MORGANA BLUFFS NATURE PRESERVE PHASE 1

100% CONSTRUCTION DOCUMENTS

AUGUST 3, 2018

PROJECT ADDRESS

BOYS & GIRLS CLUBS OF CLEVELAND 6114 BROADWAY AVENUE CLEVELAND, OH 44127

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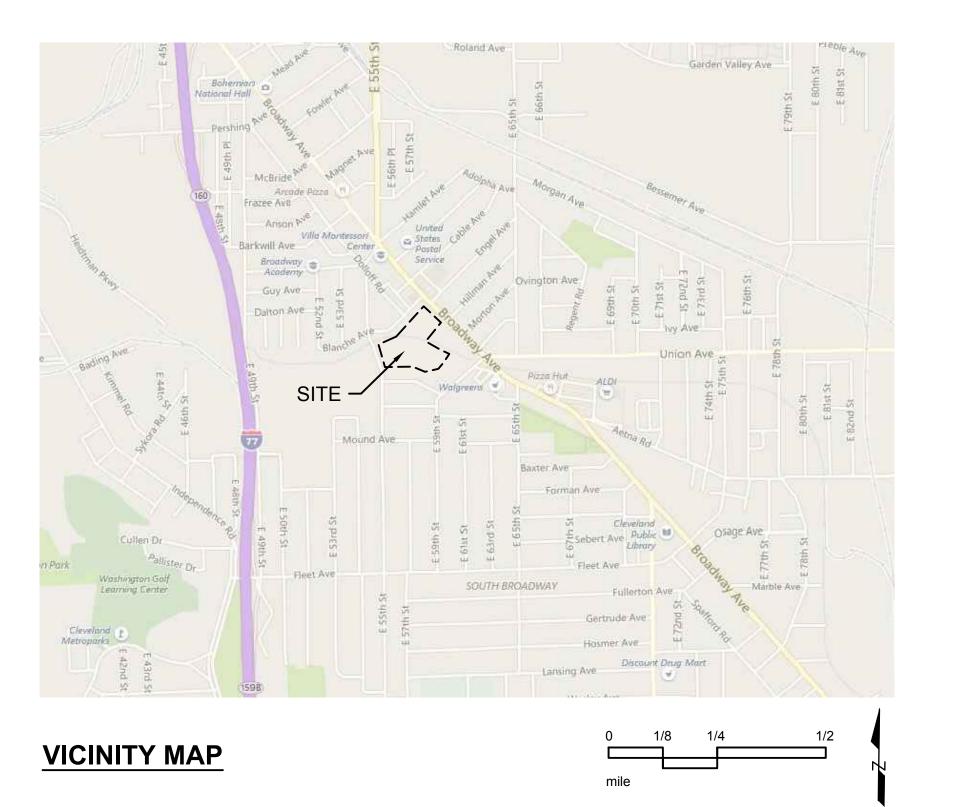
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MORGANA BLUFFS NATURE PRESERVE PHASE 1

6114 BROADWAY AVENUE CLEVELAND, OH 44127





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BOYS & GIRLS CLUBS OF CLEVELAND

6114 BROADWAY AVENUE CLEVELAND, OH 44127

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REGISTRATION

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DATE DESCRIPTION

PROJECT NUMBER

60569397

SHEET TITLE

TITLE SHEET

SHEET NUMBER

G000

GENERAL NOTES AND PROJECT REQUIREMENTS

PROJECT DESCRIPTION:

THE PROJECT SITE IS INCLUDES LAND LOCATED SOUTH OF THE MORGANA RUN TRAIL BETWEEN EAST 55TH AND MOUND ELEMENTARY SCHOOL; ON THE PROPERTY OF THE BOYS & GIRLS CLUB OF CLEVELAND AT 6114 BROADWAY AVENUE; AS WELL AS ON PROPERTY OWNED BY THE CLEVELAND MUNICIPAL SCHOOL DISTRICT (CMSD), WHICH OWNS MOUND ELEMENTARY. THE OWNER OF THE REMAINING PARCELS WILL BE THE WEST CREEK CONSERVANCY. SEE SHEET C101 FOR THE PROPERTY BOUNDARY PLAT.

THE PROPOSED PROJECT IMPROVEMENTS INCLUDE NEW STORM SEWERS, INVASIVE SPECIES CONTROL, EXCAVATION AND GRADING OF A TRAIL AND WETLANDS, SEEDING AND LANDSCAPING. THE PROJECT WILL DIVERT STORMWATER COLLETED ON THE BOYS & GIRLS CLUB SITE FROM THE COMBINED SEWER SYNSTEM TO THE STORMWATER WETLAND SYSTEM AND CREATE AN ADA ACCESSIBLE PATH FROM THE MORGANA RUN TRAIL TO THE WETLANDS BELOW.

NOTE THAT THE BOTTOM OF THE VALLEY UNDERWENT AN ENVIRONMENTAL CLEAN-UP CONSISTING OF AN 8' DEEP FILL CAPPED WITH 2' OF COVER SOIL. GEOTECHNICAL BORINGS WERE TAKEN IN THE PROJECT AREA AND ARE AVAILABLE FOR CONTRACTOR'S REVIEW.

SPECIFICATIONS:

THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION, CONSTRUCTION AND MATERIAL SPECIFICATIONS 2016 EDITION, INCLUDING ALL SUPPLEMENTS THERETO, SHALL GOVERN ALL CONSTRUCTION ITEMS THAT ARE A PART OF THE PLAN UNLESS OTHERWISE NOTED.

DRAWING/SPECIFICATION DISCREPANCY

IN THE EVENT OF A DISCREPANCY BETWEEN DRAWINGS AND SPECIFICATIONS OR AMONG DRAWINGS, THE STRONGEST MATERIAL, LARGEST, QUANTITY, OR BETTER QUALITY AS DETERMINED BY THE OWNER'S ARCHITECT SHALL GOVERN

BASIS FOR DESIGN:

IN THE PREPARATION OF WORKING DRAWINGS AND SPECIFICATIONS, THE ENGINEER HAS RELIED UPON THE SITE MAPPING SURVEY PROVIDED BY:

KS ASSOCIATES, INC. CONTACT: MARK A. YEAGER, P.S. 260 BURNS ROAD, SUITE 100 ELYRIA, OH 44035 YEAGERM@KSASSOCIATES.COM 440.365.4730 X 300

A COPY OF THE SURVEY IS INCLUDED FOR REFERENCE.

CONTRACT COORDINATION & PHASING:

PERFORMANCE OF THIS CONTRACT WILL REQUIRE THE CONTRACTOR TO COORDINATE ALL CONSTRUCTION ACTIVITY WITH LAND OWNERS INCLUDING: THE BOYS AND GIRLS CLUB OF CLEVELAND, WEST CREEK CONSERVANCY, AND CMSD.

CONTRACTOR ACKNOWLEDGEMENT

BY SUBMITTING A BID. THE CONTRACTOR ACKNOWLEDGES THAT HE/SHE HAS SATISFIED HIMSELF/HERSELF AS TO THE NATURE AND LOCATION OF THE WORK. THE GENERAL AND LOCAL CONDITIONS, PARTICULARLY THOSE BEARING UPON THE HANDLING OF MATERIALS, AVAILABILITY OF LABOR AND NECESSARY UTILITIES, THE UNCERTAINTIES OF WEATHER, GROUNDWATER TABLE OR SIMILAR CONDITIONS AT THE SITE, THE CONFORMATION AND CONDITIONS OF THE SOILS AND GROUND SURFACE, THE CHARACTER OF EQUIPMENT AND FACILITIES NEEDED PRIOR TO AND DURING THE EXECUTION OF THE WORK, AND ALL OTHER MATTERS WHICH CAN IN ANY WAY AFFECT THE WORK OR COST THEREOF UNDER THIS CONTRACT. ANY FAILURE OF THE CONTRACTOR TO ACQUAINT HIMSELF/HERSELF WITH THE AVAILABLE INFORMATION CONCERNING THE CONDITIONS WILL NOT RELIEVE HIM/HER FROM RESPONSIBILITY FOR ESTIMATING PROPERLY THE DIFFICULTY AND COST OF SUCCESSFULLY PERFORMING THE WORK.

<u>INDEMNIFICATION</u>

THE CONTRACTOR WILL INDEMNIFY AND HOLD HARMLESS THE OWNER, THE ENGINEER, AND THEIR AGENTS AND EMPLOYEES FROM AND AGAINST ALL CLAIMS, DAMAGES, LOSSES, AND EXPENSES INCLUDING ATTORNEY'S FEES ARISING OUT OF OR RESULTING FROM PERFORMANCE OF THE WORK, PROVIDED THAT ANY SUCH CLAIMS, DAMAGES, LOSS, OR EXPENSE IS ATTRIBUTABLE TO BODILY INJURY, SICKNESS, DISEASE OR DEATH, OR INJURY TO OR DESTRUCTION OF TANGIBLE PROPERTY, INCLUDING THE LOSS OF USE RESULTING THEREFROM; AND IS CAUSED IN WHOLE OR PART BY ANY NEGLIGENT OR WILLFUL ACT OR OMISSION OF THE CONTRACTOR AND SUBCONTRACTOR. ANYONE DIRECTLY OR INDIRECTLY EMPLOYED BY ANY OF THEM MAY BE LIABLE.

IN ANY AND ALL CLAIMS AGAINST THE OWNER, THE ENGINEER, OR ANY OF THEIR AGENTS OR EMPLOYEES, BY ANY EMPLOYEE OF THE CONTRACTOR, ANY SUBCONTRACTOR, ANYONE FOR WHO ACTS ANY OF THEM MAY BE LIABLE. THE INDEMNIFICATION OBLIGATION SHALL NOT BE LIMITED IN ANY WAY BY ANY LIMITATION ON THE AMOUNT OR TYPE OF DAMAGES, COMPENSATION, OR BENEFITS PAYABLE BY OR FOR THE CONTRACTOR OR ANY SUBCONTRACTOR UNDER WORKERS COMPENSATION ACTS. DISABILITY BENEFIT ACTS. OR OTHER EMPLOYEE BENEFITS ACTS.

THE OBLIGATIONS OF THE CONTRACTOR UNDER THIS PARAGRAPH SHALL NOT EXTEND TO THE LIABILITY OF THE ENGINEER, HIS/HER AGENTS OR EMPLOYEES ARISING OUT OF THE PREPARATION OR APPROVAL OF MAPS, PLANS, OPINIONS, REPORTS, SURVEYS, CHANGE ORDERS, DESIGNS, OR SPECIFICATIONS.

REVIEW OF PROJECT SITE

PRIOR TO BIDDING, THE CONTRACTOR SHALL, BY PERSONAL EXAMINATION, SATISFY HIMSELF/HERSELF AS TO THE LOCATION OF THE PROPOSED WORK AND TO ACQUAINT HIMSELF/HERSELF THOROUGHLY WITH THE EXISTING CONDITIONS AND THE DIFFICULTIES THAT ARE LIKELY TO BE ENCOUNTERED IN THE PERFORMANCE OF THE PROPOSED WORK.

INCLUSIVE BID

CONTRACTOR'S BID SHALL INCLUDE ALL LABOR, MATERIALS, PERMITS, AND EQUIPMENT REQUIRED TO COMPLETE THE PROJECT. COMPENSATION FOR ANY OTHER WORK, WHICH DOES NOT HAVE A SPECIFIC PAY ITEM, WILL BE INCLUDED IN THE PRICE OF THE INDIVIDUAL ITEMS IN THE BID. CONTRACTORS ARE ENCOURAGED TO PROVIDE NOTES AS TO WHERE ADDITIONAL COSTS ARE INCLUDED IN A LINE ITEM.

COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 IS REQUIRED OF THE CONTRACTOR AND SUBCONTRACTORS ON THE PROJECT.

SAFETY COORDINATION

THE WORK OF THIS CONTRACT WILL BE ON OR NEAR AN ELEMENTARY SCHOOL AND OTHER FACILITIES FOR CHILDREN OF ALL AGES. CONTRACTOR WILL PROVIDE A SAFETY PLAN FOR SECURING THE WORK AND WORK SITE FOR REVIEW BY ALL PARTIES PRIOR TO COMMENCING WORK.

ADDITIONAL WORK WILL REQUIRE ACTIVITIES ADJACENT TO AND BENEATH A PUBLIC TRAIL. CONTRACTOR WILL COORDINATE WITH SLAVIC VILLAGE DEVELOPMENT AND THE CITY OF CLEVELAND AND MINIMIZE TIME

THE TRAIL IS CLOSED.

CONSTRUCTION SURVEY AND STAKING

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PERFORMING ALL DETAIL SURVEYS NEEDED FOR CONSTRUCTION.

CONTRACTOR TO PROVIDE ALL EQUIPMENT AND LABOR TO PERFORM HORIZONTAL CONTROL OF THE WORK DURING CONSTRUCTION. STAKING SHALL BE COMPLETED BY AN OHIO LICENSED SURVEYOR. INSTALL STAKING TO SET UP PROJECT REFERENCE STATIONING AND COORDINATES AS PER PLAN. INSTALL STAKING DEFINING WORK AREAS AS DESIGNATED ON PLAN. WORK AREA STAKING TO BE COLOR CODED OR LABELED FOR THE TYPE OF WORK SPECIFIED.

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND ALL GRADES, LINES AND LEVELS AS INDICATED ON THE DRAWINGS AND SPECIFICATIONS. AND HE/SHE SHALL REPORT ANY ERRORS OR INCONSISTENCIES IN THE ABOVE TO ENGINEER BEFORE COMMENCING WORK OR ORDERING ANY MATERIAL.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PRESERVATION OF ALL STAKES AND MARKS AND SHALL REPLACE THEM AT HIS EXPENSE IF THEY ARE DAMAGED, LOST, DISPLACED OR REMOVED. THE CONTRACTOR SHALL USE COMPETENT PERSONNEL AND SUITABLE EQUIPMENT FOR THE LAYOUT WORK REQUIRED AND SHALL PROVIDE THAT IT IS DONE UNDER THE SUPERVISION OF A REGISTERED SURVEYOR.

ALL STAKING FOR LAYOUT IS TO BE APPROVED BY OWNERS REP PRIOR TO CONSTRUCTION.

IRON PINS AND MONUMENTS

THE CONTRACTOR SHALL REFERENCE ALL IRON PINS AND MONUMENTS BEFORE EXCAVATING AT OR NEAR THEM. IF ANY IRON PINS OR MONUMENTS ARE DESTROYED OR DAMAGED DURING CONSTRUCTION, NOTIFY THE OWNER IN WRITING. DAMAGED PINS OR MONUMENTS SHALL BE ACCURATELY REPLACED BY A REGISTERED SURVEYOR AT THE COMPLETION OF THE PROJECT.

UTILITIES

THE CONTRACTOR IS REQUIRED TO VERIFY LOCATIONS OF ALL UTILITIES PRIOR TO CONSTRUCTION. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE OWNER IMMEDIATELY IF THERE IS THE POTENTIAL FOR IMPACT TO AN EXISTING UTILITY. ANY ADJUSTMENTS TO EXISTING UTILITIES MUST BE APPROVED BY THE OWNER PRIOR TO ANY MODIFICATION. THE CONTRACTOR MUST CALL THE OHIO UTILITIES PROTECTION SERVICE (OUPS) BEFORE DIGGING.

LISTED BELOW ARE THE KNOWN UTILITIES WITHIN THE PROJECT AREA AND THEIR RESPECTIVE OWNERS.

- 1. ELECTRIC CLEVELAND PUBLIC POWER
- 2. SEWER NORTHEAST OHIO REGIONAL SEWER DISTRICT

THE LIMITS OF DISTURBANCE SHOWN ON THESE PLANS APPLY TO ALL ASPECTS OF CONSTRUCTION. THE CONTRACTOR (INCLUDING ALL WORKERS, MATERIALS, AND SUBCONTRACTORS) SHALL REMAIN WITHIN THE LIMITS OF DISTURBANCE THROUGHOUT THE PROJECT. NO CONSTRUCTION ACTIVITY SHALL OCCUR OUTSIDE THE LIMITS OF DISTURBANCE WITHOUT RECEIVING PRIOR WRITTEN APPROVAL FROM THE OWNER.

DISTURBANCE TO EXISTING FEATURES:

CONSTRUCTION MUST NOT DAMAGE SITE FEATURES WITHIN OR BEYOND THE PROJECT AREA THAT ARE SLATED TO REMAIN. IF DAMAGE OCCURS TO ANY OF THE EXISTING FEATURES THAT ARE TO REMAIN, IT WILL BE SOLELY THE RESPONSIBILITY OF THE CONTRACTOR TO RESTORE THOSE DAMAGED ELEMENTS TO THEIR PRE-CONSTRUCTION CONDITION. A WRITTEN REQUEST SHALL BE MADE TO THE OWNER IF EXISTING SITE FEATURES ARE TO BE DISTURBED (NOT EXPLICITLY CALLED OUT ON THE DEMOLITION PLAN). THE CONTRACTOR MUST HAVE WRITTEN APPROVAL FROM THE OWNER PRIOR TO PROCEEDING.

PROTECTION OF EXISTING TREES AND VEGETATION:

- 1. CARE SHOULD BE TAKEN TO ONLY REMOVE THE TREES AND OTHER PLANT MATERIAL IDENTIFIED ON THE PLANS. TREES IDENTIFIED FOR REMOVAL SHALL BE FLAGGED AND APPROVED BY OWNER PRIOR TO COMMENCEMENT OF WORK. IF THE CONTRACTOR DEEMS IT NECESSARY TO REMOVE ADDITIONAL MATERIAL BEYOND WHAT IS CALLED FOR IN THE PLANS, HE/SHE SHALL HAVE WRITTEN APPROVAL FROM THE OWNER.
- 2. ALL TREES LOCATED OUTSIDE THE LIMITS OF DISTURBANCE SHALL BE PRESERVED. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING ALL TREES TO BE PRESERVED FROM HIS/HER ACTIVITIES. THIS SHALL INCLUDE THE PROTECTION OF TREE ROOTS FROM VEHICULAR AND PEDESTRIAN TRAFFIC AND MATERIAL STOCKPILING.
- 3. ALL TREES SHOWN TO BE RETAINED WITHIN THE LIMITS OF CONSTRUCTION ON THE PLANS, SHALL BE PROTECTED DURING CONSTRUCTION WITH FENCING. SEE: TREE PROTECTION DETAILS.
- 4. TREE PROTECTION FENCES SHALL BE INSTALLED PRIOR TO THE COMMENCEMENT OF ANY SITE PREPARATION WORK (CLEARING, GRUBBING, OR GRADING) AND SHALL BE MAINTAINED THROUGHOUT ALL PHASES OF THE CONSTRUCTION PROJECT. CONTRACTOR IS RESPONSIBLE FOR REMOVAL ONLY AFTER THE PROJECT IS DEEMED TO BE SUBSTANTIALLY COMPLETE. CONTRACTOR IS RESPONSIBLE FOR PROTECTING ALL REMAINING TREES ON SITE FROM CONSTRUCTION STRESS AND DAMAGE UNTIL THE PROJECT IS FULLY COMPLETE.
- 5. EROSION AND SEDIMENTATION CONTROL BARRIERS SHALL BE INSTALLED AND MAINTAINED IN A MANNER WHICH DOES NOT RESULT IN SEDIMENT BUILD-UP WITHIN TREE DRIPLINES.
- 6. FENCES SHALL COMPLETELY SURROUND THE TREE OR CLUSTERS OF TREES, LOCATED AT THE OUTERMOST LIMITS OF THE TREE BRANCHES (DRIPLINE) OR CRITICAL ROOT ZONE (CRZ), WHICHEVER IS GREATER; AND SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PROJECT IN ORDER TO PREVENT THE FOLLOWING: SOIL COMPACTION IN CRZ AREA RESULTING FROM VEHICULAR TRAFFIC OR STORAGE OF EQUIPMENT OR MATERIAL. CRZ DISTURBANCES DUE TO GRADE CHANGES OR TRENCHING, OR WOUNDS TO EXPOSED ROOTS, TRUNK, OR LIMBS BY MECHANICAL EQUIPMENT.
- ALL GRADING WITHIN CRZ AREAS SHALL BE DONE BY HAND OR WITH SMALL EQUIPMENT TO MINIMIZE ROOT DAMAGE. PRIOR TO GRADING, RELOCATE PROTECTIVE FENCING (IF REQUIRED) TO 2 FEET BEHIND THE GRADE CHANGE AREA.
- 8. ANY ROOTS EXPOSED BY CONSTRUCTION ACTIVITY SHALL BE PRUNED FLUSH WITH THE SOIL AND BACKFILLED WITH GOOD QUALITY TOP SOIL WITHIN TWO DAYS. IF EXPOSED ROOT AREAS CANNOT BE BACKFILLED WITHIN 2 DAYS, 4" OF MULCH OR OTHER ORGANIC MATERIAL WHICH REDUCES SOIL TEMPERATURE AND MINIMIZES WATER LOSS DUE TO EVAPORATION SHALL BE PLACED TO COVER THE ROOTS UNTIL BACKFILL CAN OCCUR.
- 9. NO LANDSCAPE TOPSOIL DRESSING GREATER THAN FOUR (4) INCHES SHALL BE PERMITTED WITHIN THE DRIPLINE OR CRZ OF TREES, WHICHEVER IS GREATER. NO TOPSOIL IS PERMITTED ON ROOT FLARES OF ANY TREE.
- 10. PRUNING TO PROVIDE CLEARANCE FOR STRUCTURES, VEHICULAR TRAFFIC, AND CONSTRUCTION EQUIPMENT SHALL TAKE PLACE BEFORE CONSTRUCTION BEGINS. ALL PRUNING MUST BE PERFORMED IN ACCORDANCE WITH THE INTERNATIONAL SOCIETY OF ARBORICULTURE (ISA) PRUNING TECHNIQUES AND UNDER THE SUPERVISION OF AN ISA CERTIFIED ARBORIST.

CONSTRUCTION NOISE

ACTIVITIES AND LAND USE ADJACENT TO THE PROJECT SITE MAY BE AFFECTED BY CONSTRUCTION NOISE. IN ORDER TO MINIMIZE ANY ADVERSE CONSTRUCTION NOISE IMPACTS, LIMIT THE USE OF POWER-OPERATED, CONSTRUCTION-TYPE DEVICES BETWEEN THE HOURS OF 7AM AND 5PM MONDAY THRU FRIDAY OR AS SPECIFIED BY LOCAL CODIFIED ORDINANCE REQUIREMENT. IN ADDITION, DO NOT OPERATE AT ANY TIME ANY DEVICE IN SUCH A MANNER THAT THE NOISE CREATED SUBSTANTIALLY EXCEEDS THE NOISE CUSTOMARILY AND NECESSARILY ATTENDANT TO THE REASONABLE AND EFFICIENT PERFORMANCE OF SUCH EQUIPMENT.

WORKING HOURS

WORKING HOURS SHOULD BE IN ACCORDANCE WITH THOSE SPECIFIED LOCAL CODIFIED ORDINANCES. IF NO WORK HOURS ARE INDICATED THE ALLOWABLE WORK HOURS WILL BE BETWEEN 7AM AND 5PM. MONDAY THRU FRIDAY. NO WORK SHALL BE PERFORMED ON SATURDAY OR SUNDAY WITHOUT PRIOR WRITTEN APPROVAL FROM OWNER. IF THE CONTRACTOR NEEDS TO WORK ON A WEEKEND OR A HOLIDAY, HE/SHE SHALL SUBMIT HIS/HER REQUEST STATING THE REASONS FOR WORKING THOSE DAYS TO THE OWNER.

THE CONTRACTOR IS REQUIRED TO MAINTAIN ALL ACCESS ROADWAYS LEADING TO AND FROM THE CONSTRUCTION SITE. IT IS REQUIRED THAT THE CONTRACTOR ENSURE THAT THE ROADWAYS ARE KEPT FREE OF MUD. DUST, AND DEBRIS. THROUGHOUT CONSTRUCTION. AS NECESSARY. THE CONTRACTOR SHALL SWEEP THE ROADWAY TO REMOVE MUD, DIRT, AND DEBRIS. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REPAIR ANY ROADWAY DAMAGE BEYOND THE TYPICAL WEAR AND TEAR AT THE COMPLETION OF CONSTRUCTION. IF IT IS THE CASE THAT SIGNIFICANT ROADWAY DAMAGE OCCURS TO THE DEGREE WHERE NORMAL TRAFFIC FLOW IS IMPACTED. IMMEDIATE REPAIRS TO RESTORE TRAFFIC FLOW SHALL BE PERFORMED. ALL REPAIRS TO THE ROADWAY SHALL BE PROPERLY PERMITTED AT THE EXPENSE OF THE CONTRACTOR AND AGREED TO BY THE APPROPRIATE GOVERNING AGENCY.

CONSTRUCTION STOCKPILING AND STAGING AREA

THE CONSTRUCTION STOCKPILING AND STAGING SHOULD BE LOCATED AS SHOWN ON THE PLANS UNLESS AN ALTERNATE LOCATION IS AGREED TO IN WRITING WITH THE OWNER.

MODIFICATIONS

ANY MODIFICATIONS OR CHANGES TO THE WORK TO WHAT IS INDICATED ON THE DRAWINGS, MUST HAVE PRIOR WRITTEN APPROVAL BY THE OWNER.

NON-RUBBER TIRE VEHICLES

NO NON-RUBBER TIRE VEHICLES SHALL BE USED ON PAVED PARKING LOT OR DRIVES ADJACENT TO THE PROJECT AREA. EXCEPTIONS MAY BE GRANTED BY THE OWNER WHERE SHORT DISTANCES AND SPECIAL CIRCUMSTANCES ARE INVOLVED. GRANTING OF EXCEPTIONS MUST BE IN WRITING AND ANY RESULTING DAMAGE MUST BE REPAIRED TO THE SATISFACTION OF OWNER OF THE FACILITY. THE CONTRACTOR SHALL USE EXTREME CARE WHEN OPERATING NON-RUBBER TIRE VEHICLES ON STREETS, DRIVEWAYS, OR SIDEWALKS TO AVOID MARKING OR DAMAGING THE PAVEMENTS. PROTECTION OF THE PAVEMENT FROM DAMAGE RESULTING FROM THE TRACKS OF NON-RUBBER TIRE VEHICLES UTILIZED IN CONSTRUCTION ACTIVITY SHALL BE REQUIRED. METAL PLATES, RUBBER MATS, OR OTHER MEANS AS APPROVED BY THE RESPECTIVE OWNERS SHALL BE USED TO PROTECT THE PAVEMENT. THE COST OF THIS WORK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE VARIOUS ITEMS OF THE CONTRACT.

PERMITS AND REGULATIONS

THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL LOCAL PERMITS PRIOR TO COMMENCING CONSTRUCTION. ALL WORK MUST COMPLY WITH APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS IN ALL RESPECTS, INCLUDING COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION REGULATIONS.

WETLAND PERMITS

THE OWNER HAS OBTAINED AN OEPA LEVEL PERMIT FOR WETLAND ENHANCEMENT WHICH PROVIDES REGULATORY PERMISSION TO PERFORM WETLAND ENHANCEMENT CONSTRUCTION AS PER PLAN.

PRIVATE PROPERTY ACCESS

THERE SHALL BE NO ACCESS TO ADJACENT PUBLIC OR PRIVATE PROPERTIES UNLESS THERE IS A WRITTEN APPROVAL BY THE OWNER AND PROPERTY OWNER.

PROPERTY RESTORATION

THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION AND RESTORATION OF ALL PRIVATE AND PUBLIC PROPERTY IMPACTED BY THE CONTRACTOR'S OPERATIONS TO A CONDITION AS GOOD OR BETTER THEN IT WAS INITIALLY FOUND. THE ACCEPTANCE OF THIS WORK WILL BE APPROVED BY THE PROPERTY OWNER.

<u>SAFETY</u>

THE CONTRACTOR SHALL SOLELY BE RESPONSIBLE FOR COMPLYING WITH ALL FEDERAL, STATE, AND LOCAL SAFETY REQUIREMENTS, TOGETHER WITH EXERCISING PRECAUTIONS AT ALL TIMES FOR THE PROTECTION OF PERSONS INCLUDING EMPLOYEES AND PROPERTY. IT IS ALSO THE CONTRACTOR'S RESPONSIBILITY TO INITIATE, MAINTAIN, AND SUPERVISE ALL SAFETY REQUIREMENTS, PRECAUTIONS, AND PROGRAMS IN CONNECTION WITH THE WORK.

THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR SECURING THE PROJECT SITE FROM THE GENERAL PUBLIC BOTH DURING AND AFTER HIS/HER WORKING HOURS. THE CONTRACTOR SHALL PROVIDE, ERECT, AND MAINTAIN ALL LIGHTS, SIGNS, FENCES, OR ANY OTHER SAFETY DEVICE TO PREVENT UNAUTHORIZED PERSONS FROM HAZARDOUS OR DANGEROUS CONDITIONS ON THE PROJECT SITE. THE COST OF SUCH WORK SHALL BE INCLUDED IN THE VARIOUS ITEMS BID FOR FURNISHING AND INSTALLING MATERIALS ON THIS PROJECT.

ALL WORK NEAR EXISTING POWERLINES SHALL BE PERFORMED IN CONFORMANCE WITH THE REQUIREMENTS OF THE FOLLOWING STATUTES, REGULATIONS AND SAFETY CODES AND GUIDELINES:

NATIONAL ELECTRICAL SAFETY CODE

OSHA REGULATIONS GOVERNING WORKING CLEARANCES FROM ENERGIZED LINES. OSHA STANDARD 29 CFR 1926.550 SUBPART N IS SPECIFIC TO CRANES, DERRICKS, HOISTS. ALL VEHICLES, EQUIPMENT, AND LOADS SHALL MAINTAIN THE MINIMUM CLEARANCES FROM ENERGIZED WIRES SPECIFIED IN THIS STANDARD.

CONSTRUCTION SCHEDULE

UPON AWARD OF CONTRACT, THE CONTRACTOR SHALL DEVELOP A DETAILED SCHEDULE FOR THE WORK TO IDENTIFY THE START AND END DATES FOR EACH TASK. WORK CANNOT COMMENCE UNTIL THE OWNER HAS GIVEN WRITTEN APPROVAL OF THE SCHEDULE.

PRE-CONSTRUCTION MEETING

A PRE-CONSTRUCTION MEETING WITH THE CONTRACTOR AND OWNER'S REPRESENTATIVES WILL OCCUR PRIOR TO CONSTRUCTION ACTIVITY TO WALK THE SITE AND REVIEW THE DRAWINGS.

MORGANA BLUFFS NATURE PRESERVE PHASE 1

6114 BROADWAY AVENUE CLEVELAND, OH 44127





BOYS & GIRLS CLUBS OF CLEVELAND 6114 BROADWAY AVENUE

CLEVELAND, OH 44127

CONSULTANT

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I/R DATE DESCRIPTION

PROJECT NUMBER

60569397

SHEET TITLE

GENERAL NOTES

ITEM 201. CLEARING

CONTRACTOR SHALL FURNISH ALL EQUIPMENT, LABOR AND MATERIALS NECESSARY TO PERFORM CLEARING AS PER ODOT CMS 201 AND AS PER PLAN. THIS ITEM INCLUDES ALL TREE AND BRUSH REMOVAL AS INDICATED ON THE DEMOLITION PLAN.

PAYMENT FOR THE ABOVE WILL BE MADE AT THE CONTRACT UNIT PRICE FOR FOR ITEM 201 CLEARING.

ITEM 202. DEMOLITION

CONTRACTOR SHALL FURNISH ALL EQUIPMENT, LABOR AND MATERIALS NECESSARY TO PERFORM DEMOLITION AS PER ODOT CMS 202 AND AS PER PLAN. THIS ITEM INCLUDES REMOVAL AND SALVAGE OF FENCING AND PAVEMENT REMOVAL AS INDICATED ON THE DEMOLITION PLAN.

PAYMENT FOR THE ABOVE WILL BE MADE AT THE CONTRACT UNIT PRICE FOR FOR ITEM 202 DEMOLITION.

ITEM SPECIAL, CONSTRUCTION FENCE

CONTRACTOR SHALL FURNISH ALL EQUIPMENT, LABOR AND MATERIALS NECESSARY TO INSTALL CONSTRUCTION FENCE AS PER PLAN. FENCE SHALL BE MAINTAINED AS A SAFETY BARRIER AT ALL TIMES DURING CONSTRUCTION. THIS ITEM INCLUDES ALL FENCE INSTALLATION, FENCE MAINTENANCE, AND REMOVAL.

PAYMENT FOR THE ABOVE WILL BE MADE AT THE CONTRACT UNIT PRICE FOR FOR ITEM SPECIAL, CONSTRUCTION FENCE.

ITEM 203, EXCAVATION

CONTRACTOR SHALL FURNISH ALL EQUIPMENT, LABOR AND MATERIALS NECESSARY TO PERFORM EXCAVATION AS PER ODOT CMS 203 AND AS PER PLAN. THIS ITEM INCLUDES ALL EXCAVATION. EMBANKMENT. AND GRADING AS PER PLAN. EXCAVATE WETLAND POOLS AS REQUIRED TO PRODUCE EMBANKMENT NEEDED FOR TRAIL GRADING SO THAT ON SITE CUT/FILL IS BALANCED.

PAYMENT FOR THE ABOVE WILL BE MADE AT THE CONTRACT UNIT PRICE FOR FOR ITEM 203 EXCAVATION.

ITEM 611, 12" CONDUIT, TYPE B. BORING

CONTRACTOR SHALL FURNISH ALL EQUIPMENT, LABOR AND MATERIALS NECESSARY TO PERFORM 12 INCH CONDUIT, TYPE B, BORING AS PER ODOT CMS ITEM 611 AND AS PER PLAN. THIS ITEM INCLUDES BORING A 12" INCH STORM SEWER CONDUIT UNDER THE MORGANA TRAIL AS INDICATED ON THE PLAN.

PAYMENT FOR THE ABOVE WILL BE MADE AT THE CONTRACT UNIT PRICE FOR FOR ITEM 611, 12" CONDUIT, TYPE B, BORING.

ITEM SPECIAL. MANHOLE COVER

CONTRACTOR SHALL FURNISH ALL EQUIPMENT, LABOR AND MATERIALS NECESSARY TO INSTALL MANHOLE COVER AS PER PLAN. THIS ITEM INCLUDES ALL INSTALLATION OF THE SPECIFIED MANHOLE COVER ON THE EXISTING MANHOLE GRATING.

PAYMENT FOR THE ABOVE WILL BE MADE AT THE CONTRACT UNIT PRICE FOR FOR ITEM SPECIAL, MANHOLE COVER.

ITEM SPECIAL, FENCING REPAIR

CONTRACTOR SHALL FURNISH ALL EQUIPMENT, LABOR AND MATERIALS NECESSARY TO PERFORM FENCING REPAIR AS PER ODOT ITEM 607 AND AS PER PLAN. THIS ITEM INCLUDES REPAIRING EXISTING CHAIN LINK FENCING REMOVED AS PART OF STORM SEWER INSTALLATION AS INDICATED ON THE PLAN.

PAYMENT FOR THE ABOVE WILL BE MADE AT THE CONTRACT UNIT PRICE FOR FOR ITEM SPECIAL, FENCING

ITEM SPECIAL, CURB REPLACEMENT

CONTRACTOR SHALL FURNISH ALL EQUIPMENT, LABOR AND MATERIALS NECESSARY TO PERFORM CURB REPLACEMENT AS PER ODOT ITEM 608 AND AS PER PLAN. THIS ITEM INCLUDES THE REPAIR OF CONCRETE CURBING REMOVED AS PART OF STORM SEWER INSTALLATION AS INDICATED ON PLAN.

PAYMENT FOR THE ABOVE WILL BE MADE AT THE CONTRACT UNIT PRICE FOR FOR ITEM SPECIAL, CURB REPLACEMENT.

ITEM 252. ASPHALT REPAIR

CONTRACTOR SHALL FURNISH ALL EQUIPMENT, LABOR AND MATERIALS NECESSARY TO PERFORM ASPHALT REPAIR ODOT ITEM 252 AND AS PER PLAN. THIS ITEM INCLUDES REPAIRING ASPHALT PAVEMENT THAT WAS REMOVED AS PART OF STORM SEWER INSTALLATION AS INDICATED ON THE PLAN.

PAYMENT FOR THE ABOVE WILL BE MADE AT THE CONTRACT UNIT PRICE FOR FOR ITEM SPECIAL, ASPHALT REPAIR.

ITEM 608, CONCRETE WALK REPAIR

CONTRACTOR SHALL FURNISH ALL EQUIPMENT, LABOR AND MATERIALS NECESSARY TO PERFORM CONCRETE WALK REPAIR AS PER ITEM 608 AND AS PER PLAN. THIS ITEM INCLUDES REPAIRING CONCRETE WALKS THAT WERE REMOVED AS PART OF STORM SEWER INSTALLATION AS INDICATED ON THE PLAN.

PAYMENT FOR THE ABOVE WILL BE MADE AT THE CONTRACT UNIT PRICE FOR FOR ITEM 608, CONCRETE WALK REPAIR.

ITEM SPECIAL, WETLAND SEEDING

CONTRACTOR SHALL FURNISH ALL EQUPMENT, LABOR AND MATERIALS NECESSARY TO PERFORM WETLAND SEEDING AS PER ODOT CMS ITEM 659 AND AS PER PLAN. THIS ITEM INCLUDES USE OF A SPECIALIZED SEED MIX AND PLANTING METHODS.

WETLAND SEED MIX AS AVAILABLE FROM ERNST CONSERVATION SEEDS, INC. MEADVILLE, PA., 800 873-3321, OR APPROVED EQUAL. APPLY AT 20 LB PER ACRE.

- 35.0 % CAREX BULINOIDEA, FOX SEDGE
- 17.0 % CAREX LURIDA, LURID SEDGE 15.0 % CAREX LUPULINA, HOP SEDGE
- 8.8 % CAREX SCOPARIA, BLUNT BROOM SEDGE
- 4.5 % SPARGANIUM EURYCARPUM, GIANT BUR REED
- 3.0 % JUNCUS EFFUSUS, SOFT RUSH
- 2.5 % SPARGANIUM AMERICANUM, EASTERN BUR REED
- ASCEPIAS INCARNATA, SWAMP MILKWEED
- ASTER PUNICEUS, PURPLESTEM ASTER
- 1.0 % ASTER UMBELLATUS, FLAT TOPPED WHITE ASTER
- 1.0 % EUPATORIUM PERFOLIATUM, BONESET
- 1.0 % IRIS VERSICOLOR, BLUEFLAG 1.0 % ONOCLEA SENSIBILIS, SENSITIVE FERN
- 1.0 % SCIRPUS CYHPERINUS, WOOLGRASS
- ALISMA SUB CORDATUM, MUD PLANTAIN
- 0.5 % EUPATORIUM MACULATUM
- 0.5 % LUDWIGIA ALTERNNIFOLIA, SEEDBOX MIMULUS RINGENS, SQUARE STEMMED MONKEYFLOWER
- 0.5 % SCIRPUS VALIDUS, SOFTSTEM BULRUSH
- 0.5 % SOLIDAGO PATULA, GOLDENROD
- 0.2 % CHELONE GLABRA, TURTLEHEAD

CONTRACTOR TO SUBMIT EVIDENCE TO LANDSCAPE ARCHITECT WITHIN 21 DAYS OF NOTICE TO PROCEED IDENTIFYING THE SEED SOURCE. AND CERTIFYING THAT THE SPECIFIED SEED HAS BEEN RESERVED AND OR SECURED FOR USE ON THE PROJECT.

A MINIMUM OF 48 HOURS PRIOR TO COMMENCEMENT OF ANY SEEDING OPERATIONS. THE CONTRACTOR SHALL SUBMIT TO THE LANDSCAPE ARCHITECT EVIDENCE THAT THE SEED MIXES TO BE USED ON THE PROJECT CONFORM TO THE SPECIFIED SEED MIXES.

WITHIN 48 HOURS OF COMPLETION OF GRADING OPERATIONS, SEEDING SHALL COMMENCE. ALL WETLAND SEEDING SHALL BE DONE "IN THE DRY". SEEDING SHALL NOT TAKE PLACE WHEN THE GROUND OR OVERLYING WATER IS FROZEN OR WHEN CONDITIONS ARE OTHERWISE UNSATISFACTORY. SEED SHALL BE SOWN BETWEEN MARCH 1 AND JUNE 15, OR SEPT 1 TO OCT 30. IF SEEDING IS UNABLE TO BE PERFORMED WITHIN THIS TIME PERIOD, THEN ODOT ITEM 659, CLASS 7, TEMPORARY COVER MIX SHALL BE APPLIED.

SEED SHALL BE APPLIED IN ACCORDANCE WITH THE FOLLOWING: SEED SHALL BE THOROUGHLY MIXED WITH 3 TIMES ITS VOLUME OF SAND OR OTHER INERT MINERAL CARRIER AND THE SAND SEED MIXTURE SHALL BE BROADCAST IN AN EVEN COVERAGE BY HAND OR BY USE OF A CYCLONE SEEDER. THE SEED SHALL THEN BE PRESSED INTO GOOD CONTACT WITH THE SOIL USING A TRACTOR OR CULTIPACTOR. THE CULTIPACTOR SHALL BE SET TO SCARIFY THE SOIL TO AVOID PLACING THE SEEDS DEEPER THAN 1/8 INCH. FOR SMALL SITES. HAND RAKING IS ACCEPTABLE.

PAYMENT FOR THE ABOVE WILL BE MADE AT THE CONTRACT UNIT PRICE FOR FOR ITEM SPECIAL, WETLAND SEEDING.

ITEM SPECIAL. TEMPORARY CONSTRUCTION SIGN

CONTRACTOR SHALL FURNISH ALL EQUIPMENT, LABOR AND MATERIALS NECESSARY TO INSTALL THE TEMPORARY CONSTRUCTION SIGN AS PER PLAN. THIS ITEM INCLUDES ALL POSTS, SIGNS, SIGN GRAPHICS, INSTALLATION AND REMOVAL AS INDICATED ON THE DEMOLITION PLAN.

PAYMENT FOR THE ABOVE WILL BE MADE AT THE CONTRACT UNIT PRICE FOR FOR ITEM SPECIAL, TEMPORARY CONSTRUCTION SIGN.

ITEM SPECIAL. BALLFIELD DRAINAGE IMPROVEMENT

CONTRACTOR SHALL FURNISH ALL EQUIPMENT, LABOR AND MATERIALS NECESSARY TO PERFORM THE BALLFIELD DRAINAGE IMPROVEMENT AS PER PLAN. THIS ITEM INCLUDES GRADE PREPARATION, FURNISHING REQUIRED SOIL, FINE GRADING, AND CATCH BASINS RECONSTRUCTED TO GRADE FOR THE TWO SPECIFIED CATCH BASINS.

PAYMENT FOR THE ABOVE WILL BE MADE AT THE CONTRACT UNIT PRICE FOR FOR ITEM SPECIAL, BALLFIELD DRAINAGE IMPROVEMENT.

ITEM SPECIAL, INVASIVE SPECIES CONTROL

CONTRACTOR SHALL FURNISH ALL EQUIPMENT, LABOR, AND MATERIALS NECESSARY TO PERFORM INVASIVE SPECIES CONTROL OF ALL EXISTING WETLANDS AS PER PLAN. THIS ITEM INCLUDES ALL HERBICIDE TREATMENT AND DISPOSAL OF IDENTIFIED INVASIVE SPECIES INCLUDING, BUT NOT LIMITED TO, PHRAGMITES (PHRAGMITES AUSTRALIS) AND JAPANESE KNOTWEED (POLYGONUM CUSPIDATA).

USE GLYPHOSATE FORMULATIONS ONLY. CUT INVASIVE SPECIES AT WAIST-HEIGHT JUST BEFORE ONSET OF TASSEL STAGE. IMMEDIATELY SQUEEZE/INJECT 5 MIL OF 50% SOLUTION OF GLYPHOSATE INTO EACH INDIVIDUAL, FRESHLY-CUT STEM. SECURE ALL CUT PLANT MATERIAL; REMOVE FROM SITE AND DISPOSE OF PROPERLY. A 50% SOLUTION OF GLYPHOSATE EQUATES TO A ONE TO ONE MIX WITH DISTILLED WATER. AFTER 2 TO 3 WEEKS FOLLOWING APPLICATION OF GLYPHOSATE, CUT OR MOW DOWN THE STALKS TO SIMULATE THE EMERGENCE AND GROWTH OF OTHER PLANTS PREVIOUSLY SUPPRESSED. USE SPRAY BOTTLE FOR INDIVIDUAL FOLIAR SPOT TREATMENTS OR USE SWAB OR SYRINGE WITH LARGE GAUGE NEEDLE OR NALGENE UNITARY WASH BOTTLE (OR EQUIVALENT) TO APPLY 1-2 DROPS DIRECTLY TO CUT STEMS IF CUTTING IS DONE FIRST, OR CLOTH GLOVE APPLICATOR.

CAUTIONS:

THIS HERBICIDE IS NOT SELECTIVE (KILLS BOTH MONOCOTS AND DICOTS), THUS SHOULD BE APPLIED CAREFULLY TO PREVENT KILLING OF NON-TARGET SPECIES, ALL TANK MIXES SHOULD BE MIXED WITH CLEAN (IDEALLY DISTILLED) WATER BECAUSE GLYPHOSATE BINDS TIGHTLY TO SEDIMENTS, WHICH REDUCES TOXICITY TO PLANTS. DO NOT APPLY IN WINDY CONDITIONS BECAUSE SPRAY WILL DRIFT AND KILL OTHER PLANTS. DO NOT APPLY IF RAIN IS FORECASTED WITHIN 12 HOURS BECAUSE HERBICIDE WILL BE WASHED AWAY BEFORE IT CAN ACT.

DISPOSAL OF MATERIAL

ACCEPTABLE DISPOSAL METHODS CAN BE ONE OF THE FOLLOWING:

BURY -EXCAVATED SOIL CONTAINING INVASIVE PLANT MATERIAL SHALL BE BURIED EITHER IN AN EXCAVATED PIT OR FILL SECTION, COVERED WITH AT LEAST 4 FEET OF UNCONTAMINATED FILL MATERIAL (EG: EMBANKMENT IN PLACE, TOPSOIL, ETC.) SOIL CONTAINING INVASIVE PLANT MATERIAL SHALL NOT BE BURIED WITHIN 50 FEET OF A WATER BODY (INCLUDING WETLANDS).

PAYMENT FOR THE ABOVE WILL BE MADE AT THE CONTRACT UNIT PRICE FOR ITEM SPECIAL, INVASIVE SPECIES CONTROL.

ITEM SPECIAL. TUNNEL PLUG

CONTRACTOR SHALL FURNISH ALL EQUIPMENT, LABOR AND MATERIALS NECESSARY TO PERFORM THE TUNNEL PLUG AS PER PLAN. THIS ITEM INCLUDES ALL SITE PREPARATION, EXCAVATION, MASONRY CONSTRUCTION, AND LOW STRENGTH MORTAR FILL REQUIRED TO COMPLETELY PLUG THE TUNNEL AS PER PLAN.

PAYMENT FOR THE ABOVE WILL BE MADE AT THE CONTRACT UNIT PRICE FOR FOR ITEM SPECIAL. TUNNEL PLUG.

ITEM SPECIAL, INTERPRETIVE SIGN

CONTRACTOR SHALL FURNISH ALL EQUIPMENT, LABOR AND MATERIALS NECESSARY TO INSTALL THE INTERPRETIVE SIGN AS PER PLAN. THIS ITEM INCLUDES ALL ASSEMBLY AND INSTALLATION OF POST, SIGN AND SIGN GRAPHICS AS PER PLAN.

PAYMENT FOR THE ABOVE WILL BE MADE AT THE CONTRACT UNIT PRICE FOR FOR ITEM SPECIAL, INTERPRETIVE SIGN.

PROJECT

MORGANA BLUFFS NATURE PRESERVE PHASE 1

6114 BROADWAY AVENUE CLEVELAND, OH 44127





CLIENT

BOYS & GIRLS CLUBS OF CLEVELAND 6114 BROADWAY AVENUE

CONSULTANT

CLEVELAND, OH 44127

AECOM 1300 E. 9TH STREET, SUITE 500 CLEVELAND, OH 44114 216.622.2300 tel 216.622.2301 fax www.aecom.com

REGISTRATION

ISSUE/REVISION

•	0/11/2010	007011211021
2	6/28/2018	60% REVIEW SET
3	7/13/2018	90% REVIEW SET
4	7/26/2018	100% REVIEW SET
5	8/03/2018	100% BID SET

I/R DATE DESCRIPTION

1 6/14/2018 30% REVIEW SET

PROJECT NUMBER

60569397

SHEET TITLE

GENERAL NOTES

ITEM		SHEET NUMBERS				ı	GRAND	UNIT	DESCRIPTION	
	C100	C201	C202	L200	L201	L202		TOTAL		
201							201			0.5100.0
201	1						201	1	LS	CLEARING
202	1						202	1	LS	DEMOLITION
623	1						623	1	LS	CONSTRUCTION LAYOUT AND STAKING
SPECIAL	1						SPECIAL	1	LS	CONSTRUCTION FENCE
203							203	1000	CY	EXCAVATION
611		610					611	610	LF	12" CONDUIT, TYPE B
611		65					611	65	LF	12" CONDUIT, TYPE B, BORING
252		3					252	3	EA	MANHOLE
255		1					255	1	EA	CATCH BASIN
611		1					611	1	LS	MANHOLE, CATCH BASIN ADJUST TO GRADE
602		6					602	6	EA	PIPE CRADLE
607		1					607	1	LS	FENCING REPAIR
609		1					609	1	LS	CURB REPLACEMENT
611		30					611	30	SY	ASPHALT REPAIR
611		100					611	100	SF	CONCRETE WALK REPAIR
SPECIAL		1					SPECIAL	1	LS	BALLFIELD DRAINAGE IMPROVEMENT
SPECIAL			1				SPECIAL	1	EA	INTERPRETIVE SIGN
653				200			653	200	SY	SEEDING, LAWN
659					300		659	300	SY	SEEDING, NATIVE
659					1500		659	1500	SY	SEEDING, WETLAND
671					300		671	300	SY	EROSION CONTROL MATTING, TYPE C
SPECIAL			1				SPECIAL	1	LS	TEMPORARY CONSTRUCTION SIGN
SPECIAL						1	SPECIAL	1	LS	INVASIVE SPECIES CONTROL
SPECIAL			1				SPECIAL	1	LS	INTEPRETIVE SIGN
										BID ALTERNATES
612			1				612	1	10	TUNNEL DILLO
613			1	-	<u></u>		613	1	LS	TUNNEL PLUG DEC. TREE, 1" CAL., BETULA NIGRA
661			-	ļ	6		661	6	EA	
661					5		661	5	EA	DEC. TREE, 1" CAL., CELTIS OCCIDENTALIS
661					6		661	6	EA	DEC. TREE, 1" CAL., LIQUIDAMBAR STYRACIFLUA
661					6		661	6	EA	DEC. TREE, 1" CAL., PLATANUS OCCIDENTALIS
661					6		661	6	EA	DEC. TREE, 1" CAL., QUERCUS BICOLOR



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PROJECT NUMBER

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SHEET TITLE

BID TABULATION

SHEET NUMBER

G20



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MORGANA BLUFFS NATURE PRESERVE PHASE 1

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PROJECT NUMBER

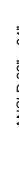
60569397

SHEET TITLE

EXISTING CONDITIONS PLAN

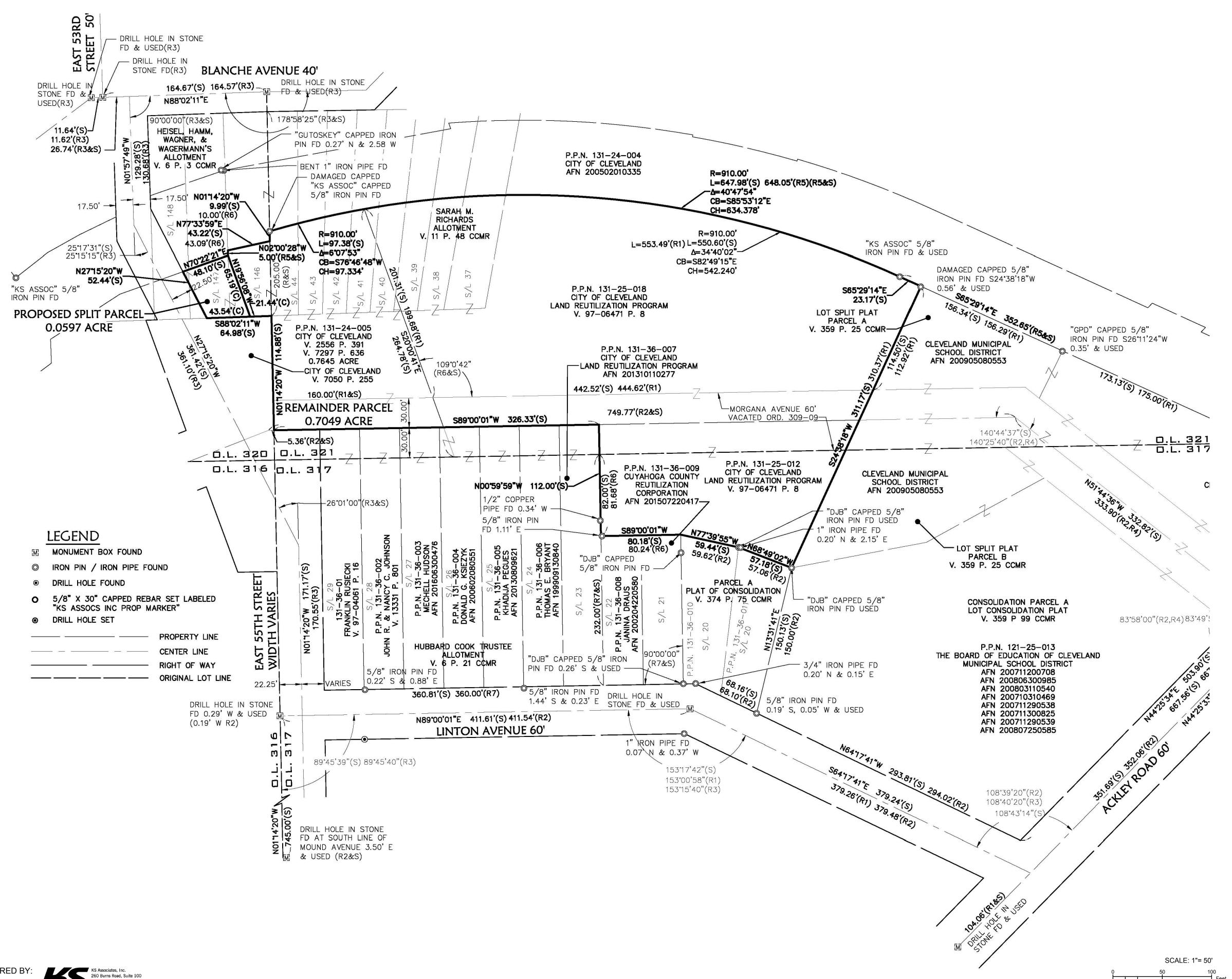
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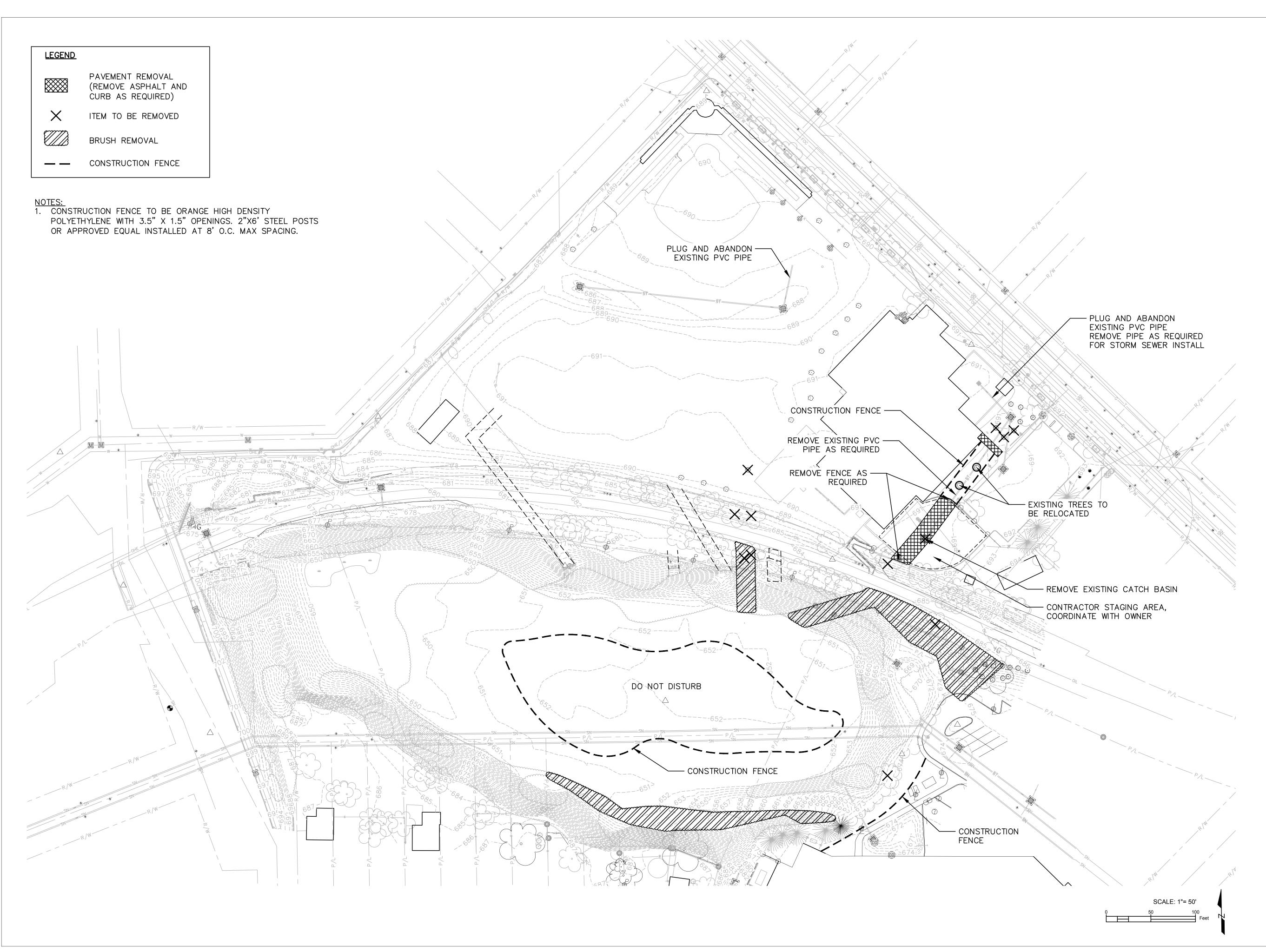
SHEET TITLE

PROPERTY PLAN

SHEET NUMBER









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I/R	DATE	DESCRIPTION

PROJECT NUMBER

60569397

SHEET TITLE

DEMOLITION AND CLEARING PLAN

SHEET NUMBER



MORGANA BLUFFS NATURE PRESERVE PHASE 1

6114 BROADWAY AVENUE CLEVELAND, OH 44127





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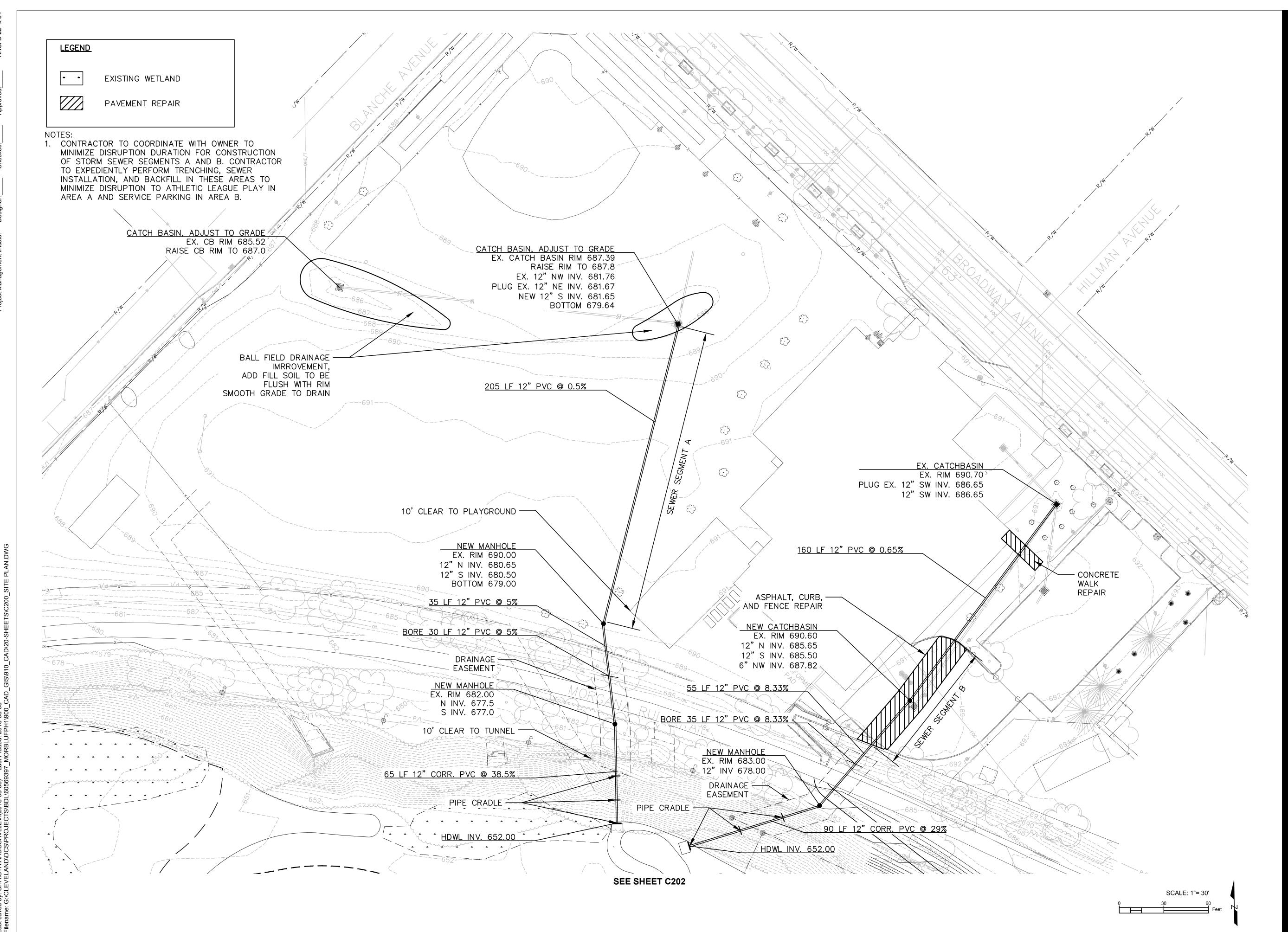
PROJECT NUMBER

60569397

SHEET TITLE

OVERALL SITE PLAN

SHEET NUMBER



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PROJECT

MORGANA BLUFFS NATURE PRESERVE PHASE 1

6114 BROADWAY AVENUE CLEVELAND, OH 44127





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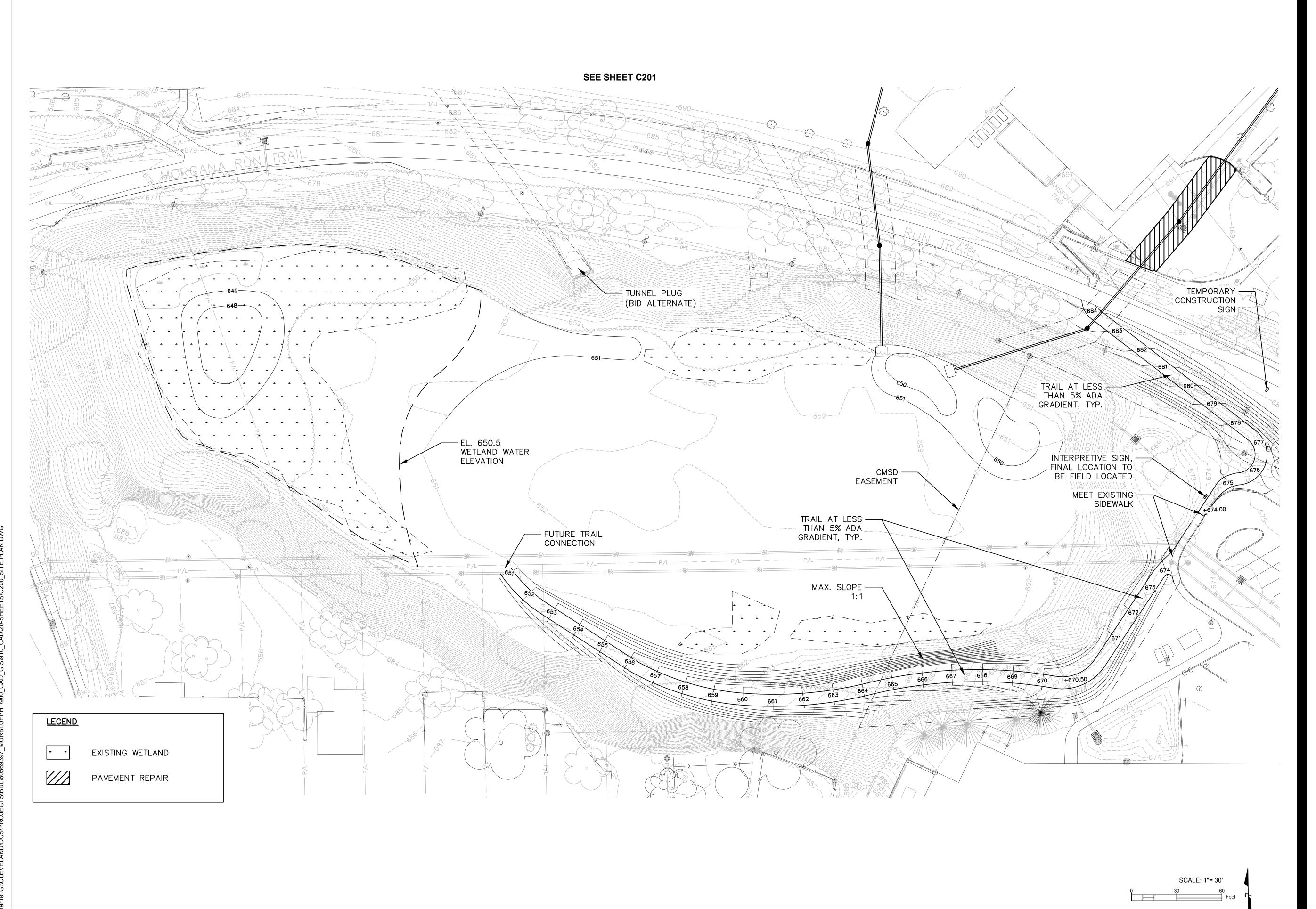
PROJECT NUMBER

60569397

SHEET TITLE

SITE PLAN (NORTH)

SHEET NUMBER



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PROJECT

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6114 BROADWAY AVENUE CLEVELAND, OH 44127





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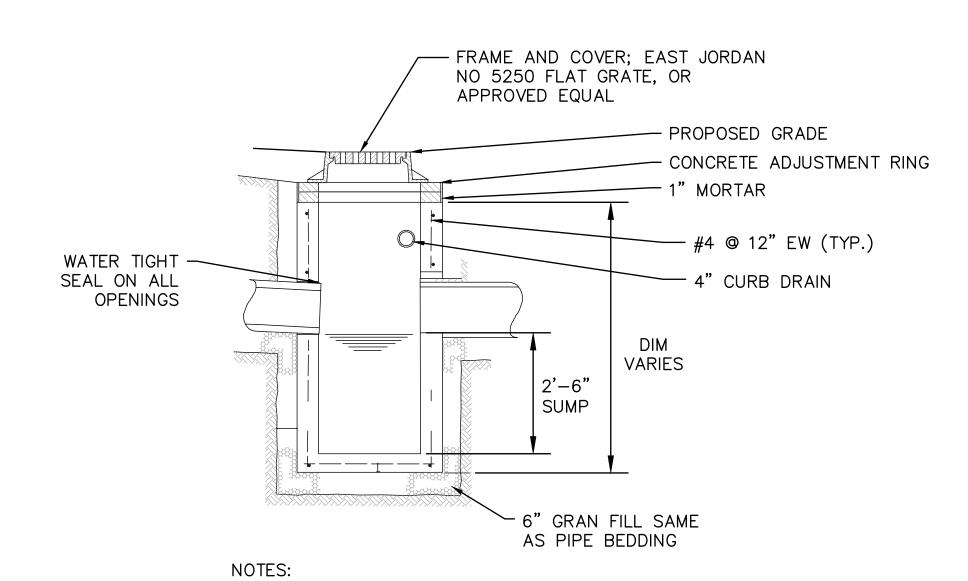
PROJECT NUMBER

60569397

SHEET TITLE

SITE PLAN (SOUTH)

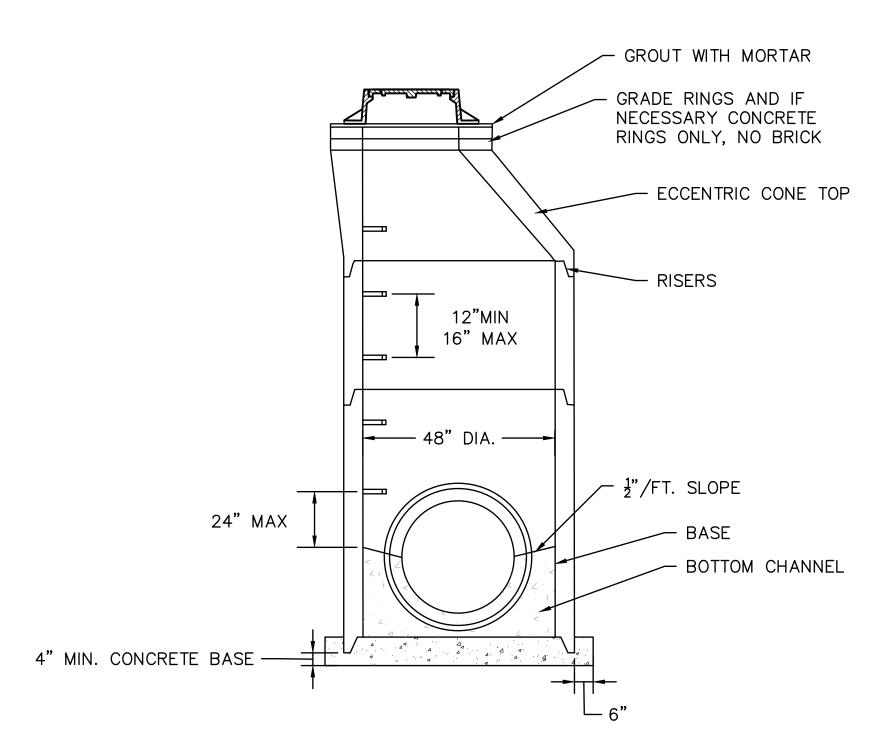
SHEET NUMBER



1. CATCH BASIN SHALL CONFORM TO ODOT CB

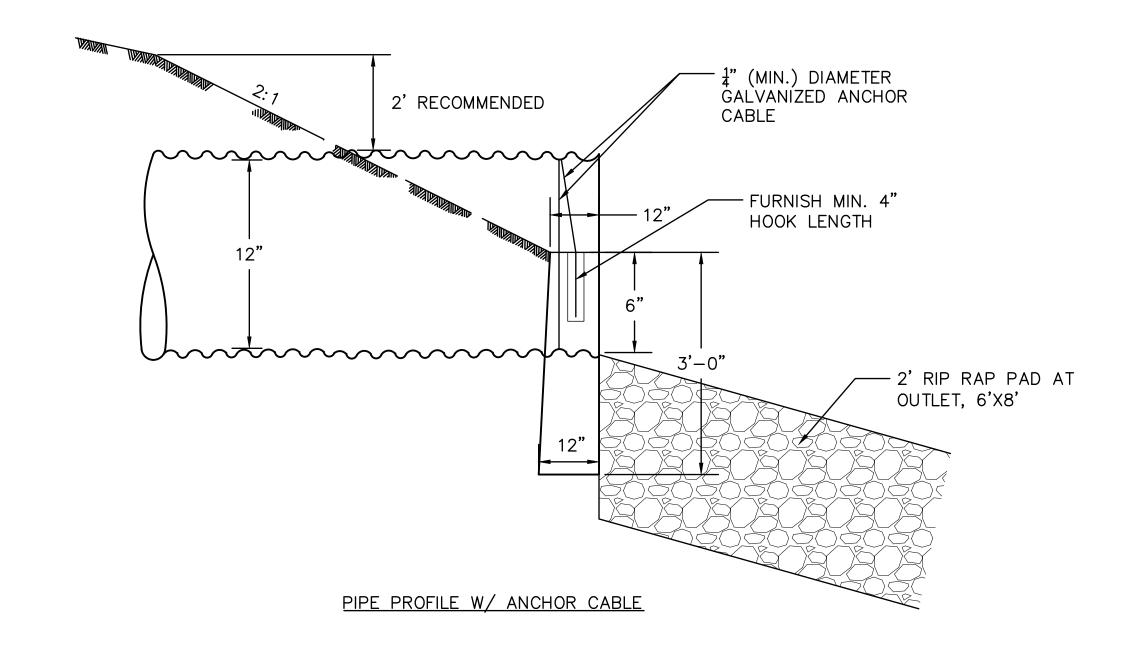
TYPE 2-2B

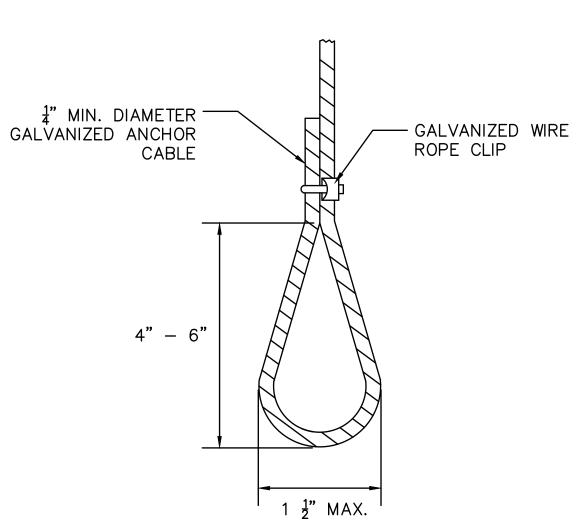
CATCH BASIN SCALE: NTS

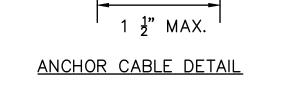


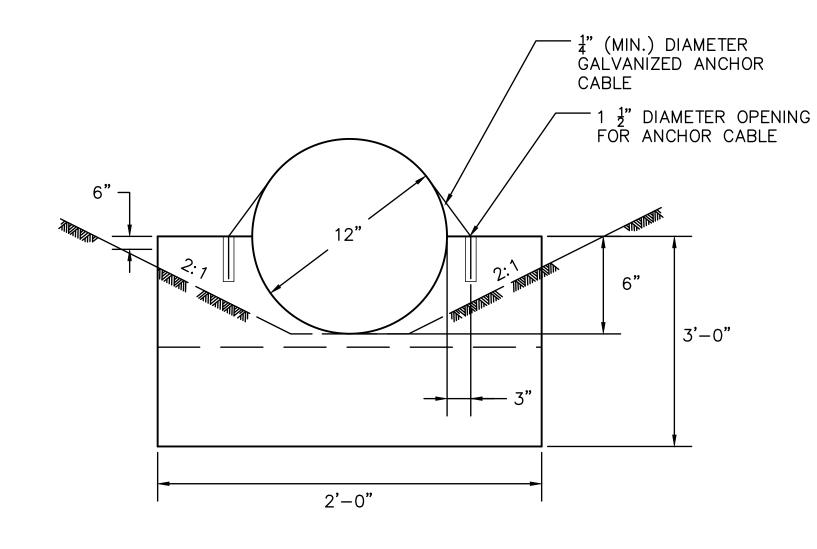
1. FRAME AND COVER: EAST JORDAN NO. 1040 WITH VENTED SOLID GRATE











PIPE END TREATMENT W/ ANCHOR CABLE

- NOTES:

 1. TIGHTLY WRAP GALVANIZED ANCHOR CABLE ONE TIME COMPLETELY AROUND CIRCUMFERENCE OF THE CONDUIT. FURNISH HOOK AT LEAST 4" LONG AT THE ENDS OF THE ANCHOR CABLES AS SHOWN.
- 2. CUT GALVANIZED ANCHOR CABLE TO LENGTH REQUIRED.
- 3. FORM OR DRILL 1 $\frac{1}{2}$ " DIAMETER OPENINGS FOR CABLE ANCHOR AT LOCATIONS SHOWN. 4. FILL ANY OPENINGS MADE FOR ANCHOR CABLES WITH GROUT AFTER THE CABLES ARE PLACED TO A TAUT FIT.
- 5. SECURE CABLES SUCH THAT THEY ARE TAUT AFTER THE GROUT OR CONCRETE HAS CURED.
- 6. USE 4000 PSI COMPRESSIVE STRENGTH FOR PIPE CRADLE.
- 7. GALVANIZED ANCHOR CABLE MUST MEET ASTM A 1023 FOR ANCHORING PLASTIC PIPE. WIRE ROPE CLIP MUST BE GALVANIZED ACCORDING TO ASTM A 153.



PIPE CRADLE

PROJECT

MORGANA BLUFFS NATURE PRESERVE PHASE 1

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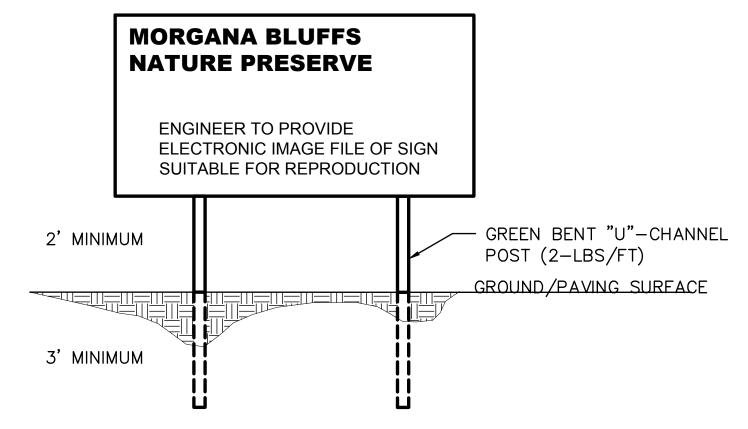
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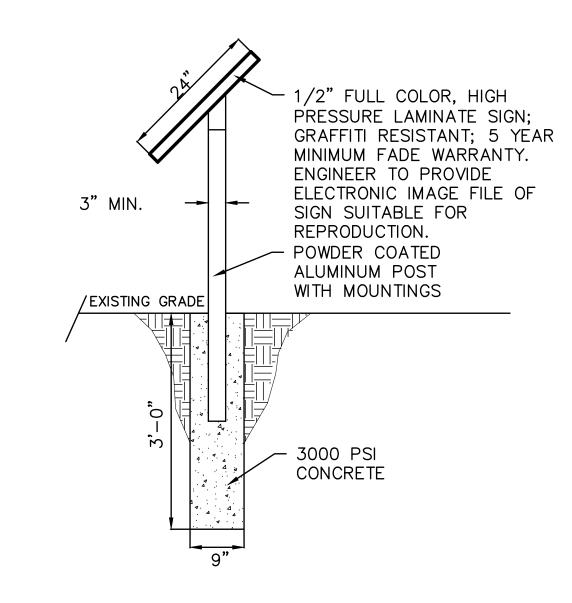
SHEET TITLE

SITE DETAILS



NOTES:

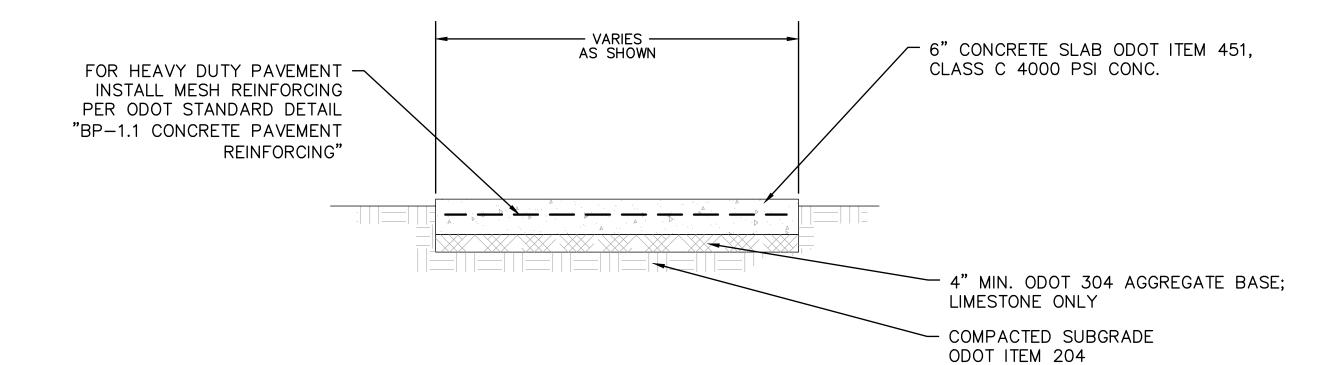
- 1. SIGN TO BE RAIN PROOF
- 2. CONTRACTOR TO REMOVE SIGN AT COMPLETION OF CONSTRUCTION
- 3. MINIMUM SIGN DIMENSIONS: (2'X4'X3/4") EXTERIOR MOUNTED TO PLYWOOD (A-B GRADE)



TEMPORARY CONSTRUCTION SIGN

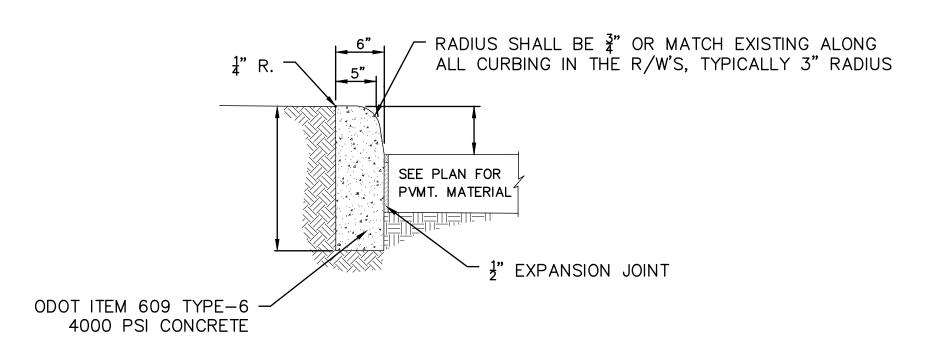
SCALE: NTS

INTERPRETIVE SIGN SCALE: NTS



- 1. MATCH EXISTING PAVEMENT IN KIND FOR MINIMUM PAVEMENT MATERIAL THICKNESS.
- 2. CROSS SLOPES FOR WALKS = 1/4" PER FOOT UNLESS OTHERWISE NOTED
- ON THE DRAWINGS.
- 3. INSTALL CONTRACTION JOINTS 6' ON CENTER MAX.
- 4. INSTALL EXPANSION JOINTS 30' ON CENTER MAX.
- 5. BROOM FINISH PERPENDICULAR TO SIDEWALK EDGE. TROWEL FINISH EDGES.

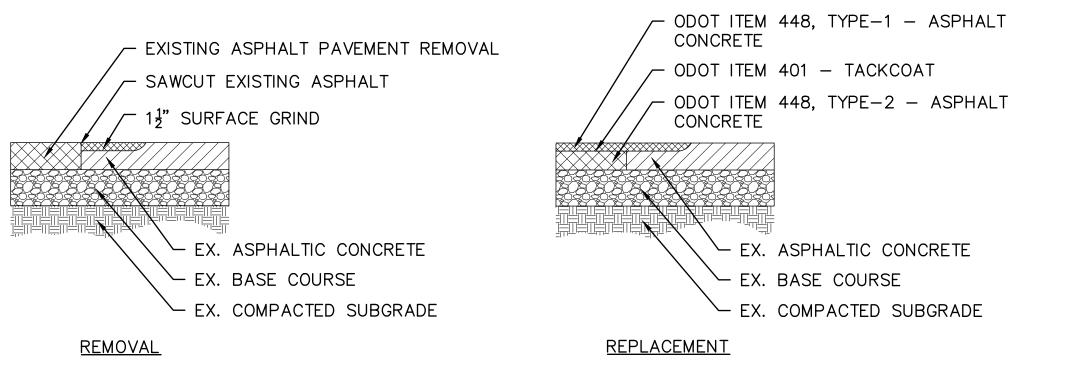
CONCRETE WALK REPAIR SCALE: NTS



JOINT SPACING

- 1" CONTRACTION JOINT AT 10'-0" O.C.
- 1" EXPANSION JOINT AT EVERY FIFTH JOINT

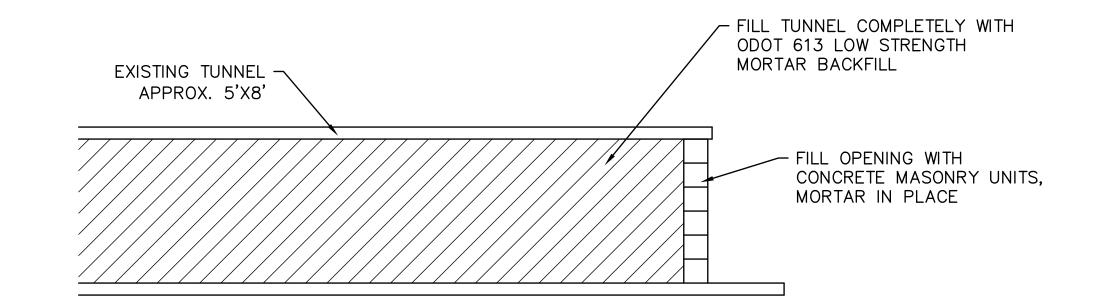


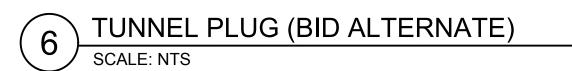


1. MATCH EXISTING PAVEMENT IN KIND FOR MINIMUM PAVEMENT MATERIAL THICKNESS.

ASPHALT REPAIR

SCALE: NTS





PROJECT

MORGANA BLUFFS NATURE PRESERVE PHASE 1

6114 BROADWAY AVENUE CLEVELAND, OH 44127





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BOYS & GIRLS CLUBS OF CLEVELAND 6114 BROADWAY AVENUE

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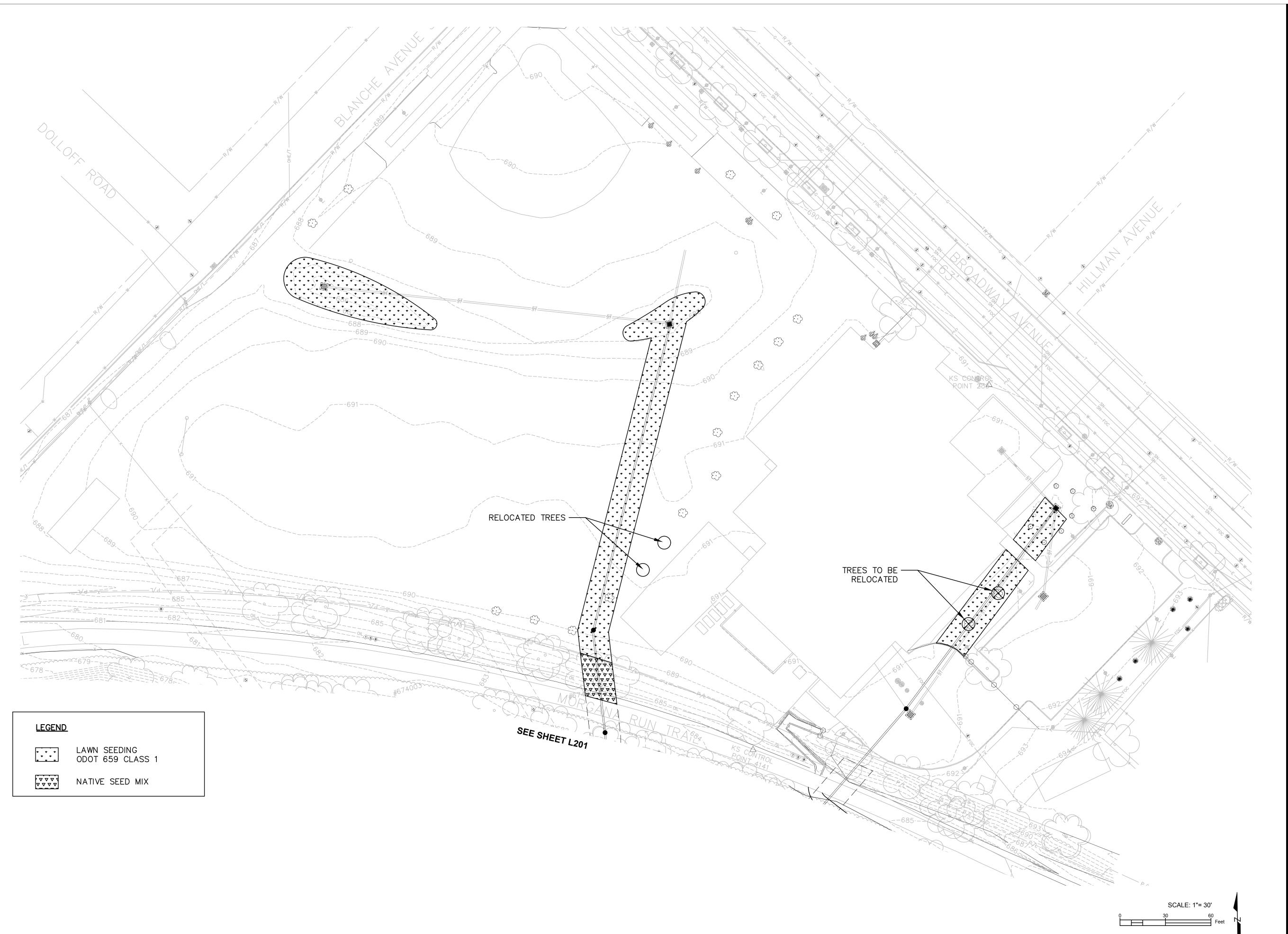
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SHEET TITLE

SITE DETAILS





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4	7/26/2018	100% REVIEW SET
5	8/03/2018	100% BID SET
I/R	DATE	DESCRIPTION

PROJECT NUMBER

60569397

SHEET TITLE

PLANTING PLAN (NORTH)

SHEET NUMBER

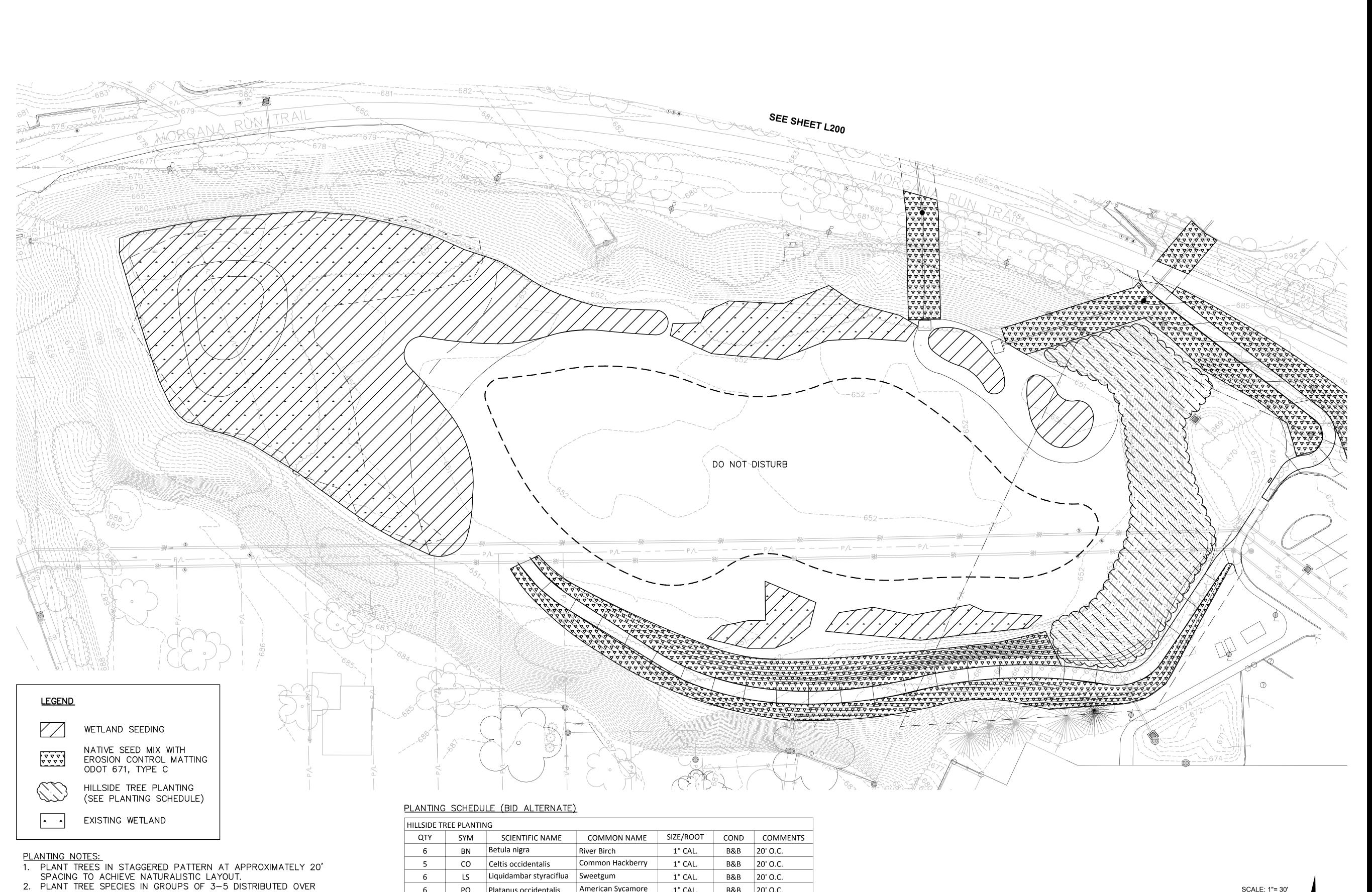
1 200







PLANTING AREAS.



PO Platanus occidentalis

Quercus bicolor

American Sycamore

Swamp White Oak

1" CAL.

B&B 20' O.C.

B&B 20' O.C.

AECOM

PROJECT

MORGANA BLUFFS NATURE PRESERVE PHASE 1

6114 BROADWAY AVENUE CLEVELAND, OH 44127





CLIENT

BOYS & GIRLS CLUBS OF CLEVELAND

6114 BROADWAY AVENUE CLEVELAND, OH 44127

CONSULTANT

AECOM 1300 E. 9TH STREET, SUITE 500 CLEVELAND, OH 44114 216.622.2300 tel 216.622.2301 fax www.aecom.com

REGISTRATION

ISSUE/REVISION

1	6/14/2018	30% REVIEW SET
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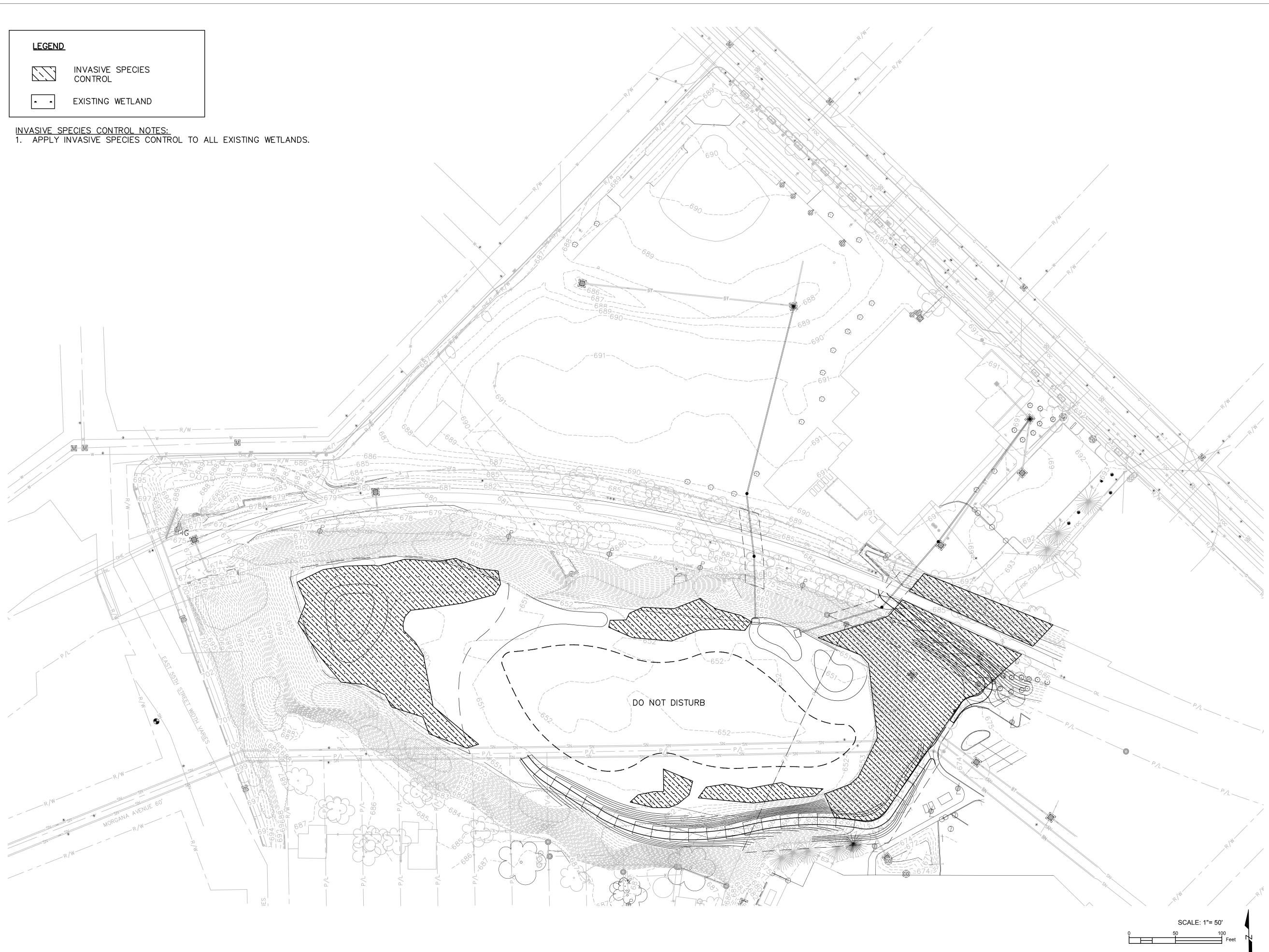
PLANTING PLAN (SOUTH)

SHEET NUMBER

SCALE: 1"= 30'









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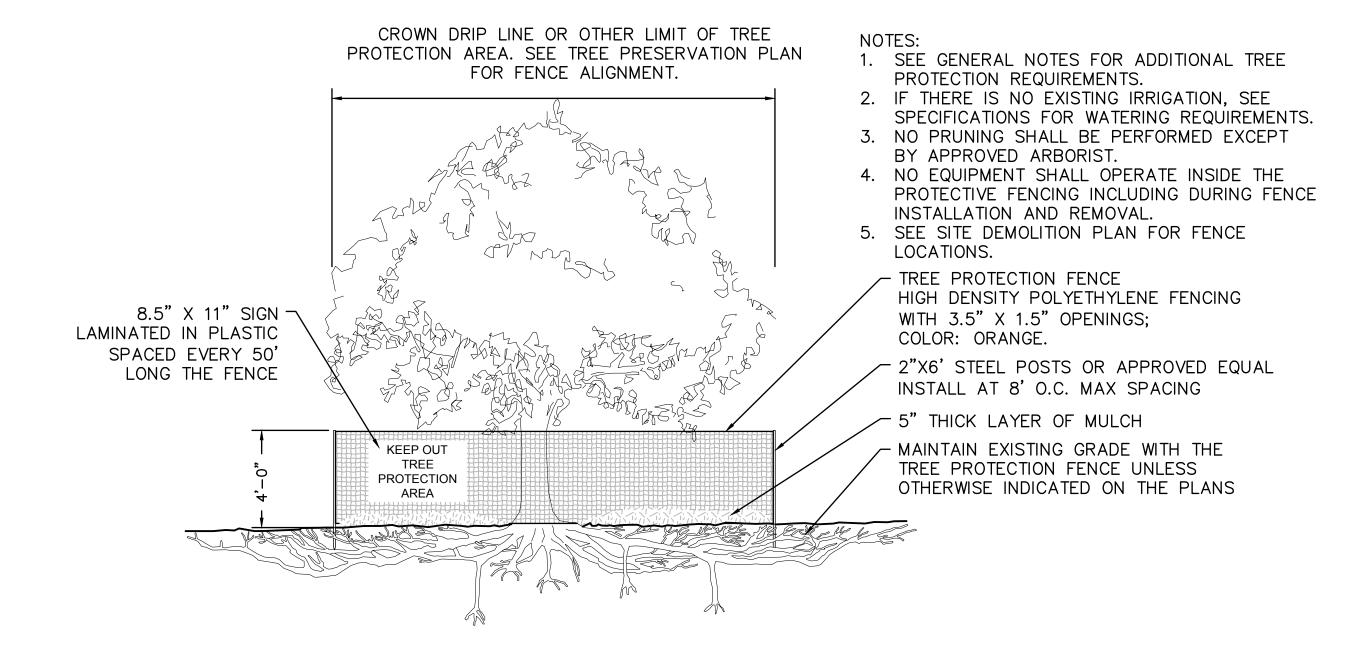
60569397

SHEET TITLE

INVASIVE SPECIES REMOVAL PLAN

SHEET NUMBER

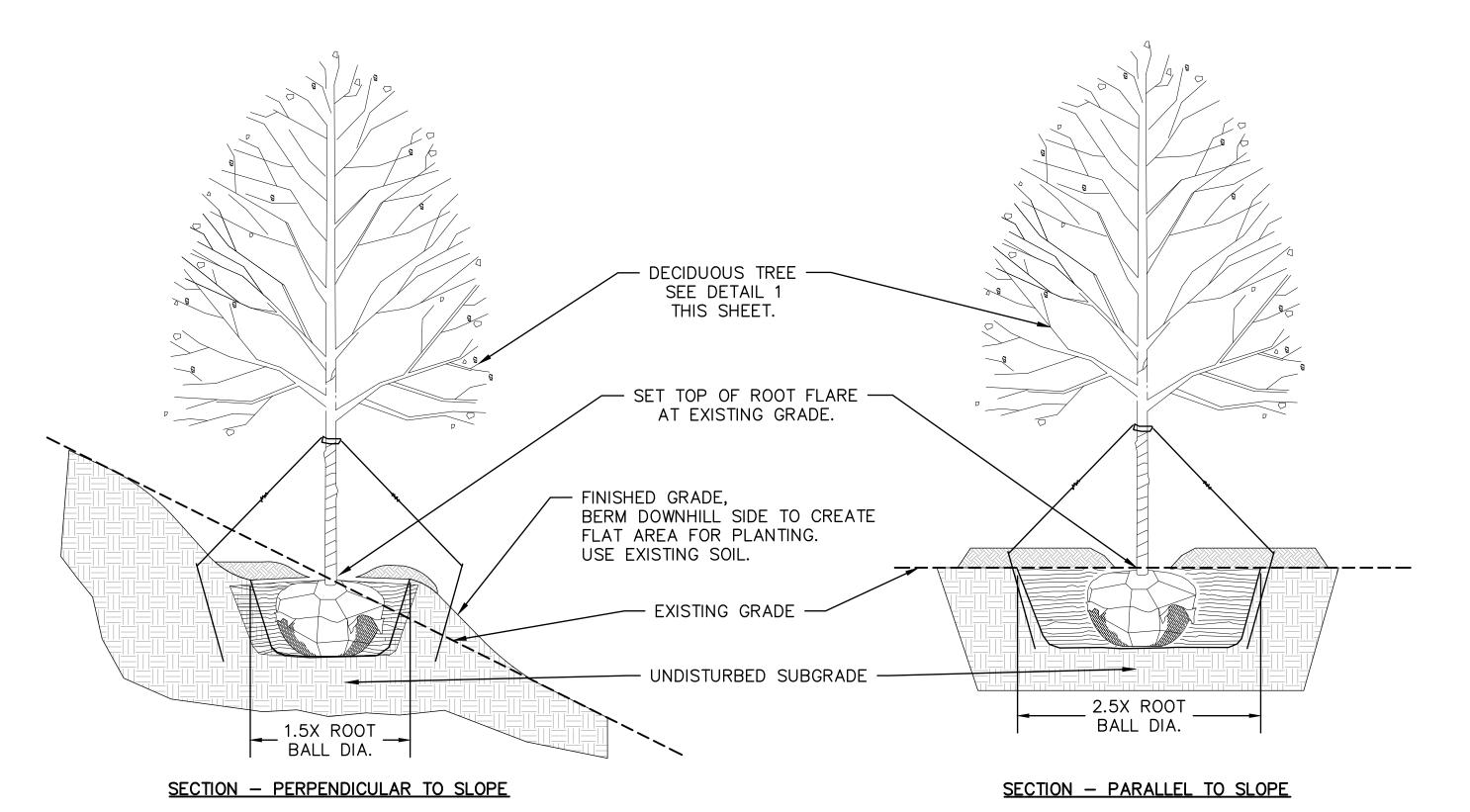
1 202



TREE PROTECTION FENCE SCALE: NTS

DECIDUOUS TREE: DO NOT PRUNE IN FIRST YEAR UNLESS TO REMOVE CROSSED OR BROKEN BRANCHES. PRUNING TO BE PERFORMED BY A CERTIFIED ARBORIST. -RUBBER HOSE AT BARK -SET BALLED AND BURLAPPED OR CONTAINER STOCK PLUMB IN PLANTING PIT WITH ROOT FLARE 2 INCHES ABOVE ADJACENT FINISHED GRADES. TURNBUCKLE (3) GALVANIZED OR DIP-PAINTED ✓ GUY WIRES (3) WHITE FLAG ON EACH TO INCREASE VISIBILITY. FINISHED GRADE PLACE 3" OF SHREDDED HARDWOOD SLOPE AWAY BARK MULCH AND LEAF COMPOST FROM TRUNK (50/50 MIX) AROUND ALL TREES. BASE OF TRUNK REMAINS EXPOSED. -REMOVE CORDS AND PULL BACK BURLAP AND WIRE FROM TOP 1/3 OF BALL SCARIFIED SOIL -(3) WOOD DEADMEN 2 X BALL DIA. -∽FERTILIZER TABLET -EXTENT OF EXCAVATION, BACKFILL WITH TOPSOIL → 5 FT. DIAMETER MULCH RING → → `—UNDISTURBED SUBGRADE

DECIDUOUS TREE PLANTING (BID ALTERNATE) SCALE: NTS



DECIDUOUS TREE PLANTING ON SLOPE (BID ALTERNATE) SCALE: NTS



PROJECT

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I/R DATE DESCRIPTION	5	8/03/2018	100% BID SET
I/R DATE DESCRIPTION			
	I/R	DATE	DESCRIPTION

PROJECT NUMBER

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SHEET TITLE

PLANTING DETAILS

