# CITY OF DUBLIN, FRANKLIN COUNTY, OHIO MASS EXCAVATION PLAN **FOR**

# BRIDGE PARK BLOCK F

2017

**LOCATION MAP** Not to Scale

## SHEET INDEX

## **BENCH MARKS**

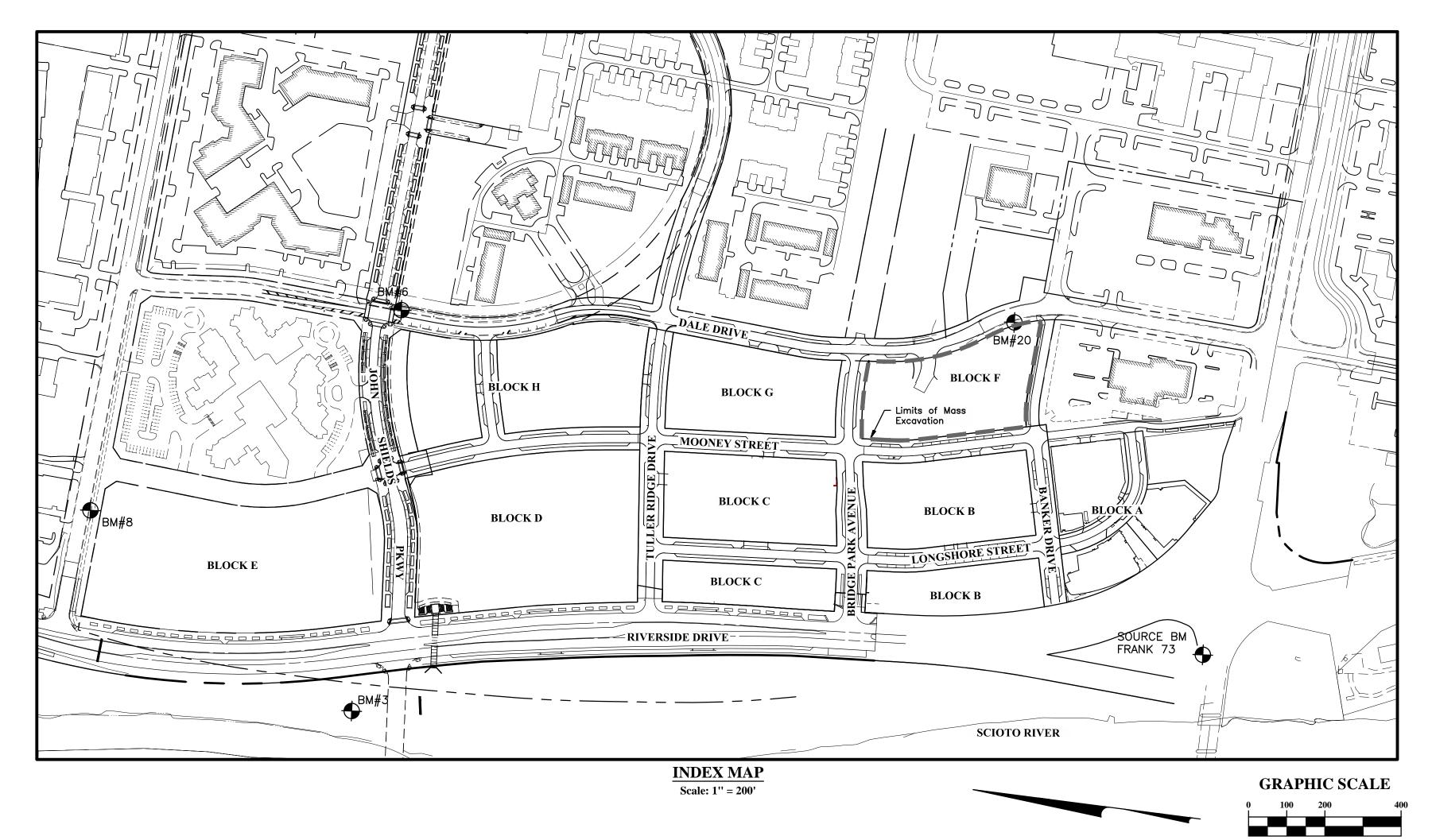
the median, 20.2 feet northeast of the southwest corner of the median, 2

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.

Chiseled "X" on the North bold 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

Chiseled "X" on the north bolt of the second fire hydrant north of the intersection of Dale Drive and Dublin—Granville Road. Being on the west side



PREPARED BY:



**DEVELOPER** 

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

Fax: (614) 775-4800

Utilities Protection SERVICE Call Before You Dig 800-362-2764 or 8-1-1 www.oups.org Columbus, Ohio 43054 Tel: (614) 775-4500

1 inch = 200 feet

Registered Engineer No.

August 25, 2017 SCALE As Noted

CITY OF DUBLIN, F MASS EXC

CRAWFORD HOYING

development

2013-1481

JOB NO.

SHEET

#### GENERAL NOTES

- . 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
- 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.
- 3. 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
- 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
- 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 613. Item 911 of the Standard Specifications
- 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
- 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 ncing or barricades during nonworking hours. Clean—up shall follow closely beh 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 613 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
- 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,
- 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:

(614) 481-5263

200 Civic Center Dr., 4th Floor Ken Richardson, P.E. Columbus, Ohio 43215 1-800-440-6111 American Electric Power Robin Hand Engineering Liaison Coordinator 850 Tech Center Drive

(614) 883-6829

Gahanna, Ohio 43230-6605

Columbia Gas of Ohio

Attn. Tammy Schmid

Division of Engineering 5800 Shier Rings Road Dublin, Ohio 43016 (614) 410-4631 Time Warner Cable Kevin Rich Mark Blackburn 1266 Dublin Road 1266 Dublin Road

City of Columbus XO Communications Jeremy Johnson 10 West Broad Street Suite #300 Columbus, Ohio 43215 (614) 416-1473 Time Warner Cable Telecom Wide Open West

(614) 481-5263

Columbus, Ohio 43215 (614) 645-7677 Ken Holderfield Engineering Manageı Columbus, Ohio 43215 Columbus, Ohio 43215 3675 Corporate Drive Columbus, Ohio 43231

(614) 236-3922

Division of Water

910 Dublin Road, 2nd Floor

- 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
- 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
- 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.

#### **BLASTING**

1. No blasting permitted.

## 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 613, Type III of the Standard Specifications as directed by the City
- 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 "0"-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.

#### **AS-BUILTS**

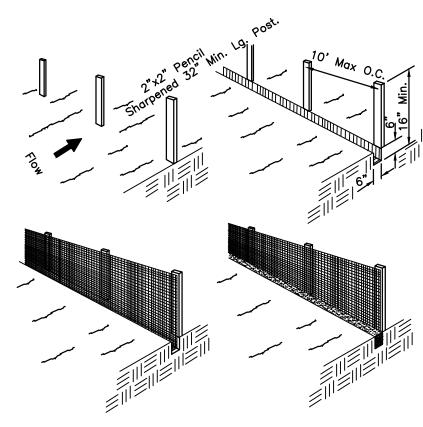
. As-builts of the site, utilities and stormwater management facilities shall be performed per requirements of the City of Dublin Administrative Policy & Procedure #08-030 prior to obtaining occupancy for the building.

#### **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.

#### DUST CONTROL

1. Dust control shall be maintained by applying water or dust palliative for the alleviation or prevention of dust nuisance originating from construction operations from within the project construction limits. The Contractor shall perform dust control operation per Item 616.



SEDIMENT FENCE DETAIL

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).
- 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
- 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.
- The Trench shall be Backfilled and Soil Compacted Over the Filter Fabric.
- Silt Fences shall be Removed when they have Served their Useful Purpose, but not Before the Upslope Area has been Permanently Stabilized.

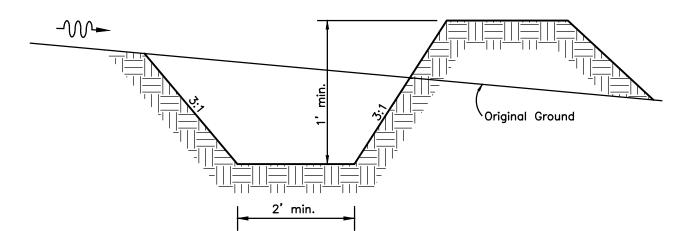
#### Maintenance:

Securely Sealed

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.

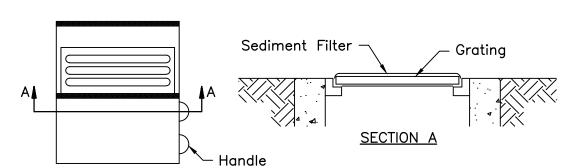
Should the Fabric on a Silt Fence or Filter Barrier Decompose or Become Ineffective Prior to the End of the Expected Usable Life and the Barrier is Still Necessary, the Fabric Shall be Replaced Promptly.

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: 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** 



**Installation:** 

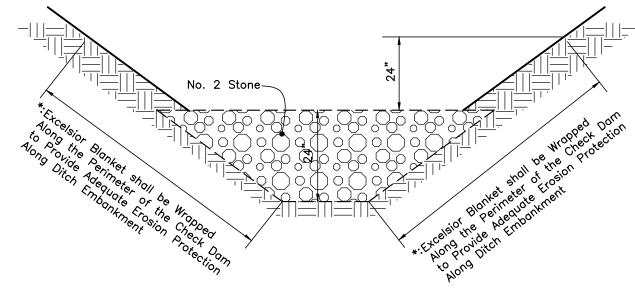
1. Stand grate on end. Place Catch Basin Protection Bag over grate. Roll grate over so that open end is up. Pull up slack. Tuck flap in. Be sure end of grate is completely covered by flap or Catch Basin Protection Bag will not fit properly. Holding handles, carefully place Catch Basin Protection Bag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

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

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

#### CATCH BASIN SEDIMENT FILTER DETAIL

Scale: Not to Scale



#### 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.

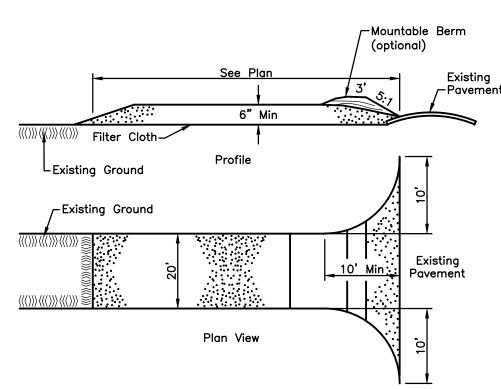
Necessary Repairs to Check Dams shall be Accomplished Promptly.

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

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



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
- 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

BRIDGI GENERA

OF DUBLIN, MASS EX

HOYIN

**CRAWFORD**development

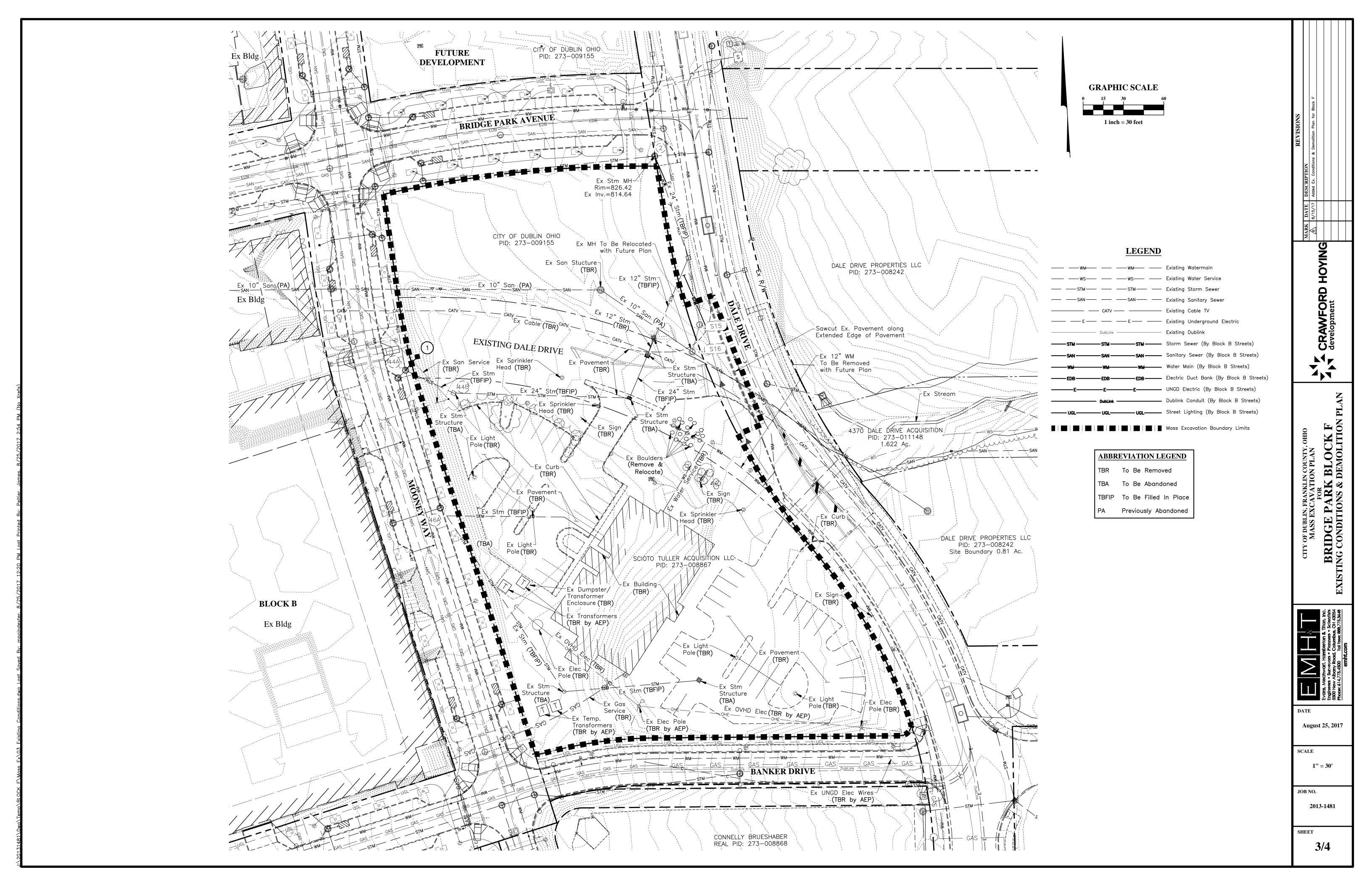
BLO & DET

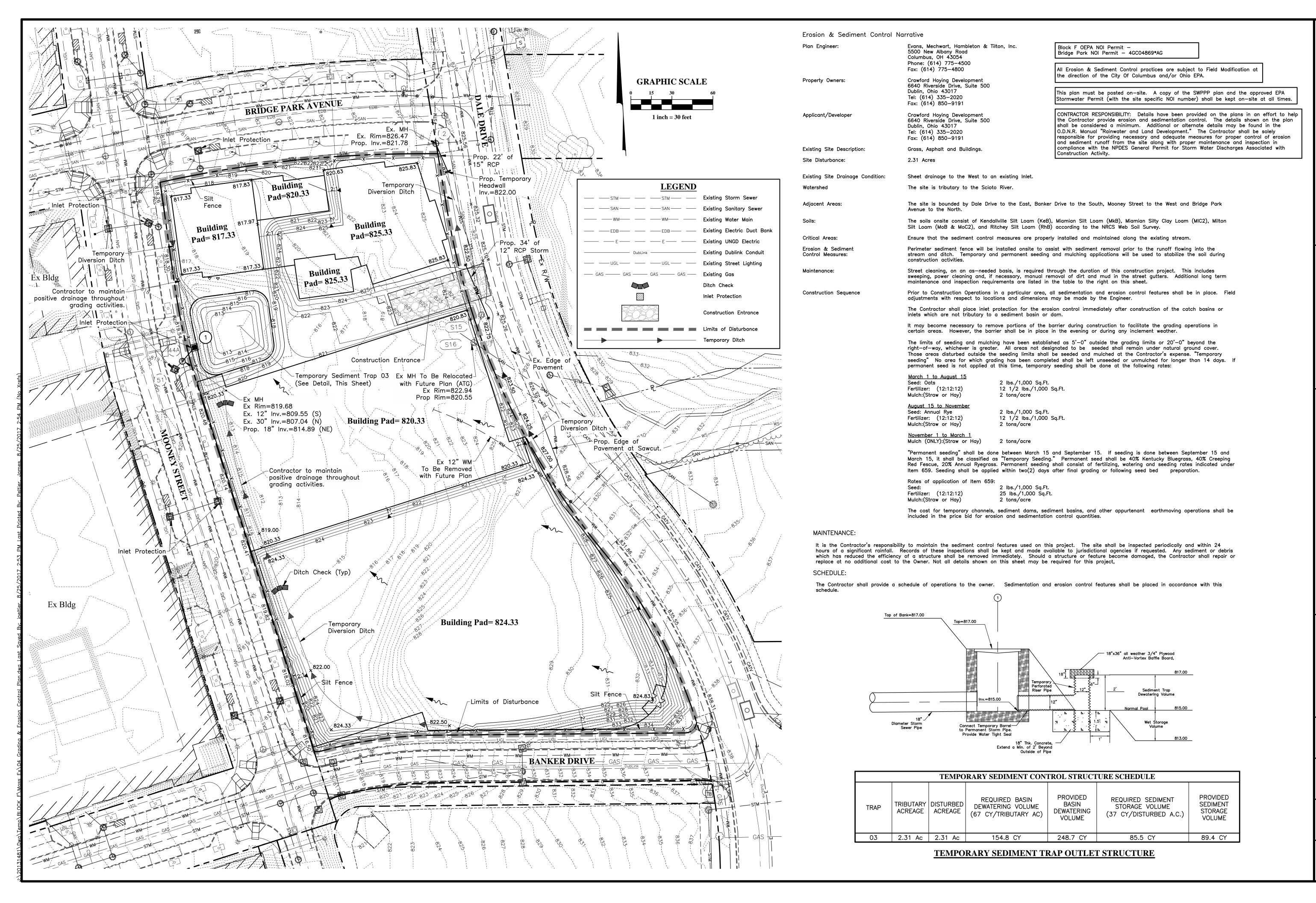
DATE August 25, 2017

SCALE

JOB NO. 2013-1481

SHEET





ut, Hambleton & Illton, Inc.
eyors - Planners - Scientists
y Road, Columbus, OH 43054
500 Toll Fee: 888.775.3648
emht.com

HOYING

CRAWFORD I development

K BLOCK

BRIDGE PA

DATE
August 25, 2017

SCALE

1'' = 30'

JOB NO. 2013-1481

SHEET

4/4