOVED ARE TO BE BACKFILLED WITH ENGINEERED FILL OR SELECT EXCAVATED MATERIAL, AS APPROVED BY THE ENGINEER, TO 95% OF MODIFIED PROCTOR DENSITY WITHIN PAVED AREAS AND TO 90% OF MODIFIED PROCTOR DENSITY FOR GREEN SPACE AREAS, IN ACCORDANCE WITH THE EARTHWORK SPECIFICATIONS. ALL PRIVATE UTILITIES (ELECTRIC, CABLE, TELEPHONE, FIBER OPTIC, GAS) SHALL BE REMOVED AND RELOCATED PER THE OWNER REQUIREMENTS.

HOUSEBOAT PATH RENOVATIONS
EX. COND. & DEMO. PLAN

DRAWN: DCLH | CHECKED: KGH/GS | DATE: 09/29/25 | SCALE: AS NOTED

1319 THIRD ST. N.W.
P.O. BOX 349
NEW PHILADELPHIA, OHIO
44663

MUSKINGUM WATERSHED CONSERVANCY DISTRICT

REV.	DESCRIPTION	DATE	BY

SHEET NO. C1.0

DEMOLITION LEGEND

- (A) LIMITS OF DISTURBANCE
- (B) UTILITY REMOVAL/ABANDON IN PLACE
- (C) TREE TO BE REMOVED
- (D) FULL-DEPTH ASPHALT PAVEMENT REMOVAL. CONTRACTOR SHALL MARK LOCATION OF PAVEMENT REMOVAL IN FIELD FOR OWNER APPROVAL PRIOR TO SAW CUTTING OF PAVEMENT.

REMOVAL KEYNOTES

(2)	UTILITY POLE	TO BE REMOVED
(5)	ELECTRICAL POST W/ DROP	TO BE REMOVED
(8)	LIGHT POLE	TO BE RELOCATED

EX. PIPE TO BE PARTIALLY REMOVED (6)

EX. LAKE FILL TO BE REMOVED (E)

EX. BLOCK RETAINING WALL AND STAIRCASE TO BE REMOVED (1 & 4)

EX. BOTTOM TREAD OF STAIRCASE TO BE REMOVED (DOCKS #9/#10 & #15/#16)

SEE SHEET C1.0

EX. ASPHALT ROAD TO BEACH

EX. GRAVEL LOOP ROAD

EX. MARINA BUILDING

EX. TRASH ENCLOSURE

EX. RESTROOM BUILDING

100 YR FLOOD PLAIN

CONTRACTOR SHALL REMOVE AND REPLACE LOWEST STAIR TREAD FROM EXISTING STAIRCASE.

EXISTING BOAT DOCKS TO BE REUSED

EX. BOAT LAUNCH

#18 #17 | #16 #15 | #14 #13 | #12 #11 | #10 #9 | #8 #7 | #6 #5 | #4 #3 | #2 #1

GRAPHIC SCALE IN FEET
0 10 20 40

NORTH

HOUSEBOAT PATH RENOVATIONS
EX. COND. & DEMO. PLAN

SCALE: AS NOTED
DATE: 09/29/25
CHECKED: KGH/GS
DRAWN: DCLH

1319 THIRD ST. N.W.
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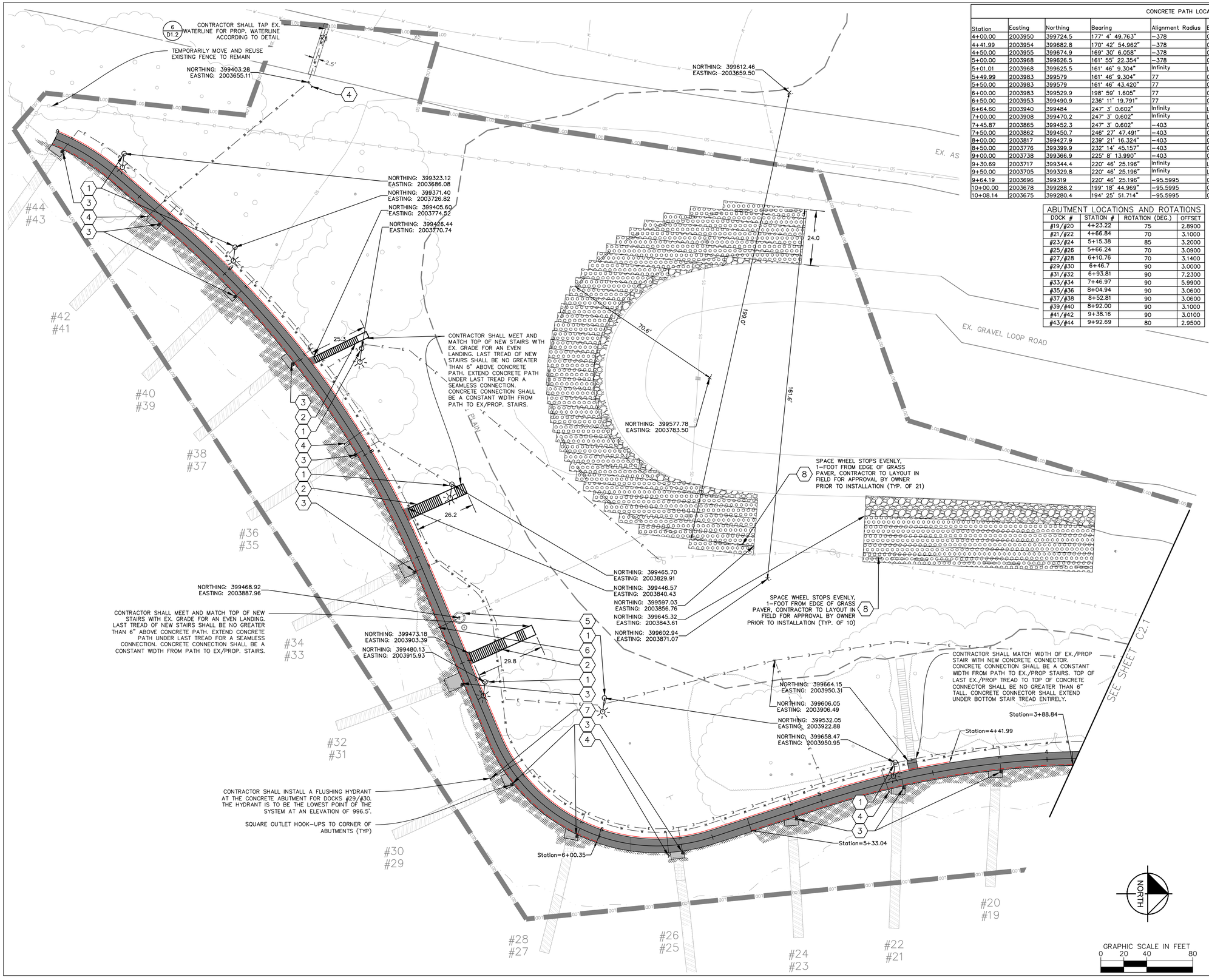
NEW PHILADELPHIA, OHIO
44663

MUSKINGUM WATERSHED CONSERVANCY DISTRICT

REV. | DATE | DESCRIPTION | BY

SHEET NO.
C1.1



CONCRETE PATH LOCATION AND ORIENTATION

Station	Easting	Northing	Bearing	Alignment Radius	Entity Type	Sub-Entity Type	Alignment Point Code	Alignment Sub-Entity Length
4+00.00	2003950	399724.5	177° 4' 49.763"	-378	Curve	Curve		194.4387
4+41.99	2003954	399682.8	170° 42' 54.962"	-378	Curve	Curve	Tangent Point (PCC)	59.0199
4+50.00	2003955	399674.9	169° 30' 6.058"	-378	Curve	Curve		59.0199
5+00.00	2003968	399626.5	161° 55' 22.354"	-378	Curve	Curve		59.0199
5+01.01	2003968	399625.5	161° 46' 9.304"	Infinity	Line	Line	Tangent Point (PT)	48.9737
5+49.99	2003983	399579	161° 46' 9.304"	77	Curve	Curve	Tangent Point (PC)	114.6093
5+50.00	2003983	399579	161° 46' 43.420"	77	Curve	Curve		114.6093
6+00.00	2003983	399529.9	198° 59' 1.605"	77	Curve	Curve		114.6093
6+50.00	2003953	399490.9	236° 11' 19.791"	77	Curve	Curve		114.6093
6+64.60	2003940	399484	247° 3' 0.602"	Infinity	Line	Line	Tangent Point (PT)	81.2748
7+00.00	2003908	399470.2	247° 3' 0.602"	Infinity	Line	Line		81.2748
7+45.87	2003865	399452.3	247° 3' 0.602"	-403	Curve	Curve	Tangent Point (PC)	184.8204
7+50.00	2003862	399450.7	246° 27' 47.491"	-403	Curve	Curve		184.8204
8+00.00	2003817	399427.9	239° 21' 16.324"	-403	Curve	Curve		184.8204
8+50.00	2003776	399399.9	232° 14' 45.157"	-403	Curve	Curve		184.8204
9+00.00	2003738	399366.9	225° 8' 13.990"	-403	Curve	Curve		184.8204
9+30.69	2003717	399344.4	220° 46' 25.196"	Infinity	Line	Line	Tangent Point (PT)	33.4946
9+50.00	2003705	399329.8	220° 46' 25.196"	Infinity	Line	Line		33.4946
9+64.19	2003696	399319	220° 46' 25.196"	-95.5995	Curve	Curve	Tangent Point (PC)	43.9584
10+00.00	2003678	399288.2	199° 18' 44.969"	-95.5995	Curve	Curve		43.9584
10+08.14	2003675	399280.4	194° 25' 51.714"	-95.5995	Curve	Curve	End Point	43.9584

ABUTMENT LOCATIONS AND ROTATIONS

DOCK #	STATION #	ROTATION (DEG.)	OFFSET
#19/#20	4+23.22	75	2.8900
#21/#22	4+66.84	70	3.1000
#23/#24	5+15.38	85	3.2000
#25/#26	5+66.24	70	3.0900
#27/#28	6+10.76	70	3.1400
#29/#30	6+46.7	90	3.0000
#31/#32	6+93.81	90	7.2300
#33/#34	7+46.97	90	5.9900
#35/#36	8+04.94	90	3.0600
#37/#38	8+52.81	90	3.0600
#39/#40	8+92.00	90	3.1000
#41/#42	9+38.16	90	3.0100
#43/#44	9+92.69	80	2.9500

SITE PLAN NOTES

NOTES

1. OWNER SHALL CONNECT ALL EX. DOCKS TO NEW CONCRETE PATH AFTER CONTRACTOR'S WORK IS COMPLETE.
2. CONTRACTOR SHALL ADJUST SLOPE OF CONCRETE PATH CONNECTION FROM MAIN PATH TO LOWEST TREAD OF STAIRCASE SO THE VERTICAL DISTANCE IS NO GREATER THAN 6" FROM THE LOWEST TREAD TO THE CONCRETE. CONTRACTOR SHALL REPLACE LAST WOOD TREAD AS NEEDED FOR 6" MAX HEIGHT.
3. GRASS PAVERS SHALL BE EZ-ROLL GRASS PAVERS (PERMEABLE) AS MANUFACTURED BY NDS, WWW.NDSPRO.COM, OR EQUAL APPROVED. CONTRACTOR SHALL INSTALL AS PER MANUFACTURER'S RECOMMENDATIONS INCLUDING GRAVEL, UNDERDRAINAGE, SOIL AND SEED (CLASS 1). DO NOT CUT AT AN ANGLE.
4. FILL IN SPACE BETWEEN GRASS PAVERS & EX. GRAVEL WITH NEW GRAVEL DRIVE AS NEEDED FOR SMOOTH TRANSITION.

SITE PLAN LEGEND

A	CONCRETE PATH	6135 SF	5 D1.0
B	GRAVEL DRIVE	154 SY	11 D1.0
C	RIP RAP WITH FILTER FABRIC	455 SY	8 D1.0
D	ASPHALT PATCH	120 SF	4 D1.0
E	CONCRETE ABUTMENT	643 SF	8 D1.0
F	GRASS PAVERS	7840 SF	3 D1.2
G	INTEGRAL WALL	683 LF	1 D1.1
H	INTEGRAL CURB	611 LF	2 D1.1
I	ELECTRIC CONDUIT	2059 LF	6 D1.0, 7 D1.0
J	WATERLINE	1250 LF	3 D1.0, 4 D1.0

SITE PLAN KEYNOTES

1	LED SITE LIGHTING	11 EA	1 E1.1
2	WOODEN STEPS WITH RAILING		8 D1.1
3	POST WITH ELECTRIC DROP	22 EA	9 D1.0
4	YARD HYDRANT	9 EA	7 D1.2
5	DROP MANHOLE	1 EA	4 D1.1
6	12" HDPE CULVERT	12 LF	5 D1.1
7	FLUSHING HYDRANT	1 EA	7 D1.1
8	WHEEL STOP	31 EA	6 D1.1

HOUSEBOAT PATH RENOVATIONS
SITE PLAN

SCALE: AS NOTED
DATE: 09/29/25
CHECKED: KGH/GS
DRAWN: DCLH

1319 THIRD ST. N.W.
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NEW PHILADELPHIA, OHIO
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MUSKINGUM WATERSHED CONSERVANCY DISTRICT

BY | DESCRIPTION | DATE | REV.

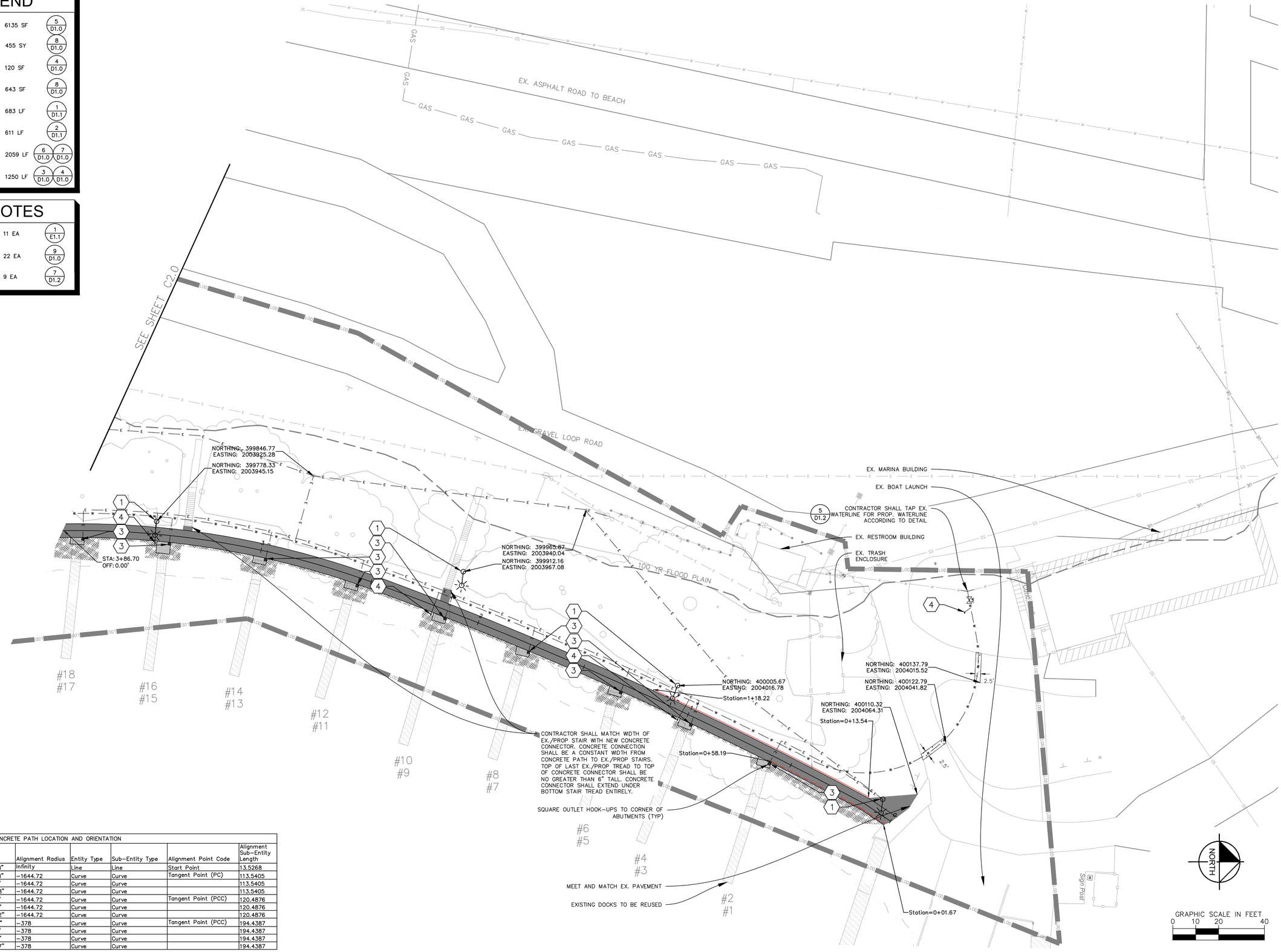
SHEET NO.
C2.0

SITE PLAN LEGEND

A	CONCRETE PATH	6135 SF	5 D1.0
C	RIP RAP WITH FILTER FABRIC	455 SY	8 D1.0
D	ASPHALT PATCH	120 SF	4 D1.0
E	CONCRETE ABUTMENT	643 SF	8 D1.0
G	INTEGRAL WALL	683 LF	1 D1.1
H	INTEGRAL CURB	611 LF	2 D1.1
I	ELECTRIC CONDUIT	2059 LF	6 D1.0 / 7 D1.0
J	WATERLINE	1250 LF	3 D1.0 / 4 D1.0

SITE PLAN KEYNOTES

1	LED SITE LIGHTING	11 EA	1 E1.1
3	POST WITH ELECTRIC DROP	22 EA	9 D1.0
4	YARD HYDRANT	9 EA	7 D1.2



ABUTMENT LOCATIONS AND ROTATIONS

DOCK #	STATION #	ROTATION (DEG.)	OFFSET
#1/#2	0+60.9	80	3.1700
#3/#4	0+99.23	85	3.1200
#5/#6	1+32.87	80	3.2400
#7/#8	1+76.81	80	3.0600
#9/#10	2+16.54	85	2.9500
#11/#12	2+57.5	85	2.9700
#13/#14	2+99.69	90	2.9500
#15/#16	3+42.88	85	5.1100
#17/#18	3+81.09	80	2.9900

CONCRETE PATH LOCATION AND ORIENTATION

Station	Easting	Northing	Bearing	Alignment Radius	Entity Type	Sub-Entity Type	Alignment Point Code	Alignment Sub-Entity Length
0+00.00	2004076	400098.6	213° 50' 20.018"	Infinity	Line	Line	Start Point	13.5268
0+13.53	2004068	400087.4	213° 50' 20.018"	-1644.72	Curve	Curve	Tangent Point (PC)	113.5405
0+50.00	2004051	400055.1	207° 4' 10.576"	-1644.72	Curve	Curve		113.5405
1+00.00	2004029	400010.2	205° 19' 40.048"	-1644.72	Curve	Curve		113.5405
1+27.07	2004018	399985.7	204° 23' 5.519"	-1644.72	Curve	Curve	Tangent Point (PCC)	120.4876
1+50.00	2004009	399964.7	203° 35' 9.520"	-1644.72	Curve	Curve		120.4876
2+00.00	2003989	399918.6	201° 50' 38.992"	-1644.72	Curve	Curve		120.4876
2+47.55	2003972	399874.2	200° 11' 15.106"	-378	Curve	Curve	Tangent Point (PCC)	194.4387
2+50.00	2003971	399871.9	199° 49' 0.875"	-378	Curve	Curve		194.4387
3+00.00	2003958	399823.9	192° 14' 17.171"	-378	Curve	Curve		194.4387
3+50.00	2003950	399774.5	184° 39' 33.467"	-378	Curve	Curve		194.4387

HOUSEBOAT PATH RENOVATIONS
SITE PLAN

SCALE: AS NOTED
DATE: 09/29/25
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1319 THIRD ST. N.W.
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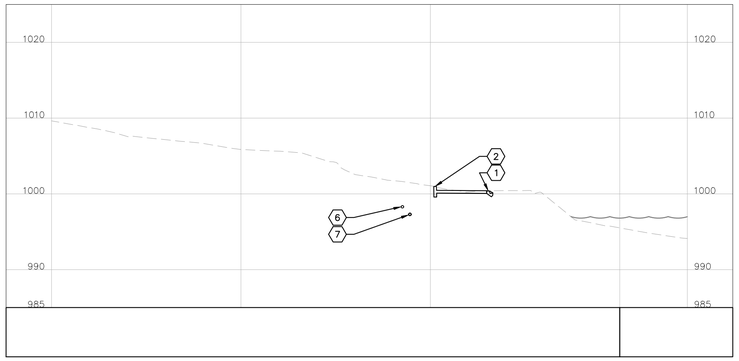
NEW PHILADELPHIA, OHIO
44663

MUSKINGUM WATERSHED CONSERVANCY DISTRICT

REV.	DATE	DESCRIPTION	BY

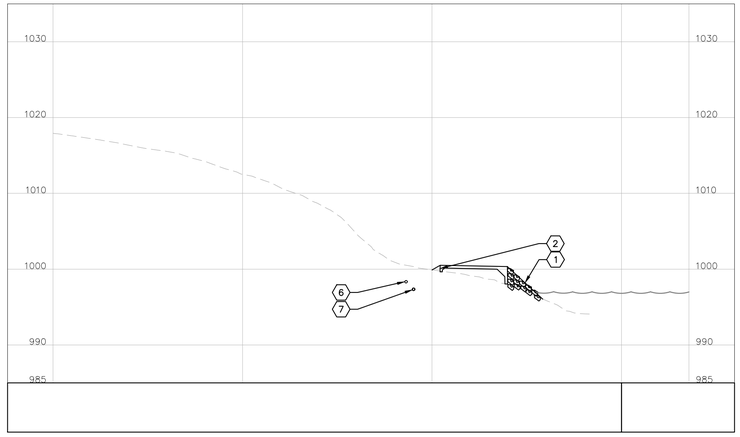
SHEET NO. C2.1

0+00



1+50

3+00



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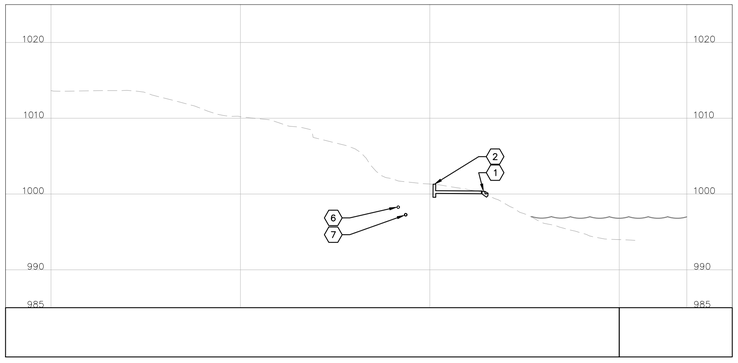

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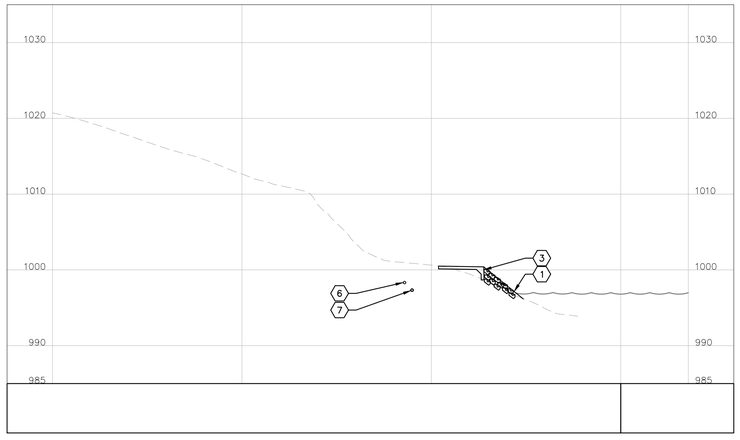

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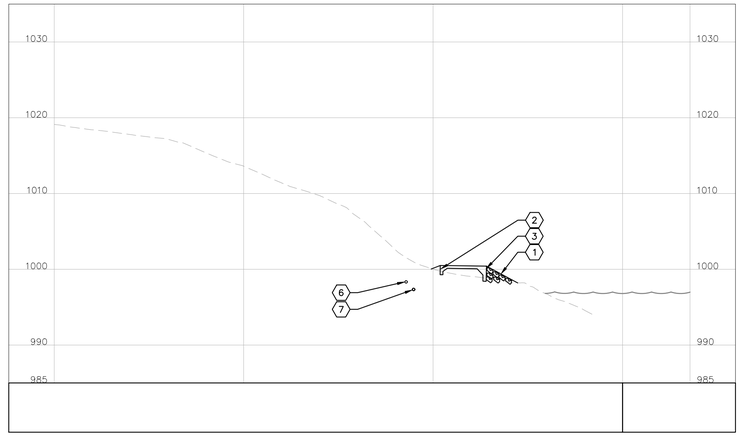

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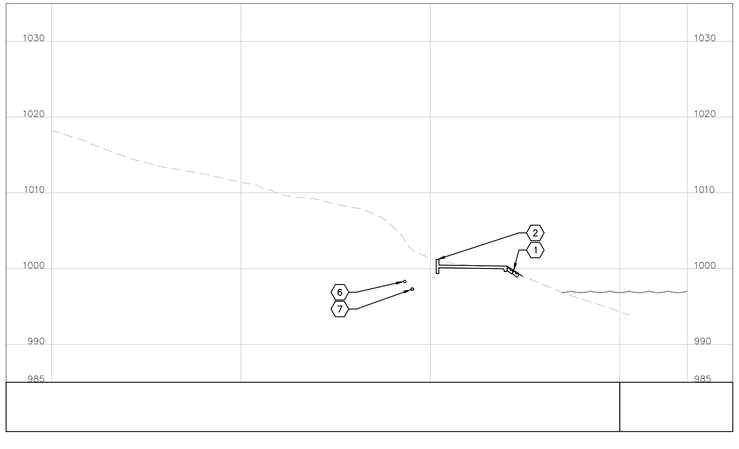

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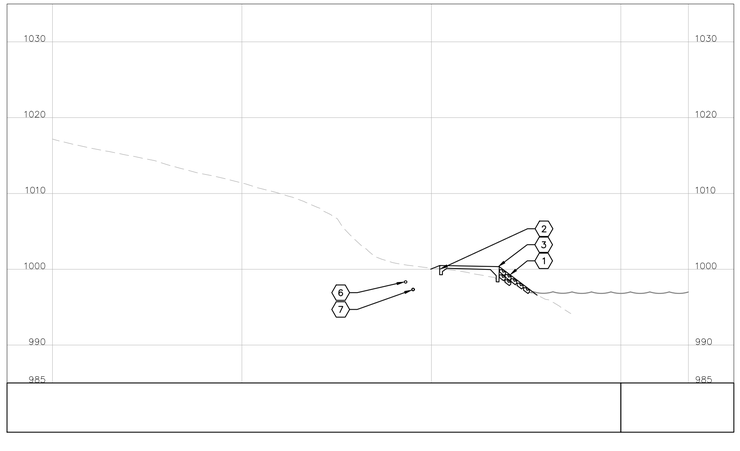

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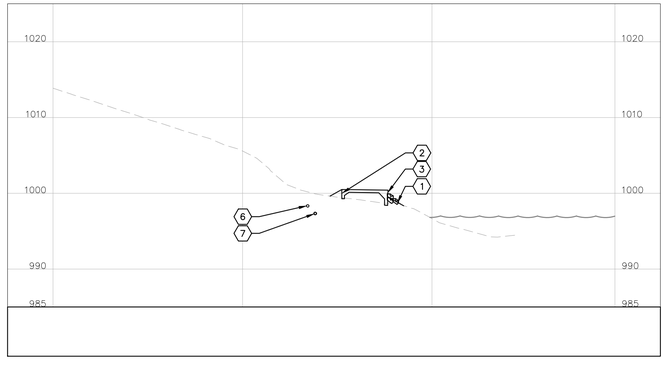


GRAPHIC SCALE IN FEET
0 5 10 20

SECTIONS LEGEND

- A — CONCRETE PATH
- B — NORMAL WATER ELEVATION (997)
- C — EXISTING SURFACE

SECTIONS KEYNOTES

1. RIP RAP WITH FILTER FABRIC; MIN. 1-FOOT IN WIDTH FROM EDGE OF CONCRETE. 1:1.5 MAX. SLOPE
2. INTEGRAL WALL
3. INTEGRAL CURB
4. CONCRETE ABUTMENT
5. PROPOSED GRADING
6. ELECTRICAL CONDUIT
7. WATER MAIN

HOUSEBOAT PATH RENOVATIONS
SECTIONS STA 0+00 TO 4+00

SCALE: AS NOTED
DATE: 09/29/25
CHECKED: KGH/GS
DRAWN: DCLH

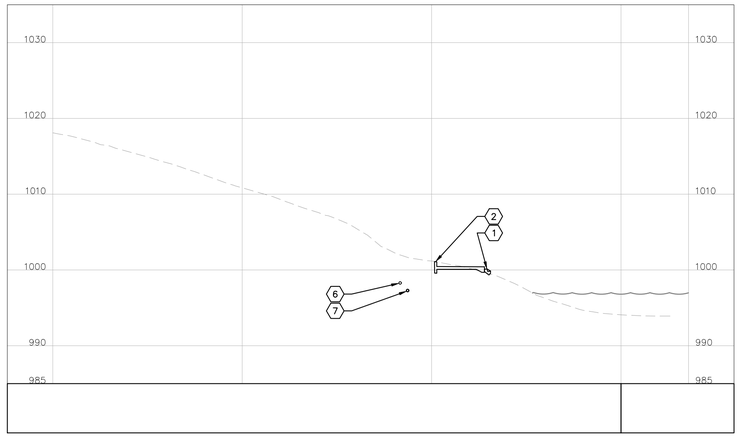
1319 THIRD ST. N.W.
P.O. BOX 349
NEW PHILADELPHIA, OHIO
44663

MUSKINGUM WATERSHED CONSERVANCY DISTRICT

REV.	DATE	DESCRIPTION	BY

SHEET NO.
C2.2

4+50



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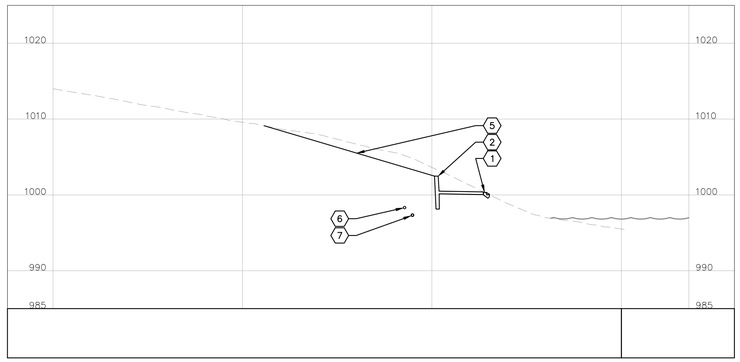

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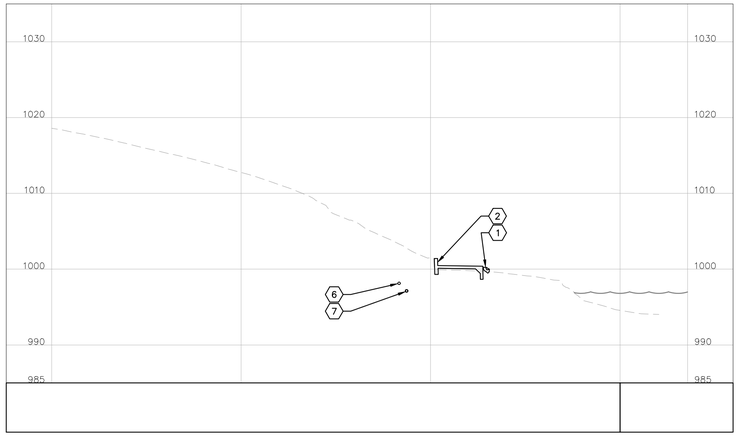

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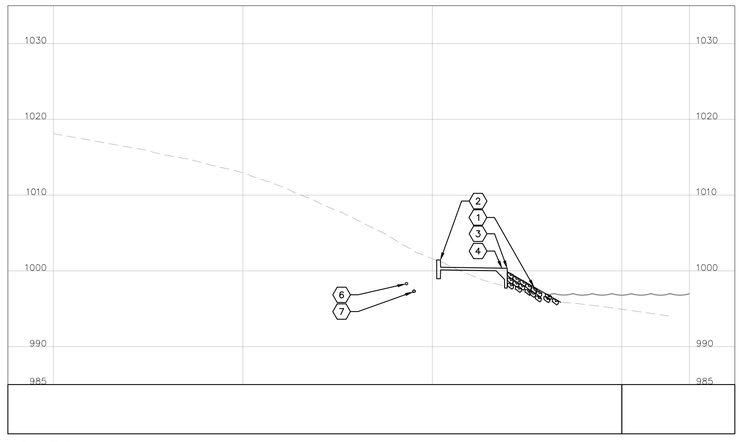

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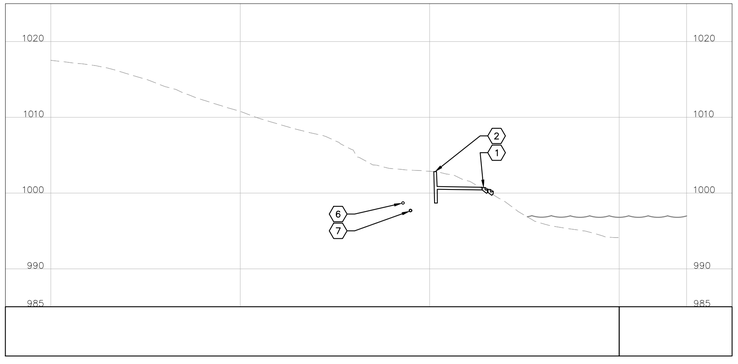

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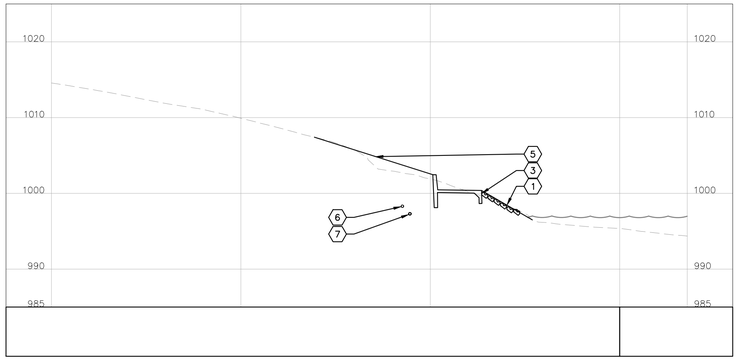

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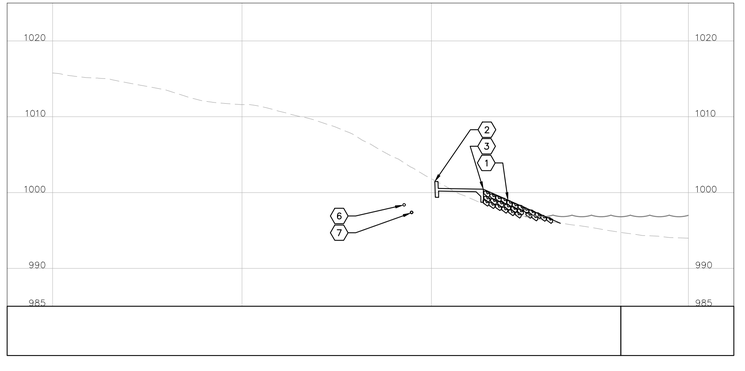

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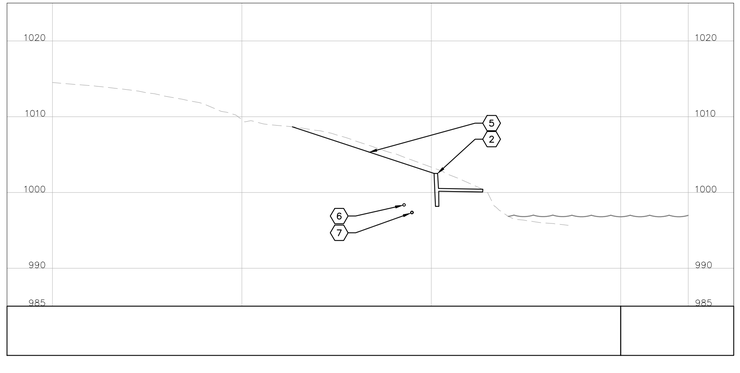

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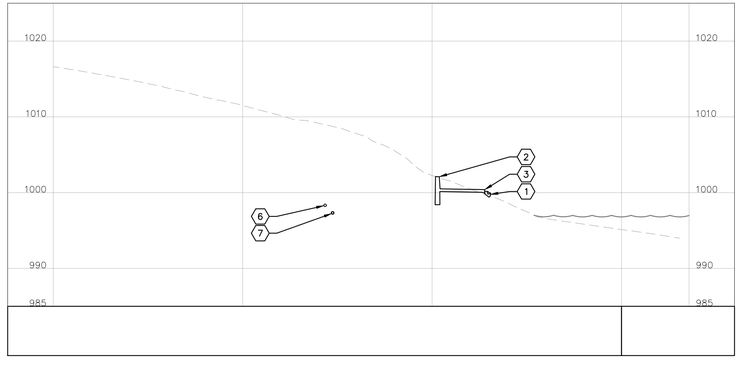


GRAPHIC SCALE IN FEET
0 5 10 20

SECTIONS LEGEND

- A — CONCRETE PATH
- B — NORMAL WATER ELEVATION (997)
- C — EXISTING SURFACE

SECTIONS KEYNOTES

1. RIP RAP WITH FILTER FABRIC; MIN. 1-FOOT IN WIDTH FROM EDGE OF CONCRETE. 1:1.5 MAX. SLOPE
2. INTEGRAL WALL
3. INTEGRAL CURB
4. CONCRETE ABUTMENT
5. PROPOSED GRADING
6. ELECTRICAL CONDUIT
7. WATER MAIN

HOUSEBOAT PATH RENOVATIONS
SECTIONS STA 4+50 TO 8+50

SCALE: AS NOTED
DATE: 09/29/25
CHECKED: KGH/GS
DRAWN: DCLH

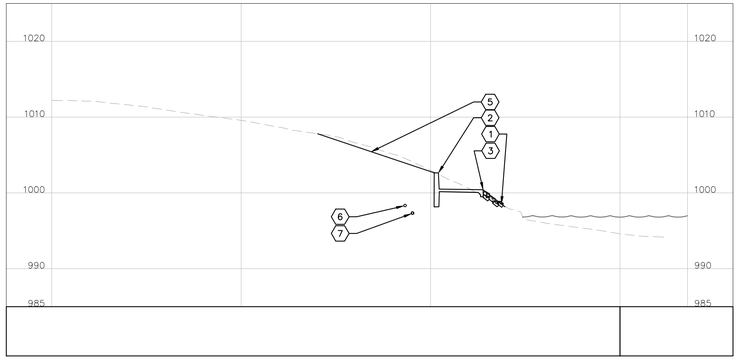
1319 THIRD ST. N.W.
P.O. BOX 349
NEW PHILADELPHIA, OHIO
44663

MUSKINGUM WATERSHED CONSERVANCY DISTRICT

REV. | DATE | DESCRIPTION | BY

SHEET NO.
C2.3

9+00



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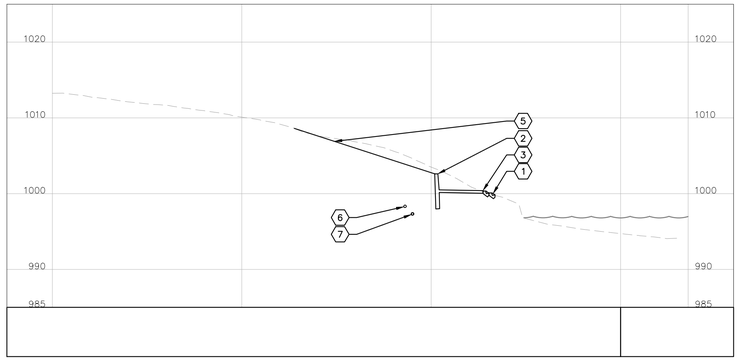

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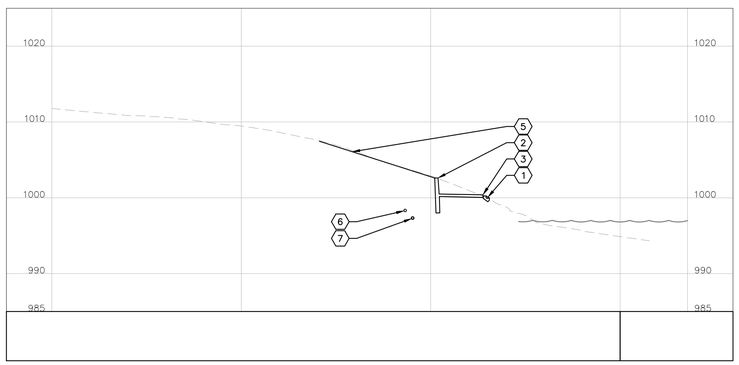

GRAPHIC SCALE IN FEET
0 5 10 20

SECTIONS LEGEND

- (A) CONCRETE PATH
- (B) NORMAL WATER ELEVATION (997)
- (C) EXISTING SURFACE

SECTIONS KEYNOTES

1. RIP RAP WITH FILTER FABRIC; MIN. 1-FOOT IN WIDTH FROM EDGE OF CONCRETE. 1:1.5 MAX. SLOPE
2. INTEGRAL WALL
3. INTEGRAL CURB
4. CONCRETE ABUTMENT
5. PROPOSED GRADING
6. ELECTRICAL CONDUIT
7. WATER MAIN

HOUSEBOAT PATH RENOVATIONS
SECTIONS STA 9+00 TO 9+93

DRAWN: DCLH | CHECKED: KGH/GS | DATE: 09/29/25 | SCALE: AS NOTED

1319 THIRD ST. N.W.
P.O. BOX 349
NEW PHILADELPHIA, OHIO
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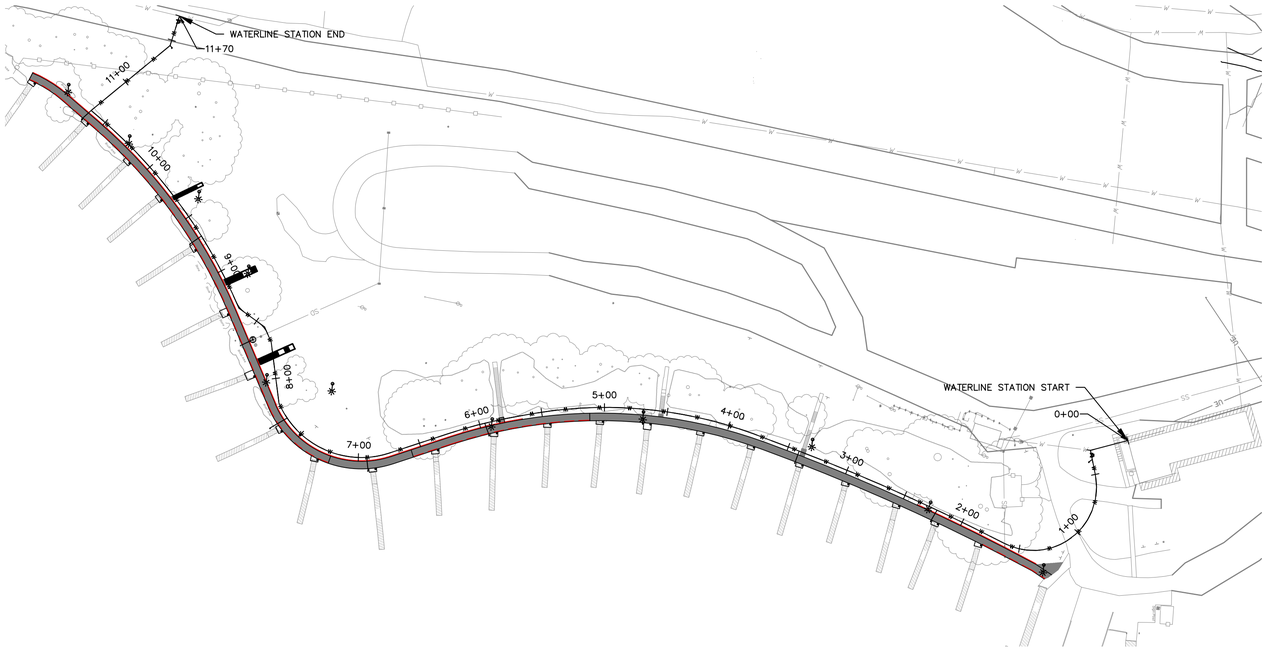
MUSKINGUM WATERSHED CONSERVANCY DISTRICT

REV.	DATE	DESCRIPTION	BY

SHEET NO.
C2.4

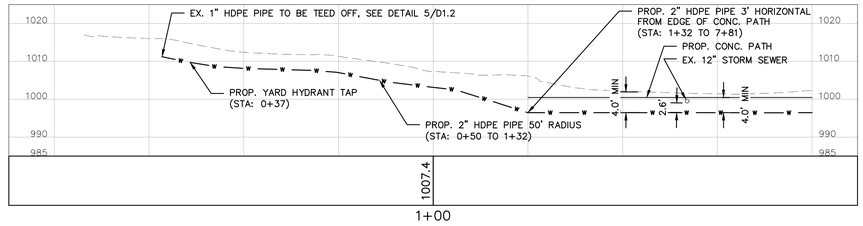


WATERLINE PROFILE NOTES

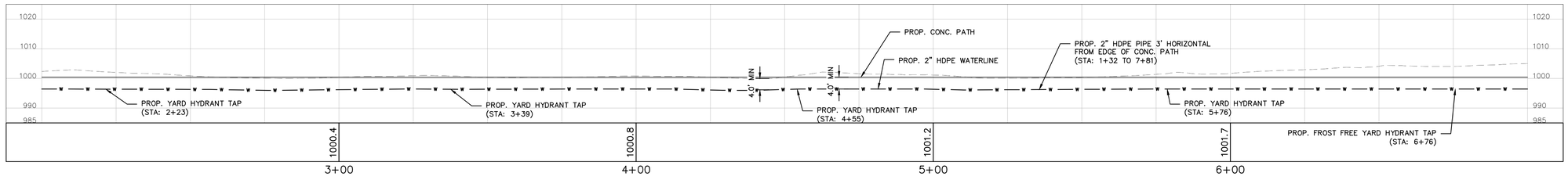
NOTES

1. WATERLINE SHALL BE 4'-0" MIN. VERTICALLY FROM BOTTOM OF CONCRETE PATH.
2. WATERLINE SHALL BE 4'-0" MIN. VERTICALLY FROM SURFACE.
3. WATERLINE SHALL BE 18" MIN. FROM INV. ELEV. OF ANY SEWER.

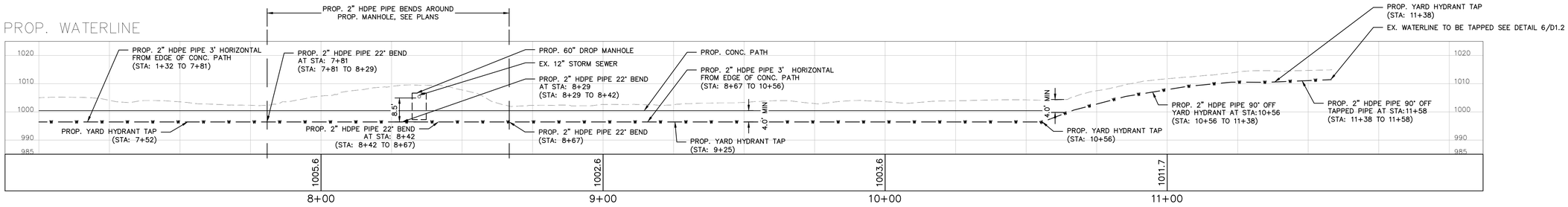
PROP. WATERLINE



PROP. WATERLINE



PROP. WATERLINE



HOUSEBOAT PATH RENOVATIONS
WATERLINE PROFILE

SCALE: AS NOTED
DATE: 09/29/25
CHECKED: KGH/GS
DRAWN: DCLH

1319 THIRD ST. N.W.
P.O. BOX 349
NEW PHILADELPHIA, OHIO
44663

MUSKINGUM WATERSHED CONSERVANCY DISTRICT

REV. | DATE | DESCRIPTION | BY

SHEET NO.
C2.5

EX. ASPHALT ROAD TO BEACH

EX. GRAVEL LOOP ROAD

HILLSIDE GRADING LIMITS
MAX SLOPE 3:1

ODOT 601 RIPRAP TYPE B AROUND ABUTMENTS AND WITHIN GRADING LIMITS BETWEEN PATH AND LAKE AND ALONG EDGE OF PATH 1–FOOT WIDE

PARKING LOT AREA 1

CONTRACTOR TO MEET AND MATCH EXISTING GRAVEL LOOP ROAD

100 YR FLOOD PLAIN

CONTRACTOR TO MEET AND MATCH EXISTING GRAVEL LOOP ROAD

PARKING LOT AREA 2

CONTRACTOR MEET AND MATCH FROM PATH TO EX./PROP STAIRS, WITH NEW CONCRETE CONNECTION. TOP OF LAST EX./PROP TREAD TO TOP OF CONCRETE CONNECTOR SHALL BE NO GREATER THAN 6" TALL.

ODOT 601 RIPRAP TYPE B AROUND ABUTMENTS AND WITHIN GRADING LIMITS BETWEEN PATH AND LAKE AND ALONG EDGE OF PATH 1–FOOT WIDE

MH#1
RIM: MATCH EX. GRADE ~1005
INV(N): EX. 12" CMP ~1003.68
INV (S): 996.9

12 LF, 1% SLOPE MIN.
12" HDPE
INV (OUTLET): 996.78

HILLSIDE GRADING LIMITS
MAX SLOPE 3:1

CONTRACTOR MEET AND MATCH FROM PATH TO EX./PROP STAIRS, WITH NEW CONCRETE CONNECTION. TOP OF LAST EX./PROP TREAD TO TOP OF CONCRETE CONNECTOR SHALL BE NO GREATER THAN 6" TALL.

NORMAL WATER ELEVATION (SUMMER HIGH) (997 ELEV.)– RED

DELINEATED ORDINARY HIGH WATER MARK (BLUE)

SEE SHEET C3.1

#44 #43 #42 #41 #40 #39 #38 #37 #36 #35 #34 #33 #32 #31 #30 #29 #28 #27 #26 #25 #24 #23 #22 #21 #20 #19

GRADING NOTES:

* WEST SIDE OF THE CONCRETE PATH IS AT 1000.50'
* EAST SIDE OF THE CONCRETE PATH IS AT 1000.40'
* SEE CONSTRUCTION DETAILS SHEET FOR ABUTMENT DETAILS

SUMMARY OF GRADING

NAME	FILL	CUT	OVERALL BALANCE
WORK INSIDE FLOODPLAIN	198 CY	210 CY	–12 CY
WORK OUTSIDE FLOODPLAIN	73 CY	121 CY	–48 CY

NORTH

GRAPHIC SCALE IN FEET
0 10 20 40

HOUSEBOAT PATH RENOVATIONS
GRADING PLAN

DRAWN: DCLH
CHECKED: KGH/GS
DATE: 09/29/25
SCALE: AS NOTED

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44663

MUSKINGUM WATERSHED CONSERVANCY DISTRICT

REV. | DATE | DESCRIPTION | BY

SHEET NO.
C3.0

EX. ASPHALT ROAD TO BEACH

GAS

SEE SHEET C3.0

EX. GRAVEL LOOP ROAD

100 YR FLOOD PLAIN

EX. MARINA BUILDING

EX. BOAT LAUNCH

EX. RESTROOM BUILDING

EX. TRASH ENCLOSURE

Sign Post

CONTRACTOR MEET AND MATCH FROM PATH TO EX./PROP STAIRS, WITH NEW CONCRETE CONNECTION. TOP OF LAST EX./PROP TREAD TO TOP OF CONCRETE CONNECTOR SHALL BE NO GREATER THAN 6" TALL.

ODOT 601 RIPRAP TYPE B AROUND ABUTMENTS AND WITHIN GRADING LIMITS BETWEEN PATH AND LAKE AND ALONG EDGE OF PATH 1-FOOT WIDE

NORMAL WATER ELEVATION (SUMMER HIGH) (997 ELEV.)- RED

DELINEATED ORDINARY HIGH WATER MARK (BLUE)

#18 #17

#16 #15

#14 #13

#12 #11

#10 #9

#8 #7

#6 #5

#4 #3

#2 #1

NORTH

GRAPHIC SCALE IN FEET
0 10 20 40

SUMMARY OF GRADING			
NAME	FILL	CUT	OVERALL BALANCE
WORK INSIDE FLOODPLAIN	198 CY	210 CY	-12 CY
WORK OUTSIDE FLOODPLAIN	73 CY	121 CY	-48 CY

HOUSEBOAT PATH RENOVATIONS
GRADING PLAN

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MUSKINGUM WATERSHED CONSERVANCY DISTRICT

BY | DESCRIPTION | DATE | REV.

SHEET NO.
C3.1

Line Type

- Limit Lines
- SFHA / Flood Zone Boundary
- Flowage Easement Boundary

Flood Hazard Zones

Zone Type

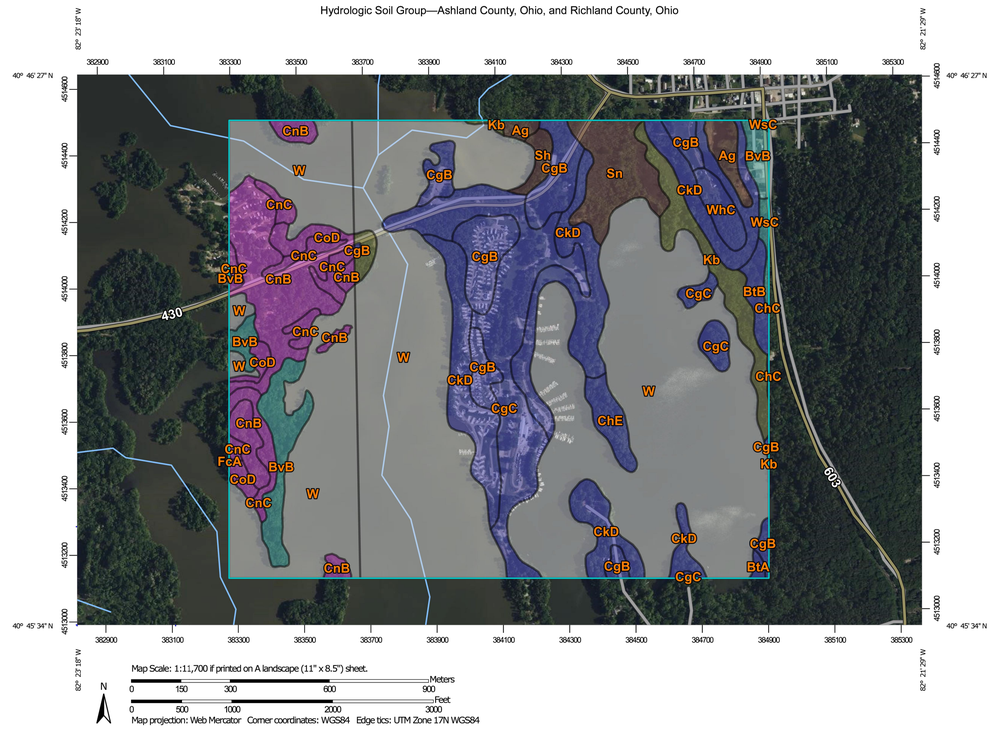
- 1% Annual Chance Flood Hazard
- Regulatory Floodway
- Special Floodway
- Area of Undetermined Flood Hazard
- 0.2% Annual Chance Flood Hazard
- Future Conditions 1% Annual Chance Flood Hazard
- Area with Reduced Risk Due to Levee
- Area with Risk Due to Levee

Primary Frontal Dunes

Coastal Barrier Resources System Area (US FWS)

CBRS Prohibitions

- Otherwise Protected Area
- CBRS Area



NOTE:

1. FLOATING TURBIDITY CURTAIN (SEDIMENT BOOM) SHALL BE ERECTED AROUND THE ENTIRE WORK AREA BEFORE ANY EMBANKMENT CONSTRUCTION BEGINS. THE CURTAIN SHALL BE MOVED WITH THE CONSTRUCTION AS IT PROGRESSES.
2. TURBIDITY CURTAIN SHALL BE TYPE 1 FHWA STYLE.
3. FLOATING TURBIDITY CURTAIN SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS DIRECTIONS. IT SHALL BE BUOYED AT THE SURFACE AND ANCHORED AT THE BOTTOM BY DEAD WEIGHT AS WELL AS SECURED TO THE SHORELINE AND/OR EXISTING PATH/LAUNCH WITH ANCHORS.
4. CONTRACTOR SHALL SUBMIT DETAILS AND SPECIFICATIONS OF THE CURTAIN PRIOR TO INSTALLATION.
5. CONTRACTOR SHALL INSTALL CURTAIN PARALLEL TO THE DIRECTION OF FLOW OF THE MOVING BODY OF WATER. DO NOT INSTALL CURTAIN ACROSS THE MAIN FLOW (THALWAG) OF THE MOVING WATER BODY.
6. CONTRACTOR SHALL INSTALL THE CURTAIN STAKES IN A VERTICAL POSITION UNLESS OTHERWISE DIRECTED BY MANUFACTURE. INSTALL ANCHORS AND STAKES AT NO GREATER THAN 100-FOOT SPACING.
7. FOR TYPE 1 CURTAINS, INSTALL ANCHORS MADE OF WOODEN STAKES (2X4-INCH RECTANGULAR OR 2.5-INCH DIA.) OR METAL STAKES (1/33)LBS/LF). FOR TYPE 2 AND 3 CURTAINS, INSTALL ANCHORS THAT ARE EITHER WEIGHTED OR THAT DIG INTO THE CHANNEL/LAKE BOTTOM.
8. EXTEND THE ENDS OF THE CURTAIN WELL UP INTO THE SHORELINE AS APPROVED, ESPECIALLY IF HIGH WATER CONDITIONS ARE EXPECTED. SECURE THE ENDS FIRMLY TO THE SHORELINE (PREFERABLE TO RIGID ITEMS OR PILES) TO FULLY ENCLOSE THE AREA WHERE SEDIMENT MAY ENTER THE WATER BODY.
9. PROVIDE MIN. 1/2-INCH NYLON ROPE FOR ADJUSTMENT LINE FOR MOORING SYSTEM. ENSURE THE MOORING LINE IS SECURELY ATTACHED AND SUFFICIENTLY BUOYANT TO REMAIN AFLOAT UNDER NORMAL LOAD CONDITIONS.
10. FOR TYPE 1 AND 2 CURTAINS, EXTEND THE NYLON REINFORCED VINYL FABRIC THROUGH THE ENTIRE DEPTH OF THE WATER (TO THE CHANNEL/LAKE BOTTOM) UNLESS TIDAL ACTIONS ARE PRESENT.
11. REMOVE CAPTURED SEDIMENT BEHIND CURTAIN PRIOR TO REMOVING CURTAIN AND PLACE IN AN UPLAND AREA OUTSIDE FLOODPLAIN. DO NOT DISPERSE SEDIMENT INTO ADJACENT WATER BODY.

FLOODPLAIN

ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY'S FLOOD INSURANCE MAP (DATED 8/18/2009), THE PROJECT AREA SHOWN HEREON LIES WITHIN ZONE A (AREA WITHIN THE 100-YEAR FLOOD PLAIN) AS SHOWN ON COMMUNITY PANEL NO. 39005C0238E.

AREA SUMMARY	
TOTAL PROJECT AREA	3.75 AC / 163,526 SF
EXISTING IMPERVIOUS AREA	0.78 AC / 33,977 SF
EXISTING PERVIOUS AREA	2.97 AC / 129,550 SF
PROPOSED IMPERVIOUS AREA	0.76 AC / 33,106 SF
PROPOSED PERVIOUS AREA	2.99 AC / 130,421 SF
TOTAL DISTURBED AREA	3.75 AC / 163,526 SF

TEMPORARY BMP QUANTITIES	
SILT FENCE	±1,510 LF
SEDIMENT BOOM	±1,010 LF
INLET PROTECTION	3 EA

SUMMARY OF GRADING VOLUMES		
FILL WITHIN FLOODPLAIN	CUT WITHIN FLOODPLAIN	OVERALL BALANCE
198 CY	210 CY	−12 CY

Ohio Utilities Protection Service
Call 811
before you dig

HOUSEBOAT PATH RENOVATIONS
SWPP PLAN

SCALE: AS NOTED
DATE: 09/29/25
CHECKED: KGH/GS
DRAWN: DCLH

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44663

MUSKINGUM WATERSHED CONSERVANCY DISTRICT

REV.	DATE	DESCRIPTION	BY

SHEET NO.
C4.0

EX. ASPHALT ROAD TO BEACH

EX. GRAVEL LOOP ROAD

SEE SHEET C4.2

FLOOD LINE

100 YR Flood Elev.

#44
#43
#42
#41
#40
#39
#38
#37
#36
#35
#34
#33
#32
#31
#30
#29
#28
#27
#26
#25
#24
#23
#22
#21
#20
#19

EROSION CONTROL LEGEND

- CONSTRUCTION ENTRANCE (SEE EROSION CONTROL DETAILS)
- SILT SOCK/SEDIMENT BOOM (SEE EROSION CONTROL DETAILS)
- AREA INLET PROTECTION (SEE EROSION CONTROL DETAILS)
- RIP RAP (SEE EROSION CONTROL DETAILS)
- TEMPORARY SOIL STOCKPILE
- LIMITS OF DISTURBANCE
- EXISTING CONTOURS
- PROPOSED CONTOURS
- STAGING AREA
- EROSION CONTROL

NORTH

GRAPHIC SCALE IN FEET
0 10 20 40

HOUSEBOAT PATH RENOVATIONS
SWPP PLAN

DRAWN: DCLH
CHECKED: KGH/GS
DATE: 09/29/25
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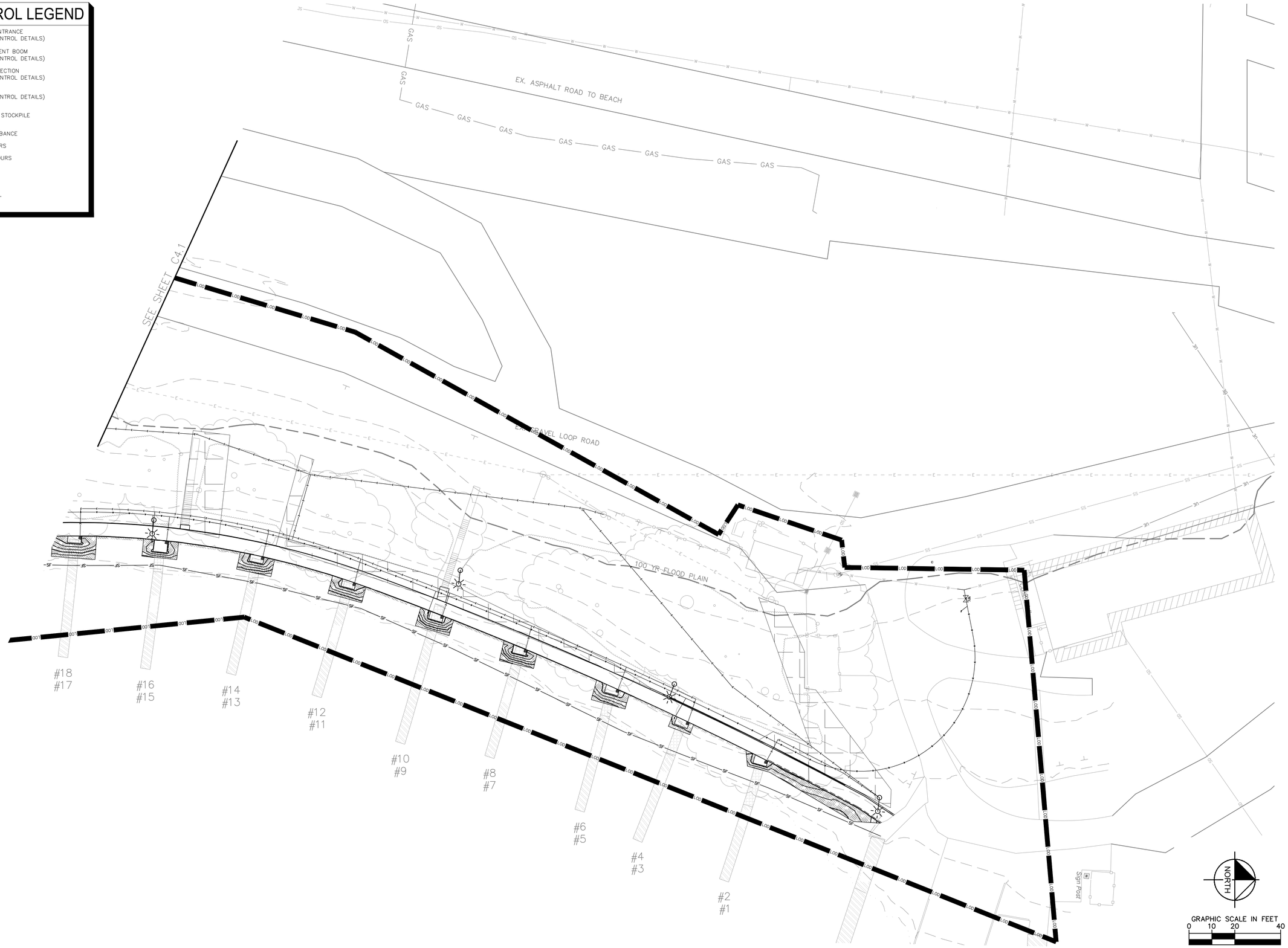
REV. | DATE | DESCRIPTION | BY

SHEET NO.
C4.1

EROSION CONTROL LEGEND

- CONSTRUCTION ENTRANCE (SEE EROSION CONTROL DETAILS)
- SILT SOCK/SEDIMENT BOOM (SEE EROSION CONTROL DETAILS)
- AREA INLET PROTECTION (SEE EROSION CONTROL DETAILS)
- RIP RAP (SEE EROSION CONTROL DETAILS)
- TEMPORARY SOIL STOCKPILE
- LIMITS OF DISTURBANCE
- EXISTING CONTOURS
- PROPOSED CONTOURS
- STAGING AREA
- EROSION CONTROL



HOUSEBOAT PATH RENOVATIONS
SWPP PLAN

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MUSKINGUM WATERSHED CONSERVANCY DISTRICT

REV.	DESCRIPTION	DATE	BY

SHEET NO.
C4.2

SITE DESCRIPTION

PROJECT NAME AND LOCATION:
CHARLES MILL MARINA HOUSEBOAT PATH RENOVATIONS; 1277 OH-430, MANSFIELD, OH 44903

OWNER NAME AND PHONE:
PROJECT MANAGER: ADAM LENHOFF
2050 REISER AVE. SE, NEW PHILADELPHIA, OHIO 44663
MAIN OFFICE: (330)-343-6647, EXT. 2410
CELL: (330)-260-2659
EMAIL: ALENHOFF@MWCD.ORG

DESCRIPTION:
THIS PROJECT CONSISTS OF UPDATING EXISTING GRAVEL PATH AND STEPS WITH NEW CONCRETE PATH WITH DOCK ABUTMENTS, NEW WOOD STAIRS, RIPRAP, GRASS PAVERS, LANDSCAPING, AND ELECTRICAL/LIGHTING MODIFICATION.

RUNOFF COEFFICIENT:
PRE-DEVELOPMENT CURVE NUMBER- 76
POST-DEVELOPMENT COMPOSITE CURVE NUMBER- 75

SITE AREA:
THE SITE IS APPROXIMATELY 3.75 ACRES, WITH 3.75 AC BEING DISTURBED BY CONSTRUCTION ACTIVITIES.

SITE DESCRIPTION: (CHECK ONE)
SUBDIVISION
COMMERCIAL
INDUSTRIAL
P.U.D.
OTHER x (PARK REDEVELOPMENT)

SOIL TYPES:
CgC – CHILI LOAM, 6 TO 12 PERCENT SLOPES (B)
CkD – CHILI AND CONOTTON GRAVELLY LOAMS, 12 TO 18 PERCENT (B)

SEQUENCE OF CONSTRUCTION

THE GENERAL SEQUENCE OF CONSTRUCTION IS ANTICIPATED AS FOLLOWS:

1. INSTALL TEMPORARY SWPP
2. TREE REMOVAL. THIS MUST BE DONE OUTSIDE OF BAT SEASON.
3. DEMOLISHED CONDITIONS ACCORDING TO SHEET C-1.0/1.1.
4. PROPOSED UTILITIES ACCORDING TO SHEET C-2.0/2.1.
5. SITE GRADING ACCORDING TO SHEET C-3.0/3.1.
6. CONCRETE PATH AND ABUTMENTS ACCORDING TO SHEET C-2.0/2.1.
7. GRASS PAVERS, RIPRAP, AND STAIRS ACCORDING TO SHEET C-2.0/2.1.
8. ENSURE ALL POST CONSTRUCTION GRADES MATCH THE GRADES SHOWN ON SHEET C-3.0.
9. CLEAN, LANDSCAPE, AND SEED THE WORKSITE.
10. REMOVAL ALL TEMPORARY SWPP

NAME OF RECEIVING WATERS:
THE ENTIRE SITE DRAINS INTO CHARLES MILL LAKE.

GENERAL NOTES

1. THE STORM WATER POLLUTION PREVENTION PLAN ("SWPPP") IS COMPRISED OF THE EROSION CONTROL PLAN, THE STANDARD DETAILS, THE PLAN NARRATIVE, ATTACHMENTS INCLUDED IN THE SPECIFICATIONS OF THE SWPPP, PLUS THE PERMIT AND ALL SUBSEQUENT REPORTS AND RELATED DOCUMENTS.
2. THE CONTRACTOR MUST UPDATE THE SWPPP BY NOTING ON THE SITE MAPS IN THE JOB SITE BINDER TO REFLECT THE PROGRESS OF CONSTRUCTION ACTIVITIES AND GENERAL CHANGES TO THE PROJECT SITE FOR THE DURATION OF LAND DISTURBING ACTIVITIES. AT A MINIMUM, UPDATES SHALL BE MADE DAILY TO TRACK CONSTRUCTION PROGRESS DESCRIBED IN THE SEQUENCE OF CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR NOTING THE LOCATION OF THE TEMPORARY PARKING & LAYDOWN AREAS, WHEEL WASH, CONCRETE WASHOUT, FUEL & MATERIAL STORAGE, SOLID WASTE CONTAINERS, AND OTHER CONSTRUCTION RELATED FACILITIES THAT MAY IMPACT STORMWATER RUNOFF.
3. ALL CONSTRUCTION ACTIVITIES MUST COMPLY WITH ALL LOCAL EROSION/SEDIMENT CONTROL, WASTE DISPOSAL, SANITARY AND HEALTH REGULATIONS.
4. ALL EROSION AND SEDIMENT CONTROL PRACTICES MUST MEET THE STANDARDS AND SPECIFICATIONS OF THE OHIO RAINWATER AND LAND DEVELOPMENT HANDBOOK (2006) AND UPDATES.
5. OTHER EROSION CONTROL ITEMS MAY BE NECESSARY DUE TO ENVIRONMENTAL CONDITIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLATION AND IMPLEMENTATION OF ADDITIONAL EROSION CONTROL ITEMS, AT THE ENGINEER'S DISCRETION.
6. REGULAR INSPECTION AND MAINTENANCE WILL BE PROVIDED BY THE CONTRACTOR FOR ALL EROSION AND SEDIMENT CONTROL PRACTICES.
7. THE CONTRACTOR SHALL USE EROSION CONTROL MEASURES AS NECESSARY TO PREVENT SEDIMENT MOVEMENT INTO AREAS DESIGNATED AS WETLANDS OR WATERWAYS.
8. NO SOLID OR LIQUID WASTE SHALL BE DISCHARGED INTO STORM WATER RUNOFF.
9. ADDITIONAL EROSION AND SEDIMENT CONTROL BMP'S MAY BE REQUIRED AS IDENTIFIED BY THE SWPP INSPECTOR.

SWPPP INSPECTOR: ADAM LENHOFF
2050 REISER AVE. SE, NEW PHILADELPHIA, OHIO 44663
MAIN OFFICE: (330)-343-6647, EXT. 2410
CELL: (330)-260-2659
EMAIL: ALENHOFF@MWCD.ORG

CONTROLS

EROSION AND SEDIMENT CONTROLS:

STABILIZATION PRACTICES

TEMPORARY STABILIZATION – TOP SOIL STOCK PILES AND DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY TEMPORARILY CEASES FOR AT LEAST 21 DAYS WILL BE STABILIZED WITH TEMPORARY SEED AND MULCH NO LATER THAN 14 DAYS FROM THE LAST CONSTRUCTION ACTIVITY IN THAT AREA. THE TEMPORARY SEED SHALL BE APPLIED AS PER THE TEMPORARY SEEDING SPECIFICATIONS. AREAS OF THE SITE WHICH ARE TO BE PAVED WILL BE TEMPORARILY STABILIZED BY APPLYING GEOTEXTILE AND STONE SUB-BASE UNTIL ASPHALT PAVEMENT CAN BE APPLIED.

PERMANENT STABILIZATION – DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES PERMANENTLY CEASES SHALL BE STABILIZED WITH PERMANENT SEED NO LATER THAN 7 DAYS AFTER THE LAST CONSTRUCTION ACTIVITY OR WITHIN 2 DAYS FOR AREAS WITHIN 50 FEET OF A STREAM OR LAKE. REFER TO LANDSCAPE PLAN FOR DETAILS.

STABILIZATION TYPE	J	F	M	A	M	J	J	A	S	O	N	D
PERMANENT SEEDING			●	●	●	*	*	*	●	●		
DORMANT SEEDING	●	●	●							●	●	●
TEMPORARY SEEDING			●	●	●	*	*	*	●	●		
SODDING			**	**	**	**	**	**	**			
MULCHING	●	●	●	●	●	●	●	●	●	●	●	●

* – IRRIGATION NEEDED

** – IRRIGATION NEEDED FOR 2-3 WEEKS AFTER SOD IS APPLIED

STORMWATER MANAGEMENT

STORMWATER DRAINAGE WILL BE PROVIDED BY EXISTING STORM SEWER AND CATCH BASIN, OUTLETTING TO CHARLES MILL LAKE.

	REQUIRED	PROPOSED
SEDIMENT STORAGE ZONE	N/A	N/A
DEWATERING ZONE	N/A	N/A

	REQUIRED	PROPOSED
WATER QUALITY VOLUME	N/A	N/A

OTHER CONTROLS

WASTE DISPOSAL:
ALL WASTE MATERIALS WILL BE COLLECTED AND STORED IN A SECURELY LIDDED METAL DUMPSTER RENTED FROM A LICENSED SOLID WASTE MANAGEMENT COMPANY. THE DUMPSTER WILL MEET ALL LOCAL, CITY AND STATE SOLID WASTE MANAGEMENT REGULATIONS. ALL TRASH AND CONSTRUCTION DEBRIS FROM THE SITE WILL BE DEPOSITED IN THE DUMPSTER. THE DUMPSTER WILL BE EMPTIED A MINIMUM OF TWICE PER WEEK OR MORE OFTEN IF NECESSARY, AND THE TRASH WILL BE HAULED OFF-SITE. NO CONSTRUCTION WASTE MATERIALS WILL BE BURIED ONSITE. ALL PERSONNEL WILL BE INSTRUCTED REGARDING THE CORRECT PROCEDURE FOR WASTE DISPOSAL. NOTICES STATING THESE PRACTICES WILL BE POSTED IN THE OFFICE TRAILER. THE INDIVIDUAL WHO MANAGES THE DAY-TO-DAY SITE OPERATIONS WILL BE RESPONSIBLE FOR SEEING THAT THESE PROCEDURES ARE FOLLOWED. ALL CONSTRUCTION AND DEMOLITION DEBRIS (C&DD) WASTE WILL BE DISPOSED OF IN AN OHIO EPA APPROVED C&DD LANDFILL AS REQUIRED BY ORC 3714

HAZARDOUS WASTE:
ALL HAZARDOUS WASTE MATERIALS WILL BE DISPOSED OF IN THE MANNER SPECIFIED BY LOCAL OR STATE REGULATION OR BY THE MANUFACTURER. SITE PERSONNEL WILL BE INSTRUCTED IN THESE PRACTICES. THE INDIVIDUAL WHO MANAGES DAY-TO-DAY SITE OPERATIONS WILL BE RESPONSIBLE FOR SEEING THAT THESE PRACTICES ARE FOLLOWED.

SANITARY WASTE:
ALL SANITARY WASTE WILL BE COLLECTED FROM THE PORTABLE UNITS A MINIMUM OF THREE TIMES PER WEEK BY A LICENSED SANITARY WASTE MANAGEMENT CONTRACTOR, AS REQUIRED BY LOCAL REGULATION.

OFF-SITE VEHICLE TRACKING:
OFF-SITE TRACKING OF SEDIMENTS SHALL BE MINIMIZED. A STABILIZED CONSTRUCTION ENTRANCE WILL BE PROVIDED TO HELP REDUCE VEHICLE TRACKING OF SEDIMENTS. ALL PAVED STREETS ADJACENT TO THE SITE WILL BE SWEPT DAILY TO REMOVE ANY EXCESS MUD, DIRT OR ROCK TRACKED FROM THE SITE. DUMP TRUCKS HAULING MATERIAL FROM THE CONSTRUCTION SITE WILL BE COVERED WITH A TARPAULIN.

DEWATERING ACTIVITIES:
THERE SHALL BE NO TURBID DISCHARGES TO SURFACE WATERS, RESULTING FROM DEWATERING ACTIVITIES. SEDIMENT-LADEN WATER MUST PASS THROUGH A SETTLING POND, FILTER BAG, OR OTHER COMPARABLE PRACTICE, PRIOR TO DISCHARGE.

PROCESS WASTEWATER:
ALL PROCESS WASTEWATER (EQUIPMENT WASHING, LEACHATE FROM ON-SITE WASTE DISPOSAL, ETC.) SHALL BE COLLECTED AND DISPOSED OF AT A PUBLICLY OWNED TREATMENT WORKS.

TIMING OF CONTROLS/MEASURES
AS INDICATED IN THE SEQUENCE OF MAJOR ACTIVITIES, CONSTRUCTION ENTRANCE(S) AND SILT FENCE WILL BE CONSTRUCTED PRIOR TO CLEARING OR GRADING OF ANY OTHER PORTIONS OF THE SITE. SEDIMENT CONTROL DEVICES SHALL BE IMPLEMENTED FOR ALL AREAS REMAINING DISTURBED LONGER THAN 14 DAYS AND/OR WITHIN 7 DAYS OF ANY GRUBBING ACTIVITIES. AREAS WHERE CONSTRUCTION ACTIVITY TEMPORARILY CEASES FOR MORE THAN 21 DAYS WILL BE STABILIZED WITH A TEMPORARY SEED AND MULCH WITHIN 2 DAYS OF THE LAST DISTURBANCE IF THE AREA IS WITHIN 50 FEET OF A STREAM, AND WITHIN 7 DAYS OF THE LAST DISTURBANCE IF THE AREA IS MORE THAN 50 FEET AWAY FROM A STREAM. ONCE CONSTRUCTION ACTIVITY CEASES PERMANENTLY IN AN AREA, THAT AREA WILL BE STABILIZED WITH PERMANENT SEED AND MULCH. AFTER THE ENTIRE SITE IS STABILIZED, THE ACCUMULATED SEDIMENT WILL BE REMOVED FROM THE BASIN AND SEDIMENT BOOM.

SPILL PREVENTION

MATERIAL MANAGEMENT PRACTICES:
THE FOLLOWING ARE THE MATERIAL MANAGEMENT PRACTICES THAT WILL BE USED TO REDUCE THE RISK OF SPILLS OR OTHER ACCIDENTAL EXPOSURE OF MATERIALS AND SUBSTANCES TO STORMWATER RUNOFF.

GOOD HOUSEKEEPING: THE FOLLOWING GOOD HOUSEKEEPING PRACTICES WILL BE FOLLOWED ONSITE DURING THE CONSTRUCTION PROJECT.

1. AN EFFORT WILL BE MADE TO STORE ONLY ENOUGH PRODUCT REQUIRED TO DO THE JOB.
2. ALL MATERIALS STORED ONSITE WILL BE STORED IN A NEAT, ORDERLY MANNER IN THEIR APPROPRIATE CONTAINERS AND, IF POSSIBLE, UNDER A ROOF OR OTHER ENCLOSURE.
3. PRODUCTS WILL BE KEPT IN THEIR ORIGINAL CONTAINERS WITH THE ORIGINAL MANUFACTURER'S LABEL.
4. SUBSTANCES WILL NOT BE MIXED WITH ONE ANOTHER UNLESS RECOMMENDED BY THE MANUFACTURER.
5. WHENEVER POSSIBLE, ALL OF A PRODUCT WILL BE USED UP BEFORE DISPOSING OF THE CONTAINER.
6. MANUFACTURERS' RECOMMENDATIONS FOR PROPER USE AND DISPOSAL WILL BE FOLLOWED.
7. THE SITE SUPERINTENDENT WILL INSPECT DAILY TO ENSURE PROPER USE AND DISPOSAL OF MATERIALS ONSITE.

HAZARDOUS PRODUCTS: THESE PRACTICES ARE USED TO REDUCE THE RISKS ASSOCIATED WITH HAZARDOUS MATERIALS.

1. PRODUCTS WILL BE KEPT IN ORIGINAL CONTAINERS UNLESS THEY ARE NOT RESEALABLE.
2. ORIGINAL LABELS AND MATERIAL SAFETY DATA WILL BE RETAINED; THEY CONTAIN IMPORTANT PRODUCT INFORMATION.
3. IF SURPLUS PRODUCT MUST BE DISPOSED OF, MANUFACTURERS' OR LOCAL AND STATE RECOMMENDED METHODS FOR PROPER DISPOSAL WILL BE FOLLOWED.

PRODUCT SPECIFIC PRACTICES
THE FOLLOWING PRODUCT SPECIFIC PRACTICES WILL BE FOLLOWED ONSITE:

PETROLEUM PRODUCTS – ALL ONSITE VEHICLES WILL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTIVE MAINTENANCE TO REDUCE THE CHANCE OF LEAKAGE. PETROLEUM PRODUCTS WILL BE STORED IN TIGHTLY SEALED CONTAINERS WHICH ARE CLEARLY LABELED. ANY ASPHALT SUBSTANCES USED ONSITE WILL BE APPLIED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.

SUFFICIENT OIL AND GREASE ABSORBING MATERIALS AND FLOTATION BOOMS SHALL BE MAINTAINED ON SITE OR READILY AVAILABLE TO CONTAIN AND CLEAN-UP FUEL OR CHEMICAL SPILLS AND LEAKS.

FUEL STORAGE TANKS SHALL BE LOCATED AWAY FROM SURFACE WATERS AND STORM SEWER SYSTEM INLETS. FUEL TANKS SHALL BE STORED IN A DIKED AREA CAPABLE OF HOLDING 150% OF THE TANK CAPACITY.

FERTILIZERS – FERTILIZERS USED WILL BE APPLIED ONLY IN THE MINIMUM AMOUNTS RECOMMENDED BY THE MANUFACTURER. ONCE APPLIED, FERTILIZER WILL BE WORKED INTO THE SOIL TO LIMIT EXPOSURE TO STORMWATER. STORAGE WILL BE IN A COVERED SHED. THE CONTENTS OF ANY PARTIALLY USED BAGS OF FERTILIZER WILL BE TRANSFERRED TO A SEALABLE PLASTIC BIN TO AVOID SPILLS.

PAINTS – ALL CONTAINERS WILL BE TIGHTLY SEALED AND STORED WHEN NOT REQUIRED FOR USE. EXCESS PAINT WILL NOT BE DISCHARGED TO THE STORM SEWER SYSTEM BUT WILL BE PROPERLY DISPOSED OF ACCORDING TO MANUFACTURERS' INSTRUCTIONS OR STATE AND LOCAL REGULATIONS.

CONCRETE TRUCKS – CONCRETE TRUCKS WILL NOT BE ALLOWED TO WASH OUT OR DISCHARGE SURPLUS CONCRETE OR DRUM WASH WATER ON THE SITE, EXCEPT WITHIN CONCRETE WASHOUT.

SPILL CONTROL PRACTICES
IN ADDITION TO THE GOOD HOUSEKEEPING AND MATERIAL MANAGEMENT PRACTICES DISCUSSED IN THE PREVIOUS SECTIONS OF THIS PLAN, THE FOLLOWING PRACTICES WILL BE FOLLOWED FOR SPILL PREVENTION AND CLEANUP:

1. ALL SPILLS SHALL BE CLEANED UP IMMEDIATELY AFTER DISCOVERY. MANUFACTURERS' RECOMMENDED METHODS FOR SPILL CLEANUP POSTED AND SITE PERSONNEL WILL BE MADE AWARE OF THE PROCEDURES AND THE LOCATION OF THE INFORMATION AND CLEANUP SUPPLIES.
2. MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEANUP WILL BE KEPT IN THE MATERIAL STORAGE AREA ONSITE. EQUIPMENT AND MATERIALS WILL INCLUDE BUT NOT BE LIMITED TO BROOMS, DUST PANS, MOPS, RAGS, GLOVES, GOGGLES, KITTY LITTER, SAND, SAWDUST, AND PLASTIC AND METAL TRASH CONTAINERS SPECIFICALLY FOR THIS PURPOSE.
3. THE SPILL AREA WILL BE KEPT WELL VENTILATED AND PERSONNEL WILL WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT INJURY FROM CONTACT WITH A HAZARDOUS SUBSTANCE.
4. SPILLS OF TOXIC OR HAZARDOUS MATERIAL WILL BE REPORTED TO THE APPROPRIATE STATE OR LOCAL GOVERNMENT AGENCY, REGARDLESS OF THE SIZE. SPILLS OF 25 OR MORE GALLONS OF PETROLEUM WASTE MUST BE REPORTED TO OHIO EPA (1-800-282-9378), THE LOCAL FIRE DEPARTMENT, AND THE LOCAL EMERGENCY PLANNING COMMITTEE WITHIN 30 MINUTES OF THE SPILL.
5. SOILS CONTAMINATED BY PETROLEUM OR OTHER CHEMICAL SPILLS MUST BE TREATED/DISPOSED AT AN OHIO EPA APPROVED SOLID WASTE MANAGEMENT FACILITY OR HAZARDOUS WASTE TREATMENT, STORAGE OR DISPOSAL FACILITY (TSDF).
6. THE SPILL PREVENTION PLAN WILL BE ADJUSTED TO INCLUDE MEASURES TO PREVENT THIS TYPE OF SPILL FROM REOCCURRING AND HOW TO CLEAN UP THE SPILL IF THERE IS ANOTHER ONE. A DESCRIPTION OF THE SPILL, WHAT CAUSED IT, AND THE CLEANUP MEASURES WILL ALSO BE INCLUDED.
7. THE SITE SUPERINTENDENT RESPONSIBLE FOR THE DAY-TO-DAY SITE OPERATIONS, WILL BE THE SPILL PREVENTION AND CLEANUP COORDINATOR. HE WILL DESIGNATE SITE PERSONNEL WHO WILL RECEIVE SPILL PREVENTION AND CLEANUP TRAINING. THESE INDIVIDUALS WILL EACH BECOME RESPONSIBLE FOR A PARTICULAR PHASE OF PREVENTION AND CLEANUP. THE NAMES OF RESPONSIBLE SPILL PERSONNEL WILL BE POSTED IN THE MATERIAL STORAGE AREA AND IN THE OFFICE TRAILER ONSITE.

DUST CONTROL

DUST CONTROL INVOLVES PREVENTING OR REDUCING DUST FROM EXPOSED SOILS OR OTHER SOURCES DURING LAND DISTURBING, DEMOLITION AND CONSTRUCTION ACTIVITIES TO REDUCE THE PRESENCE OF AIRBORNE SUBSTANCES WHICH MAY PRESENT HEALTH HAZARDS, TRAFFIC SAFETY PROBLEMS OR HARM ANIMAL OR PLANT LIFE.

THE FOLLOWING SPECIFICATIONS FOR DUST CONTROL SHALL BE FOLLOWED ONSITE:

1. VEGETATIVE COVER AND/MULCH – APPLY TEMPORARY OR PERMANENT SEEDING AND MULCH TO AREAS THAT WILL REMAIN IDLE FOR OVER 21 DAYS. SAVING EXISTING TREES AND LARGE SHRUBS WILL ALSO REDUCE SOIL AND AIR MOVEMENT ACROSS DISTURBED AREAS. SEE TEMPORARY SEEDING; PERMANENT SEEDING; MULCHING PRACTICES; AND TREE AND NATURAL AREA PROTECTION PRACTICES.
2. WATERING – SPRAY SITE WITH WATER UNTIL THE SURFACE IS WET BEFORE AND DURING GRADING AND REPEAT AS NEEDED, ESPECIALLY ON HAUL ROADS AND OTHER HEAVY TRAFFIC ROUTES. WATERING SHALL BE DONE AT A RATE THAT PREVENTS DUST BUT DOES NOT CAUSE SOIL EROSION. WETTING AGENTS SHALL BE UTILIZED ACCORDING TO MANUFACTURERS INSTRUCTIONS.
3. SPRAY-ON ADHESIVES – APPLY ADHESIVE ACCORDING TO THE FOLLOWING TABLE OR MANUFACTURERS' INSTRUCTIONS.

ADHESIVE	WATER DILUTION (ADHESIVE: WATER)	NOZZLE TYPE	APPLICATION RATE GAL./AC.
LATEX EMULSION	12.5:1	FINE	235
RESIN IN WATER ACRYLIC EMULSION (NO-TRAFFIC)	4:1	FINE	300
ACRYLIC EMULSION (NO-TRAFFIC)	7:1	COARSE	450
ACRYLIC EMULSION (TRAFFIC)	3.5:1	COARSE	350

4. STONE – GRADED ROADWAYS AND OTHER SUITABLE AREAS WILL BE STABILIZED USING CRUSHED STONE OR COARSE GRAVEL AS SOON AS PRACTICABLE AFTER REACHING AN INTERIM OR FINAL GRADE. CRUSHED STONE OR COARSE GRAVEL CAN BE USED AS A PERMANENT COVER TO PROVIDE CONTROL OF SOIL EMISSIONS.
5. BARRIERS – EXISTING WINDBREAK VEGETATION SHALL BE MARKED AND PRESERVED. SNOW FENCING OR OTHER SUITABLE BARRIER MAY BE PLACED PERPENDICULAR TO PREVAILING AIR CURRENTS AT INTERVALS OF ABOUT 15 TIMES THE BARRIER HEIGHT TO CONTROL AIR CURRENTS AND BLOWING SOIL.
6. CALCIUM CHLORIDE – THIS CHEMICAL MAY BE APPLIED BY MECHANICAL SPREADER AS LOOSE, DRY GRANULES OR FLAKES AT A RATE THAT KEEPS THE SURFACE MOIST BUT NOT SO HIGH AS TO CAUSE WATER POLLUTION OR PLANT DAMAGE. APPLICATION RATES SHOULD BE STRICTLY IN ACCORDANCE WITH SUPPLIERS' SPECIFIED RATES.
7. OPERATION AND MAINTENANCE – WHEN TEMPORARY DUST CONTROL MEASURES ARE USED; REPETITIVE TREATMENT SHOULD BE APPLIED AS NEEDED TO ACCOMPLISH CONTROL.
8. STREET CLEANING – PAVED AREAS THAT HAVE ACCUMULATED SEDIMENT FROM CONSTRUCTION SHOULD BE CLEANED DAILY, OR AS NEEDED, UTILIZING A STREET SWEEPER OR BUCKET – TYPE ENDLOADER OR SCRAPER.
9. PRIVATE PROPERTY CLEANING – CONTRACTOR SHALL PROVIDE ACTIVE DUST CONTROL ACTIVITIES TO MINIMIZE DUST AND DEBRIS ONTO ADJOINING PRIVATE RV CAMPERS/BOATS, WHEN DIRECTED BY ENGINEER. CONTRACTOR SHALL PERFORM ADDITIONAL ABOVE DUST CONTROL APPLICATIONS ON DAYS WHEN RAIN HAS NOT OCCURRED IN MORE THAN 32 HOURS OR AS DIRECTED IN FIELD BY OWNER.

HOUSEBOAT PATH RENOVATIONS
SWPP NOTES

SCALE: AS NOTED
DATE: 09/29/25
CHECKED: KGH/GS
DRAWN: DCLH

1319 THIRD ST. N.W.
P.O. BOX 349
NEW PHILADELPHIA, OHIO
44663

MUSKINGUM WATERSHED CONSERVANCY DISTRICT

REV.	DATE	DESCRIPTION	BY

SHEET NO.
C4.3

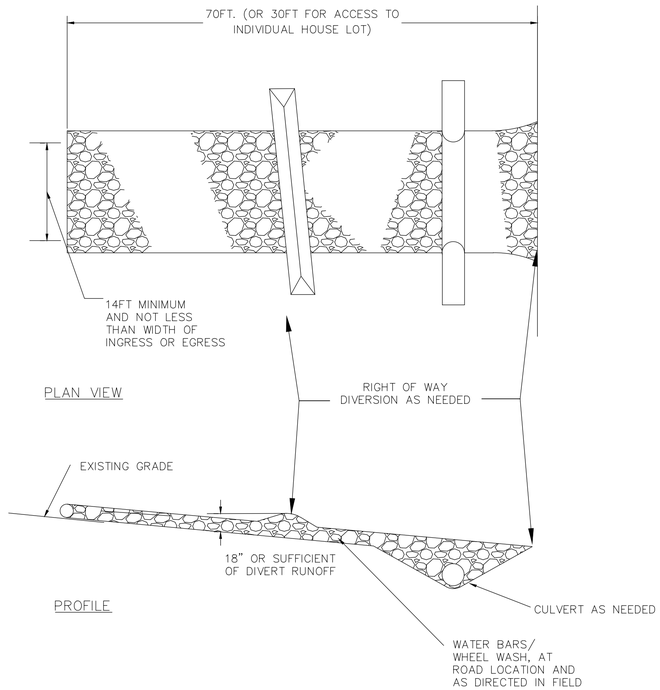
CONSTRUCTION ENTRANCE

DESCRIPTION
A CONSTRUCTION ENTRANCE IS A STABILIZED PAD OF STONE UNDERLAIN WITH GEOTEXTILE AND IS USED TO REDUCE THE AMOUNT OF MUD TRACKED OFF-SITE WITH CONSTRUCTION TRAFFIC. CONTRACTOR SHALL ALSO INSTALL A WHEEL WASH AT ALL LOCATIONS EXITING THE SITE ENTERING ROADWAYS. LOCATED AT POINTS OF INGRESS/EGRESS, THE PRACTICE IS USED TO REDUCE THE AMOUNT OF MUD TRACKED OFF-SITE WITH CONSTRUCTION TRAFFIC.

SPECIFICATIONS FOR CONSTRUCTION ENTRANCE
1. STONE SIZE – ODOT #2 (1.5-2.5 INCH) STONE SHALL BE USED, OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH – THE CONSTRUCTION ENTRANCE SHALL BE AS LONG AS REQUIRED TO STABILIZE HIGH TRAFFIC AREAS BUT NOT LESS THAN 70 FT. (EXCEPTION: APPLY 30 FT. MINIMUM TO SINGLE RESIDENCE LOTS).
3. THICKNESS – THE STONE LAYER SHALL BE AT LEAST 6 INCHES THICK FOR LIGHT DUTY ENTRANCES OR AT LEAST 10 INCHES FOR HEAVY DUTY USE.
4. WIDTH – THE ENTRANCE SHALL BE AT LEAST 14 FEET WIDE, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
5. GEOTEXTILE – A GEOTEXTILE SHALL BE LAID OVER THE ENTIRE AREA, PRIOR TO PLACING STONE. IT SHALL BE COMPOSED OF STRONG ROT-PROOF POLYMERIC FIBERS AND MEET THE FOLLOWING SPECIFICATIONS:

GEOTEXTILE SPECIFICATION FOR CONSTRUCTION ENTRANCE	
MINIMUM TENSILE STRENGTH	
MINIMUM PUNCTURE STRENGTH	80 PSI.
MINIMUM TEAR STRENGTH	50 LBS.
MINIMUM BURST STRENGTH	320 PSI.
MINIMUM ELONGATION	20%
EQUIVALENT OPENING SIZE	EOS < 0.6 MM.
PERMITTIVITY	1X10-3 CM/SEC.

6. TIMING – THE CONSTRUCTION ENTRANCE SHALL BE INSTALLED AS SOON AS IS PRACTICABLE BEFORE MAJOR GRADING ACTIVITIES.
7. CULVERT – A PIPE OR CULVERT SHALL BE CONSTRUCTED UNDER THE ENTRANCE IF NEEDED TO PREVENT SURFACE WATER FROM FLOWING ACROSS THE ENTRANCE OR TO PREVENT RUNOFF FROM BEING DIRECTED OUT ONTO PAVED SURFACES.
8. WATER BAR/WHEEL WASH – A WATER BAR SHALL BE CONSTRUCTED AS PART OF THE CONSTRUCTION ENTRANCE IF NEEDED, AND AS DIRECTED BY OWNER, TO PREVENT SURFACE RUNOFF FROM FLOWING THE LENGTH OF THE CONSTRUCTION ENTRANCE AND OUT ONTO PAVED ROADWAY SURFACES.
9. MAINTENANCE – TOP DRESSING OF ADDITIONAL STONE SHALL BE APPLIED AS CONDITIONS DEMAND. MUD SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC ROADS, OR ANY SURFACE WHERE RUNOFF IS NOT CHECKED BY SEDIMENT CONTROLS, SHALL BE REMOVED IMMEDIATELY. REMOVAL SHALL BE ACCOMPLISHED BY SCRAPING OR SWEEPING.
10. CONSTRUCTION ENTRANCES SHALL NOT BE RELIED UPON TO REMOVE MUD FROM VEHICLES AND PREVENT OFF-SITE TRACKING. VEHICLES THAT ENTER AND LEAVE THE CONSTRUCTION-SITE SHALL BE RESTRICTED FROM MUDDY AREAS.
11. REMOVAL- THE ENTRANCE SHALL REMAIN IN PLACE UNTIL THE DISTURBED AREA IS STABILIZED OR REPLACED WITH A PERMANENT ROADWAY OR ENTRANCE.



INLET PROTECTION

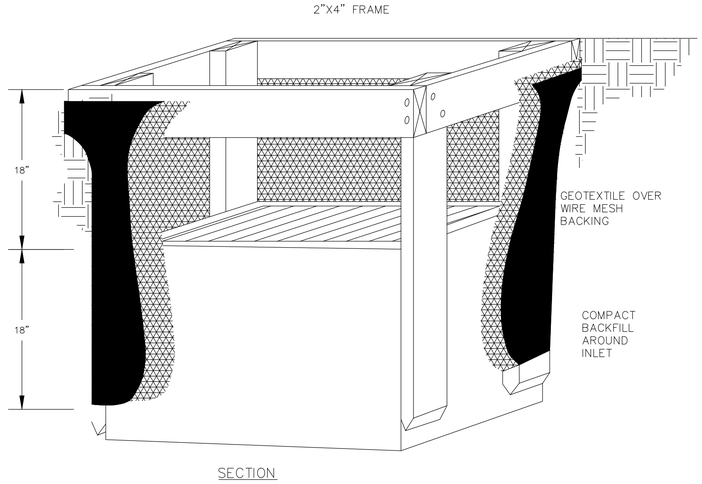
DESCRIPTION

STORM DRAIN INLET PROTECTION DEVICES REMOVE SEDIMENT FROM STORM WATER BEFORE IT ENTERS STORM SEWERS AND DOWNSTREAM AREAS. INLET PROTECTION DEVICES ARE SEDIMENT BARRIERS THAT MAY BE CONSTRUCTED OF WASHED GRAVEL OR CRUSHED STONE, GEOTEXTILE FABRICS AND OTHER MATERIALS THAT ARE SUPPORTED AROUND OR ACROSS STORM DRAIN INLETS.

INLET PROTECTION IS INSTALLED TO CAPTURE SOME SEDIMENT AND REDUCE THE MAINTENANCE OF STORM SEWERS AND OTHER UNDERGROUND PIPING SYSTEMS PRIOR TO THE SITE BEING STABILIZED. DUE TO THEIR POORER EFFECTIVENESS, INLET PROTECTION IS CONSIDERED A SECONDARY SEDIMENT CONTROL TO BE USED IN CONJUNCTION WITH OTHER MORE EFFECTIVE CONTROLS.

SPECIFICATIONS FOR GEOTEXTILE INLET PROTECTION

1. INLET PROTECTION SHALL BE CONSTRUCTED EITHER BEFORE UPSLOPE LAND DISTURBANCE BEGINS OR BEFORE THE INLET BECOMES FUNCTIONAL.
2. THE EARTH AROUND THE INLET SHALL BE EXCAVATED COMPLETELY TO A DEPTH AT LEAST 18 INCHES.
3. THE WOODEN FRAME SHALL BE CONSTRUCTED OF 2 INCHES BY 4 INCHES CONSTRUCTION GRADE LUMBER. THE 2 INCHES BY 4 INCHES POSTS SHALL BE DRIVEN ONE (1) FT. INTO THE GROUND AT FOUR CORNERS OF THE INLET AND THE TOP PORTION OF 2 INCHES BY 4 INCHES FRAME ASSEMBLED USING THE OVERLAP JOINT SHOWN. THE TOP OF THE FRAME SHALL BE AT LEAST 6 INCHES BELOW ADJACENT ROADS OF PONDED WATER WILL POSE A SAFETY HAZARD TO TRAFFIC.
4. WIRE MESH SHALL BE OF SUFFICIENT STRENGTH TO SUPPORT FABRIC WITH WATER FULLY IMPOUNDED AGAINST IT. IT SHALL BE STRETCHED TIGHTLY AROUND THE FRAME AND FASTENED SECURELY TO THE FRAME.
5. GEOTEXTILE MATERIAL SHALL HAVE AN EQUIVALENT OPENING SIZE OF 20-40 SIEVE AND BE RESISTANT TO SUNLIGHT. IT SHALL BE STRETCHED TIGHTLY AROUND THE FRAME AND FASTENED SECURELY. IT SHALL EXTEND FROM THE TOP OF THE FRAME TO 18 INCHES BELOW THE INLET NOTCH ELEVATION. THE GEOTEXTILE SHALL OVERLAP ACROSS ONE SIDE OF THE INLET SO THE ENDS OF THE CLOTH ARE NOT FASTENED TO THE SAME POST.



SECTION

SILT FENCE

DESCRIPTION

A SILT FENCE IS A SEDIMENT-TRAPPING PRACTICE UTILIZING A GEOTEXTILE FENCE, TOPOGRAPHY AND SOMETIMES VEGETATION TO CAUSE SEDIMENT DEPOSITION. SILT FENCE REDUCES RUNOFF'S ABILITY TO TRANSPORT SEDIMENT BY PONDING RUNOFF AND DISSIPATING SMALL RILLS OF CONCENTRATED FLOW INTO UNIFORM SHEET FLOW. SILT FENCE IS USED TO PREVENT SEDIMENT-LADEN SHEET RUNOFF FROM ENTERING INTO DOWNSTREAM CREEKS AND SEWER SYSTEMS.

SPECIFICATIONS FOR SILT FENCE

1. SILT FENCE SHALL BE CONSTRUCTED BEFORE UPSLOPE LAND DISTURBANCE BEGINS.
2. ALL SILT FENCE SHALL BE PLACED AS CLOSE TO THE CONTOUR AS POSSIBLE SO THAT WATER WILL NOT CONCENTRATE AT LOW POINTS IN THE FENCE AND SO THAT SMALL SWALES OR DEPRESSIONS WHICH MAY CARRY SMALL CONCENTRATED FLOWS TO THE SILT FENCE ARE DISSIPATED ALONG ITS LENGTH.
3. ENDS OF THE SILT FENCES SHALL BE BROUGHT UPSLOPE SLIGHTLY SO THAT WATER PONDED BY THE SILT FENCE WILL BE PREVENTED FROM FLOWING AROUND THE ENDS.
4. SILT FENCE SHALL BE PLACED ON THE FLATTEST AREA AVAILABLE.
5. WHERE POSSIBLE, VEGETATION SHALL BE PRESERVED FOR 5 FEET (OR AS MUCH AS POSSIBLE) UPSLOPE FROM THE SILT FENCE. IF VEGETATION IS REMOVED, IT SHALL BE REESTABLISHED WITHIN 7 DAYS FROM THE INSTALLATION OF THE SILT FENCE.
6. THE HEIGHT OF THE SILT FENCE SHALL BE A MINIMUM OF 16 INCHES ABOVE THE ORIGINAL GROUND SURFACE.
7. THE SILT FENCE SHALL BE PLACED IN AN EXCAVATED OR SLICED TRENCH CUT A MINIMUM OF 6 INCHES DEEP. THE TRENCH SHALL BE MADE WITH A TRENCHER, CABLE LAYING MACHINE, SLICING MACHINE, OR OTHER SUITABLE DEVICE THAT WILL ENSURE AN ADEQUATELY UNIFORM TRENCH DEPTH.
8. THE SILT FENCE SHALL BE PLACED WITH THE STAKES ON THE DOWNSLOPE SIDE OF THE GEOTEXTILE AND SO THAT 8 INCHES OF GEOTEXTILE MUST BE BELOW THE GROUND SURFACE. EXCESS MATERIAL SHALL LAY ON THE BOTTOM OF THE 6 INCH DEEP TRENCH. THE TRENCH SHALL BE BACKFILLED AND COMPACTED ON BOTH SIDES OF THE FABRIC.
9. SEAMS BETWEEN SECTION OF SILT FENCE SHALL BE SPLICED TOGETHER ONLY AT A SUPPORT POST WITH AA MINIMUM 6 INCHES OVERLAP PRIOR TO DRIVING INTO THE GROUND. (SEE DETAILS)
10. MAINTENANCE – SILT FENCE SHALL ALLOW RUNOFF TO PASS ONLY AS DIFFUSE FLOW THROUGH THE GEOTEXTILE. IF RUNOFF OVERTOPS THE SILT FENCE, FLOWS UNDER OR AROUND THE ENDS, OR IN ANY OTHER WAY BECOMES A CONCENTRATED FLOW DISCHARGE, ONE OF THE FOLLOWING SHALL BE PERFORMED, AS APPROPRIATE: 1) THE LAYOUT OF THE SILT FENCE SHALL BE CHANGED, 2) ACCUMULATED SEDIMENT SHALL BE REMOVED, OR 3) OTHER PRACTICES SHALL BE INSTALLED.
SILT FENCE SHALL BE INSPECTED AFTER EACH RAINFALL AND AT LEAST DAILY DURING A PROLONGED RAINFALL. THE LOCATION OF EXISTING SILT FENCE SHALL BE REVIEWED DAILY TO ENSURE ITS PROPER LOCATION AND EFFECTIVENESS. IF DAMAGED, THE SILT FENCE SHALL BE REPAIRED IMMEDIATELY.

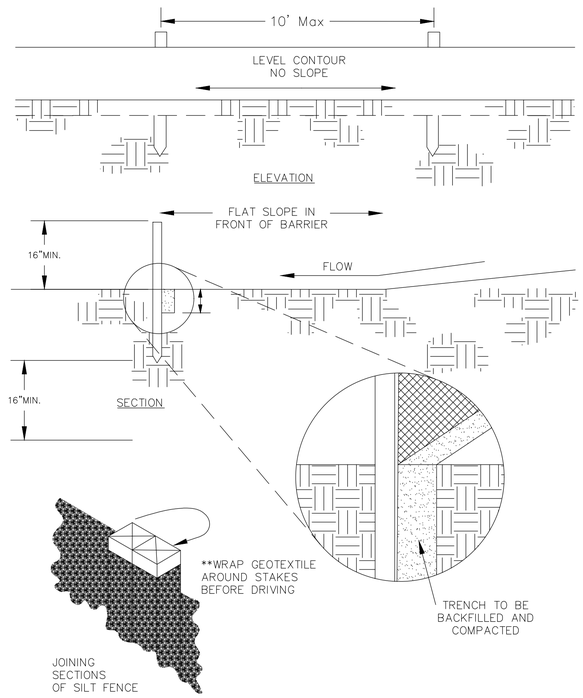
CRITERIA FOR SILT FENCE MATERIALS:

1. FENCE POSTS – THE LENGTH SHALL BE A MINIMUM OF 32 INCHES LONG. WOOD POSTS WILL BE 2-BY-2 INCH NOMINAL DIMENSIONED HARDWOOD OF SOUND QUALITY. THEY SHALL BE FREE OF KNOTS, SPLITS AND OTHER VISIBLE IMPERFECTIONS, THAT WILL WEAKEN THE POSTS. THE MAXIMUM SPACING BETWEEN POSTS SHALL BE 10 FT. POSTS SHALL BE DRIVEN A MINIMUM 16 INCHES INTO THE GROUND, WHERE POSSIBLE. IF NOT POSSIBLE, THE POSTS SHALL BE ADEQUATELY SECURED TO PREVENT OVERTURNING OF THE FENCE DUE TO SEDIMENT/WATER LOADING.

SILT FENCE FABRIC (SEE CHART BELOW):

FABRIC PROPERTIES	VALUES	TEST METHOD
MINIMUM TENSILE STRENGTH	120 LBS. (535 N)	ASTM D 4632
MAXIMUM ELONGATION AT 60 LBS	50%	ASTM D 4632
MINIMUM PUNCTURE STRENGTH	50 LBS (220 N)	ASTM D 4833
MINIMUM TEAR STRENGTH	40 LBS (180 N)	ASTM D 4533
APPARENT OPENING SIZE	< OR = 0.84 MM	ASTM D4751
MINIMUM PERMITTIVITY	1X10-2 SEC. -1	ASTM D 4491
UV EXPOSURE STRENGTH RETENTION	70%	ASTM G 4355

(NOT TO SCALE)



HOUSEBOAT PATH RENOVATIONS
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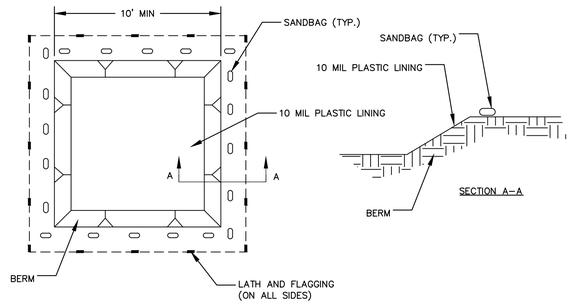
MUSKINGUM WATERSHED CONSERVANCY DISTRICT

BY | DESCRIPTION | DATE | REV.

SHEET NO.
C4.4

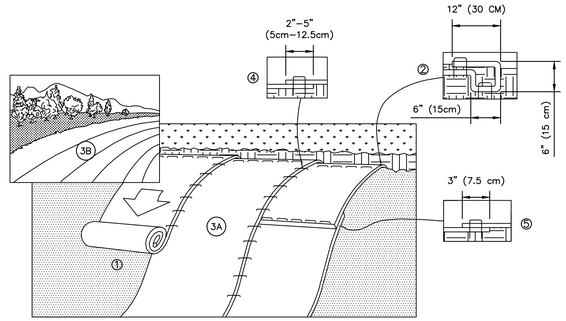
SUMMARY MAINTENANCE SCHEDULE FOR TEMPORARY BMPS:	
ACTIVITY	FREQUENCY
CHANNELS	
MAINTAIN CHANNEL DIMENSIONS	CONSTANTLY
CHECK CHANNEL LININGS FOR DAMAGE AND REPAIR OR REPLACE LINING WITHIN 48 HOURS OF DISCOVERY	WEEKLY AND AFTER EACH RUNOFF EVENT
REMOVE ACCUMULATED SEDIMENT FROM CHANNEL	WHEN TOTAL CHANNEL DEPTH IS REDUCED BY 25%
REMOVE TRASH AND DEBRIS	MONTHLY / AS NEEDED
INSPECT ROCK FILTER OUTLETS AND REPAIR AS NEEDED IMMEDIATELY AFTER INSPECTION. CLOGGED FILTER STONE SHOULD BE REPLACED.	WEEKLY AND AFTER EACH RUNOFF EVENT
REMOVE ACCUMULATED SEDIMENT FROM ROCK FILTER	WHEN ACCUMULATIONS REACH ½ THE HEIGHT OF THE FILTER
CULVERTS	
INSPECT CULVERTS AND REMOVE ACCUMULATED DEBRIS IMMEDIATELY	WEEKLY AND AFTER EACH RUNOFF EVENT
RMOVE ACCUMULATED SEDIMENT AND ACCUMULATED ORGANIC MATTER	EVERY SPRING AND FALL AND AFTER STORMWATER EVENTS OVER 1–INCH OF RAINFALL
INSPECT CULVERT INLET AND SEDIMENT CONTROL BARRIERS. CLEAN AND REPLACE AS NEEDED	WEEKLY AND AFTER EACH RUNOFF EVENT
INSPECT RIPRAP APRONS. REPLACE DISPLACED RIPRAP WITHIN THE APRON IMMEDIATELY	WEEKLY AND AFTER EACH RUNOFF EVENT
ROCK CONSTRUCTION ENTRANCES	
INSPECT ROCK CONSTRUCTION ENTRANCES	WEEKLY AND AFTER EACH RUNOFF EVENT
ADD ROCK TO MAINTAIN SPECIFIED DIMENSIONS AND CAPACITY TO REMOVE SEDIMENT FROM THE TIRES	AS NEEDED
REMOVE SEDIMENT DEPOSITED ON PAVED ROADWAYS AND RETURN TO THE CONSTRUCTION SITE	IMMEDIATELY, AS NEEDED
PUMPED WATER FILTER BAGS	
INSPECT FILTER BAG. CEASE PUMPING IF ANY PROBLEM IS DETECTED	DAILY
REPLACE FILTER BAG	WHEN FILTER BAG BECOMES ¾ FULL OF SEDIMENT OR FAILS
SEDIMENT BARRIERS	
INSPECT SEDIMENT BARRIERS. REPAIR ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACE WITHIN 24 HOURS	WEEKLY AND AFTER EACH RUNOFF EVENT
REMOVE ACCUMULATED SEDIMENT	WHEN ACCUMULATIONS REACH HALF THE ABOVEGROUND HEIGHT OF THE COMPOST FILTER SOCK OR SILT FENCE
INSTALL A ROCK FILTER OUTLET WHERE A SEDIMENT BARRIER FAILS DUE TO UNANTICIPATED CONCENTRATED FLOW	AS NEEDED
REMOVE ACCUMULATED SEDIMENT FROM ROCK FILTER OUTLETS	WHEN ACCUMULATIONS REACH ½ HEIGHT OF THE OUTLET

1 EROSION CONTROL MAINTENENCE TYP. SCHEDULE
SCALE: NOT TO SCALE



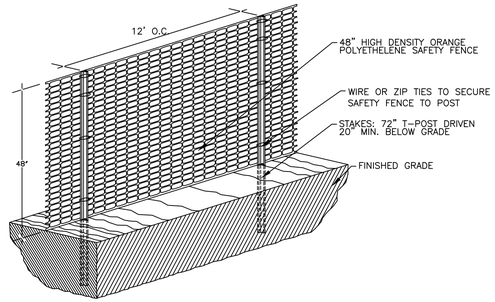
NOTES:
1. TEMPORARY CONCRETE WASHOUT FACILITIES (TYPE BELOW GRADE) SHOULD BE CONSTRUCTED AS SHOWN ON THE DETAIL, WITH A RECOMMENDED MINIMUM LENGTH AND MINIMUM WIDTH OF 10 FEET. THE QUANTITY AND VOLUME SHOULD BE SUFFICIENT TO CONTAIN ALL LIQUID AND CONCRETE WASTE GENERATED BY WASHOUT OPERATIONS.
2. LATH AND FLAGGING SHALL BE COMMERCIAL TYPE.
3. PLASTIC LINING MATERIAL SHALL BE A MINIMUM OF 10 MIL POLYETHYLENE SHEETING AND SHALL BE FREE OF HOLES, TEARS OR OTHER DEFECTS THAT COMPROMISE THE IMPERMEABILITY OF THE MATERIAL.
4. ACTUAL LAYOUT AND SIZE TO BE LAID OUT IN FIELD BY CONTRACTOR FOR OWNER APPROVAL.
5. AS WASHOUT BECOMES FULL, IT SHALL BE REMOVED AND REPLACED.
6. A CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 30 FEET OF THE TEMPORARY WASHOUT FACILITY. SIGN SHALL BE PLYWOOD 48"X24" PAINTED WHITE WITH 6" BLACK LETTERS DISPLAYING "CONCRETE WASHOUT". POST WOOD SIGN WITH WOOD POSTS, SECURELY INTO GROUND.
7. AFTER CONSTRUCTION COMPLETION, CONTRACTOR SHALL REMOVE AND DISPOSE OF CONCRETE WASHOUT AND SHALL RESTORE AREA AS SHOWN ON PLANS OR BACK TO ORIGINAL CONDITIONS.

4 TEMPORARY CONCRETE WASHOUT FACILITY (BELOW GRADE)
SCALE: NOT TO SCALE



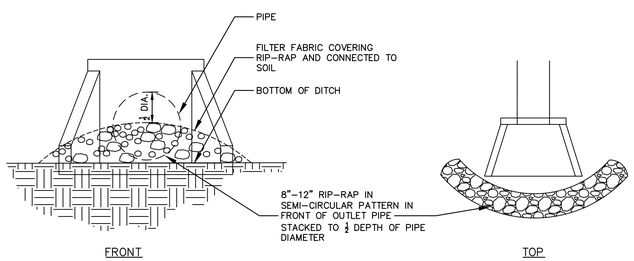
NOTES:
1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER AND SEE.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6" DEEP X 6" WIDE TRENCH WITH APPROXIMATELY 12" OF BLANKET EXTENDED BEYOND THE UP–SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF BLANKET OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACES APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE BLANKET.
3. ROLL THE BLANKETS DOWN OR HORIZONTALLY ACROSS THE SLOPE. UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE PROVIDED BY MATTING MANUFACTURER.
4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2"–5"OVERLAP DEPENDING ON BLANKET TYPE. TO ENSURE PROPERTY SEAM ALIGNMENT, PLACE THE EDGE OF THE OVERLAPPING BLANKET EVEN WITH THE COLORED SEAM STITCH ON THE PREVIOUSLY INSTALLED BLANKET.
5. CONSECUTIVE BLANKETS SPLICED DOWN TEH SLOPE MUCH BE PLACED END OVER END (SHINGLE TYPE) WITH AN APPROXIMATE 3" OVERLAP, STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART ACROSS ENTIRE BLANKET WIDTH.

2 EROSION CONTROL MATTING DETAIL
SCALE: NOT TO SCALE



NOTES:
1. ALL SENSITIVE AREAS SHALL BE PROTECTED AS PER PLAN.
2. SAFETY FENCE SHOULD BE FASTENED SECURELY TO THE T–POSTS.
3. THE FENCING MUST REMAIN IN PLACE DURING ALL PHASES OF CONSTRUCTION; ANY CHANGE OF THE PROTECTIVE FENCING MUST BE APPROVED BY THE OWNER

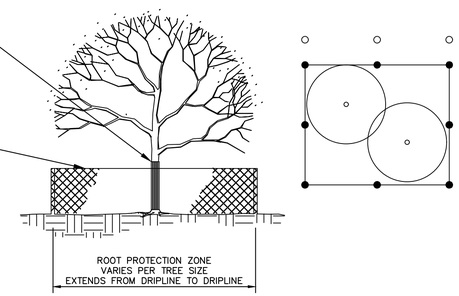
5 ORANGE CONSTRUCTION FENCE/PROTECTION FENCING
SCALE: NOT TO SCALE



6 HEADWALL PROTECTION
SCALE: NOT TO SCALE

TRUNK PROTECTION
REQUIRED IF WHEELED CONSTRUCTION EQUIPMENT INVOLVED WITHIN 20' OR LESS. 1" BOARDS NOT LESS THAN 5' LONG OR TO REACH FIRST SCAFFOLD BRANCH. WIRE TO HOLD BOARDS IN PLACE, NO NAILS PERMITTED. INCLUDE WRAPPING OF BURLAP UNDER BOARDS.

BRANCH PROTECTION
PROTECT LOWER BRANCHES OF TREE CANOPY. PROVIDE CONSTRUCTION FENCING OR EQUAL AT DRIPLINE (MIN.)



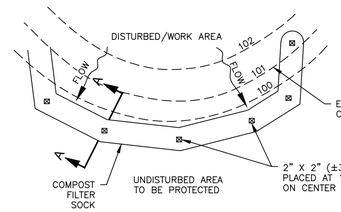
PLACE SIGNS:

KEEP OUT
TREE PROTECTION AREA

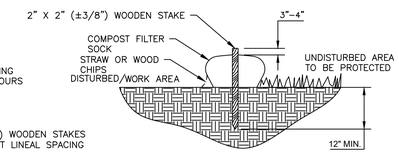
EVERY 50' ATTACHED TO FENCING

NOTES
1. ALL TREES TO BE PROTECTED AND PRESERVED SHALL BE PER DETAIL. GROUPING OF MORE THAN ONE TREE MAY OCCUR.
2. TREES TO BE PROTECTED AND PRESERVED SHALL BE IDENTIFIED ON THE TRUNK WITH WHITE SURVEY TAPE. CONTRACTOR SHALL APPLY WHITE TAPE FOR OWNER'S APPROVAL.
3. TO PREVENT ROOT SMOTHERING, SOIL STOCKPILES, SUPPLIES, EQUIPMENT OR ANY OTHER MATERIAL SHALL NOT BE PLACED OR STORED WITHIN THE DRIP LINE OR WITHIN 15 FEET OF A TREE TRUNK, WHICHEVER IS GREATER.
4. TREE ROOTS SHALL NOT BE CUT UNLESS CUTTING IS UNAVOIDABLE.
6. WHEN ROOT CUTTING IS UNAVOIDABLE, A CLEAN SHARP CUT SHALL BE MADE TO AVOID SHREDDING OR SMASHING. ROOT CUTS SHOULD BE MADE BACK TO A LATERAL ROOT. WHENEVER POSSIBLE, ROOTS SHOULD BE CUT BETWEEN LATE FALL AND BUD OPENING, WHEN ROOT ENERGY SUPPLIES ARE HIGH AND CONDITIONS ARE LEAST FAVORABLE FOR DISEASE CAUSING AGENTS. EXPOSED ROOTS SHALL BE COVERED IMMEDIATELY TO PREVENT DEHYDRATION. ROOTS SHALL BE COVERED WITH SOIL OR BURLAP AND KEPT MOIST.
7. WATERING OF PROTECTED TREES IN WHICH ROOTS WERE CUT SHALL BE PROVIDED BY THE CONTRACTOR.
8. AUGER TUNNELING RATHER THAN TRENCHING SHOULD BE USED FOR UTILITY PLACEMENT WITHIN DRIP LINE.
9. FENCING MATERIAL SHALL ENCIRCLE ANY TREE OR SHRUB WHOSE OUTER DRIP LINE EDGE IS WITHIN 20 FEET OF ANY CONSTRUCTION ACTIVITIES.
10. FENCING MATERIAL SHALL BE BRIGHT, CONTRASTING COLOR, DURABLE, AND A MINIMUM OF FOUR FEET IN HEIGHT.
11. FENCING MATERIAL SHALL BE SET AT THE DRIP LINE OR 15 FEET FROM TREE TRUNK, WHICHEVER IS GREATER, AND MAINTAINED IN AN UPRIGHT POSITION THROUGHOUT THE DURATION OF CONSTRUCTION ACTIVITIES.
12. ANY GRADE CHANGES (SUCH AS THE REMOVAL OF TOPSOIL OR ADDITION OF FILL MATERIAL) WITHIN THE DRIP LINE SHOULD BE AVOIDED FOR EXISTING TREES TO REMAIN. RETAINING WALLS AND TREE WELLS ARE ACCEPTABLE ONLY WHEN CONSTRUCTED PRIOR TO GRADE CHANGE.
13. REFER TO PLANS FOR FENCE STAKING LOCATIONS.

3 TREE PROTECTION
SCALE: NOT TO SCALE



PLAN VIEW

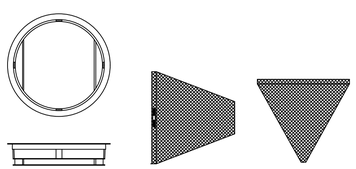


SECTION A–A

NOTES:
1. COMPOST FILTER SOCK FABRIC SHALL BE FILTREXX FILTER SOCK OR APPROVED EQUAL, AS PER ODNR RAINWATER AND LAND DEVELOPMENT MANUAL.
2. 12", 18", AND 24" COMPOST FILTER SOCK TO BE USED . SEE PLAN SHEET FOR SIZES AND LOCATIONS.
3. STACKED COMPOST FILTER SOCKS MAY BE SUBSTITUTED FOR 18" OR 24" COMPOST FILTER SOCK ACCORDING TO THE SILT FENCE–COMPOST FILTER SOCK EQUIVALENCY CHART SHOWN BELOW SEE STACKED COMPOST FILTER SOCK DETAIL.
4. ACCUMULATED SEDIMENT SHALL BE REMOVED AND DISPOSED OF WHEN IT REACHES ½ THE ABOVE GROUND HEIGHT OF THE COMPOST FILTER SOCK.
5. COMPOST FILTER SOCK SHALL BE INSPECIED WEEKLY AND AFIER EACH RUNOFF EVENT. DAMAGED COMPOST FILTER SOCK SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION.
6. 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
7. TRAFFIC SHALL NOT BE PERMITTED TO CROSS COMPOST FILTER SOCKS.
8. BIODEGRADABLE COMPOST FILTER SOCKS SHALL BE REPLACED AFTER 6 MONTHS; PHOTODEGRADABLE SOCKS AFTER 1 YEAR POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURERS RECOMMENDATIONS
9. 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.

COMPOST FILTER SOCK – STACKED EQUIVALENCY CHART	
COMPOST FILTER SOCK	STACKED COMPOST FILTER SOCK
12" COMPOST FILTER SOCK	--
18" COMPOST FILTER SOCK	3–12" SOCKS
24" COMPOST FILTER SOCK	2–18" SOCKS, 1–12" SOCK
32" COMPOST FILTER SOCK	2–24" SOCKS, 1–12" SOCK

7 COMPOST FILTER SOCK
SCALE: NOT TO SCALE



NOTES:
1. ALL PRODUCTS MANUFACTURED BY INLET AND PIPE PROTECTION, INC, FLEXSTORM, OR APPROVED EQUAL.

8 INLET PROTECTION
SCALE: NOT TO SCALE

HOUSEBOAT PATH RENOVATIONS
SWPP DETAILS

SCALE: AS NOTED
DATE: 09/29/25
CHECKED: KGH/GS
DRAWN: DCLH

1319 THIRD ST. N.W.
P.O. BOX 349
NEW PHILADELPHIA, OHIO
44663

MUSKINGUM WATERSHED CONSERVANCY DISTRICT

REV. | DESCRIPTION | DATE | BY

SHEET NO.
C4.5

EX. ASPHALT ROAD TO BEACH

EX. GRAVEL LOOP ROAD

GRASS PAVER

100 YR. FLOOD ELEV.

SEE SHEET L1.1

#44
#43

#42
#41

#40
#39

#38
#37

#36
#35

#34
#33

#32
#31

#30
#29

#28
#27

#26
#25

#24
#23

#22
#21

#20
#19

LANDSCAPE PLAN LEGEND

	SPECIES/SIZE	QTY
A	CERCIS CANADENSIS REDBUD 1" CALIPER B&B	13
B	PLATANUS OCCIDENTALIS AMERICAN SYCAMORE 1" CALIPER B&B	2
C	RHUS AROMATICA 'GRO-LOW' GRO-LOW SUMAC #1 CONTAINER, 36" O.C.	458
	EROSION CONTROL MATTING AND MWCD SEED MIX B, SLOPE PROTECTION (2 C4.5) (2 D1.2)	

NOTE:

1. CONTRACTOR SHALL INSTALL 4" TOPSOIL AND SEED AS PER ODOT 659, CLASS 1 IN ALL DISTURBED AREAS NOT DESIGNATED FOR OTHER SURFACE TREATMENT.
2. CONTRACTOR SHALL INSTALL 1'-1/4" TOPSOIL & SEED AS PER 659, CLASS 1 IN GRASS PAVER AREA.

NORTH

GRAPHIC SCALE IN FEET
0 20 40 80

HOUSEBOAT PATH RENOVATIONS
LANDSCAPE PLAN

DRAWN: DCLH
CHECKED: KGH/GS
DATE: 09/29/25
SCALE: AS NOTED

1319 THIRD ST. N.W.
P.O. BOX 349
NEW PHILADELPHIA, OHIO
44663

MUSKINGUM WATERSHED CONSERVANCY DISTRICT

REV. | DESCRIPTION | DATE | BY

SHEET NO.
L1.0

LANDSCAPE PLAN LEGEND

	SPECIES/SIZE	QTY
A	CERCIS CANADENSIS REDBUD 1" CALIPER B&B	13
B	PLATANUS OCCIDENTALIS AMERICAN SYCAMORE 1" CALIPER B&B	2
C	RHUS AROMATICA 'GRO-LOW' GRO-LOW SUMAC #1 CONTAINER, 36" O.C.	458
	EROSION CONTROL MATTING AND MWCD SEED MIX B, SLOPE PROTECTION	

NOTE:

1. CONTRACTOR SHALL INSTALL 4" TOPSOIL AND SEED AS PER ODOT 659, CLASS 1 IN ALL DISTURBED AREAS NOT DESIGNATED FOR OTHER SURFACE TREATMENT.
2. CONTRACTOR SHALL INSTALL 1'-1/4" TOPSOIL & SEED AS PER 659, CLASS 1 IN GRASS PAVER AREA.

HOUSEBOAT PATH RENOVATIONS
LANDSCAPE PLAN

DRAWN:	CHECKED:	DATE:	SCALE:
DCLH	KGH/GS	09/29/25	AS NOTED

1319 THIRD ST. N.W.
P.O. BOX 349
NEW PHILADELPHIA, OHIO
44663

MUSKINGUM WATERSHED CONSERVANCY DISTRICT

REV.	DATE	DESCRIPTION	BY

SHEET NO.
L1.1

EX. ASPHALT ROAD TO BEACH

EX. GRAVEL LOOP ROAD

100 YR FLOOD PLAIN

SEE SHEET E1.1

#44
#43
#42
#41
#40
#39
#38
#37
#36
#35
#34
#33
#32
#31
#30
#29
#28
#27
#26
#25
#24
#23
#22
#21
#20
#19

PICTURE OF EXISTING METERS #29 AND #30 WITH PANEL

ELECTRICAL PLAN LEGEND

- (A) CONCRETE PATH
- (B) ELECTRIC CONDUIT
- (C) WOODEN POST WITH SHORE POWER RECEPTACLES
- (D) LIGHT POLE

ELECTRICAL PLAN KEYNOTES

1. PROVIDE WOODEN POST WITH TWO INDIVIDUALLY CIRCUITED 120V/30A WATERTIGHT SHORE POWER RECEPTACLES (PER DOCK), NUMBERED AS INDICATED. METER NUMBER SHALL MATCH RECEPTACLE NUMBER. (9 / D1.0)
2. REMOVE EXISTING WOODEN LIGHT POLE. BACKFILL HOLE. PROVIDE NEW WOODEN POLE, LIGHT FIXTURE, PHOTOCELL, AND CABLE IN CONDUIT UP POLE IN NEW LOCATIONS SHOWN.
3. RELOCATE EXISTING METERS #29 AND #30 TO EXISTING #19–34 METER HUB LOCATION. PROVIDE NEW GFCI CIRCUIT BREAKERS AND ADDITIONAL CABLE, CONDUIT, ETC. FOR COMPLETE AND FUNCTIONING RELOCATED METERS.
4. PROVIDE NEW WOODEN POLE IN PLACE OF EXISTING POLE. PROVIDE NEW LIGHT FIXTURE, PHOTOCELL, AND CABLE IN CONDUIT UP POLE.
5. DISCONNECT AND REMOVE CABLE AND CONDUIT THAT DEAD ENDS IN TRASH ENCLOSURE FROM EXISTING 15A CIRCUIT BREAKER IN RESTROOM PANEL. LABEL CIRCUIT BREAKER "SPARE". PLUG EMPTY PANEL KNOCKOUT.
6. PROVIDE 2P/240V MAIN CIRCUIT BREAKER IN EXISTING SUB PANEL. MATCH AMPACITY OF CORRESPONDING BREAKER IN MAIN PANEL.
7. PROVIDE NEW 200A SERVICE ENTRANCE ENCLOSED CIRCUIT BREAKER AND MLO MAIN PANEL WITH FIVE FEEDER CIRCUIT BREAKERS. MATCH EXISTING.

ELECTRICAL NOTES

1. CONTRACTOR SHALL PROVIDE HANDHOLES EVERY 300 LINEAR FEET OF CONDUIT OR 270 DEGREES OF CONDUIT BEND, WHICHEVER COMES FIRST. HANDHOLE LID SHALL BE ENGRAVED OR STAMPED 'ELECTRICAL'.
2. CONTRACTOR SHALL PROVIDE ALL TERMINATIONS, HARDWARE, FASTENERS, GROUNDING, SEALANT, ETC. FOR A COMPLETE AND CODE-COMPLIANT INSTALLATION OF ALL ELECTRICAL WORK, WHETHER EXPLICITLY STATED OR IMPLIED.
3. NEW LIGHT FIXTURES SHALL MATCH THE LUMENS, WATTAGE, COLOR TEMPERATURE, CRI, AND FINISH OF EXISTING LIGHT FIXTURE AS INDICATED ON SHEET E1.1.
4. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO START OF WORK.
5. ELECTRICAL CONDUIT LINE INDICATES PROPOSED PATH. CONTRACTOR SHALL DETERMINE FINAL ROUTE. ONE CIRCUIT PER CONDUIT MAX. COMBINE MULTIPLE CONDUITS INTO SINGLE DUCT BANK WHERE APPLICABLE, MAINTAINING 3" SEPARATION DISTANCE AROUND EACH CONDUIT.

NORTH

GRAPHIC SCALE IN FEET
0 10 20 40

HOUSEBOAT PATH RENOVATIONS
ELECTRICAL PLAN

DRAWN: DCLH
CHECKED: KGH/GS
DATE: 09/29/25
SCALE: AS NOTED

1319 THIRD ST. N.W.
P.O. BOX 349
NEW PHILADELPHIA, OHIO
44663

MUSKINGUM WATERSHED CONSERVANCY DISTRICT

REV. | DATE | DESCRIPTION | BY

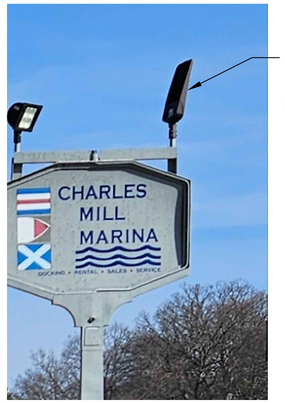
SHEET NO.
E1.0

ELECTRICAL PLAN LEGEND

- (A) CONCRETE PATH
- (B) — E — ELECTRIC CONDUIT
- (C) WOODEN POST WITH SHORE POWER RECEPTACLES
- (D) LIGHT POLE

ELECTRICAL PLAN KEYNOTES

1. PROVIDE WOODEN POST WITH TWO INDIVIDUALLY CIRCUITED 120V/30A WATERTIGHT SHORE POWER RECEPTACLES (PER DOCK), NUMBERED AS INDICATED. METER NUMBER SHALL MATCH RECEPTACLE NUMBER. (9 / D1.0)
2. REMOVE EXISTING WOODEN LIGHT POLE. BACKFILL HOLE. PROVIDE NEW WOODEN POLE, LIGHT FIXTURE, PHOTOCELL, AND CABLE IN CONDUIT UP POLE IN NEW LOCATION SHOWN.
4. PROVIDE NEW WOODEN POLE IN PLACE OF EXISTING POLE. PROVIDE NEW LIGHT FIXTURE, PHOTOCELL, AND CABLE IN CONDUIT UP POLE.
5. DISCONNECT AND REMOVE CABLE AND CONDUIT THAT DEAD ENDS IN TRASH ENCLOSURE FROM EXISTING 15A CIRCUIT BREAKER IN RESTROOM PANEL. LABEL CIRCUIT BREAKER "SPARE". PLUG EMPTY PANEL KNOCKOUT.
6. PROVIDE 2P/240V MAIN CIRCUIT BREAKER IN EXISTING SUB PANEL. MATCH AMPACITY OF CORRESPONDING BREAKER IN MAIN PANEL.
7. PROVIDE NEW 200A SERVICE ENTRANCE ENCLOSED CIRCUIT BREAKER AND MLO MAIN PANEL WITH FIVE FEEDER CIRCUIT BREAKERS. MATCH EXISTING.



ALL NEW LIGHT FIXTURES SHALL MATCH THIS EXISTING FIXTURE.

C-LITE LED AREA LIGHT WITH 8" DIRECTIONAL ARM

22,200–23,200 LUMENS

PICTURE OF EXISTING LIGHT FIXTURES (1 / E1.1)

SEE SHEET E1.0

EX. ASPHALT ROAD TO BEACH

EX. GRAVEL LOOP ROAD

EX. RESTROOM BUILDING

EX. MAIN PANEL

EX. MARINA BUILDING

EX. TRASH ENCLOSURE

EXISTING DOCKS TO BE REUSED (TYP.)

EX. BOAT LAUNCH

#18 #17 | #16 #15 | #14 #13 | #12 #11 | #10 #9 | #8 #7 | #6 #5 | #4 #3 | #2 #1

GRAPHIC SCALE IN FEET
0 10 20 40

NORTH

PANEL SCHEDULE

DESIGNATION: MAIN PANEL
LOCATION: SERVICE DROP
VOLTAGE: 120/240
PHASE: 1 PHASE, 3 WIRE

MAINS: MLO
BUS SIZE: 225 AMP
PANEL MOUNTING: SURFACE
ALL BREAKERS: 10,000 A.I.C. (MINIMUM)

CKT NO.	LOAD DESCRIPTION	CKT. BKR. AMPS	CKT. BKR. POLE	CKT. BKR. AMPS	CKT. BKR. POLE	LOAD DESCRIPTION	CKT NO.
1	DOCKS 3-18 SUB PANEL	100	2	125	2	DOCKS 19--34 SUB PANEL	2
3							4
5	BATHROOM SUB PANEL	40	2	100	2	DOCKS 1-2 AND A SUB PANEL	6
7							8
9	BOAT LIFT SUB PANEL	60	2			SPACE	10
11						SPACE	12
13	SPACE					SPACE	14
15	SPACE					SPACE	16
17	SPACE					SPACE	18
19	SPACE					SPACE	20
21	SPACE					SPACE	22
23	SPACE					SPACE	24
25	SPACE					SPACE	26
27	SPACE					SPACE	28
29	SPACE					SPACE	30

HOUSEBOAT PATH RENOVATIONS
ELECTRICAL PLAN

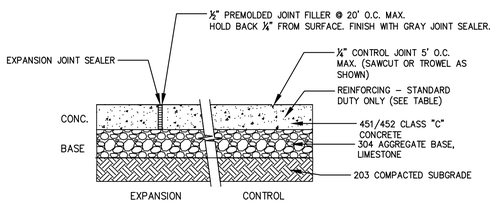
DRAWN: DCLH
CHECKED: KGH/GS
DATE: 09/29/25
SCALE: AS NOTED

1319 THIRD ST. N.W.
P.O. BOX 349
NEW PHILADELPHIA, OHIO
44663

MUSKINGUM WATERSHED CONSERVANCY DISTRICT

REV.	DESCRIPTION	DATE	BY

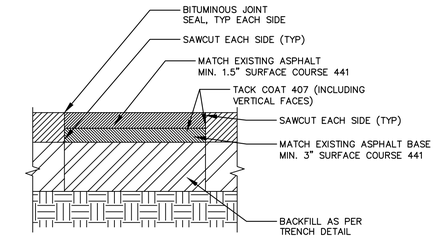
SHEET NO. E1.1



JOINTS

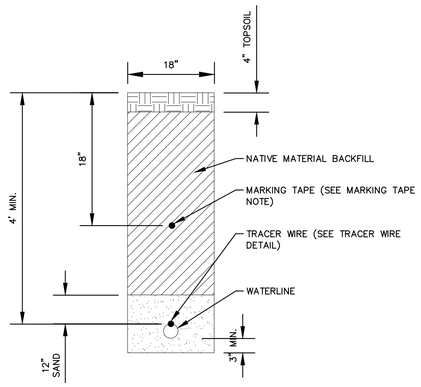
CONCRETE PAVEMENT	CONC	BASE	REINFORCING
STANDARD DUTY	5"	4"	WWM
HEAVY DUTY	8"	4"	NONE

1 CONCRETE PAVEMENT
SCALE: NOT TO SCALE

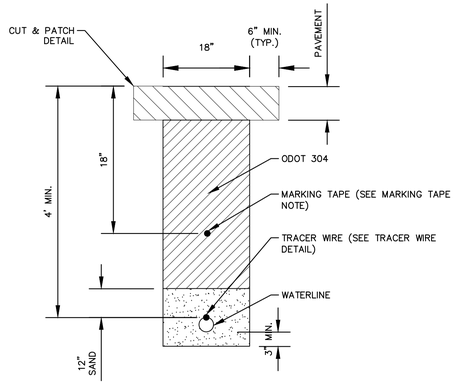


NOTE:
1. CUT AND PATCH AREAS SHOWN ON THE PLANS ARE APPROXIMATE IN SIZE AND LOCATION AND MAY BE ADJUSTED AT THE TIME OF CONSTRUCTION.
2. THE AGGREGATE BASE COURSE SHALL BE INSPECTED BY THE TESTING AGENCY, OWNER, OR DESIGN CONSULTANT AFTER ASPHALT REMOVAL AND BASE PREPARATION, PRIOR TO ASPHALT REPLACEMENT.

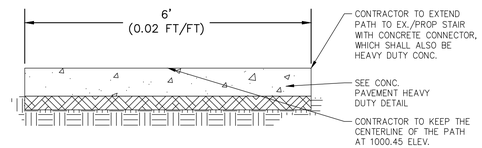
2 CUT AND PATCH
SCALE: NOT TO SCALE



3 TYPICAL WATER TRENCH UNDER GRASS
SCALE: NOT TO SCALE

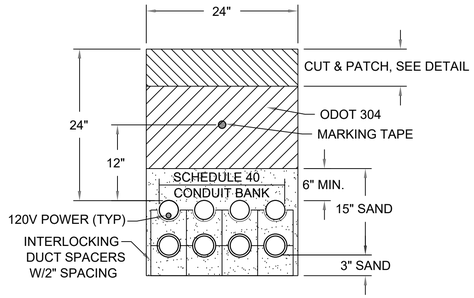


4 TYPICAL WATER TRENCH UNDER TRAIL AND/OR PAVEMENT
SCALE: NOT TO SCALE

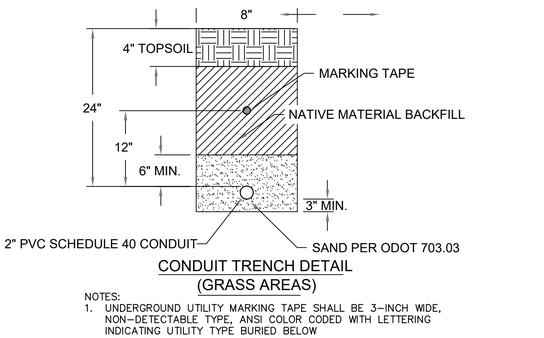


NOTES:
1. CROSS SLOPES FOR WALKS – ¼" PER FOOT; SEE GRADING PLAN
2. BROOM FINISH PERPENDICULAR TO TRAFFIC FLOW. TROWEL FINISH EDGES

5 CONCRETE PATH TYPICAL SECTION
SCALE: NOT TO SCALE



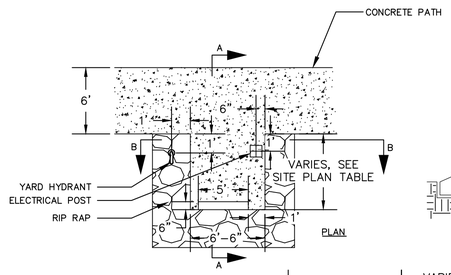
6 CONDUIT TRENCH DETAIL (UNDER PAVEMENT, TRAILS)
SCALE: NOT TO SCALE

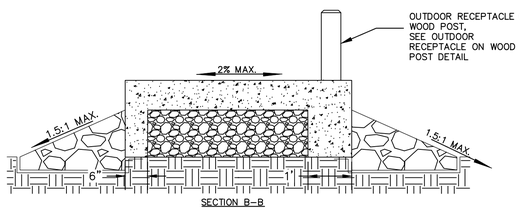


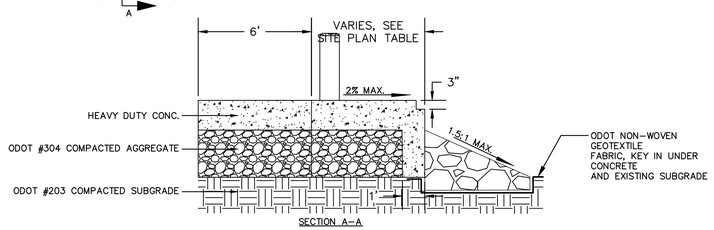
CONDUIT TRENCH DETAIL
(GRASS AREAS)

NOTES:
1. UNDERGROUND UTILITY MARKING TAPE SHALL BE 3–INCH WIDE, NON–DETECTABLE TYPE, ANSI COLOR CODED WITH LETTERING INDICATING UTILITY TYPE BURIED BELOW
2. A #10 SOLID COPPER TRACER WIRE SHALL BE ATTACHED TO THE CROWN OF ALL NON–METALLIC WATER LINES AND GAS LINES

7 CONDUIT TRENCH DETAIL (GRASS AREAS)
SCALE: NOT TO SCALE

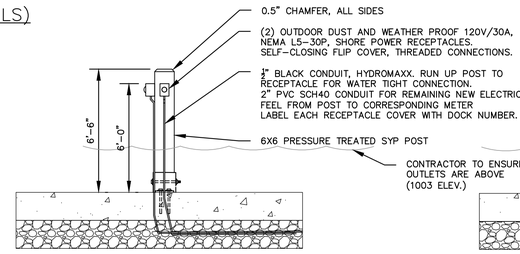






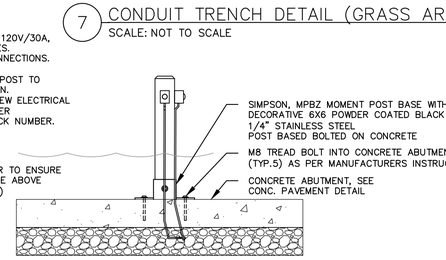
NOTES:
1. CONTRACTOR SHALL FORM 6"X3" CUT OUT FOR PLACEMENT OF EX. DOCK/GANGWAYS.
2. ALL ANGLES 90 DEGREES UNLESS NOTED.
3. CONTRACTOR SHALL INSTALL 12"–18" TYPE B RIPRAP STONE ALL AROUND ABUTMENT AND CONCRETE PATH AS SHOWN AND AS DIRECTED.

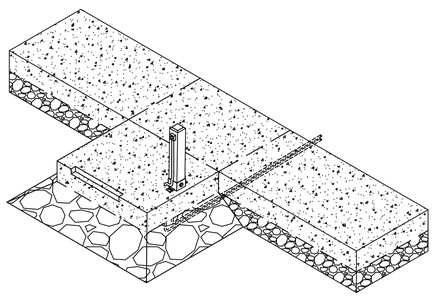
8 CONCRETE ABUTMENT DETAIL AND YARD HYDRANT/ELECTRICAL POST LAYOUT
SCALE: NOT TO SCALE



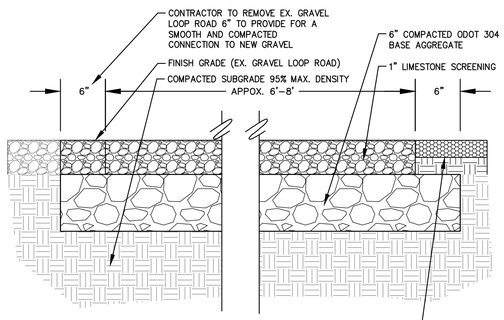
NOTES:
1. CONTRACTOR SHALL PROVIDE PRODUCT SUBMITTAL FOR RECEPTACLE, CONDUIT AND POST BASE FOR OWNER APPROVAL PRIOR TO PURCHASE.

9 OUTDOOR RECEPTACLE ON WOOD POST (ELECTRICAL POST)
SCALE: NOT TO SCALE





10 DESIGN INTENT SKETCH FOR CONCRETE ABUTMENTS AND OUTDOOR RECEPTACLE ON WOOD POST
SCALE: NOT TO SCALE



11 GRAVEL DRIVE
SCALE: NOT TO SCALE

HOUSEBOAT PATH RENOVATIONS
CONSTRUCTION DETAILS

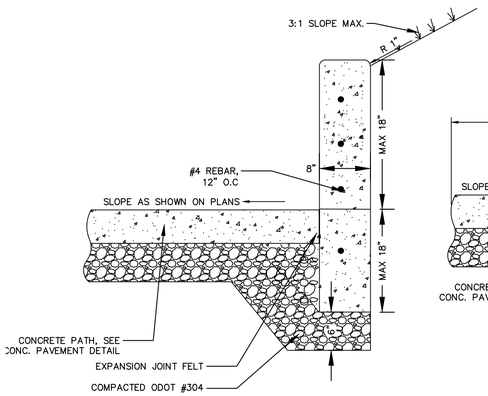
SCALE: AS NOTED
DATE: 09/29/25
CHECKED: KGH/GS
DRAWN: DCLH

1319 THIRD ST. N.W.
P.O. BOX 349
NEW PHILADELPHIA, OHIO
44663

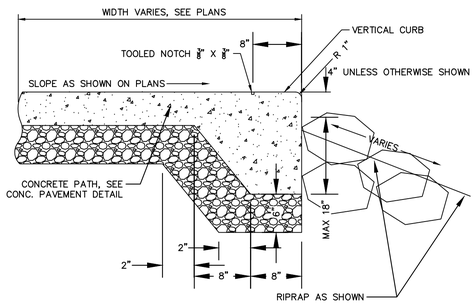
MUSKINGUM WATERSHED CONSERVANCY DISTRICT

BY | DESCRIPTION | DATE | REV.

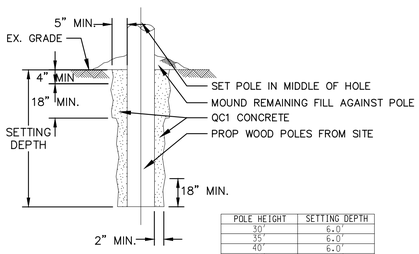
SHEET NO.
D1.0



1 INTEGRAL WALL DETAIL
SCALE: NOT TO SCALE



2 INTEGRAL CURB DETAIL
SCALE: NOT TO SCALE



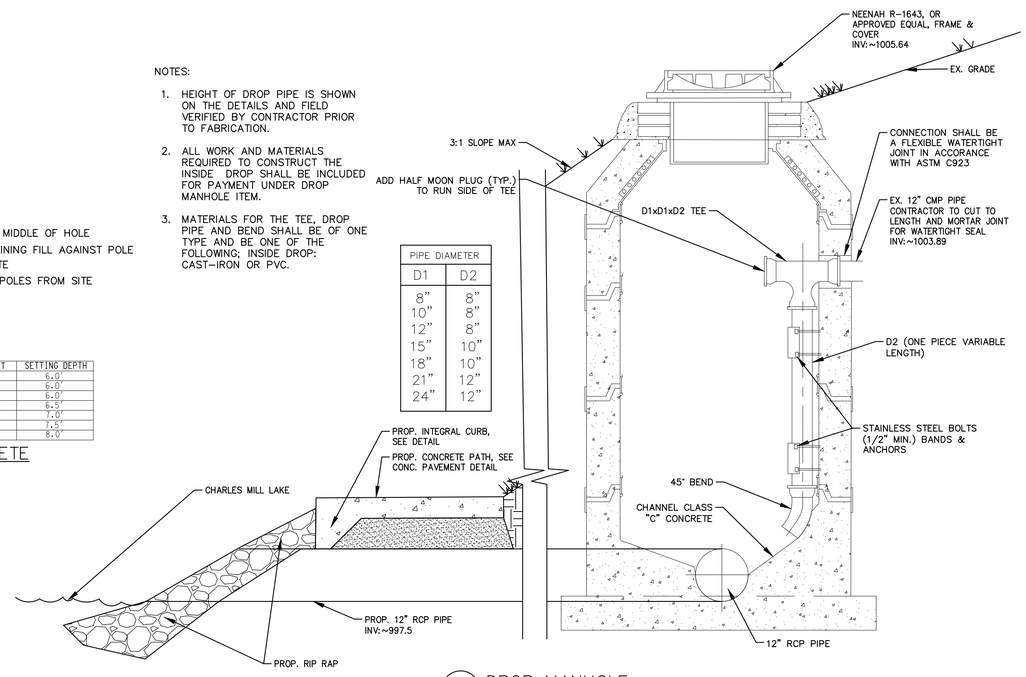
POLE HEIGHT	SETTING DEPTH
30'	6.0'
35'	6.0'
40'	6.0'
45'	6.5'
50'	7.0'
55'	7.5'
60'	8.0

3 WOOD POLE IN CONCRETE
SCALE: NOT TO SCALE

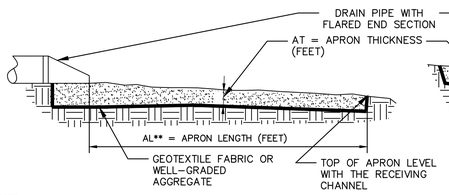
NOTES:

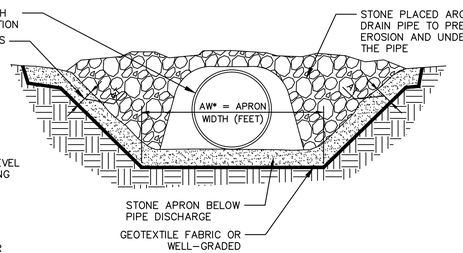
1. HEIGHT OF DROP PIPE IS SHOWN ON THE DETAILS AND FIELD VERIFIED BY CONTRACTOR PRIOR TO FABRICATION.
2. ALL WORK AND MATERIALS REQUIRED TO CONSTRUCT THE INSIDE DROP SHALL BE INCLUDED FOR PAYMENT UNDER DROP MANHOLE ITEM.
3. MATERIALS FOR THE TEE, DROP PIPE AND BEND SHALL BE OF ONE TYPE AND BE ONE OF THE FOLLOWING; INSIDE DROP: CAST-IRON OR PVC.

PIPE DIAMETER	
D1	D2
8"	8"
10"	8"
12"	8"
15"	10"
18"	10"
21"	12"
24"	12"



4 DROP MANHOLE
SCALE: NOT TO SCALE





NOTE:
AW IS THE APRON WIDTH AT THE NARROW END OF THE APRON.

SPECIFICATIONS CAPACITY
- PEAK RUNOFF FROM A 10-YEAR FREQUENCY, 24-HOUR STORM EVENT OR THE DESIGN DISCHARGE OF THE WATER CONVEYANCE STRUCTURE, WHICHEVER IS GREATER.
- MAX VELOCITY TEN FEET PER SECOND.

APRON
- ALIGNED STRAIGHT WITH CHANNEL FLOW. IF A CURVE IS NECESSARY TO ALIGN THE APRON WITH THE RECEIVING STREAM, LOCATE THE CURVE IN THE UPSTREAM SECTION OF THE APRON.
- (AT) THICKNESS
  - 1.2 TIMES THE MAXIMUM STONE DIAMETER FOR A D50 STONE SIZE OF 15 INCHES OR LARGER.
  - 1.5 TIMES THE MAXIMUM STONE DIAMETER FOR A D50 STONE SIZE OF 15 INCHES OR LESS.

MATERIALS
- RIPRAP
  - HARD, ANGULAR, HIGHLY WEATHER RESISTANT.
  - SPECIFIC GRAVITY OF AT LEAST 2.5.
  - SIZE AND GRADATION THAT WILL WITHSTAND VELOCITIES OF STORM WATER DISCHARGE FLOW DESIGN.
  - WELL-GRADED MIXTURE OF STONE WITH 50 PERCENT OF THE STONE PIECES, BY WEIGHT, LARGER THAN THE 2 SIZE AND THE DIAMETER OF THE LARGEST STONE EQUAL TO 1.5 TIMES THE 2 SIZE.
- GEOTEXTILE FABRIC OR WELL-GRADED AGGREGATE (ODOT COARSE AGGREGATE NUMBER 9, 11, OR 57).

INSTALLATION
1. DIVERT SURFACE WATER RUNOFF AROUND THE STRUCTURE DURING CONSTRUCTION SO THAT THE SITE CAN BE PROPERLY DEWATERED FOR FOUNDATION PREPARATION.
2. EXCAVATE FOUNDATION AND APRON AREA SUBGRADES BELOW DESIGN ELEVATION TO ALLOW FOR THIS THICKNESS OF FILTER MEDIUM AND RIPRAP.
3. COMPACT ANY FILL USED IN SUBGRADE PREPARATION TO THE DENSITY OF SURROUNDING UNDISTURBED SOIL MATERIAL.
4. SMOOTH SUBGRADE ENOUGH TO PROTECT GEOTEXTILE FABRIC FROM TEARING.
5. PLACE GEOTEXTILE FABRIC OR AGGREGATE BEDDING MATERIAL (FOR STABILIZATION AND FILTRATION) ON THE COMPACTED AND SMOOTHED FOUNDATION.
6. INSTALL RIPRAP TO THE LINES AND ELEVATIONS SHOWN IN THE CONSTRUCTION PLANS. BLEND RIPRAP SMOOTHLY TO SURROUNDING GRADE. IF THE CHANNEL IS WELL DEFINED, EXTEND THE APRON ACROSS THE CHANNEL BOTTOM AND UP THE CHANNEL BANKS TO AN ELEVATION OF SIX INCHES ABOVE THE MAXIMUM TAILWATER DEPTH OR THE TOP OF THE BANK, WHICHEVER IS LESS.
7. IF GEOTEXTILE FABRIC TEARS WHEN PLACING RIPRAP, REPAIR IMMEDIATELY BY LAYING AND STAPLING A PIECE OF FABRIC OVER DAMAGED AREA, OVERLAPPING THE UNDAMAGED AREAS BY AT LEAST 12 INCHES.
8. CONSTRUCT A SMALL PLUNGE POOL WITHIN THE OUTLET APRON. (RIPRAP APRONS MUST BE LEVEL WITH OR SLIGHTLY LOWER THAN THE RECEIVING CHANNEL AND SHOULD NOT PRODUCE AN OVERFALL OR RESTRICT FLOW OF THE WATER CONVEYANCE STRUCTURE.)

MAINTENANCE
- CHECK FOR EROSION OR SCOURING AROUND SIDES OF THE APRON; REPAIR IMMEDIATELY.
- CHECK FOR PIPING OR UNDERCUTTING; REPAIR IMMEDIATELY.
- INSPECT WITHIN 24 HOURS OF A RAIN EVENT AND AT LEAST ONCE EVERY SEVEN CALENDAR DAYS.
- INSPECT FOR STONE DISPLACEMENT; REPLACE STONES ENSURING PLACEMENT AT FINISHED GRADE.

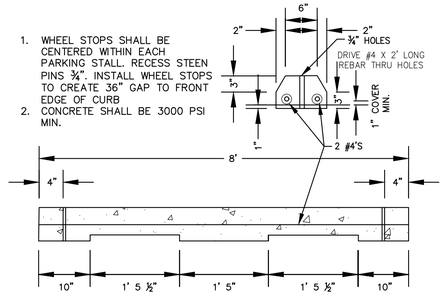
5 CULVERT OUTLET RIPRAP
SCALE: NOT TO SCALE

TABLE 1. SIZING FOR FLOW DISSIPATERS AT CULVERT PIPE OUTLETS

*APRON WIDTH AT THE NARROW END OF APRON (PIPE OR CHANNEL OUTLET).
**SELECT LENGTH TAKING INTO CONSIDERATION THE LOW FLOW (NO PRESSURE HEAD) OR HIGH FLOW (PRESSURE HEAD) CONDITIONS OF THE CULVERT PIPE.

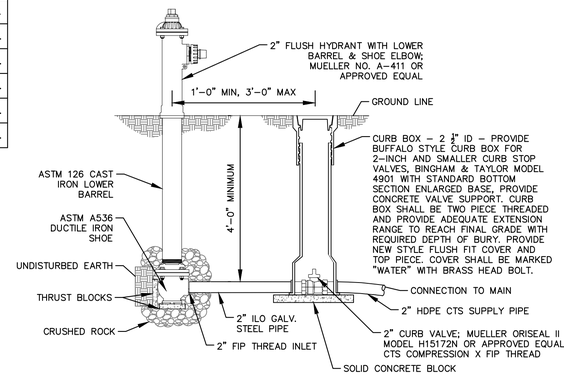
PIPE SIZE	(AT) MEDIAN RIP RAP DIAMETER	(AW) APRON WIDTH*	(AL) APRON LENGTH**
8 IN.	6 IN.	2 TO 3 FT.	5 TO 7 FT.
12 IN.	6 IN.	3 TO 4 FT.	6 TO 10 FT.
15 IN.	6 IN.	4 TO 6 FT.	6 TO 12 FT.
18 IN.	6 IN.	4 TO 6 FT.	8 TO 16 FT.
21 IN.	6 IN.	6 TO 8 FT.	8 TO 16 FT.
24 IN.	9 IN.	6 TO 8 FT.	12 TO 18 FT.
30 IN.	9 IN.	8 TO 10 FT.	14 TO 20 FT.
36 IN.	9 IN.	10 TO 12 FT.	16 TO 22 FT.
42 IN.	9 IN.	12 TO 14 FT.	18 TO 24 FT.
48 IN.	12 IN.	12 TO 14 FT.	18 TO 26 FT.
54 IN.	12 IN.	14 TO 16 FT.	22 TO 28 FT.
60 IN.	12 IN.	15 TO 17 FT.	22 TO 32 FT.
66 IN.	12 IN.	17 TO 19 FT.	24 TO 36 FT.
72 IN.	12 IN.	18 TO 20 FT.	26 TO 40 FT.
84 IN.	18 IN.	21 TO 23 FT.	30 TO 44 FT.

1. WHEEL STOPS SHALL BE CENTERED WITHIN EACH PARKING STALL. RECESS STEEN PINS ¾". INSTALL WHEEL STOPS TO CREATE 36" GAP TO FRONT EDGE OF CURB
2. CONCRETE SHALL BE 3000 PSI MIN.

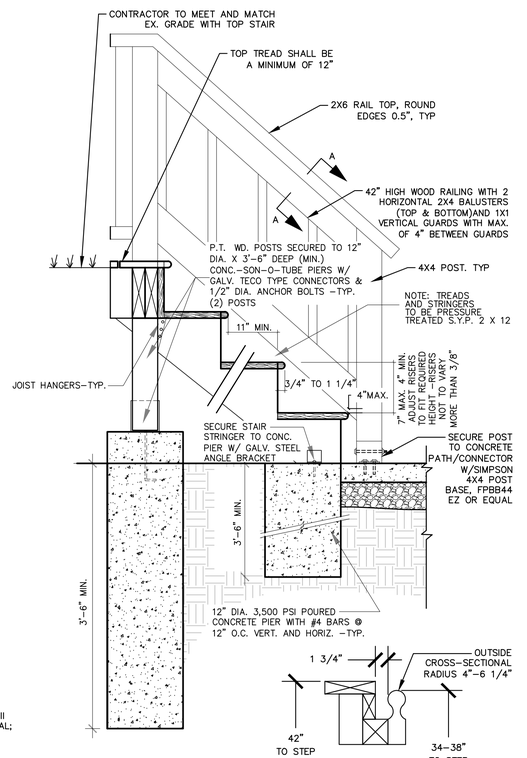


THESE DIMENSIONS ARE APPROXIMATE & CAN VARY W/ MFR

6 PARKING WHEEL STOP
SCALE: NOT TO SCALE



7 TYPICAL FLUSH HYDRANT
SCALE: NOT TO SCALE



8 WOOD STAIR DETAIL
SCALE: N.T.S.

NOTE:
1. ADJUST RISERS TO FIT REQUIRED HEIGHT. RISERS NOT TO VARY MORE THAN 3/8" TO 1" MAX.
2. SECURE STAIR STRINGER TO CONC. PAD W/ GALV. STEEL ANGLE BRACKET.
3. STAIR STRINGER SHALL BE PRESSURE TREATED 2X12 SYP. PLACE 3 STRINGERS EVENLY ACROSS WIDTH OF STAIRS.
4. INTERIOR (RAIL TO RAIL) WIDTH OF STAIR CASE TO BE 5-FEET.
5. ALL FASTENERS SHALL BE HOT DIPPED GALVANIZED OR ZINC COATED.
6. CONTRACTOR SHALL SUBMIT A SHOP DRAWING FOR APPROVAL PRIOR TO MANUFACTURE.
7. CONCRETE CONNECTOR TO BE THE WIDTH OF THE LAST TREAD ON EX./PROP STAIR.

CONTRACTOR SHALL CONTRUCT STIARS TO COMPLY WITH OHIO BUILDING CODES FOR EXTERIOR STAIRS, INCLUDING:

8. STRINGERS:
   - 8.1. ALL STRINGERS SHALL NOT SPAN MORE THAN 6' FOR A CUT STRINGER AND 13'-3" FOR A SOLID STRINGER.
   - 8.2. MINIMUM OF 3 STRINGERS SHALL BE USED, AND CAN BE A COMBINATION OF CUT AND SOLID STRINGER WITH A MAXIMUM SPACING OF 18" O.C.
   - 8.3. STAIR STRINGERS MUST BE FULLY SUPPORTED BY POSTS.
9. LANDINGS:
   - 9.1. AN INTERMEDIATE LANDING SHALL BE CONSTRUCTED 1 FOR EVERY 12 FEET OF VERTICAL RISE. ALSO, INTERMEDIATE LANDING(S) SHALL BE CONSTRUCTED TO ACCOUNT FOR THE STAIR MEETING EXISTING GRADE AT TOP AND BOTTOM.
   - 9.2. A TOP LANDING SHALL BE CONSTRUCTED AT THE TOP OF EACH STAIR. THE CONCRETE CONNECTOR/CONCRETE PATH SHALL FUNCTION AS THE BOTTOM LANDING FOR EACH STAIR.
   - 9.3. EACH LANDING SHALL NOT BE LESS THAN THE WIDTH OF THE STAIR SERVED.
   - 9.4. EACH LANDING SHALL HAVE A MINIMUM DIMENSION OF 36" MEASURED IN THE DIRECTION OF TRAVEL AND NOT LESS THAN THE WIDTH OF THE STAIR SERVED.
10. LOADING:
    - 10.1. UNIFORM LOAD OF 100 PSF AND CONCENTRATED LOAD OF 300 PSF
11. WALKING SURFACES:
    - 11.1. THE SLOPE OF THE WALKING SURFACES OF TREADS/LANDINGS SHALL NOT BE GREATER THAN 1:48 IN ANY DIRECTION.
    - 11.2. NO OPENINGS CAN BE GREATER THAN 1/2"
12. RAILING/HANDRAILING:
    - 12.1. RAILINGS SHALL BE CONTINUOUS THROUGH THE FULL LENGTH OF THE STAIR AND LANDING(S).
    - 12.2. HAND RAILINGS SHALL BE INSTALLED ON ONE-SIDE OF RAILING, HAVE A CONSTANT HEIGHT BETWEEN 34" AND 38" ABOVE THE WALKING SURFACE; HAVE AN OUTSIDE CROSS-SECTION BETWEEN 4" AND 6.25" AS SHOWN IN DETAIL. CONNECTION TO RAILING(S) AS SHOWN.
    - 12.3. EXTEND PAST THE LENGTH OF THE STAIR A MIN. OF 12", TOP AND BOTTOM

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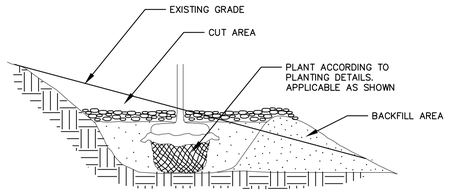
MUSKINGUM WATERSHED CONSERVANCY DISTRICT

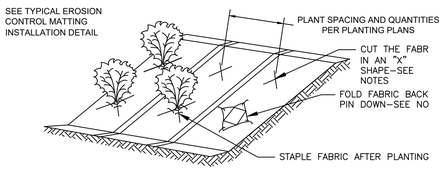
REV.	DESCRIPTION	DATE	BY

SHEET NO.
D1.1



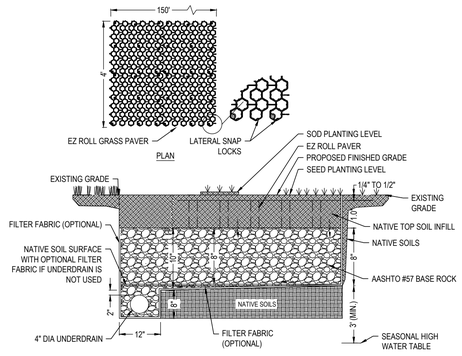
NOTES:
1. EXTEND EXCAVATION AND BACK FILL SOIL TO A POINT DOWN SLOPE EQUAL TO OR LOWER IN ELEVATION THAN THE BOTTOM OF THE HOLE DIRECTLY BENEATH THE PLANT TO ENSURE ADEQUATE DRAINAGE IN HEAVY SOILS. GRANULAR SOIL MUST BE ADDED AS BACKFILL IN AREAS OF POOR DRAINAGE

1 STEEP SLOPE PLANTING
SCALE: NOT TO SCALE



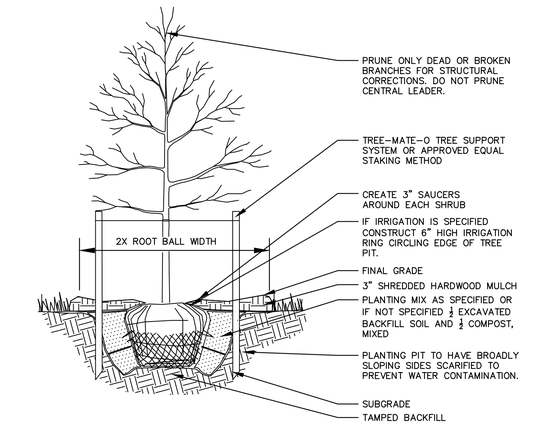
NOTES:
1. CUT FABRIC IN AN "X" SHAPE TO ACCOMMODATE 2 TIMES THE DIAMETER OF THE ROOTBALL.
2. FOLD FABRIC BACK AND PIN DOWN TO CREATE A HOLE IN THE MAT.
3. DIG THE HOLE PER PLANTING DETAILS.
4. AFTER PLANTING, FOLD FABRIC BACK INTO PLACE AND STAPLE DOWN AS REQUIRED TO SECURE FABRIC IN PLACE

2 PLANTING IN EROSION CONTROL MATTING DETAIL
SCALE: NOT TO SCALE



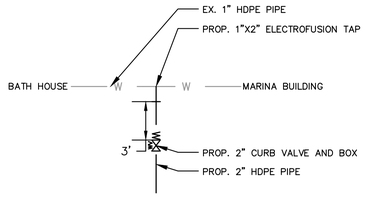
EZ ROLL™ GRASS PAVER AS MANUFACTURED BY NDS
HTTPS://WWW.NDSPRO.COM/US/EN/PRODUCTS/PERMEABLE-PAVERS/EZ-ROLL-GRASS-PAVERS
CELL SIZE: 2 1/4" HEXAGONAL CELLS
STOCK ROLL SIZES: 4'W X 150'L (600SQ. FT.)
NOTES:
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. CONTRACTOR SHALL CONNECT 4" DIA PERFORATED UNDER DRAIN TO EXISTING CATCH BASINS WITH POSITIVE FLOW
3. CUT EZ ROLL SQUARE; DO NOT CUT AT ANGLE.

3 GRASS PAVER
SCALE: NOT TO SCALE

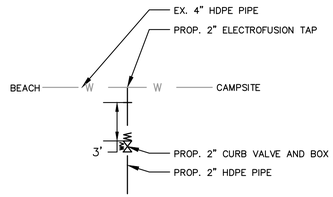


NOTES:
1. SEE LANDSCAPE SHEET FOR ADDITIONAL REQUIREMENTS.
2. INSPECT TREE FOR DAMAGED BRANCHES, APPLY CORRECTIVE PRUNING.
3. SET ROOT BALL ON UNEXCAVATED OR TAMPED SOIL. TOP OF ROOTBALL SHALL BE TWO INCHES ABOVE SURROUNDING GRADE WITH BURLAP AND WIRE BASKET INTACT. FLARE OF TRUNK VISIBLE ABOVE SOIL LINE.
4. REMOVE WIRE BASKET AND BURLAP DOWN FOUR TO SIX INCHES BELOW TOP OF ROOTBALL. REMOVE ALL TWINE AND (IF USED), SYNTHETIC MATERIAL. REMOVE OR CORRECT GIRDLING ROOTS.
5. TAMP EXCAVATED SOIL AROUND BASE OF ROOTBALL.
6. WATER THOROUGHLY WITHIN TWO HOURS USING 10 TO 15 GALLONS OF WATER.
7. APPLY MULCH IN EVEN LAYER, KEEPING AWAY FROM ROOT FLARE.
8. FINAL LOCATION OF TREE TO BE APPROVED BY OWNER.

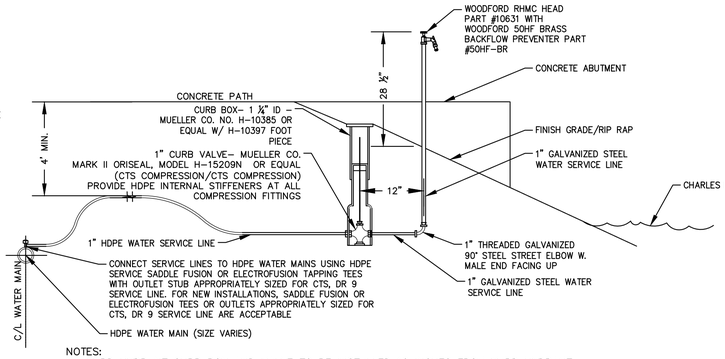
4 TREE PLANTING
SCALE: NOT TO SCALE



5 NORTH SIDE CONNECTION DETAIL
SCALE: NOT TO SCALE

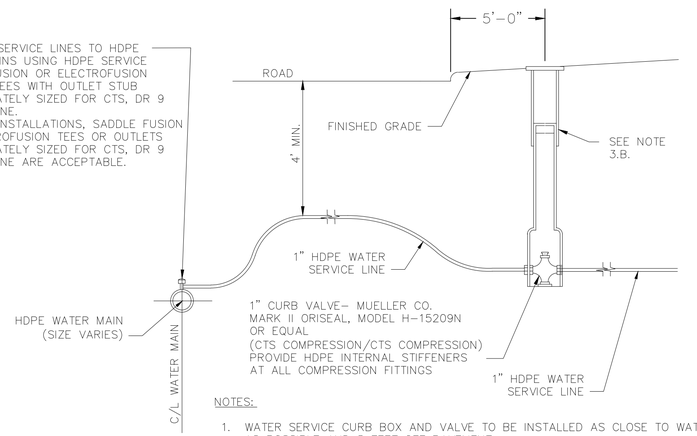


6 SOUTH SIDE CONNECTION DETAIL
SCALE: NOT TO SCALE



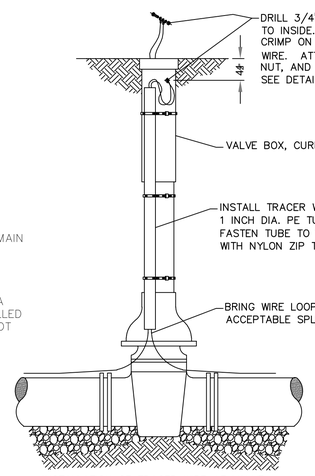
NOTES:
1. YARD HYDRANT CURB BOX AND VALVE TO BE INSTALLED 12 INCHES FROM YARD HYDRANT
2. ADA NOTE: SPIGOT HEIGHT SHALL BE BETWEEN 28" MIN. AND 36" MAX. FROM FINISH GRADE

7 TYPICAL YARD HYDRANT
SCALE: NOT TO SCALE

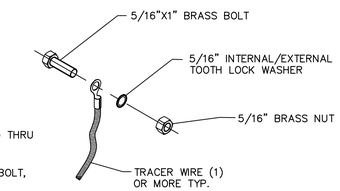


NOTES:
1. WATER SERVICE CURB BOX AND VALVE TO BE INSTALLED AS CLOSE TO WATER MAIN AS POSSIBLE AND 5 FEET OFF PAVEMENT.
2. FITTINGS LISTED IN DETAIL ARE 1-INCH DR 9 SERVICE. APPROPRIATE FITTINGS SHALL BE PROVIDED FOR OTHER SERVICE LINE SIZES CALLED FOR IN THE DRAWINGS.
3. ALL SERVICES SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH AWWA C-800 AND THE OWNERS STANDARDS. ALL SERVICE CONNECTIONS TO BE INSTALLED WHICH ARE IN THE ROADWAY SHALL BE PUSHED OR BORED. OPEN CUTS WILL NOT BE PERMITTED, ALL COUPLINGS OF NEW TO EXISTING SERVICES SHALL BE MADE BACK OF THE CURB.

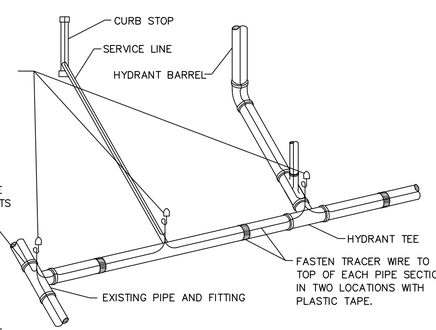
8 WATER SERVICE CONNECTION DETAIL
SCALE: NOT TO SCALE



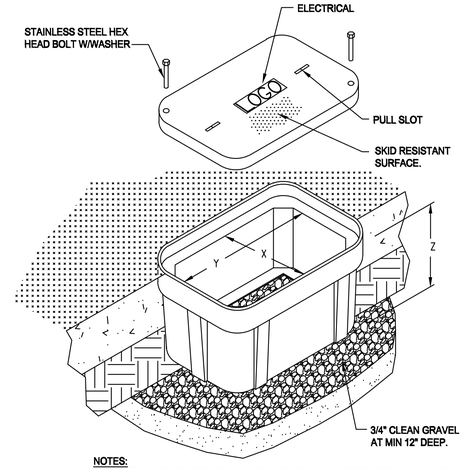
INSTALLATION OF TRACER WIRE AT VALVE BOXES, CURB STOPS & FIRE HYDRANTS NOT TO SCALE



SPLICES & SERVICE LINE CONNECTIONS: LOOP WIRE AND TIE INTO KNOT. CONNECT WITH PRO TRACE R #73901, COPPERHEAD #LSC12-BLUE, (TM) 3WB-01(BLUE), OR EQUAL.



9 TRACER WIRE DETAIL
SCALE: NOT TO SCALE



NOTES:
1. SWEEP CONDUITS UP THROUGH PEA GRAVEL AND OPEN BOTTOM OF HANDHOLE.
2. PULLBOX DIMENSIONS SHALL BE DETERMINED BY EC TO MEET NEC 314 FILL PERCENTAGES.

10 TYPICAL HANDHOLE DETAIL
SCALE: NOT TO SCALE

NOTES:
1. FOR OPEN CUT/DIRECT BURY INSTALLATIONS, PROVIDE MINIMUM #10 SOLID COPPER TRACER.
2. FOR HDD INSTALLATIONS, PROVIDE #10 COPPER CLAD STEEL TRACER WIRE ATTACHED TO TOP OF PIPE. INSTALL CONTINUOUS WITH EACH BORE. TRACER WIRE SHALL BE COPPER CLAD STEEL OF SUFFICIENT TENSILE STRENGTH TO EXCEED PULL FORCES OF HDD PROCESS. MAINTAIN ELECTRICAL CONTINUITY AT INTERMEDIATE BORE PITS EITHER BY SPLICING ENDS OF TRACER WIRE OR INSTALLING CATHODIC PROTECTION TEST STATION OR PVC PIPE CAP ADJACENT TO PIPE FOR ACCESS AND TO HOUSE SLACK WIRE FOR TESTING.
3. TEST ALL TRACER WIRE FOR ELECTRICAL CONTINUITY PRIOR TO FINAL ACCEPTANCE.

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