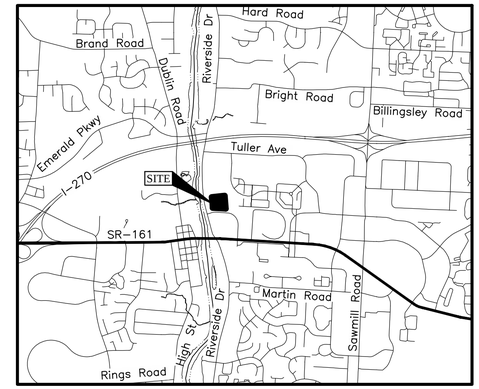
CITY OF DUBLIN, FRANKLIN COUNTY, OHIO
MASS EXCAVATION PLAN
FOR
BRIDGE PARK
BLOCK B
2015



LOCATION MAP
Not to Scale

SHEET INDEX

TITLE SHEET	1
GENERAL NOTES	2
EXISTING CONDITIONS AND DEMOLITION PLAN	3
GRADING AND EROSION CONTROL PLAN	4
EROSION CONTROL NOTES AND DETAILS	5

BENCH MARKS
(NAVD 1988)

Source BM Frank 73 — Station is a stainless steel rod driven to a depth of 16 feet, in a triangular shaped grass median at the northwest corner of the intersection of Dublin–Granville Road and Riverside Drive, 59.9 feet southeast of the north corner of the median, 28.4 feet northwest of the southeast corner of the median, 20.2 feet northeast of the southwest corner of the median, 2 feet north of a witness post, access through aluminum access cover, level with the sidewalk. (SHOWN FOR REFERENCE ONLY)

Elev. = 801.706

BM #3 — Nail in the East side of power pole #3221341, being on the West side of Riverside Drive and 800 feet South of Tuller Road.

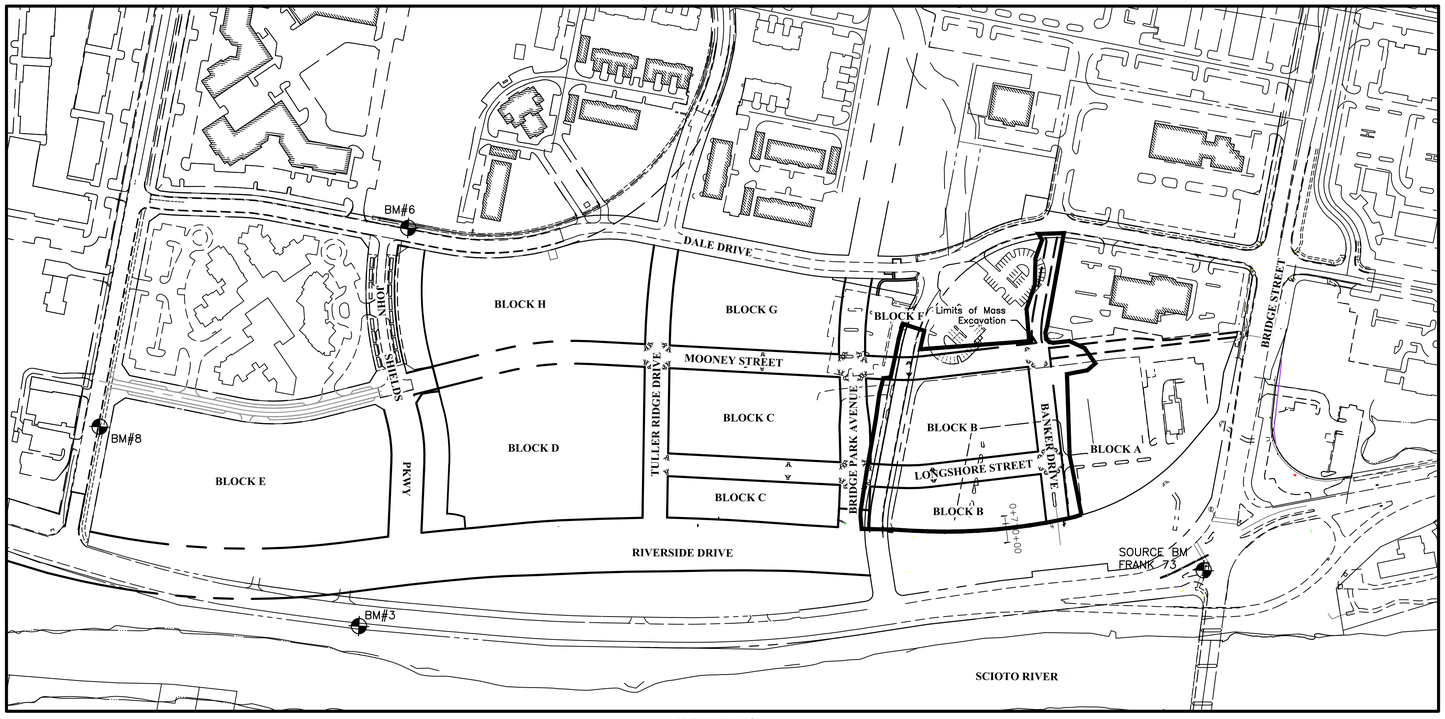
Elev. = 800.24

BM #6 — Chiseled "X" on the West bolt of the second fire hydrant South of the intersection of Tuller Road and Existing Tuller Ridge Drive, said hydrant being on the East side of Existing Tuller Ridge Drive.

Elev. = 845.50

BM #8 — Chiseled "X" on the North bolt of the second fire hydrant East of the intersection of Riverside Drive and Tuller Road, said hydrant being on the South side of Tuller Road

Elev. = 821.18



INDEX MAP
Scale: 1" = 200'

GRAPHIC SCALE
0 100 200 400
1 inch = 200 feet

PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION

PLAN SET DATE
August 18, 2015

DEVELOPER/OWNER
Crawford Hoying Development
555 Metro Place North, Suite 600
Dublin, Ohio 43017
Tel: (614) 335–2020
Fax: (614) 850–9191

ENGINEER
EMH&T Inc.
5500 New Albany Road
Columbus, Ohio 43054
Tel: (614) 775–4500
Fax: (614) 775–4800

OHIO Utilities Protection SERVICE
Call Before You Dig
800-362-2764 or 8-1-1
www.oups.org

PREPARED BY:
EMH&T
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

Registered Engineer No. 67680 Date

REVISIONS

MARK	DATE	DESCRIPTION

CRAWFORD HOYING development

CITY OF DUBLIN, FRANKLIN COUNTY, OHIO
MASS EXCAVATION PLAN
FOR
BRIDGE PARK
TITLE SHEET

EMH&T
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DATE
August 18, 2015

SCALE
As Noted

JOB NO.
2013-1481

SHEET
1 / 5

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GENERAL NOTES

1. City of Columbus and Ohio Department of Transportation Construction and Material Specifications, current editions, and any supplements thereto (hereafter referred to as Standard Specifications), shall govern all construction items unless otherwise noted. If a conflict between specifications is found, the more strict specification will apply as decided by the City Engineer. Item Numbers listed refer to City of Columbus Item Numbers unless otherwise noted.

2. 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 for failure by the Contractor to perform work according to contract documents.

3. The Developer or Contractor shall be responsible to obtain all necessary permits including but not limited to Ohio EPA Permits to Install (PTI) and Notices of Intent (NOI), Building Permits, etc.

4. The Contractor shall notify the City of Dublin Division of Engineering in writing at least 3 working days prior to beginning construction.

5. The Contractor shall be solely responsible for complying with all 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, precautions and programs in connection with the work, including the requirements for confined spaces per 29 CFR 1910.146.

6. Following completion of construction of the site improvements and before requesting occupancy, a proof survey shall be provided to the Division of Engineering that documents "as-built" elevations, dimensions, slopes and alignments of all elements of this project. The proof survey shall be prepared, signed and submitted by the Professional Engineer who sealed the constructions drawings.

7. The Contractor shall restrict construction activity to public right-of-way and areas defined as permanent and/or temporary construction easements, unless otherwise authorized by the City Engineer.

8. The Contractor shall carefully preserve bench marks, property corners, reference points, stakes and other survey reference monuments or markers. In cases of willful or careless destruction, the Contractor shall be responsible for restorations. Resetting of markers shall be performed by an Ohio Professional Surveyor as approved by the City Engineer.

9. Non-rubber tired vehicles shall not be moved on or across public streets or highways without the written permission of the City Engineer.

10. The Contractor shall restore all disturbed areas to equal or better condition than existed before construction. Drainage ditches or water courses that are disturbed by construction shall be restored to the grades and cross-sections that existed before construction.

11. Tracking or spilling mud, dirt or debris upon streets, residential or commercial drives, sidewalks or bike paths is prohibited according to Section 97.38 of the Dublin Code of Ordinances. Any such occurrence shall be cleaned up immediately by the Contractor at no cost to the City. If the Contractor fails to remove said mud, dirt, debris, or spillage, the City reserves the right to remove these materials and clean affected areas, the cost of which shall be the responsibility of the Contractor.

12. Disposal of excess excavation within Special Flood Hazard Areas (100-year floodplain) is not permitted.

13. All signs, landscaping, structures or other appurtenances within right-of-way disturbed or damaged during construction shall be replaced or repaired to the satisfaction of the City Engineer. The cost of this work shall be the responsibility of the Contractor.

14. All field tile broken or encountered during excavation shall be replaced or repaired and connected to the public storm sewer system as directed by the City Engineer. The cost of this work shall be the responsibility of the Contractor.

15. All precast concrete products shall be inspected at the location of manufacture. Approved precast concrete products will be stamped or have such identification noting that inspection has been conducted by the City of Columbus. Precast concrete products without proof of inspection shall not be approved for installation.

16. Backfill within a 1:1 influence line of existing structures (houses, garages, etc.) or public infrastructure (pavement, curbs, sidewalks, bike paths, etc.) shall be compacted granular backfill according to Item 912 of the Standard Specifications or Flowable CDF, Type III according to Item 636. Item 911 of the Standard Specifications may be used elsewhere.

17. The Contractor shall submit a copy of the approved construction drawings and a list of proposed precast concrete product manufacturers to the City of Columbus Construction Inspection Division before commencing construction.

    Send the information to the following address:
    Construction Inspection Division
    City of Columbus
    1800 East 17th Avenue
    Columbus, Ohio 43219

    Send a copy of the transmittal letter to the following address:
    Division of Engineering
    City of Dublin
    5800 Shier Rings Road
    Dublin, Ohio 43016

18. All trenches within public right-of-way shall be backfilled according to the approved construction drawings or securely plated during nonworking hours. Trenches outside these areas shall be backfilled or shall be protected by approved temporary fencing or barricades during nonworking hours. Clean-up shall follow closely behind the trenching operation.

19. All trees within the construction area not specifically designated for removal shall be preserved, whether shown or not shown on the approved construction drawings. Trees to be preserved shall be protected with high visibility fencing placed a minimum 15 feet from the tree trunk. Trees 6 -inches or greater at DBH (Diameter Breast Height) must be protected with fencing placed at the critical root zone or 15 feet, whichever is greater. Trees not indicated on the approved construction drawings for removal may not be removed without prior approval of the Division of Engineering.

20. Conduit must be directionally bored across streets instead of open cut, unless specifically approved by the City Engineer. Use of pneumatic air ram devices is not permitted. Permits to construct in the right-of-way of existing streets must be obtained from the City of Dublin Division of Engineering before commencing construction. Should open cutting of existing pavement be permitted, Controlled Density Backfill (Type III) shall be used in place of compacted granular backfill, according to Item 636 of the Standard Specifications.

21. The Contractor shall be responsible for the condition of trenches within the right-of-way and public easements for a period of one year from the final acceptance of the work, and shall make any necessary repairs at no cost to the City.

22. Pavements shall be cut in neat, straight lines the full depth of the existing pavement, or as required by the City Engineer. Pavement replacement shall be conducted according to City of Columbus Standard Drawing 1441 and applicable City of Dublin standard drawings. The replacement of driveways, handicapped ramps, sidewalks, bike paths, parking lot pavement, etc. shall be provided according to the approved construction drawings and City of Dublin standard construction drawings.

23. Tree trimming within the construction zone is to be completed by a certified Arborist. At the completion of the project the Arborist is to return and trim any broken branches as needed.

24. Any modification to the work shown on drawings must have prior written approval by the City Engineer, City of Dublin.

25. All inlets shall be channelized.

26. Park areas shall be fine-graded and seeded with the following mixture:
    Improved Kentucky Bluegrass, 40% of weight (2 varieties in equal parts)
    Improved Perennial Rye, 60% of weight (2 varieties in equal parts)
    Germination Rate: 85%
    Application Rate: 7 lbs per 1000 sq ft as directed by the Division of Parks & Recreation, City of Dublin, Ohio.

27. Traffic control and other regulatory signs shall be Type S with a square post anchor base installation and meet all requirements of ODOT TC-41.20 and applicable City of Dublin specifications.

28. Street signs shall meet all City of Dublin specifications with lettering colored in white displayed over a brown background. Sign tubing shall be brown in color and conform with the Type S, square post anchor base installation requirements of ODOT TC-41.20.

UTILITIES

1. The following utilities are known to be located within the limits of this project:

Columbia Gas of Ohio Attn. Tammy Schmid 200 Civic Center Dr., 4th Floor Columbus, Ohio 43215 1-800-440-6111	City of Dublin Division of Engineering Ken Richardson, P.E. 5800 Shier Rings Road Dublin, Ohio 43016 (614) 410-4631	XO Communications Jeremy Johnson 10 West Broad Street, Suite #300 Columbus, Ohio 43215 (614) 416-1473	City of Columbus Division of Water 910 Dublin Road, 2nd Floor Columbus, Ohio 43215 (614) 645-7677
American Electric Power Robin Hand Engineering Liaison Coordinator 850 Tech Center Drive Gahanna, Ohio 43230-6605 (614) 883-6829	Time Warner Cable Kevin Rich 1266 Dublin Road Columbus, Ohio 43215 (614) 481-5263	Time Warner Cable Telecom Mark Blackburn 1266 Dublin Road Columbus, Ohio 43215 (614) 481-5263	Wide Open West Ken Holderfield Engineering Manager 3675 Corporate Drive Columbus, Ohio 43231 (614) 236-3922

2. The Contractor shall give notice of intent to construct to Ohio Utilities Protection Service (telephone number 800-362-2764), Producer's Underground Protection Service (telephone number 614-587-0486), and to owners of underground utilities that are not members of a registered underground protection service. Notice shall be given at least 2 working days before start of construction.

3. The identity and locations of existing underground utilities in the construction area have been shown on the approved construction drawings as accurately as provided by the owner of the underground utility. The City of Dublin and the City Engineer assumes no responsibility for the accuracy or depths of underground facilities shown on the approved construction drawings. If damage is caused, the Contractor shall be responsible for repair of the same and for any resulting contingent damage.

4. Location, support, protection and restoration of all existing utilities and appurtenances, whether shown or not shown on the approved construction drawings, shall be the responsibility of the Contractor.

5. When unknown or incorrectly located underground utilities are encountered during construction, the Contractor shall immediately notify the owner and the City Engineer.

6. Public street lighting may be in the vicinity of this project. Contact the City of Dublin, Division of Engineering at 410-4637, two days prior to beginning work.

TRAFFIC CONTROL

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

2. All traffic lanes of public roadways shall be fully open to traffic from 7:00 AM to 9:00 AM and from 4:00 PM to 6:00 PM unless authorized differently by the City Engineer. At all other hours the Contractor shall maintain minimum one-lane two-way traffic. Uniformed, off-duty police officers shall replace flagmen designated by the OMUTCD, and shall be present whenever one-lane, two-way traffic control is in effect. Police cruisers may be required as directed by the City Engineer.

3. If the City Engineer determines proper provisions for traffic control are not being provided by the Contractor, the City Engineer shall assign uniformed, off-duty police officers to the project at no cost to the City.

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

5. Access from public roadways to all adjoining properties for existing residents or businesses shall be maintained throughout the duration of the project for mail, public water and sanitary sewer service, and emergency vehicles. The Contractor shall provide a traffic control plan detailing the proposed maintenance of traffic procedures. The traffic control plan must incorporate any traffic control details contained herein. The traffic control plan proposed by the Contractor must be approved by the City Engineer prior to construction.

EROSION AND SEDIMENT CONTROL

1. The Contractor or Developer is responsible for submitting a Notice of Intent (NOI) to be reviewed and approved by the Ohio EPA. The NOI must be submitted to OEPA 45 days prior to the start of construction and may entitle coverage under the Ohio EPA General Permit for Stormwater Discharges associated with construction activity. A project location map must be submitted with the NOI. A sediment and erosion control plan must be submitted to the City Engineer for approval if a sediment and erosion control plan has not already been included with the approved construction drawings. This plan must be made available at the project site at all times. The design of erosion control systems shall follow the requirements of Ohio EPA, Item 207 of Ohio Department of Transportation Standard Specifications, and the City Engineer. An individual NPDES Stormwater Discharge Permit may be required. The Contractor shall be considered the permittee.

2. The Contractor shall provide sediment control at all points where storm water runoff leaves the project, including waterways, overland sheet flow, and storm sewers.

3. Accepted methods of providing erosion/sediment control include but are not limited to: sediment basins, silt filter fence, aggregate check dams, and temporary ground cover. Hay or straw bales are not permitted.

4. The Contractor shall provide adequate drainage of the work area at all times consistent with erosion control practices.

5. Disturbed areas that will remain unworked for 21 days or more shall be seeded or protected within seven calendar days of the disturbance. Other sediment controls that are installed shall be maintained until vegetative growth has been established. The Contractor shall be responsible for the removal of all temporary sediment devices at the conclusion of construction but not before growth of permanent ground cover.

STORM SEWERS

1. All storm water detention and retention areas and major flood routing swales shall be constructed to finish grade and hydro-seeded and hydro-mulched according to Items 203 and 659 of the Standard Specifications.

2. Where private storm sewers connect to public storm sewers, the last run of private storm sewer connecting to the public storm sewer shall be Reinforced Concrete Pipe conforming to ASTM Designation C76, Wall B, Class IV for pipe diameters 12 inches to 15 inches, Class III for 18 inches to 24 inch pipes, and 27 inches and larger pipe shall be Class II, unless otherwise shown on the approved construction drawings. Inspection is required by the City of Dublin's Division of Engineering.

3. Granular backfill shall be compacted granular material according to Item 912 of the Standard Specifications or Controlled Density Backfill according to Item 636, Type III of the Standard Specifications as directed by the City Engineer.

4. All storm sewers shall be Reinforced Concrete Pipe conforming to ASTM Designation C76, Wall B, Class IV for pipe diameters 12 inches to 15 inches, Class III for 18 inches to 24 inch pipes, and 27 inches and larger pipe shall be Class II, unless otherwise shown on the approved construction drawings.

5. Headwalls and endwalls shall be required at all storm sewer inlets or outlets to and from stormwater management facilities. Natural stone and/or brick approved by the City Engineer shall be provided on all visible headwalls and/or endwalls surfaces. Surfaces to be acid washed before approval of stone facing.

6. Storm inlets or catch basins shall be channelized and have bicycle safe grates.

7. Storm sewer outlets greater than 18 inches in diameter accessible from stormwater management facilities or watercourses shall be provided with safety grates, as approved by the City Engineer.

MAIL DELIVERY

1. The Contractor shall be responsible to ensure that U.S. Mail delivery within the project limits is not disrupted by construction operations. This responsibility is limited to relocation of mailboxes to a temporary location that will allow the completion of the work and shall also include the restoration of mailboxes to their original location or approved new location. Any relocation of mailbox services must be first coordinated with the US Postal Service and the homeowner.

2. Before relocating any mailboxes, the Contractor shall contact the U.S. Postal Service and relocate mailboxes according to the requirements of the Postal Service.

USE OF FIRE HYDRANTS

1. The Contractor shall make proper arrangements with the Dublin Service Department and the Columbus Division of Power and Water for the use of fire hydrants when used for work performed under this contract and provide the city of Dublin a copy of the Hydrant Usage Permit obtained from the City of Columbus. The Contractor shall also send copies of permits obtained from Dublin and Columbus to the Washington and/or Perry Township Fire Department. Permits shall be kept at the construction site at all times.
2. Before the final estimate is paid, the Contractor shall submit a letter from the City of Columbus Division of Power and Water (Water) to the City Engineer stating that the Contractor has returned the Siamese Valve to the City of Columbus and has paid all costs arising from the use of the fire hydrants.

MISCELLANEOUS

1. High Density Polyethylene (HDPE) corrugated pipe with integrally formed smooth interior wall, ADS N-12 or approved equal, is an approved alternate to reinforced concrete pipe in paved and non-paved areas.

2. HDPE pipe joints shall be made using watertight couplers with "O"-ring gasket, ADS WT of approved equal, where rubber "O"-ring gasket (ASTM C-361) pipe is required on approved constructions plans or within contract documents. All other pipe shall have a bell and spigot joint with rubber gasket meeting ASTM F477.

3. All bedding material shall be in accordance with City of Columbus Standard Construction Drawing AA-S149.

4. Backfill material shall be placed in accordance with Item 911 of the City of Columbus Construction Material Specifications (CMS).
5. Backfill material in areas located outside the public right-of-way shall be placed in accordance with City of Columbus Standard Construction Drawing AA-S155.
6. Height of cover shall be in accordance with the Ohio Department of Transportation (ODOT) Location and Design (L&D) Manual, Volume Two, Section 1008.3.1.
7. All HDPE pipe shall be mandrel tested in accordance with City of Columbus Item 901.21, with the exception that the waiting period prior to testing shall be 30 days.
8. For any and all installations requiring the minimization of trench water migration, anti-seep collars shall be installed in accordance with the ODOT L&D Manual, Volume Two Section 1118.4.1.2 and ODOT Standard Hydraulic Construction Drawing WQ-1.2.

PIPE ABANDONMENT

As per 202.041:
1. Existing Utilities specified "to be abandoned" shall be abandoned and filled in place in accordance with CMSC Item 202.041.

AS-BUILTS

1. As-builts of the site, utilities and stormwater management facilities shall be performed per requirements of the City of Dublin Administrative Policy & Procedure #08-030 prior to obtaining occupancy for the building.

ROCK EXCAVATION

1. Rock elevations reflected by the Plan were estimated by interpolation for design and estimating purposes only. Logs, test data, and interpolations are not warranted to reflect actual subsurface conditions. The Contractor shall examine the available information and obtain additional information if necessary for estimating, bidding, and construction purposes.

2. NO BLASTING IS PERMITTED ON PROJECT.

SOILS REPORT

Reference is made to the Geotechnical Engineering Report prepared by S+ME, dated July 2013. Recommendations presented are provided as a part of the specifications for the improvement work. The recommendations serve as the project guidelines and are not intended to limit the design or the work product. Copies of the reports are available from the Owner.

EARTHWORK GENERAL

The Contractor shall be responsible for the suitability of soils to be used as embankments for parking lots, building pads, etc.

All Stripping and Stockpiling of topsoil and/or excess material for these improvements or offsite hauling of topsoil/suitable material, etc. is included and shall be coordinated with the Owner. Appropriate means for sedimentation control of the onsite stockpiles shall be provided as a matter of general practice in accordance with Ohio NPDES General Permit.

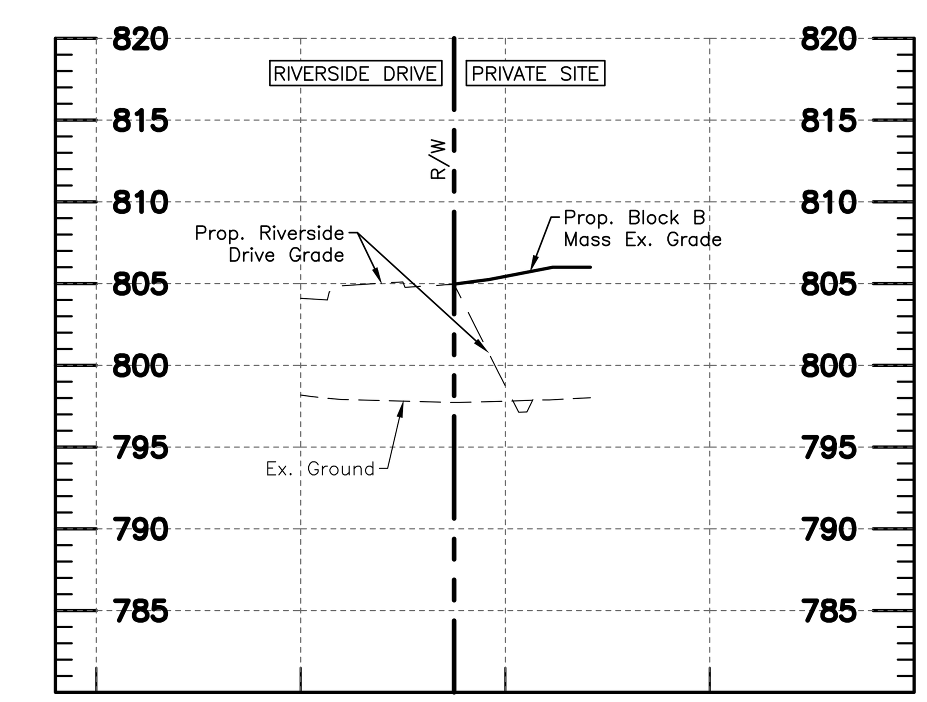
Specifications for General Site Earthwork operations (preparation of pavement subgrades, etc.) along with requirement standards (compaction, proofrolling, etc.) shall be in accordance with the CMSC Item 203.

All earthwork operations shall be observed and tested by the Site Geotechnical Engineer employed and paid for by the Owner. It shall be the Contractor's responsibility to contact the Site Geotechnical Engineer prior to commencement of any fill placement. Additionally, all final grades shall be field checked by an Agent of the Owner upon completion of Contractor's operations to determine if the site has been constructed to the grades indicated.

MANAGEMENT OF UNSUITABLE SOILS

Areas which will require stabilization and/or undercut shall be determined in field by Contractor and confirmed by Geotechnical Engineer. The Geotechnical Engineer shall inspect and certify all such areas. Areas of fill such as old footing/basement areas and utility excavations could be encountered during mass excavation of the site.

Contractor shall provide unit price contingency bids for each of the potential procedures to address unsuitable soils as per bid documents issued by General Contractor. Each unit price shall include all labor, material, equipment, and incidentals necessary to utilize the respective method to address the unsuitable materials. During construction, Contractor shall coordinate with Geotechnical Engineer, Owner, and General Contractor to determine appropriate method for each subject area.



RIVERSIDE DRIVE - BLOCK B MASS EXCAVATION COORDINATION SECTION

REVISIONS

MARK | DATE | DESCRIPTION

CRAWFORD HOYING development

CITY OF DUBLIN, FRANKLIN COUNTY, OHIO
MASS EXCAVATION PLAN
FOR
BRIDGE PARK
GENERAL NOTES

EMH&T
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
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DATE
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SCALE
As Noted

JOB NO.
2013-1481

SHEET
2 /5

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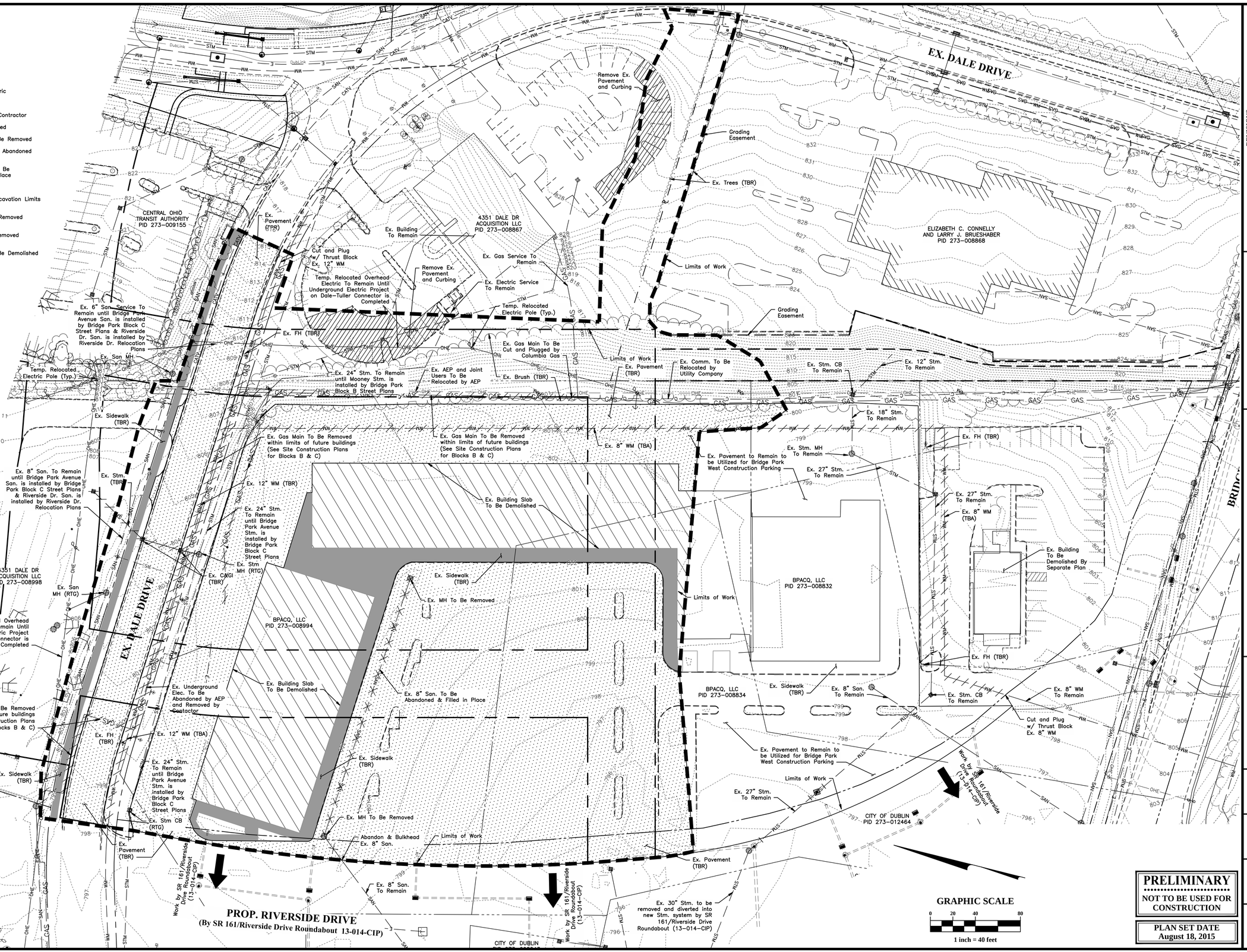
LEGEND

- Existing Watermain
- Existing Storm Sewer
- Existing Sanitary Sewer
- Existing Gas Main
- Existing Overhead Electric
- Existing Underground Electric
- Existing Communication
- Storm by Riverside Drive Contractor
- Existing Gas To Be Removed
- Existing Storm Sewer To Be Removed
- Existing Water Main To Be Abandoned and Filled In Place
- Existing Sanitary Sewer To Be Abandoned and Filled In Place
- Limits of Work
- Previous Block C Mass Excavation Limits
- Existing Pavement To Be Removed
- Existing Sidewalk To Be Removed
- Existing Building Slab To Be Demolished



PRELIMINARY
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PLAN SET DATE
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CITY OF DUBLIN, FRANKLIN COUNTY, OHIO
MASS EXCAVATION PLAN
FOR
BRIDGE PARK
EXISTING CONDITIONS AND DEMOLITION PLAN

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5500 New Albany Road, Columbus, OH 43054
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DATE
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SCALE
1" = 40'

JOB NO.
2013-1481

SHEET
3/5

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LEGEND

- WM — Existing Watermain
- STM — Existing Storm Sewer
- SAN — Existing Sanitary Sewer
- GAS — Existing Gas Main
- OHE — Existing Overhead Electric
- E — Existing Underground Electric
- C — Existing Communication
- X — Sediment Fence
- Proposed Temporary Ditch
- Proposed Temporary Check Dam
- Proposed Temporary Rock Channel Lining, 1.5' of Type B
- Inlet Protection
- Construction Entrance
- Limits of Work
- 805.50* — Proposed Riverside Drive Spot Elevation for Reference Only
- 801 800 — Existing Contours
- 801 800 — Block C & Riverside Dr. Contours
- 801 800 — Proposed Contours

NOTE:

Mass excavation spot elevations and contours are to subgrade.

GRAPHIC SCALE

0 20 40 80

1 inch = 40 feet

PRELIMINARY

NOT TO BE USED FOR CONSTRUCTION

PLAN SET DATE
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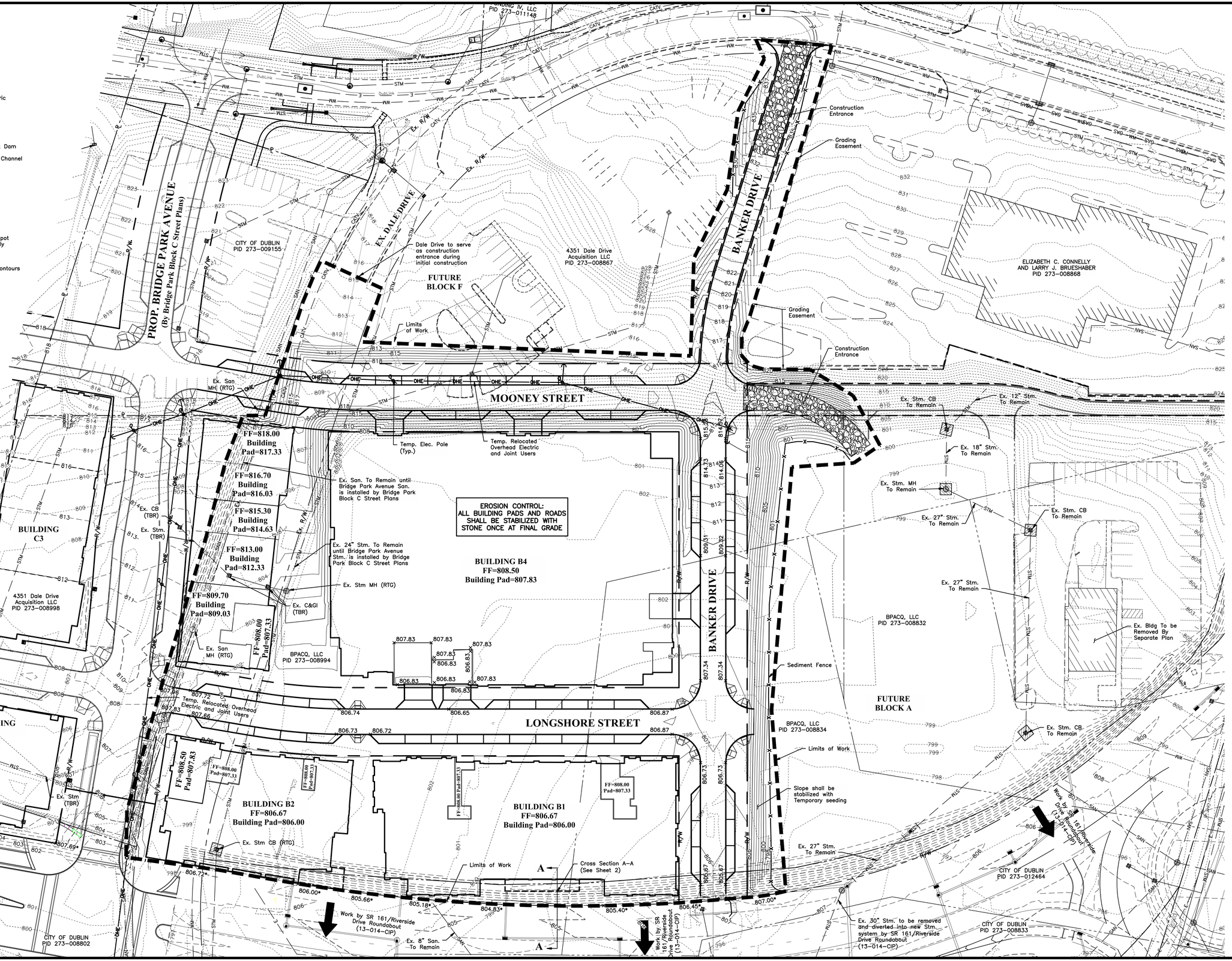

REVISIONS

MARK	DATE	DESCRIPTION

CRAWFORD HOYING development

CITY OF DUBLIN, FRANKLIN COUNTY, OHIO
MASS EXCAVATION PLAN
FOR
BRIDGE PARK
GRADING AND EROSION CONTROL PLAN

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SCALE
1" = 40'

JOB NO.
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SHEET
4/5

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Erosion & Sediment Control Narrative

Plan Engineer:	Evans, Mechwart, Hambleton & Tilton, Inc. 5500 New Albany Road Columbus, OH 43054 Phone: (614) 775-4500 Fax: (614) 775-4800
Property Owner:	Scioto Tuller Acquisition LLC 555 Metro Place N, Ste 600 Dublin, Ohio 43017 Contact: Nelson Yoder Email: Phone: 614-335-2020 Fax: 614-850-9191
Existing Site Description:	Existing shopping center and pavement.
Site Disturbance:	6.30 Acres
Existing Site Drainage Condition:	Sheet drainage across parking lot to existing catch basins.
Watershed	The site is tributary to the Scioto River.
Adjacent Areas:	The site is bounded by Riverside Drive to the West, Dale Drive to the North, and the proposed Dale-Tuller Connector to the East.
Soils:	The soils onsite consist of Kendallville Silt Loam (KeB), Miamian Silt Loam (MkB), Miamian Silty Clay Loam (MIC2), Milton Silt Loam (MoB & MoC2), and Ritchey Silt Loam (RhB) according to the NRCS Web Soil Survey.
Critical Areas:	Existing catch basins and catch basins constructed by the Riverside Drive project shall be protected during initial earthwork and throughout construction.
Erosion & Sediment Control Measures:	Temporary and permanent seeding and mulching applications including the use of 57 or 304 stone will primarily be used to stabilize the soil during construction activities.
Maintenance:	Street cleaning, on an as-needed basis, is required through the duration of this construction project. This includes sweeping, power cleaning and, if necessary, manual removal of dirt and mud in the street gutters. Additional long term maintenance and inspection requirements are listed in the table to the right on this sheet.

Construction Sequence

Prior to Construction Operations in a particular area, all sedimentation and erosion control features shall be in place. Field adjustments with respect to locations and dimensions may be made by the Engineer.

The Contractor shall place inlet protection for the erosion control immediately after construction of the catch basins or inlets which are not tributary to a sediment basin or dam.

It may become necessary to remove portions of the barrier during construction to facilitate the grading operations in certain areas. However, the barrier shall be in place in the evening or during any inclement weather.

The limits of seeding and mulching have been established as 5'-0" outside the grading limits or 20'-0" beyond the right-of-way, whichever is greater. All areas not designated to be seeded shall remain under natural ground cover. Those areas disturbed outside the seeding limits shall be seeded and mulched at the Contractor's expense. "Temporary seeding" No area for which grading has been completed shall be left unseeded or unmulched for longer than 14 days. If permanent seed is not applied at this time, temporary seeding shall be done at the following rates:

<u>March 1 to August 15</u>	
Seed: Oats	2 lbs./1,000 Sq.Ft.
Fertilizer: (12:12:12)	12 1/2 lbs./1,000 Sq.Ft.
Mulch:(Straw or Hay)	2 tons/acre
<u>August 15 to November</u>	
Seed: Annual Rye	2 lbs./1,000 Sq.Ft.
Fertilizer: (12:12:12)	12 1/2 lbs./1,000 Sq.Ft.
Mulch:(Straw or Hay)	2 tons/acre
<u>November 1 to March 1</u>	
Mulch (ONLY):(Straw or Hay)	2 tons/acre

"Permanent seeding" shall be done between March 15 and September 15. If seeding is done between September 15 and March 15, it shall be classified as "Temporary Seeding." Permanent seed shall be 40% Kentucky Bluegrass, 40% Creeping Red Fescue, 20% Annual Ryegrass. Permanent seeding shall consist of fertilizing, watering and seeding rates indicated under Item 659. Seeding shall be applied within two(2) days after final grading or following seed bed preparation.

Rates of application of Item 659:	
Seed:	2 lbs./1,000 Sq.Ft.
Fertilizer: (12:12:12)	25 lbs./1,000 Sq.Ft.
Mulch:(Straw or Hay)	2 tons/acre

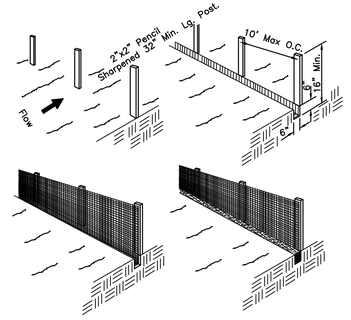
The cost for temporary channels, sediment dams, sediment basins, and other appurtenant earthmoving operations shall be included in the price bid for erosion and sedimentation control quantities.

MAINTENANCE:

It is the Contractor's responsibility to maintain the sediment control features used on this project. The site shall be inspected weekly and within 24 hours of a significant rainfall. Records of these inspections shall be kept and made available to jurisdictional agencies if requested. Any sediment or debris which has reduced the efficiency of a structure shall be removed immediately. Should a structure or feature become damaged, the Contractor shall repair or replace at no additional cost to the Owner. Not all details shown on this sheet may be required for this project,

SCHEDULE:

The Contractor shall provide a schedule of operations to the owner. Sedimentation and erosion control features shall be placed in accordance with this schedule.



SEDIMENT FENCE DETAIL

Not To Scale

Minimum Criteria for Silt Fence Fabric

The use of straw wattles has proven to be a versatile and effective ESC BMP, especially in residential settings. Straw wattles may be substituted for silt fence in linear installations.

1. The Height of A Silt Fence shall not Exceed 36 Inches (Higher Fences May Impound Volumes of Water Sufficient to Cause Failure of the Structure).
2. The Filter Fabric shall be Purchased in a Continuous Roll Cut to the Length of the Barrier to Avoid the Use of Joints. When Joints are Necessary, Filter Cloth shall be Spliced Together Only at a Support Post, with a Minimum of a 6-inch Overlap, and Securely Sealed.
3. Posts shall be Spaced a Maximum of 10 Feet apart at the Barrier Location and Driven Securely Into the Ground (Minimum Of 12 Inches).
4. A Trench shall be Excavated Approximately 6 Inches Wide and 6 Inches Deep Along the Line of Posts and Upslope from the Barrier.
5. The Filter Fabric shall be Stapled or Wired to the Fence, And 8-inches of the Fabric shall be Extended Into the Trench. The Fabric shall not Extend More than 36 Inches above the Original Ground Surface. Filter Fabric shall not be Stapled to Existing Trees.
6. The Trench shall be Backfilled and Soil Compacted Over the Filter Fabric.
7. Silt Fences shall be Removed when they have Served their Useful Purpose, but not Before the Upslope Area has been Permanently Stabilized.

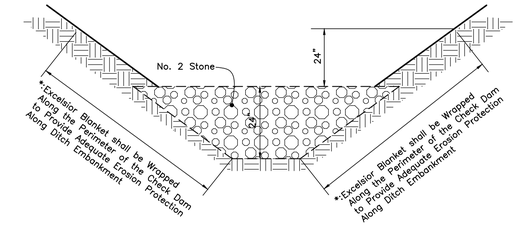
Maintenance:

Silt 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.

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 Promptly.

Sediment Deposits Should be Removed After Each Storm Event. They must be Removed when Deposits Reach Approximately One-half the Height of the Barrier.

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.



Maintenance:

Aggregate Check Dams shall be Inspected Immediately After Each Rainfall and at Least Daily During Prolonged Rainfall.

Close Attention shall be Paid to the Repair of Damaged Check Dams, End Runs and Undercutting Beneath Dams.

Necessary Repairs to Check Dams shall be Accomplished Promptly.

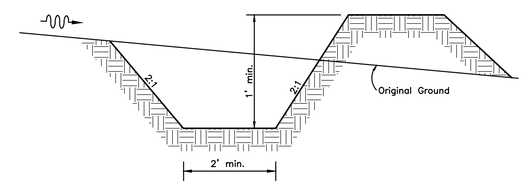
Any Sediment Deposits Remaining in Place After the Aggregate is no Longer Required shall be Dressed to Conform to the Proposed Grade, Prepared and Seeded.

Sediment Deposits Should be Removed After Each Rainfall. They must be Removed when the Level of Deposition Reaches Approximately one-half the Height of the Barrier.

ROCK CHECK DAM

(Use as Warranted)

*: Excelsior Matting shall be Contech Standard Grade Excelsior Blanket (efbi) or Approved Equivalent. Installation shall be in Accordance with the Manufacturer's Specification



MAINTENANCE: All channels shall be seed and strawed immediately following their construction. The contractor shall be held responsible for maintenance of the channel prior to completion of the project. The slope of the channel shall be such to provide adequate drainage throughout the entire length of the channel.

DIVERSION CHANNEL

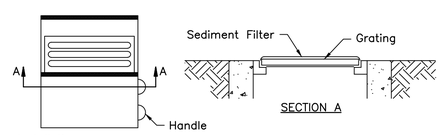
No Scale

OEPA NOI Permit – 4GC04734*AG

All Erosion & Sediment Control practices are subject to Field Modification at the direction of the City Of Dublin and/or Ohio EPA.

This plan must be posted on-site. A copy of the SWPPP plan and the approved EPA Stormwater Permit (with the site specific NOI number) shall be kept on-site at all times.

CONTRACTOR RESPONSIBILITY: Details have been provided on the plans in an effort to help the Contractor provide erosion and sedimentation control. The details shown on the plan shall be considered a minimum. Additional or alternate details may be found in the O.D.N.R. Manual "Rainwater and Land Development." The Contractor shall be solely responsible for providing necessary and adequate measures for proper control of erosion and sediment runoff from the site along with proper maintenance and inspection in compliance with the NPDES General Permit for Storm Water Discharges Associated with Construction Activity.



<u>Installation:</u>

1. Stand grate on end. Place Catch Basin Protection Bag over grate. Roll grate over so that open end is up. Pull up slack. Tuck flap in. Be sure end of grate is completely covered by flap or Catch Basin Protection Bag will not fit properly. Holding handles, carefully place Catch Basin Protection Bag with grate inserted into catch basin frame so that red dot on the top of the Catch Basin Protection Bag is visible.

<u>Maintenance:</u>

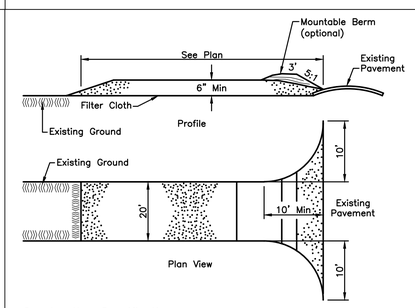
1. With a stiff bristle broom or square point shovel, remove silt & other debris off surface after each event.

<u>Note:</u>

1. Dandy Bag, FryeFlow Systems Inlet Protection, FLEXSTORM Inlet Filter or approved equal are acceptable

CATCH BASIN SEDIMENT FILTER DETAIL

Scale: Not to Scale



Construction Specifications

1. Stone Size – Use 2" Stone, or Reclaimed or Recycled Concrete Equivalent.
2. Length – as Required.
3. Thickness – not Less than Six (6) Inches.
4. Width – Twenty (20) Foot Minimum, but not Less than the Full Width at Points where Ingress or Egress Occurs.
5. Filter Cloth – will be Placed Over the Entire Area Prior to Placing of Stone.
6. 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 will be Permitted. Cost of Pipe shall be Included in the Price Bid for the Stabilized Construction Entrance.
7. Maintenance – The Entrance shall be Maintained in a Condition which will Prevent Tracking or Flowing of Sediment onto 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 Rights-of-Way must be Removed Immediately.
8. Washing – Wheels shall be Cleaned to Remove Sediment Prior to Entrance onto Public Right-of-Ways. When Washing is Required, it shall be Done on an Area Stabilized with Stone and which Drains into an Approved Sediment Trapping Device.
9. Periodic Inspection and Needed Maintenance shall be Provided After Each Rain.

STABILIZED CONSTRUCTION ENTRANCE

Not To Scale

REVISIONS

MARK	DATE	DESCRIPTION

CRAWFORD HOYING development

CITY OF DUBLIN, FRANKLIN COUNTY, OHIO
MASS EXCAVATION PLAN
FOR
BRIDGE PARK
EROSION CONTROL NOTES AND DETAILS

EMH&T
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: August 18, 2015

SCALE: None

JOB NO.: 2013-1481

SHEET: 5/5

J:\2013\1481\Dwg\04Sheets\Mass Ex\Block B\Erosion Control Notes and Details.dwg Last Saved By: awolf, 8/18/2015 10:33 AM Last Printed By: Peltier, James, 8/18/2015 11:21 AM (No Xref(s))