

ENGINEERS SURVEYORS

March 1, 2023

City of Columbus, Division of Sewerage & Drainage Attn: Mr. Greg Fedner, P.E. Private Development Section Manager 910 Dublin Road Columbus, Ohio 43215

Subject: Hidden Creek Landscaping Development

Type III Variance from Stormwater Drainage Manual

Dear Greg,

On behalf of Hidden Creek Landscaping, Advanced Civil Design, Inc. is applying for a Type III variance from the Columbus Stormwater Drainage Manual (SWDM) for private site improvements performed on the property which affected an existing jurisdictional watercourse and stream corridor protection zone. The project site is partially located within the stream corridor protection zone (SCPZ) for an existing jurisdictional watercourse tributary to the Scioto River. The property is owned and operated as an existing commercial landscape business. The Type III variance is being submitted to mitigate recent earthwork operations that displaced a portion of the existing watercourse and SCPZ that exists on the site.

The following information is provided in support of the application:

-Project Name: Hidden Creek Landscaping

-Address, PID, Site Disturbance

and Total Site Area:

Address: 3940 Scioto Darby Creek Rd, Hilliard, OH 43026

PID: 560-162435 & 560-162430

Total Site Area: 9.53 acres

-Date Property Acquired: N/A

-Primary (Owner) Contact: Hidden Creek Landscaping

Attn: Jason Cromley, Owner 3940 Scioto Darby Creek Rd,

Hilliard, OH 43026

(614) 779-0846; jc@2thecreek.com

Additional information pertaining to the requested variance is included in the enclosed application document. Please contact me with any questions you may have at (614) 329-5474, or by email at dstorck@advancedcivildesign.com.

Sincerely,

David Storck / Project Manager

HIDDEN CREEK LANDSCAPING

3940 SCIOTO DARBY CREEK RD, HILLIARD, OH

STORMWATER DRAINAGE MANUAL TYPE III VARIANCE APPLICATION

Prepared By:



ENGINEERS & SURVEYORS
781 SCIENCE BOULEVARD – SUITE 100
GAHANNA, OHIO 43230
Ph: 614-428-7750

Fax: 614-428-7755

Date:

June 10, 2023



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INTRODUCTION

The following report provides information pertaining to a requested variance from the City of Columbus Stormwater Drainage Manual for the Hidden Creek Landscaping commercial property. The property is located at 3940 Scioto Darby Creek Rd in Columbus. The overall development boundary consists of two separate parcels (560-162435 & 560-162430) with an overall acreage of 9.53 acres. The site development boundary is encroached by a 75 foot wide Stream Corridor Protection Zone (SCPZ) established under City of Columbus Storm Permit Plan CC16436. The SCPZ is for an existing jurisdictional watercourse tributary to the Scioto River that drains west to east and crosses diagonally in a northwest/southeast orientation approximately 215 feet inside the northeastern property corner.

The SCPZ diagonally crosses the northeast property corner, reducing the connectivity of usable acreage and limiting access and maneuverability for the commercial function of the site. As such, the applicant is seeking a Type III variance per the 2021 City of Columbus Stormwater Design Manual (SWDM) to allow the existing jurisdictional watercourse and SCPZ to be relocated and consolidated along the northeastern and eastern edges of the property boundary. The area of SCPZ effected is proposed to be mitigated through a dedicated conservation easement equal to the area of SCPZ removal, and the watercourse restored to a natural habitat condition using the guidance of the Columbus Stormwater Design Manual (SWDM) and engineering design references.

TYPE III VARIANCE REQUEST

EXISTING SITE CONDITIONS

The property is an existing commercial landscaping business on an overall 9.53-acre site. The site consists of a main office building with paved main parking lot, access drive and concrete sidewalks along the southern portion of the property boundary with frontage along Scioto Darby Creek Road. The site area north of the main office consists of asphalt pavement, concrete pads and gravel surface areas utilized for equipment and material storage including several sheds and material storage bins. An existing jurisdictional watercourse tributary to the Scioto River, flowing west to east, crosses the overall site area diagonally in a northwest/southeast orientation approximately 215 feet inside the northeastern property corner. A Primary Headwater Habitat Evaluation was performed on the southern end of the jurisdictional watercourse categorizing the resource as Modified Class II PHWH (Intermittent) HHEI 59. See Appendix A and Table 1.

Table 1: Existing Stream Summary Data

	Existing Jurisdictional
	Watercourse (S. of Culvert)
OEPA Aquatic Life Use Design	Not Listed
OEPA HHEI/QHEI Score	59 (HHEI)
Stream Gradient (%)	0.54
Average Bank Full Width	7′-1″
Width to Depth Ratio	10.76
Sinuosity	0.0
Rosgen Stream Type	E6b
Drainage Area (sq mi)	0.94

PROJECT BACKGROUND

The site was redeveloped in 2013 under City of Columbus Storm Permit plan CC16436. The subject jurisdictional watercourse remained primarily undisturbed except for the installation of a 6" water quality outlet pipe associated with the new onsite stormwater management system under CC16436. The undisturbed jurisdictional area included an existing 30" pipe culvert crossing the jurisdictional watercourse, which was left in place for its continued use to access the northeast corner of the overall property boundary. The onsite portion of the jurisdictional watercourse was preserved within a 75 foot wide (centered on the watercourse) SCPZ, utilizing the stream characteristics and drainage area calculations submitted and approved under the stormwater permit plan, CC16436.

VARIANCE APPLICATION PURPOSE

In early 2022, the property owner prepared business expansion plans and submitted a preliminary site compliance plan (PSCP 22601-00009) to the City of Columbus Building and Zoning Services Department. The new development plans propose to add new indoor storage buildings, along with access drives and parking areas. As part of the City divisional reviews of PSCP plan, the Division of Sewers and Drains (DOSD) compared the current permit plan CC16436 against the existing conditions plan included in the PSCP application and noted that approximately 110'+/- lineal foot of the SCPZ and jurisdictional watercourse had been filled and the existing 30" culvert pipe extended.

As part of the review comments to the PSCP application, the Division of Sewers and Drains is requiring that the SCPZ be restored to the conditions shown on the permit plan CC16436 or mitigate the jurisdictional watercourse and SCPZ modifications under a Type III stormwater variance application and separate stormwater management plan permit, to be submitted upon approval of the variance.

STORMWATER BMP'S

The site was last developed in 2013 under City of Columbus record storm sewer and grading plan CC16436. This plan provided post-construction stormwater quantity and quality controls to meet the requirements of the relevant edition of the City of Columbus Stormwater Manual for the entire site area. The stormwater design under CC16436 includes the tributary area of the proposed SCPZ removal under this variance request, as reflected in the record plan tributary data. Additional permanent stormwater quantity and quality controls for the jurisdictional watercourse relocation and the required temporary controls for physical construction of the watercourse relocation will be detailed in a subsequent Stormwater permit plan submittal.

SITE DEVELOPMENT ALTERNATIVES

FULL COMPLIANCE (NO IMPACT)

SCOPE

Under full compliance the existing 30" culvert pipe would be completely removed from the jurisdictional watercourse and the limits within the SCPZ completely restored to original conditions prior to 2013. The restoration efforts would primarily involve reestablishing the jurisdictional watercourse along the limits of the removed 30" culvert pipe. Refer to the "Full Compliance" Exhibit 1 in the Exhibit Section of this application.

COMMERCIAL/SOCIAL IMPACTS

Per this alternative, access to the northeast corner would be completely severed from the rest of the commercial property. The usable area lost is 1.03 acres or 10.8% of the total site area. The reduction of the

usable site area would create a hardship for the desired business expansion goals, functionality of the site and the continued growth of the landscape business and projected future employment base. To meet the development goals, the Owner would be forced to look at either acquiring adjacent properties or relocating the entire business out of the City of Columbus to a more suitable site. Both options would create a strain on the current business model and financial investments to gain additional operational area.

IMPACTS TO SCPZ AND WATER QUALITY

To restore the SCPZ back to its original condition, the immediate impact to water quality would be the disturbance required for the removal of the 30" culvert pipe, gravel surface removal, earthwork and grading required to reestablish the stream bed and bank slopes. The area of disturbance required is approximately 0.50 acres and involves 200+/- feet of stream bed restoration. Temporary BMPs will be utilized during the construction to treat sediment laden run-off through the use of sediment fencing, straw wattles and rock check dams within the stream route. Upon final grading, stabilization, and establishment of vegetation within the SCPZ, post-construction impacts to water quality will be zero with final conditions being equal to or better than the original conditions prior to initial disturbance.

To address the impact to the SCPZ, the watercourse channel and embankments will be restored to the original conditions prior to placement of the culvert pipe. The water course will be restored to the same characteristics as summarized in the Primary Headwater Habitat Evaluation (Appendix A) regarding sinuosity, substrate, riparian width, pool depth and bank full width. Detailed design plans will be submitted for review to ensure the mitigation meets the environmental characteristics of the existing undisturbed downstream watercourse.

The number of trees removed for the 30" culvert extension has been estimated based on examination of historical site photos and shown on the "Full Compliance" exhibit in the Exhibit Section of this application. There were approximately 6- 12" trees that were removed along the jurisdictional watercourse, in addition to small saplings and overgrown brush of mostly nuisance/invasive species. As part of the SCPZ restoration the equivalent total caliper inches (72") of the 6-12" trees previously removed shall be replaced within the restoration limits using a minimum of 2" caliper replacement trees. Detailed landscape plans will be submitted for review for the selected development alternative.

MINIMAL IMPACT

SCOPE

For minimal impact, the gravel drive crossing, a portion of the existing 30" culvert pipe (prior to the extension after 2017) and limits of the SCPZ would be reverted and restored back to the original conditions shown on the current stormwater permit drawing CC16436. Refer to the "Minimal Impact" Exhibit 2 in the Exhibit Section of this application.

COMMERCIAL/SOCIAL IMPACTS

Per this option the northeast corner of the site would be left in a limited to unusable state due to the SCPZ encroachment area and protection requirements of the SCPZ. Access would be limited to the small length of 30" pipe culvert as a ditch crossing to reach the northeast property corner. Under this alternative, the reduced usable site area creates a hardship for the desired expansion goals, functionality of the site and the continued growth of the landscape business and projected future employment base. To meet the development goals, again, the Owner would be forced to look at either acquiring adjacent properties or relocating the entire business to a more suitable site. Both options would create a strain on the current business model and financial investments to simply gain additional operational area.

IMPACTS TO SCPZ AND WATER QUALITY

To restore the SCPZ back to its original condition, the immediate impact to water quality would be the disturbance required for the removal of the 30" culvert pipe, gravel surface removal, earthwork and grading required to reestablish the stream bed and bank slopes. The area of disturbance required is approximately 0.50 acres and involves 110+/- feet of stream bed restoration and original culvert limits. Temporary BMPs will be utilized during the construction to treat sediment laden run-off through the use of sediment fencing, straw wattles and rock check dams within the stream route. Upon final grading, stabilization, and establishment of vegetation within the SCPZ, post-construction impacts to water quality will be zero with final conditions being equal to or better than the original conditions prior to initial disturbance.

To address the impact to the SCPZ, the watercourse channel and embankments will be reestablished to the original conditions prior to placement of the culvert pipe extension and the original 30" culvert depicted under record storm plan CC16436. The water course will be restored to the same characteristics as summarized in the Primary Headwater Habitat Evaluation (Appendix A) regarding sinuosity, substrate, riparian width, pool depth and bank full width. Detailed design plans will be submitted for review to ensure the mitigation meets the environmental characteristics of the existing undisturbed downstream watercourse.

The number of trees removed for the 30" culvert extension has been estimated based on examination of historical site photos and shown on the "Minimal Impact" exhibit in the Exhibit Section of this application. There were approximately 6- 12" trees that were removed along the open drainage course, in addition to small saplings and overgrown brush of mostly nuisance/invasive species. As part of the SCPZ restoration the equivalent total caliper inches (72") of the 6-12" trees previously removed shall be replaced within the restoration limits using a minimum of 2" caliper replacement trees. Detailed landscape plans will be submitted for review for the selected development alternative.

PREFERRED DEVELOPMENT

SCOPE

The preferred development alternative is to completely relocate the portion of the jurisdictional watercourse that currently crosses the site diagonally, into a consolidated zone adject to the northern and eastern property lines while fulfilling the overall project needs and maximizing developable land on the Site. Proposed impacts for this alternative would include 330 linear feet of jurisdictional stream habitat. Impacts to the noted feature would take place in the form of relocation/restoration of on-site watercourse which would occur within the boundaries of the Site. Impacts to the existing on-site watercourse, associated SCPZ, and discussion related to water quality and quantity are previously referenced under the Full-Compliance and Minimum Impact sections of this variance application, although the complete relocation will affect 0.85 acres of the existing SCPZ. A site plan depicting the proposed layout of the Preferred Impact Development including the proposed stream relocation and associated SCPZ is provided in "Preferred Development" Exhibit 3 in the Exhibit Section of this application.

COMMERCIAL/SOCIAL IMPACTS

As summarized, selection and implementation of the Minimal Impact Development Plan would provide economic and business development benefits, although not nearly as substantial as the anticipated benefits of the Preferred Development Plan:

- Creation of permanent jobs associated with operation of the proposed logistics facilities including associated local, state, and federal payroll tax income.
- Creation of temporary construction jobs including local, state, and federal payroll tax income.
- Supplemental job creation and support for skilled trade positions such as laborers, operators, and landscapers.
- Increased long-term overall water quality improvements once streams are relocated and restored with beneficial channel substrate, stream bank stabilization measures, and riparian area plantings.
- Surrounding area/local community retail sales and associated tax income related to permanent and temporary work on-site who will either relocate permanently or temporarily to the nearby area and spend portions of their incomed on housing, vehicle fuel, meals, retail purchases, etc.

The Preferred Impact Development Plan is anticipated to result in the desired business expansion goals, functionality of the site and the continued growth of the landscape business and a projected future employment base compared with the No Impact and Minimal Impact Development Plan alternatives.

IMPACTS TO SCPZ AND WATER QUALITY / WATERCOURSE RELOCATION

To relocate the jurisdictional watercourse and mitigate the SCPZ, the immediate impact to water quality would be the disturbance required for the earthwork and grading required to reestablish the stream bed, embankment slopes and peripheral areas within the SCPZ mitigation area. The area of disturbance required is approximately 1.13 acres and involves 718+/- feet of jurisdictional watercourse relocation / stream bed restoration, bank construction and general stabilization of all areas of disturbance. Temporary BMPs will be utilized during the construction to treat sediment laden run-off using sediment fencing, straw wattles and rock check dams within the stream route. Upon final grading, stabilization, and establishment of vegetation within the SCPZ, post-construction impacts to water quality will be zero with final conditions being equal to or better than the original conditions prior to initial disturbance.

The Preferred Impact Development Plan will result in approximately 480 linear feet of jurisdictional intermittent stream habitat impact. As compensation for the proposed on-site stream impact, the existing stream is proposed to be relocated, which will yield approximately 718 linear feet of open stream channel. This results in a net gain of approximately 238 linear feet of open stream channel. The relocated stream portions will be designed using natural stream design principles and the SCPZ will be re-established along the relocated stream segments to compensate for proposed impacts to the existing SCPZ. The newly established SCPZ will result in approximately 1.13 acres total, yielding a net gain of 0.28 acres over the existing SCPZ acreage of 0.85 acres. As the existing on-site stream channel generally exhibits modified warm water habitat characteristics due to historical impacts resulting in channelization, limited stream channel substrate, limited flow and stream channel habitat (no defined riffle/run or pool habitat) and a limited stream riparian corridor, the relocation and restoration of the stream onsite is anticipated to result in significant habitat improvements which will aid and benefit the surrounding and downstream area watershed by improving water quality and habitat. These improvements will increase the diversity of habitat for aquatic macroinvertebrates, fish, and amphibians which is generally lacking in the existing stream channel.

As previously mentioned, the estimated number of trees removed is based on examination of historical site photos and shown on the "Minimal Impact" exhibit in the Exhibit Section of this application. There were approximately 6-12" trees that were removed along the open drainage course, in addition to small saplings

and overgrown brush of mostly nuisance/invasive species. As part of the SCPZ restoration, at a minimum the equivalent total caliper inches (72") of the 6-12" trees previously removed shall be replaced within the restoration limits using a minimum of 2" caliper replacement trees. Detailed landscape plans will be submitted for review for the selected development alternative. It is anticipated the number of trees to be planted will be significantly larger than the equivalent of trees removed due to relocated watercourse being longer in length than the existing condition.

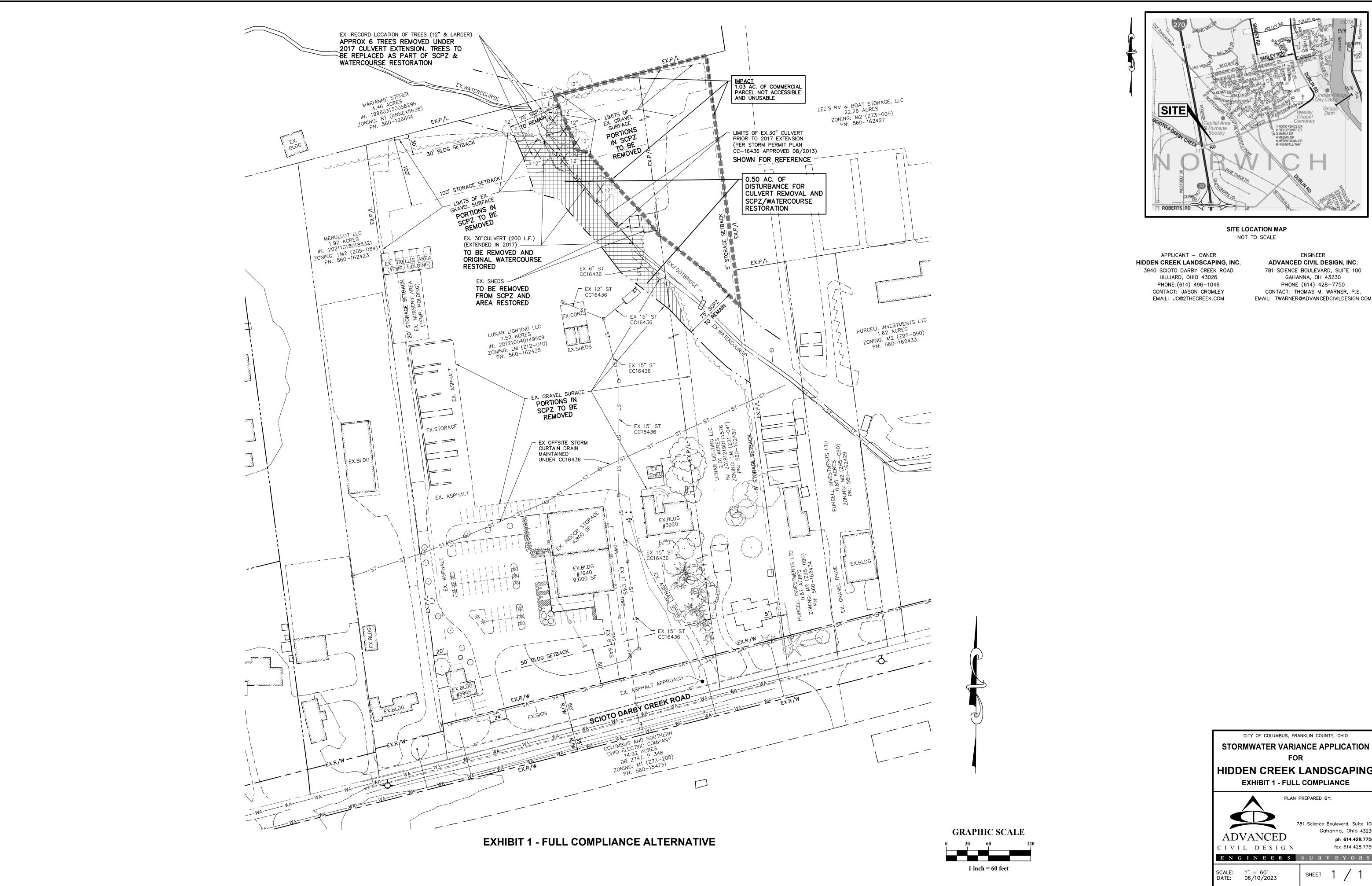
Due to the substantial amount of invasive/non-native species coverage within the existing SCPZ, such as honeysuckle (Lonicera spp.), giant reed (Typha angustifolia) and cattail (Typha spp.), the reforestation and replanting of the proposed relocated SCPZ is anticipated to improve the overall woody and non-woody plant species diversity and abundance within the Site.

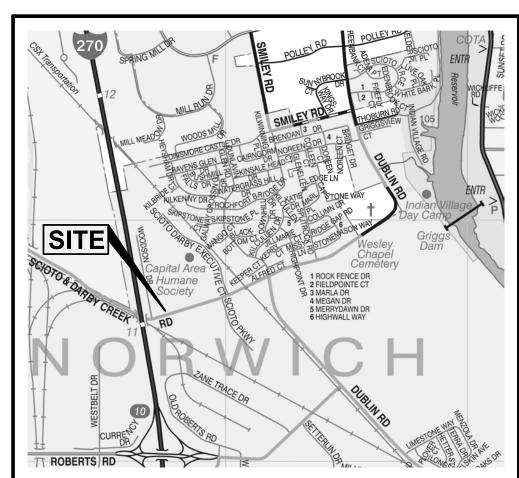
A conservation easement will be placed on the SCPZ of the relocated stream that name the City of Columbus as the Grantee. The conservation easement will be placed on the entire 1.13 acres of newly established SCPZ.

CONCLUSIONS

The Applicant is seeking approval of the Preferred Development Alternative as a Type III variance for the Hidden Creek Landscaping property. The variance would allow a portion of an existing jurisdictional watercourse to be relocated and the SCPZ mitigated on-site with the main goal being to expand and consolidate the usable area for the property and the commercial business functions. Three alternatives have been provided to address the matter, as required by the SWDM for a Type III variance application. The Applicant considers the Preferred Development Alternative option as the most feasible for functionality and ability to properly preserve the last natural area of the SCPZ and tributary drainage shed before entering fully developed areas downstream of the subject property.

EXHIBITS





SITE LOCATION MAP

ADVANCED CIVIL DESIGN, INC. 781 SCIENCE BOULEVARD, SUITE 100 GAHANNA, OH 43230 PHONE (614) 428-7750 CONTACT: THOMAS M. WARNER, P.E. EMAIL: TWARNER@ADVANCEDCIVILDESIGN.COM

ENGINEER

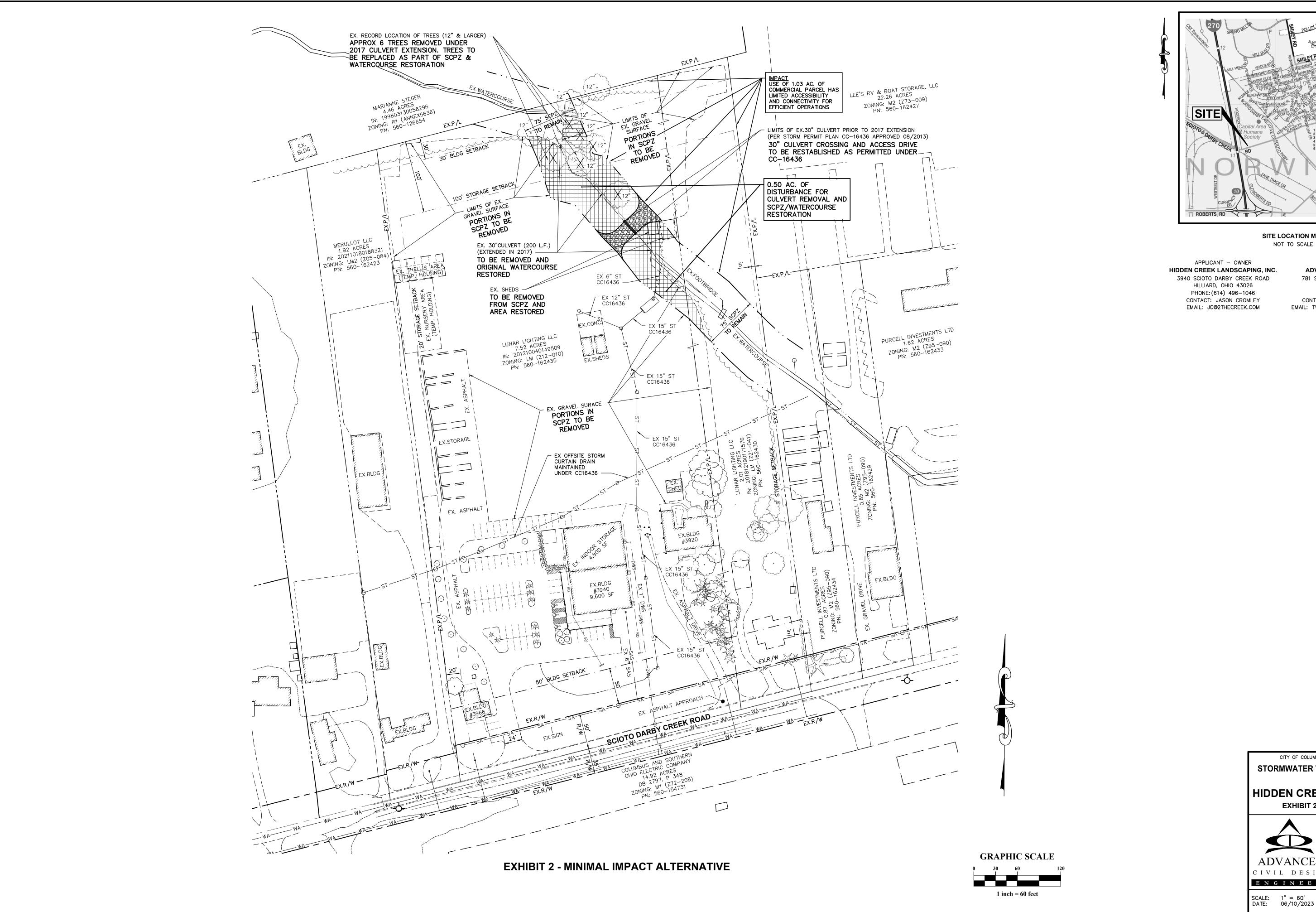
CITY OF COLUMBUS, FRANKLIN COUNTY, OHIO STORMWATER VARIANCE APPLICATION

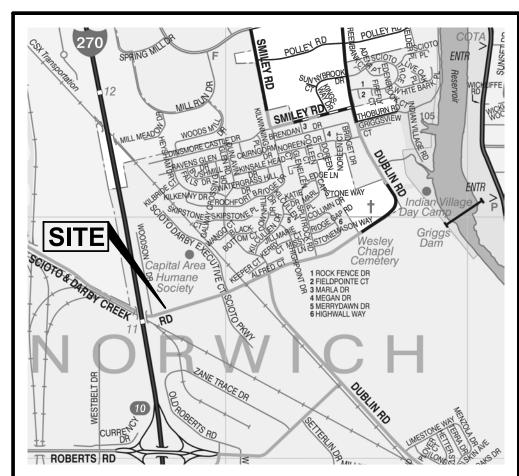
HIDDEN CREEK LANDSCAPING **EXHIBIT 1 - FULL COMPLIANCE**



Gahanna, Ohio 43230

SHEET 1 / 1





SITE LOCATION MAP

ADVANCED CIVIL DESIGN, INC. 781 SCIENCE BOULEVARD, SUITE 100 GAHANNA, OH 43230 PHONE (614) 428-7750 CONTACT: THOMAS M. WARNER, P.E. EMAIL: TWARNER@ADVANCEDCIVILDESIGN.COM

ENGINEER

CITY OF COLUMBUS, FRANKLIN COUNTY, OHIO STORMWATER VARIANCE APPLICATION

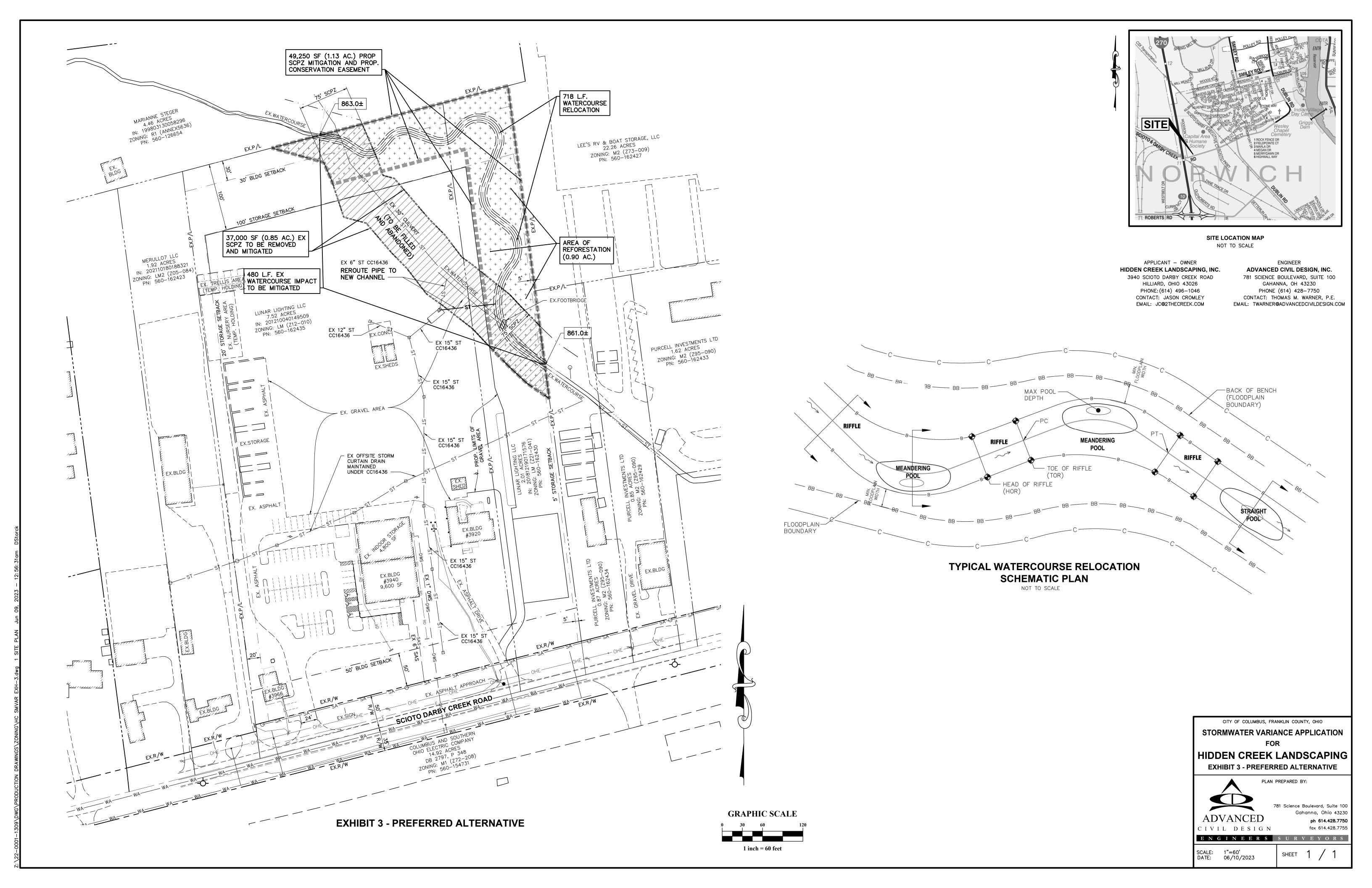
HIDDEN CREEK LANDSCAPING **EXHIBIT 2 - MINIMAL IMPACT**



Gahanna, Ohio 43230

fax 614.428.7755 ENGINEERS SURVEYORS

SCALE: 1" = 60' DATE: 06/10/2023 SHEET 1 / 1



APPENDIX A



Primary Headwater Habitat Evaluation Form

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HHEI Score (sum of metrics 1, 2, 3): SITE NAME/LOCATION Hidden Creek Nursery - 3920 Scioto Darby Creek Rd. RIVER BASIN 05060001 DRAINAGE AREA (mi²) 0.94 SITE NUMBER LAT. 40.01268 LONG. -83.11626 RIVER CODE 200 LENGTH OF STREAM REACH (ft) RIVER MILE DATE 09/22/22 **COMMENTS** | Modified Class II PHWH (Intermittent) SCORER Kaminski NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions NONE / NATURAL CHANNEL ☐ RECOVERED ☐ RECOVERING ☐ RECENT OR NO RECOVERY STREAM CHANNEL **MODIFICATIONS:** SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes HHEI (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B. Metric **TYPE** PERCENT **PERCENT Points** BLDR SLABS [16 pts] SILT [3 pt] 25% BOULDER (>256 mm) [16 pts] LEAF PACK/WOODY DEBRIS [3 pts] 0% 0% **Substrate** 0% 0% BEDROCK [16 pt] FINE DETRITUS [3 pts] Max = 400% 0% COBBLE (65-256 mm) [12 pts] CLAY or HARDPAN [0 pt] 15% 15% GRAVEL (2-64 mm) [9 pts] MUCK [0 pts] 14 40% 5% SAND (<2 mm) [6 pts] ARTIFICIAL [3 pts] Total of Percentages of (B) 0.00% 100% A + BBldr Slabs, Boulder, Cobble, Bedrock TOTAL NUMBER OF SUBSTRATE TYPES: 5 SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of Pool Depth evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check ONLY one box): Max = 30> 30 centimeters [20 pts] > 5 cm - 10 cm [15 pts] > 22.5 - 30 cm [30 pts] < 5 cm [5 pts] > 10 - 22.5 cm [25 pts] NO WATER OR MOIST CHANNEL [0 pts] 25 20 COMMENTS MAXIMUM POOL DEPTH (centimeters): BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box): Bankfull > 4.0 meters (> 13') [30 pts] > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts] Width Max=30 > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts] \leq 1.0 m (<=3' 3") [5 pts] > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts] COMMENTS AVERAGE BANKFULL WIDTH (meters): 2.17 20 This information must also be completed RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream ☆ RIPARIAN WIDTH **FLOODPLAIN QUALITY** (Per Bank) (Most Predominant per Bank) R Wide >10m Mature Forest, Wetland Conservation Tillage Immature Forest, Shrub or Old Moderate 5-10m Urban or Industrial Field Open Pasture, Row Crop Narrow <5m Residential, Park, New Field Fenced Pasture None Mining or Construction COMMENTS Riparian areas include lawn and landscaped areas, and fill for parking FLOW REGIME (At Time of Evaluation) (Check ONLY one box): Stream Flowing Moist Channel, isolated pools, no flow (Intermittent) Subsurface flow with isolated pools (Interstitial) Dry channel, no water (Ephemeral) COMMENTS low flow conditions SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check ONLY one box): None 1.0 2.0 3.0 0.5 1.5 >3 STREAM GRADIENT ESTIMATE Flat (0.5 ft/100 ft) ✓ Flat to Moderate Moderate (2 ft/100 ft) Severe (10 ft/100 ft)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):
QHEI PERFORMED? - Yes ✓ No QHEI Score (If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S) WWH Name: Distance from Evaluated Stream CWH Name: Distance from Evaluated Stream EWH Name: Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
USGS Quadrangle Name: Northwest Columbus NRCS Soil Map Page: NRCS Soil Map Stream Order
County: Franklin Township / City: Franklin / Columbus
MISCELLANEOUS
Base Flow Conditions? (Y/N): Y Date of last precipitation: 09/21/22 Quantity: 0.42
Photograph Information: photos attached
Elevated Turbidity? (Y/N): N Canopy (% open): 60%
Were samples collected for water chemistry? (Y/N): (Note lab sample no. or id. and attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N) If not, please explain:
Additional comments/description of pollution impacts:
BIOTIC EVALUATION
Performed? (Y/N): _N (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the site ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)
Fish Observed? (Y/N) N Voucher? (Y/N) N Salamanders Observed? (Y/N) N Voucher? (Y/N) N Vouc
Comments Regarding Biology:
DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This <u>must</u> be completed):
Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location
lawn
FLOW trees/brush
surface water observed within linear channel landscaping landscaping
Google Earth



Field Reconnaissance Photos Dated September 22, 2022



Photo 1 – Southeasterly (downstream) view along the assessed stream. The 200' evaluation area begins at the outfall of a culvert pipe in this location. Note riparian areas to the left and right of the stream.



Photo 2 – Northwesterly (upstream) view towards the beginning of the assessed stream. The 200' evaluation area begins at the outfall of the culvert pipe shown near the center of the photo.

Field Reconnaissance Photos Dated September 22, 2022



Photo 3 – Southeasterly (downstream) view along the assessed stream. Flowing water was observed within a modified linear channel.



Photo 4 – Typical view of the assessed stream from the central part of the 200' stream evaluation area.

Field Reconnaissance Photos Dated September 22, 2022



Photo 5 – Southeasterly (downstream) view of the assessed stream as it flows off-site to the southeast.



 $Photo \ 6-Northwesterly \ view \ of \ riparian \ areas \ adjacent \ to \ the \ west/southwest \ of \ the \ assessed \ stream.$

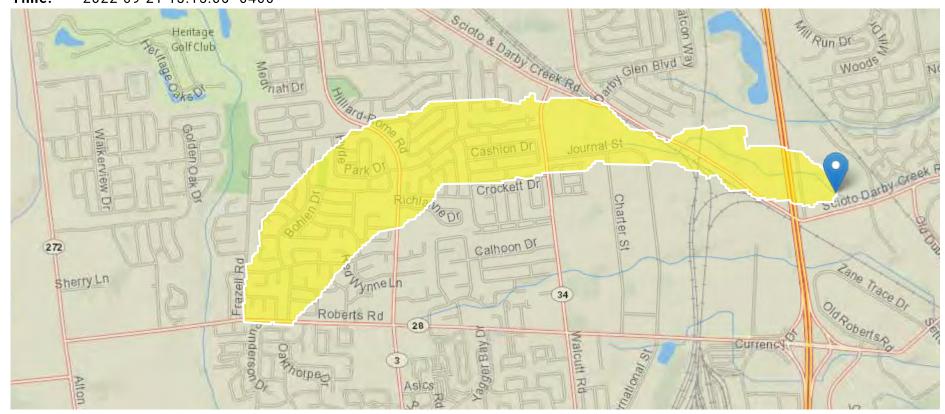
StreamStats Report

Region ID: OH

Workspace ID: 0H20220921171446793000

Clicked Point (Latitude, Longitude): 40.01243, -83.11594

Time: 2022-09-21 13:15:06 -0400



Collapse All

➤ Basin Characteristics

Parameter			
Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	0.94	square miles
LAT_CENT	Latitude of Basin Centroid	40.0133	decimal degrees
LC92STOR	Percentage of water bodies and wetlands determined from the NLCD	0.33	percent
STREAM_VARG	Streamflow variability index as defined in WRIR 02-4068, computed from regional grid	0.68	dimensionless

➤ General Flow Statistics

General Flow Statistics Parameters [Low Flow LatLE 41.2 wri02 4068]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.94	square miles	0.12	7422
LC92STOR	Percent Storage from NLCD1992	0.33	percent	0	19
STREAM_VARG	Streamflow Variability Index from Grid	0.68	dimensionless	0.25	1.13
LAT_CENT	Latitude of Basin Centroid	40.0133	decimal degrees	38.68	41.2

General Flow Statistics Flow Report [Low Flow LatLE 41.2 wri02 4068]

PII: Prediction Interval-Lower, Plu: Prediction Interval-Upper, ASEp: Average Standard Error of Prediction, SE: Standard Error (other -- see report)

Statistic	Value	Unit	SE	ASEp
Harmonic Mean Streamflow	0.0578	ft^3/s	65.9	65.9

General Flow Statistics Citations

Koltun, G. F., and Whitehead, M. T.,2002, Techniques for Estimating Selected Streamflow Characteristics of Rural, Unregulated Streams in Ohio: U. S. Geological Survey Water-Resources Investigations Report 02-4068, 50 p (https://pubs.er.usgs.gov/publication/wri024068)

USGS Data Disclaimer: Unless otherwise stated, all data, metadata and related materials are considered to satisfy the quality standards relative to the purpose for which the data were collected. Although these data and associated metadata have been reviewed for accuracy and completeness and approved for release by the U.S. Geological Survey (USGS), no warranty expressed or implied is made regarding the display or utility of the data for other purposes, nor on all computer systems, nor shall the act of distribution constitute any such warranty.

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USGS Product Names Disclaimer: Any use of trade, firm, or product names is for descriptive purposes only and does not imply endorsement by the U.S. Government.

Application Version: 4.10.1

StreamStats Services Version: 1.2.22

NSS Services Version: 2.2.1

APPENDIX B

The City of Columbus Construction and Material Specifications (CMSC) 2012, including supplemental specification 1100 and all other supplements thereto, shall govern all construction items that are a part of the plan unless otherwise noted.

The Contractor and Sub-Contractor shall be solely responsible for complying with all applicable federal, state, and local safety requirements together with exercising precautions at all times for the protection of persons including employees and property. It is the sole responsibility of the Contractor and Sub-Contractor to initiate, maintain, and supervise all safety requirements,

The locations and elevation of existing utilities shown on this plan have been determined through information provided by the various utility owners and by field survey, but are not guaranteed to be accurate or complete. It shall be the responsibility of the Contractor, prior to construction, to determine the actual field locations and elevations of all existing utilities impacting his work whether shown on this plan or not. The Contractor is directed to contact the Ohio Utilities Protection Service, O.U.P.S., at 1—800—362—2764 at least 72 hours prior to beginning construction activities.

The Contractor is responsible for the investigation, location, support, protection, and restoration of all existing utilities and appurtenances whether shown on these plans or not. The Contractor shall expose all utilities or structures prior to construction to verify the vertical and harizontal effect on

The following utilities may be located within the work limits of this project and the Owners do not subscribe to a registers underground utility protection service:

Before excavation, the Contractor must fax the following utility divisions with the morking request at least 72 hours prior to start of construction:

Division or Planning & Operations Fax 645—5967 Phone 645—7393 Communications Division Fax 645—6588 Phone 724—7047 Fax 645-6588 Phone 724-7047 Fax 645-6627 Phone 645-1501

The Contractor shall be responsible for coordinating the relocation and/or protection of any utilities as required by the plan with the owner of the affected utility.

Private utility manholes within the limits of the work area shall be readjusted to grade by the

Utility poles within influence of the utility operations shall be reinforced by the utility company prior to these construction activities. Notification of the utility company prior to construction shall be the responsibility of the Contractor.

All items of work called for on this plan for which no specific method of payment is indicated shall be performed by the Contractor and the cost of such work shall be included in the unit price bid

The Contractor shall obtain all necessary permits prior to construction.

All trenches shall be backfilled or securely plated during non-working hours.

Any modifications or changes to the work as shown on these drawings must have prior written approval by the Administrator, Division of Sewerage and Drainage.

The Developer/Owner shall, prior to starting any construction operations, deposit with the City the total estimated cost for inspection and, where required, a repaving guarantee.

Construction of this project may not begin until easements indicated have been acquired.

The Division of Power and Water (Water) shall be notified at 645—7788 at least 48 hours prior to

The Contractor shall notify the following divisions at least 24 hours prior to beginning construction:

Division of Sewerage and Drainage 645-7102 Division of Design and Construction 645-0433

All plastic sewer lines shall be deflection tested after installation, in conformance with the requirements of item 901 of the Specifications,

noting that said pipe, storm or sanitary structures have been inspected by the City of Columbus and meets their specifications. Pipe and structures without proper identification will not be permitted for installation.

All sewers outside of easements, as shown on this drawing, are to be constructed as a private storm system. Therefore, the City will not assume maintenance thereof after completion. Standby

The ponding or detention areas shown on this plan are a part of the storm sewer facilities. The Developer/Owner will assume the responsibility to maintain the ponding or detention areas so as not to reduce the water storage area. If the Owner does not maintain the ponding and detention areas,

Heavy Duty Frames and Grates shall be used for all storm sewer improvements shown on this plan and shall be Neenah R-4852 (Grate & Frame) or approved equivalent.

Access to all adjoining properties shall be maintained at all times.

All permanent traffic controls not in conflict with the temporary traffic controls shall be maintained throughout this project by the CONTRACTOR. Permanent traffic controls may be temporarily relocated, as approved by the ENGINEER. The CONTRACTOR shall assume all liability for missing, damaged and improperly placed signs.

Any work done by the Division of Planning and Operations, including installation, relocation, removal and/or replacement of permanent traffic control devices as a result of work done by the CONTRACTOR or as a result of the NEGLIGENCE of the CONTRACTOR shall be at the expense of the

accordance with the "Ohio Manual Of Uniform Traffic Control Devices" (current edition), copies of which are available from the Ohio Department of Transportation, Bureau of Traffic, 1980 West Broad Street, Columbus, Ohio 43223. All traffic control devices shall be furnished, erected, maintained, and removed by the Contractor in

The Contractor shall ensure there is a surveyor's level and rod on the project for use in performing grade checks whenever sewer line structures or pipe are being installed. The Contractor shall make this equipment available for use and assist the City inspector in performing grade checks when requested by the inspector. The inspector will make all reasonable attempts to confine requests for assistance in performing grade checks to times convenient to the Contractor.

These checks will be performed to ensure the following: Proper placement of each structure.
Proper installation on initial runs of pipe from a structure.

COUNTY RECORDER

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CITY NO.

EASEMENT REFERENCE

PAGE

Grade, after an overnight or longer shutdown. Grade, at any other time the inspector has reason to question grade of installation.

Grade checks performed by the City inspector in no way relieve the Contractor of the ultimate responsibility to ensure construction to the plan grade.

GRANTOR

The cost of all dewatering required for the construction of this project shall be included in the unit price bid for the various improvement items.

Any well, well point, pit, or other device installed for the purpose of lowering the ground water to facilitate construction of this project shall be properly abandoned in accordance with the provisions of Section 3745—9—10 of the Ohio Administrative Code or in accordance with the provisions of this plan as directed by the Director of Public

Any Contractor installing any well, well point, pit, or other device used for the purpose of removing ground water from an aquifer shall complete and file a Well Log and Drilling Report form with the Ohio Department of Natural Resources, Division of Water, within 30 days of the well completion in accordance with the Ohio Revised Code Section 1521.01 and 1524.05. In addition, any such facility is completed in accordance with Section 1521.16 of the Ohio Revised Code. For copies of the necessary well log, drilling report, or registration forms, please contact:

Ohio Department of Natural Resources Fountain Square Columbus, Ohio 43223—1387 614—265—6717

The Contractor shall be solely responsible to the O.D.N.R. for the Registry, Maintenance and Abandonment of any withdrawal device used in the construction of this project.

The flow in all sewers, drains, field tiles and watercourses encountered shall be maintained by the Contractor at his own expense, and whenever such watercourses and drains are disturbed or destroyed during construction, they shall be restored by the Contractor at his own expense to a condition satisfactory to the Engineer.

REPLACEMENT OF TILE AND STORM SEWER

All drain tiles and storm sewers damaged, disturbed, or removed as a result of the Contractor's operations shall be replaced with the same quality pipe or better, maintaining the same gradient as existing. The drain tile and/or storm sewer shall be connected to the curb subdrain, storm sewer system or outletted into the roadway ditch as applicable. Replaced drain tile and/or storm sewer shall be laid on compacted bedding equal in density to surrounding stratum. Cost of this work shall be included in the price bid for the various improvement items.

EROSION AND SEDIMENT CONTROL

Erosion and sediment control measures are required as part of this project. Erosion and Sediment Control measures specific to this site may be found within this set of plans. The proposed land disturbing activities must comply with all of the provisions of the Division of Sewerage and Drainage Erosion and Sediment Control regulation. All land disturbing activities shall be subject to inspection and site investigation by the

It is the responsibility of the site Owner to notify the City of Columbus two working days prior to commencement of initial site land disturbance on any site of one or more acres. This includes site clearing, grubbing and any earth moving. Primary erosion and sediment construction practices are mandated by regulation to be in place from the beginning of the construction activity. Please contact The Stormwater Wanagement Office **©** (614) 645–6700 or fax **©** (614) 645–1506. Details of this requirement may be found in the EROSION AND SEDIMENT POLLUTION CONTROL REGULATION (adopted June 1, 1994). Fallure to comply may result in enforcement action as detailed in the Columbus City Codes Section 1145.80.

DRIVE APPROACH, PEDESTRIAN FACILITY, AND CURB RAMP: All drive approach pedestrian facility, curbs, and ramps constructed with this project shall meet the requirements of the City of Columbus standards and ADA compliance. It is the sole responsibility of the Contractor to meet these construction standards.

DIVISION OF POWER:

The Division of Power has overhead and underground power lines along the north side of Scioto and Darby Creek Road. The contractor is hereby required to contact OUPS at 1-800-362-2764 forty-eight hours prior to conducting any activity within the construction area. The DOP dispatch office number is: (614) 645-7627 (voice).

City's street lighting system in the construction area is to be performed by the Contractor under the direction of DOP personnel and at the expense of the project. expense of the project. The Contractor shall use material and make repairs to a City of Columbus street lighting system by following DOP's "Material and Installation Specifications" (MIS) and the City of Columbus "Construction and Material Specifications" (CMSC). And new or re-installed overhead streetlight system shall require testing as referred to in section 1000.18 of the CMSC manual. The Contractor shall conform to DOP's existing Conductor Safety Policy and Hold Card System, MIS-95, copies of which are available from DOP. If you have any questions, call Mihai Orbocea at (614) 645-6851 or Chris Voqei at (614) 645-6963.

If any electric facility belonging to DOP is damaged in any manner by the Contractor, its agents, servants, or employees, and requires emergency repairs, DOP shall make all necessary repairs, and the expense of such repairs and other related costs shall be paid by the Contractor to the Division of Power, City of Columbus, Ohio.

SANITARY SEWER NOTE:

REVISIONS

DESCRIPTION

⚠ Existing storm sewer line was discovered to be off—site

City Health Dept. inspection by Adam Holbrook, 11-13-13.

curtain drain outlet running through site. Line was repaired where ncountered and maintained in place per

Connection to sanitary sewer cannot be made without obtaining a permit from Sewer Permit Office, 910 Dublin Road, 3rd floor 645-7490.

BMP WATER QUALITY STRUCTURE NOTICE:

The Water Quality Structures WQ6 and WQ7 are Stormwater Quality BMP's and are an integral part of the private storm sewer system depicted in these drawings. Responsibility and assurance of periodic maintenance and continuous functionality of these stormwater quality devices is perpetual: beginning with the Owner at the time of installation and continuing to all Future Owners of said private storm sewer system.

APPROVAL/DATE

/11/20/14

OWNER/DEVELOPER ON-SITE CONTACT: Hidden Creek Landscaping, Inc. Contact:

Matt Seiler 1745 Atlas Street Columbus, OH 43228 (614) 777-4254 e-mail: ms@2thecreek.com

GEORGE **SCHWEITZER**

.SIONAL . Land Surveying & Civil Engineering 3331 Livingston Avenue Columbus, Ohio 43227

TITLE SHEET__

TOPOGRAPHIC SURVEY_

SITE DIMENSION PLAN (40 SCALE)_

SITE DIMENSION PLAN (30 SCALE).

SEDIMENT & EROSION CONTROL PLAN

MAINTENANCE OF TRAFFIC PLAN_

SEDIMENT & EROSION CONTROL DETAILS_

SITE GRADING, DRAINAGE & UTILITY PLAN (40 SCALE)___

SITE GRADING, DRAINAGE & UTILITY PLAN (30 SCALE).....

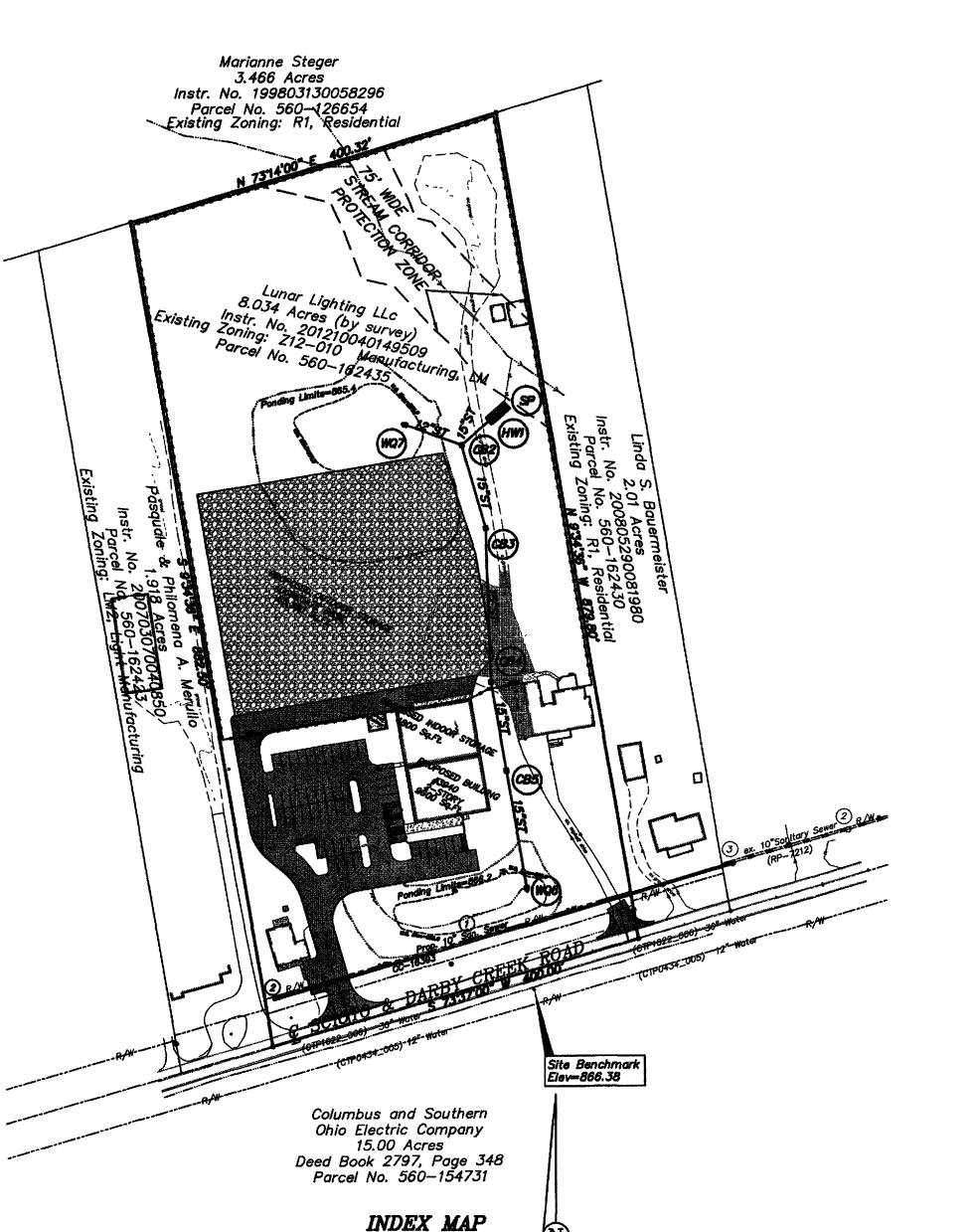
DEMOLITION PLAN__

STORM PROFILES___

SITE DETAILS

Geo-Graphics Inc.

Phone: 614-231-2016 Fax: 614-231-2018



Itilities Protection Call Before You Dig 800-362-2764 or 811 ESTIMATE OF QUANTITIES QUANTITY UNIT DESCRIPTION Clearing & Grubbing 202 Ea. | Catch Basin or Inlet Removed/Modified 202 -551 30 207 Inlet Protection (Dandy Bag) 207 1326 Sediment Fence 207 Stabilized Construction Entrance Lump Sum Concrete Washout Area 207 Sum Lump SPEC SPEC Stand Pipe (See Detail) Rock Channel Protection, Type "C", with filter 602 Precast Pipe Headwall (AA-S168) 604 4" Orifice Plate w/Trash Rack (AA-S145) 604 5" Orifice Plate w/Trash Rack (AA-S145) Standard Catch Basin (AA-S133A w/ AA-S139 grate) 604 Ea. Standard Catch Basin (AA-S133B w/ AA-S139 grate) 604 Standard Catch Basin (AA-S134 w/ AA-S139 grate) 604 Ea. Water Quality Basin (ODOT WQ-1.1) 2 SUM L.F. 12"dia. Storm Sewer, 720.12, Smooth Wall Pipe w/ Type I Bedding 901 512 | L.F. | 15°dia. Storm Sewer, 720.12, Smooth Wall Pipe w/ Type I Bedding

UTILITY SERVICES

614-460-2093

614-223-1000

614-223-4911

City of Columbus 910 Dublin Road

614-645-7788

City of Columbus 910 Dublin Road

614-645-8156

614-645-7314

1-800-362-2764

Building Regulations:

Storm Sewer & Sanitary Sewer

City of Columbus 757 Carolyn Avenue

215 N. Front Street

Ohio Bell Telephone 150 East Gay Street

Columbus, Ohio 43215

Columbus, Ohio 43215

Columbus, Ohio 43215

Columbus, Ohio 43215

Columbus, Ohio 43224

Columbia Gas of Ohio, Inc.

Columbus, Ohio 43212

920 West Goodale Boulevard

SCIUTO DARBY RD.

ROBERTS RD.

LOCATION MAP

FISHINGER RD

Gas Service:

Electric Service:

Telephone Service:

Water Service:

Quantities listed above are estimates and subject to revision during construction. The Contractor is directed to verify all quantities prior to preparing and submitting his bid.

BENCH MARKS: (NAVD 88 DATUM)

SOURCE BENCH MARK:

SITE DATA TABLE:

TOTAL ON-SITE DISTURBED AREA:

PRE-DEVELOPED ON-SITE IMPERVIOUS AREA:....

POST-DEVELOPED ON-SITE IMPERVIOUS AREA:....

ON-SITE:

NET SITE AREA....

TOTAL ON-SITE AREA: ..

PROPOSED R/W DEDICATION...

Franklin County Survey Control Monument NW-20 "an aluminum plug on the south side of a concrete base for a power pole on the north side of Scioto & Darby Creek Road, 0.4 miles west of Scioto Darby Executive Court, west of I-270, 24.0 feet north of the centerline of Scioto & Darby Creek Road" which has an elevation of 874.13 (NAVD 88 Datum).

SITE BENCH MARK: The "arrow" flange bolt on a fire hydrant located on the south side of Scioto and Darby Creek Road, approximately 120 west of the southwest corner of the site was assigned an elevation of 866.38 (NAVD 88 Datum), as determined by a differential level loop run from "Franklin County Survey Control

STANDARD DRAWINGS

The City of Columbus and the State of Ohio, Dept. of Transportation Standard Construction Drawings listed below shall be considered a part of this plan.

<u>ODOT</u>

WQ-1.1

COLUMBUS

AA-S133A AA-S139 AA-S133B AA-S145 2220

AA-S134 AA-S149 2221 AA-S150 2222

100 YEAR STORM DETENTION					
AREA	LOCATION	VOLUME REQUIRED	VOLUME PROVIDED	ELEVATION	
WQ6(South)	IN DETENTION BASIN AND ON PAVEMENT SURFACE	13,210 C.F	15,976 C.F.	866,2	
WQ7(North)	IN DETENTION BASIN AND ON AGGREGATE SURFACE	20,861 C.F	21,378 C.F.	865.4	

SIGNATURES BELOW SIGNIFY ONLY CONCURRENCE WITH THE GENERAL PURPOSES AND GENERAL LOCATION OF THE PROJECT. ALL TECHNICAL DETAILS REMAIN THE RESPONSIBILITY OF THE ENGINEER PREPARING THE PLANS. APPROVAL FOR STORM SEWERS ONLY DATE

200 (N)

100

SCALE 1 INCH = 100 FEET

INDEX OF SHEETS

PROJECT TITLE: PRIVATE STORM SEWER IMPROVEMENTS FOR HIDDEN CREEK LANDSCAPING, INC. 3940 SCIOTO & DARBY CREEK ROAD

8.034 ACRE

..0.459 ACRE

..7.575 ACRE

..4.58 ACRE

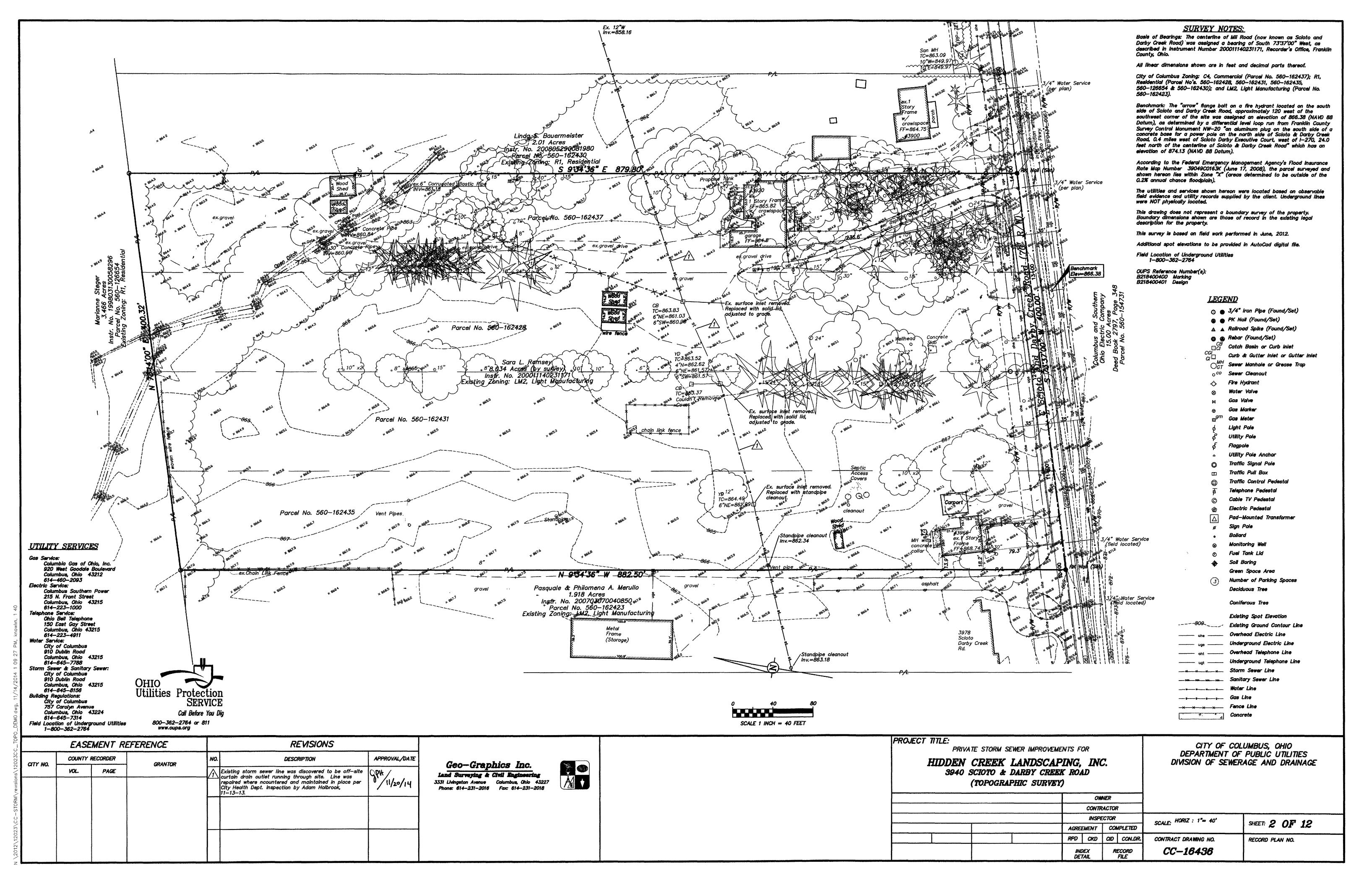
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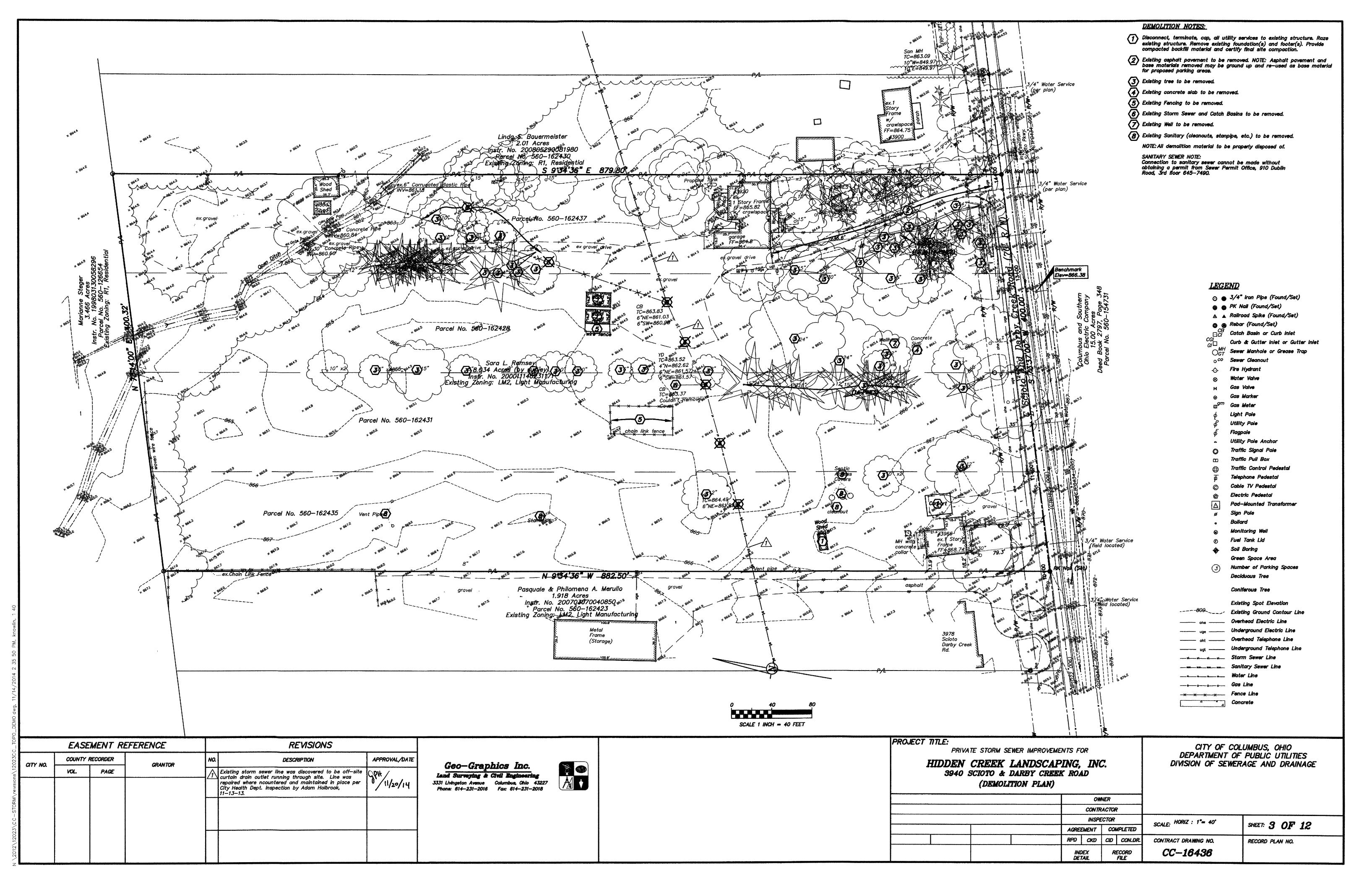
...0.57 ACRE

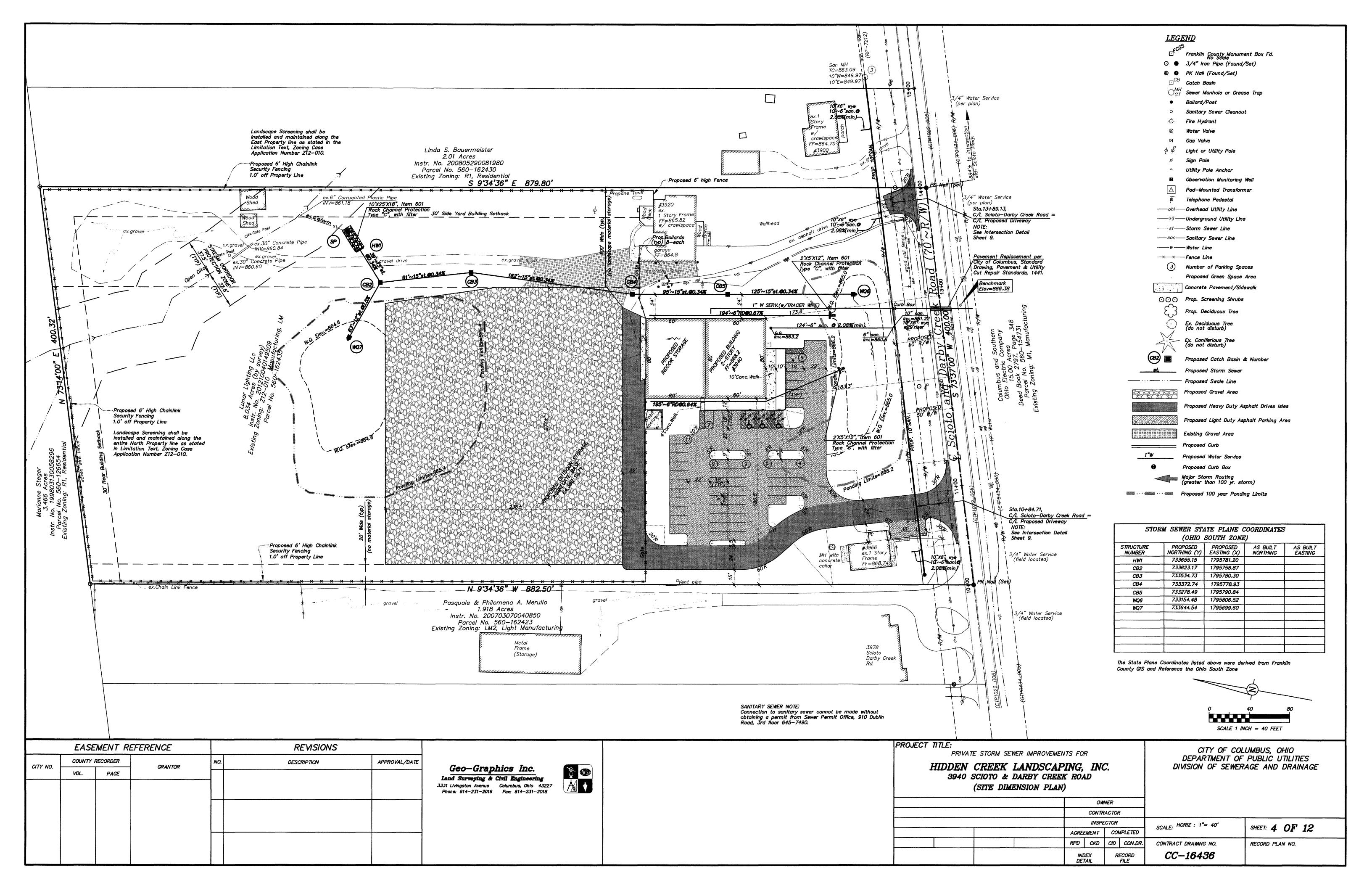
CITY OF COLUMBUS, OHIO DEPARTMENT OF PUBLIC UTILITIES DIVISION OF SEWERAGE AND DRAINAGE

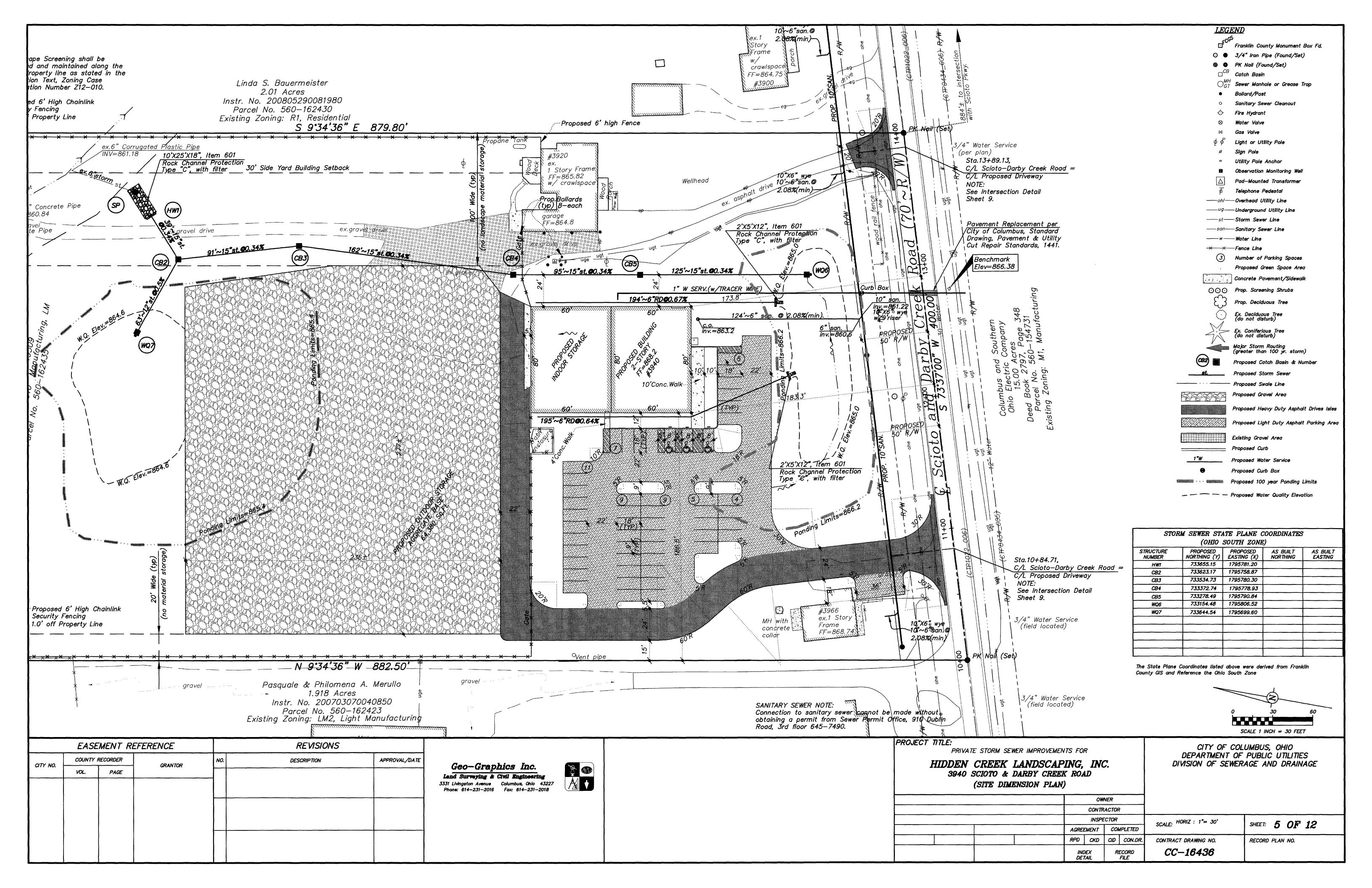
(TITLE SHEET) OWNER PM 168 CONTRACTOR INSPECTOR

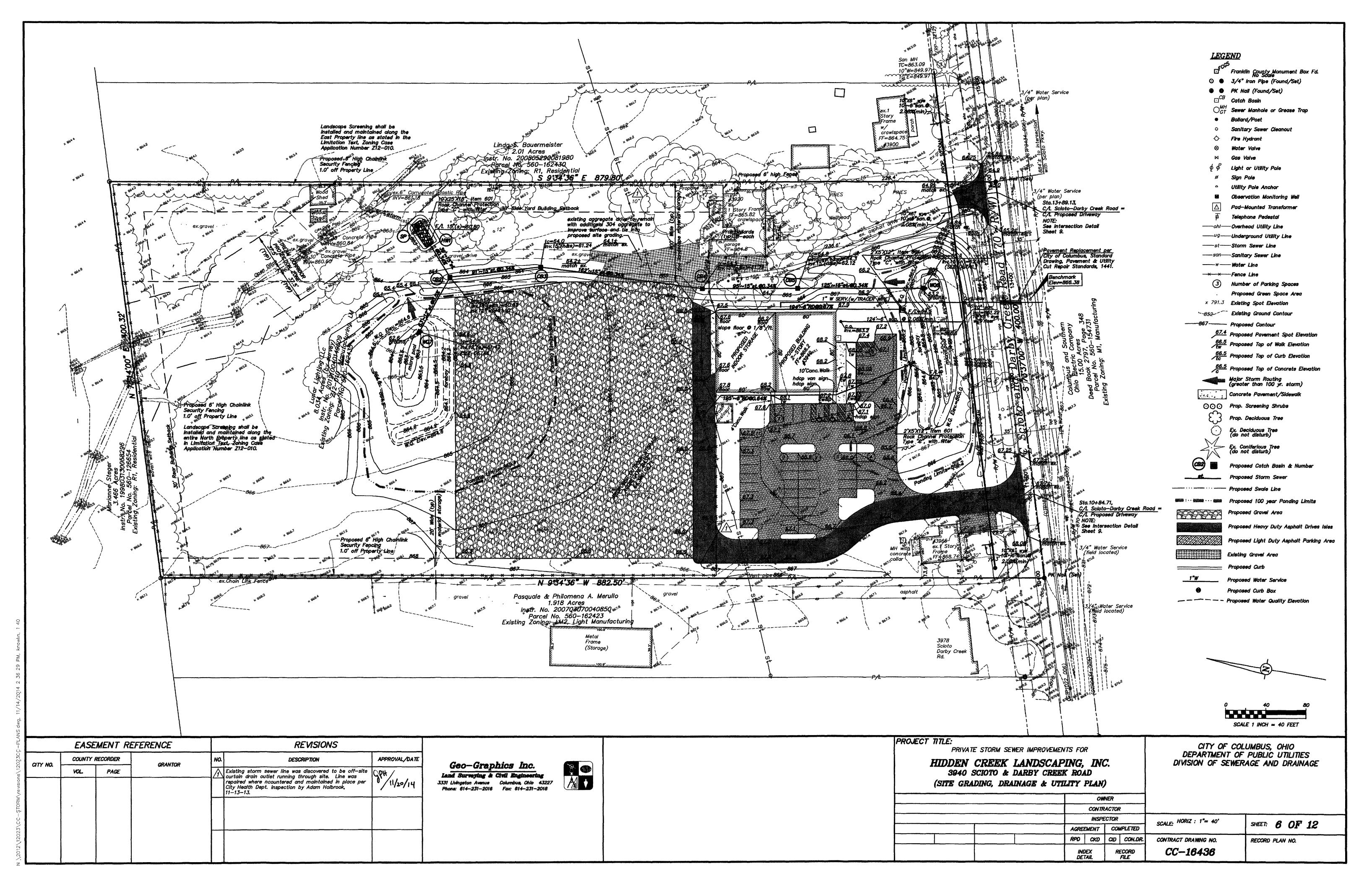
SCALE: HORIZ : 1"=200" SHEET: 1 OF 12 COMPLETED AGREEMENT CID CON.DR CONTRACT DRAWING NO. CKD RECORD PLAN NO. RECORD FILE INDEX DETAIL CC-16436

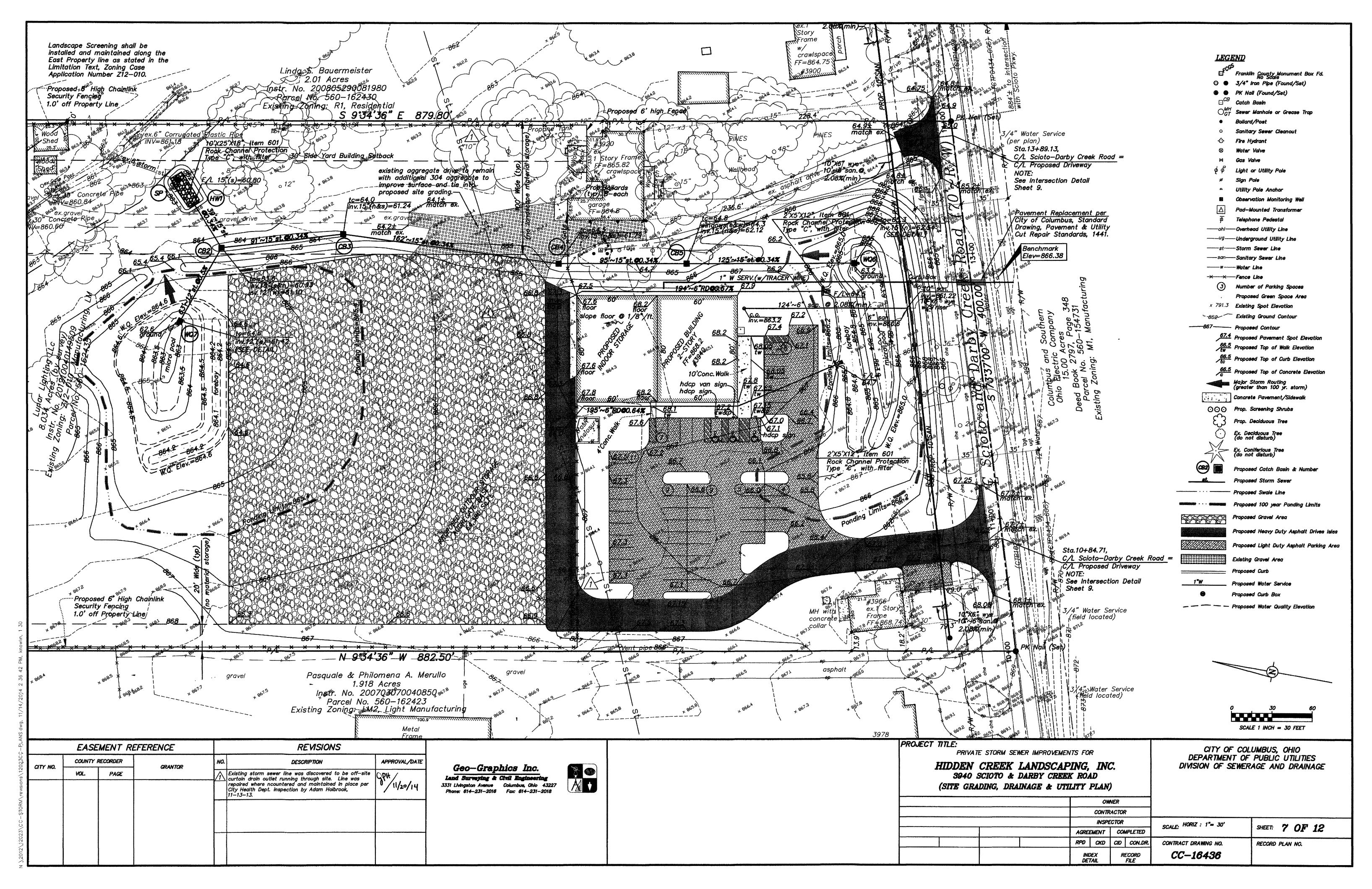


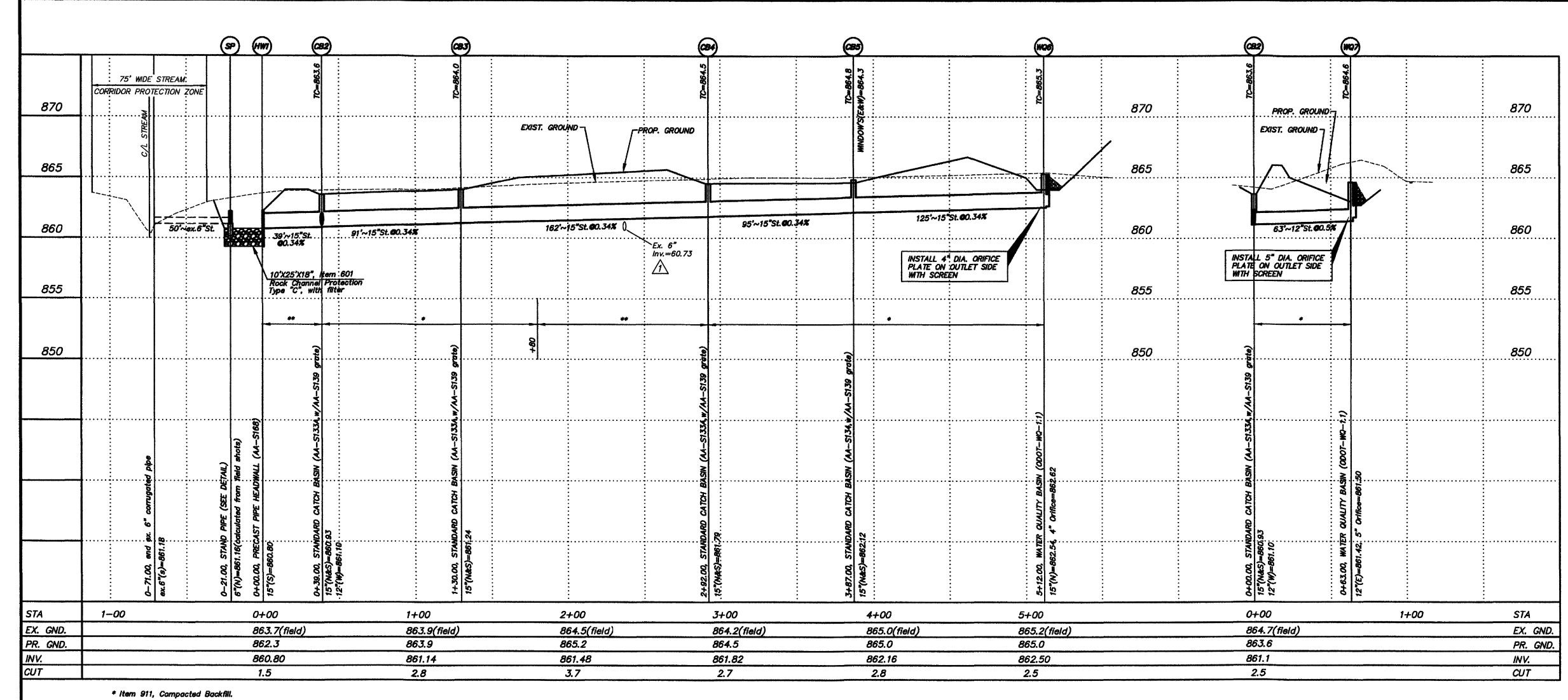




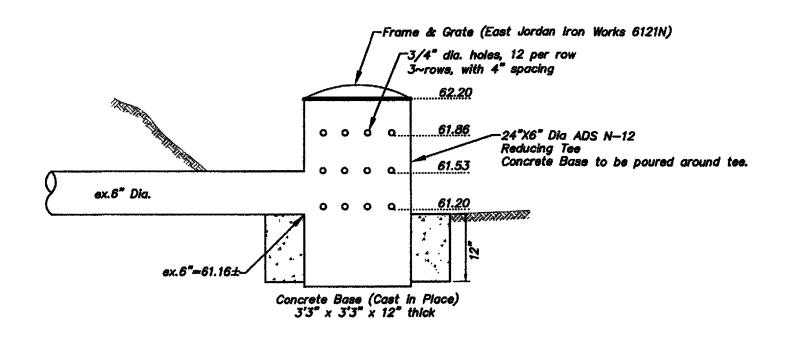








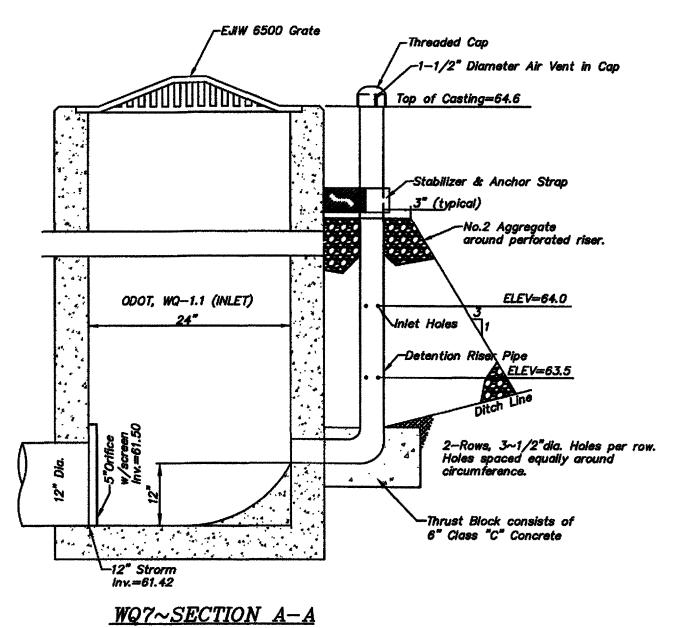
** Item 912, Compacted Granular Backfill.



NOTE: Riser pipe shall be wrapped with ADS Sock to ensure a slow dewatering rate.

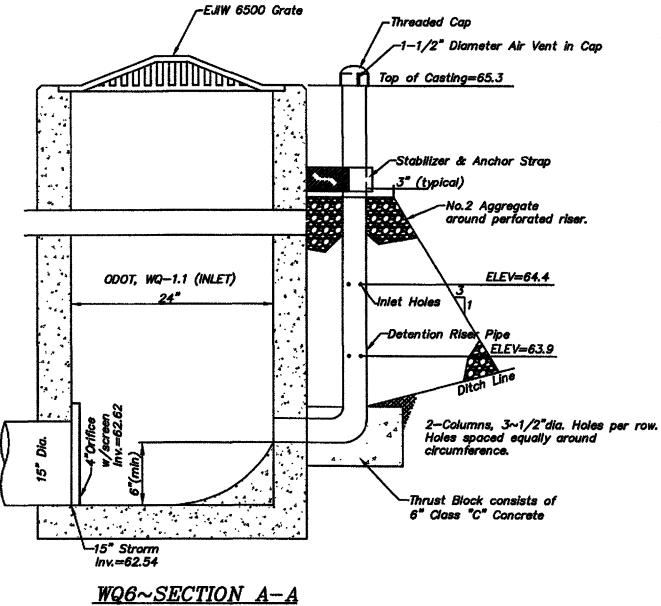
DETAIL OF STAND PIPE

No Scale



Not to Scale Structure # Riser Diameter | Hole Diameter | Hole Number and Location Riser Type | Cap Elevation

1/2" 2 Row of 3 Holes per row Detention 64.6



Not to Scale

Structure #	Riser Diameter	Hole Diameter	Hole Number and Location	Riser Type	Cap Elevation
WQ6	4"	1/2*	2 Row of 3 Holes per row	Detention	<i>65.3</i>
					······

EASEMENT REFERENCE			FERENCE	REVISIONS			
COUNTY RECORDER		GRANTOR	NO.	DESCRIPTION	APPROVAL/DATE		
0777 110.	VOL.	PAGE	GINETIGE	A	Existing storm sewer crossing added to profile.	SPH/	
						11/20/14	
				 			
				1			

Geo-Graphics Inc.

Land Surveying & Civil Engineering

3331 Livingston Avenue Columbus, Ohlo 43227

Phone: 614-231-2016 Fax: 614-231-2018



PRIVATE STORM SEWER IMPROVEMENTS FOR HIDDEN CREEK LANDSCAPING, INC. 3940 SCIOTO & DARBY CREEK ROAD (STORM PROFILES) OWNER

PROJECT TITLE:

CITY OF COLUMBUS, OHIO DEPARTMENT OF PUBLIC UTILITIES DIVISION OF SEWERAGE AND DRAINAGE

CONTRACTOR INSPECTOR SCALE: HORIZ : 1"= 40" VERT : 1"=5" SHEET: 8 OF 12 AGREEMENT COMPLETED RPD CKD CID CON.DR. CONTRACT DRAWING NO. RECORD PLAN NO. CC-16436 INDEX DETAIL RECORD FILE