CITY OF HILLIARD, OHIO SITE IMPROVEMENT PLAN

CIP ST-27, DETENTION AND RETENTION BASIN 2025 REHABILITATION

PROGRAM

2025 **HP - 1037**

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SOURCE BENCH MARK

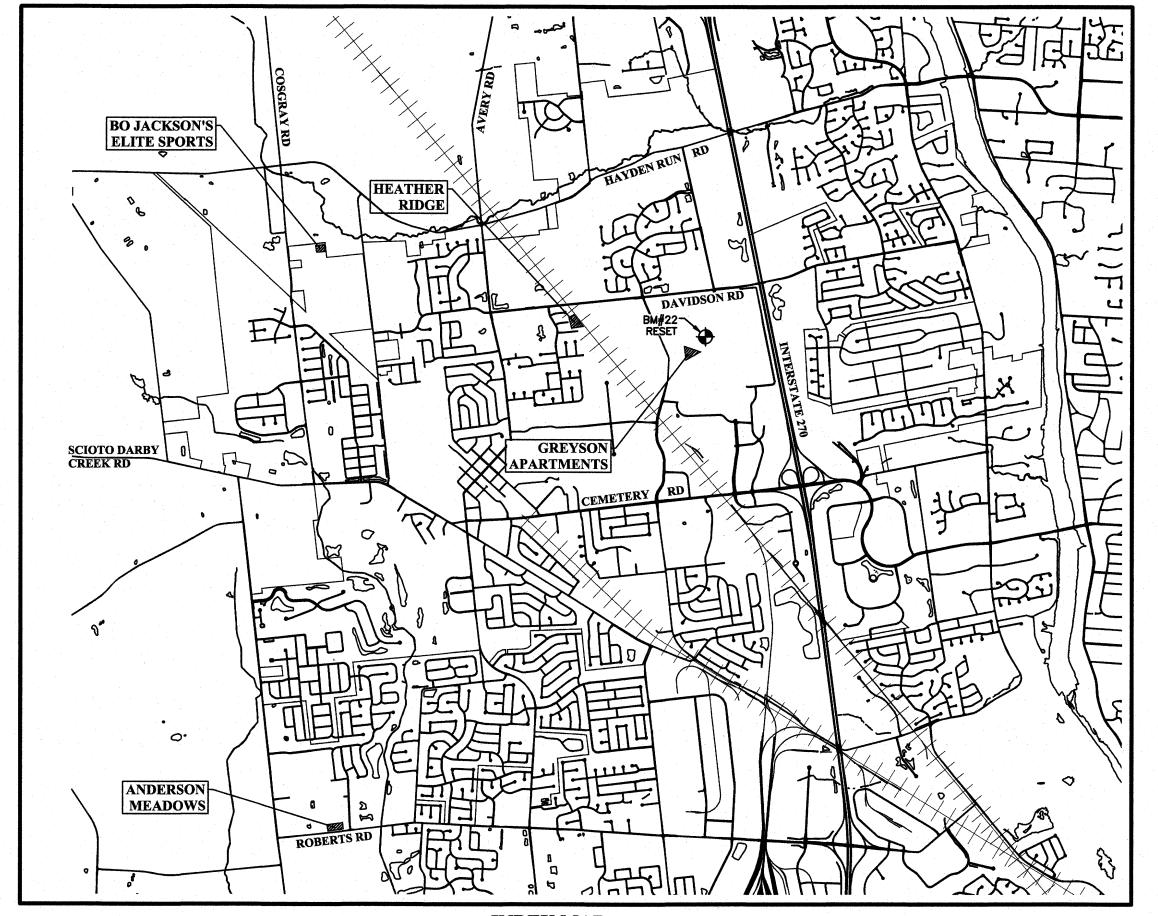
SITE ELEVATION REFERENCE TABLE

DESCRIPTION

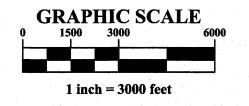
Top of Casting (Center of Grate) on the Storm Sewer Outlet Structure in the

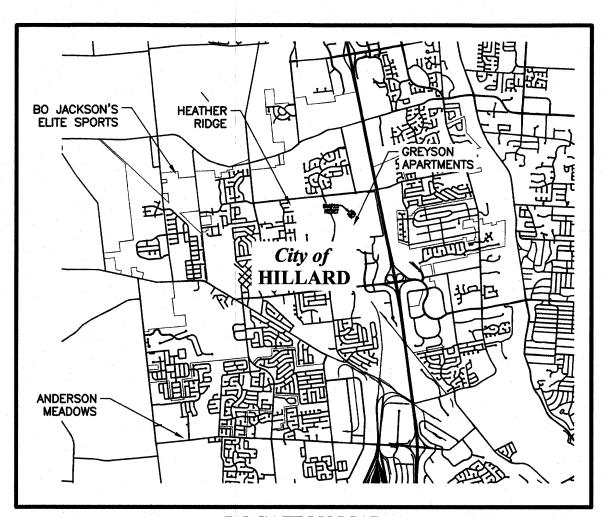
Northing = 748613.1 Easting = 1778783





INDEX MAP



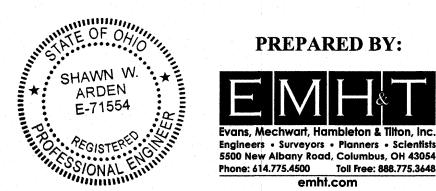


APPROVALS

Signatures on this plan signify only concurrence with the general purpose and general location of the project. All technical details remain the responsibility of the engineer preparing the plan.

CITY OF HILLIARD APPROVALS

City Engineer, City of Hilliard



PREPARED BY: 5500 New Albany Road, Columbus, OH 43054

Registered Engineer No. 71554

SHEET 01/19

JOB NO.

SCALE

March 2025

AS NOTED

20240696

HP-1037

GENERAL NOTES

- The Regulations and Construction Standards of the City of Hilliard, together with the current Construction and Material Specifications of the City of Columbus (COLS) and the Ohio Department of Transportation (ODOT), including all supplements thereto, shall govern all construction items that are a part of this plan unless otherwise noted.
 - General provisions of the ODOT CMS shall not apply unless specifically referenced. This exclusion includes, but is not necessarily limited to, Division 100 of the ODOT CMS. CMS Item numbers listed refer to the City of Columbus Construction and Material Specifications.
- The City Engineer or his authorized representative will make inspection of the work. The City Engineer will require at least 48 hours written notice before any work takes place. Failure to request the necessary inspection may result in the rejection of the work and the project.
- It is the intention of the plans to provide and require a completed project ready for operation. Any work items omitted from the plans, which are clearly necessary for completion of the work, and its appurtenances shall be considered a part of such work, though not directly specified or called for in the plans. This includes. but is not limited to such incidental items as relocation of mailboxes, saw cutting. and removal and/or relocation of signs, sprinklers, or other miscellaneous items.
- All items of work called for on the plans for which no specific method of payment is provided shall be performed by the Contractor with the cost to be included in the unit price bid for the various related items.
- The Contractor shall provide the City of Hilliard, a Surety, acceptable to the City of Hilliard, equal to 100% of construction costs. The Surety shall guarantee the work for one year after acceptance by the City.
- The City Engineer will not be responsible for means, methods, procedures, techniques, or sequences of construction that are not specified herein. The City Engineer will not be responsible for safety on the work site, or the failure by the contractor to perform work according to plans.
- The Contractor shall perform all work in accordance with all applicable Federal. State and Local safety requirements including the Occupational Safety and Health Act of 1970. The Contractor shall exercise precaution always for the protection of persons (including employees) and property. It shall also be the sole responsibility of the Contractor to initiate, maintain and supervise all safety requirements, precaution and programs in connection with the work, including the requirements for confined spaces per 29 CFR 1910.146.
- The Contractor shall be responsible to obtain all necessary permits.
- The Contractor shall confine his activities to the project site, existing right-of-ways, temporary and permanent easements, and shall not enter upon other properties without written permission of the owner. If the proposed work requires entering easements upon other properties, the Contractor shall notify the owner(s) in writing no less than 72 hours in advance of the commencement of the work, and copy the City on all correspondence. Failure to notify affected property owners may subject the Contractor to the penalties associated with the violation of Hilliard City Code, Section 541.05, Criminal Trespass.
- The Contractor shall carefully preserve benchmarks, property corners, reference points, stakes and other survey reference monuments or markers. In cases of willful or careless destruction, the Contractor shall be responsible. Resetting the markers shall be performed by an Ohio Professional Surveyor as approved by the City Engineer at the Contractor's expense.
- Property boundaries, including property lines and road right-of-way, are shown from the best information available and are not necessarily complete or correct.
- The Contractor shall be responsible for having the finished work conform to the lines, grades, elevations and dimensions called for on the drawings and typical
- 13. Any device shall not be operated at any time in such a manner that the noise ITEM SPECIAL GEOTEXTILE TUBE HARDWOOD MULCH BASE created substantially exceeds the noise customarily and necessarily attendant to the reasonable and efficient performance of such equipment. Pursuant to Hilliard City Code, Section 509.08, construction activity is only permitted between the hours of 7:30 a.m. and 7:00 p.m. Any construction activity beyond these hours requires a written request to the Director of Public Service meeting the requirements of Hilliard City Code, Section 509.08(b).
- Non-rubber tired vehicles shall not be moved on or across public streets or highways, pedestrian pathways and sidewalks without the written permission of the City Engineer.
- Tracking or spilling mud, dirt, or debris upon streets, residential or commercial drives, sidewalks or bike paths is prohibited per Hilliard City Code, Section 905.12 and any such occurrence shall be cleaned up immediately by the Contractor. If the Contractor fails to remove said mud. dirt. debris, or spillage, the City of Hilliard reserves the right to remove these materials and clean affected areas, the cost of which shall be paid by the Contractor/Developer per Hilliard City Code, Section 905.13.
- During construction the Contractor shall provide adequate drainage and proper soil erosion control measures for protection of all adjacent roads and lands, per Ohio's Rainwater and Land Development Manual.
- The Contractor shall restore all disturbed areas to equal or better than existed before construction. Drainage ditches or watercourses that are disturbed by construction shall be restored to the grades and cross-sections that existed before construction.
- The Contractor shall conduct his operations so as to maintain at all times sewer, drain, and ditch flows through existing facilities to remain in place and through existing facilities to be replaced until new facilities are completed and put into service. The Contractor, to a condition satisfactory to the City Engineer, shall restore the flow of all sewers, drains, and other watercourses disturbed during the prosecution of the work.
- Any modification of the work as shown on these drawings must have prior written approval by the Hilliard City Engineer.
- The Contractor shall call toll free, the Ohio Utilities Protection Service (OUPS) at 1-800-362-2764 seventy-two (72) hours in advance of the anticipated start of construction, and shall notify all utility companies at least forth-eight (48) hours prior to work in the vicinity of their lines.
- Existing utilities shown on the plan are from the best available records and field investigation and are not necessarily complete or correct. The Contractor is responsible for the investigation, location, support, protection and restoration of all existing utilities and appurtenances whether shown or not.
- The Contractor shall expose and verify the location and elevation of any utilities within the limits of the proposed conduit path, prior to starting any excavation. In

- case of conflict, adjustments in location and elevation of the proposed utilities may be made if approved per General Note #19, or arrangements shall be made to move the existing utility to provide adequate clearance.
- Existing drain tiles encountered during construction SHALL be reconnected or connected to the storm sewer system by the Contractor, as approved by the City Engineer. The cost of said work to be included in the unit price bid for the
- All signs, landscaping, structures or other appurtenances disturbed or damaged during construction shall be replaced or repaired to the satisfaction of the City Engineer. The Contractor shall pay for the cost of this work.

PROJECT NOTES

EXPOSE EXISTING UTILITY:

Where potential grade and alignment conflicts might occur with existing utilities, or as specifically called out on the plans, the contractor shall expose utilities or structures sufficiently in advance of laying pipe for the design engineer to verify the vertical and horizontal effect on the proposed construction. any discrepancy with the plans shall be coordinated with the city to ensure that there are no construction or conflict issues associated with said discrepancy. the cost of this work shall be included in the unit price bid for the various improvement items if a specific bid item is not provided in the estimate of quantities.

The Contractor shall perform field reconnaissance to become acquainted with the existing site conditions and the potential effects upon the scope of work.

The Contractor is responsible for containing all performed work and all equipment, materials, vehicles, etc., used to complete the work within the project limits, as shown on

The Contractor is responsible for cost of restoration for any area outside of the project limits to former condition or better and to the satisfaction of the Property Owner and the

MAINTAIN DRAINAGE:

The flow in all sewers, drains and watercourses encountered shall be maintained by the Contractor at his own expense, and whenever such watercourses and drains are disturbed or destroyed during the prosecution of the work, they shall be restored by the Contractor at his own cost and expense, unless specific provision is made within the Contract Documents for the measure of and payment for such cost specific items, to a condition satisfactory to the City.

The Contractor shall be responsible for keeping all soil stockpiles protected from erosion. The areas surrounding the stockpiles are to be protected from sediment with the use of perimeter control devices such as compost filter socks or silt fences. These perimeter control devices shall be maintained for the duration of the project.

ITEM SPECIAL - BASIN SEDIMENT REMOVAL

Pump accumulated sediment from the bottom of the basin into the Geotextile Tubes staged adjacent to the basin for sediment dewatering. The Geotextile Tube shall be placed on a layer of hardwood mulch (see detail on Sheet 3). The City of Hilliard will remove the sediment filled Geotextile Tubes sediment, and mulch from the site and restore the Geotextile Tube and mulch pad footprints. Estimated basin sediment depth and volumes to be removed are identified on the Basin rehabilitation plan sheets. Payment will be for pumping of sediment into the Geotextile Tubes.

The cost of all labor, equipment, expenses, and materials associated with this item as detailed in the Plans shall be included in the price bid for Item Spec., Basin Sediment Removal, CY.

This work consists of placing hardwood mulch for placement of geotextile dewatering tubes for leveling. Mulch shall be placed in a manner to create a level surface for the geotextile tube. See Detail on Sheet 3.

Mulch should be organic, free from noxious weeds, mold or other deleterious materials and suitable for a top dressing of trees, shrubs and plantings.

Payment:

Payment will be for all labor, equipment and material for the placement of Hardwood Mulch by the cubic yard (CY). The City of Hilliard will remove the mulch upon completion of the

ITEM SPECIAL - GEOTEXTILE SEDIMENT DEWATERING TUBES

Utilize a Geotextile Desludging Tube from Titan Environmental for basin sediment pumping and dewatering. See Detail on Sheet 3.

The City of Hilliard will remove and dispose of the sediment filled Geotextile Tubes upon completion of the project.

Approved supplier: Titan Environmental, or approved alternative.

The cost of all labor, equipment, expenses, and materials associated with this item as detailed in the Plans shall be included in the price bid for Item Spec., Sediment Dewatering

ITEM SPECIAL - DIGITAL VIDEO RECORDING

A minimum of one week prior to commencing Work, the Contractor shall have digital video taken of all areas where construction is to take place. The video shall be provided to the City prior to commencing Work and shall be taken along the line of construction and site access and staging areas at sufficient detail as necessary to clearly depict details of existing conditions. The video shall serve as a record of the existing conditions and will be used as a reference by the City to determine sufficiency of restoration of areas disturbed by construction access and staging, including pedestrian trails, roadways, curbs, sidewalks, lawns and open space. The Contractor shall also have digital video taken of any unusual conditions encountered during construction that are not already a matter of video or photographic record. In any areas where existing conditions cannot be determined by means of the video provided by the Contractor, the area shall be restored as directed by the City at no additional cost to the Owner.

All digital video shall be in color and submitted to the City on flash drive. All videos shall be indexed and catalogued in such a manner that each recorded area is readily identifiable, and shall also indicate the date and time (hour, minutes and seconds) on which the recording was made. All flash drives shall become the property of the Owner.

All work required to produce and deliver the video to the City shall paid for under Item, Spec., Digital Video Recording, LS.

ITEM SPECIAL - BASIN DEWATERING

Contractor shall perform basin dewatering operations consisting of temporarily lowering the basin water level to an elevation necessary to maintain the basin. The Contractor shall pump the water from near the water surface level into the basin outlet structure. Contractor shall install and maintain dewatering operations, collect and remove accumulated sediment from the work area, and remove dewatering works upon completion of the construction activities that require dewatering. Dewatering activities shall be performed in strict accordance with local noise ordinances. The Contractor shall furnish, install, and maintain throughout the course of the work mufflers, noise—control enclosures, or other noise control methods, measures, and features on and around all dewatering pumps such that steady noise emanating from this equipment does not disturb adjacent property operations. The cost of all labor, equipment, and materials associated with this work shall be included in the price bid for Item Spec., Basin Dewatering, LS, As Per Plan.

ITEM SPECIAL - GRADE CHECKING

Grade checking shall be performed at incremental stages of the project. Surveying shall be performed under supervision of an Ohio licensed Professional Surveyor. Survey data will be evaluated by the City for conformance within this rehabilitation plan. The Contractor must submit updated survey data to document that all required adjustments have resolved the noted deficiencies.

Submittal Requirements:

Submit survey spot shots to the City in a CAD-compatible format (i.e. point files as .csv or .txt) for the following items until grade is approved.

Basin Sediment Removal (All Basins):

Submit spot shots along the bottom of the basin with elevations after sediment removal. Minimum of 5 spot shots near the center, deepest portion of the basin as shown on the plan shall be provided.

Basin Shoreline Protection (Anderson Meadows only):

Submit spot shots of the top and bottom of rock, flexamat, and temporary erosion control matting elevations. Minimum of a spot shot every 15 feet arounf the basin at the bottom elevation of the shoreline protection and the top elevation of the shoreline protection.

Basin Outlet Structure Modifications (Bo Jackson & Heather Ridge Only):

Submit spot shots of the size and inverts of installed orifices, size and top of elevation of installed riser pipes.

The cost of all labor, equipment, expenses, and materials associated with this item as detailed in the Plans shall be included in the price bid for Item Spec., Grade Checking, Lump Sum.

ITEM 659., DRY BASIN SEEDING, AS PER PLAN (HEATHER RIDGE)

Contractor shall seed the Dry Basin areas as shown on the Heather Ridge Planting Plan and shall conform to the notes contained herein and the requirements of ODOT CMS Section 659.

Seed Mix:

(Seeding Dates: March 1 to September 14)

80% Tall Fescue, including 2 varieties: Avenger II, Royal Star, Quest, Inferno, Arid 3 and/or Pixie or equal

10% Kentucky Bluegrass, an improved variety such as Action, NuBlue, BlueChip or Liberator or equal

10% Perennial Rye Grass, an improved variety such as Infusion, Caddieshack or Goalkeeper

Application Rate:

8-10 lbs./1.000 sq.ft.

Apply Item 671, Type C Erosion Control Matting over seeded areas.

Payment will be for labor, equipment and material for the placement of seed and fertilzer.

The cost of all labor, equipment, expenses, and materials associated with this item as detailed in the Plans shall be included in the price bid for Item 659, Dry Basin Seeding,

ITEM SPECIAL - BASIN FOUNTAIN REMOVAL AND REPLACEMENT (ANDERSON MEADOWS)

Contractor shall temporarily remove the existing fountain within the Anderson Meadows Basin. The fountain is to be removed and set aside in a manner that the fountain can be reinstalled once the sediment removal and basin shoreline improvements are complete. The Contractor is responsible for any damage incurred to the fountain during removal and reinstallation. Payment will be for labor, equipment for the fountain removal and replacement.

The cost of all labor, equipment, expenses, and materials associated with this item as detailed in the Plans shall be included in the price bid for Item Spec., Fountain Removal and Replacement, Lump Sum.

ITEM SPECIAL - TRASH AND DEBRIS REMOVAL (ANDERSON MEADOWS)

Contractor shall remove the existing trash/debris located within the basin and dispose offsite in accordance with federal, state and local requirements. The location of the trash/debris is identified on Sheet 8. Payment will be for labor and equipment necessary to remove and dispose of the trash and debris.

The cost of all labor, equipment, expenses, and materials associated with this item as detailed in the Plans shall be included in the price bid for Item Spec., Trash and Debris Removal, Lump Sum.

ITEM SPECIAL - SHORELINE PROTECTION (WASHED RIVER GRAVEL)

Contractor shall place gravel overtop of filter fabric as part of the shoreline protection

Washed River Gravel:

- Washed rounded river gravel Clean of dust and fines
- Diameter: 2—inch minimum to 8—inch maximum
- Color: neutral grays, browns, and tans

Payment will be for labor, equipment, and material necessary to install the shoreline

Contractor shall grade, and import suitable material if necessary, the basin shoreline prior to installation of the shoreline protection. The shoreline shall be graded in a manner to achieve slopes per the contours and slope labels on the basin rehabilitation plan sheets and adjacent grades. Payment will be for labor, equipment, and materials necessary to grade the shorelines prior to the shoreline protection installation.

The cost of all labor, equipment, expenses, and materials associated with this item as detailed in the Plans shall be included in the price bid for Shoreline Protection (Washed River Gravel), CY.

ITEM SPECIAL - EXISTING FILTER BAG REMOVAL AND DISPOSAL (BO JACKSON BASIN)

Contractor shall remove the existing sediment filled filter bag and dispose offsite. The resulting disturbed area shall be seeded and mulched per Item 659. Payment will be for labor and equipment necessary to remove and dispose of the filter bag and retained

The cost of all labor, equipment, expenses, and materials associated with thiz item as detailed in the Plans shall be included in the price bid for Item Spec., Filter Bag Removal and Disposal, Lump Sum.

ITEM SPECIAL - BASIN OUTLET STRUCTURE MODIFICATION (BO JACKSON BASIN)

Contractor shall install orifices at the existing riser pipe located within the basin outlet structure. Reference the Existing Basin Outlet Modification Detail on Sheet 11 for orifice size and elevation. The Payment will be for labor, equipment, and material necessary to construct the basin outlet structure modifications.

The cost of all labor, equipment, expenses, and materials associated with this item as detailed in the Plans shall be included in the price bid for Item Spec., Basin Outlet Structure Modification, Lump Sum.

ITEM SPECIAL - TEMPORARY GOOSE WIRE

Contractor shall install temporary goose wire to protect the wetland plantings. Reference the goose wire fence detail on the Heather Ridge and Bo Jackson Planting Plan Sheets for wire and lath requirements. Payment will be for labor, equipment, and material necessary to install the goose wire.

The City of Hilliard shall remove the Temporary Goose Wire 1 year after the planting is

The cost of all labor, equipment, expenses, and materials associated with this item as detailed in the Plans shall be included in the price bid for Item Spec., Goose Wire, LF.

ITEM SPECIAL - DRAINAGE CHANNEL EXCAVATION (HEATHER RIDGE DRY BASIN)

Contractor shall remove sediment and grade drainage channels within the dry basins in a manner to provide positive drainage to the downslope storm sewer. As—built storm sewer inverts are provided on Sheet 18 to assist with channel grading. Payment will be for labor and equipment necessary to remove sediment and dispose of offsite, and grade the drainage channels.

The cost of all labor, equipment, expenses, and materials associated with this item as detailed in the Plans shall be included in the price bid for Item Spec., Drainage Channel Excavation, CY.

ITEM SPECIAL - BASIN OUTLET STRUCTURE MODIFICATION (HEATHER RIDGE WETLAND BASIN) Contractor shall remove and dispose of the existing temporary riser pipe connected to the permanent submerged pipe associated with the basin outlet structure. The Contractor shall additionally extend the permanent riser pipe located inside of the outlet structure catch basin and install the four inch orifice. Reference the Existing Basin Outlet Modification Detail on Sheet 18. The Payment will be for labor, equipment, and material necessary to construct the basin outlet structure modifications.

The cost of all labor, equipment, expenses, and materials associated with this item as detailed in the Plans shall be included in the price bid for Item Spec.. Basin Outlet Structure Modification, Lump Sum.

ITEM SPECIAL - EXISTING PAVEMENT PROTECTION

Contractor shall protect the existing pavement features throughout construction. Protect the existing pavement with structural matting.

The cost of all labor, equipment, expenses, and materials associated with this item as detailed in the Plans shall be included in the price bid for Item Spec., Existing Pavement Protection, SY.

ITEM SPECIAL - BASIN RECHARGE WELL ABANDONMENT (ANDERSON MEADOWS)

Contractor shall permanently abandon the exisiting basin recharge well. The Contactor shall remove the existing well cap, expose the well pipe at least 3-feet below the existing grade, remove well pipe within excavated areas, plug the bottom of the well by placing 50 pounds of bentonite clay, replace well cap, backfill excavated areas. Resulting disturbed area will be stabilized with the proposed shoreline protection and seeding and mulching per the restoration plan. Once the well is plugged, remove all visible electrical or service boxes and equipment.

The cost of all labor, equipment, expenses, and materials associated with this item as detailed in the Plans shall be included in the price bid for Item Spec., Basin Recharge Well

ASIN $\mathbf{\alpha}$ RETENTION I ON PROGRAM ES & DETAILS

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March 2025

SCALE

JOB NO.

20240696

NONE

SHEET

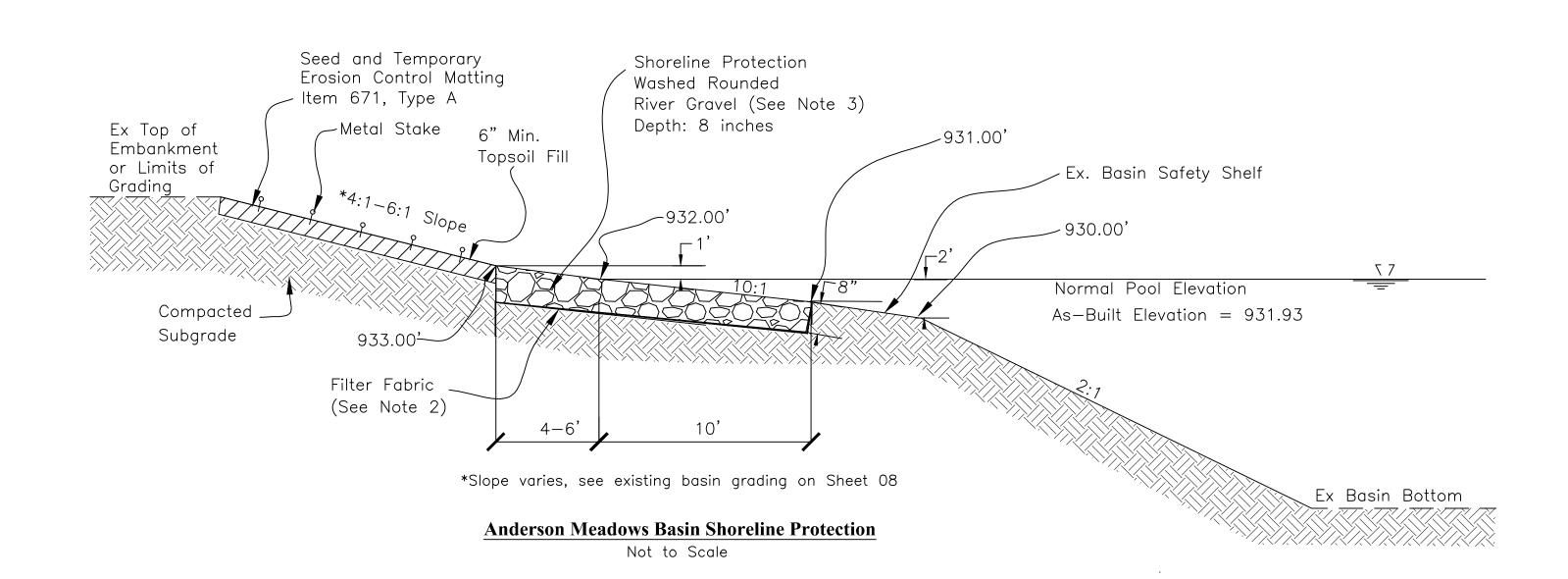
02/19

GEOTEXTILE TUBE - BASIN SEDIMENT REMOVAL

Not To Scale

GEOTEXTILE TUBE NOTES:

- 1. The Contractor shall be solely responsible for furnishing, installing, inspecting, and maintaining the Geotextile Tube and Mulch pad.
- 2. The bag locations shown on the plan for each site are potential locations and the contractor is responsible for determining the final location within the provided work limits.
- 3. The bag is to be place in an area where it can sit level. The mulch is to be utilized to create a cradle for the bag to lay within.
- 4. The City of Hilliard will be responsible for the removal of the sediment filled Geotextile Tube, Mulch pad and the restoration of any disturbed areas resulting from the bag removal.
- 5. Sediment from the basins is to be pumoed from the basin bottom into the Geotextile Tubes.
- 6. The Geotextile Tube size can vary based upon the manufacturer availability. If multiple Geotextile Tubes are needed, multiple mulch pads will be needed. This additional areas not shown on the plan will be at the expense of the Contractor.
- 7. The water draining from the Geotextile Tubes must be directed in a manner where it will reenter the basin and not cause damage to the surrounding area.
- 8. The Geotextile Tubes will be left for a period of 4-6 months to fully drain and for the pumped sediment to harden for disposal by the City.
- 9. Orange Construction Fencing shall be installed along the perimeter of the bags during the 4-6 drying period.



- The detail shows placement of embankment/shoreline protection to re-establish pond/basin bank and preferred slope. In some cases, cut/excavation or filling with topsoil may be required to achieve the desired bank slopes. The Contractor shall inspect the pond/basin prior to submitting a bid to determine
- The filter fabric shall be install within the limits of the shoreline protection and the beginning and end of the filter fabric shall be placed folded down, backfilled within an excavated or sliced trench. Excavated/trench cut depth shall be a minimum of
- Washed Rounded River Gravel a. Material: Rounded River Gravel/Local Darby Wash, Washed and Clean of dust and fines. Crushed stone or concrete is not permitted. b. Size range: 2-inch minimum to 8-inch maximum

c. Color: Neutral Greys, Browns and Tans

BASIN SHORELINE PROTECTION NOTES:

excavation and embankment extents. No additional payment will be made for pre—bid field visit.

6" deep.

RETENTION BASIN IN PROGRAM

March 2025

SCALE **NONE**

20240696

EROSION AND SEDIMENT CONTROL GENERAL NOTES:

SITE DATA

Project Manager:
Jeff Cox, PE
City of Hilliard
3800 Municipal Way
Hilliard, Ohio, 43026

(614) 334-2350

Plan Designer:
Shawn Arden, PE
EMH&T
5500 New Albany Road
Columbus, Ohio 43054
(614) 775-4210

<u>Development Type:</u>

sarden@emht.com

Stormwater Basin Maintenance at 4 individual locations.

<u>Disturbed Acreage:</u>

Anderson Meadows: 1.68 Acres Bo Jackson: 2.95 Acres Greyson Apartments: 0.98 Acres Heather Ridge: 2.64 Acres

Disturbed areas will result from basin maintenance activities and Ohio EPA NPDES permit coverage is not required. No Construction General Permit coverage is required since this work is covered under Ohio EPA's Routine Maintenance Exemption.

Existing ground cover of site:

Anderson Meadows: Existing basin with trees, grassed side slopes and paved walking paths. Bo Jackson: Existing basin with grassed sides slopes

Greyson Apartments: Existing basin with grass side slopes, stone basin shoreline, and bushes along the shoreline

Heather Ridge: Existing wetland vegetation and grassed dry basins.

<u>Surface Water Features:</u> There are no surface water features within the work limits on any of the five proposed sites.

<u>Adjacent Areas:</u>

Anderson Meadows: Existing residential homes to the north, east, and west and Roberts Road

Bo Jackson: Existing athletic building to the west, wooded areas to the north and east, and a commercial building to the south.

Greyson Apartments: Existing apartment buildings to the west, public library to the north,

and wooded areas to the east and south.

Heather Ridge: existing residential homes to the north, west, and south, and a railroad track to the east, and

Receiving Waters:

Anderson Meadows: Hamilton Run

Bo Jackson: Hayden Run

Greyson Apartments: Unnamed Tributary to the Scioto River

Heather Ridge: Unnamed Tributary to the Scioto River

Storm Water Management:

N/A - existing detention and water quality basins.

Storm Water Quality:

The proposed improvement consists of maintenance of the existing stormwater basins. All basins were designed to provide water quality treatment per separate NPDES permits.

SEQUENCE OF CONSTRUCTION:

See plan sheets for each basin maintenance sequencing.

MAINTENANCE NOTES

Construction Road/Construction Entrance:

Both temporary and permanent roads and parking areas may require periodic top dressing with new gravel. Seeded areas adjacent to the roads and parking areas should be checked periodically to ensure that a vigorous stand of vegetation is maintained. Roadside ditches and other drainage structures should be checked regularly to ensure that they do not become clogged with silt or other debris.

Maintenance work must be performed within three days of the inspection.

Filter Fabric Fence/Compost Filter Socks:

Filter fabric fences and filter barriers shall be inspected immediately after each rainfall and at least daily during prolonged rainfall. Any required repairs shall be made immediately.

Sediment that is collected will be distributed on the protected portion of the site and stabilized. All stockpiles of earth and topsoil will be protected with temporary seeding or other means to prevent erosion.

Should the fabric on a silt fence or filter barrier decompose or become ineffective prior to the end of the expected usable life and the barrier is still necessary, the fabric shall be replaced fix promptly.

Any sediment deposits remaining in place after the silt fence or filter barrier is no longer required shall be dressed to conform with the existing grade, prepared and seeded.

Inlet Protection:

All storm sewer inlets shall be protected by sediment traps (inlet protection), which will be maintained and modified as required as construction progresses.

The structure shall be inspected after each rainfall and repairs made as needed.

Sediment shall be removed and the trap restored to its original dimensions when the sediment has accumulated to one-half (1/2) the design of the trap, or has covered a surface inlet by one-half (1/2) or filled an inlet filter bag by one-half (1/2). Removed sediment shall be deposited in a suitable area in such a manner that it will not erode.

Inlet protection along roadways shall be below—grade devices designed to capture sediment below the surface of the grate or inlet. Such systems shall not result is flooding or ponding water of the roadway surface.

Inlet protection structures shall be removed and the area stabilized when the remaining drainage area has been properly stabilized.

Maintenance work must be performed within three days of the inspection.

Temporary/Permanent Soil Stabilization:

Seeded areas shall be inspected upon rain events to ensure areas are not washing out. Washed out areas shall be repaired and reseeded. Temporary sediment controls and/or erosion control matting may need to be utilized if washout problems routinely occur.

Maintenance work must be performed within three days of the inspection.

NON-SEDIMENT POLLUTANT CONTROLS

Hazardous or Toxic Materials:

Educate construction personnel and subcontractors who may use or handle toxic or hazardous materials.

Disposal and Handling of Hazardous and Other Construction Waste

Do:

- Prevent Spills
- Use products up
- Follow label direction for disposal
- Remove lids from empty bottles and cans when disposing in trash
- Recycle wastes whenever possible

Don't

- Don't pour into waterways, storm drains or onto the ground
- Don't pour down the sink, floor drain, or septic tanks
- Don't bury chemicals or containers
- Don't burn chemicals or containersDon't mix chemicals together

Waste Disposal:

Leak proof containers shall be provided for the proper collection of all waste material. Construction and demolition debris (CD&D) must be disposed of in accordance with Ohio Revised Code 3714 at an approved Ohio EPA CD&D landfill. Temporary sanitary water facilities additionally must be provided and maintained. Dumpsters shall be closed or covered when not in use (non—operating hours) to limit the temporarily stored waste to storm water exposure and ensuring that no liquid wastes or wastes saturated with significant materials are allowed to be accumulated in trash dumpsters.

Construction Chemicals:

The storage and mixing of chemicals shall be performed in a designated area away from watercourses and storm sewer inlets. Chemical containers shall be properly stored on—site to ensure that they are not exposed to rain events. Empty containers shall be properly disposed of off—site at an approved facility. Equipment maintenance and refueling areas are to be located away from storm water conveyance channels and surface waters. A Spill Prevention Control and Countermeasure Plan (SPCC) must be provided by the Contractor if on—site temporary fuel tanks exceed 660 gallons or if the combined storage is above 1,320 gallons.

Equipment Fueling and Maintenance:

Equipment fueling and maintenance shall be performed away from watercourses, ditches or storm drains, in an area designated for that purpose. The designated area shall be equipped for recycling oil and catching spills. Secondary containment shall be provided for all fuel oil storage tanks. These areas must be inspected every seven days and within 24 hours of a 0.5 inch or greater rain event to ensure there are no exposed materials which would contaminate storm water. Site operators must be aware that Spill Prevention Control and Countermeasures (SPCC) requirements may apply. An SPCC plan is required for sites with one single aboveground tank of 660 gallons or more, accumulative aboveground storage of 1,320 gallons or more, or 42,000 gallons of underground storage.

Concrete Washout Areas:

Concrete trucks shall have a designated wash—pit or sump with no potential for discharge to ensure that the concrete wash shall not enter storm drains and waters of the state.

Contaminated Soils:

If substances such as oil, diesel fuel, hydraulic fluid, antifreeze, etc. are spilled, leaked, or released onto the soil, the soil should be dug up and disposed of at licensed sanitary landfill or other approved petroleum contaminated soil remediation facility. In the event there are large extensive areas of contaminated soils additional measures above and beyond the conditions of Ohio EPA's General Construction Storm Water Permit will be

required. Depending on the extent of contamination, additional treatment and/or collection and disposal may be required. Hazardous substances spilled of released into the soil shall be dug up and disposed of at a licensed sanitary landfill.

Spill Reporting Requirements:

Spills on pavement shall be absorbed with sawdust, kitty litter or other absorbent material and disposed of with the trash at a licensed sanitary landfill. Hazardous or industrial wastes such as most solvents, gasoline, oil—based paints, and cement curing compounds require special handling. Spills shall be reported to Ohio EPA (1-800-282-9378). Spills of 25 gallons or more of petroleum products shall be reported to Ohio EPA (1-800-282-9378), the local fire department, and the Local Emergency Planning Committee within 30 min. of the discovery of the release. All spills, which result in contact with waters of the state, must be reported to OHIO EPA's Hotline.

<u>Dust Control:</u>

Manufactured dust suppressants shall be applied at the manufactures specifications. Water trucks can additionally be used. Manufactured products shall be applied in a manner to not result in discharges to waters of the state. The suppressants shall not be applied if precipitation is noted in the short term forecast. Used oil may not be used as a dust suppressant.

Clean Hard Fill:

No construction related waste materials are to be buried on—site. The City of Hilliard does not allow the disposal of waste materials within City limits.

<u>Open Burning:</u>

No materials may be burned which contain rubber, grease, asphalt, or petroleum products such as tires, cars, auto parts, plastics or plastic—coated wire. Open burning is not allowed in restricted areas. Restricted areas are defined as: 1) within corporation limits; 2) within 1000 feet outside a municipal corporation having a population of 1000 to 10,000; and 3) a one mile zone outside of a corporation of 10,000 or more. Outside a restricted area, no open burning can take place within a 1000 feet of an inhabited building located off the property where the fire is set. Open burning is permissible in a restricted area for the following activities: heating tar, welding and acetylene torches, smudge pots and similar occupational needs, and heating for warmth or outdoor barbeques. Outside of restricted areas, open burning is permissible for landscape wastes, land—clearing wastes, and agricultural wastes.

Off-site traffic:

Temporary construction drives or the existing paved drives shall be utilized to assist with the prevention of off—site tracking of mud. Accumulated mud tracked beyond the limits of the project shall be removed on an as needed basis by the contractor. Collected mud shall be incorporated into the disturbance activities associated with the site and appropriately stabilized.

Other Air Permitting Requirements:

All contractors and subcontractors must be made aware that certain activities associated with construction will require air permits. Activities including but not limited to mobile concrete batch plants, mobile asphalt plants, concrete crushers, large generators, etc., will require specific Ohio EPA Air Permits for installation and operation. These activities must seek authorization from the corresponding district of Ohio EPA. Notification for Restoration and Demolition must be submitted to Ohio EPA for all commercial sites to determine if asbestos corrective actions are required.

Process Waste Water/Leachate Management:

All contractors shall be made aware that only stormwater discharges are permitted to flow offsite. Other waste streams/discharges including but not limited to vehicle and/or equipment washing, leachate associated with on—site waste disposal, concrete wash outs, etc are a process wastewater. They are not authorized for discharge under the General Storm Water Permit associated with Construction Activities. All process wastewaters must be collected and properly disposed at an approved disposal facility. In the event there are leachate outbreaks associated with onsite disposal, measures must be taken to isolate this discharge for collection and proper disposal. Investigative measures and corrective actions must be implemented to identify and eliminate the source of all leachate outbreaks.

MARK DATE DESCRIPTION

CITY OF HILLIAR

City of Hilliard, Ohio
SITE IMPROVEMENT PLAN
FOR
PST-27, DETENTION AND RETENTION BASIN 2
REHABILITATION PROGRAM
GENERAL, NOTES & DETAILS

Evans, Mechwart, Hambleton & Tilton, Inc. Engineers • Surveyors • Planners • Scientists 5500 New Albany Road, Columbus, OH 43054 Phone: 614.775.4500 Toll Free: 888.775.3648

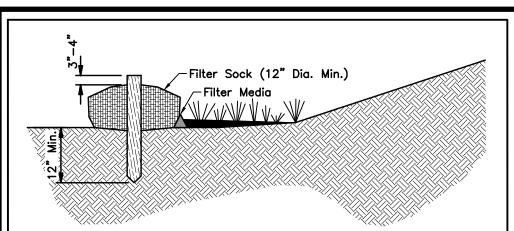
March 2025

NONE

SCALE

20240696

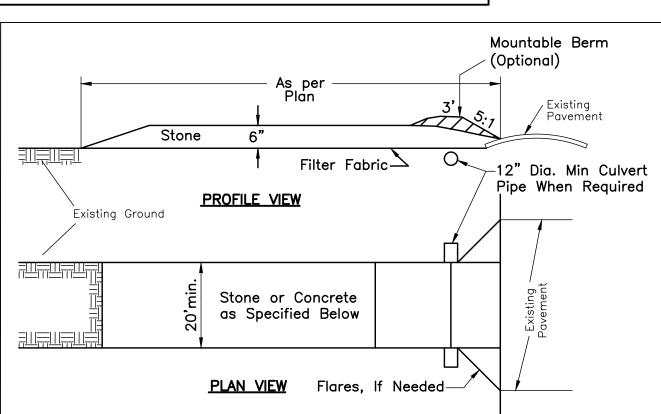
SHEET



- Materials Compost used for filter socks shall be weed, pathogen and insect free and free of any refuse, contaminants or other materials toxic to plant growth. They shall be derived from a well-decomposed source of organic matter and consist of a particles ranging from 3/8" to 2".
- Filter socks shall be 3 or 5 mil continuous, tubular, HDPE 3/8" knitted mesh netting material, filled with compost passing the above specifications for compost products.
- Installation:
 3. Filter socks will be placed on a level line across slopes, generally parallel to the base of the slope or other affected area. On slopes approaching 2:1, additional socks shall be provided at the top and as needed midslope.
- Upon installation of the filter sock, additional filter media (matching the media inside of the sock) shall be placed on the upland side of the filter sock. Filter media shall extend halfway up the sock and slope at a maximum of 45 degrees to existing ground elevation. Filter socks intended to be left as a permanent filter or part of the natural landscape, shall be seeded at the time of installation for
- establishment of permanent vegetation. Filter socks are not to be used in concentrated flow situations or in runoff channels.

- Maintenance:
 7. Routinely inspect filter socks after each significant rain, maintaining filter socks in a functional condition at all times.
- Remove sediments collected at the base of the filter socks when they reach 1/3 of the exposed height of the practice.
- Where the filter sock deteriorates or fails, it will be repaired or
- replaced with a more effective alternative. 10. Removal - Filter socks will be dispersed on site when no longer required in such as way as to facilitate and not obstruct seedings.

COMPOST FILTER SOCK Not To Scale



- Notes:

 1. Stone Size Use 2" stone or reclaimed or recycled concrete equivalent.
- 2. Length As identified on the plan sheet for each individual site 3. Thickness Not less than six (6) inches.
- 4. Width Twenty (20) feet minimum but not less than the full width at points where ingress or egress occurs. May be wider as determined by the City of
- 5. Flares or radii shall be installed at the entrance if the public roadway speeds and/or traffic conditions warrant it, of if directed by C.O.C. personnel.
- 6. Filter Fabric Will be placed over the entire area prior to placing the stone. Surface Water — All surface water flowing or diverted toward construction entrances shall be piped across the entrance. If piping is impractical, a mountable berm with 5:1 slopes shall be permitted.
- 8. Culvert Pipe 12" minimum pipe is required if a storm ditch or swale exists at the proposed entrance. The culvert pipe inverts shall match the existing ditch at both sides of the entrance.
- 9. Maintenance The entrance shall be maintained in a condition which will protect the public right-of-way. This may require periodic top dressing with additional stone as conditions demand and repair and/or cleanout of any measures used to trap sediment. All sediment spilled, dropped, washed, or
- tracked onto public right—of—way must be removed immediately.

 10. Washing Wheels shall be cleaned to remove sediment prior to entrance into public right—of—way. When washing is required, it shall be done on an area stabilized with stone and which drains into an approved sediment trapping
- 11. Periodic inspection and needed maintenance shall be provided after each rain.

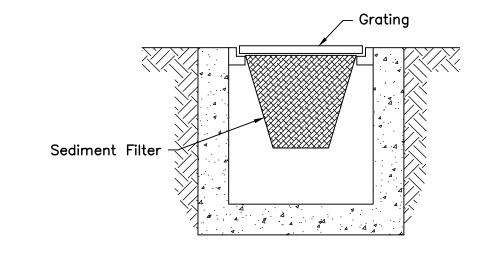
STABILIZED CONSTRUCTION ENTRANCE SCALE: NONE

Anderson Meadows Detention Basin			
Item No.	Description	Quantity	Units
201	Clearing and Grubbing	1	LS
203	Shoreline Excavation and Embankment	770	CY
204	Geotextile Fabric, Type B (Per COC CMS 712.09)	1,350	SY
207	Stabilized Construction Entrance	1	LS
207	Storm Sewer Inlet Protection	2	EA
207	Compost Filter Sock (12-inch Diam.)	335	LF
207	Construction Fence/Tree Protection Fence	1,750	LF
207	Street Sweeping	1	LS
614	Maintaining Traffic (Path Closure Signs)	1	LS
623	Construction Layout Stakes	1	LS
624	Mobilization	1	LS
653	Topsoil Furnished and Placed	220	CY
659	Seeding and Mulching, Class 1	4,165	SY
661	Balled & Burlapped Trees	3	EA
670	Slope Erosion Protection Mat, Type A	1,310	SY
SPEC	Trash and Debris Removal, As Per Plan	1	LS
SPEC	Basin Dewatering, As Per Plan	1	LS
SPEC	Digital Video Recording	1	LS
SPEC	Basin Fountain Removal and Replacement, As Per Plan	1	LS
SPEC	Basin Sediment Removal, As Per Plan	1,600	CY
SPEC	Shoreline Protection (Washed Rounded River Gravel)	305	CY
SPEC	Geotextile Tube Hardwood Mulch Base (Filter Bag Platform)	200	CY
SPEC	Geotextile Sediment Dewatering Tubes	4	EA
SPEC	Existing Pavement Protection	275	SY
SPEC	Basin Recharge Well Abandonment, As Per Plan	1	LS
SPEC	Grade Checking, As Per Plan	1	LS

Heather Ridge Retention Basins and Wetland Basin			
Item No.	Description	Quantity	Units
201	Clearing and Grubbing	1	LS
207	Construction Fence/Tree Protection Fence	885	LF
207	Street Sweeping	1	LS
623	Construction Layout Stakes	1	LS
624	Mobilization	1	LS
659	Seeding and Mulching, Class 1	9,500	SY
659	Dry Basin Seeding, As Per Plan	1,450	SY
661	Bare Root Shallow Wetland Shelf, As Per Plan	120	EA
661	Bare Root Micropool/Forebay Plantings, As Per Plan	300	EA
670	Slope Erosion Protection Mat, Type C	1,450	SY
SPEC	Digital Video Recording	1	SY
SPEC	Basin Sediment Removal, As Per Plan	200	CY
SPEC	Geotextile Tube Hardwood Mulch Base (Filter Bag Platform)	100	CY
SPEC	Geotextile Sediment Dewatering Tubes	2	EA
SPEC	Grade Checking, As Per Plan	1	LS
SPEC	Drainage Channel Excavation, As Per Plan	30	CY
SPEC	Basin Outlet Structure Modification, As Per Plan	1	LS
SPEC	Temporary Goose Wire, As Per Plan	1,802	LF
SPEC	Existing Pavement Protection	800	SY
SPEC	Basin Dewatering, As Per Plan	1	LS

	Bo Jacksons Wetland Basin		
ltem No.	Description	Quantity	Units
201	Clearing and Grubbing	1	LS
203	Shoreline Excavation and Embankment	300	CY
207	Stabilized Construction Entrance	1	LS
207	Street Sweeping	1	LS
207	Construction Fence/Tree Protection Fence	465	LF
624	Mobilization	1	LS
653	Topsoil Furnished and Placed	40	CY
659	Seeding and Mulching, Class 1	6,200	SY
661	Bare Root Shallow Marsh Plantings, As Per Plan	1,680	EA
661	Bare Root Micropool/Forebay Plantings, As Per Plan	360	EA
670	Slope Erosion Protection Mat, Type A	240	SY
SPEC	Digital Video Recording	1	SY
SPEC	Basin Sediment Removal, As Per Plan	300	CY
SPEC	Geotextile Tube Hardwood Mulch Base (Filter Bag Platform)	150	CY
SPEC	Geotextile Sediment Dewatering Tubes	3	EA
SPEC	Grade Checking, As Per Plan	1	LS
SPEC	Existing Filter Bag Removal and Disposal, As Per Plan	1	LS
SPEC	Basin Outlet Structure Modification, As Per Plan	1	LS
SPEC	Temporary Goose Wire, As Per Plan	3,250	LF
SPEC	Basin Dewatering, As Per Plan	1	LS

Greyson Apartments Detention Basin			
Item No.	Description	Quantity	Unit
201	Clearing and Grubbing	1	LS
207	Stabilized Construction Entrance	1	LS
207	Street Sweeping	1	LS
207	Construction Fence/Tree Protection Fence	480	LF
614	Maintaining Traffic (Path Closure Signs)	1	LS
624	Mobilization	1	LS
659	Seeding and Mulching, Class 1	2,225	SY
SPEC	Digital Video Recording	1	SY
SPEC	Basin Sediment Removal, As Per Plan	50	CY
SPEC	Geotextile Tube Hardwood Mulch Base (Filter Bag Platform)	50	CY
SPEC	Geotextile Sediment Dewatering Tubes	1	EA
SPEC	Existing Pavement Protection	370	SY
SPEC	Grade Checking, As Per Plan	1	LS
SPEC	Basin Dewatering, As Per Plan	1	LS



- Installation:
 1. Remove the storm sewer inlet grate.
 2. Install the inlet filter onto the load bearing lip of the casting or concrete structure.
 3. Replace the storm sewer inlet grate.

- <u>Maintenance:</u>
- 1. Inspect the filter within 24—hours of a rain event.
 2. Remove accumulated sediment and debris from the filter when more than half filled.
- 3. Remove the storm sewer inlet grate.
- 4. Remove grate and empty sediment or use a vacuum truck. 5. Properly dispose of removed sediment.

6. Replace filter if damaged.

Note:
1. Dandy Sack, FryeFlow Systems Inlet Protection, FLEXSTORM Inlet Filter or approved equal are acceptable

STORM SEWER INLET BELOW GRATE SEDIMENT FILTER

SCALE: NONE

AOVEMENT PLAN
FOR
AND RETENTION BASIN 2
ATION PROGRAM
NOTES & DETAILS

March 2025

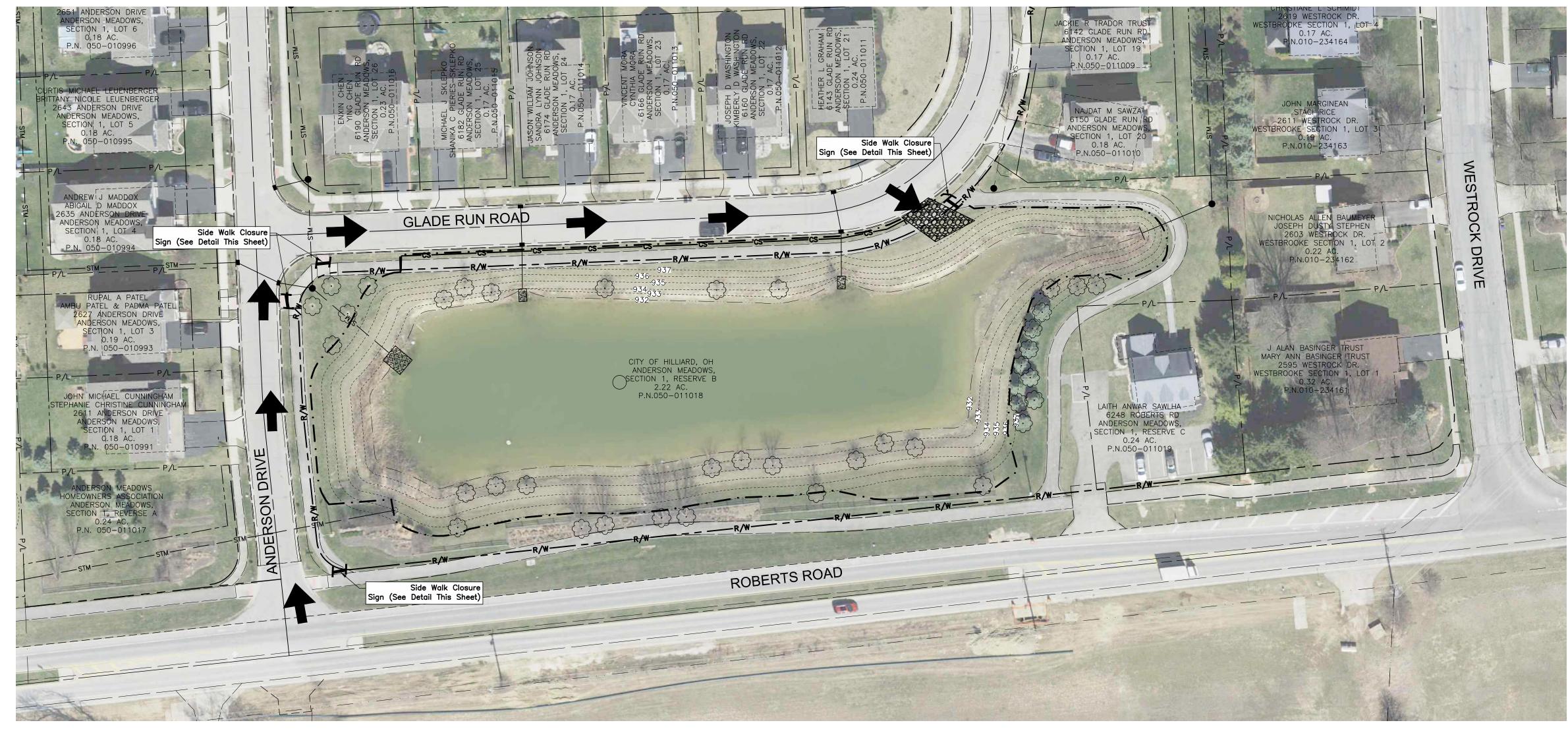
SCALE **NONE**

JOB NO.

SHEET

05/19

20240696



GRAPHIC SCALE

0 20 40 80

1 inch = 40 feet

Access to Basin

Work Limits (1.68 Acres)

LEGEND

— — R/W—— — Right of Way

— STM— — Existing Storm Sewer

Existing Contours

—— P/L—— – — Property Line

—— SAS — Existing Sanitary Sewer

DECOME.

Existing Rip Rap

R9-9-24
SIDEWALK CLOSED

6' Type II Barricade
Sidewalk/Path Temporary Closure Sign Detail

ITEM 614 - MAINTAINING TRAFFIC, AS PER PLAN

GENERAL
Traffic control shall be furnished, erected, maintained, and removed by the Contractor according to Ohio Manual of Uniform Traffic Control Devices (OMUTCD), current edition.

The Contractor shall provide a 24 hour contact who will be responsible for maintenance of traffic for the duration of the project.

Construction operations shall not begin until all temporary traffic control devices are in place and approved by the Engineer and the

Maintenance of all traffic control devices including drums, signs, barricades, sign boards, detour signage, etc., shall be the Contractor's responsibility.

CONSTRUCTION INITIATION

The Contractor will notify the City of Hilliard 14 days prior to the start of construction activities. The Contractor will immediately inform the City of Hilliard of any and all delays and/or changes regarding the construction project. The City Engineer will provide clarification for any questions about the notification requirement.

The Contractor shall submit a closure schedule to the City of Hilliard for approval prior to initiating any closure.

ALTERNATE METHODS

The Contractor may submit alternative methods for the maintenance of traffic provided the intent of the above provisions is followed and no additional inconvenience to the traveling public results from the change.

No alternative plan shall be placed in effect until approval has been received from the City of Hilliard. There shall be no additional

compensation for alternate methods.

PEDESTRIAN ACCESS

The Contractor shall be responsible for the protection and safe movement of pedestrians through, around, and away from the construction site.

The safety of pedestrian traffic shall be considered at all times in the provision of traffic control devices required by these plans and notes. It shall be the Contractor's responsibility to provide lights, signs, barricades, and other warnings to physically separate the pedestrian from hazards incidental to the construction operations such as open excavations, etc. At all times, the pedestrian MOT shall be subject to the approval of the Engineer.

If the Contractor desires to deviate from the proposed maintenance of pedestrian traffic plan, the Contractor shall submit in writing (a minimum of 14 days prior to construction) a plan to maintain pedestrian traffic for the duration of the project to the City and the Engineer for approval.

SIGNS, BARRICADES, AND VERTICAL PANELS

All construction signs, barricades, vertical panels, and drums shall conform to OMUTCD and the latest revision of the ODOT construction and material specifications.

All construction signage shall be installed and covered before construction begins. After construction sign installation, the Contractor shall notify the Engineer three working days before work begins and request an inspection of all signage.

Faces of construction signs and reflective sheeting on barricades shall be type "H" VIP. All orange construction signs shall be fluorescent orange. All sheeting will be tested for reflectivity per ODOT 730.192. Vertical panels and drum bands shall be reflectorized with type "G" (High Intensity) sheeting complying with the requirements of 730.19. All signs and barricades, vertical panels, and drums will be like new and in good condition in conformance with "Quality Guidelines For Temporary Traffic Control Devices And Features" published by ATSSA.

Maintenance of all Contractor supplied signs, barricades, vertical panels, and drums is the Contractor's responsibility. If the Contractor fails to correct deficiencies within four hours of notification, the City will correct or hire someone to correct the deficiencies. The Contractor will then be back charged per ODOT specification 614.14. In the case that back charging the Contractor is not applicable, the City will rescind and withhold all permits issued to the Contractor to work within City right—of—way until the issue is settled.

These provisions shall not in any way relieve the Contractor of any of his legal responsibilities or liabilities for the safety of the public.

Steady_burning, Type "C" lights shall be required on all barricades, drums, and similar traffic control devices in use at night.

All advance signing shall be equipped with type "A" flashing lights and (2) orange flags (24"x24"). Lights are not required on signs in place during daylight hours.

Cones are not approved for use at night.

MUD, DIRT AND DEBRIS

The tracking or spillage of mud, dirt or debris upon state highways is prohibited and any such occurrence shall be cleaned up immediately by the contractor.

PAYMENT

Payment for all maintenance of traffic items, including the furnishing, installation and maintenance of, but not limited to: flashing arrows panels, signs, sign supports, flags, flaggers, barricades, barrier, barrier reflectors, notice of closure signs, drums, cones, construction fencing, temporary pavement markings, traffic compacted surface, materials and labor for maintaining access to driveways, property owner notification/coordination and development of the operations schedule shall be at the lump sum price bid for Item 614 Maintaining Traffic, As Per Plan, which shall include all labor, material, equipment, and incidentals to complete the work as detailed in the plans. Unless separately itemized in the plans, no separate payment shall be made.

The cost for performing the maintenance of traffic as described herein shall be included in the price bid for Item 614, Maintaining Traffic, As Per Plan.

HP - 1037

Evans, Mechwart, Hambleton & Tilton, Inc.
Engineers • Surveyors • Planners • Scientists 5500 New Albany Road, Columbus, OH 43054
Phone: 614.775.4500 Toll Free: 888.775.3648
emht.com

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DATE

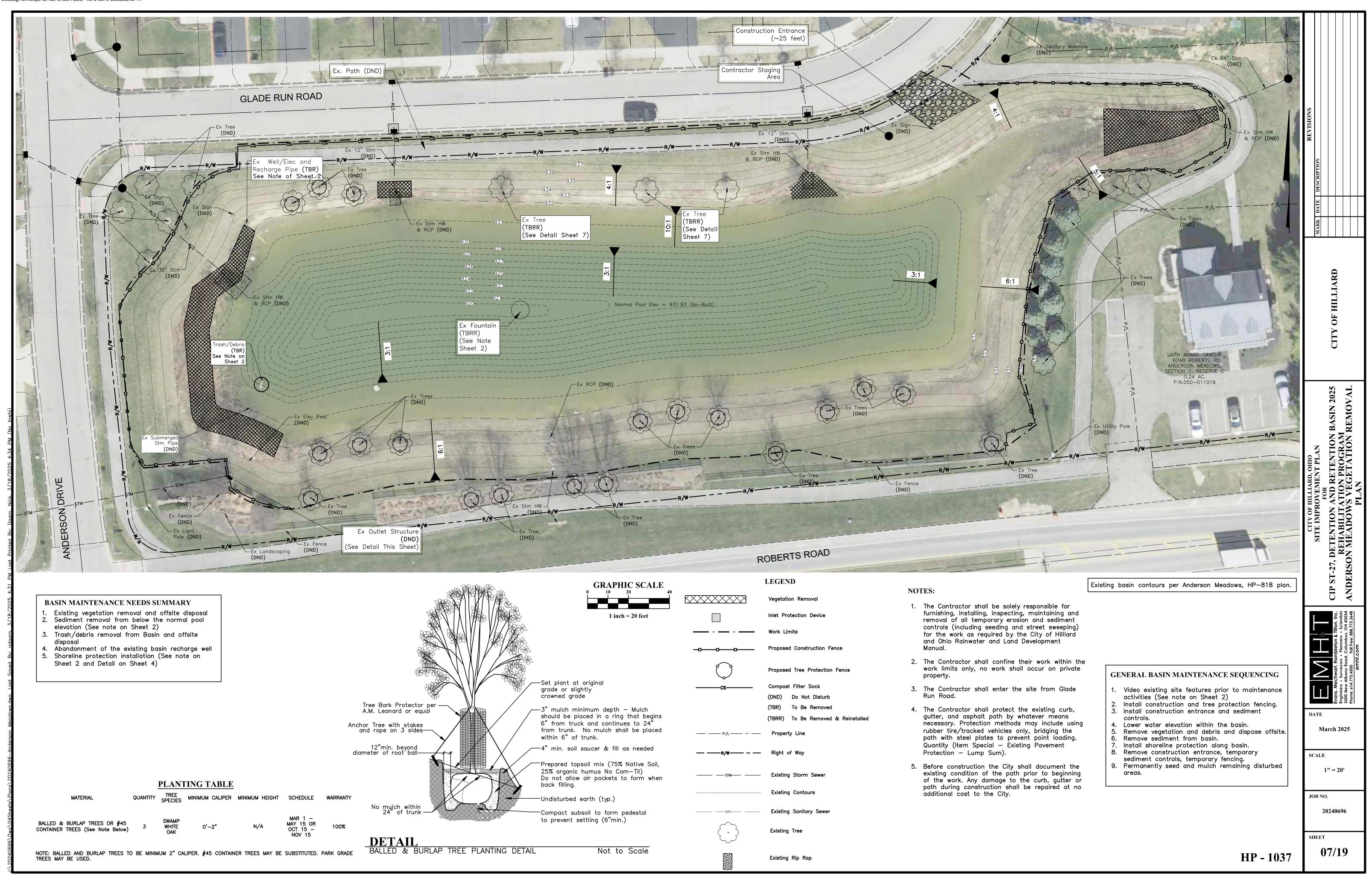
March 2025

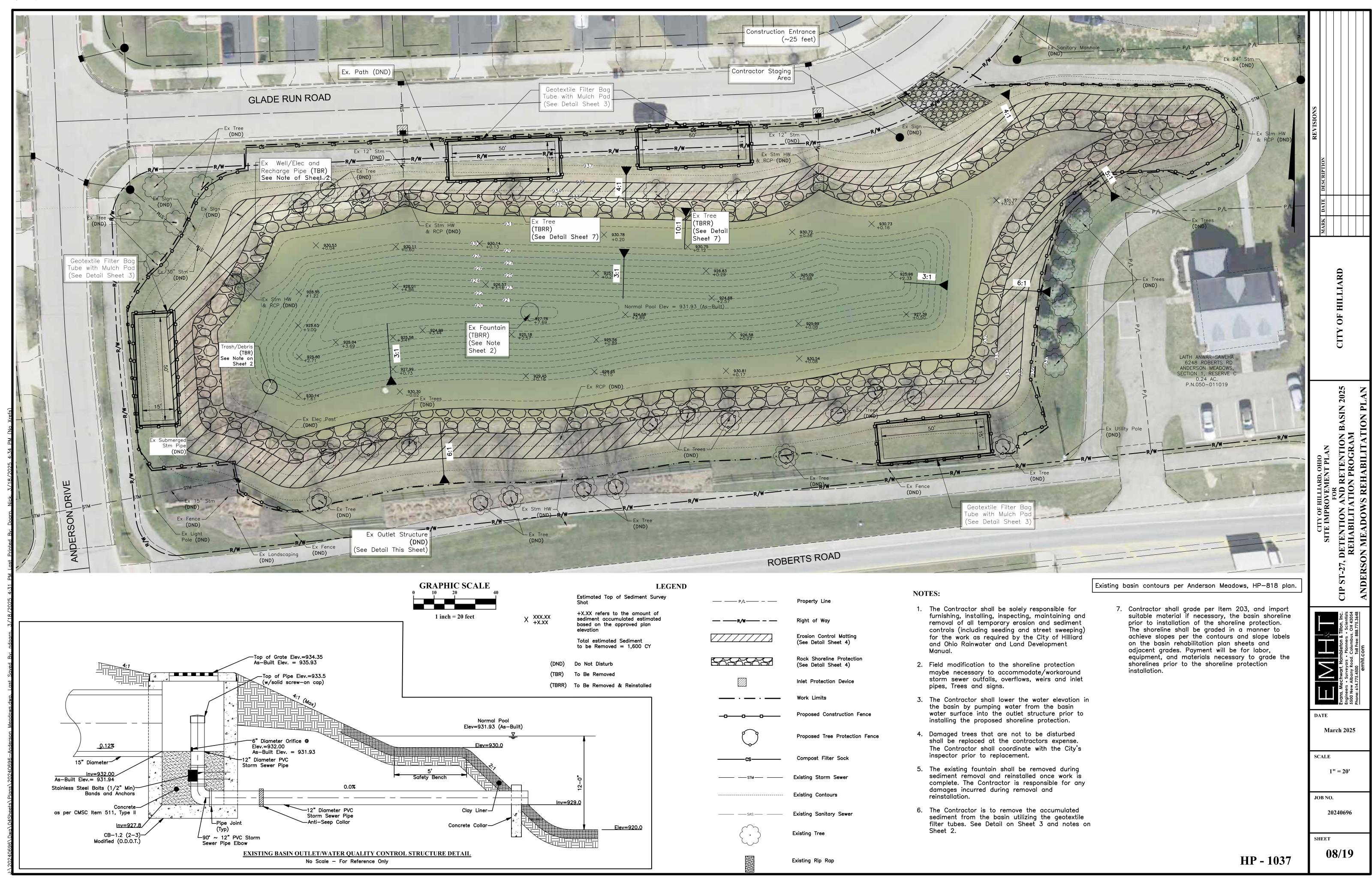
1'' = 40'

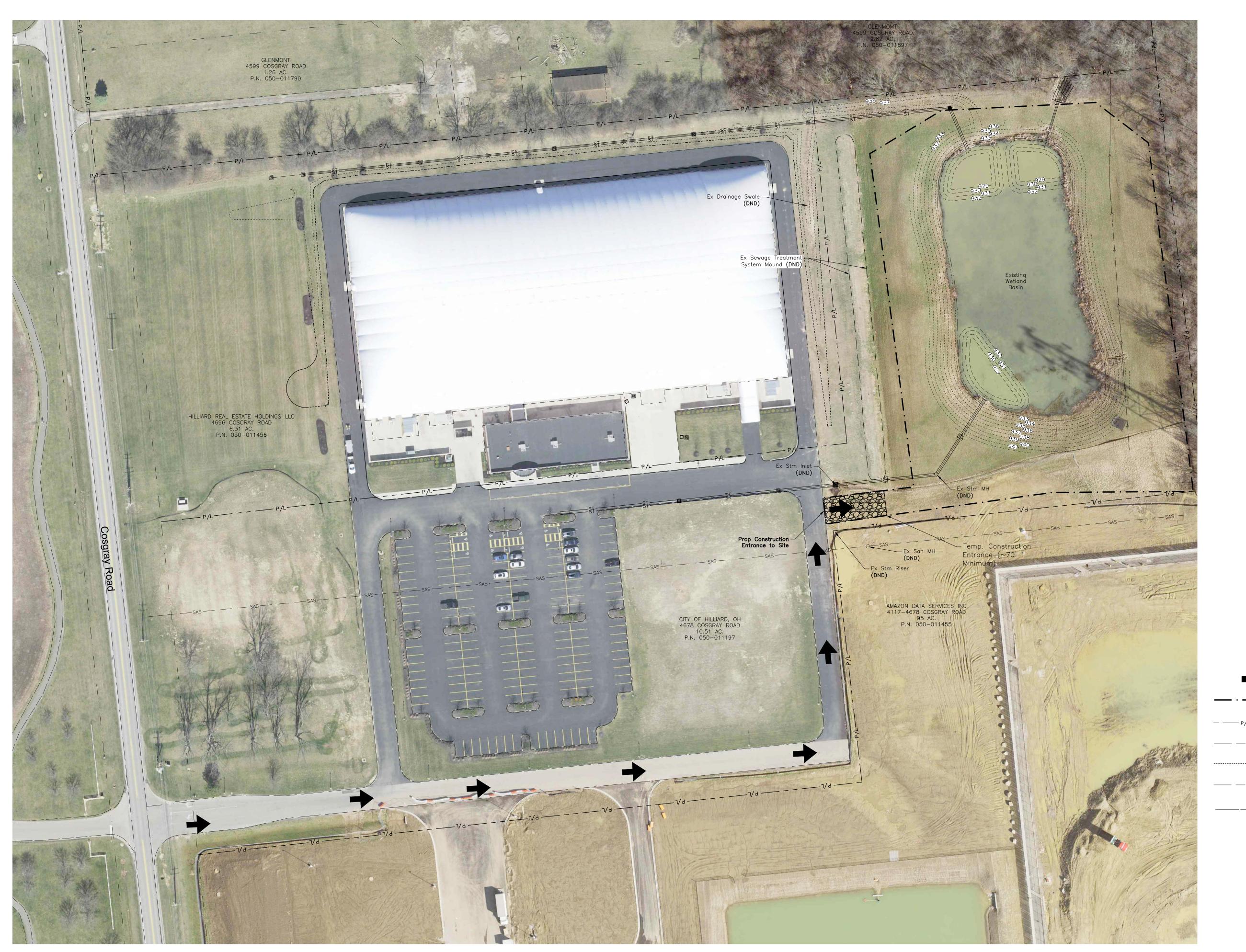
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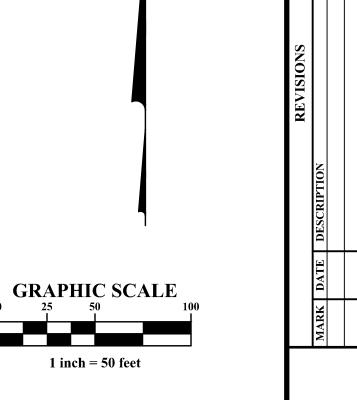
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LEGEND

SCALE

1" = 50'

March 2025

DATE

JOB NO. 20240696

SHEET

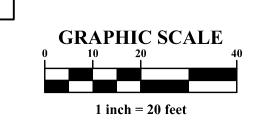


NOTES:

- The Contractor shall be solely responsible for furnishing, installing, inspecting, maintaining and removal of all temporary erosion and sediment controls (including seeding and street sweeping) for the work as required by the City of Hilliard and Ohio Rainwater and Land Development Manual.
- 2. The Contractor shall confine their work within the work limits only, no work shall occur on private
- 3. The Contractor shall enter the site from Cosgray

GENERAL BASIN MAINTENANCE SEQUENCING

- Video existing site features prior to maintenance activities (See note on Sheet 2)
 Install construction entrance.
 Lower water elevation within the basin and install orifices at the existing outlet structure riser pipe (See Detail Sheet 11).
 Remove vegetation and existing filter bag with sediment and dispose offsite.
 Remove sediment from basin.
 Install Wetland Plantings (See Sheet 12)
 Remove construction entrance
 Permanently seed and mulch remaining disturbed areas.



BASIN MAINTENANCE NEEDS SUMMARY

- Existing vegetation, including cattails and roots, removal and offsite disposal
 Sediment removal from below the normal pool elevation within Forebays and Micropool areas
- (See note on Sheet 2)
 3. Existing Filter Bag filed with sediment removal and offsite disposal (See Note Sheet 2)
- 4. Repair multiple eroded areas along basin
- perimeter. 5. Perform Basin Outlet Structure modification (See
- Detail Sheet 11) 6. Perform Wetland Plantings (See Sheet 12)

LEGEND

Existing Contours

(TBR) To Be Removed

March 2025

SCALE

1'' = 20'

SHEET 10/19

HP - 1037

Existing basin contours per Bo Jackson's Elite Sports Private Site Improvement Plan (2016)



NOTES:

- The Contractor shall be solely responsible for furnishing, installing, inspecting, maintaining and removal of all temporary erosion and sediment controls (including seeding and street sweeping) for the work as required by the City of Hilliard and Ohio Rainwater and Land Development Manual.
- 2. The Basin Outlet Structure is to be modified per the detail below. The two 4—inch orifices at 932.50 on the internal riser pipe is to be installed. All other components of the existing outlet structure shall remain unchanged.
- Sediment shall be removed from the two forebays and micropool utilizing the dewtering geotextile tubes.
- 4. The City of Hilliard will responsible for the removal of the Geotextile Tube at the end of the project. The City will also be responsible for the remediation of the disturbed areas left after the geotextile tube removal.
- There are 4 minor areas of erosion around the basin that shall be repaired. These areas will need regraded, fill and topsoil placed prior to seeding and erosion control matting installation, per Item 671, Type A.

LEGEND

GRAPHIC SCALE

1 inch = 20 feet

(See Note 5)

Work Limits

Ex. Tile (DND)

Property Line

Estimated Top of

X XXX.XX +X.XX Estimated Top of Sediment Survey Shot
+X.XX refers to the amount

Eroded Area To Be Stabilized

of sediment accumulated estimated based on the approved plan elevation

Total estimated Sediment to be Removed:

South Forebay: 100 CY
North Forebay: 60 CY
Micropool: 80 CY

(DND) Do Not Disturb
(TBR) To Be Removed

— sтм— Existing Storm Sewer

— —— Existing Sanitary Sewer

Existing Contours

Top of Bank Elev.=936.50 -Standard Grate Distance Varies as Needed to Accommodate 90° Elbow Top of Neenah R4871 Grate =935.50 As-Built Elev. = 935.46 30" x 12" Window =933.00 As-Built Elev. = 933.10 op of Pipe (capped) — op of Pipe As—Built Elev. = 934.25 Two 4" Orifices =932.50 (To Be Installed) As Per Plan 24" Storm Sewer Pipe 1.00% Outlet Pipe Invert Bottom of Basin Elev.=932.17 Sewer Pipe (One Piece of Pipe) 10" PVC Storm Sewer Pipe¬ with Water Tight Joints 22.37 LF @ 0.00% Flowable Controlled Density Fill as per CMSC Item 636, Type II Invert=930.00 Bottom of Micropool Elev.=928.50 Invert=930.00 └90° ~ PVC Storm Catch Basin 2-4-Sewer Pipe Elbow ODOT CB-1.2 **EXISITING BASIN OUTLET STRUCTURE DETAIL** (No Scale)

KEVISIC

K DATE DESCRIPTION

C DESCRIPTION

Y OF HILLIARD

FOR FENTION AND RETENTION BASIN 20 HABILITATION PROGRAM KSON REHABILITATION PLAN

Evans, Mechwart, Hambleton & Tilton, Inc.
Engineers • Surveyors • Planners • Scientists
5500 New Albany Road, Columbus, OH 43054
Phone: 614.775.4500 Toll Free: 888.775.3648

emht.com

March 2025

SCALE

1'' = 20'

20240696

JOB NO.

SHEET

11/19

Existing basin contours per Bo Jackson's Elite Sports plan.

GENERAL NOTES

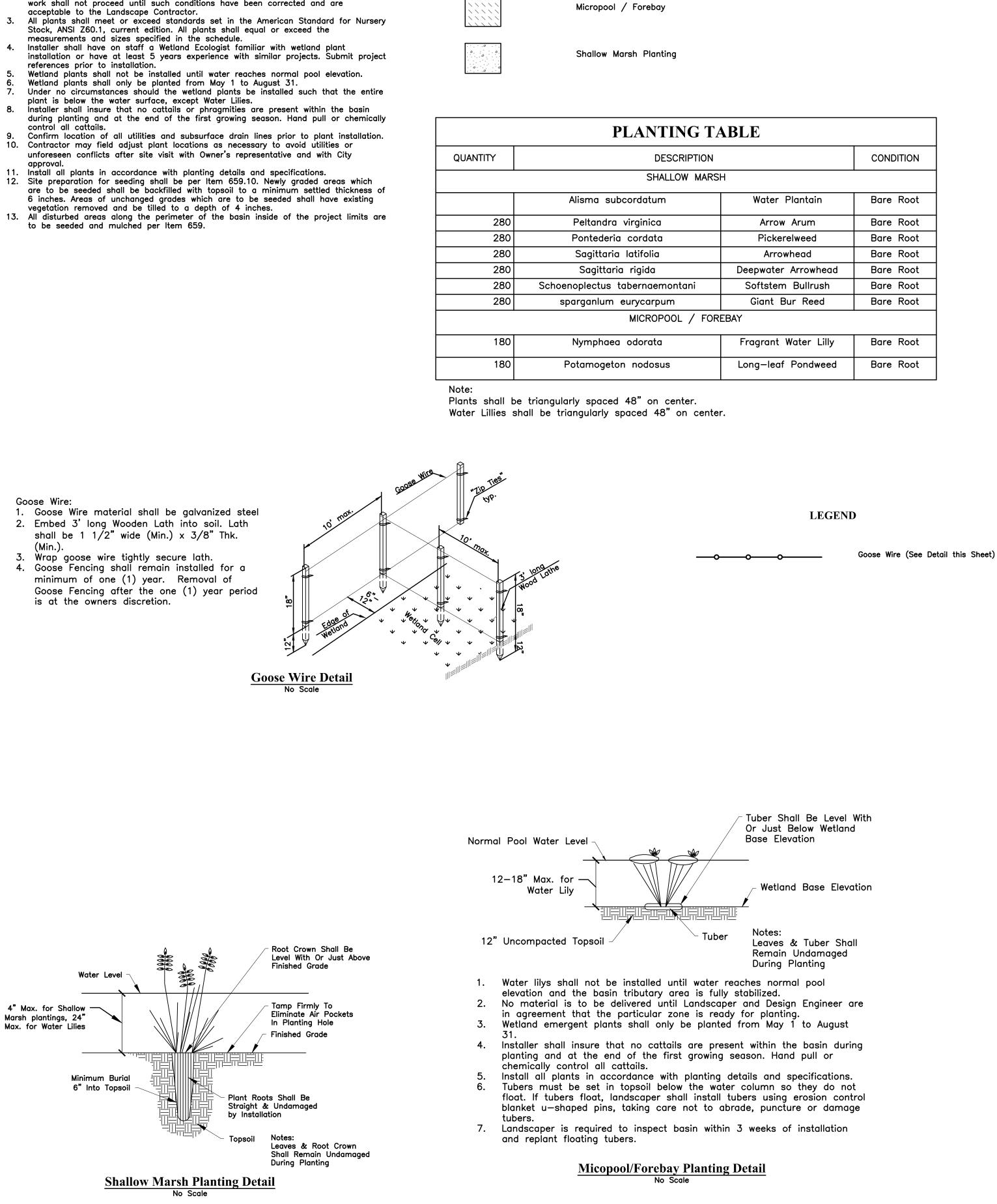
- 1. Plants shall be installed in accordance with City of Columbus Construction and Material Specification (CMS) Item 661 except as modified in these notes.
- 2. Prior to installation, the Landscape Contractor shall inspect the general site conditions and verify the subgrade, elevations, utility locations. The Landscape Contractor shall notify the General Contractor of any unsatisfactory conditions and work shall not proceed until such conditions have been corrected and are
- All plants shall meet or exceed standards set in the American Standard for Nursery
- 4. Installer shall have on staff a Wetland Ecologist familiar with wetland plant installation or have at least 5 years experience with similar projects. Submit project
- references prior to installation.
- Under no circumstances should the wetland plants be installed such that the entire
- Installer shall insure that no cattails or phragmities are present within the basin during planting and at the end of the first growing season. Hand pull or chemically
- 10. Contractor may field adjust plant locations as necessary to avoid utilities or unforeseen conflicts after site visit with Owner's representative and with City
- are to be seeded shall be backfilled with topsoil to a minimum settled thickness of
- to be seeded and mulched per Item 659.

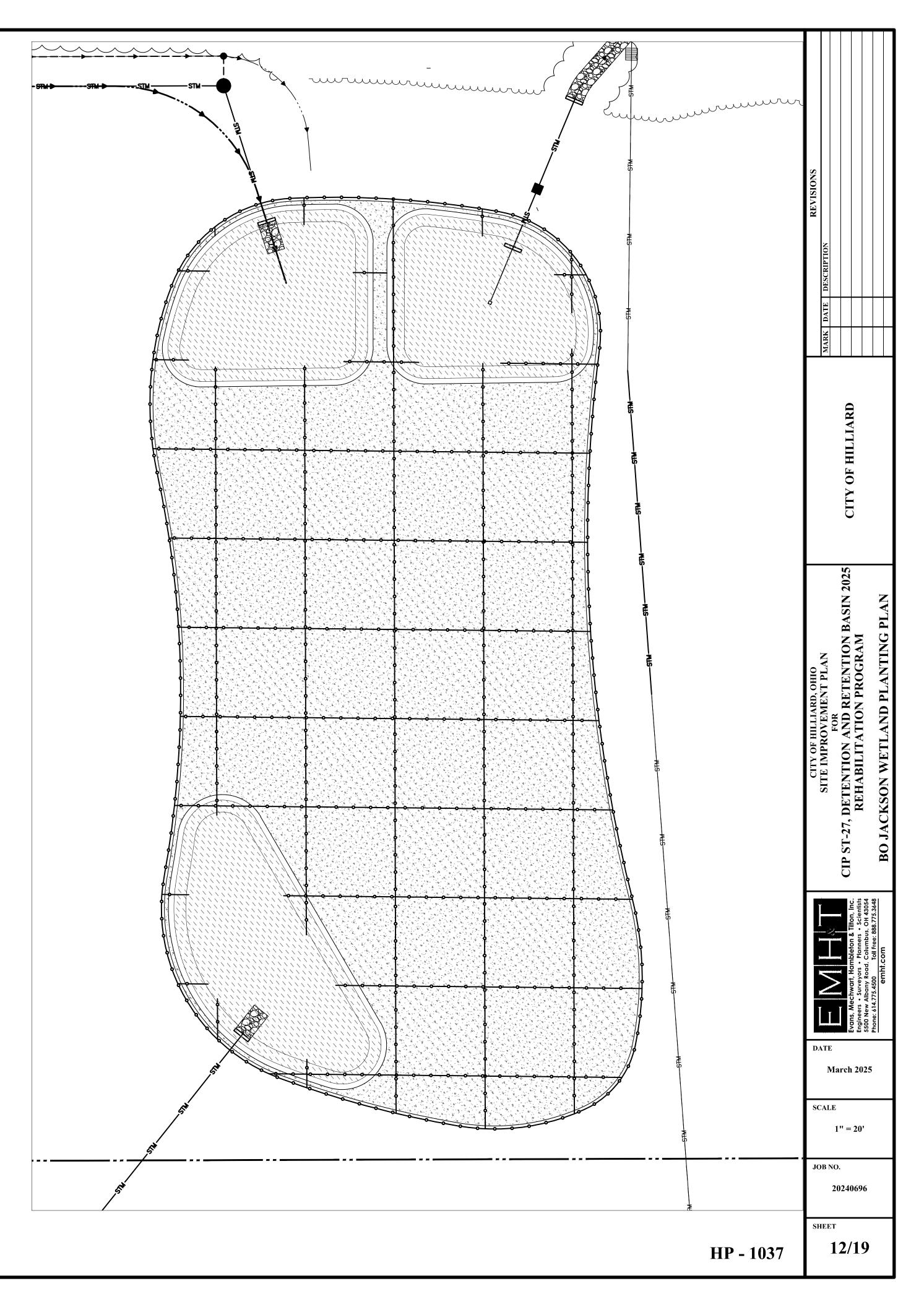
PLANT SCHEDULE

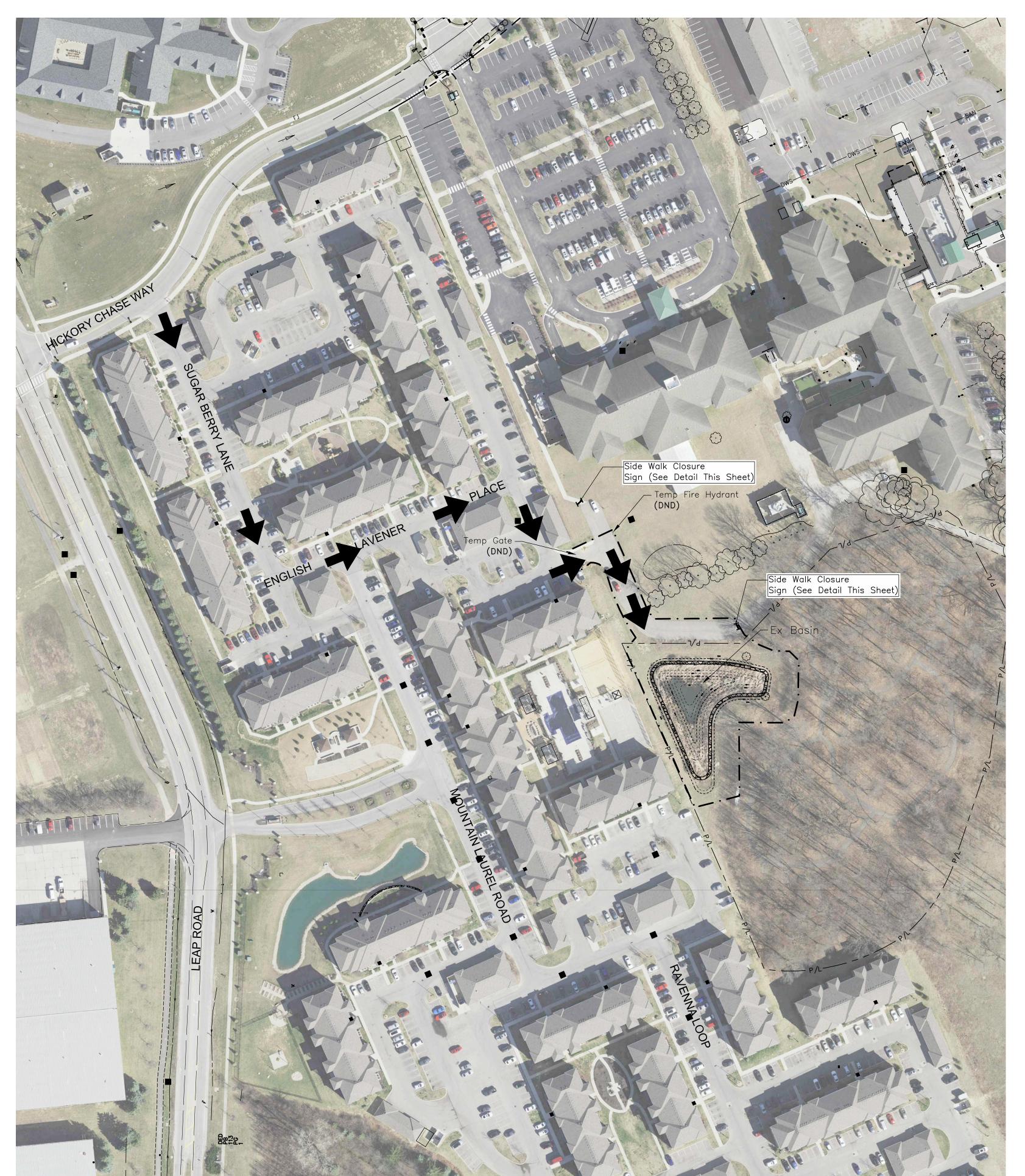
<u>WETLAND</u> COMMON NAME

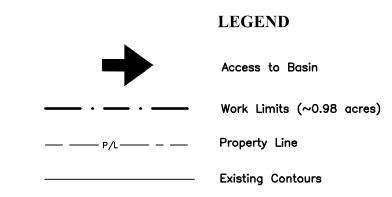
Goose Wire:

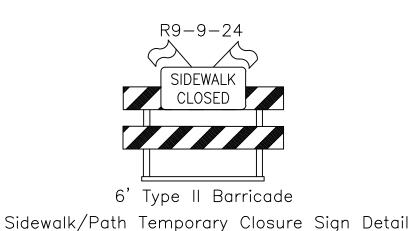
- 1. Goose Wire material shall be galvanized steel 2. Embed 3' long Wooden Lath into soil. Lath shall be 1 1/2" wide (Min.) x 3/8" Thk.
- 3. Wrap goose wire tightly secure lath.4. Goose Fencing shall remain installed for a minimum of one (1) year. Removal of Goose Fencing after the one (1) year period is at the owners discretion.











GRAPHIC SCALE

0 40 80 160

1 inch = 80 feet

ITEM 614 — MAINTAINING TRAFFIC, AS PER PLAN GENERAL

Traffic control shall be furnished, erected, maintained, and removed by the Contractor according to Ohio Manual of Uniform Traffic Control Devices (OMUTCD), current edition.

The Contractor shall provide a 24 hour contact who will be responsible for maintenance of traffic for the duration of the project.

Construction operations shall not begin until all temporary traffic control devices are in place and approved by the Engineer and the City.

Maintenance of all traffic control devices including drums, signs, barricades, sign boards, detour signage, etc., shall be the Contractor's responsibility.

CONSTRUCTION INITIATION

The Contractor will notify the City of Hilliard 14 days prior to the start of construction activities. The Contractor will immediately inform the City of Hilliard of any and all delays and/or changes regarding the construction project. The City Engineer will provide clarification for any questions about the notification requirement.

The Contractor shall submit a closure schedule to the City of Hilliard for approval prior to initiating any closure.

ALTERNATE METHOD

The Contractor may submit alternative methods for the maintenance of traffic provided the intent of the above provisions is followed and no additional inconvenience to the traveling public results from the change.

No alternative plan shall be placed in effect until approval has been received from the City of Hilliard. There shall be no additional compensation for alternate methods.

PEDESTRIAN ACCESS

The Contractor shall be responsible for the protection and safe movement of pedestrians through, around, and away from the construction site.

The safety of pedestrian traffic shall be considered at all times in the provision of traffic control devices required by these plans and notes. It shall be the Contractor's responsibility to provide lights, signs, barricades, and other warnings to physically separate the pedestrian from hazards incidental to the construction operations such as open excavations, etc. At all times, the pedestrian MOT shall be subject to the approval of the Engineer.

If the Contractor desires to deviate from the proposed maintenance of pedestrian traffic plan, the Contractor shall submit in writing (a minimum of 14 days prior to construction) a plan to maintain pedestrian traffic for the duration of the project to the City and the Engineer for approval.

SIGNS, BARRICADES, AND VERTICAL PANELS

All construction signs, barricades, vertical panels, and drums shall conform to OMUTCD and the latest revision of the ODOT construction and material specifications.

All construction signage shall be installed and covered before construction begins. After construction sign installation, the Contractor shall notify the Engineer three working days before work begins and request an inspection of all signage.

Faces of construction signs and reflective sheeting on barricades shall be type "H" VIP. All orange construction signs shall be fluorescent orange. All sheeting will be tested for reflectivity per ODOT 730.192. Vertical panels and drum bands shall be reflectorized with type "G" (High Intensity) sheeting complying with the requirements of 730.19. All signs and barricades, vertical panels, and drums will be like new and in good condition in conformance with "Quality Guidelines For Temporary Traffic Control Devices And Features" published by ATSSA.

Maintenance of all Contractor supplied signs, barricades, vertical panels, and drums is the Contractor's responsibility. If the Contractor fails to correct deficiencies within four hours of notification, the City will correct or hire someone to correct the deficiencies. The Contractor will then be back charged per ODOT specification 614.14. In the case that back charging the Contractor is not applicable, the City will rescind and withhold all permits issued to the Contractor to work within City right—of—way until the issue is settled.

These provisions shall not in any way relieve the Contractor of any of his legal responsibilities or liabilities for the safety of the public.

Steady_burning, Type "C" lights shall be required on all barricades, drums, and similar traffic control devices in use at night.

All advance signing shall be equipped with type "A" flashing lights and (2) orange flags (24"x24"). Lights are not required on signs in place during daylight hours.

Cones are not approved for use at night.

MUD, DIRT AND DEBRIS

The tracking or spillage of mud, dirt or debris upon state highways is prohibited and any such occurrence shall be cleaned up immediately by the contractor.

PAYMENT

Payment for all maintenance of traffic items, including the furnishing, installation and maintenance of, but not limited to: flashing arrows panels, signs, sign supports, flags, flaggers, barricades, barrier reflectors, notice of closure signs, drums, cones, construction fencing, temporary pavement markings, traffic compacted surface, materials and labor for maintaining access to driveways, property owner notification/coordination and development of the operations schedule shall be at the lump sum price bid for Item 614 Maintaining Traffic, As Per Plan, which shall include all labor, material, equipment, and incidentals to complete the work as detailed in the plans. Unless separately itemized in the plans, no separate payment shall be made.

The cost for performing the maintenance of traffic as described herein shall be included in the price bid for Item 614, Maintaining Traffic, As Per Plan.

MARK DATE DESCRIPTION

CITY OF HILLIA

SITE IMPROVEMENT PLAN
FOR
DETENTION AND RETENTION BASIN
REHABILITATION PROGRAM

Evans, Mechwart, Hambleton & Tilton, Inc.
Engineers • Surveyors • Planners • Scientists
5500 New Albany Road, Columbus, OH 43054
Phone: 614.775.4500 Toll Free: 888.775.3648
emht.com

DATE

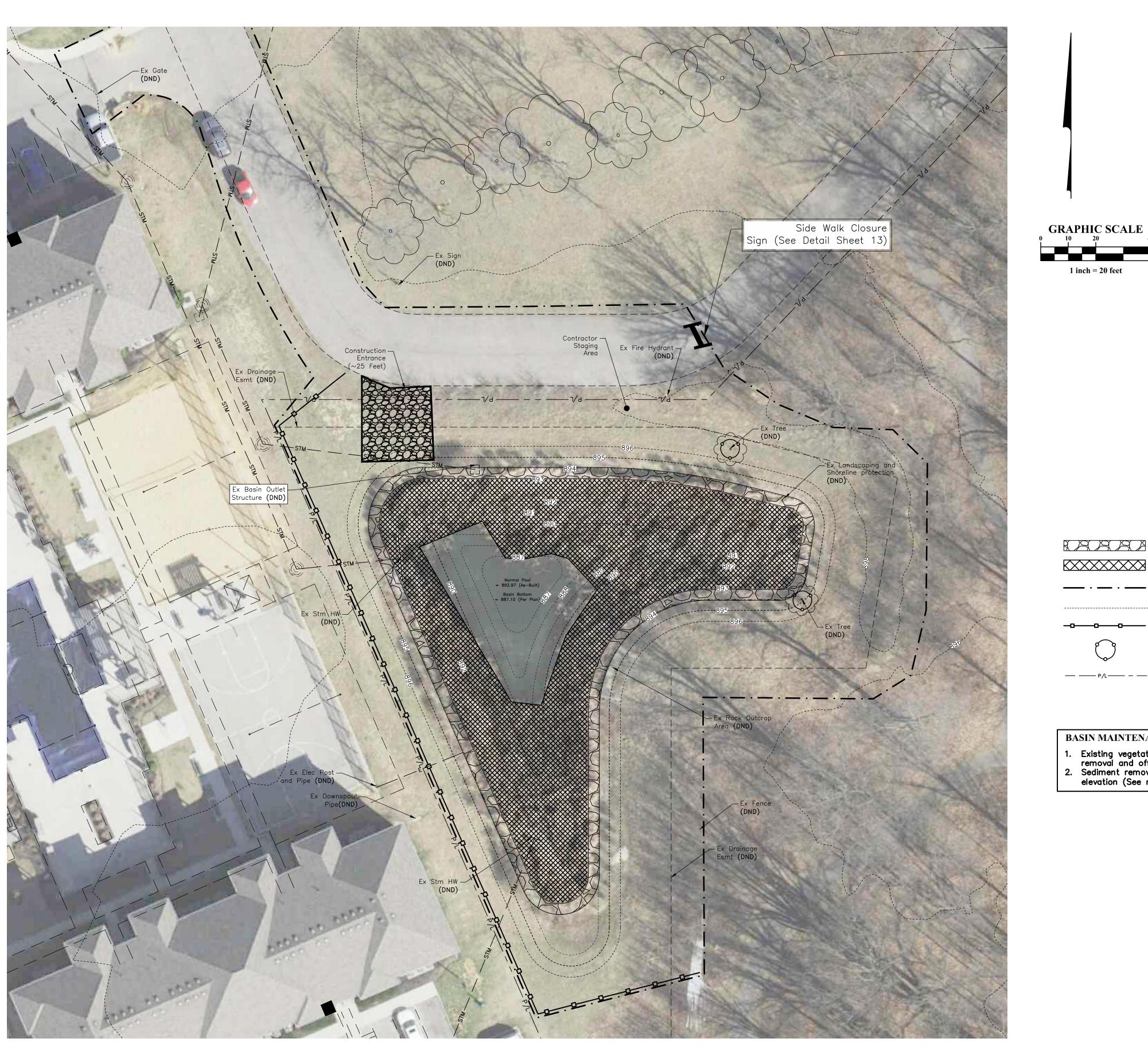
March 2025

SCALE

B NO.

20240696

13/19





- 1. The Contractor shall be solely responsible for furnishing, installing, inspecting, maintaining and removal of all temporary erosion and sediment controls (including seeding and street sweeping) for the work as required by the City of Hilliard and Ohio Rainwater and Land Development Manual.
- 2. The Contractor shall confine their work within the work limits only.
- 3. The Contractor shall enter the site from Hickpry Chase Way, accessing the site through the Greyson Apartment parking areas as shown in the access plan on Sheet 13. The temporary gate will be opened by the City of Hilliard.
- The Contractor shall protect the existing curb, gutter, and asphalt path by whatever means necessary. Protection methods may include using rubber tire/tracked vehicles only, bridging the path with steel plates to prevent point loading.

 Quantity (Item Special — Existing Pavement Protection - Lump Sum).
- Before construction the City shall document the existing condition of the path prior to beginning of the work. Any damage to the curb, gutter or path during construction shall be repaired at no additional cost to the City.
- 6. The Contractor shall dewater the basin for surface water lowering. Pumping of basin water shall occur from the water surface and discharge into the existing basin outlet structure. See Note of Plan Sheet 2.
- 7. The vegetation, including cattail and roots, from the basin shall be removed and hauled offsite for disposal. Caution not to disturb existing shoreline protection and landscaping (shrub/bushes). Damaged shoreline protection and landscaping is to be repaired and replaced at the expense of the Contractor.

LEGEND

1 inch = 20 feet

RARA Limits of Existing Shoreline Protection (DND) Existing Vegetation (Cattail) Removal Work Limits **Existing Contours** Proposed Tree Protection Fence Property Line — — P/L—— — (DND) Do Not Disturb (TBR) To Be Removed

BASIN MAINTENANCE NEEDS SUMMARY

- Existing vegetation, including cattails and roots, removal and offsite disposal
- 2. Sediment removal from below the normal pool elevation (See note on Sheet 2)

GENERAL BASIN MAINTENANCE SEQUENCING

- Video existing site features prior to maintenance activities (See note on Sheet 2)

2. Install path closure signs, install temporary construction fence, and construction entrance.
3. Remove vegetation along the basin shoreline and dispose offsite.
4. Remove sediment from the basin.
5. Permanently seed and mulch remaining disturbed areas, Per Item 659, Class 1.

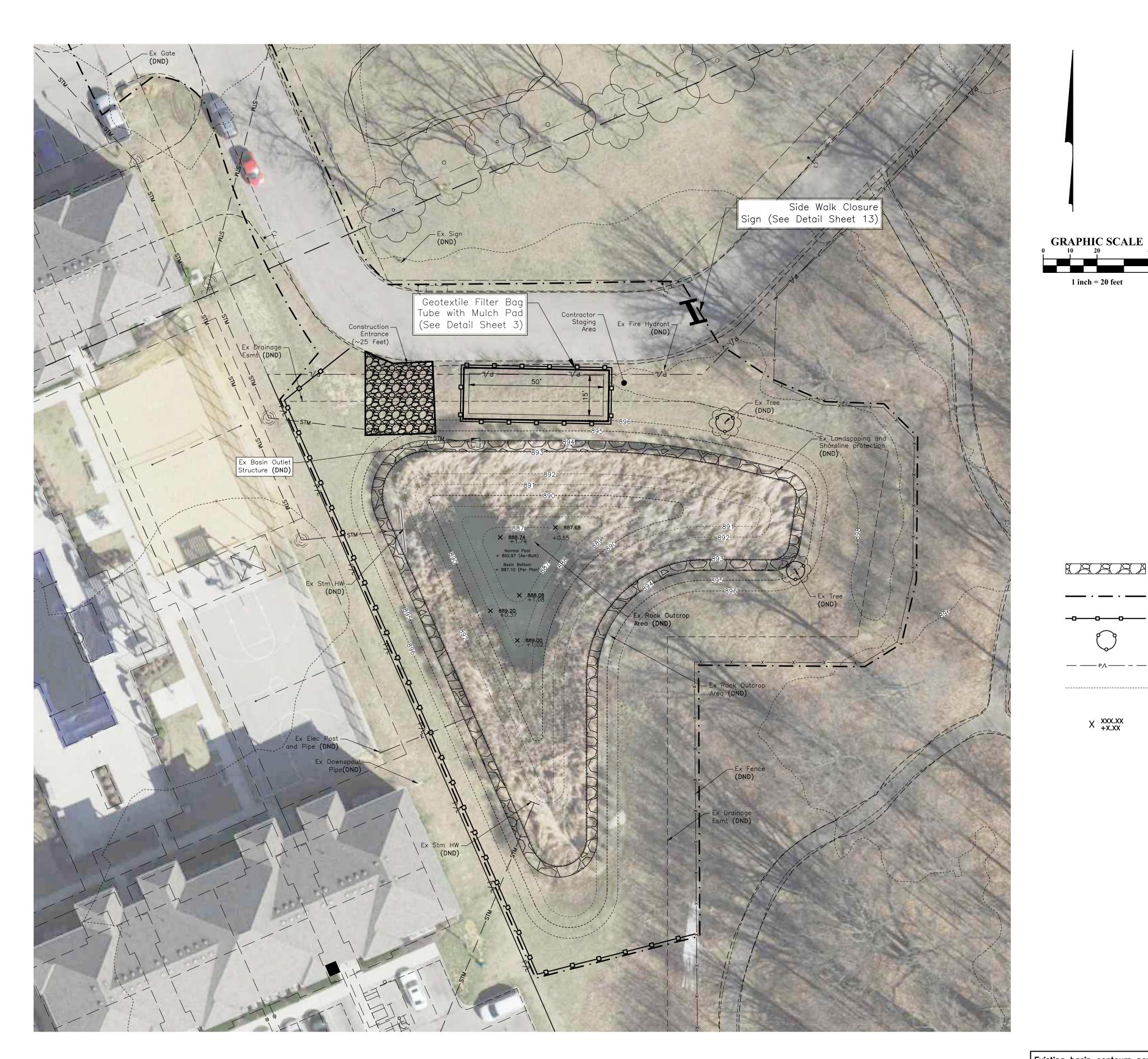
March 2025

SCALE

1'' = 40'

20240696

Existing basin contours per the Greyson at Hickory Chase Private Storm Sewer, Water, and Grading Plans, Site Construction Improvements Plan.



NOTES:

- The Contractor shall be solely responsible for furnishing, installing, inspecting, maintaining and removal of all temporary erosion and sediment controls (including seeding and street sweeping) for the work as required by the City of Hilliard and Ohio Rainwater and Land Development Manual.
- 2. Field modification to the shoreline protection maybe necessary to accommodate/workaround storm sewer outfalls, overflows, weirs and inlet pipes, Trees and signs.
- The Contractor shall lower the water elevation in the basin by pumping water from the basin water surface into the outlet structure prior to installing the proposed shoreline protection.
- 4. Damaged trees that are not to be disturbed shall be replaced at the contractors expense. The Contractor shall coordinate with the City's inspector prior to replacement.
- 5. The Contractor is to remove the accumulated sediment from the basin utilizing the geotextile filter tubes. See the Note of Sheet 2 and the Detail on Sheet 3.

LEGEND

1 inch = 20 feet

Limits of Existing Shoreline Protection (DND)

Proposed Construction Fence

— — P/L—— —

Proposed Tree Protection Fence

Existing Contours

X XXX.XX +X.XX

Estimated Top of Sediment Survey Shot

+X.XX refers to the amount of sediment accumulated estimated based on the approved plan elevation Total estimated Sediment to be Removed = 50 CY

(DND) Do Not Disturb

(TBR) To Be Removed

Existing basin contours per the Topographic Survey of the Greyson at Hickory Chase plan.

DATE March 2025

SCALE

JOB NO.

20240696

SHEET



MARK DATE DESCRIPTION

CITY OF HILLIARD

CITY OF HILLIARD, OHIO
SITE IMPROVEMENT PLAN
FOR
P ST-27, DETENTION AND RETENTION BASIN 20
REHABILITATION PROGRAM
HEATHER RIDGE ACCESS PLAN

ingineers • Surveyors • Planners • Scientists 5500 New Albany Road, Columbus, OH 43054 Phone: 614.775.4500 Toll Free: 888.775.3648

DATE

March 2025

SCALE

1" = 40'

JOB NO.

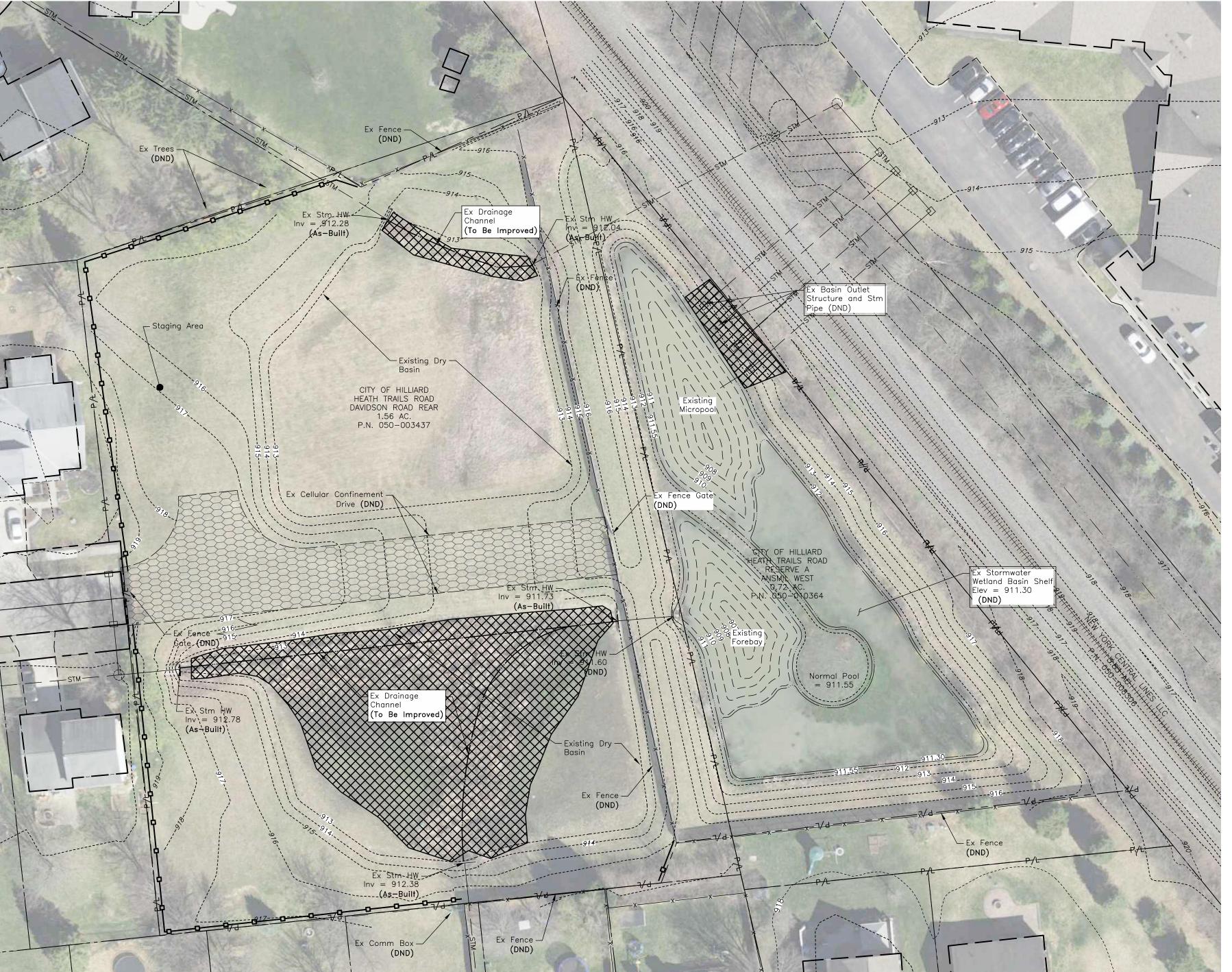
SHEET

DRY BASIN (2) MAINTENANCE NEEDS SUMMARY

3. Permanently stabilize the disturbed basins per seeding mix specification on Sheet 19.

upon existing inverts.

Existing vegetation removal and offsite disposal
 Grade drainage channels between headwalls based



Video existing site features prior to maintenance activities (See note on Sheet 2)

identified on the plan to match Headwall inverts. Seed and mulch the dry basins per the seeding

Permanently seed and mulch remaining disturbed areas outside the basin footprint per Item 659,

Install Construction Fencing.

spec on Sheet 19.

Class 1.

Remove vegetation and dispose offsite.

4. Grade drainage channels per the locations

GRAPHIC SCALE

1 inch = 30 feet

LEGEND

(DND) Do Not Disturb (TBR) To Be Removed

Existing Vegetation Removal Proposed Construction Fence Property Line **Existing Contours**

NOTES:

- 1. The Contractor shall be solely responsible for furnishing, installing, inspecting, maintaining and removal of all temporary erosion and sediment controls (including seeding and street sweeping) for the work as required by the City of Hilliard and the Ohio Rainwater and Land Development Manual.
- 2. The Contractor shall confine their work within the work limits only, no work shall occur on private property.
- 3. The Contractor shall enter the site from Hedge Row Court.
- 4. The Contractor shall protect the existing curb, gutter, and asphalt path by whatever means necessary. Protection methods may include using rubber tire/tracked vehicles only, bridging the path with steel plates to prevent point loading. Quantity (Item Special – Existing Pavement Protection - Lump Sum).
- 5. Before construction the City shall document the existing condition of the path prior to beginning of the work. Any damage to the curb, gutter or path during construction shall be repaired at no additional cost to the City.
- 6. Existing Cellular Confinement Drive to not be damaged during construction activities. Contractor is responsible for replacement if damage occurs.

Existing basin contours per the Topographic Survey of the Heather Ridge Detention Basin plan. (CIP #ST-27A)

DATE

D RETENTION BASIN 2 ION PROGRAM SETATION REMOVAL

March 2025

SCALE 1'' = 30'

JOB NO.

20240696

17/19

SHEET



- WETLAND BASIN MAINTENANCE NEEDS SUMMARY Existing vegetation removal near outlet structures and
- offsite disposal
- 2. Sediment Removal from forebay and micropool per spec on Sheet 2.
- Outlet Structure modification per detail on Sheet 18. Wetland Plantings per planting plan on Sheet 19.
- Video existing site features prior to maintenance activities (See note on Sheet 2)
 Remove vegetation near the outlet structures and dispose offsite.

- J. Lower water within micropool if necessary.
 J. Install the basin outlet structure modifications per the detail on Sheet 18.
 Remove sediment from the forebay and micropool per the spec on Sheet 2.
 Install Wetland Plantings per Sheet 19.
 Permanently seed and mulch remaining disturbed areas per Item 659. Class 1.
- areas per l'tem 659, Class 1.

Existing basin contours per the Topographic Survey of the Heather Ridge Detention Basin plan. (CIP #ST-27A)

NOTES:

GRAPHIC SCALE

1 inch = 30 feet

LEGEND

Work Limits)~2.64 Acres)

Proposed Construction Fence

Proposed Drainage Channel

Estimated Top of Sediment Survey Shot

+X.XX refers to the amount of sediment accumulated

estimated based on the

(DND) Do Not Disturb
(TBR) To Be Removed

approved plan elevation

Total estimated Sediment

to be Removed:

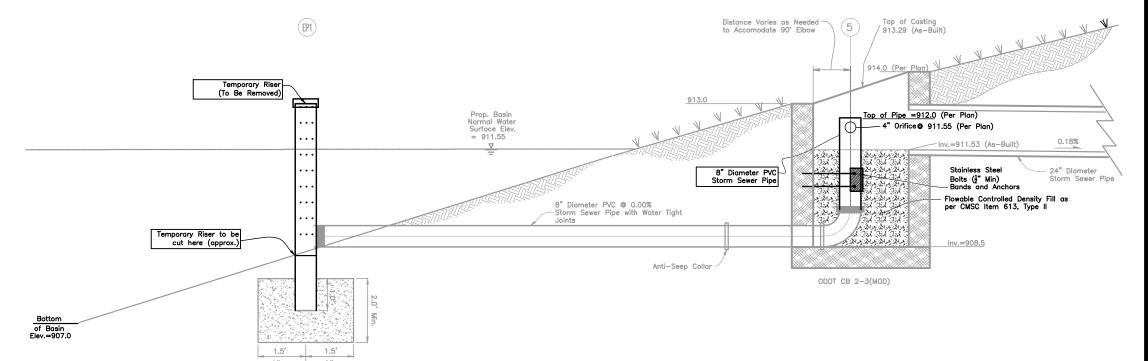
Forebay: 80 CY

Micropool: 80 CY

Existing Contours

X XXX.XX

- The Contractor shall be solely responsible for furnishing, installing, inspecting, maintaining and removal of all temporary erosion and sediment controls (including seeding and street sweeping) for the work as required by the City of Hilliard and Ohio Rainwater and Land Development Manual.
- 2. The Contractor shall lower the water elevation in the basin by pumping water from the basin water surface into the outlet structure prior to installing the proposed shoreline protection.
- 3. The Contractor is to remove the temporary perforated riser pipe within the micrpool of the wetland basin. The exisitng storm pipe connecting the temporary perforated riser to the existing outlet structure shall remain in place.
- 4. The existing internal riser pipe within the existing outlet structure as shown in the detail below shall be reconstructed per plan. The exisiting Flowable Controlled Density Fill may need removed for constructability. Any components of the existing outlet structure that are removed for access shall be reinstalled per the elevations shown within the detail below.
- 5. The Contractor is to remove the accumulated sediment from the basin utilizing the geotextile filter tubes. See the Note of Sheet 2 and the Detail on Sheet 3.
- 6. The City of Hilliard will be resposible for the removal of the sediment filled Geotextile Tubes and sediment. The City will be responsible for any seeding and repairs needed after the Geotextile Tubes and sediment are removed from the site.
- 7. The existing channels within the Dry Basins are to be regraded. any vegetation or accumulated sediment must be removed mechanically. Elevations are shown at the inlet and outlet points for reference. The channels shall maintain positive drainage from the exisiting inlet to the exisiting outlet points. See Additional Notes on Sheet 2.



EXISTING BASIN OUTLET MODIFICATION NOTES:

- Remove temporary riser pipe and expose the submerged pipe. Ensure submerged pipe is free from debris/sediment.
- Install 8—inch diameter riser pipe in catch basin structure. Top of riser = 912.00 with open top. Install 4—inch orifice at riser pipe at elevation 911.55.

ARK DATE DESCRIPTION

CITY OF HILLIARD

OVEMENT PLAN FOR AND RETENTION BASIN 20 ATION PROGRAM

SITE IMPROVEMENT PL
FOR
SIP ST-27, DETENTION AND RETEN
REHABILITATION PROC

Evans, Mechwart, Hambleton & Tilton, Inc. Engineers • Surveyors • Planners • Scientists 5500 New Albany Road, Columbus, OH 43054 Phone: 614.775.4500 Toll Free: 888.775.3648

DATE
March 2025

SCALE

JOB NO.

1" = 30'

20240696

SHEET

Existing basin contours per the Topographic Survey of the Heather Ridge Detention Basin plan. (CIP #ST-27A)

1. Goose Wire material shall be galvanized steel

2. Embed 3' long Wooden Lath into soil. Lath

4. Goose Fencing shall remain installed for a

minimum of one (1) year. Removal of

Goose Fencing after the one (1) year period

Goose Wire Detail

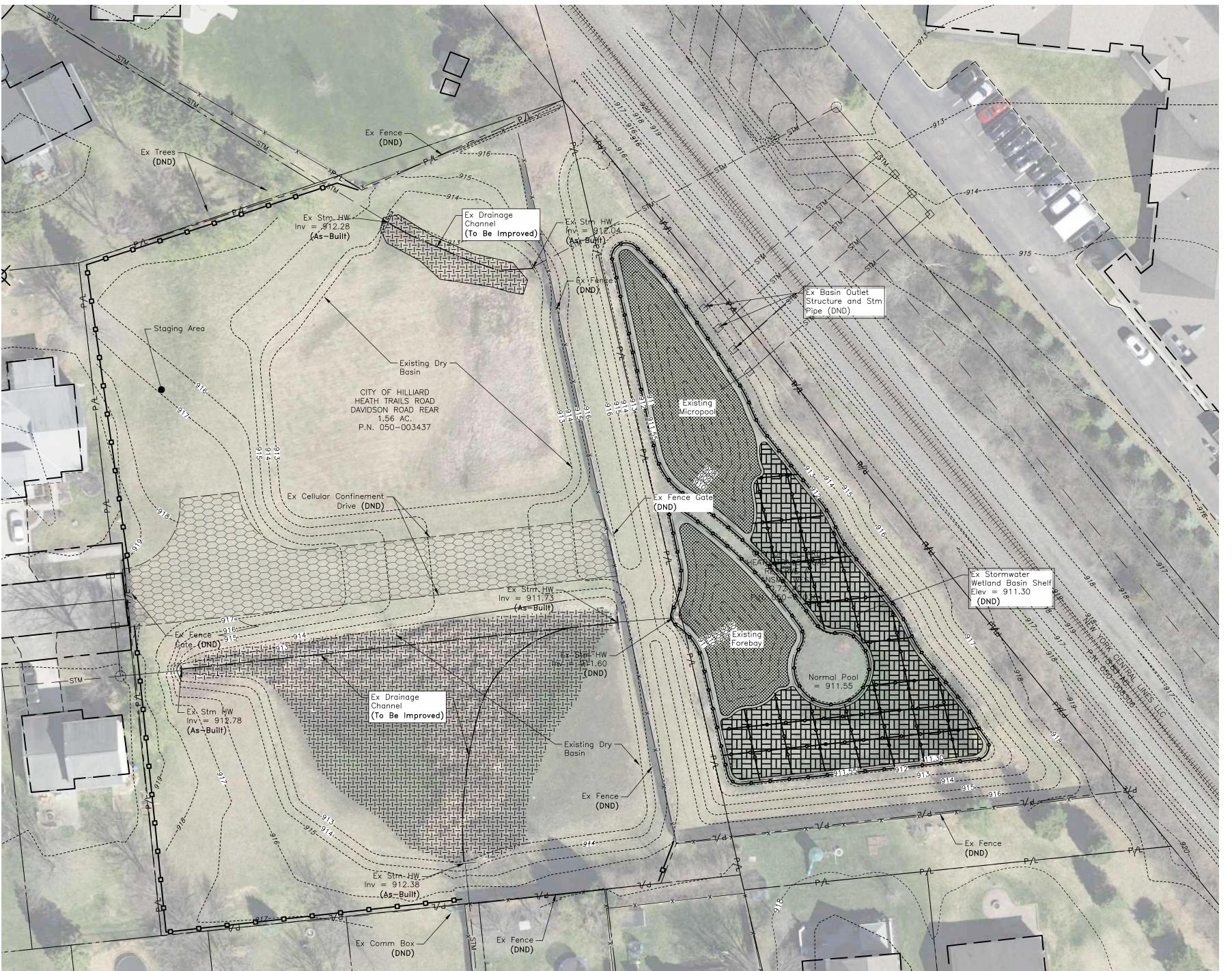
No Scale

3. Wrap goose wire tightly secure lath.

is at the owners discretion.

shall be 1 1/2" wide (Min.) x 3/8" Thk.

Goose Wire:



LEGEND

Dry Basin Seeding & Item 671, Type C Erosion Control

Micropool/Forebay Planting

Wetland Shelf Planting

Construction Fencing

Root Crown Shall Be Level With Or Just Above

Finished Grade

8" Max. for Wetland —

Minimum Burial

6" Into Topsoil

Shelf plantings, 24"

Max. for Water Lilies

Tamp Firmly To
 Eliminate Air Pockets

Leaves & Root Crown Shall Remain Undamaged

During Planting

In Planting Hole

Finished Grade

Plant Roots Shall Be

Wetland Shelf Planting

Straight & Undamaged

(See Detail this Sheet)

Existing Contours

NOTES:

- 1. Plants shall be installed in accordance with City of Columbus Construction and Material Specification (CMS) Item 661 except as modified in these notes.
- Prior to installation, the Landscape Contractor shall inspect the general site conditions and verify the subgrade, elevations, utility locations provided by General Contractor. The Landscape Contractor shall notify the General Contractor of any unsatisfactory conditions and work shall not proceed until such conditions have been
- corrected and are acceptable to the Landscape Contractor.

 3. All plants shall meet or exceed standards set in the American Standard for Nursery Stock, ANSI Z60.1, current edition. All plants shall equal or exceed the measurements and sizes specified in the schedule.
- Installer shall have on staff a Wetland Ecologist familiar with wetland plant installation or have at least 5 years experience with similar projects. Submit project references prior to installation.
- Wetland plants shall not be installed until water reaches normal pool elevation and the basin tributary area is fully stabilized. Under no circumstances shall wetland plants be installed while the basin is being used for temporary sediment storage
- during site construction.

 Wetland plants shall only be planted from May 1 to August 31.

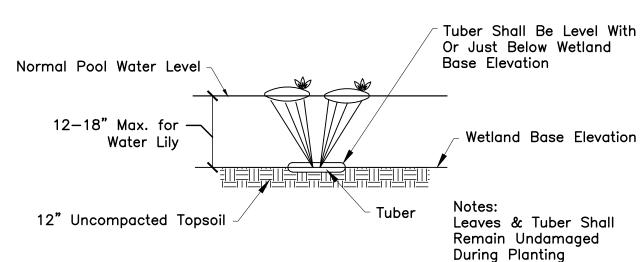
 Under no circumstances should the wetland plants be installed such that the entire
- plant is below the water surface, except Water Lilies.
- Installer shall insure that no cattails or phragmities are present within the basin during planting and at the end of the first growing season. Hand pull or chemically control all cattails. Confirm location of all utilities and subsurface drain lines prior to plant installation.
- 10. Contractor may field adjust plant locations as necessary to avoid utilities or unforeseen conflicts after site visit with Owner's representative and with City
- 11. Install all plants in accordance with planting details and specifications. 12. Site preparation for seeding shall be per Item 659.10. Areas of unchanged grades
- which are to be seeded shall have existing vegetation removed and be tilled to a depth of 4 inches. 13. Contractor to determine plant list quantities from the plan. Graphic representation
- on plan supersedes in case of discrepancy with quantities on schedule.
- 14. Contractor shall water seeded areas per Item 659.
 15. All disturbed areas outside of the basin and within the project limits are to be

seeded and mulched per Item 659, Class 1.

PLANTING TABLE				
QUANTITY	QUANTITY DESCRIPTION		CONDITION	
-	WETLAND SHELF			
20	Alisma subcordatum	Water Plantain	Bare Root	
20	Peltandra virginica	Arrow Arum	Bare Root	
20	Pontederia cordata	Pickerelweed	Bare Root	
20	Sagittaria latifolia	Arrowhead	Bare Root	
20	Schoenoplectus tabernaemontani	Softstem Bullrush	Bare Root	
20	Sparganium eurycarpum	Giant Bur Reed	Bare Root	
MICROPOOL / FOREBAY				

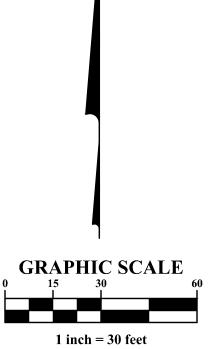
Plants shall be triangularly spaced 48" on center. Water Lillies shall be triangularly spaced 48" on center.

Nymphaea odorata



- Water lilys shall not be installed until water reaches normal pool elevation and the basin tributary area is fully stabilized.
- No material is to be delivered until Landscaper and Design Engineer are in agreement that the particular zone is ready for planting. Wetland emergent plants shall only be planted from May 1 to August 31.
- 4. Installer shall insure that no cattails are present within the basin during planting and at the end of the first growing season. Hand pull or chemically control all cattails.
- Install all plants in accordance with planting details and specifications. Tubers must be set in topsoil below the water column so they do not float. If tubers float, landscaper shall install tubers using erosion control blanket u-shaped pins, taking care not to abrade, puncture or damage
- 7. Landscaper is required to inspect basin within 3 weeks of installation and replant floating tubers.

Forebay Planting Detail



Fragrant Water Lilly | Bare Root

HP - 1037

March 2025 1" = 30' JOB NO. 20240696

BASIN

RETENTION I ON PROGRAM

DETENTION A REHABILITA SATHER RIDG

CITY OF I

SHEET

DATE

SCALE