DEVELOPMENT PLAN
FOR
URBAN AIR ADVENTURE PARK
INDOOR RECREATION CENTER
7679-7685 PLAIN CITY-DUBLIN RD. (SR161)
DUBLIN, OHIO 43064
2018

SURVEY NOTE:

AN ALTA SURVEY PROVIDED BY SITE ENGINEERING INC DATED 3-10-17 WAS USED FOR THE EXISTING SITE LAYOUT, TOPOGRAPHICAL AND BENCHMARK INFORMATION.

UNDERGROUND UTILITY LOCATIONS ARE APPROXIMATE AND BASED ON EXISTING UTILITY RECORDS.

SITE DATA:

OEPA NPDES GENERAL PERMIT #: OHC000004

OWNER/DEVELOPER: CARMEN MICHAEL VILLOPOTO
220 LAKE MANOR RD.
CHAPEL HILL, NC 27516
CARMEN VILLOPOTO (ONSITE CONTACT)

PLAN DESIGNER: OSBORN ENGINEERING
990 WEST THIRD AVE. - SUITE 200
COLUMBUS, OH 43212
PHONE: 614-556-4272
EMAIL: BLUNDGREN@OSBORN-ENG.COM

PID NO: 274-012136-00
ADDRESS: 7679 DUBLIN PLAIN CITY ROAD
DUBLIN, OHIO 43016

PID NO: 274-001453-00
ADDRESS: 7685 DUBLIN PLAIN CITY ROAD
DUBLIN, OHIO 43016

DEVELOPMENT: URBAN AIR - RECREATION CENTER
SITE GROUND COVER: OPEN FIELD

SITE DRAINS TO: EXISTING STORM INLET
ADJACENT AREAS: COMMERCIAL, INDUSTRIAL, RESIDENTIAL, FARM LAND

ZONING INFORMATION:

ZONING DISTRICT:	ID-2: RESEARCH FLEX DISTRICT 36-11
PROPOSED USE	RECREATION CENTER
BUILDING HEIGHT:	PHASE 1 BUILDING = 34'
	PHASE 2 BUILDING = 34'
GROSS BUILDING AREA:	PHASE 1 BUILDING = 20,000 SF
	PHASE 2 BUILDING = 20,000 SF
FRONT BUILDING SETBACK:	50'
SIDE BUILDING SETBACK:	20'
REAR BUILDING SETBACK:	20'
FRONT PAVEMENT SETBACK:	30'
SIDE PAVEMENT SETBACK:	15'
REAR PAVEMENT SETBACK:	25'

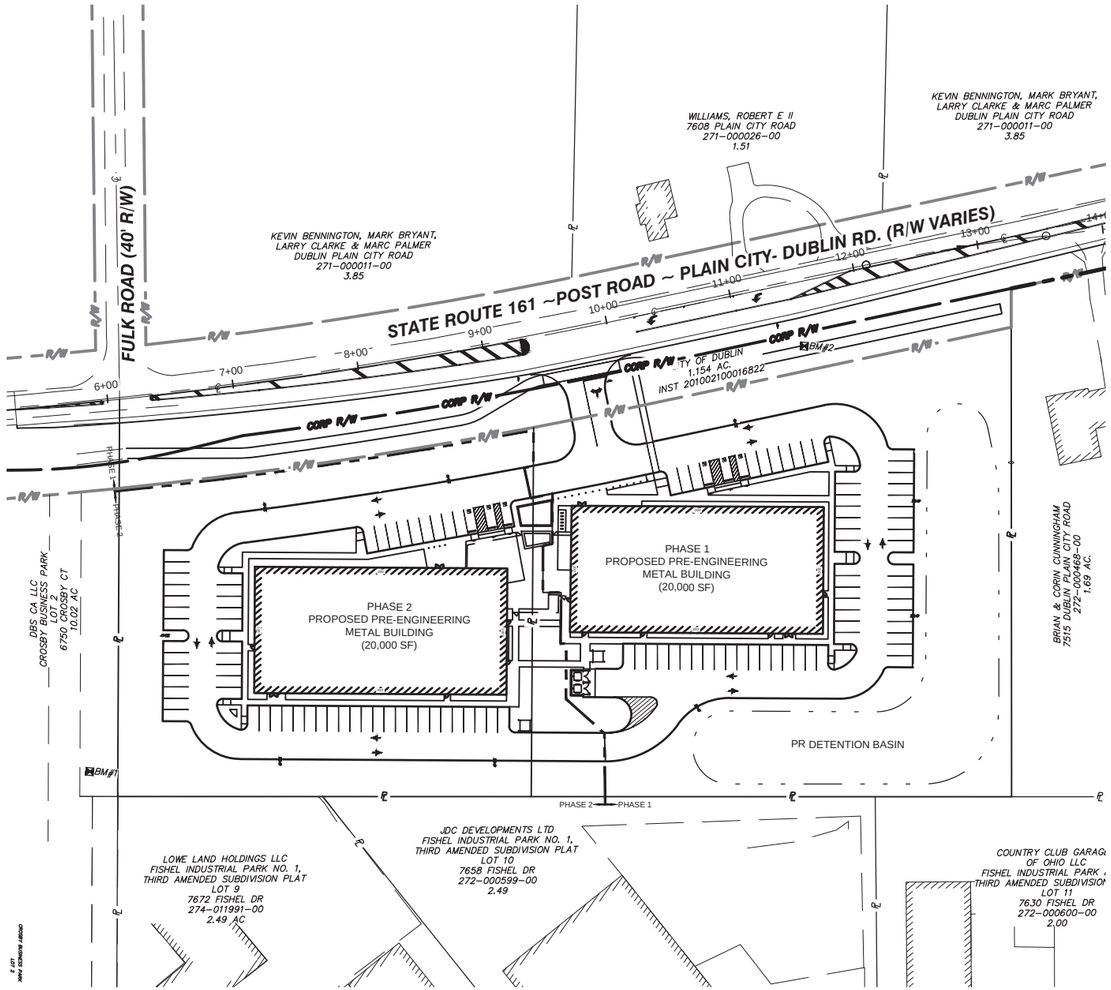
ZONING CALCULATIONS:

1. OFFSITE PARKING CALCULATIONS
   - REQUIRED: PHASE 1: 20,000 SF * (1 SPACE / 250 SF) = 80 SPACES
     PHASE 2: 20,000 SF * (1 SPACE / 250 SF) = 80 SPACES
   - PROPOSED: PHASE 1: 63 SPACES
     PHASE 2: 59 SPACES
2. BICYCLE PARKING CALCULATIONS
   - REQUIRED: PHASE 1 & PHASE 2:
     REQUIRED PARKING * (1 BIKE / 15 SPACES) * (1 RACK / 2 BIKES)
     = 80 SPACES * (1 BIKE / 15 SPACES) * (1 RACK / 2 BIKES)
     = 3 RACKS
   - PROPOSED: PHASE 1: 6 RACKS
     PHASE 2: PROVIDED IN PHASE 1
3. OFF-STREET LOADING SPACE CALCULATIONS
   - REQUIRED:
   - 1 SPACE PER 10,000-100,000 GROSS FLOOR AREA.
   - PHASE 1 BUILDING 20,000 SQFT = 1 LOADING SPACE
   - PHASE 2 BUILDING 20,000 SQFT = 1 LOADING SPACE
   - PROPOSED:
   - PHASE 1: 1 LOADING SPACE
   - PHASE 2: 1 LOADING SPACE
4. MINIMUM LOT SIZE
   - REQUIRED: 2 ACRES
   - EXISTING: 4.888 ACRES
   - PROPOSED: PROPERTY SUBDIVIDED
     EAST PROPERTY (PHASE 1) = 2.888 AC.
     WEST PROPERTY (PHASE 2) = 2.000 AC.
5. MAXIMUM LOT COVERAGE
   - REQUIRED: 75% MAX
   - PROPOSED: PROPOERTY SUBDIVIDED
     EAST PROPERTY (PHASE 1) = 41.9%
     WEST PROPERTY (PHASE 2) = 61.0%

STANDARD DRAWINGS:

THE STANDARD DRAWINGS LISTED ON THIS PLAN SHALL BE CONSIDERED A PART THEREOF:

CITY OF DUBLIN (2017 ED.)	CITY OF COLUMBUS	ODOT
RD-07	AA-S166	CB 2-3
RD-11		MH #3
ST-01		
ST-05		
WA-01		



NORTH

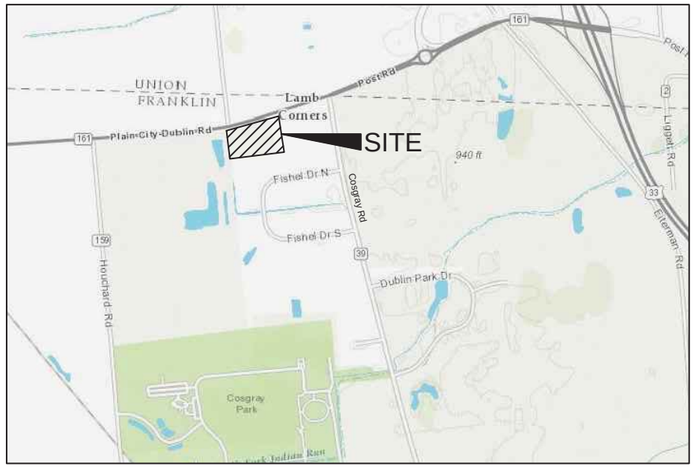
GRAPHIC SCALE

60 0 30 60

(IN FEET)

1 inch = 60 ft.

UNDERGROUND UTILITIES
2 WORKING DAYS
BEFORE YOU DIG
CALL 800-362-2764 (TOLL FREE)
OHIO UTILITIES
PROTECTION SERVICE
NON-MEMBER
MUST BE CALLED DIRECTLY



VICINITY MAP
NO SCALE

NORTH

BENCHMARK:

SOURCE BENCHMARK ~ ELEVATION OBTAINED USING TRIMBLE RTK GPS EQUIPMENT AND OHIO DEPARTMENT OF TRANSPORTATION CORS/VRS NETWORK, NAVD 1988.

BENCHMARK #1 ~ TOP OF CASTING ON AEP MANHOLE (ON LETTER "O" IN WORD "VOLTAGE" ON LID), ALONG THE SOUTH SIDE OF S.R. 161, 164' WEST OF THE EAST PROPERTY LINE.
N = 768064.39 E=1774349.85 ELEV=942.56

BENCHMARK #2 ~ TOP OF CASTING ON SANITARY MANHOLE NEAR THE SOUTHWEST CORNER OF SURVEYED TRACT.
N=767678.52 E=1773816.26 ELEV=943.82

FLOOD DESIGNATION

ACCORDING TO F.E.M.A. FLOOD INSURANCE RATE MAP #39049C0127K, DATED JUNE 17, 2008 FOR COMMUNITY NUMBER 390167, THIS PROPERTY IS IN ZONE X. AREAS DETERMINED TO BE OUTSIDE 500 YEAR FLOOD PLAIN.

INDEX OF SHEETS

SUPPLEMENTAL PLANS

WATER SERVICE PLANS	
1/3	PLAN SHEET
2/3	DETAIL SHEET
3/3	DETAIL SHEET

THE CITY OF DUBLIN SIGNATURES ON THIS PLAN SIGNIFIES ONLY CONCURRENCE WITH THE GENERAL PURPOSE AND LOCATION OF THE PROPOSED IMPROVEMENTS. ALL TECHNICAL DETAILS REMAIN THE RESPONSIBILITY OF THE PROFESSIONAL ENGINEER WHO PREPARED AND CERTIFIED THESE PLANS.

CITY OF DUBLIN

CITY ENGINEER, CITY OF DUBLIN, OHIO

DIRECTOR OF LAND USE & LONG RANGE PLANNING, CITY OF DUBLIN, OHIO

m+a
775 Yard Street, Suite 325
Columbus, Ohio 43212
p 614 764 0407
f 614 764 0237
www.ma-architects.com

OSBORN
ENGINEERING
1100 Superior Ave - Suite 300 | Cleveland, OH 44114
441 Wolf Ledges Road - Suite 300 | Akron, OH 44311
990 West Third Avenue | Columbus, OH 43212

URBAN AIR
7679-7685 PLAIN CITY-DUBLIN ROAD | DUBLIN, OH 43064 |

STATUS:

REVISION:

PROJECT NUMBER: 2016.223

DRAWN BY: SF

DATE: 23 MARCH 2018

SHEET NAME: TITLE SHEET

SHEET NUMBER: C1.0

m+a architects

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 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 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 WATERCOURSES 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 SHALL 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 DR. A 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 OR AS DIRECTED BY THE DIVISION OF PARKS AND 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:

    AEP
    COLUMBIA GAS
    AT&T

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 THAT THE CONTRACTOR IS NOT PROVIDING PROPER PROVISIONS FOR TRAFFIC CONTROL, 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 30 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 (IF PERMITTED)

1. THE CONTRACTOR MUST OBTAIN A BLASTING PERMIT FROM WASHINGTON TOWNSHIP FIRE DEPARTMENT PRIOR TO BLASTING FOR ROCK EXCAVATION. THE CONTRACTOR SHALL SUBMIT BLASTING REPORTS UPON COMPLETION OF BLASTING TO THE CITY ENGINEER, THE OWNER, AND THE OWNER'S ENGINEER. TOP OF ROCK ELEVATIONS SHALL BE SHOWN ON "AS-BUILT" CONSTRUCTION DRAWINGS.

SANITARY SEWERS

1. CONNECTIONS TO THE SANITARY SEWER WILL BE PERMITTED UPON RECEIVING AN OEPA PERMIT TO INSTALL AND UPON RECEIVING A SATISFACTORY LETTER FROM THE DESIGN ENGINEER STATING THAT THE PROJECT HAS BEEN CONSTRUCTED AS PER THE PLANS, AND ALL OF THE CONDITIONS OF THE PTI HAVE BEEN MET. THE DEVELOPER IS RESPONSIBLE FOR OBTAINING ALL REQUIRED OHIO EPA APPROVALS AND PAYING REVIEW FEES.

2. SANITARY SEWAGE COLLECTION SYSTEMS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE RULES, REGULATIONS. STANDARDS AND SPECIFICATIONS OF THE CITY OF DUBLIN, OHIO EPA, OHIO DEPARTMENT OF HEALTH AND THE CURRENT EDITION OF THE GREAT LAKES-UPPER MISSISSIPPI RIVER BOARD (TEN STATES) - RECOMMENDED STANDARDS FOR WASTEWATER FACILITIES.

3. THE MINIMUM REQUIREMENTS FOR SANITARY SEWER PIPE WITH DIAMETERS 15 INCHES AND SMALLER SHALL BE REINFORCED CONCRETE PIPE ASTM C76 CLASS 3, OR PVC SEWER PIPE ASTM D3034, SDR 35. PIPE FOR 6-INCH DIAMETER HOUSE SERVICE LINES SHALL BE PVC PIPE ASTM D3034, SDR 35. PVC PIPE SHALL NOT BE USED AT DEPTHS GREATER THAN 28 FEET. PIPE MATERIALS AND RELATED STRUCTURES SHALL BE SHOP TESTED IN ACCORDANCE WITH CITY OF COLUMBUS CONSTRUCTION INSPECTION DIVISION QUALITY CONTROL REQUIREMENTS.

4. THE MINIMUM REQUIREMENTS FOR SANITARY SEWER PIPES WITH DIAMETERS GREATER THAN 15 INCHES SHALL BE REINFORCED CONCRETE PIPE ASTM C76 WITH CLASS DESIGNATION SPECIFIED IN THE APPROVED CONSTRUCTION DRAWINGS.

5. ALL IN-LINE WYE AND TEE CONNECTIONS IN CONCRETE SEWERS, 18-INCH DIAMETER AND LARGER, SHALL BE EITHER KOR-N-TEE OR KOR-N-SEAL CONNECTIONS CONFORMING TO THE MANUFACTURER'S RECOMMENDATIONS.

6. 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.

7. ALL MANHOLE LIDS SHALL BE PROVIDED WITH CONTINUOUS SELF-SEALING GASKETS. THE APPROVED CONSTRUCTION DRAWINGS SHALL SHOW WHERE BOLT-DOWN LIDS ARE REQUIRED. SANITARY SEWER MANHOLES SHALL BE PRECAST CONCRETE OR AS APPROVED BY THE CITY ENGINEER AND CONFORM TO THE CITY OF DUBLIN SANITARY MANHOLE STANDARD DRAWING. MANHOLE LIDS SHALL INCLUDE CITY OF DUBLIN LOGO.

8. ALL PVC SEWER PIPES SHALL BE DEFLECTION TESTED NO LESS THAN 60 DAYS AFTER COMPLETION OF BACKFILLING OPERATIONS. ALL OTHER REQUIREMENTS SHALL BE ACCORDING TO ITEM 901.21 OF THE STANDARD SPECIFICATIONS.

9. TEMPORARY BULKHEADS SHALL BE PLACED IN PIPES AT LOCATIONS SHOWN ON THE APPROVED CONSTRUCTION DRAWINGS AND SHALL REMAIN IN PLACE UNTIL THE PERMIT TO INSTALL (PTI) HAS BEEN ISSUED BY THE OEPA AND THE SEWERS HAVE BEEN APPROVED FOR USE BY THE CITY ENGINEER. THE COST FOR FURNISHING, INSTALLING, MAINTAINING, AND REMOVING BULKHEADS SHALL BE INCLUDED IN THE CONTRACT UNIT BID PRICE FOR THE VARIOUS SANITARY SEWER ITEMS.

10. ALL SANITARY SEWERS INCLUDING SANITARY SEWER SERVICE LINES SHALL BE SUBJECTED TO AND PASS INFILTRATION OR EXFILTRATION TESTS ACCORDING TO ITEM 901 OF THE STANDARD SPECIFICATIONS AND MUST BE APPROVED FOR USE BY THE CITY ENGINEER BEFORE ANY SERVICE CONNECTIONS ARE TAPPED INTO SEWERS.

11. FOR SANITARY SEWER INFILTRATION, LEAKAGE THROUGH JOINTS SHALL NOT EXCEED 100 GALLONS PER INCH OF TRIBUTARY SEWER DIAMETER PER 24 HOURS PER MILE OF LENGTH OR THE COMPUTED EQUIVALENT. ALL SANITARY SEWERS SHALL BE TESTED.

12. AT THE DETERMINATION OF THE CITY ENGINEER, THE CONTRACTOR MAY BE REQUIRED TO PERFORM A TV INSPECTION OF THE SANITARY SEWER SYSTEM PRIOR TO FINAL ACCEPTANCE BY THE CITY. THIS WORK SHALL BE COMPLETED BY THE CONTRACTOR AT HIS EXPENSE.

13. VISIBLE LEAKS OR OTHER DEFECTS OBSERVED OR DISCOVERED DURING TV INSPECTION SHALL BE REPAIRED TO THE SATISFACTION OF THE ENGINEER.

14. ROOF DRAINS, FOUNDATION DRAINS, FIELD TILE OR OTHER CLEAN WATER CONNECTIONS TO THE SANITARY SEWER SYSTEM ARE STRICTLY PROHIBITED ACCORDING TO SECTION 51.23 OF THE DUBLIN CODE OF ORDINANCES.

15. ALL WATER LINES SHALL BE LOCATED AT LEAST 10 FEET HORIZONTALLY AND 18 INCHES VERTICALLY, FROM SANITARY SEWERS AND STORM SEWERS, TO THE GREATEST EXTENT PRACTICABLE. WHERE SANITARY SEWERS CROSS WATER MAINS OR OTHER SEWERS OR OTHER UTILITIES, TRENCH BACKFILL SHALL BE PLACED BETWEEN THE PIPES CROSSING AND SHALL BE COMPACTED GRANULAR MATERIAL ACCORDING TO ITEM 912 OF THE STANDARD SPECIFICATIONS. IN THE EVENT THAT A WATER LINE MUST CROSS WITHIN 18 INCHES OF A SANITARY SEWER, THE SANITARY SEWER SHALL BE CONCRETE ENCASED OR CONSIST OF DUCTILE IRON PIPE MATERIAL.

16. SERVICE RISERS SHALL BE INSTALLED WHERE THE DEPTH FROM WYES TO PROPOSED GROUND ELEVATION EXCEEDS 10 FEET. TOPS OF RISERS SHALL BE NO LESS THAN 9 FEET BELOW PROPOSED GROUND ELEVATION IF BASEMENT SERVICE IS INTENDED.

17. WHERE SERVICE RISERS ARE NOT INSTALLED, A MINIMUM 5-FOOT LENGTH OF SANITARY SEWER SERVICE PIPE OF THE SAME SIZE AS THE WYE OPENING SHALL BE INSTALLED.

18. THE CONTRACTOR SHALL FURNISH AND PLACE, AS DIRECTED, APPROVED WYE POLES MADE OF 2 INCHES X 2 INCHES LUMBER AT ALL WYE LOCATIONS, ENDS OF EXTENDED SERVICES, OR AT THE END OF EACH RISER WHERE RISERS ARE REQUIRED. WYE POLES SHALL BE VISIBLE BEFORE ACCEPTANCE BY THE CITY. THE COST OF THESE POLES SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR THE VARIOUS SEWER ITEMS.

19. EXISTING SANITARY SEWER FLOWS SHALL BE MAINTAINED AT ALL TIMES. COSTS FOR PUMPING AND BYPASSING SHALL BE INCLUDED IN THE CONTRACTOR'S UNIT PRICE BID FOR THE RELATED ITEMS.

20. THE CONTRACTOR SHALL FURNISH ALL MATERIAL, EQUIPMENT, AND LABOR TO MAKE CONNECTIONS TO EXISTING MANHOLES. THE SEWER PIPE TO MANHOLE CONNECTIONS FOR ALL SANITARY SEWERS SHALL BE FLEXIBLE AND WATERTIGHT. ALL HOLES SHALL BE NEATLY CORED. THE SEWER PIPE BARREL AT THE SPRINGLINE SHALL NOT EXTEND MORE THAN 1 INCH BEYOND THE INSIDE FACE OF THE MANHOLE. TO MAINTAIN FLEXIBILITY IN THE CONNECTION, A 1-INCH SPACE SHALL BE LEFT BETWEEN THE END OF THE PIPE INSIDE THE MANHOLE AND THE CONCRETE CHANNEL; THIS SPACE SHALL BE FILLED WITH A WATERPROOF FLEXIBLE JOINT FILLER. ANY METAL THAT IS USED SHALL BE TYPE 300 SERIES STAINLESS STEEL. THE CONNECTION MAY BE ANY OF THE FOLLOWING TYPES:

A. RUBBER SLEEVE WITH STAINLESS STEEL BANDING
    1) KOR-N-SEAL AS MANUFACTURED BY NATIONAL POLLUTION CONTROL SYSTEMS, INC.
    2) LOCK JOINT FLEXIBLE MANHOLE SLEEVE AS MANUFACTURED BY INTERPACE CORPORATION
    3) OR EQUAL AS APPROVED BY THE CITY ENGINEER

B. RUBBER GASKET COMPRESSION
    1) PRESS WEDGE II AS MANUFACTURED BY PRESS-SEAL GASKET CORPORATION.
    2) DURA SEAL III AS MANUFACTURED BY DURA TECH, INC.
    3) LINK-SEAL AS MANUFACTURED BY THUNDERLINE CORPORATION.
    4) OR EQUAL AS APPROVED BY THE CITY ENGINEER.

THE COST FOR THIS WORK ALONG WITH A NEW CHANNELIZED BASE FOR THE MANHOLE SHALL BE INCLUDED IN THE UNIT BID PRICE FOR THE RELATED ITEMS OF WORK.

WATER LINE

1. ALL WATER LINE MATERIALS SHALL BE PROVIDED AND INSTALLED ACCORDING TO CURRENT SPECIFICATIONS OF THE CITY OF COLUMBUS DIVISION OF WATER.

2. ALL PUBLIC WATER PIPE WITH A DIAMETER 3 INCHES TO 8 INCHES SHALL BE DUCTILE IRON, CLASS 53. PUBLIC WATER PIPE 12 INCHES IN DIAMETER OR LARGER SHALL BE DUCTILE IRON, CLASS 54. PUBLIC WATER PIPE 20 INCHES IN DIAMETER OR LARGER MAY BE PRESTRESSED CONCRETE PIPE. PRIVATE WATER PIPE SHALL MEET THE APPROVAL OF THE CITY OF COLUMBUS DIVISION OF WATER PRIOR TO APPROVAL OF THE CONSTRUCTION DRAWINGS.

3. ONLY FIRE HYDRANTS CONFORMING TO CITY OF COLUMBUS STANDARDS WILL BE APPROVED FOR USE.

4. PUBLIC WATER LINES SHALL BE DISINFECTED BY THE CITY OF COLUMBUS DIVISION OF WATER. REQUESTS FOR WATER LINE CHLORINATION SHALL BE MADE THROUGH THE CITY OF DUBLIN DIVISION OF ENGINEERING. THE COST FOR CHLORINATION SHALL BE PAID FOR BY THE CONTRACTOR.

5. ALL WATER LINES SHALL BE DISINFECTED ACCORDING TO ITEM 801.13 OF THE STANDARD SPECIFICATIONS SPECIAL ATTENTION IS DIRECTED TO APPLICABLE SECTIONS OF AMERICAN WATER WORKS ASSOCIATION SPECIFICATION C-651, PARTICULARLY FOR FLUSHING (SECTION 5) AND FOR CHLORINATING VALVES AND FIRE HYDRANTS (SECTION 7). PRESSURE TESTING SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 801.12 OF THE CITY OF COLUMBUS CONSTRUCTION AND MATERIAL SPECIFICATIONS. WHEN WATER LINES ARE READY FOR DISINFECTION, THE CITY OF DUBLIN SHALL SUBMIT TWO (2) SETS OF "AS-BUILT" PLANS, AND A LETTER STATING THAT THE WATER LINES HAVE BEEN PRESSURE TESTED AND NEED TO BE DISINFECTED, TO THE CITY OF COLUMBUS, DIVISION OF WATER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH THE DISINFECTION OF ALL WATER LINES CONSTRUCTION PER THIS PLAN. PRESSURE TESTING SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 801.12 OF THE CITY OF COLUMBUS CONSTRUCTION AND MATERIAL SPECIFICATIONS.

6. THE CONTRACTOR SHALL PAINT ALL FIRE HYDRANTS ACCORDING TO CITY OF DUBLIN STANDARDS. THE COST OF PAINTING FIRE HYDRANTS SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR FIRE HYDRANTS.

7. NO WATER TAPS OR SERVICE CONNECTIONS (E.G., TO CURB STOPS OR METER PITS) MAY BE ISSUED UNTIL ADJACENT PUBLIC WATER LINES SERVING THE CONSTRUCTION SITE HAVE BEEN DISINFECTED BY THE CITY OF COLUMBUS DIVISION OF WATER AND HAVE BEEN ACCEPTED BY THE CITY ENGINEER. A TAP PERMIT FOR EACH WATER SERVICE MUST BE OBTAINED FROM THE CITY OF DUBLIN AND THE CITY OF COLUMBUS DIVISION OF WATER

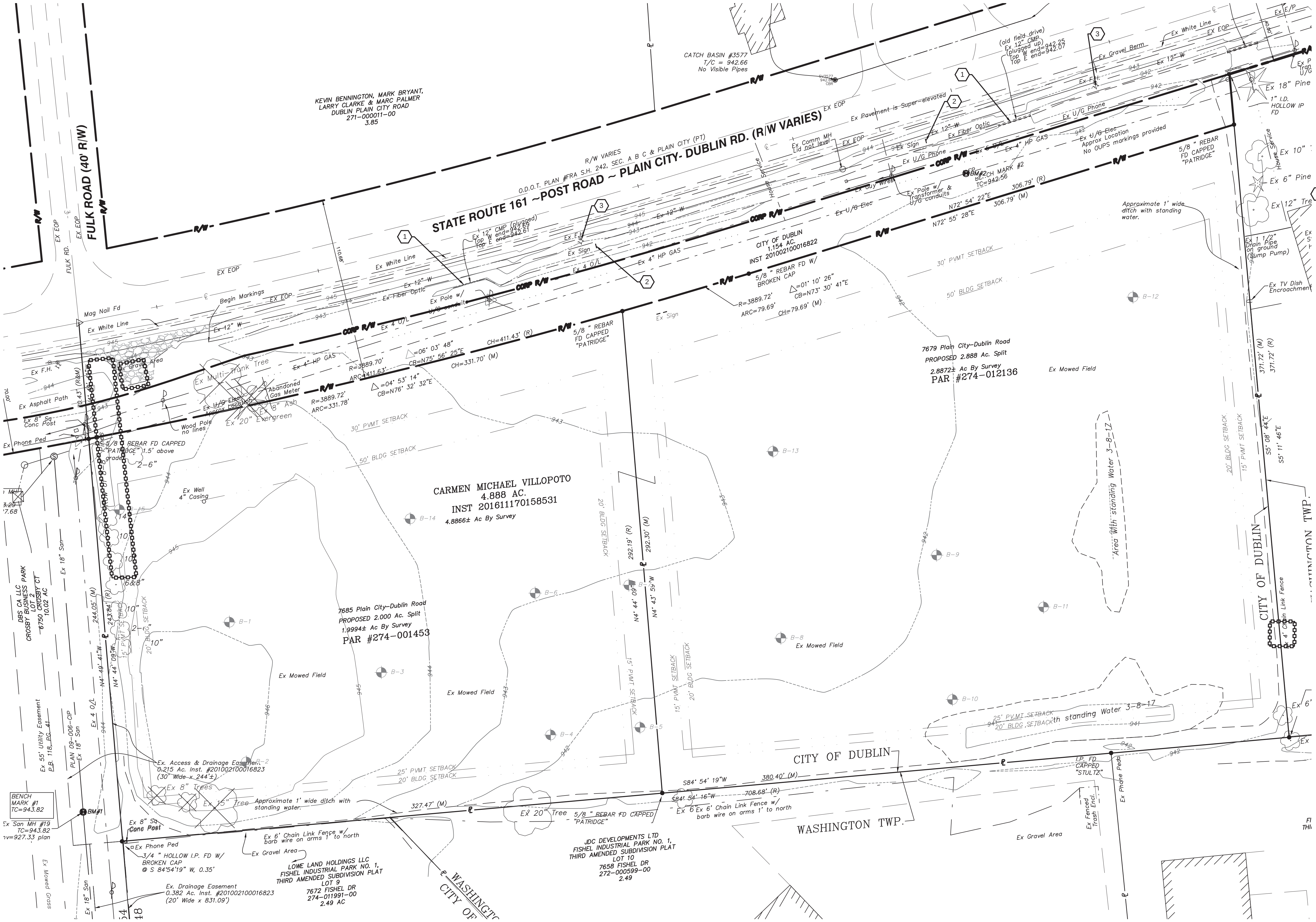
8. BEFORE MAKING ANY TAPS INTO PUBLIC WATER LINES. 8. THE CONTRACTOR SHALL NOTIFY THE CITY OF COLUMBUS DIVISION OF WATER AT 645-7788 AND THE CITY OF DUBLIN DIVISION OF ENGINEERING AT LEAST 24 HOURS BEFORE TAPPING INTO EXISTING WATER LINES.

9. ALL WATER MAIN STATIONING SHALL BE BASED ON STREET CENTERLINE STATIONING.

10. ALL BENDS, JOINT DEFLECTIONS AND FITTINGS SHALL BE BACKED WITH CONCRETE PER CITY OF COLUMBUS STANDARDS.

11. THE CONTRACTOR SHALL GIVE WRITTEN NOTICE TO ALL AFFECTED PROPERTY OWNERS AT LEAST 1 WORKING DAY BUT NOT MORE THAN 3 WORKING DAYS PRIOR TO ANY TEMPORARY INTERRUPTION OF WATER SERVICE. INTERRUPTION OF WATER SERVICE SHALL BE MINIMIZED AND MUST BE APPROVED BY THE CITY ENGINEER.

12. WATER METERS SHALL BE INSTALLED INSIDE PROPOSED STRUCTURES UNLESS A METER PIT INS



LEGEND

San.	Sanitary Sewer
St.	Storm Sewer
W	Water Main
GAS	Gas Line
U/G	Underground Cables
O/L	Overhead Lines
AEP ○ Ⓢ	Manhole
▦	Storm Inlet
⊗-⌖	Fire Hydrant
	Light & Utility Poles
— — →	Guy Wire
——	Fence
▬ △	Sign
⊗	Valve Box
⬡	Gas Line Marker
☐	Telephone Closure
I.P.Fd. ●	Iron Pin Fd
(R)	Record Call
(M)	Measured this survey

DEMOLITION CODED NOTES:

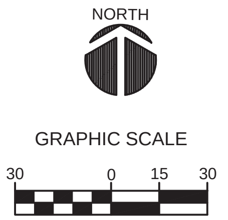
1. EXISTING STORM PIPE TO BE REMOVED AND DITCH RESTORED PER ODOT REQUIREMENTS AND SPECIFICATIONS BY OTHERS
2. EXISTING ROADWAY SIGN TO BE RELOCATED BY OTHERS
3. EXISTING FIRE HYDRANT TO BE RELOCATED BY OTHERS

DEMOLITION LEGEND

▨	EXISTING GRAVEL DRIVE TO BE REMOVED
⊠	EXISTING TREE TO BE REMOVED (REFER TO LANDSCAPE PLAN FOR TREE REMOVAL INFORMATION)
-□-□-□-	TREE PROTECTION FENCE TO REMAIN THROUGHOUT CONSTRUCTION

DEMOLITION NOTES:

1. DEMOLITION ITEMS TO BE TRANSPORTED TO A LEGAL DUMP SITE.
2. CONTRACTOR TO LEAVE A SMOOTH CLEAN EDGE WHEN REMOVING EXISTING PAVEMENT FOR THE PROPOSED DRIVE.
3. EXISTING PAVEMENT EDGE TO BE SAWCUT PER ODOT REQUIREMENTS AND SPECIFICATIONS BY OTHERS



(IN FEET)
1 inch = 30ft.

775 Yard Street, Suite 325
Columbus, Ohio 43212
p 614 764 0407
f 614 764 0237
www.ma-architects.com

OSBORN ENGINEERING
1100 Superior Ave - Suite 300 | Cleveland, OH 44114
441 Wolf Ledges Road - Suite 300 | Akron, OH 44311
990 West Third Avenue | Columbus, OH 43212

URBAN AIR

7679-7685 PLAIN CITY-DUBLIN ROAD | DUBLIN, OH 43064 |

STATUS:

REVISION:

PROJECT NUMBER:
2016.223

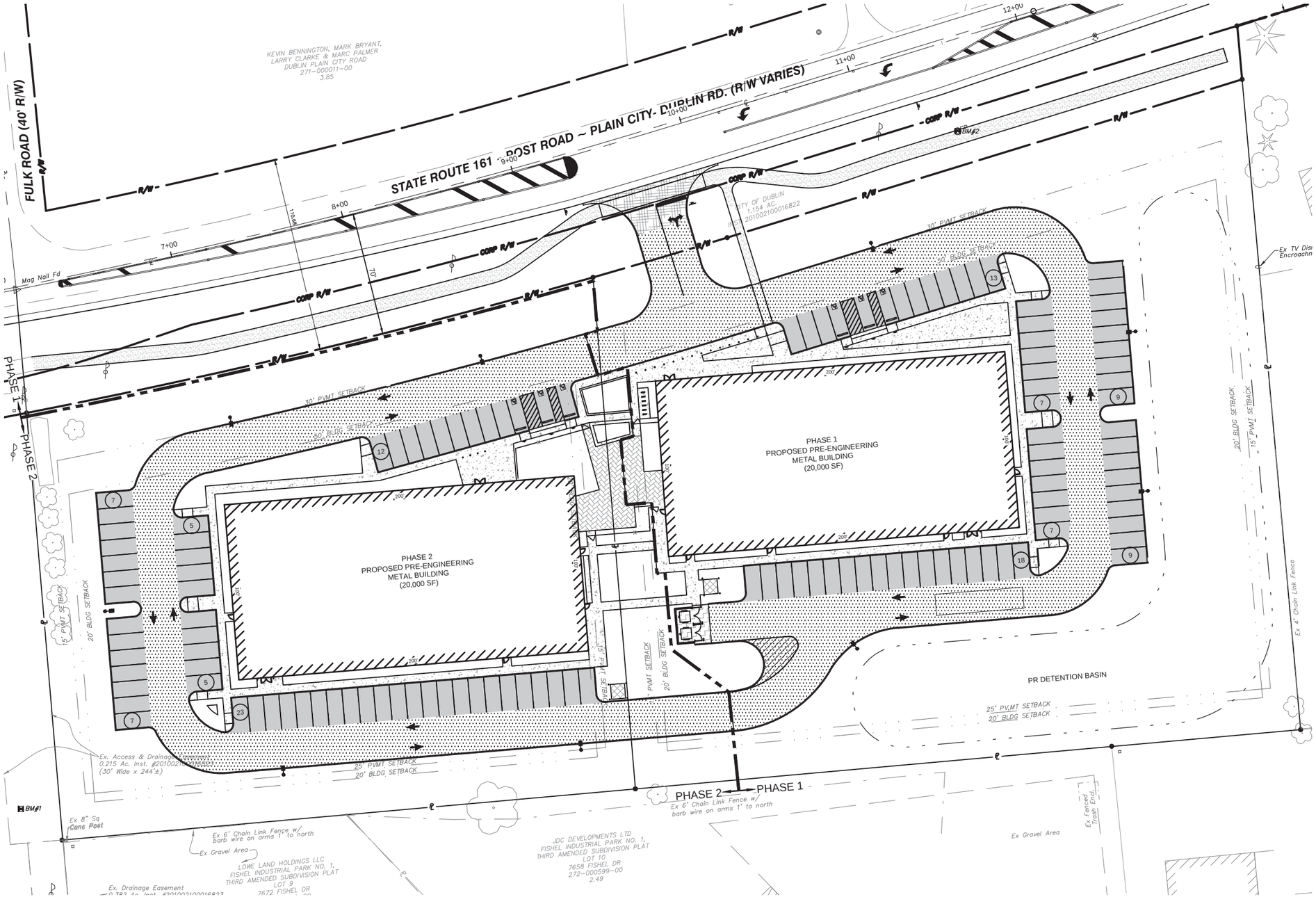
DRAWN BY:
SF

DATE:
23 MARCH 2018

SHEET NAME:
EXISTING CONDITIONS/ DEMOLITION PLAN

SHEET NUMBER:
C2.0

m-a architects



SITE NOTES

1. DIMENSIONS ARE FROM FACE OF CURB, UNLESS OTHERWISE NOTED.
2. UNDIMENSIONED RADIUSES TO BE 5'.
3. EXISTING PAVEMENT GRADES TO MATCH (FLUSH) WHERE NEW PAVEMENT MEETS EXISTING PAVEMENT.
4. PAVEMENT JOINT WHERE NEW PAVEMENT MEETS EXISTING PAVEMENT TO BE SEALED WITH HOT APPLIED JOINT SEALER.
5. ALL PROPOSED PAVEMENT MARKINGS TO BE 4" IN WIDTH AND WHITE IN COLOR, UNLESS OTHERWISE NOTED.
6. REFERENCE ARCHITECTURAL PLANS FOR BUILDING IMPROVEMENTS AND DUMPSTER/TRANSFORMER ENCLOSURE DETAILS.
7. REFERENCE ELECTRICAL PLANS FOR SITE LIGHTING DETAILS.
8. REFERENCE SURVEY LEGEND ON SHEET C2.0.

HATCHING LEGEND

- LIGHT DUTY PAVEMENT (PARKING STALLS)
- HEAVY DUTY PAVEMENT (PARKING AISLES)
- CONCRETE SIDEWALK
- HEAVY DUTY CONCRETE (DUMPSTER PAD)
- HEAVY DUTY CONCRETE (TRANSFORMER PAD)
- CONCRETE DRIVE APRON PER RD-07
- PAVER AREA
- 8' PUBLIC SHARED PATH PER RD-05 AND RD-06

SITE LEGEND

- DIRECTIONAL ARROW (REFERENCE ONLY)
- TURN ARROW (REFERENCE ONLY)
- STOP BAR
- DUMPSTER ENCLOSURE
- ADA ACCESS/LOADING ZONE STRIPING
- ADA MARKING (SEE DETAIL SHEET C-501)
- SIGN
- PARKING COUNT
- SITE LIGHTING

NORTH

GRAPHIC SCALE

30 0 15 30

(IN FEET)

1 inch = 30 ft.

m-a
775 Yard Street, Suite 325
Columbus, Ohio 43212
p 614 764 0407
f 614 764 0237
www.ma-architects.com

OSBORN
ENGINEERING
1100 Superior Ave - Suite 300 | Cleveland, OH 44114
441 Wolf Ledges Road - Suite 300 | Akron, OH 44311
990 West Third Avenue | Columbus, OH 43212

URBAN AIR

7679-7685 PLAIN CITY-DUBLIN ROAD | DUBLIN, OH 43064

STATUS:

REVISION:

PROJECT NUMBER:
2016.223

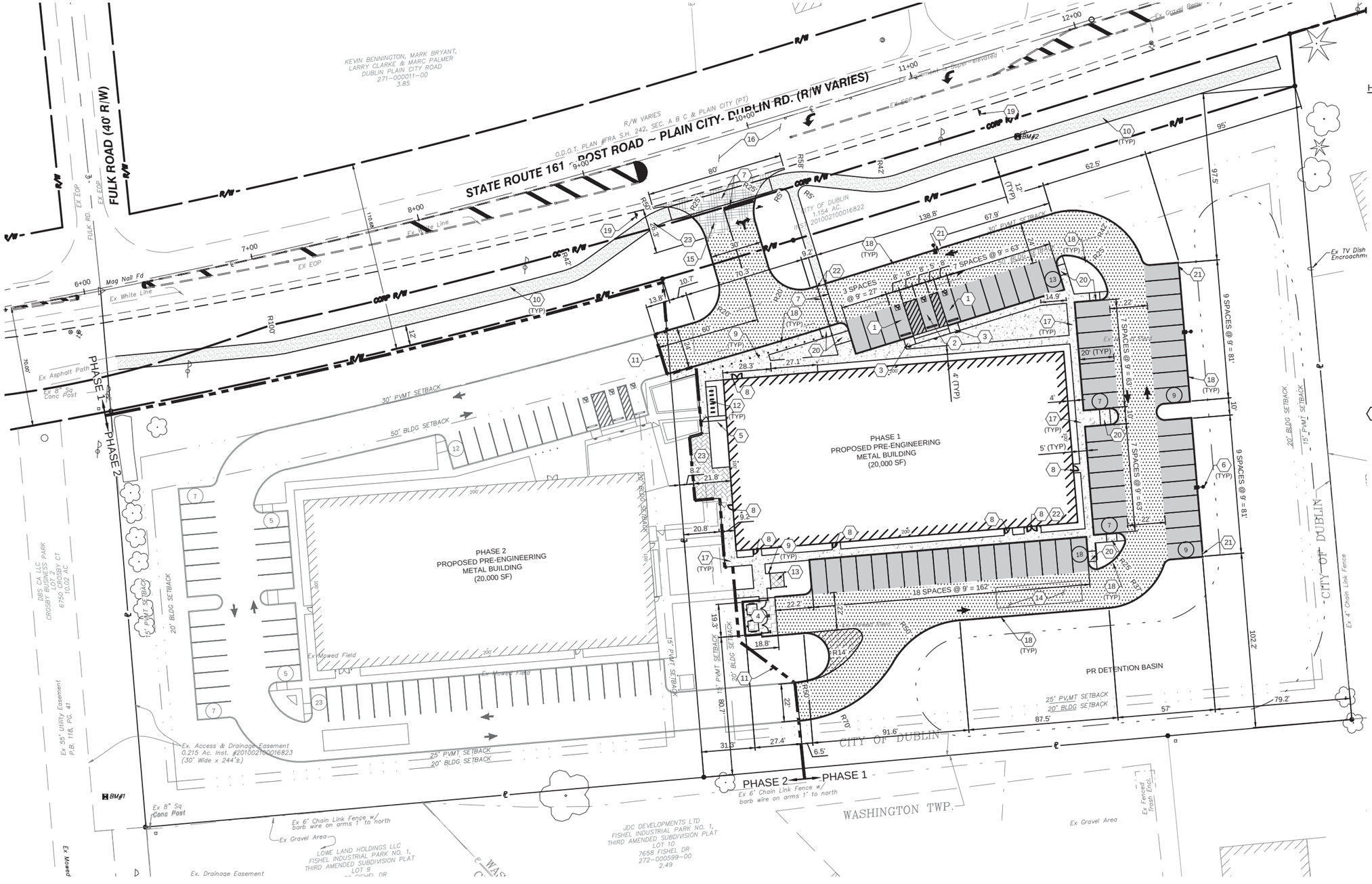
DRAWN BY:
SF

DATE:
23 MARCH 2018

SHEET NAME:
OVERALL
SITE LAYOUT PLAN

SHEET NUMBER:
C3.0

m-a architects



HATCHING LEGEND

- LIGHT DUTY PAVEMENT (PARKING STALLS)
- HEAVY DUTY PAVEMENT (PARKING AISLES)
- CONCRETE SIDEWALK
- HEAVY DUTY CONCRETE (DUMPSTER PAD)
- HEAVY DUTY CONCRETE (TRANSFORMER PAD)
- CONCRETE DRIVE APRON PER RD-07
- PAVER AREA
- 8' PUBLIC SHARED PATH PER RD-05 AND RD-06
- TEMPORARY GRAVEL TURN AROUND

(#) SITE LAYOUT PLAN CODED NOTES:

1. STANDARD ADA PARKING SPACE WITH ADA PARKING SYMBOL, WHEEL STOP AND PARKING SIGN (SEE SHEET C8.0 FOR DETAIL)
2. VAN ACCESSIBLE ADA PARKING SPACE WITH ADA PARKING SYMBOL, WHEEL STOP AND PARKING SIGN (SEE SHEET C8.0 FOR DETAIL)
3. ADA RAMP (SHEET SHEET C8.0 FOR DETAIL)
4. ENCLOSED DUMPSTER (REFERENCE ARCHITECTURAL PLANS FOR DETAIL)
5. FENCE (REFERENCE ARCHITECTURAL AND LANDSCAPE PLANS FOR DETAIL)
6. SITE LIGHTING (REFERENCE LIGHTING PLANS FOR DETAIL)
7. CROSS WALK PAVEMENT MARKING
8. FROST STOOP (SEE SHEET C8.0 FOR DETAIL)
9. BOLLARD (SEE SHEET C8.0 FOR DETAIL)
10. PROPOSED 8' PUBLIC SHARED USE PATH PER RD-05 AND RD-06.
11. PHASE LIMITS (SEE SHEET C3.2 FOR PHASE 2 SITE LAYOUT PLAN)
12. BIKE RACK (7 TOTAL)
13. 8'x8.5' TRANSFORMER PAD (SEE SHEET C8.0 FOR DETAIL)
14. 12'W X 50'L LOADING ZONE
15. DRIVEWAY (REFERENCE SHEET C6.0 FOR DRIVEWAY PLAN AND PROFILE)
16. LEFT TURN LANE/ ROADWAY IMPROVEMENTS BY OTHERS
17. CONCRETE WALK (SEE SHEET C8.0 FOR DETAIL)
18. CONCRETE CURB (SEE SHEET C8.0 FOR DETAIL)
19. RELOCATED ROADWAY SIGNS BY OTHERS
20. CURB RAMP (SEE DETAIL SHEET C8.0)
21. 3' CURB CUT WITH 1:1 CHAMFER CURB
22. OVERHEAD DOOR (REFERENCE ARCHITECTURAL AND PLANS FOR DETAIL)
23. COURTYARD AREA (SEE LANDSCAPE PLANS FOR ADDITIONAL INFORMATION)

SITE STATISTICS

TOTAL SITE AREA: 2.88 AC

PARKING SPACES: 91 TOTAL (INCLUDES 2 STANDARD ADA SPACES AND 1 VAN ACCESSIBLE ADA SPACES)

SITE NOTES

1. DIMENSIONS ARE FROM FACE OF CURB, UNLESS OTHERWISE NOTED.
2. UNDIMENSIONED RADIUSES TO BE 5'.
3. EXISTING PAVEMENT GRADES TO MATCH (FLUSH) WHERE NEW PAVEMENT MEETS EXISTING PAVEMENT.
4. PAVEMENT JOINT WHERE NEW PAVEMENT MEETS EXISTING PAVEMENT TO BE SEALED WITH HOT APPLIED JOINT SEALER.
5. ALL PROPOSED PAVEMENT MARKINGS TO BE 4" IN WIDTH AND WHITE IN COLOR, UNLESS OTHERWISE NOTED.
6. REFERENCE ARCHITECTURAL PLANS FOR BUILDING IMPROVEMENTS AND DUMPSTER/TRANSFORMER ENCLOSURE DETAILS.
7. REFERENCE ELECTRICAL PLANS FOR SITE LIGHTING DETAILS.
8. REFERENCE SURVEY LEGEND ON SHEET C2.0.
9. REFERENCE SITE LEGEND ON SHEET C3.0

NORTH

GRAPHIC SCALE

30 0 15 30

(IN FEET)

1 inch = 30 ft.

ma

775 Yard Street, Suite 325
Columbus, Ohio 43212
p 614 764 0407
f 614 764 0237
www.ma-architects.com

OSBORN
ENGINEERING
1100 Superior Ave - Suite 300 | Cleveland, OH 44114
441 Wolf Ledges Road - Suite 300 | Akron, OH 44311
990 West Third Avenue | Columbus, OH 43212

URBAN AIR

7679-7685 PLAIN CITY-DUBLIN ROAD | DUBLIN, OH 43064 |

STATUS:

REVISION:

PROJECT NUMBER: 2016.223

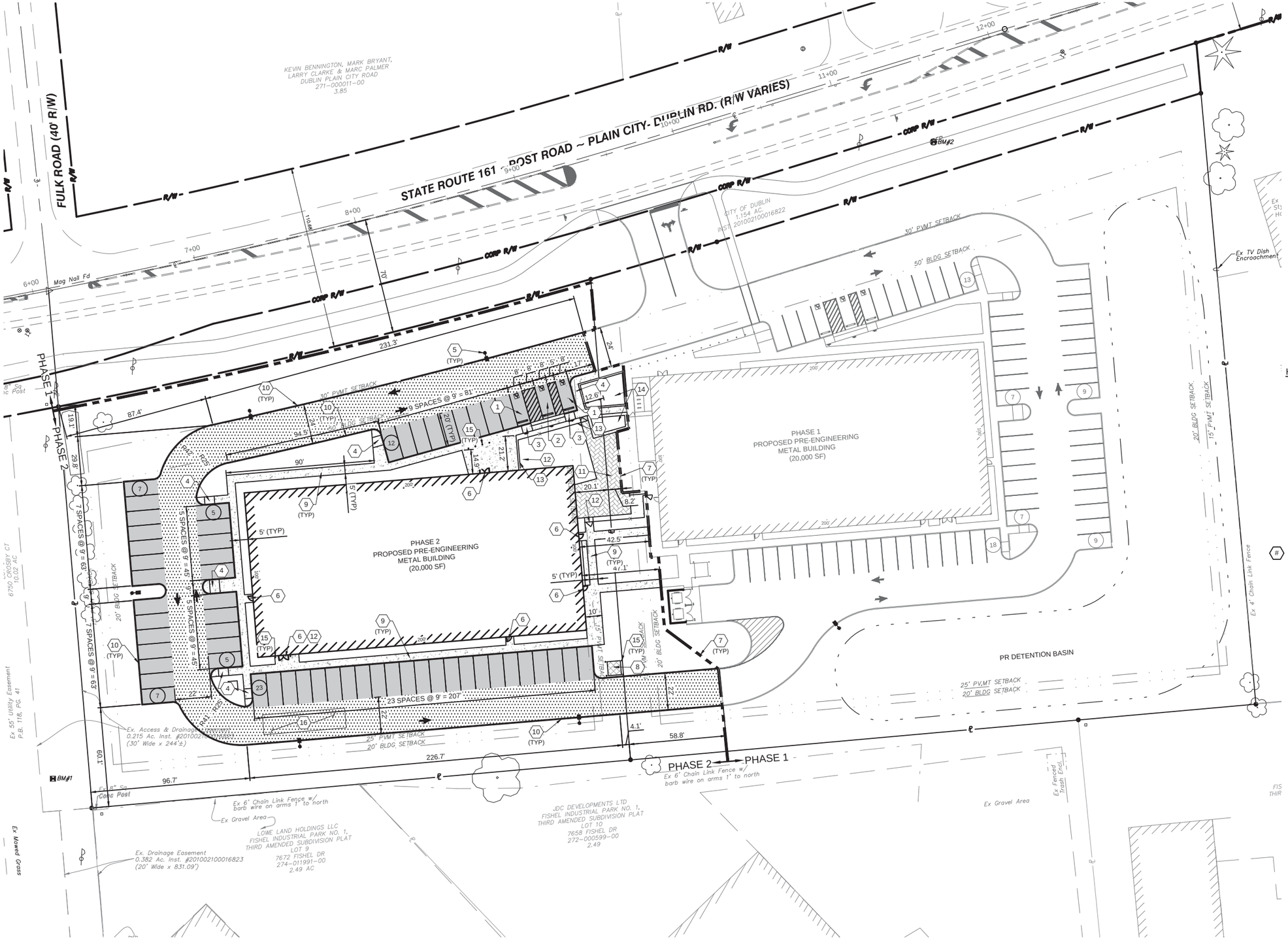
DRAWN BY: SF

DATE: 23 MARCH 2018

SHEET NAME: PHASE 1 SITE LAYOUT PLAN

SHEET NUMBER: C3.1

ma architects



SITE NOTES

1. DIMENSIONS ARE FROM FACE OF CURB, UNLESS OTHERWISE NOTED.
2. UNDIMENSIONED RADIUSES TO BE 5'.
3. EXISTING PAVEMENT GRADES TO MATCH (FLUSH) WHERE NEW PAVEMENT MEETS EXISTING PAVEMENT.
4. PAVEMENT JOINT WHERE NEW PAVEMENT MEETS EXISTING PAVEMENT TO BE SEALED WITH HOT APPLIED JOINT SEALER.
5. ALL PROPOSED PAVEMENT MARKINGS TO BE 4" IN WIDTH AND WHITE IN COLOR, UNLESS OTHERWISE NOTED.
6. REFERENCE ARCHITECTURAL PLANS FOR BUILDING IMPROVEMENTS AND DUMPSTER/TRANSFORMER ENCLOSURE DETAILS.
7. REFERENCE ELECTRICAL PLANS FOR SITE LIGHTING DETAILS.
8. REFERENCE SURVEY LEGEND ON SHEET C2.0.
9. REFERENCE SITE LEGEND ON SHEET C3.0

HATCHING LEGEND

- LIGHT DUTY PAVEMENT (PARKING STALLS)
- HEAVY DUTY PAVEMENT (PARKING AISLES)
- CONCRETE SIDEWALK
- HEAVY DUTY CONCRETE (TRANSFORMER PAD)
- PAVER AREA

SITE LAYOUT PLAN CODED NOTES:

1. STANDARD ADA PARKING SPACE WITH ADA PARKING SYMBOL, WHEEL STOP AND PARKING SIGN (SEE SHEET C8.0 FOR DETAIL)
2. VAN ACCESSIBLE ADA PARKING SPACE WITH ADA PARKING SYMBOL, WHEEL STOP AND PARKING SIGN (SEE SHEET C8.0 FOR DETAIL)
3. ADA RAMP (SEE SHEET C8.0 FOR DETAIL)
4. CURB RAMP (SEE SHEET C8.0 FOR DETAIL)
5. SITE LIGHTING (REFERENCE LIGHTING PLANS FOR DETAIL)
6. FROST STOOP (SEE SHEET C8.0 FOR DETAIL)
7. PHASE LIMITS (SEE SHEET C3.1 FOR PHASE 1 SITE LAYOUT PLAN)
8. 8'X8.5' TRANSFORMER PAD (SEE SHEET C8.0 FOR DETAIL)
9. CONCRETE WALK (SEE SHEET C8.0 FOR DETAIL)
10. CONCRETE CURB (SEE SHEET C8.0 FOR DETAIL)
11. COURTYARD AREA (SEE LANDSCAPE PLANS FOR ADDITIONAL INFORMATION)
12. OVERHEAD DOOR (REFERENCE ARCHITECTURAL PLANS FOR DETAIL)
13. FENCE (REFERENCE ARCHITECTURAL AND LANDSCAPE PLANS FOR DETAIL)
14. PLANTER (REFERENCE ARCHITECTURAL AND LANDSCAPE PLANS FOR DETAIL)
15. BOLLARD (SEE SHEET C8.0 FOR DETAIL)
16. 12'W X 50'L LOADING ZONE

NORTH

GRAPHIC SCALE

30 0 15 30

(IN FEET)

1 inch = 30ft.

SITE STATISTICS

TOTAL SITE AREA: 2.00 AC

PARKING SPACES: 70 TOTAL (INCLUDES 2 STANDARD ADA SPACES AND 1 VAN ACCESSIBLE ADA SPACES)

m+a
775 Yard Street, Suite 325
Columbus, Ohio 43212
p 614 764 0407
f 614 764 0237
www.ma-architects.com

OSBORN ENGINEERING
1100 Superior Ave - Suite 300 | Cleveland, OH 44114
441 Wolf Ledges Road - Suite 300 | Akron, OH 44331
990 West Third Avenue | Columbus, OH 43212

URBAN AIR

7679-7685 PLAIN CITY-DUBLIN ROAD | DUBLIN, OH 43064

STATUS:

REVISION:

PROJECT NUMBER: 2016.223

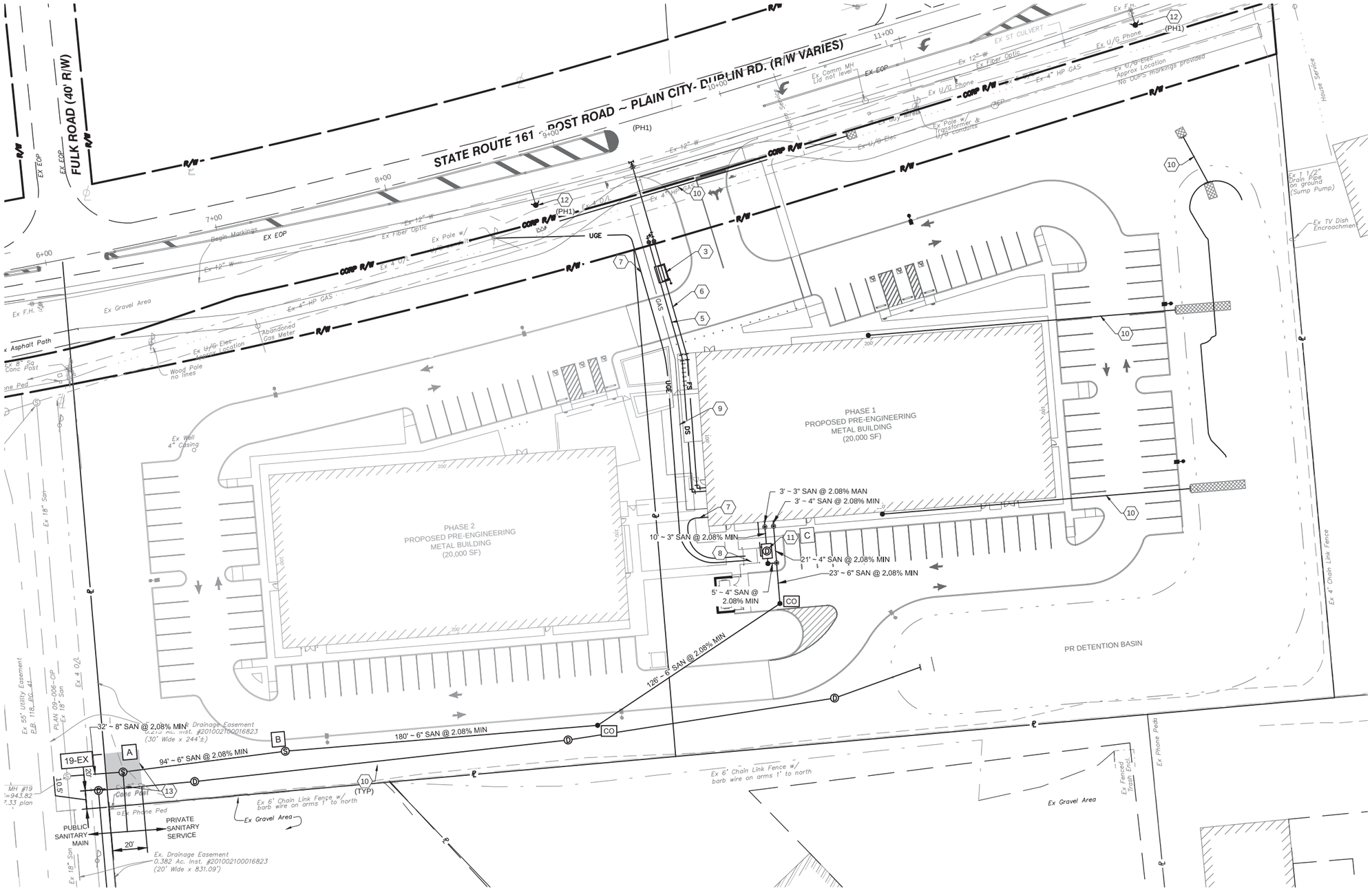
DRAWN BY: SF

DATE: 23 MARCH 2018

SHEET NAME: PHASE 2 SITE LAYOUT PLAN

SHEET NUMBER: C3.2

m+a architects



XX	SANITARY SEWER STRUCTURE TABLE				
ID NO	DESCRIPTION	NORTHING	EASTING	RIM	INVERT
19-EX	EX SAN MH	767678.52	1773816.26	943.93	8" E INV. 932.57 18" N INV. 927.33* 18" S INV. 927.33*
A	PR SAN MH**	767680.89	1773848.30	943.58	8" W INV. 933.23 6" E INV. 933.23 6" E INV. 933.23
B	PR SAN MH**	767692.88	1773941.67	945.25	6" W INV. 935.19 6" E INV. 935.19 6" W INV. 935.19
C	PR GREASE INTERCEPTOR (REFER TO PLUMBING PLAN FOR DETAIL)**	767807.95	1774218.66	945.83	3" N INV. 942.40 3" S INV. 942.24

* = EXISTING INVERT PROVIDED PER SURVEY. CONTRACTOR TO FIELD VERIFY BEFORE CONSTRUCTION.
** = MANHOLE COVER TO BE WATERTIGHT LID

UTILITY PLAN NOTES:

1. REFER TO ARCHITECTURAL PLANS FOR EXACT STUB LOCATIONS.
2. REFERENCE SURVEY LEGEND ON SHEET C2.0.
3. REFERENCE SITE LEGEND ON SHEET C3.0.
4. REFERENCE SANITARY SEWER PROFILE ON SHEET C4.2.

ABBREVIATION LEGEND

PR	PROPOSED
EX	EXISTING
R/W	RIGHT OF WAY
℄	PROPERTY LINE
BLDG	BUILDING
SF	SQUARE FOOT
FFE	FINISH FLOOR ELEVATION
BM	BENCHMARK
SAN	SANITARY
MH	MANHOLE
CB	CATCH BASIN
MIN	MINIMUM
(PH1)	PHASE 1
(PH2)	PHASE 2

(#) UTILITY PLAN CODED NOTES:

1. METER VAULT FOR DOMESTIC SERVICE. REFER TO WATER SERVICE PLAN FOR PHASING & DETAILS.
2. ABOVE GROUND HOT BOX WITH DOMESTIC SERVICE CHECK BACKFLOW PREVENTER. REFER TO WATER SERVICE PLAN FOR PHASING & DETAILS.
3. ABOVE GROUND HOT BOX WITH FIRE SERVICE CHECK BACKFLOW PREVENTER. REFER TO WATER SERVICE PLAN FOR PHASING & DETAILS.
4. PROPOSED 6" FIRE SERVICE. REFER TO WATER SERVICE PLAN FOR PHASING & DETAILS.
5. PROPOSED 3" DOMESTIC SERVICE. REFER TO WATER SERVICE PLAN FOR PHASING & DETAILS.
6. PROPOSED 6" WATER SERVICE. REFER TO WATER SERVICE PLAN FOR PHASING & DETAILS.
7. PROPOSED ELECTRIC SERVICE. CONTRACTOR TO COORDINATE WITH UTILITY COMPANY BEFORE CONSTRUCTION
8. ELECTRICAL TRANSFORMER PAD. CONTRACTOR TO COORDINATE LOCATION WITH ELECTRICAL ENGINEER AND POWER PROVIDER BEFORE CONSTRUCTION
9. PROPOSED GAS SERVICE. CONTRACTOR TO COORDINATE WITH UTILITY COMPANY BEFORE CONSTRUCTION
10. REFERENCE SHEET C5.0 FOR STORM SEWER INFORMATION
11. PROPOSED 1000 GALLON GREASE INTERCEPTOR. SEE PLUMBING PLAN FOR DETAIL AND STUB IN LOCATION
12. EXISTING FIRE HYDRANTS TO BE RELOCATED OUT OF PROPOSED ROADWAY BY OTHERS
13. PROPOSED PUBLIC SANITARY EASEMENT.
14. PROPOSED FDC. REFER TO WATER SERVICE PLAN FOR PHASING & DETAILS.

UTILITY LEGEND

- SANITARY MANHOLE
- GREASE INTERCEPTOR
- EXISTING SANITARY MANHOLE
- STORM MANHOLE
- STORM CATCH BASIN
- STORM HEADWALL/ENDWALL
- CLEANOUT
- EXISTING STORM MANHOLE
- WATERMAIN TAPPING SLEEVE & VALVE
- WATER SERVICE VALVE
- WATER SERVICE BEND
- WATER SERVICE TEE
- WATER SERVICE VAULT WITH METER
- ABOVE GROUND HOT BOX WITH CHECK BACKFLOW PREVENTER
- FIRE HYDRANT
- 20' x 20' SANITARY EASEMENT

NORTH

GRAPHIC SCALE

30 0 15 30

(IN FEET)

1 inch = 30 ft.

m-a

775 Yard Street, Suite 325
Columbus, Ohio 43212
p 614 764 0407
f 614 764 0237
www.ma-architects.com

OSBORN
ENGINEERING
1100 Superior Ave - Suite 300 | Cleveland, OH 44114
441 Wolf Ledges Road - Suite 300 | Akron, OH 44311
990 West Third Avenue | Columbus, OH 43212

URBAN AIR

7679-7685 PLAIN CITY-DUBLIN ROAD | DUBLIN, OH 43064

STATUS:

REVISION:

PROJECT NUMBER: 2016.223

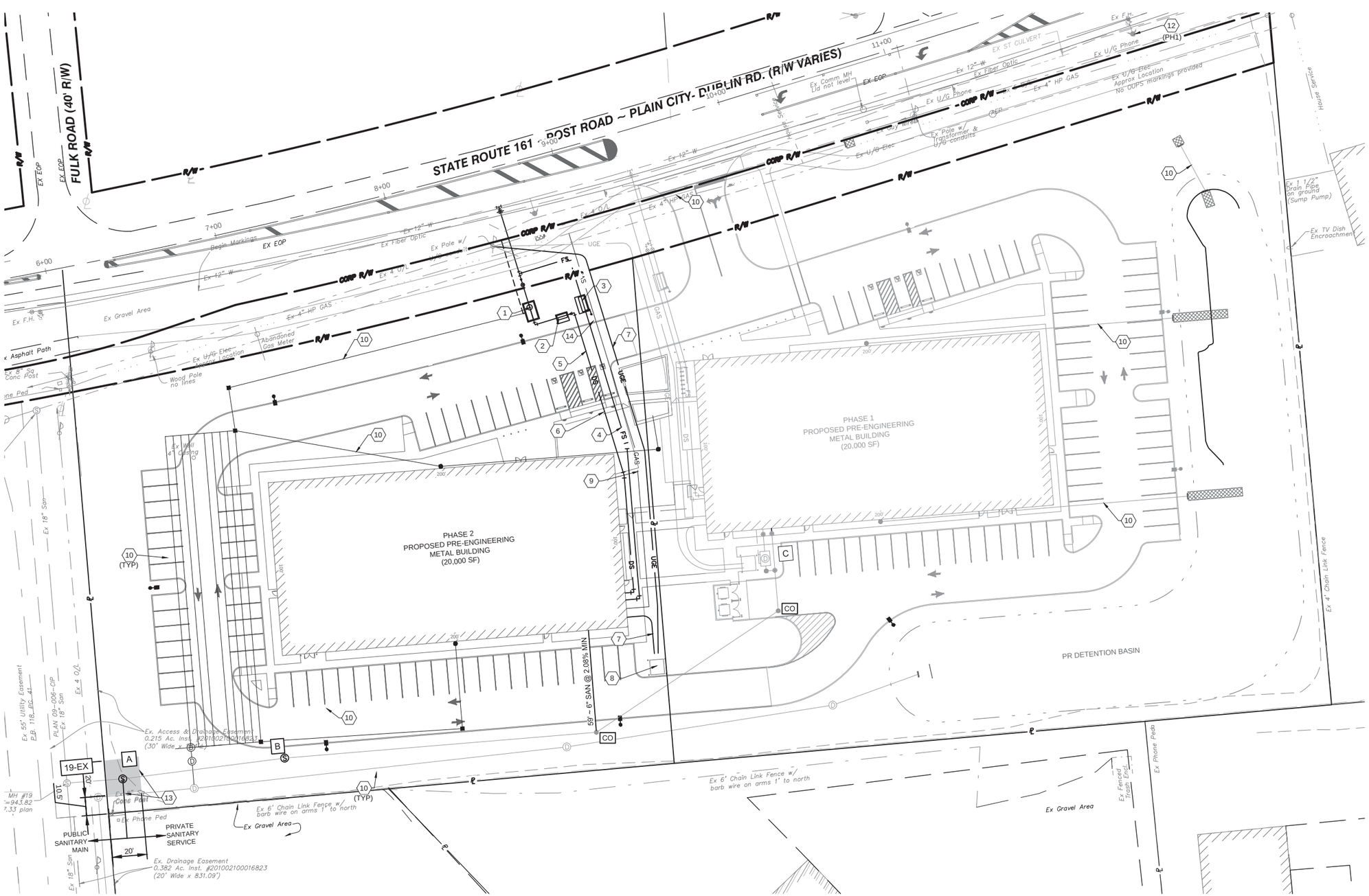
DRAWN BY: SF

DATE: 23 MARCH 2018

SHEET NAME: UTILITY PLAN PHASE 1

SHEET NUMBER: C4.0

m-a architects



SANITARY SEWER STRUCTURE TABLE

ID NO	DESCRIPTION	NORTHING	EASTING	RIM	INVERT
19-EX	EX SAN MH	767678.52	1773816.26	943.93	8" E INV. 932.57 18" N INV. 927.33* 18" S INV. 927.33*
A	PR SAN MH**	767680.89	1773848.30	943.58	8" W INV. 933.23 6" E INV. 933.23 6" E INV. 933.23
B	PR SAN MH**	767692.88	1773941.67	945.25	6" W INV. 935.19 6" E INV. 935.19 6" W INV. 935.19
C	PR GREASE INTERCEPTOR (REFER TO PLUMBING PLAN FOR DETAIL)**	767807.95	1774218.66	945.83	3" N INV. 942.40 3" S INV. 942.24

* = EXISTING INVERT PROVIDED PER SURVEY. CONTRACTOR TO FIELD VERIFY BEFORE CONSTRUCTION.
** = MANHOLE COVER TO BE WATERTIGHT LID

UTILITY PLAN NOTES:

1. REFER TO ARCHITECTURAL PLANS FOR EXACT STUB LOCATIONS.
2. REFERENCE SURVEY LEGEND ON SHEET C2.0.
3. REFERENCE SITE LEGEND ON SHEET C3.0.
4. REFERENCE SANITARY SEWER PROFILE ON SHEET C4.2.

ABBREVIATION LEGEND

PR	PROPOSED
EX	EXISTING
R/W	RIGHT OF WAY
℄	PROPERTY LINE
BLDG	BUILDING
SF	SQUARE FOOT
FFE	FINISH FLOOR ELEVATION
BM	BENCHMARK
SAN	SANITARY
MH	MANHOLE
CB	CATCH BASIN
MIN	MINIMUM
(PH1)	PHASE 1
(PH2)	PHASE 2

(#) UTILITY PLAN CODED NOTES:

1. METER VAULT FOR DOMESTIC SERVICE. REFER TO WATER SERVICE PLAN FOR PHASING & DETAILS.
2. ABOVE GROUND HOT BOX WITH DOMESTIC SERVICE CHECK BACKFLOW PREVENTER. REFER TO WATER SERVICE PLAN FOR PHASING & DETAILS.
3. ABOVE GROUND HOT BOX WITH FIRE SERVICE CHECK BACKFLOW PREVENTER. REFER TO WATER SERVICE PLAN FOR PHASING & DETAILS.
4. PROPOSED 6" FIRE SERVICE. REFER TO WATER SERVICE PLAN FOR PHASING & DETAILS.
5. PROPOSED 3" DOMESTIC SERVICE. REFER TO WATER SERVICE PLAN FOR PHASING & DETAILS.
6. PROPOSED 6" WATER SERVICE. REFER TO WATER SERVICE PLAN FOR PHASING & DETAILS.
7. PROPOSED ELECTRIC SERVICE. CONTRACTOR TO COORDINATE WITH UTILITY COMPANY BEFORE CONSTRUCTION
8. ELECTRICAL TRANSFORMER PAD. CONTRACTOR TO COORDINATE LOCATION WITH ELECTRICAL ENGINEER AND POWER PROVIDER BEFORE CONSTRUCTION
9. PROPOSED GAS SERVICE. CONTRACTOR TO COORDINATE WITH UTILITY COMPANY BEFORE CONSTRUCTION
10. REFERENCE SHEET C5.0 FOR STORM SEWER INFORMATION
11. PROPOSED 1000 GALLON GREASE INTERCEPTOR. SEE PLUMBING PLAN FOR DETAIL AND STUB IN LOCATION
12. EXISTING FIRE HYDRANTS TO BE RELOCATED OUT OF PROPOSED ROADWAY BY OTHERS
13. PROPOSED PUBLIC SANITARY EASEMENT.
14. PROPOSED FDC. REFER TO WATER SERVICE PLAN FOR PHASING & DETAILS.

UTILITY LEGEND

- SANITARY MANHOLE
- GREASE INTERCEPTOR
- EXISTING SANITARY MANHOLE
- STORM MANHOLE
- STORM CATCH BASIN
- STORM HEADWALL/ENDWALL
- CLEANOUT
- EXISTING STORM MANHOLE
- WATERMAIN TAPPING SLEEVE & VALVE
- WATER SERVICE VALVE
- WATER SERVICE BEND
- WATER SERVICE TEE
- WATER SERVICE VAULT WITH METER
- ABOVE GROUND HOT BOX WITH CHECK BACKFLOW PREVENTER
- FIRE HYDRANT
- 20' x 20' SANITARY EASEMENT

NORTH

GRAPHIC SCALE

30 0 15 30

(IN FEET)

1 inch = 30 ft.

m-a

775 Yard Street, Suite 325
Columbus, Ohio 43212
p 614 764 0407
f 614 764 0237
www.ma-architects.com

OSBORN
ENGINEERING
1100 Superior Ave - Suite 300 | Cleveland, OH 44114
441 Wolf Ledges Road - Suite 300 | Akron, OH 44311
990 West Third Avenue | Columbus, OH 43212

URBAN AIR

7679-7685 PLAIN CITY-DUBLIN ROAD | DUBLIN, OH 43064

STATUS:

REVISION:

PROJECT NUMBER: 2016.223

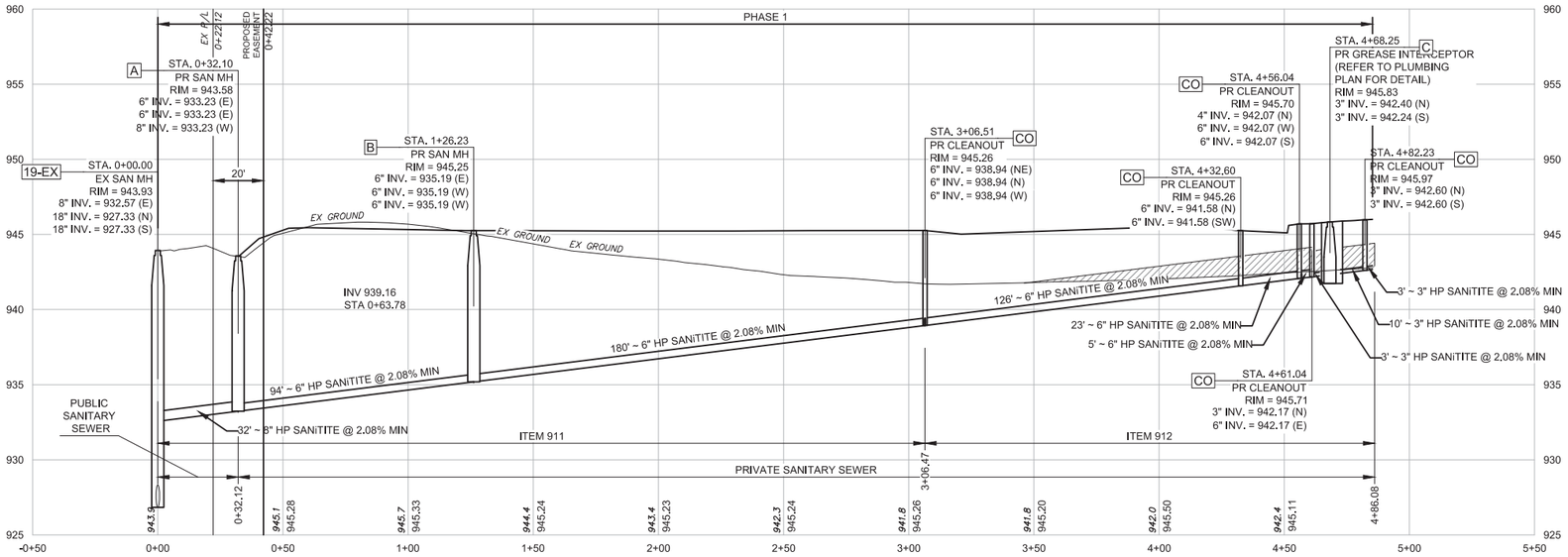
DRAWN BY: SF

DATE: 23 MARCH 2018

SHEET NAME: UTILITY PLAN PHASE 2

SHEET NUMBER: C4.1

m-a architects



SANITARY SEWER PROFILE NOTES

1. REFERENCE GENERAL NOTES FOR SANITARY SEWER REQUIREMENTS.
2. ALL BACKFILL SHALL BE COMPACTED TO THE DENSITY OF THE SURROUNDING GROUND UNLESS OTHERWISE NOTED.

SANITARY SEWER PROFILE LEGEND

FILLS TO BE PLACED A MINIMUM 1.5' ABOVE PROPOSED SANITARY SEWER PRIOR TO START OF SEWER CONSTRUCTION

ITEM 911 - COMPACTED BACKFILL

ITEM 912 - COMPACTED GRANULAR BACKFILL

HORIZONTAL SCALE

30 0 15 30

(IN FEET)

1 inch = 30 ft.

VERTICAL SCALE

5 0 2.5 5

(IN FEET)

1 inch = 5 ft.

m+a

775 Yard Street, Suite 325
Columbus, Ohio 43212
p 614 764 0407
f 614 764 0237
www.ma-architects.com

OSBORN
ENGINEERING
1100 Superior Ave - Suite 300 | Cleveland, OH 44114
441 Wolf Ledges Road - Suite 300 | Akron, OH 44331
990 West Third Avenue | Columbus, OH 43212

URBAN AIR

7679-7685 PLAIN CITY-DUBLIN ROAD | DUBLIN, OH 43064

STATUS:

REVISION:

PROJECT NUMBER:
2016.223

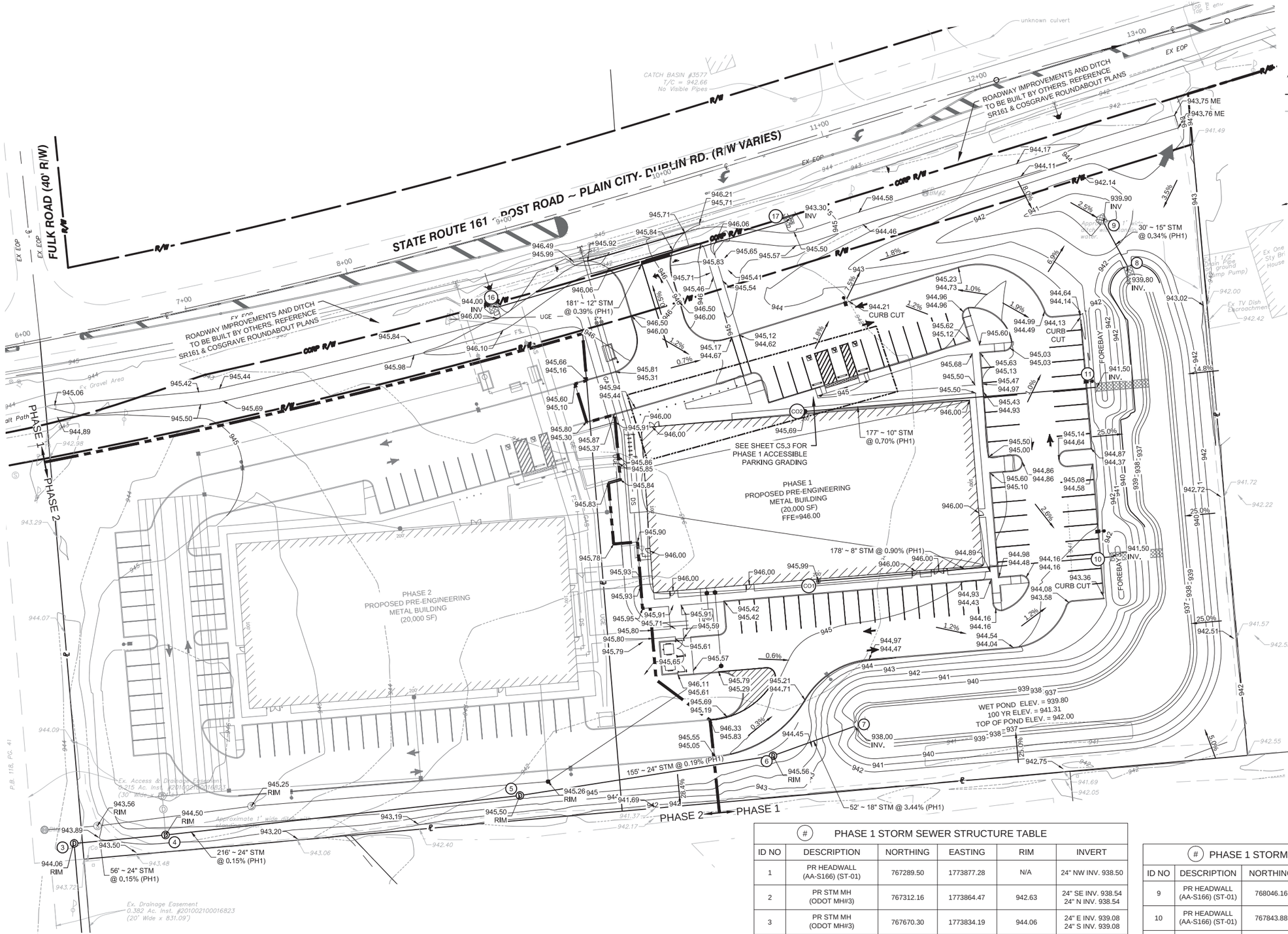
DRAWN BY:
SF

DATE:
23 MARCH 2018

SHEET NAME:
SANITARY SEWER PROFILE

SHEET NUMBER:
C4.2

m+a architects



GRADING LEGEND

801.88	PROPOSED ELEVATION
793.95 ME	MEET EXISTING ELEVATION
-1.5%	PROPOSED SLOPE
795	PROPOSED CONTOUR
795	EXISTING CONTOUR
	PHASE LIMITS
	100 YR WATER ELEVATION
	MAJOR FLOOD ROUTE (GREATER THAN 100 EVENT)
948.50 / 948.00	TOP OF CURB / BOTTOM OF CURB
	ODOT TYPE D RIPRAP

ABBREVIATION LEGEND

PR	PROPOSED
EX	EXISTING
R/W	RIGHT OF WAY
℄	PROPERTY LINE
BLDG	BUILDING
SF	SQUARE FOOT
FFE	FINISH FLOOR ELEVATION
BM	BENCHMARK
SAN	SANITARY
STM	STORM
MH	MANHOLE
CB	CATCH BASIN

NORTH

GRAPHIC SCALE

30 0 15 30

(IN FEET)

1 inch = 30 ft.

PHASE 1 STORM SEWER STRUCTURE TABLE

ID NO	DESCRIPTION	NORTHING	EASTING	RIM	INVERT
1	PR HEADWALL (AA-S166) (ST-01)	767289.50	1773877.28	N/A	24" NW INV. 938.50
2	PR STM MH (ODOT MH#3)	767312.16	1773864.47	942.63	24" SE INV. 938.54 24" N INV. 938.54
3	PR STM MH (ODOT MH#3)	767670.30	1773834.19	944.06	24" E INV. 939.08 24" S INV. 939.08
4	PR STM MH (ODOT MH#3)	767675.43	1773889.55	944.50	24" W INV. 939.16 24" E INV. 939.16 24" N INV. 939.16
5	PR STM MH (ODOT MH#3)	767699.33	1774104.29	945.50	24" W INV. 939.49 24" E INV. 939.49
6	PR STM MH (ODOT MH#3) (CONTROL STRUCTURE)	767723.44	1774257.61	945.56	24" W INV. 939.78 18" E INV. 939.80
7	PR HEADWALL (AA-S166) (ST-01)	767741.22	1774306.85	N/A	18" W INV. 938.00
8	PR HEADWALL (AA-S166) (ST-01)	768020.01	1774472.31	941.55	15" NW INV. 939.80

PHASE 1 STORM SEWER STRUCTURE TABLE

ID NO	DESCRIPTION	NORTHING	EASTING	RIM	INVERT
9	PR HEADWALL (AA-S166) (ST-01)	768046.16	1774458.09	N/A	15" SE INV. 939.90
10	PR HEADWALL (AA-S166) (ST-01)	767843.88	1774462.17	N/A	8" W INV. 941.50
11	PR HEADWALL (AA-S166) (ST-01)	767946.63	1774453.66	N/A	10" W INV. 941.50
16	PR HEADWALL (AA-S166) (ST-01)	767995.21	1774090.93	N/A	12" E INV. 944.00
17	PR HEADWALL (AA-S166) (ST-01)	768046.65	1774264.82	N/A	12" W INV. 943.30
CO1	CLEANOUT	767829.22	1774285.12	N/A	8" E INV. 943.10
CO2	CLEANOUT	767932.00	1774276.99	945.69	10" E INV. 942.74

m+a
775 Yard Street, Suite 325
Columbus, Ohio 43212
p 614 764 0407
f 614 764 0237
www.ma-architects.com

OSBORN
ENGINEERING
1100 Superior Ave - Suite 300 | Cleveland, OH 44114
441 Wolf Ledges Road - Suite 300 | Akron, OH 44311
990 West Third Avenue | Columbus, OH 43212

URBAN AIR

7679-7685 PLAIN CITY-DUBLIN ROAD | DUBLIN, OH 43064

STATUS:

REVISION:

PROJECT NUMBER: 2016.223

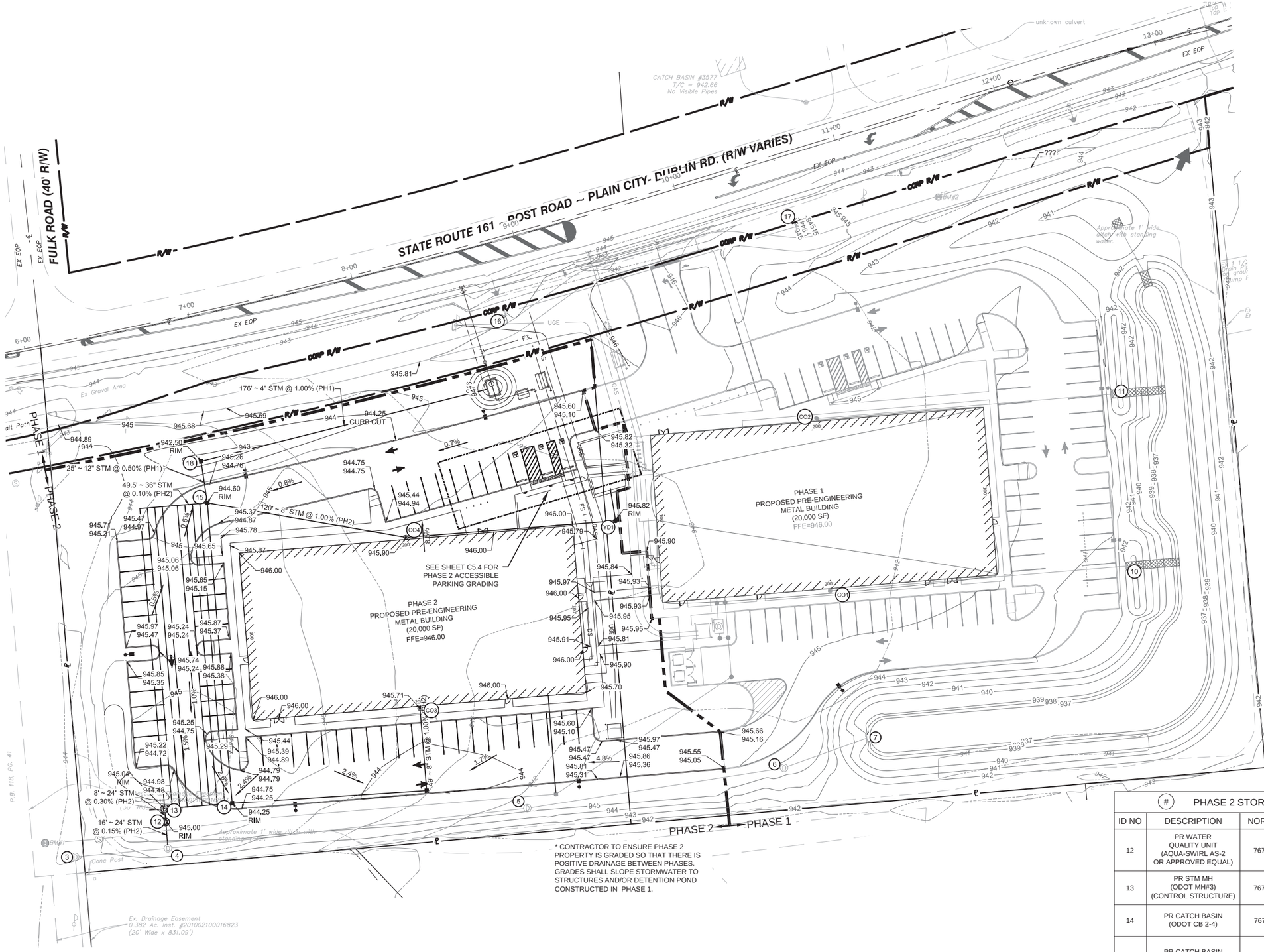
DRAWN BY: SF

DATE: 23 MARCH 2018

SHEET NAME: STORM & GRADING PLAN

SHEET NUMBER: C5.0

m+a architects



GRADING LEGEND

801.88	PROPOSED ELEVATION
793.95 ME	MEET EXISTING ELEVATION
-1.5%	PROPOSED SLOPE
795	PROPOSED CONTOUR
795	EXISTING CONTOUR
	PHASE LIMITS
	100 YR WATER ELEVATION
	MAJOR FLOOD ROUTE (GREATER THAN 100 EVENT)
948.50 / 948.00	TOP OF CURB / BOTTOM OF CURB
	ODOT TYPE D RIPRAP

ABBREVIATION LEGEND

PR	PROPOSED
EX	EXISTING
R/W	RIGHT OF WAY
℄	PROPERTY LINE
BLDG	BUILDING
SF	SQUARE FOOT
FFE	FINISH FLOOR ELEVATION
BM	BENCHMARK
SAN	SANITARY
STM	STORM
MH	MANHOLE
CB	CATCH BASIN

NORTH

GRAPHIC SCALE

30 0 15 30

(IN FEET)

1 inch = 30 ft.

(#) PHASE 2 STORM SEWER STRUCTURE TABLE

ID NO	DESCRIPTION	NORTHING	EASTING	RIM	INVERT
12	PR WATER QUALITY UNIT (AQUA-SWIRL AS-2 OR APPROVED EQUAL)	767691.08	1773888.25	945.06	24" S INV. 939.18 24" N INV. 939.18
13	PR STM MH (ODOT MH#3) (CONTROL STRUCTURE)	767698.97	1773887.60	945.04	36" E INV. 939.21 24" S INV. 939.21
14	PR CATCH BASIN (ODOT CB 2-4)	767702.31	1773927.96	944.25	12" E INV. 939.25 36" N INV. 939.25 36" W INV. 939.25
15	PR CATCH BASIN (ODOT CB 2-4)	767881.70	1773913.11	944.60	36" S INV. 939.43 8" E INV. 940.54 36" W INV. 939.43 12" N INV. 939.43
18	PR CATCH BASIN (ODOT CB 2-3)	767906.42	1773909.38	942.50	12" S INV. 939.55 4" E INV. 939.56
19	PR CATCH BASIN (ODOT CB 2-3)	767709.90	1774044.15	943.31	12" W INV. 940.18 8" N INV. 940.18
CO3	CLEANOUT	767758.93	1774040.09	945.69	8" S INV. 940.67
CO4	CLEANOUT	767861.07	1774031.63	945.90	8" W INV. 941.74 6" E INV. 941.74
YD1	PR YARD DRAIN	767870.98	1774157.03	945.82	6" W INV. 943.00 6" N INV. 943.00

ma

775 Yard Street, Suite 325
Columbus, Ohio 43212
p 614 764 0407
f 614 764 0237
www.ma-architects.com

OSBORN
ENGINEERING
1100 Superior Ave - Suite 300 | Cleveland, OH 44114
441 Wolf Ledges Road - Suite 300 | Akron, OH 44311
990 West Third Avenue | Columbus, OH 43212

URBAN AIR

7679-7685 PLAIN CITY-DUBLIN ROAD | DUBLIN, OH 43064

STATUS:

REVISION:

PROJECT NUMBER:
2016.223

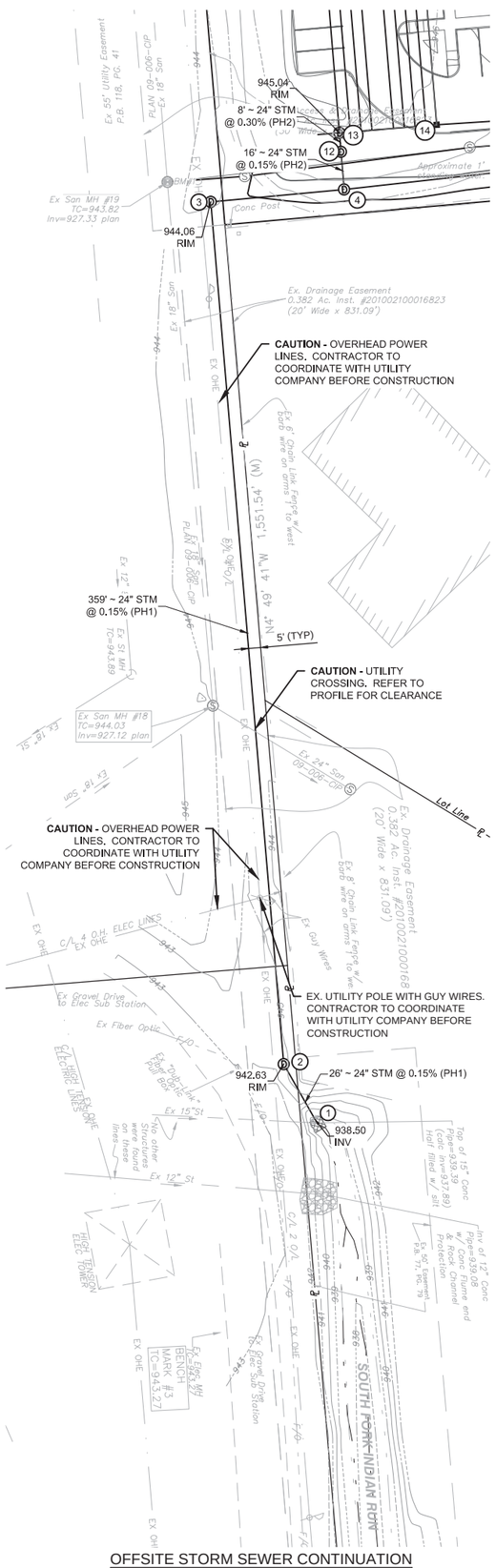
DRAWN BY:
SF

DATE:
23 MARCH 2018

SHEET NAME:
STORM & GRADING PLAN PHASE 2

SHEET NUMBER:
C5.1

ma architects



OFFSITE STORM SEWER CONTINUATION

SCALE: 1" = 30'

GRADING LEGEND

801.88	PROPOSED ELEVATION
793.95 ME	MEET EXISTING ELEVATION
-1.5%	PROPOSED SLOPE
795	PROPOSED CONTOUR
795	EXISTING CONTOUR
	PHASE LIMITS
948.50 / 948.00	TOP OF CURB / BOTTOM OF CURB
	ODOT TYPE D RIPRAP

ABBREVIATION LEGEND

PR	PROPOSED
EX	EXISTING
R/W	RIGHT OF WAY
℄	PROPERTY LINE
BLDG	BUILDING
SF	SQUARE FOOT
FFE	FINISH FLOOR ELEVATION
BM	BENCHMARK
SAN	SANITARY
STM	STORM
MH	MANHOLE
CB	CATCH BASIN

NORTH

GRAPHIC SCALE

30 0 15 30

(IN FEET)

1 inch = 30 ft.

m-a

775 Yard Street, Suite 325
Columbus, Ohio 43212
p 614 764 0407
f 614 764 0237
www.ma-architects.com

OSBORN
ENGINEERING
1100 Superior Ave - Suite 300 | Cleveland, OH 44114
441 Wolf Ledges Road - Suite 300 | Akron, OH 44311
990 West Third Avenue | Columbus, OH 43212

URBAN AIR

7679-7685 PLAIN CITY-DUBLIN ROAD | DUBLIN, OH 43064

STATUS:

REVISION:

PROJECT NUMBER:
2016.223

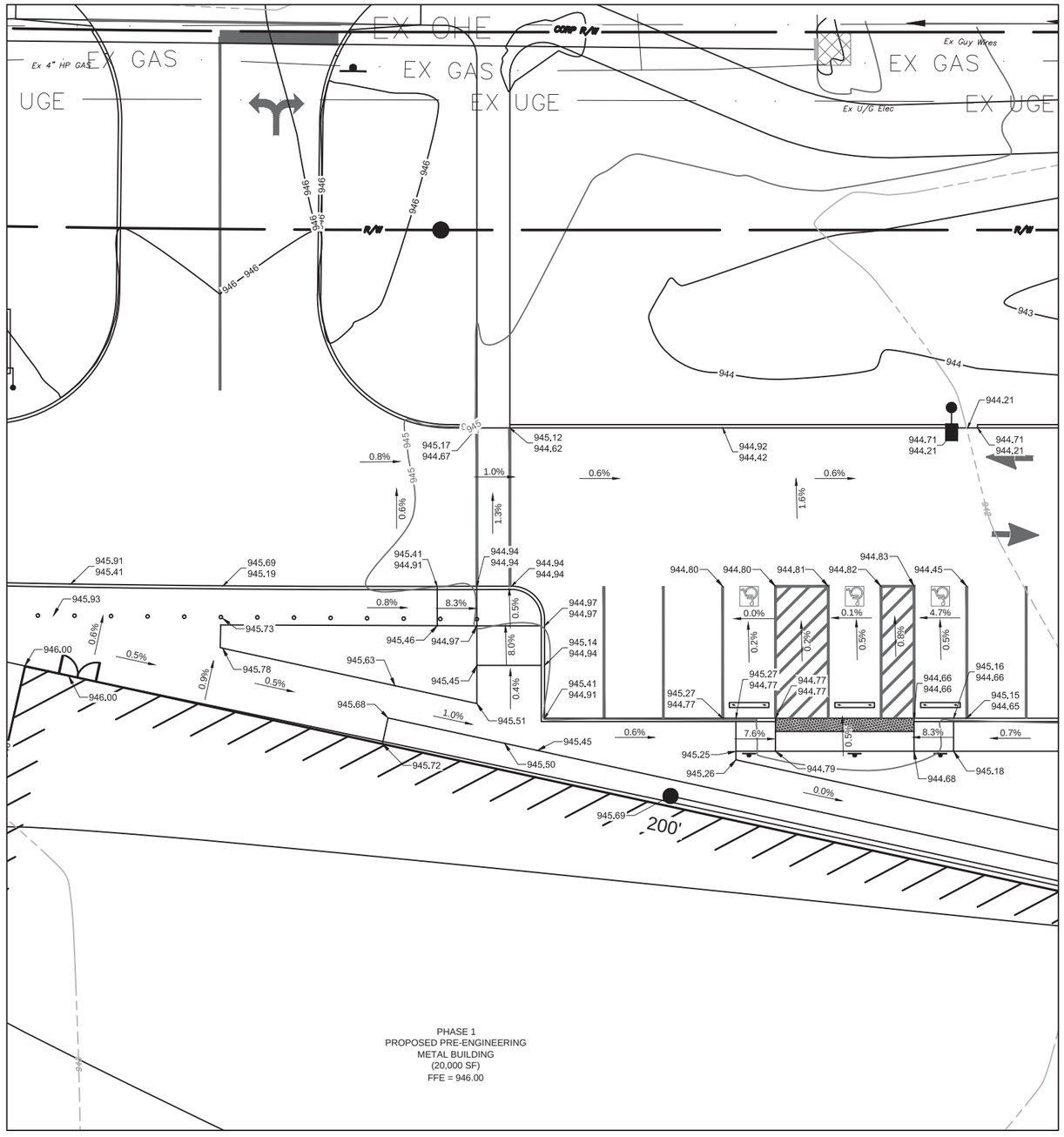
DRAWN BY:
SF

DATE:
23 MARCH 2018

SHEET NAME:
OFF-SITE
STORM PLAN

SHEET NUMBER:
C5.2

m-a architects



PHASE 1
PROPOSED PRE-ENGINEERING
METAL BUILDING
(20,000 SF)
FFE = 946.00

PHASE 1
ACCESSIBLE PARKING & COURTYARD GRADING
SCALE: 1" = 10'

GRADING LEGEND

801.88	PROPOSED ELEVATION
793.95 ME	MEET EXISTING ELEVATION
-1.5%	PROPOSED SLOPE
795	PROPOSED CONTOUR
795	EXISTING CONTOUR

NORTH

GRAPHIC SCALE
10 0 5 10
(IN FEET)
1 inch = 10 ft.

m+a
775 Yard Street, Suite 325
Columbus, Ohio 43212
p 614 764 0407
f 614 764 0237
www.ma-architects.com

OSBORN
ENGINEERING
1100 Superior Ave - Suite 300 | Cleveland, OH 44114
441 Wolf Ledges Road - Suite 300 | Akron, OH 44331
990 West Third Avenue | Columbus, OH 43212

URBAN AIR

7679-7685 PLAIN CITY-DUBLIN ROAD | DUBLIN, OH 43064

STATUS:

REVISION:

PROJECT NUMBER:
2016.223

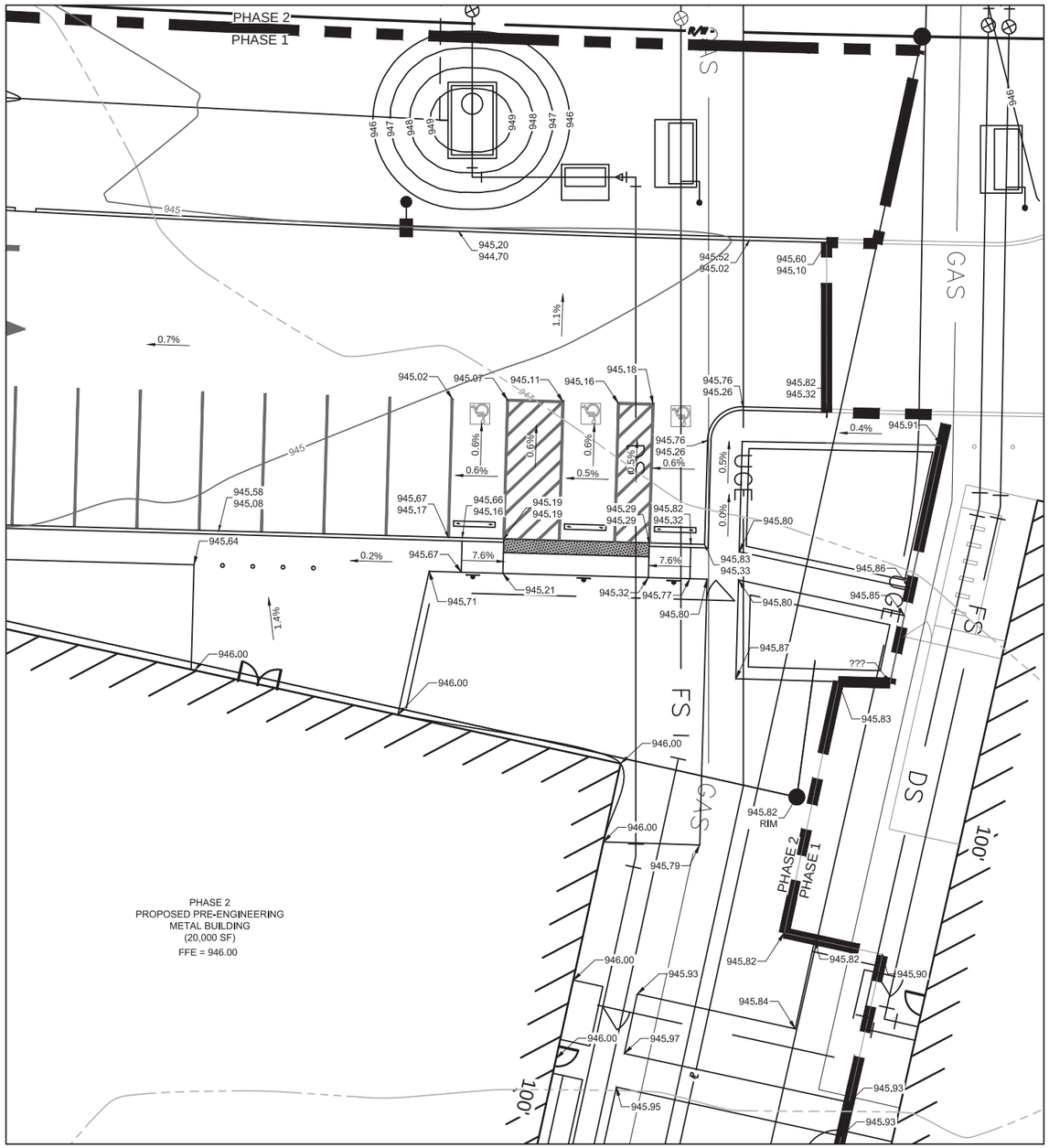
DRAWN BY:
SF

DATE:
23 MARCH 2018

SHEET NAME:
DETAILED GRADING PLAN PHASE 1

SHEET NUMBER:
C5.3

m+a architects



PHASE 2
ACCESSIBLE PARKING & COURTYARD GRADING
SCALE: 1" = 10'

GRADING LEGEND

801.88	PROPOSED ELEVATION
793.95 ME	MEET EXISTING ELEVATION
-1.5%	PROPOSED SLOPE
795	PROPOSED CONTOUR
795	EXISTING CONTOUR

NORTH

GRAPHIC SCALE

10 0 5 10

(IN FEET)
1 inch = 10 ft.

775 Yard Street, Suite 325
Columbus, Ohio 43212
p 614 764 0407
f 614 764 0237
www.ma-architects.com

OSBORN
ENGINEERING
1100 Superior Ave - Suite 300 | Cleveland, OH 44114
441 Wolf Ledges Road - Suite 300 | Akron, OH 44331
990 West Third Avenue | Columbus, OH 43212

URBAN AIR

7679-7685 PLAIN CITY-DUBLIN ROAD | DUBLIN, OH 43064

STATUS:

REVISION:

PROJECT NUMBER:
2016.223

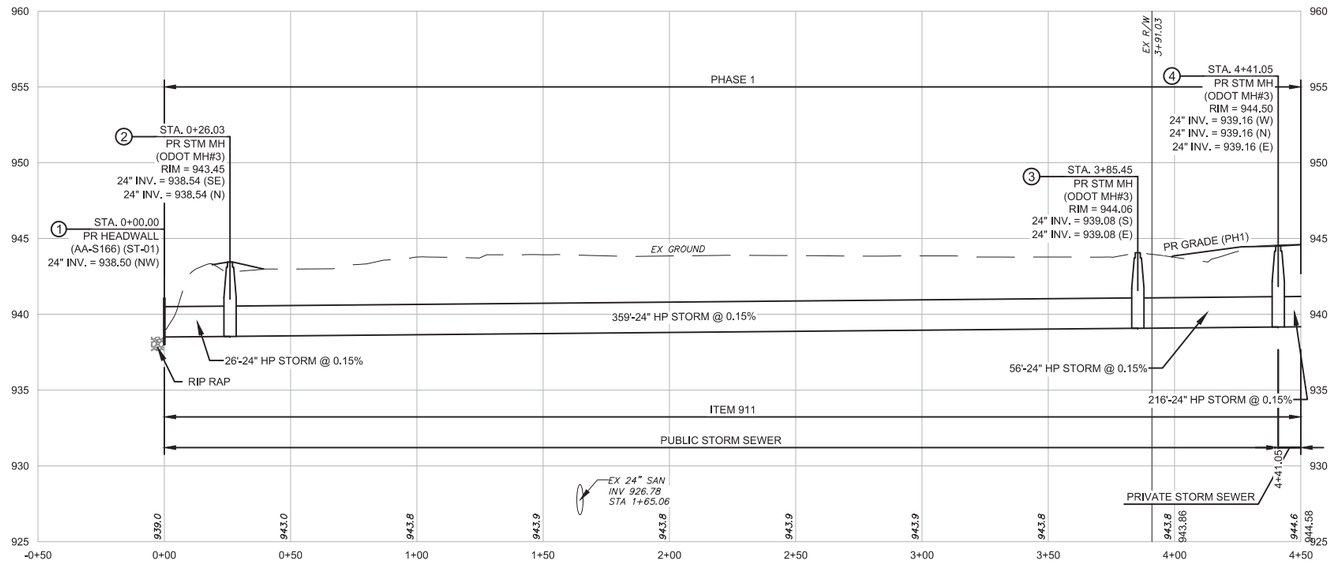
DRAWN BY:
SF

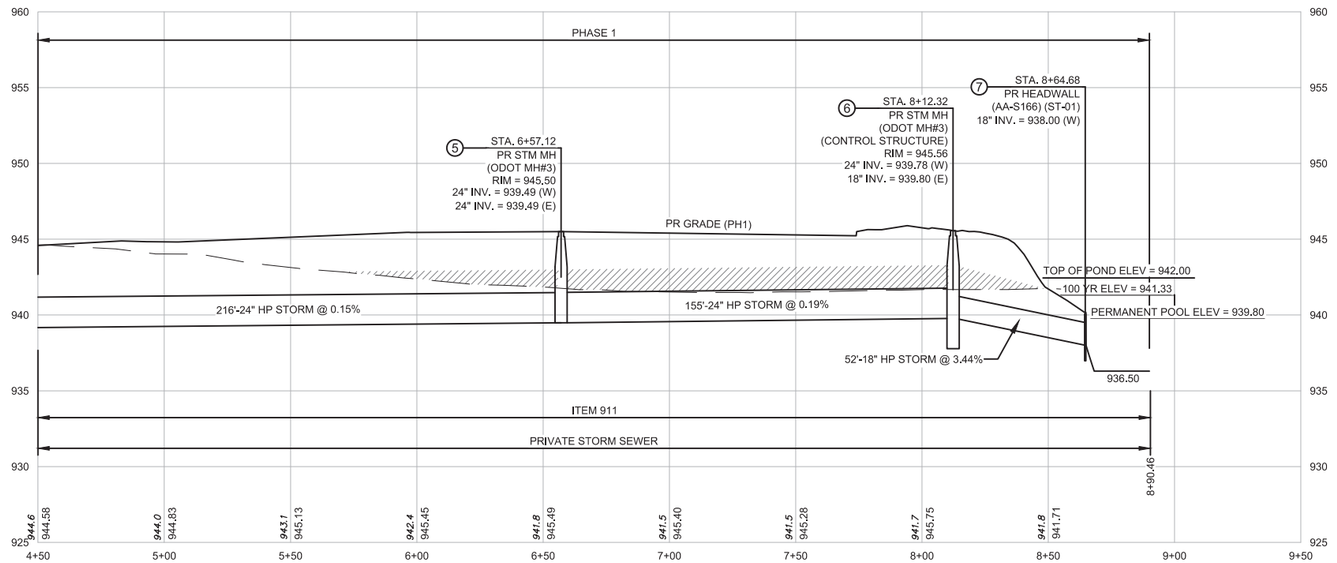
DATE:
23 MARCH 2018

SHEET NAME:
DETAILED GRADING PLAN PHASE 2

SHEET NUMBER:
C5.4

ma architects





STORM SEWER PROFILE NOTES

1. ALL SEWERS SHALL BE HP STORM, HP SANITITE, OR RCP ONLY PER CITY OF DUBLIN REQUIREMENTS.
2. ALL BACKFILL SHALL BE COMPACTED TO THE DENSITY OF THE SURROUNDING GROUND UNLESS OTHERWISE NOTED.

STORM SEWER PROFILE LEGEND

FILLS TO BE PLACED A MINIMUM 1.5' ABOVE PROPOSED STORM SEWER PRIOR TO START OF SEWER CONSTRUCTION

UNDERGROUND DETENTION

ITEM 911 - COMPACTED BACKFILL

ITEM 912 - COMPACTED GRANULAR BACKFILL

HORIZONTAL SCALE

30 0 15 30

(IN FEET)

1 inch = 30 ft.

VERTICAL SCALE

5 0 2.5 5

(IN FEET)

1 inch = 5 ft.

775 Yard Street, Suite 325
Columbus, Ohio 43212
p 614 764 0407
f 614 764 0237
www.ma-architects.com

OSBORN ENGINEERING
1100 Superior Ave - Suite 300 | Cleveland, OH 44114
441 Wolf Ledges Road - Suite 300 | Akron, OH 44331
990 West Third Avenue | Columbus, OH 43212

URBAN AIR

7679-7685 PLAIN CITY-DUBLIN ROAD | DUBLIN, OH 43064

STATUS:

REVISION:

PROJECT NUMBER: 2016.223

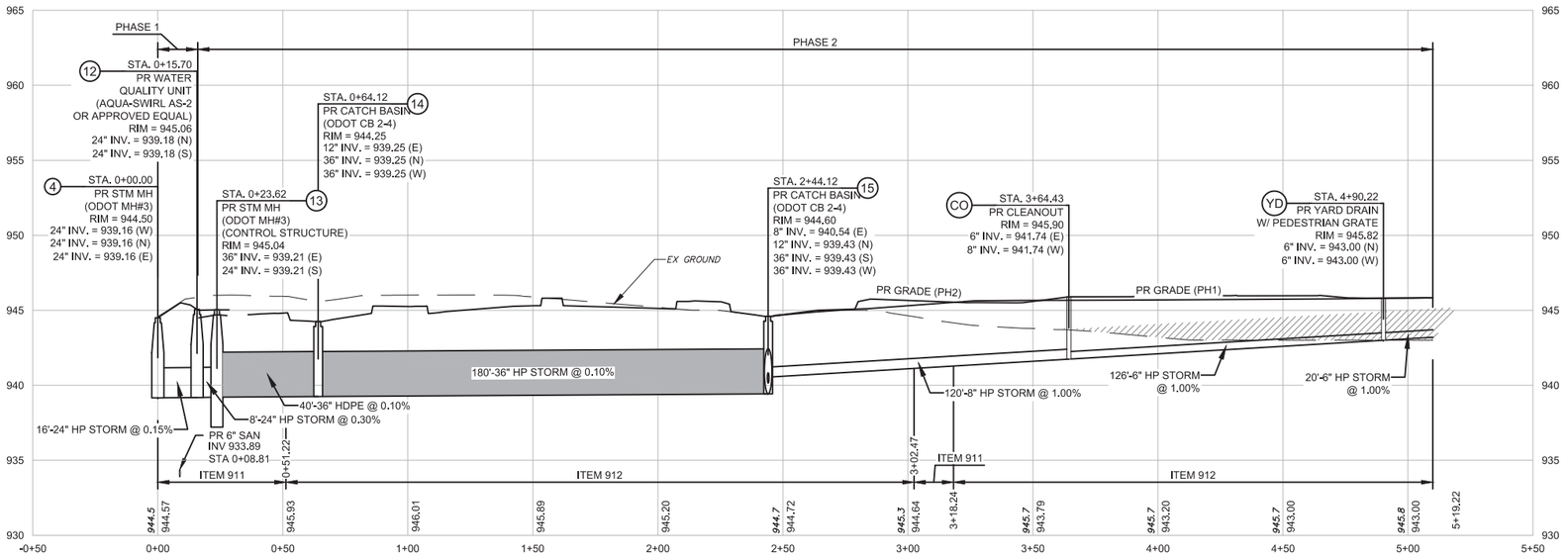
DRAWN BY: SF

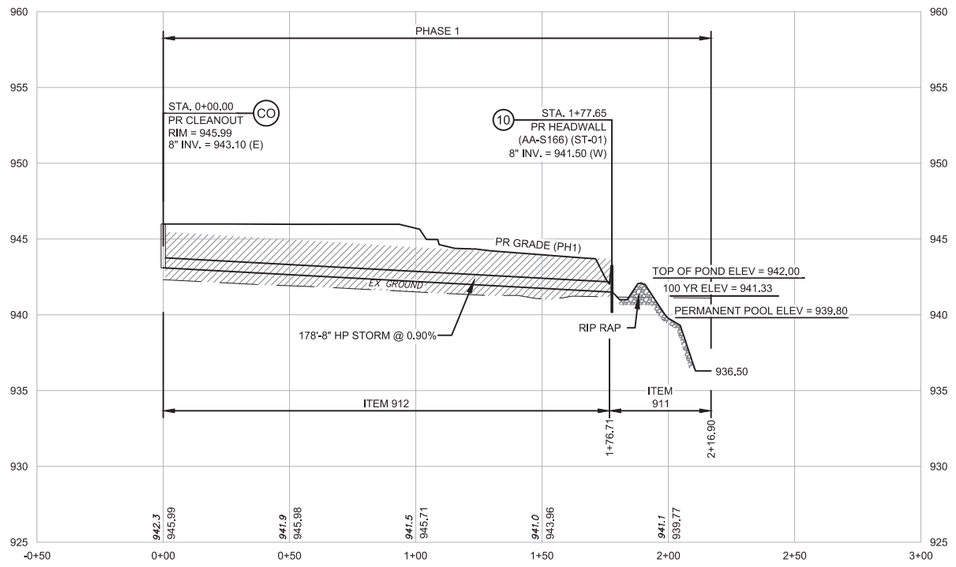
DATE: 23 MARCH 2018

SHEET NAME: STORM SEWER PROFILES

SHEET NUMBER: C5.5

ma architects





STORM SEWER PROFILE NOTES

1. ALL SEWERS SHALL BE HP STORM, HP SANITITE, OR RCP ONLY PER CITY OF DUBLIN REQUIREMENTS.
2. ALL BACKFILL SHALL BE COMPACTED TO THE DENSITY OF THE SURROUNDING GROUND UNLESS OTHERWISE NOTED.

STORM SEWER PROFILE LEGEND

FILLS TO BE PLACED A MINIMUM 1.5' ABOVE PROPOSED STORM SEWER PRIOR TO START OF SEWER CONSTRUCTION

UNDERGROUND DETENTION

ITEM 911 - COMPACTED BACKFILL

ITEM 912 - COMPACTED GRANULAR BACKFILL

HORIZONTAL SCALE

30 0 15 30

(IN FEET)

1 inch = 30 ft.

VERTICAL SCALE

5 0 2.5 5

(IN FEET)

1 inch = 5 ft.

775 Yard Street, Suite 325
Columbus, Ohio 43212
p 614 764 0407
f 614 764 0237
www.ma-architects.com

OSBORN ENGINEERING
1100 Superior Ave - Suite 300 | Cleveland, OH 44114
441 Wolf Ledges Road - Suite 300 | Akron, OH 44311
990 West Third Avenue | Columbus, OH 43212

URBAN AIR

7679-7685 PLAIN CITY-DUBLIN ROAD | DUBLIN, OH 43064 |

STATUS:

REVISION:

PROJECT NUMBER: 2016.223

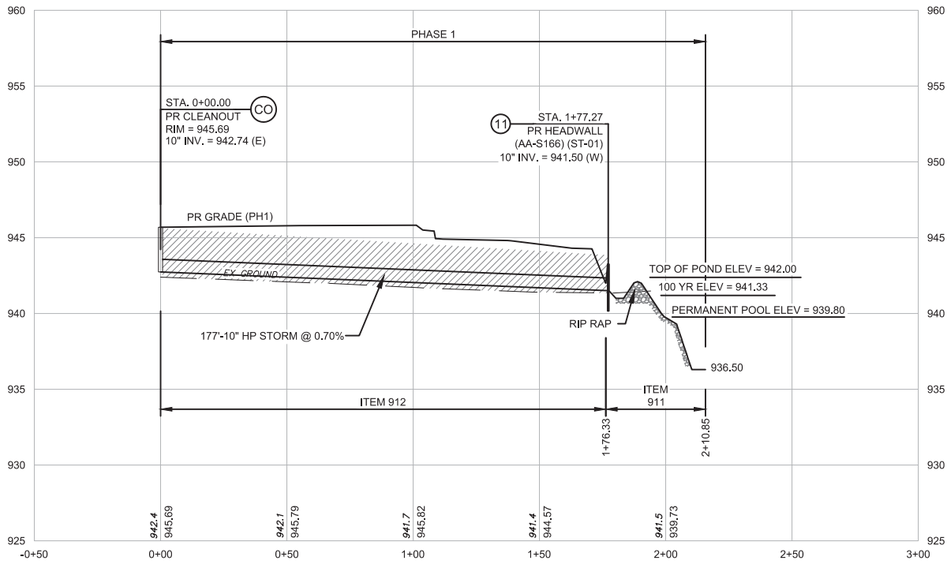
DRAWN BY: SF

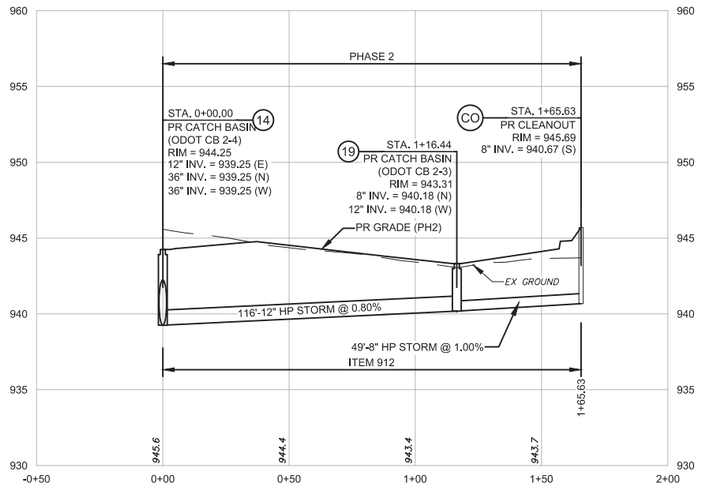
DATE: 23 MARCH 2018

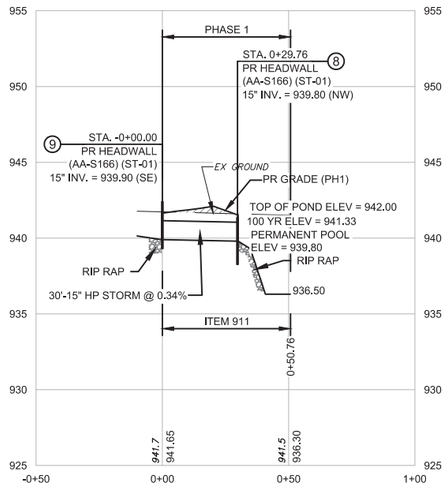
SHEET NAME: STORM SEWER PROFILES

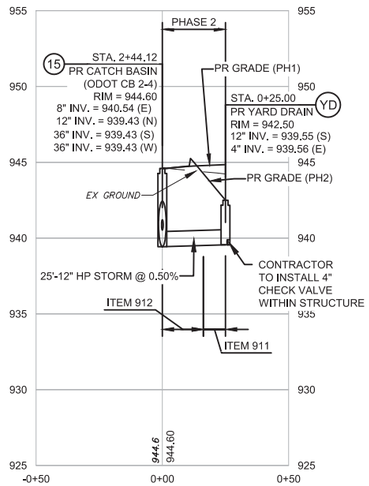
SHEET NUMBER: C5.6

ma architects









STORM SEWER PROFILE NOTES

1. ALL SEWERS SHALL BE HP STORM, HP SANITITE, OR RCP ONLY PER CITY OF DUBLIN REQUIREMENTS.
2. ALL BACKFILL SHALL BE COMPACTED TO THE DENSITY OF THE SURROUNDING GROUND UNLESS OTHERWISE NOTED.

STORM SEWER PROFILE LEGEND

FILLS TO BE PLACED A MINIMUM 1.5' ABOVE PROPOSED STORM SEWER PRIOR TO START OF SEWER CONSTRUCTION

ITEM 911 - COMPACTED BACKFILL

ITEM 912 - COMPACTED GRANULAR BACKFILL

HORIZONTAL SCALE

30 0 15 30

(IN FEET)

1 inch = 30 ft.

VERTICAL SCALE

5 0 2.5 5

(IN FEET)

1 inch = 5 ft.

775 Yard Street, Suite 325
Columbus, Ohio 43212
p 614 764 0407
f 614 764 0237
www.ma-architects.com

OSBORN ENGINEERING
1100 Superior Ave - Suite 300 | Cleveland, OH 44114
441 Wolf Ledges Road - Suite 300 | Akron, OH 44331
990 West Third Avenue | Columbus, OH 43212

URBAN AIR

7679-7685 PLAIN CITY-DUBLIN ROAD | DUBLIN, OH 43064

STATUS:

REVISION:

PROJECT NUMBER: 2016.223

DRAWN BY: SF

DATE: 23 MARCH 2018

SHEET NAME: STORM SEWER PROFILES

SHEET NUMBER: C5.7

ma architects

SITE LAYOUT PLAN CODED NOTES:

1. 1:1 CHAMFER CURB
2. PAVEMENT STOP BAR
3. CHANNELING PAVEMENT MARKING
4. STOP SIGN (R1-1) PER OMUTCD
5. PROPOSED 8' PUBLIC BIKE PATH BY OTHERS
6. LEFT TURN LANE ADDITION BY OTHERS
7. RELOCATED TOURIST ACTIVITIES SIGN BY OTHERS
8. REFERENCE CITY OF DUBLIN STANDARD DRAWING PD-08 FOR CURB RAMP DETAILS.

HATCHING LEGEND

FULL DEPTH HEAVY DUTY CONCRETE PAVEMENT (SEE SHEET C8.0 FOR DETAIL)

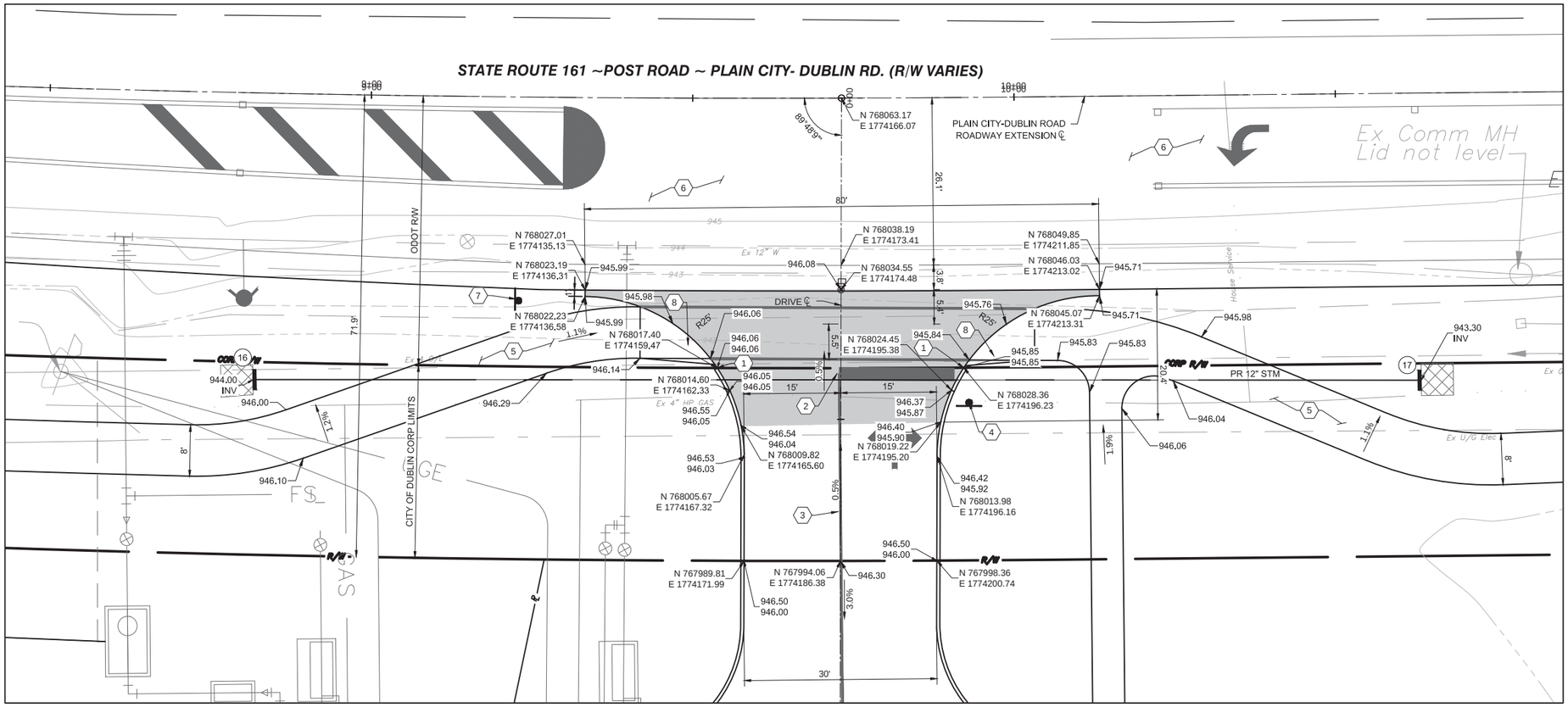
NORTH

GRAPHIC SCALE

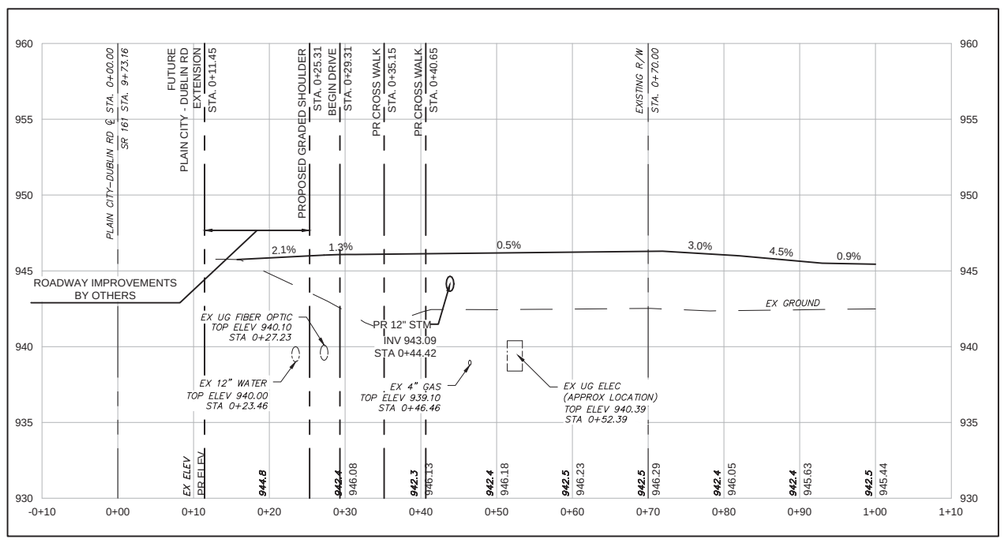
10 0 5 10

(IN FEET)

1 inch = 10 ft.



DRIVEWAY DETAIL
SCALE: 1" = 10'



HORIZONTAL SCALE

10 0 5 10

(IN FEET)

1 inch = 10 ft.

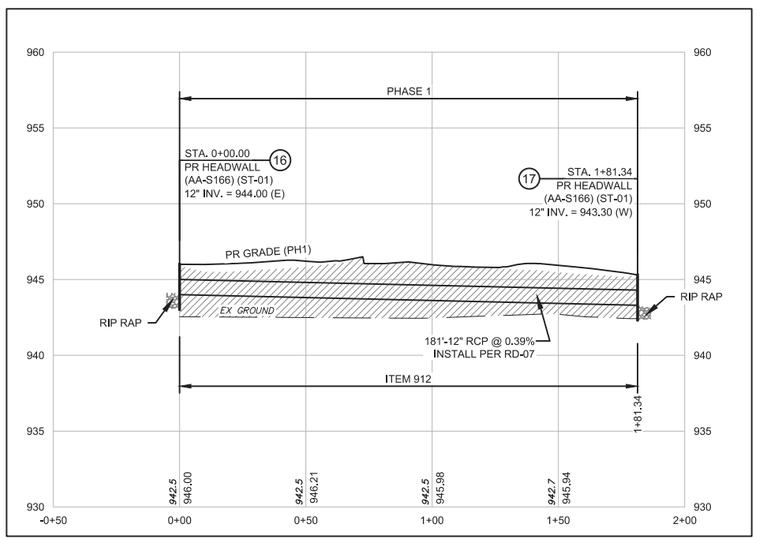
VERTICAL SCALE

5 0 2.5 5

(IN FEET)

1 inch = 5 ft.

DRIVEWAY PROFILE
HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 5'



DRIVEWAY CULVERT PROFILE
HORIZONTAL SCALE: 1" = 30'
VERTICAL SCALE: 1" = 5'

STORM SEWER PROFILE NOTES

1. ALL SEWERS SHALL BE HP STORM, HP SANTITE, OR RCP ONLY PER CITY OF DUBLIN REQUIREMENTS.
2. ALL BACKFILL SHALL BE COMPACTED TO THE DENSITY OF THE SURROUNDING GROUND UNLESS OTHERWISE NOTED.

STORM SEWER PROFILE LEGEND

FILLS TO BE PLACED A MINIMUM 1.5' ABOVE PROPOSED STORM SEWER PRIOR TO START OF SEWER CONSTRUCTION

ITEM 911 - COMPACTED BACKFILL

ITEM 912 - COMPACTED GRANULAR BACKFILL

HORIZONTAL SCALE

30 0 15 30

(IN FEET)

1 inch = 30 ft.

VERTICAL SCALE

5 0 2.5 5

(IN FEET)

1 inch = 5 ft.

775 Yard Street, Suite 325
Columbus, Ohio 43212
p 614 764 0407
f 614 764 0237
www.ma-architects.com

OSBORN ENGINEERING
1100 Superior Ave - Suite 300 | Cleveland, OH 44114
441 Wolf Ledges Road - Suite 300 | Akron, OH 44311
990 West Third Avenue | Columbus, OH 43212

URBAN AIR

7679-7685 PLAIN CITY-DUBLIN ROAD | DUBLIN, OH 43064

STATUS:

REVISION:

PROJECT NUMBER: 2016.223

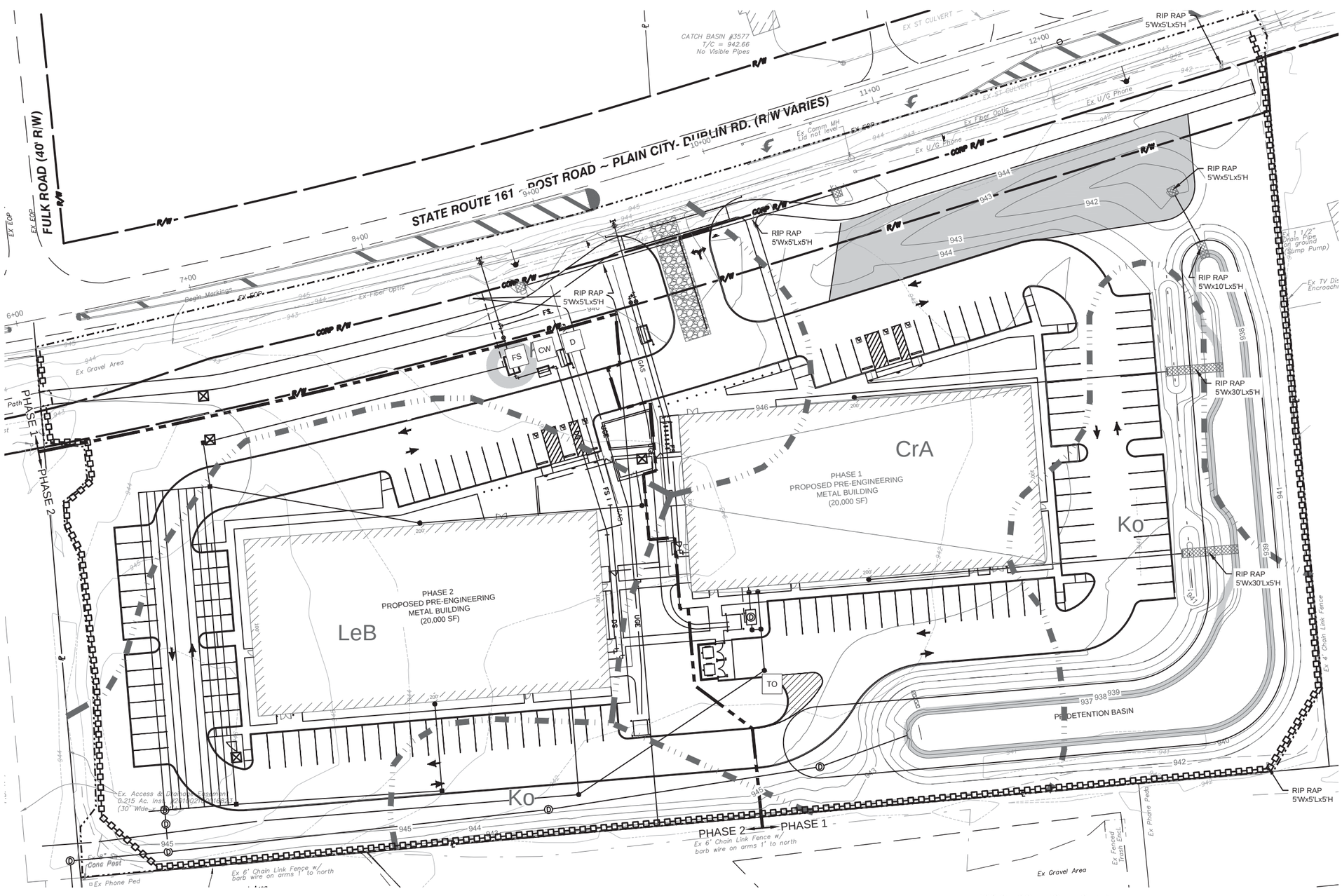
DRAWN BY: SF

DATE: 23 MARCH 2018

SHEET NAME: DRIVEWAY PLAN AND PROFILE

SHEET NUMBER: C6.0

ma architects



EROSION CONTROL LEGEND

CW	CONCRETE WASHOUT (SEE DETAIL SHEETS)
FS	FUEL STORAGE
D	DUMPSTER
TO	TEMPORARY SEDIMENT BASIN OUTLET CONTROL STRUCTURE(SEE DETAIL SHEETS)
⊠	INLET PROTECTION (SEE SHEET C7.1 FOR DETAIL)
	15' x 70' STABILIZED CONSTRUCTION ENTRANCE (SEE SHEET C7.1 FOR DETAIL)
	EROSION CONTROL MAT (PER ODOT STD. DM-4.2, OR APPROVED EQUAL)
	RIP RAP - ODOT TYPE D WITH FILTER FABRIC
	SILT FENCE
	LIMITS OF CONSTRUCTION
	SOIL TYPE BOUNDARY

ABBREVIATION LEGEND

PR	PROPOSED
EX	EXISTING
R/W	RIGHT OF WAY
℄	PROPERTY LINE
BLDG	BUILDING
SF	SQUARE FOOT
FFE	FINISH FLOOR ELEVATION
BM	BENCHMARK
SAN	SANITARY
MH	MANHOLE
CB	CATCH BASIN
MIN	MINIMUM

NORTH

GRAPHIC SCALE

30 0 15 30

(IN FEET)

1 inch = 30 ft.

A. PROJECT DESCRIPTION: PROPOSED RECREATION CENTER
B. PROJECT ADDRESS: 7679-7685 PLAIN-CITY DUBLIN ROAD DUBLIN, OHIO 43064
C. PID 274-012136-00,274-001453-00
D. OWNER: CARMEN MICHAEL VILLOPOTO 220 LAKE MANOR RD CHAPEL HILL, NC 27516 (ON-SITE CONTACT) TBD PHONE: TBD EMAIL: TBD
E. PLAN DESIGNER: OSBORN ENGINEERING 990 WEST THIRD AVENUE, SUITE 200 COLUMBUS, OH 43212 PHONE: 614-556-4272 EMAIL: NHARRINGTON@OSBORN-ENG.COM
F. DISTURBED AREA: 6.23 AC
G. TOTAL ON-SITE AREA: 4.89 AC
H. RUNOFF CALCULATIONS:

PRE-CONSTRUCTION RUNOFF COEFFICIENTS

EXISTING IMPERVIOUS AREA	
• ON-SITE IMPERVIOUS =	0.00 AC
• R/W IMPERVIOUS =	0.00 AC
EXISTING PERVIOUS AREA	
• ON-SITE PERVIOUS =	4.89 AC
• R/W PERVIOUS =	1.34 AC
TOTAL DISTURBED AREA =	6.23 AC
CN	80

POST-CONSTRUCTION RUNOFF COEFFICIENTS

PROPOSED IMPERVIOUS AREA	
• ON-SITE IMPERVIOUS =	2.44 AC
• R/W IMPERVIOUS =	0.16 AC
PROPOSED PERVIOUS AREA	
• ON-SITE PERVIOUS =	2.45 AC
• R/W PERVIOUS =	1.18 AC
TOTAL DISTURBED AREA =	6.23 AC
CN	90

I. EXISTING SOILS: CrA - CROSBY SILT LOAM, SOUTHER OHIO TILL PLAIN, 0-2% SLOPES
Ko - KOKOMO SILTY CLAY LOAM, 0-2% SLOPES
LEWISBURG-CROSBY COMPLEX, 2-6% SLOPES
J. PRIOR LAND USE: VACANT LOT
K. ESTIMATED START DATE: APRIL 2018
L. ESTIMATED COMPLETION DATE: DECEMBER 2018
M. CONSTRUCTION SITE OPERATORS: COMPANY - TBD ADDRESS [CITY], [STATE] [ZIP] [ON-SITE CONTACT] (ON SITE CONTACT) PHONE: XXX-XXX-XXXX
N. PERSON RESPONSIBLE FOR AUTHORIZING & AMENDING THE SWPPP: NATHAN HARRINGTON (614-556-4272)

O. CONSTRUCTION SEQUENCE:
1. STAKE AND/OR FLAG LIMITS OF CLEARING
2. DURING PRE-CONSTRUCTION MEETING ALL EROSION AND SEDIMENT CONTROL SHALL BE DISCUSSED.
3. INSTALL SILT FENCE PERIMETER CONTROLS AS SHOWN ON THE PLANS AND INLET PROTECTION ON EXISTING INLET STRUCTURES WITHIN 7 DAYS OF CLEARING/GRUBBING AND PRIOR TO GRADING ACTIVITIES.
4. INSTALL CONSTRUCTION ENTRANCE, IF CONDITIONS ARE SUCH THAT MUD IS COLLECTING ON VEHICLE TIRES, THE TIRES MUST BE CLEANED BEFORE THE VEHICLES ENTER THE PUBLIC ROADWAY. THE SITE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT THE TRACKING OR FLOW OF MUD INTO THE PUBLIC RIGHT-OF-WAY. ALL MATERIALS SPILLED, DROPPED, WASHED OR TRACKED FROM VEHICLES ONTO THE ROADWAY MUST BE REMOVED PROMPTLY.
5. CONSTRUCT STORM DRAIN. DURING CONSTRUCTION OF STORM DRAINS THE ENDS OF ALL OPEN PIPES SHALL BE PROTECTED BY FILTER BARRIERS OR OTHER APPROVED MEANS.
   a.)PROMPTLY UPON BACKFILL OF STORM STRUCTURES, FILTER BARRIERS SHALL BE PLACED.
   b.)CONSTRUCT TEMPORARY SWALES TO DRAINAGE STRUCTURES.
6. ANY REMAINING EXPOSED AREAS SHALL BE SEEDED AND MULCHED OR SODDED WITHIN 7 DAYS OF FINAL GRADE.
7. MAINTAIN EROSION & SEDIMENT CONTROL MEASURES UNTIL THE SITE HAS BEEN COMPLETELY STABILIZED & APPROVED BY CITY OF DUBLIN.
8. REMOVE SEDIMENT CONTROLS.
9. CONSTRUCTION WASTE (INCLUDING CONCRETE WASHOUT) WILL NEED TO BE TRANSPORTED TO A LEGAL DUMP SITE.

Q. STORM WATER DISCHARGE: GENERALLY THE SITE DISCHARGES OVERLAND TO THE NORTHEAST / EAST BOUNDARY LINES.

m-a
775 Yard Street, Suite 325
Columbus, Ohio 43212
p 614 764 0407
f 614 764 0237
www.ma-architects.com

OSBORN
ENGINEERING
1100 Superior Ave - Suite 300 | Cleveland, OH 44114
441 Wolf Ledges Road - Suite 300 | Akron, OH 44311
990 West Third Avenue | Columbus, OH 43212

URBAN AIR

7679-7685 PLAIN CITY-DUBLIN ROAD | DUBLIN, OH 43064 |

STATUS:

REVISION:

PROJECT NUMBER: 2016.223

DRAWN BY: SF

DATE: 23 MARCH 2018

SHEET NAME: EROSION CONTROL PLAN

SHEET NUMBER: C7.0

m-a architects

EROSION AND SEDIMENT CONTROL

QUALITY CONTROL

1. LAND-DISTURBING ACTIVITIES MUST COMPLY WITH ALL APPLICABLE LOCAL CODES, REGULATIONS AND ORDINANCES. ALL LAND-DISTURBING ACTIVITIES SHALL BE SUBJECT TO INSPECTION AND SITE INVESTIGATION BY THE LOCAL JURISDICTIONAL AUTHORITY AND/OR THE STATE EPA. FAILURE TO COMPLY WITH LOCAL CODES, REGULATIONS AND/OR ORDINANCES IS SUBJECT TO LEGAL ENFORCEMENT ACTION. IN ADDITION, DUMPING OF MATERIALS INTO THE STORM SEWERS WILL NOT BE PERMITTED.
2. ALL EROSION AND SEDIMENT CONTROL PRACTICES ARE SUBJECT TO FIELD MODIFICATION AT THE DISCRETION OF THE LOCAL JURISDICTIONAL AUTHORITY AND/OR THE STATE EPA.
3. ALL EROSION AND SEDIMENTATION CONTROL MEASURES ARE TO BE INSPECTED AT LEAST ONCE EVERY 7 DAYS AND WITHIN 24 HOURS AFTER ANY STORM EVENT GREATER THAN 0.5 INCHES PER 24 HOUR PERIOD. IF THE INSPECTION REVEALS THAT A CONTROL PRACTICE IS IN NEED OF REPAIR OR MAINTENANCE, WITH THE EXCEPTION OF A SEDIMENT SETTLING POND, IT MUST BE REPAIRED OR MAINTAINED WITHIN 3 DAYS OF THE INSPECTION. SEDIMENT SETTLING PONDS MUST BE REPAIRED WITHIN 10 DAYS OF THE INSPECTION.

GENERAL

1. ALL DEWATERING FLOWS SHALL BE SILT-FREE PRIOR TO DISCHARGE, AND DISCHARGE SHALL BE DIRECTED TO STABILIZED SITES SUCH AS STREAMS, PONDS, STORM SEWERS OR EXISTING GRASSED DRAINAGE WAYS ACCEPTABLE TO THE OWNER. NOT ONTO EXPOSED SOILS OR ANY OTHER SITE WHERE FLOWS COULD CAUSE EROSION.
2. THE CONTRACTOR SHALL INITIATE APPROPRIATE VEGETATIVE PRACTICES ON ALL DISTURBED AREAS WITHIN SEVEN (7) DAYS IF THEY ARE TO REMAIN DORMANT (UNDISTURBED) FOR MORE THAN TWENTY-ONE (21) DAYS. FOR AREAS WITHIN FIFTY (50) FEET OF ANY STREAM, FIRST ORDER OR LARGER (CREEK IS FIRST ORDER), SOIL STABILIZATION PRACTICES SHALL BE INITIATED WITHIN TWO (2) DAYS ON ALL INACTIVE, DISTURBED AREAS AND WITHIN SEVEN (7) DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. IF DUE TO WEATHER, FINAL GRADING CANNOT BE ACCOMPLISHED IMMEDIATELY, MULCHING AND TEMPORARY SEEDING IF FEASIBLE, OR SOME OTHER TYPE OF TEMPORARY EROSION CONTROL MEASURES MUST BE USED WITHIN SEVEN (7) DAYS UNTIL LONG-TERM RESTORATION CAN OCCUR. WHEN SEASONAL CONDITIONS PROHIBIT THE APPLICATION OF TEMPORARY OR PERMANENT SEEDING, NON-VEGETATIVE SOIL STABILIZATION PRACTICES SUCH AS MULCHING AND MATTING SHALL BE USED. ANY AREAS AT FINAL GRADE OR THAT WILL LIE DORMANT FOR ONE YEAR OR MORE REQUIRE PERMANENT SEEDING WITHIN SEVEN DAYS OF THE MOST RECENT DISTURBANCE.
3. ANY AREAS AT FINAL GRADE OR THAT WILL LIE DORMANT FOR MORE THAN ONE YEAR OR MORE SHALL BE PERMANENTLY SEEDED WITHIN SEVEN DAYS OF THE MOST RECENT DISTURBANCE.THE SEEDED ARE WILL BE CONSIDERED STABILIZED WHEN THERE IS A 70% VEGETATIVE DENSITY.
4. PRESERVATION SHALL TAKE PRECEDENCE OVER REMOVAL WITHIN THE TEMPORARY WORK LIMITS. REMOVE ONLY THOSE TREES, SHRUBS AND STRUCTURES NECESSARY TO COMPLETE CONSTRUCTION AND MAINTAIN THE NEW FACILITIES. REPLACEMENT "IN-KIND" OF REMOVED ITEMS SHOULD OCCUR WHEREVER POSSIBLE.
5. STOCKPILED TOPSOIL AND MATERIALS SHALL BE PROTECTED WITH EROSION CONTROL BARRIERS OR TEMPORARY SEEDING.
6. EXCESS SOIL THAT IS STOCKPILED MUST BE EITHER REMOVED OR REGRADED WITHIN 15 DAYS OF THE COMPLETION OF THE CONSTRUCTION.
7. NO FILL, TOPSOIL OR HEAVY EQUIPMENT SHALL BE STORED WITHIN 200 FEET OF A STREAM BANK OR WITHIN THE DRIPLINE OF TREE AREAS.
8. ALL DISTURBED VEGETATION IS TO BE RESEEDED AS PART OF RESTORATION UNLESS THE AREAS WILL BE PAVED OR OCCUPIED.
9. ONLY WATER OR CALCIUM CHLORIDE WILL BE USED AS A DUST PALLIATIVE.
10. CONTRACTOR SHALL INSPECT ALL INSTALLATIONS OF SOIL EROSION AND SEDIMENTATION CONTROL METHODS DAILY, ANY DAMAGED OR NON FUNCTIONAL AREAS SHALL BE REPAIRED IMMEDIATELY AND MAINTAINED THROUGH THE DURATION OF THE PROJECT OR UNTIL STABILIZED VEGETATION IS ESTABLISHED.
11. SEDIMENT CONTROL STRUCTURES SHALL BE FUNCTIONAL THROUGHOUT EARTH DISTURBING ACTIVITY. SEDIMENT PONDS AND PERIMETER SEDIMENT BARRIERS SHALL BE IMPLEMENTED AS THE FIRST STEP OF GRADING AND WITHIN SEVEN DAYS FROM THE START OF GRUBBING. THEY SHALL CONTINUE TO FUNCTION UNTIL THE UPSLOPE DEVELOPMENT AREA IS RESTABILIZED.
12. IN THE EVENT OF CONFLICT BETWEEN THESE REQUIREMENTS AND POLLUTION CONTROL LAWS, RULES OR REGULATIONS OF OTHER FEDERAL, STATE, OR LOCAL AGENCIES, THE MORE RESTRICTIVE LAWS, RULES OR REGULATIONS SHALL APPLY.

SILT FENCE

1. FILTER FABRIC MATERIAL FOR SILT FENCE SHALL BE PURCHASED IN A CONTINUOUS ROLL. CUT TO THE LENGTH OF THE BARRIER TO AVOID THE USE OF JOINTS.
2. 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).
3. POSTS SHALL BE SPACED A MAXIMUM OF 10 FEET APART AT THE BARRIER LOCATION AND DRIVEN SECURELY INTO THE GROUND (MINIMUM 18 INCHES).
4. A TRENCH SHALL BE EXCAVATED APPROXIMATELY 4 INCHES WIDE AND 4 INCHES DEEP FOR THE SILT FENCE ALONG THE LINE OF POSTS, UPSLOPE FROM THE BARRIER.
5. THE TRENCH SHALL BE BACKFILLED AND THE SOIL COMPACTED OVER THE FILTER MATERIAL.
6. THE SILT FENCES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UPSLOPE AREA HAS BEEN PERMANENTLY STABILIZED.
7. THE CONTRACTOR SHALL MAINTAIN SILT FENCE UNTIL UPSLOPE AREA HAS BEEN PERMANENTLY STABILIZED.

SILT FENCE MAINTENANCE

1. SILT FENCES SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY. EXTRA CARE SHALL BE TAKEN TO MAINTAIN SILT FENCE NEAR POND.
2. SHOULD THE FABRIC ON THE SILT FENCE 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.
3. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.
4. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM WITH THE EXISTING GRADE, PREPARED AND SEEDED.

GENERAL NOTES

5. ALL GRADES SHOWN ARE FINAL FINISH GRADES.
6. MEET ALL EXISTING GRADES FLUSH, INCLUDING EXISTING CURBS.
7. ALL LAWN AREAS TO MEET PAVEMENT EDGES FLUSH, UNLESS NOTED OTHERWISE ON THE PLAN.
8. ALL LAWN AREAS TO HAVE 2% MIN. SLOPE.
9. ALL PROPOSED CURBS ARE 6" HIGH, UNLESS NOTED OTHERWISE ON PLAN.
10. ALL SPOT ELEVATIONS AT CURBS ARE AT BOTTOM OF CURB, UNLESS NOTED OTHERWISE ON PLAN.
11. FOR ALL CURBS THAT DO NOT TERMINATE INTO A WALL OR ANOTHER CURB, TAPER FROM A 6" REVEAL TO 0" OVER 2'-0," AT CURB TERMINATION.
12. OWNER TO PROVIDE GEOTECHNICAL REPORT.
13. REMOVE UNSUITABLE MATERIALS TO A DEPTH OF AT LEAST 18" BELOW PAVEMENT SUBGRADE ELEVATIONS AND REPLACE W/ ENGINEERED FILL, PER THE PROJECT GEOTECHNICAL REPORT, AND AS DIRECTED ON SITE, BY THE GEOTECHNICAL ENGINEER.
14. REFER TO UTILITY PLAN FOR HORIZONTAL LOCATIONS OF DRAINAGE STRUCTURES.
15. ALL SITE UTILITIES, INCLUDING SITE DRAINAGE, ARE SHOWN FOR REFERENCE ONLY. SEE SITE ELECTRICAL AND SITE UTILITY PLANS.
16. REFER TO SURVEY DRAWING FOR BENCHMARK INFORMATION.

SPECIFICATIONS FOR MULCH

1. MULCH AND/OR OTHER APPROPRIATE VEGETATIVE PRACTICES SHALL BE APPLIED TO DISTURBED AREAS WITHIN 7 DAYS OF GRADING IF THE AREA IS TO REMAIN DORMAT(UNDISTURBED) FOR MORE THAN 14 DAYS OR ON AREAS AND PORTIONS OF THE SITE WHICH CAN BE BROUGHT TO FINAL GRADE.
2. MULCH SHALL CONSIST OF ONE OF THE FOLLOWING:

A. STRAW - STRAW SHALL BE UNROTTED SMALL GRAIN STRAW APPLIED AT THE RATE OF 2 TONS/AC. OR 90LBS/1,000 SQ. FT. (TWO TO THREE BALES). THE STRAW MULCH SHALL BE SPREAD UNIFORMLY BY HAND OR MECHANICALLY SO THE SOIL SURFACE IS HAND-SPEAD MULCH, DIVIDE AREA INTO APPROXIMATELY 1,000 SQ FT SECTIONS AND PLACE TWO 45-LB. BALES OF STRAW IN EACH SECTION.

B. HYDROSEEDERS - WOOD CELLULOSE FIBER SHOULD BE USED AT 2,000 LB/AC OR 46 LB/1,000 SQ. FT.

C. OTHER - OTHER ACCEPTABLE MULCHES INCLUDE MULCH MATTINGS APPLIED ACCORDING TO MANUFACTURE'S RECOMMENDATIONS OR WOOD CHIPS APPLIED AT 10-20 TONS/AC.

3. MULCH ANCHORING - MULCH SHALL BE ANCHORED IMMEDIATELY TO MINIMIZE LOSS BY WIND OR RUNOFF. THE FOLLOWING ARE ACCEPTABLE METHODS FOR ANCHORING MULCH.

A. MECHANICAL - USE A DISK, CRIMPER, OR SIMILAR TYPE TOOL SET STRAIGHT TO PUNCH OR ANCHOR THE MULCH MATERIAL INTO THE SOIL. STRAW MECHANICALLY ANCHORED SHALL NOT BE FINELY CHOPPED BUT BE LEFT GENERALLY LONGER THAN 6 INCHES.

B. MULCH NETTINGS - USE ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS, FOLLOWING ALL PLACEMENT AND ANCHORING SUGGESTIONS. USE IN AREAS OF WATER CONCENTRATION AND STEEP SLOPES TO HOLD MULCH IN PLACE.

C. ASPHALT EMULSION - FOR STRAW MULCH, APPLY AT THE RATE OF 160 GAL/AC (0.1 GAL/SY) INTO THE MULCH AS IT IS BEING APPLIED OR AS RECOMMENDED BY THE MANUFACTURE.

D. SYNTHETIC BINDERS - FOR STRAW MULCH, SYNTHETIC BINDERS AS ACRYLIC DLR(AGRI-TAC), DCA-70, PETROSET, TERRA TACK OR EQUAL MAY BE USED AT RATES RECOMMENDED BY THE MANUFACTURER.

E. WOOD CELLULOSE FIBER - WOOD CELLULOSE FIBER MAY ME USED FOR ANCHORING STRAW. THE FIBER BINDER SHALL BE APPLIED AT A NET DRY WEIGHT OF 750 LB.AC. THE WOOD CELLULOSE FIBER SHALL BE MIXED WITH WATER AND THE MIXTURE SHALL CONTAIN A MAXIMUM OF 50 LB/100 GAL OF WOOD CELLULOSE FIBER.

SPECIFICATIONS FOR TEMPORARY SEEDING

TEMPORARY SEEDING SPECIES SELECTION

SEEDING DATES	SPECIES	LB/1,000 SQ.FT.	PER ACRE
MARCH 1 TO AUGUST 15	OATS	3	4 BUSHEL
	TALL FESCUE	1	40 LB
	ANNUAL RYEGRASS	1	40 LB
	PERENNIAL RYEGRASS	1	40 LB
	TALL FESCUE	1	40 LB
	ANNUAL RYEGRASS	1	40 LB
AUGUST 16 TO NOVEMBER 1	RYE	3	2 BUSHEL
	TALL FESCUE	1	40 LB
	ANNUAL RYEGRASS	1	40 LB
	WHEAT	3	2 BUSHEL
	TALL FESCUE	1	40 LB
	ANNUAL RYEGRASS	1	40 LB
	PERENNIAL RYEGRASS	1	40 LB
	TALL FESCUE	1	40 LB
	ANNUAL RYEGRASS	1	40 LB

NOVEMBER 1 TO SPRING SEEDING USE MULCH ONLY, SODDING PRACTICES OR DORMANT SEEDING.

NOTE: OTHER APPROVED SEED SPECIES MAY BE SUBSTITUTED.

1. STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES SUCH AS DIVERSIONS AND SEDIMENT TRAPS SHALL BE INSTALLED AND STABILIZED WITH TEMPORARY SEEDING PRIOR TO GRADING THE REST OF THE CONSTRUCTION SITE.
2. TEMPORARY SEED SHALL BE APPLIED BETWEEN CONSTRUCTION OPERATIONS ON SOIL THAT WILL NOT BE GRADED OR REWORKED FOR 21 DAYS OR MORE. THESE IDLE AREAS SHOULD BE SEEDED AS SOON AS POSSIBLE AFTER GRADING OR SHALL BE SEEDED WITHIN 7 DAYS. SEVERAL APPLICATIONS OF TEMPORARY SEEDING ARE NECESSARY ON TYPICAL CONSTRUCTION PROJECTS.
3. THE SEEDBED SHOULD BE PULVERIZED AND LOOSE TO ENSURE THE SUCCESS OF ESTABLISHING VEGETATION. HOWEVER, TEMPORARY SEEDING SHALL NOT BE POSTPONED IF IDEAL SEEDBED PREPARATION IS NOT POSSIBLE.
4. SOIL AMENDMENTS - APPLICATION OF TEMPORARY VEGETATION SHALL ESTABLISH ADEQUATE STANDS OF VEGETATION WHICH MAY REQUIRE THE USE OF SOIL AMENDMENTS. SOIL TESTS SHOULD BE TAKEN ON THE SITE TO PREDICT THE NEED FOR LIME AND FERTILIZER.
5. SEEDING METHOD - SEED SHALL BE APPLIED UNIFORMLY WITH A CYCLONE SEEDER, DRILL, CULTIPACKER SEEDER, OR HYDROSEEDER. WHEN FEASIBLE, SEED THAT HAS BEEN BROADCAST SHALL BE COVERED BY RAKING OR DRAGGING AND THEN LIGHTLY TAMPED INTO PLACE USING A ROLLER OR CULTIPACKER. IF HYDROSEEDING IS USED, THE SEED AND FERTILIZER WILL BE MIXED ON-SITE AND THE SEEDING SHALL BE DONE IMMEDIATELY AND WITHOUT INTERRUPTION.

SPECIFICATIONS FOR PERMANENT SEEDING

PLANTING TIME: PROCEED WITH - AND COMPLETE - LAWN WORK AS RAPIDLY A PORTIONS OF THE SITE BECOME AVAILABLE, WORKING WITHIN SEASONAL LIMITATIONS FOR EACH KIND OF LANDSCAPE WORK REQUIRED. NORMAL SEEDING TIMES ARE AS FOLLOWS:

1. MARCH 15 TO JUNE 10
2. AUGUST 15 TO OCTOBER 1

SEEDING DURING OTHER THAN NORMAL SEEDING TIMES SHALL BE PERFORMED ONLY WITH THE PRIOR WRITTEN PERMISSION OF THE LANDSCAPE ARCHITECT WITH THE UNDERSTANDING THAT THE CONTRACT WILL THEREFOR BE ALTERED BY THE CHANGE ORDER.

GRASS SEED: PROVIDE FRESH, CLEAN, NEW CROP SEED COMPLYING WITH TOLERANCE FOR PURITY AND GERMINATION ESTABLISHED BY THE OFFICIAL SEED ANALYSTS OF MINIMUM PERCENTAGES OF PURITY, GERMINATION AND MAXIMUM PERCENTAGES OF WEED SEED, AS FOLLOWS: OLIGER SEED COMPANY (330) 724-1266 FESCUE PLUS MIX

BOTANICAL AND COMMON NAME SECOND MILLENNIUM	PERCENTAGE BY WEIGHT (MINIMUM)	PERCENTAGE PURITY (MINIMUM)	PERCENTAGE GERMINATION (MINIMUM)	PERCENTAGE WEED SEED (MINIMUM)
TALL FESCUE	20%	85%	80%	1.00%
INFERNO TALL FESCUE	20%	85%	80%	1.00%
CROSSFIRE II TALL FESCUE 2	0%	85%	80%	1.00%
AVENGER TALL FESCUE	20%	85%	80%	1.00%
BRIGHTSTAR SLT PERENNIAL RYEGRASS	10%	85%	80%	1.00%
BROOKLAWN KENTUCKY BLUEGRASS	10%	85%	80%	1.00%

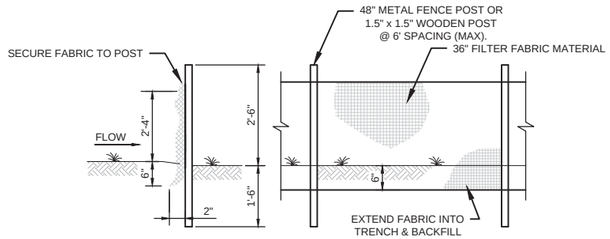
PERFORM ALL LIMING, FERTILIZING, RAKING, AND COMPACTING OPERATIONS ONLY AT TIMES WHEN LOCAL WEATHER AND OTHER CONDITIONS AFFECTING SUCH WORK ARE NORMAL AND FAVORABLE TO THE PROPER PROSECUTION OF THE PARTICULAR WORK WITHIN THE DATES SPECIFIED OR WITHIN AN EXTENDED PERIOD OF TIME APPROVED BY THE OWNER'S REPRESENTATIVE.

FERTILIZING AND LIMING: THE CONTRACTOR SHALL INTRODUCE A 10-20-10 FERTILIZER AT THE RATE OF 20 POUNDS PER 100 SQUARE FEET. LIME OR OTHER ADDITIVES AT THE RATE APPROVED BY THE ARCHITECT. THE ABOVE ITEMS SHALL BE WORKED INTO THE TOP 2 INCHES OF SOIL AND SMOOTHED TO GRADE TO PREPARE A PROPER BED FOR SEEDING.

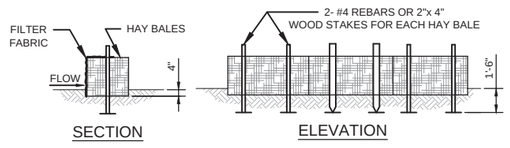
SOW SEED AT THE RATE OF 5 POUNDS PER 1000 SQUARE FEET FOR EACH AREA, UNIFORMLY , AND BY BROADCAST, DRILL, OR HAND SEEDING METHOD. IMMEDIATELY AFTER SOWING, RAKE DRAG, OR OTHERWISE TREAT THE AREA SO AS TO COVER THE SEED TO A DEPTH OF OF APPROXIMATELY 1/4 INCH.

NO SEEDING SHALL BE DONE DURING WINDY WEATHER, OR WHEN THE GROUND SURFACE IS MUDDY, FROZEN OR OTHERWISE NON-TILLABLE.

WHEN LANDSCAPE WORK IS COMPLETED, INCLUDING MAINTENANCE, THE LANDSCAPE ARCHITECT WILL MAKE AN INSPECTION TO DETERMINE ACCEPTABILITY.



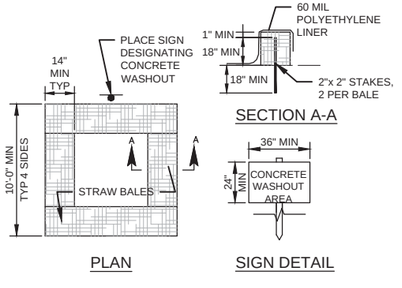
TYPE 1-SILT FENCE



TYPE 2-HAY BALES

EROSION CONTROL DETAILS
SEDIMENT BARRIRERS

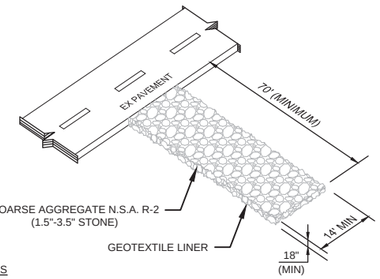
NOT TO SCALE



NOTE:
A CONCRETE WASHOUT AREASHALL BE DESIGNATED TO CLEAN CONCRETE TRUCKS AND TOOLS. AT NO TIME SHALL CONCRETE PRODUCTS BE ALLOWED TO ENTER STREAMS OR DRAINS.

CONCRETE WASHOUT
BASIN DETAIL

NOT TO SCALE

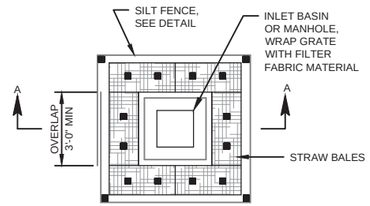


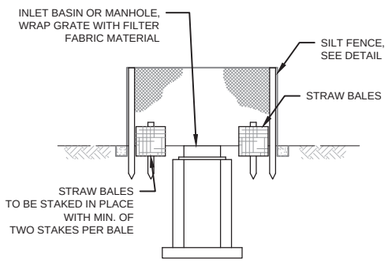
NOTES

1. LOCATE STONE PAD AT ANY POINT WHERE VEHICULAR TRAFFIC WILL BE LEAVING THE SITE ONTO A PUBLIC RIGHT-OF-WAY STREET, ROADWAY, OR PARKING AREA.
2. PAD WIDTH - 14-0" MINIMUM BUT NOT LESS THAN FULL WIDTH OF ALL POINTS OF VEHICULAR EGRESS. PAD LENGTH - 70'-0" MINIMUM.
3. MAINTAIN THE EXIT TO PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHT-OF-WAY. PROVIDE PERIODIC TOP DRESSING WITH 1.5-3.5" STONE, AS CONDITIONS DEMAND. IMMEDIATELY REMOVE ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLE OR SITE ONTO ROADWAY, INTO STORM DRAINS OR DITCHES.
4. CLEAN WHEELS TO REMOVE MUD PRIOR TO EXITING CONSTRUCTION SITE. WHEN WASHING IS REQUIRED, DO SO ON AREAS STABILIZED WITH CRUSHED STONE DRAINING INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.

EROSION CONTROL DETAILS
CONSTRUCTION DRIVE STABILIZATION

NOT TO SCALE





EROSION CONTROL DETAILS
INLET PROTECTION DETAIL

NOT TO SCALE

Project Name:
SWPPP Contact:

Date Grading Activity Initiated	Description of Grading Activity	Date Grading Activity Ceased (Indicate Temporary or Permanent)	Date When Stabilization Measures are Initiated	Description of Stabilization Measure and Location

GRADING & STABILIZATION LOG (SAMPLE)

Project Name:
SWPPP Contact:

Amendment No.	Description of the Amendment	Date of Amendment	Amendment Prepared by [Name(s) and Title]

SWP3 AMENDMENT LOG (SAMPLE)

775 Yard Street, Suite 325
Columbus, Ohio 43212
p 614 764 0407
f 614 764 0237
www.ma-architects.com

OSBORN
ENGINEERING
1100 Superior Ave - Suite 300 | Cleveland, OH 44114
441 Wolf Ledges Road - Suite 300 | Akron, OH 44311
990 West Third Avenue | Columbus, OH 43212

URBAN AIR

7679-7685 PLAIN CITY-DUBLIN ROAD | DUBLIN, OH 43064

STATUS:

REVISION:

PROJECT NUMBER:
2016.223

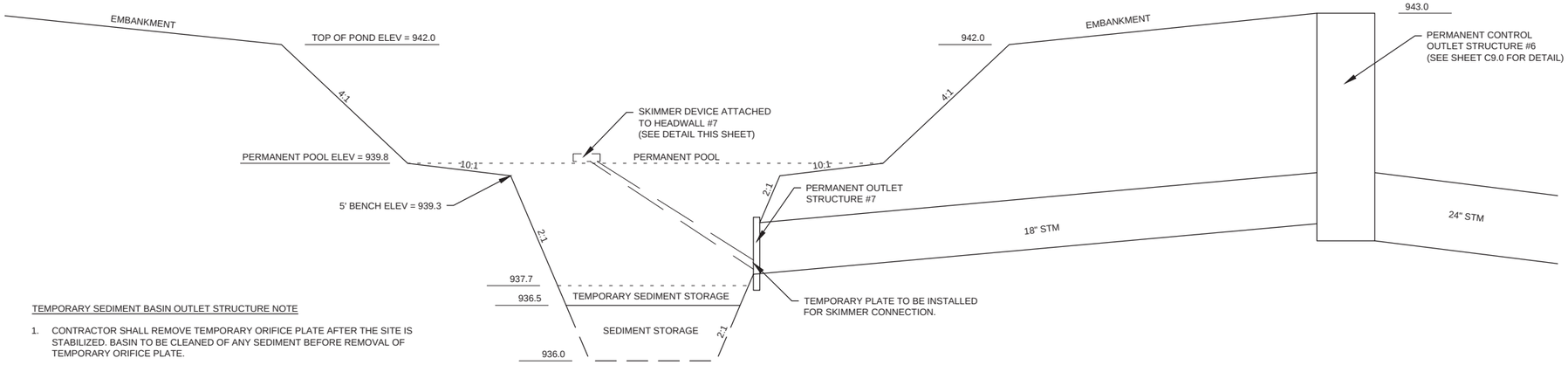
DRAWN BY:
SF

DATE:
23 MARCH 2018

SHEET NAME:
EROSION CONTROL NOTES & DETAILS

SHEET NUMBER:
C7.1

ma architects

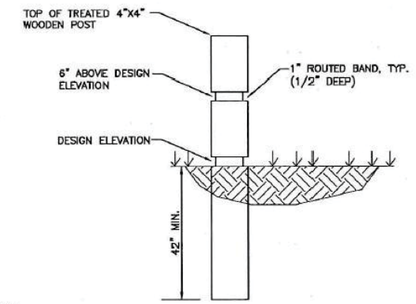


TEMPORARY SEDIMENT BASIN OUTLET STRUCTURE NOTE

1. CONTRACTOR SHALL REMOVE TEMPORARY ORIFICE PLATE AFTER THE SITE IS STABILIZED. BASIN TO BE CLEANED OF ANY SEDIMENT BEFORE REMOVAL OF TEMPORARY ORIFICE PLATE.
2. REFERENCE STORM WATER MANAGEMENT REPORT FOR WATER QUALITY CALCULATIONS.

TEMPORARY SEDIMENT
BASIN OUTLET STRUCTURE DETAIL

NOT TO SCALE

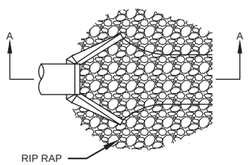


MONITOR POST
FOR SEDIMENT ACCUMULATION

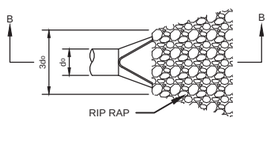
NOT TO SCALE

STORM DRAIN OUTLET NOTES

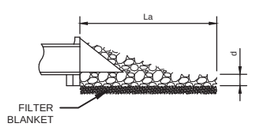
1. LENGTH (La) IS THE RIPRAP LENGTH (10 FEET MINIMUM OR AS SHOWN ON THE DRAWINGS).
2. DEPTH (d) IS THE RIPRAP DEPTH (1.5 TIMES THE MAXIMUM STONE DIAMETER, OR AS SHOWN ON DRAWINGS BUT NOT LESS THAN 12").
3. INSTALL A 2" MINIMUM DEEP FILTER STONE BLANKET (#467 STONE) OR FILTER FABRIC BETWEEN RIPRAP AND SOIL FOUNDATION.



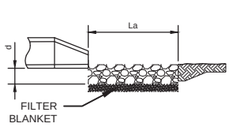
PLAN



PLAN



SECTION A-A



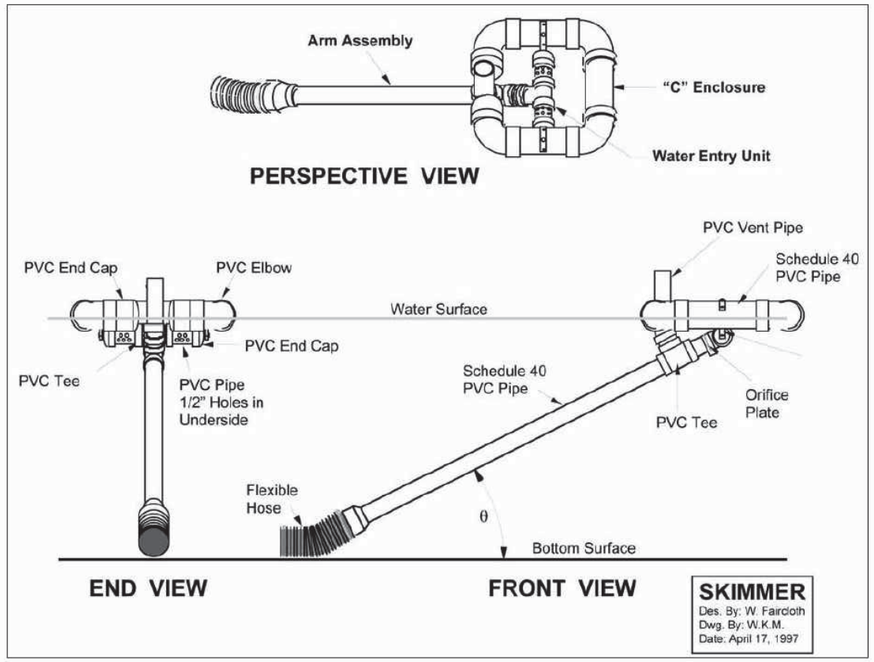
SECTION B-B

PIPE OUTLET TO
WELL DEFINED CHANNEL

PIPE OUTLET TO FLAT AREA
NO WELL DEFINED CHANNEL

EROSION CONTROL DETAILS
STORM DRAIN OUTLET PROTECTION

NOT TO SCALE



SKIMMER DETAIL

NOT TO SCALE

m-a
775 Yard Street, Suite 325
Columbus, Ohio 43212
p 614 764 0407
f 614 764 0237
www.ma-architects.com

OSBORN
ENGINEERING
1100 Superior Ave - Suite 300 | Cleveland, OH 44114
441 Wolf Ledges Road - Suite 300 | Akron, OH 44311
990 West Third Avenue | Columbus, OH 43212

URBAN AIR

7679-7685 PLAIN CITY-DUBLIN ROAD | DUBLIN, OH 43064

STATUS:

REVISION:

PROJECT NUMBER:
2016.223

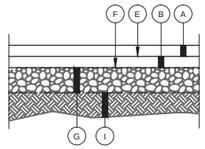
DRAWN BY:
SF

DATE:
23 MARCH 2018

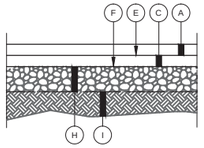
SHEET NAME:
EROSION CONTROL DETAILS

SHEET NUMBER:
C7.2

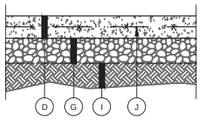
m-a architects



(PARKING STALLS)
PR ASPHALT PAVEMENT (LIGHT)
NOT TO SCALE



(DRIVE AISLES)
PR ASPHALT PAVEMENT (HEAVY)
NOT TO SCALE



NOTES:
1.) USE 6X6 W4.0X W4.0 MAT REINFORCEMENT

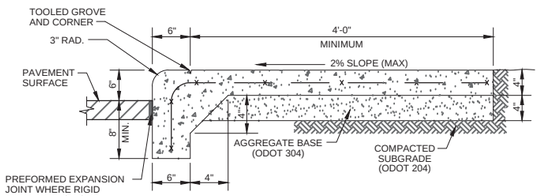
FULL DEPTH HEAVY DUTY
CONCRETE PAVEMENT
NOT TO SCALE

PAVEMENT LEGEND

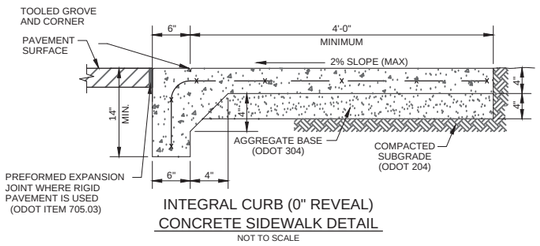
- (A) 1.50" MIN. ASPHALT SURFACE COURSE (ODOT CMS 448 TYPE 1)
- (B) 1.75" MIN. ASPHALT INTERMEDIATE COURSE (ODOT CMS 448 TYPE 2)
- (C) 2.5" MIN. ASPHALT INTERMEDIATE COURSE (ODOT CMS 448 TYPE 2)
- (D) 8" REINFORCED CONCRETE (ODOT CMS 451)
- (E) TACK COAT (ODOT CMS 407)
- (F) PRIME COAT (ODOT CMS 408)
- (G) 8" AGGREGATE BASE (ODOT CMS 304)
- (H) 10" AGGREGATE BASE (ODOT CMS 304)
- (I) SUBGRADE COMPACTION (ODOT CMS 204)
- (J) WELDED WIRE FABRIC MAT REINFORCEMENT (ODOT ITEM 509)

PAVEMENT NOTES:

- PAVEMENT SECTION TO BE VERIFIED WITH GEOTECHNICAL ENGINEER AND APPROVED BY OWNER PRIOR TO INSTALLATION.



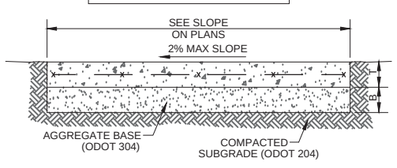
INTEGRAL CURB (6" REVEAL)
CONCRETE SIDEWALK DETAIL
NOT TO SCALE



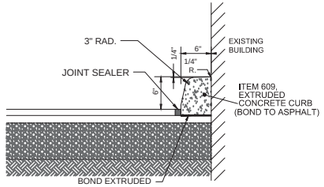
INTEGRAL CURB (0" REVEAL)
CONCRETE SIDEWALK DETAIL
NOT TO SCALE

NOTES
1) USE 3/8"x 4" EXPANSION JOINTS AT CHANGE OF DIRECTIONS, CURBS, RIGID STRUCTURES, AND RIGID PAVEMENT. ON STRAIGHT RUNS PROVIDE EXPANSION JOINTS EVERY 20 FEET.
2) CONCRETE-
SIDEWALKS- USE READY-MIX CONCRETE WITH 4,000 PSI STRENGTH @ 28 DAYS.
3) USE REINFORCEMENT - 6x 6 - W1.4x W1.4 W.W.M.
4) TOOL ALL EXPOSED EDGES AND JOINTS TO 3/4" RADIUS.
5) BROOM FINISH ACROSS DIRECTION OF TRAVEL.

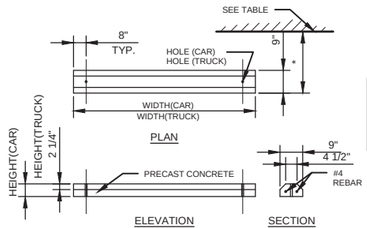
SIDEWALK	T = 4"
SIDEWALK	B = 4"



CONCRETE SIDEWALK DETAIL
NOT TO SCALE



ALTERNATE EXTRUDED CURB DETAIL
NOT TO SCALE



PRECAST CONCRETE
WHEEL STOP DETAIL
NOT TO SCALE

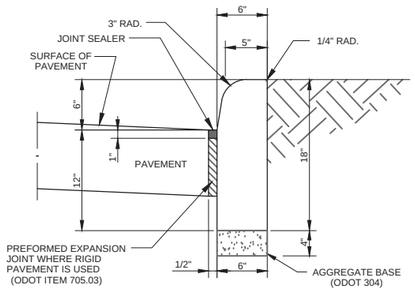
WHEEL STOP LOCATION	
FROM	*
EDGE OF PAVEMENT	2'-0"
FACE OF CURB	2'-6"
FACE OF WALL	3'-6"
FACE OF FENCE	3'-6"

WHEEL STOP NOTES:

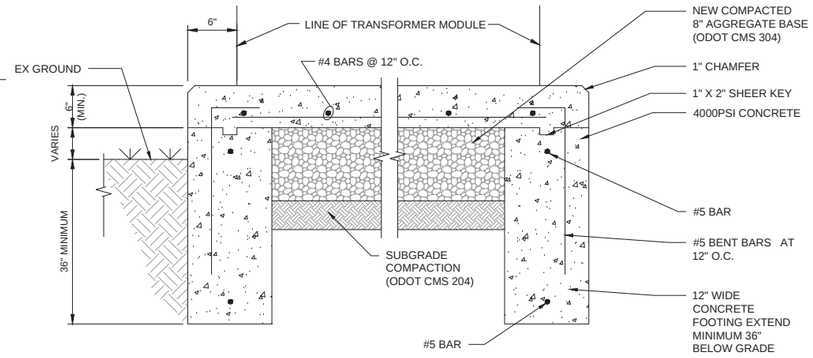
1.) CONCRETE USED IN PRECASTING WHEEL STOPS SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI AT 28 DAYS

2.) DETAILED DIMENSIONS MAY BE VARIED SLIGHTLY TO CONFORM TO LOCAL AVAILABILITY WHEN APPROVED BY THE ENGINEER

3.) WHEEL STOPS SHALL BE HELD IN PLACE BY DRIVING TWO (2)18" LONG #4 REBARS THROUGH THE PREFORMED HOLES IN EACH PRECAST WHEEL STOP FOR AUTOS, FOR TRUCKS USE 30" LONG #6 REBAR



18" CONCRETE CURB DETAIL
NOT TO SCALE

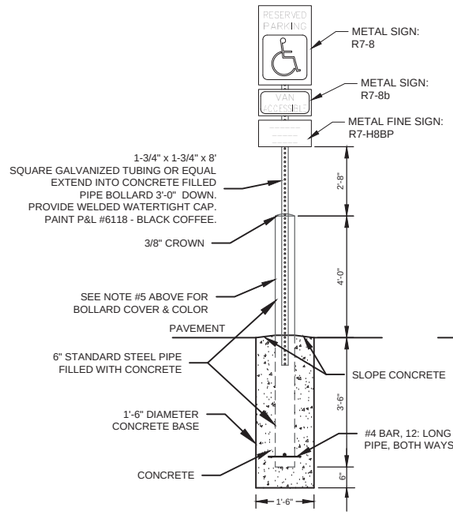


TRANSFORMER ANCHORS

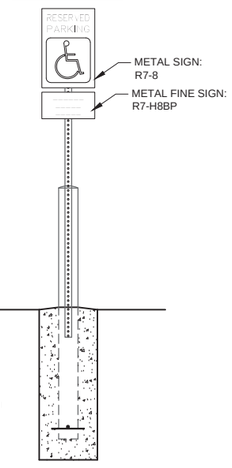
CONTRACTOR SHALL COORDINATE WITH LOCAL UTILITY THE LOCATIONS OF HURRICANE TIE-DOWN ANCHORS TO BE CAST INTO NEW CONCRETE FOUNDATION FOR TRANSFORMER. ANCHORAGE TO BE DESIGNED TO WITHSTAND WINDS UP TO 100 MPH OR AS REQUIRED BY LOCAL CODES.

TRANSFORMER PAD DETAIL
NOT TO SCALE

VAN ACCESSIBLE
PARKING SIGN



ACCESSIBLE
PARKING SIGN



PIPE BOLLARD WITH ADA ACCESSIBLE SIGN DETAIL NOTES:

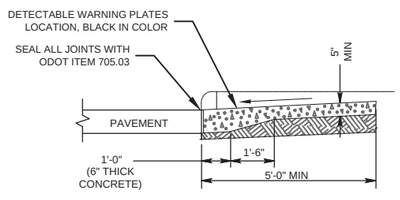
1. USE HANDICAPPED PARKING SIGNS SHALL CONFORM WITH CURRENT STATE AND LOCAL CODES AND REGULATIONS
2. USE 3/8"x 4" EXPANSION JOINT WHEN CONCRETE ABUTS RIGID PAVEMENT.
3. USE READY-MIX CONCRETE WITH 3,000 PSI STRENGTH AT 28 DAYS.
4. TOOL ALL EXPOSED EDGES AND JOINTS TO 1/4" RADIUS.
5. INSTALL 1/4" IDEALSHIELD (OR APPROVED EQUAL) PLASTIC BOLLARD COVER, BLACK IN COLOR, PRIOR TO ATTACHING SIGN PANEL TO POST. (WWW.IDEALSHIELD.COM)

NOTE: SIGNS SHALL BE IN ACCORDANCE WITH OHIO REVISED CODE 4511.69(E), APPLICABLE CITY REGULATIONS AND THE AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES. SIGN DESIGNATIONS ARE ACCORDING TO THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

HANDICAP PARKING SIGNS

CURB RAMP NOTES:

1. ALL DETECTABLE WARNING PLATES SHALL CONSIST OF RAISED TRUNCATED DOMES WITH A DIAMETER OF NOMINAL 0.9 INCHES, A HEIGHT OF NOMINAL 0.2 INCHES AND A CENTER-TO-CENTER SPACING OF NOMINAL 2.35 INCHES AND SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES, EITHER LIGHT -ON-DARK, OR DARK-ON-LIGHT.
2. JOINTS SHALL BE PROVIDED IN THE CURB RAMP AS EXTENSIONS OF WALK JOINTS AND CONSISTENT WITH ITEM 608.03 REQUIREMENTS FOR A NEW CONCRETE WALK. A 1/2" ITEM 705.03 EXPANSION JOINT FILLER SHALL BE PROVIDED AROUND THE EDGE OF RAMPS BUILT IN EXISTING CONCRETE WALK. LINES SHOWN ON THIS DRAWING INDICATE THE RAMP EDGE AND SLOPE CHANGES AND ARE NOT NECESSARILY JOINT LINES.
3. EXPANSION JOINT FILLER SHALL NOT EXTEND ABOVE THE SURFACE OF THE PAVEMENT.



CURB RAMP SECTION DETAIL
NOT TO SCALE

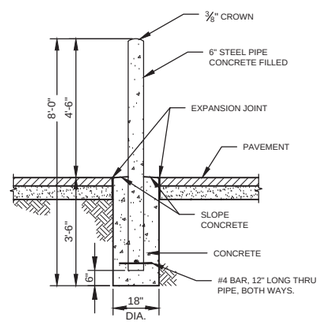
NOTES:

1.) USE 3/8"x 4" EXPANSION JOINT WHEN CONCRETE ABUTS RIGID PAVEMENT.

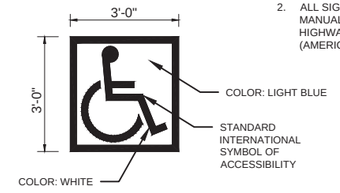
2.) USE READY-MIX CONCRETE WITH 3,000 PSI STRENGTH AT 28 DAYS.

3.) TOOL ALL EXPOSED EDGES AND JOINTS TO 1/4" RADIUS.

4.) PAINT EXPOSED PIPE WITH TWO COATS OF SAFETY YELLOW ENAMEL.



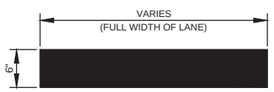
PIPE BOLLARD DETAIL
NOT TO SCALE



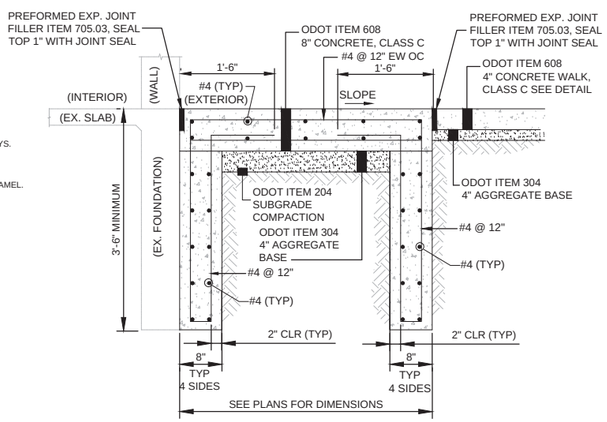
HANDICAP PARKING SYMBOL DETAIL
NOT TO SCALE

STOP BAR NOTES:

1. DIMENSIONS BETWEEN STRIPING ARE MEASURED TO THE CENTER OF THE STRIPE UNLESS NOTED OTHERWISE.



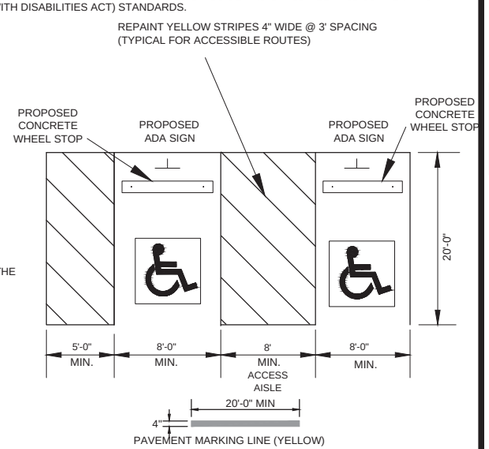
STOP BAR DETAIL
NOT TO SCALE



(CONCRETE WALK)
FROST STOOP DETAIL
NOT TO SCALE

PAVEMENT MARKING NOTES AND SPECIFICATIONS

1. ALL PAVEMENT MARKINGS SHALL BE YELLOW FAST DRY-WATER-BASED TRAFFIC PAINT PER O.D.O.T. SPEC. 642
2. ALL SIGNAGE AND PAVEMENT MARKINGS SHALL CONFORM TO THE LATEST EDITIONS OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES AND THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS DESIGN GUIDE AND SHALL MEET ALL CURRENT A.D.A. (AMERICAN WITH DISABILITIES ACT) STANDARDS.



PAVEMENT MARKING SPECIFICATIONS
NOT TO SCALE

m-a
775 Yard Street, Suite 325
Columbus, Ohio 43212
p 614 764 0407
f 614 764 0237
www.ma-architects.com

OSBORN
ENGINEERING
1100 Superior Ave - Suite 300 | Cleveland, OH 44114
441 Wolf Ledges Road - Suite 300 | Akron, OH 44311
990 West Third Avenue | Columbus, OH 43212

URBAN AIR

7679-7685 PLAIN CITY-DUBLIN ROAD | DUBLIN, OH 43064

STATUS:

REVISION:

PROJECT NUMBER:
2016.223

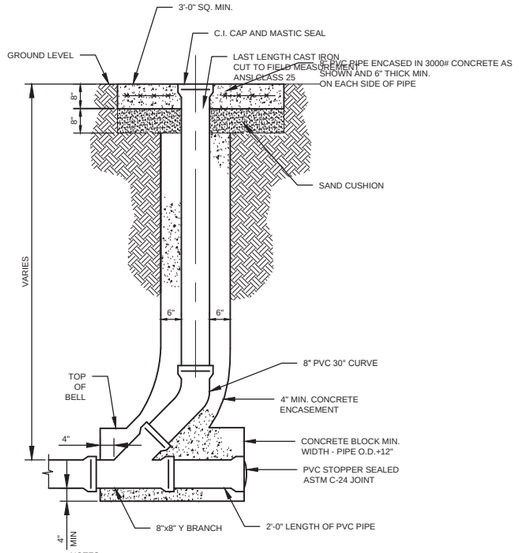
DRAWN BY:
SF

DATE:
23 MARCH 2018

SHEET NAME:
SITE DETAILS

SHEET NUMBER:
C8.0

m-a architects



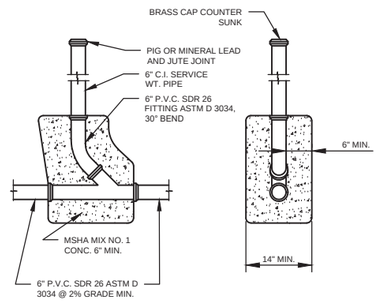
NOTES:

1.) 8" CLEAN OUT SHALL BE USED FOR 8" SEWER AND LARGER.

2.) SMALLER SIZE SEWERS AND LAMP SHALL HAVE SAME SIZE PIPE.

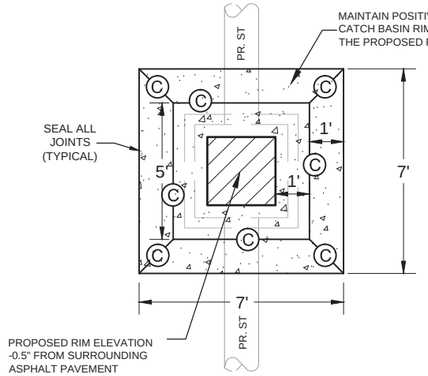
CLEANOUT DETAIL WITH CONCRETE PAD

NOT TO SCALE



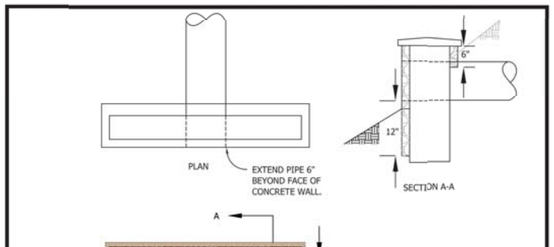
ROOF DRAIN CLEANOUT

NOT TO SCALE



PROPOSED CATCH BASIN CONCRETE BOXOUT PLAN (TYPICAL)

NOT TO SCALE



STONE VENEER

NO SCALE

NOTES:

1. STONE VENEER:
   MANUFACTURED SYNTHETIC STONE VENEER SHALL BE GREAT LAKE LIMESTONE AS MANUFACTURED BY DUTCH QUALITY STONE, INC. (1-330-359-7866) OR AN APPROVED ALTERNATIVE. MORTAR COLOR SHALL APPROXIMATE THE STONE COLOR. MORTAR AND GROUTING TYPE S PER MANUFACTURES INSTRUCTIONS. STONE SHALL BE PLACED IN A RANDOM PATTERN SIMILAR TO AVERY/MUIRFIELD BRIDGE OVER US 33/SR 161.
2. ALL EXPOSED CONCRETE STRUCTURES SHALL COMPLY WITH THE STONE VENEER AS SHOWN ON THIS DETAIL.

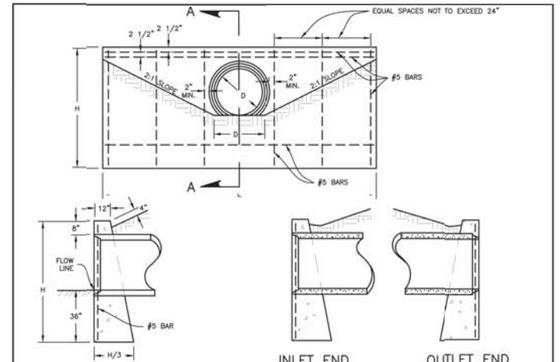
16 " WALL CAP

THE TOP OF ALL HEADWALLS THAT ARE TO BE STONE FACED SHALL HAVE A STONE WALL CAP.

THE WALL CAP SHALL BE 16" IN WIDTH AND TAN IN COLOR AS MANUFACTURED BY DUTCH QUALITY STONE OR APPROVED EQUAL.

MORTAR AND GROUTING TYPE SHALL BE PER THE MAUFACTURER'S SPECIFICATIONS.

Date: 05/0./2014		
City of Dublin ENGINEERING	STANDARD DRAWING *STONE VENEER AND WALL CAP FOR HEADWALLS*	
	SHEET 1 OF 1	DRAWING NO. **ST-01**



END TREATMENT AT ENDWALL

NOTES:

1. HEADWALL WHERE REQUIRED WILL BE PROVIDED FOR NONSKEWED CULVERTS HAVING A DIAMETER OR RISE OF 36" OR LESS.
2. REINFORCING STEEL SHALL BE #5 BAR.
3. DIMENSIONS AND QUANTITIES ARE SHOWN FOR CIRCULAR SECTIONS ONLY. CALCULATE REINFORCEMENT FOR ELLIPTICAL CONCRETE OR CORRUGATED PIPE IN ACCORDANCE WITH EQUATIONS LISTED BELOW.
4. CONCRETE SHALL BE CLASS "C".
5. FOUNDATION: INCREASE WIDTH OF BASE WHERE SOIL BORINGS INDICATE A BEARING CAPACITY LESS THAN 2600 LBS PER SQ. FT. IT WILL BE NECESSARY TO INCREASE THE WIDTH OF THE BASE.
6. WHEN SLOPES OTHER THAN 2:1 ARE USED ADJUST LENGHT "L" AND HEIGHT "H" AS REQUIRED.

DIMENSIONS			QUANTITIES*	
DIAMETER	H	L	CONCRETE CU. YD.	REINF. STEEL LBS.
8"–12"	4'–9"	5'–8"	1.3	32
15"	5'–2"	7'–0"	1.7	41
18"	5'–5"	8'–4"	2.2	57
21"	5'–8"	9'–8"	2.8	62
24"	5'–11"	11'–0"	3.3	69
30"	6'–5"	13'–8"	4.7	92
36"	7'–0"	16'–4"	6.5	105

* ONE WALL

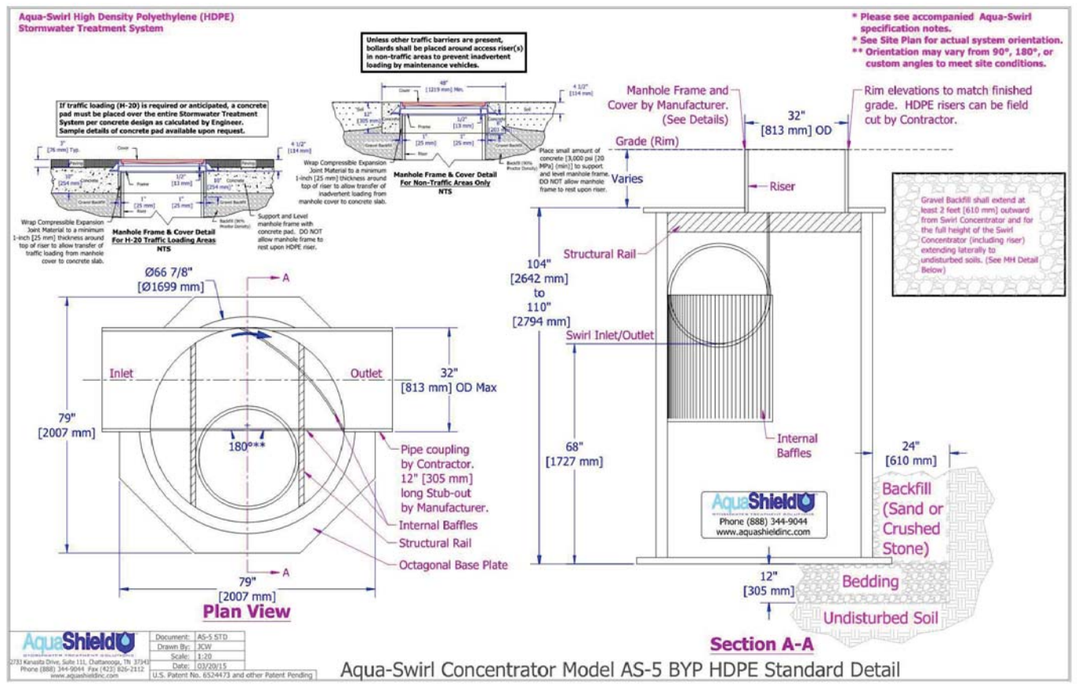
LEGEND

D = DIAMETER OF PIPE
R = RISE OF PIPE
S = SPAN OF PIPE
t = THICKNESS OF BARREL
L = LENGTH OF HEADWALL
H = HEIGHT OF HEADWALL

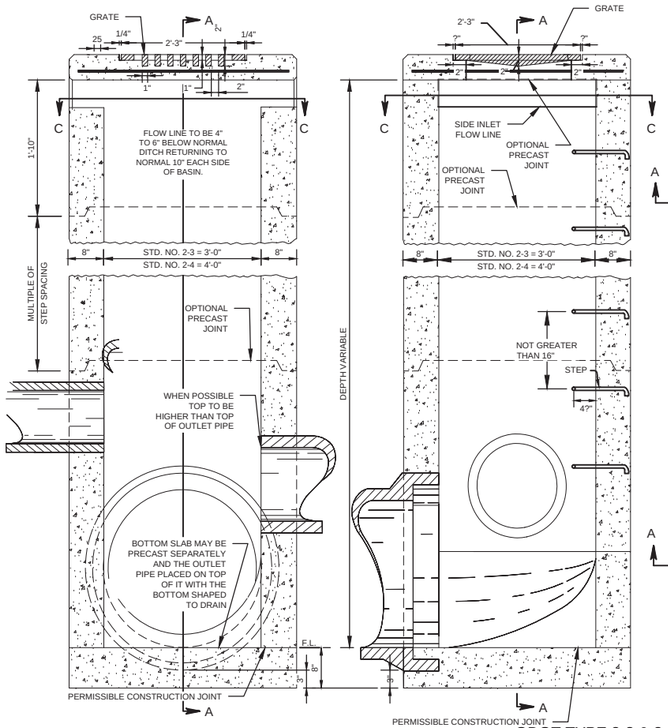
EQUATIONS:

L CIRCULAR SECTIONS = 5D+4t
L ELIPTICAL OR PIPE ARCH = 4R+t+S
H CIRCULAR SECTIONS = D+t+44"
H ELLIPTICAL OR PIPE ARCH = R+t+44"

CITY OF COLUMBUS, OHIO DEPARTMENT OF PUBLIC UTILITIES DIVISION OF SEWERAGE & DRAINAGE	CAST–IN–PLACE PIPE HEADWALLS 8" TO 36" DIAMETER	STANDARD DRAWING AA–S166
SSES MANAGER		REVISED 7/9/12 PAGE 1 / 1



Aqua-Swirl Concentrator Model AS-5 BYP HDPE Standard Detail



ODOT TYPE 2-3 & 2-4 CATCH BASIN DETAIL

NOT TO SCALE

GRATING: THE DESIGN SHALL BE ESSENTIALLY THE SAME AND EQUALLY AS STRONG AS THE ONE SHOWN HERON. MINIMUM WEIGHT 120 PONDS.

BRICK, CONCRETE BLOCK OR CAST-IN PLACE WALLS SHALL HAVE A NOMINAL THICKNESS OF 8 INCHES. PRECAST WALLS SHALL HAVE A MINIMUM THICKNESS OF 6 INCHES AND BE REINFORCED SUFFICIENTLY TO PERMIT SHIPPING AND HANDLING WITHOUT DAMAGE.

CAST-IN-PLACE CONCRETE IS TO BE CONCRETE: CLASS C. ALL PRECAST CONCRETE SHALL MEET THE REQUIREMENTS OF CMS 706.13 WITH 6 ± 2% AIR VOID CONTENT IN THE HARDENED CONCRETE AND BE MARKED WITH THE CATCH BASIN NUMBER.

REINFORCING IN THE TOP TO BE NO. 4 BARS 6" CENTER TO CENTER. FOR STANDARD NO. 2-3 USE 8 BARS AND FOR STANDARD NO. 2-4 USE 12 BARS.

OPENINGS FOR PIPES SHALL BE O.D.+2" WHEN PREFABRICATED OR FIELD CUT.

LOCATION AND ELEVATION WHEN GIVEN ON THE PLANS IS TOP CENTER OF GRATE. WHEN SIDE OPENGS ARE PROVIDED, ELEVATION SHALL BE THE FLOW LINE OF THE SIDE INLET.

SIDE INLETS SHALL BE PROVIDED ONLY WHEN SPECIFIED ON THE PLANS. STEPS SHALL BE PROVIDED WHERE THE DEPTH EXCEEDS 72" AND SHALL MEET THE REQUIREMENTS OF MH-1.

INLETS OVER 12 FEET IN DEPTH SHALL BE PRECAST OR CAST-IN-PLACE CONCRETE; REINFORCED WITH NO. 4 BARS ON 12" CENTERS BOTH VERTICALLY AND HORIZONTALLY WITH 2" CLEARANCE FROM INSIDE WALL FACE.

CATCH BASIN SIZE	OUTLET PIPE SIZE
2-3	12" to 33"
2-4	36" to 42"

m-a
775 Yard Street, Suite 325
Columbus, Ohio 43212
p 614 764 0407
f 614 764 0237
www.ma-architects.com

OSBORN ENGINEERING
1100 Superior Ave - Suite 300 | Cleveland, OH 44114
441 Wolf Ledges Road - Suite 300 | Akron, OH 44311
990 West Third Avenue | Columbus, OH 43212

URBAN AIR

7679-7685 PLAIN CITY-DUBLIN ROAD | DUBLIN, OH 43064 |

STATUS:

REVISION:

PROJECT NUMBER:
2016.223

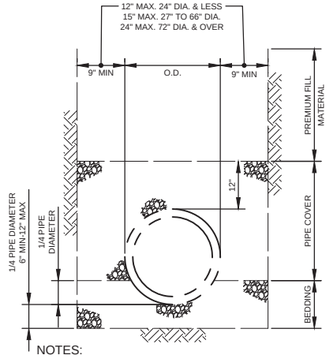
DRAWN BY:
SF

DATE:
23 MARCH 2018

SHEET NAME:
STORMWATER SEWER DETAILS

SHEET NUMBER:
C9.0

m-a architects



NOTES:

1.) PREMIUM FILL MATERIALS SHALL CONSIST OF COARSE INTERLOCKING AGGREGATE No. 6, 67, 7, 78 OR 8 AND SHALL BE PLACED IN ALL LOCATIONS UNDER OR WITHIN TWO (2) FEET OF PAVEMENT AND WITHIN TWENTY (20) FEET OF BUILDINGS.

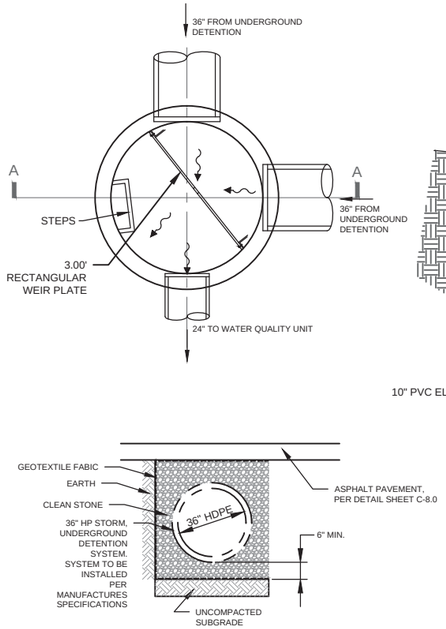
2.) COMMON FILL MATERIAL MAY BE USED IN OTHER AREAS.

3.) PIPE COVER SHALL CONSIST OF COARSE INTERLOCKING AGGREGATE No. 6, 67, 7, 78 OR 8.

4.) BEDDING SHALL CONSIST OF COARSE INTERLOCKING AGGREGATE No. 6, 67, 68, 7, 78 OR 8.

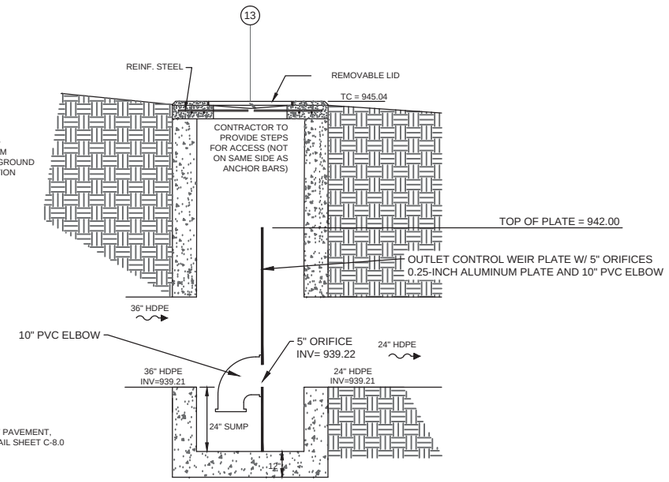
TYPICAL TRENCH DETAIL

NOT TO SCALE



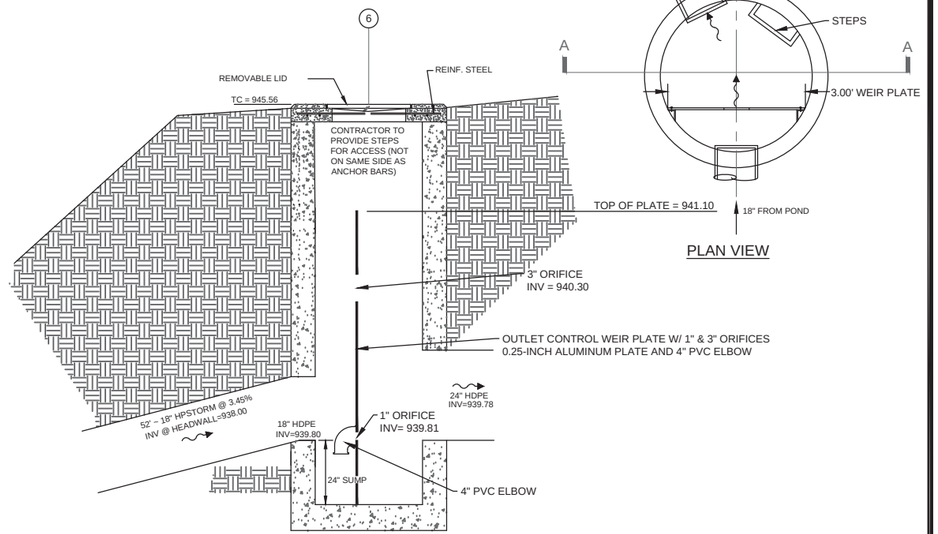
UNDERGROUND DETENTION W/ STONE ENCASEMENT DETAIL

NOT TO SCALE



UNDERGROUND DETENTION OUTLET STRUCTURE (#13) DETAIL

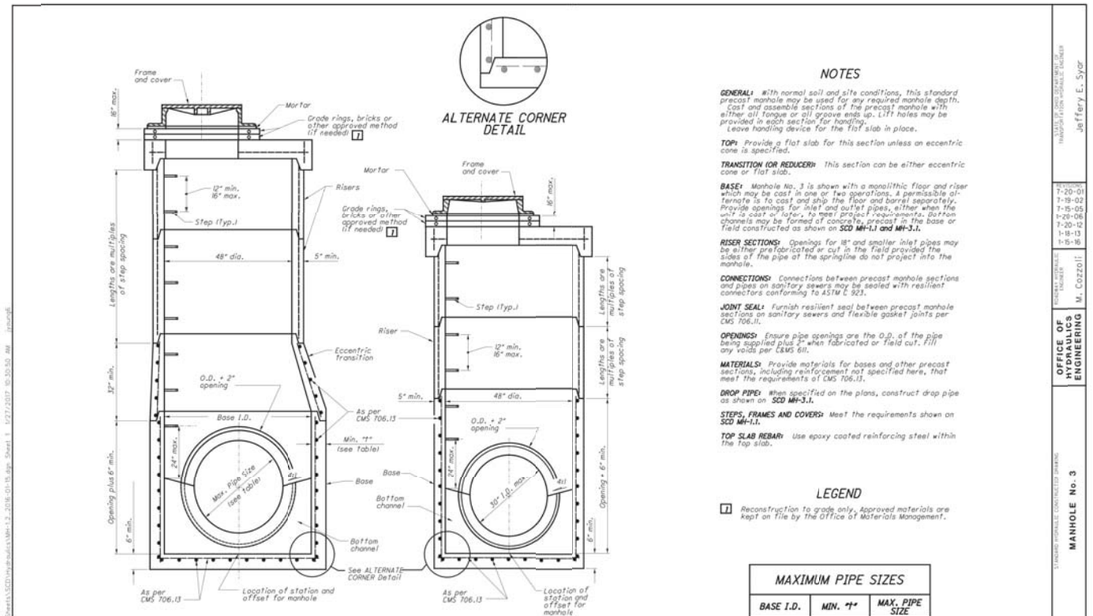
NOT TO SCALE



POND & OUTLET STRUCTURE (#6) DETAIL

NOT TO SCALE

PLAN VIEW



NOTES

GENERAL: With normal soil and site conditions, this standard precast manhole may be used for any required manhole depth. Cast and assemble sections of the precast manhole with either all tongue or all groove ends up. Lift holes may be provided in each section for handling. Leave handling device for the flat slab in place.

TOP: Provide a flat slab for this section unless an eccentric cone is specified.

TRANSITION (OR REDUCER): this section can be either eccentric cone or flat slab.

BASE: Manhole No. 3 is shown with a monolithic floor and riser which may be cast in one or two operations. A permissible alternate is to cast and set the floor and barrel separately. Provide openings for inlet and outlet pipes, either when the unit is cast or later, to meet project requirements. Bottom channels may be formed of concrete, precast in the base or field constructed as shown on **SCD MH-1.1** and **MH-3.1.**

RISER SECTIONS: Openings for 18" and smaller inlet pipes may be either prefabricated or cut in the field provided the sides of the pipe at the springline do not project into the manhole.

CONNECTIONS: Connections between precast manhole sections and pipes on sanitary sewers may be sealed with resilient connectors conforming to ASTM C 923.

JOINT SEAL: Furnish resilient seal between precast manhole sections on sanitary sewers and flexible gasket joints per CMS 706.11.

OPENINGS: Ensure pipe openings are the O.D. of the pipe being supplied plus 2" when fabricated or field cut. Fill any voids per C&MS 611.

MATERIALS: Provide materials for bases and other precast sections, including reinforcement not specified here, that meet the requirements of CMS 706.11.

DROP PIPE: When specified on the plans, construct drop pipe as shown on **SCD MH-3.1.**

STEPS, FRAMES AND COVERS: Meet the requirements shown on **SCD MH-1.1.**

TOP SLAB REBAR: Use epoxy coated reinforcing steel within the top slab.

LEGEND

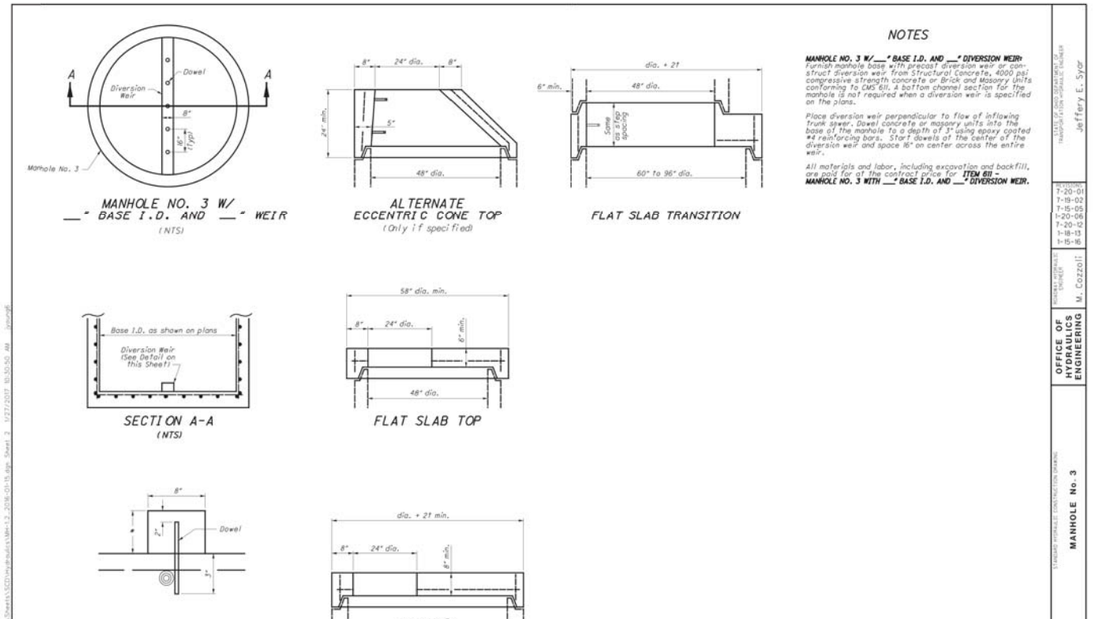
7 Reconstruction to grade only. Approved materials are kept on file by the Office of Materials Management.

MAXIMUM PIPE SIZES		
BASE I.D.	MIN. "t"	MAX. PIPE SIZE
60"	5"	36"
72"	6"	48"
84"	7"	54"
90"	7½"	60"
96"	8"	66"
108"	9"	72"

STANDARD HYDRAULIC CONSTRUCTION DRAWING — MANHOLE No. 3 — SCD NUMBER MH-1.2 — 1 / 2

OFFICE OF HYDRAULICS ENGINEERING — M. Cozzoli — 7-20-01, 7-19-02, 7-15-05, 7-20-06, 7-20-12, 1-18-13, 1-15-16

TRANSPORTATION ENGINEER MANAGER — Jeffery E. Syar



NOTES

MANHOLE NO. 3 W/__" BASE I.D. AND __" DIVERSION WEIR: Furnish manhole base with precast diversion weir or construct diversion weir from Structural Concrete, 4000 psi compressive strength concrete or Brick and Masonry Units conforming to CMS 611. A bottom channel section for the manhole is not required when a diversion weir is specified on the plans.

Place diversion weir perpendicular to flow of inflowing trunk sewer. Dowel concrete or masonry units into the base of the manhole to a depth of 3" using epoxy coated #4 reinforcing bars. Start dowels at the center of the diversion weir and space 8" on center across the entire weir.

All materials and labor, including excavation and backfill, are paid for at the contract price for **ITEM 611 - MANHOLE NO. 3 WITH __" BASE I.D. AND __" DIVERSION WEIR.**

STANDARD HYDRAULIC CONSTRUCTION DRAWING — MANHOLE No. 3 — SCD NUMBER MH-1.2 — 2 / 2

OFFICE OF HYDRAULICS ENGINEERING — M. Cozzoli — 7-20-01, 7-19-02, 7-15-05, 7-20-06, 7-20-12, 1-18-13, 1-15-16

TRANSPORTATION ENGINEER MANAGER — Jeffery E. Syar

ma
775 Yard Street, Suite 325
Columbus, Ohio 43212
p 614 764 0407
f 614 764 0237
www.ma-architects.com

OSBORN ENGINEERING
1100 Superior Ave - Suite 300 | Cleveland, OH 44114
441 Wolf Ledges Road - Suite 300 | Akron, OH 44311
990 West Third Avenue | Columbus, OH 43212

URBAN AIR

7679-7685 PLAIN CITY-DUBLIN ROAD | DUBLIN, OH 43064

STATUS:

REVISION:

PROJECT NUMBER: 2016.223

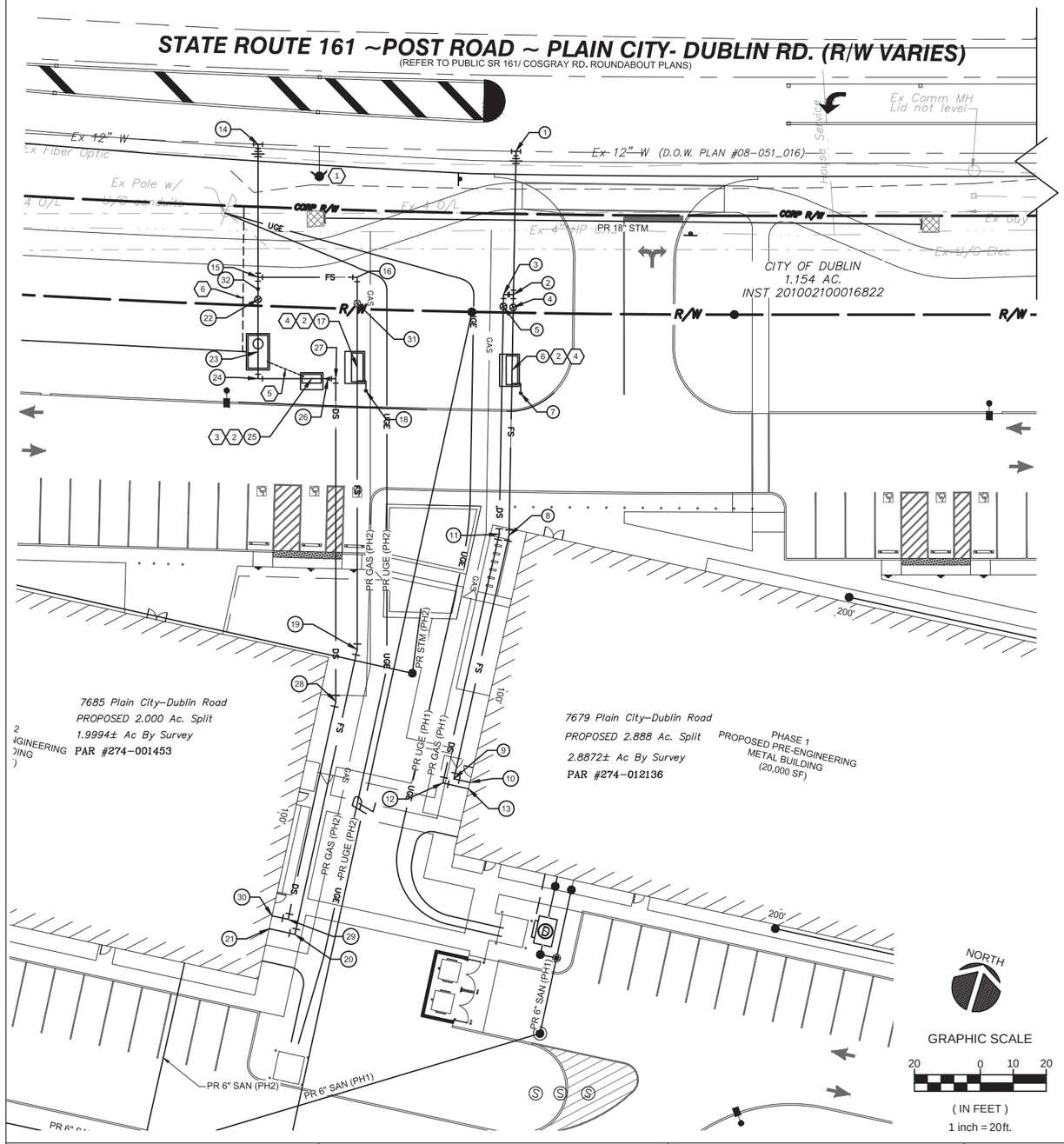
DRAWN BY: SF

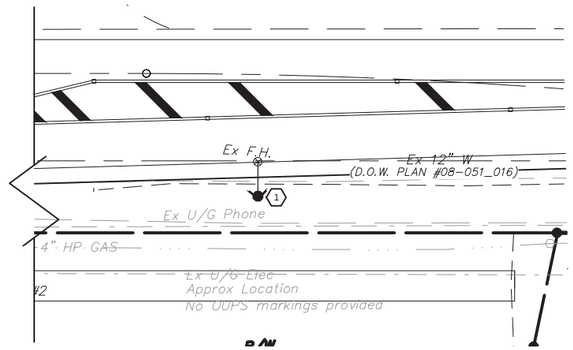
DATE: 23 MARCH 2018

SHEET NAME: STORMWATER SEWER DETAILS

SHEET NUMBER: C9.1

ma architects





VICINITY MAP
NO SCALE

#	PHASE 1 WATER SERVICE COORDINATE TABLE		
POINT	DESCRIPTION	NORTHING	EASTING
1	6" TAPPING SLEEVE & VALVE (DIP) @ EX 12" WM	768031,68	1774140,51
2	6"X6"X3" TEE (DIP)	767989,86	1774152,62
3	3" 90° BEND (DIP)	767989,04	1774149,74
4	6" VALVE	767986,17	1774153,68
5	3" VALVE	767985,54	1774150,75
6	ABOVE GROUND HOTBOX (HB6E OR APPROVED EQUAL) W/ BACKFLOW PREVENTER (AMES 5000SS OR APPROVED EQUAL) FOR 6" FS	767967,85	1774158,94
7	FDC	767961,91	1774163,55
8	6" 11,25° BEND (DIP)	767919,61	1774172,82
9	6" 11,25° BEND (DIP)	767844,06	1774178,49
10	6" FS BLDG ENTRY	767844,44	1774183,48
11	3" 11,25 ° BEND (DIP)	767919,08	1774169,85
12	3" 90° BEND (DIP)	767841,84	1774175,65
13	3" DS BLDG ENTRY	767842,44	1774183,63

#	PHASE 2 WATER SERVICE COORDINATE TABLE		
POINT	DESCRIPTION	NORTHING	EASTING
14	6" TAPPING SLEEVE & VALVE (DIP) @ EX 12" WM	768010,76	1774065,08
15	6"X6"X3" TEE (DIP)	767972,18	1774076,93
16	6" 90° BEND (DIP)	767981,02	1774105,73
17	ABOVE GROUND HOTBOX (HB6E OR APPROVED EQUAL) W/ BACKFLOW PREVENTER (AMES 5000SS OR APPROVED EQUAL) FOR 6" FS	767954,82	1774113,78
18	4" 11,25° BEND (C900)	767948,81	1774118,41
19	6" 11,25° BEND (DIP)	767872,96	1774138,91
20	6" 11,25° BEND (DIP)	767784,75	1774146,24
21	6" FS BLDG ENTRY	767784,09	1774138,26
22	3" VALVE	767965,74	1774078,90
23	3" DS METER VAULT	767950,54	1774083,58
24	3" 90° BEND (DIP)	767942,71	1774085,98
25	ABOVE GROUND HOTBOX (HB3E OR APPROVED EQUAL) W/ BACKFLOW PREVENTER (AMES 4000SS OR APPROVED EQUAL) FOR 3" DS	767947,50	1774101,56
26	3"X4" INCREASER (3" DIP TO 4" C900)	767948,93	1774106,24
27	6" 90° BEND (DIP)	767949,64	1774108,54
28	4" 11,25° BEND (C900)	767855,99	1774137,31
29	4" 90° BEND (C900)	767788,49	1774142,92
30	4" DS BLDG ENTRY	767788,07	1774137,93
31	6" VALVE	767973,45	1774108,05
32	6"X3" REDUCER (6" DIP TO 3" DIP)	767968,61	1774078,03

WATER SERVICE PLAN CODED NOTES:

1. EXISTING FIRE HYDRANTS TO BE RELOCATED DO TO ROAD WIDENING (BY OTHERS). APPROXIMATE NEW LOCATIONS SHOW THIS PLAN FOR REFERENCE. REFER TO SR 161/COSGREY RD. ROUNDABOUT PLANS FOR DETAILS.
2. CONTRACTOR TO COORDINATE WITH OWNER ON COLOR FOR THE ABOVE GROUND HOTBOX
3. ABOVE GROUND HOTBOX FOR 3" DS PAD DIMENSIONS TO BE 82"L x 62"W x 4" THICKNESS
4. ABOVE GROUND HOTBOX FOR 6" FS PAD DIMENSIONS TO BE 117"L X 72"W X 4" THICKNESS
5. 1" CONDUIT
6. 4" UNDERDRAIN @ 1% SLOPE

WATER SERVICE PLAN NOTES:

1. NO WATER SERVICE CONSTRUCTION, BEFORE OR AFTER METER(S), SHALL BEGIN PRIOR TO THE WATER SERVICE PERMIT(S) BEING ISSUED AND FEE PAYMENT(S) TO THE COLUMBUS DIVISION OF WATER.
2. SITE UTILITY CONTRACTOR INSTALLING ANY WATER SERVICE PIPE FROM WATER MAIN THRU AND AFTER METER SHALL HAVE CURRENT CITY OF COLUMBUS WATER SERVICE LICENSE PER THE COLUMBUS CITY CODE 1103 AND 4114.
3. THE CITY OF COLUMBUS "C.M.S.C." 2012 EDITION SHALL GOVERN ALL WATER SERVICE WORK FROM WATER MAIN TO AND INCLUDING THE METER AND METER BYPASS AND BACKFLOW PREVENTER.
4. THERE SHALL BE A MINIMUM TEN FOOT HORIZONTAL AND 18 INCH VERTICAL SEPARATION BETWEEN WATER TAPS, WATER SERVICES, PRIVATE WATER SYSTEMS AND ANY SANITARY AND/OR STORM SEWER SYSTEMS PER THE TEN STATES STANDARDS 8.8.2 AND 8.8.3.
5. ALL WATER SERVICE PIPE, 2" AND SMALLER, MUST USE 2" K COPPER.
6. METER & BACKFLOW PREVENTION ASSEMBLY AND BACKFLOW PREVENTION ASSEMBLY TO BE INSTALLED, WHERE REQUIRED, PER COLUMBUS DIVISION OF WATER STANDARD DETAIL DRAWINGS L-6317A&B DATED 5/14/13 AND L-9002 G DATED 5/16/13, RESPECTIVELY. SEE WATER SERVICE NOTE BELOW. THE CONTRACTOR SHALL CALL 614-645-6674 WITH INSTALLATION QUESTIONS AND 614-654-5781 FOR INSPECTION REQUESTS. A 24 HOUR ADVANCE NOTICE IS REQUIRED.
   a. THE DOMESTIC BACKFLOW PREVENTER SHALL MEET THE ASSE #1013 APPROVAL AND BE SIZED TO MATCH CITY WATER METER SIZE.
   b. THE FIRE BACKFLOW PREVENTER SHALL MEET THE ASSE #1047 APPROVAL AND BE SIZED TO MATCH THE FIRE WATER SERVICE SIZE (6"). IT SHALL ALSO BE EQUIPPED WITH A DETECTOR METER THAT IS ITRON 100R (REMOTE) COMPATIBLE, MEASURES IN CUBIC FEET AND MEETS THE AWWA C-700 STANDARD.
8. WATER SERVICE SHALL BE FLUSHED BY THE SITE UTILITY CONTRACTOR PRIOR TO WATER METER INSTALLATION. ANY METER DAMAGE CAUSED BY NON-FLUSHING SHALL BE PAID BY THE SITE UTILITY CONTRACTOR.
9. "WATER SERVICE SURVEY COORDINATE TABLE" SHALL BE PROVIDED BY THE WATER SERVICE PLAN CREATOR AND SHALL INCLUDE THE HORIZONTAL LOCATION (NORTHING, EASTING) SURVEY COORDINATES FOR THE PROPOSED WATER SERVICE IMPROVEMENTS. THE SURVEY COORDINATES SHALL BE OBTAINED FOR THE PROPOSED WATER SERVICE(S) AND SHALL INCLUDE ALL TAPPING SLEEVES, TEES, VALVES, FIRE HYDRANTS, BENDS, DEFLECTIONS, REDUCERS, PLUGS/CAPS, AND BUILDING ENTRY POINTS FROM THE CITY MAIN AND THROUGH THE METER SETTING. ALSO, BEYOND THE METER SETTING ANY PRIVATE HYDRANTS SHALL BE SHOWN ON THIS TABLE AS WELL. ALL SURVEY COORDINATES SHALL BE BASED ON THE NORTH AMERICAN DATUM OF 1983 (NAVD 83) WITH THE (1986) ADJUSTMENT, WITH FURTHER REFERENCE MADE TO THE OHIO STATE PLANE SOUTH COORDINATE SYSTEM, SOUTH ZONE. ALL COORDINATES (NORTHING, EASTING) SHALL BE REFERENCED TO THE NEAREST HUNDREDTH (N XXXXXX.XX, E XXXXXX.XX). ALL SURVEY COORDINATES SHALL BE ACCURATE TO WITHIN 1.0 FOOT OR LESS.
10. SITE UTILITY CONTRACTOR SHALL CALL COLUMBUS DIVISION OF WATER AT 614-645-7330 FOR INSPECTION OF 3" AND LARGER DOMESTIC **AND/OR** FIRE PROTECTION WATER SERVICES **AND/OR** 3" AND LARGER WATER SERVICE TAPS **AND/OR** PRESSURE TESTS FROM THE WATER MAIN THROUGH THE RIGHT OF WAY VALVES THROUGH THE WATER METER(S) AND BACKFLOW PREVENTER(S). A 24 HOUR ADVANCE IS REQUIRED FOR INSPECTIONS.
11. HYDROSTATIC TEST OF 3" AND LARGER TAPPING VALVES, TEES, VALVES AND WATER SERVICE PIPING FROM WATER MAIN THROUGH WATER METERS AND INTO THE BUILDING SHALL BE PER C.M.S.C. SECTION 801.14. EXCEPT: THE 150 PSI OF PRESSURE SHALL BE MAINTAINED FOR AT LEAST TWO HOURS IN ANY TESTED SECTION. THE CITY OF COLUMBUS WILL NOT APPROVE ANY TEST LASTING LESS THAN TWO HOURS REGARDLESS OF ANY LEAKAGE.
12. ALL 3" THROUGH 12" WATER SERVICE PIPE SHALL BE DUCTILE IRON FROM WATER MAIN THROUGH WATER METER SETTING(S) INCLUDING THE METER BYPASS.
13. WATER METER VAULT SHALL MEET ALL PLAN REVISIONS AND PERMITS REQUIRED BY CITY OF COLUMBUS DEPARTMENT OF BUILDING AND ZONING SERVICES AND DIVISION OF WATER (PER L-6317A-E)

WATER SERVICE NOTE:

PROPOSED 8" WATER SERVICE TO BE DUCTILE IRON FROM EXISTING 12" WATER MAIN TO 8"x6"x6" TEE.

PROPOSED 6" FIRE SERVICE TO BE DUCTILE IRON FROM 8"x6"x6" TEE TO BUILDING ENTRY.

PROPOSED 3" DOMESTIC SERVICE TO BE DUCTILE IRON FROM 6"x6"x3" TEE TO 3"x4" INCREASER.
PROPOSED 4" DOMESTIC SERVICE TO BE C900 FROM 3"x4" INCREASER TO BUILDING ENTRY.

NORTH

GRAPHIC SCALE
20 0 10 20
(IN FEET)
1 inch = 20ft.

EASEMENT REFERENCE			
CITY NO.	COUNTY RECORDER VOL.	COUNTY RECORDER PAGE	GRANTOR

REVISIONS		
NO.	DESCRIPTION	APPROVAL/DATE

PLANS PREPARED BY :

OSBORN ENGINEERING
990 West Third Avenue, Suite 200
Columbus, Ohio 43212
Ph 614.556.4272

REGISTERED ENGINEER — DATE 11/28/17

APPROVED FOR GENERAL ARRANGEMENTS ONLY
DIVISION OF WATER
CITY OF COLUMBUS

PROJECT TITLE:
PRIVATE WATER SERVICE PLAN
FOR
URBAN AIR ADVENTURE PARK
7679-7685 PLAIN CITY-DUBLIN ROAD (SR161)
DUBLIN, OHIO 43064

DIVISION USE ONLY	OWNER
	CONTRACTOR
	INSPECTOR
	AGREEMENT / COMPLETED
	RPD / CKD / CLD / CON. DR.

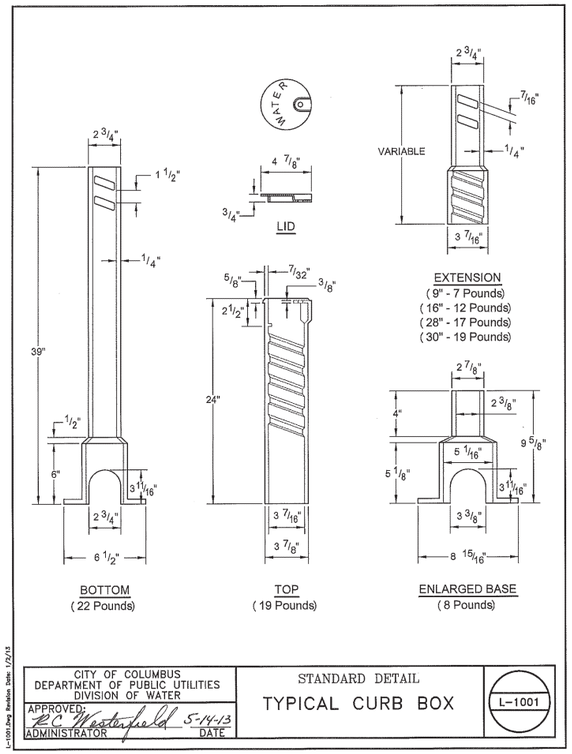
CITY OF COLUMBUS
DEPARTMENT OF PUBLIC UTILITIES
DIVISION OF WATER
DIVISION USE ONLY

WATER SERVICE PLAN #5945

SCALE: 1"=20'H
SHEET: 1 / 4
CONTRACT DRAWING NO.
RECORD PLAN NO.

TRENCH BEDDING AND BACKFILL REQUIREMENTS:

1. TRENCHES FOR ALL UTILITIES UNDER EXISTING OR PROPOSED WALKS, DRIVES, AND PAVEMENTS SHALL BE BACKFILLED WITH PREMIUM BACKFILL. TRENCHES FOR ALL UTILITIES NOT UNDER EXISTING OR FUTURE PAVEMENTS MAY BE BACKFILLED WITH ON-SITE MATERIALS, HOWEVER, THEY SHALL BE FREE OF ALL DELETERIOUS OR OBJECTIONABLE MATERIALS.
2. WATERMAIN BEDDING AND COVER SHALL CONSIST OF AGGREGATE NO. 8 WASHED LIMESTONE.
3. PREMIUM BACKFILL SHALL CONSIST OF ODOT 304 LIMESTONE. NO SLAG OR LIMESTONE SCREENINGS.
4. BACKFILL MATERIALS UNDER EXISTING PAVEMENT SHALL BE THOROUGHLY COMPACTED TO A MINIMUM OF 98% COMPACTION BY TAMPING IN LAYERS NOT MORE THAN 1 FOOT IN DEPTH.
5. ALL TRENCHES WITH TOP OF TRENCH LOCATED WITHIN 5 FEET OF EXISTING OR PROPOSED PAVEMENT SHALL BE BACKFILLED WITH MECHANICALLY COMPACTED PREMIUM (ODOT 304 LIMESTONE).
6. ROCKS, HARD PAN, COBBLES, BOULDERS, STONES OR SANDSTONE PARTICLES LARGER THAN 4" SHALL BE REMOVED FROM THE TRENCH. SHALE CONSISTS PREDOMINATELY OF FINE PARTICLES IS PERMISSIBLE. SHALE CONTAINING SUFFICIENT AMOUNTS OF LARGE PARTICLES TO MAKE CHECKING OF THE COMPACTION IMPRACTICAL SHALL BE BROKEN DOWN TO MINIMIZE VOIDS. MECHANICAL METHODS TO BREAKDOWN THE SHALE SHALL BE ACCOMPLISHED WITH A SHEEPSFOOT ROLLER. WHEN SO ORDERED BY THE ENGINEER, WATER SHALL BE USED TO AID IN BREAKING DOWN THE SHALE.
7. THE SURFACE AT THE BOTTOM OF THE TRENCH SHALL BE FREE OF ANY PROTRUSIONS WHICH MAY CAUSE POINT LOADING ON ANY PORTION OF THE PIPE AND SHALL PROVIDE A FIRM, STABLE AND UNIFORM SUPPORT FOR THE PIPE.
8. INITIAL BACKFILL OVER THE TOP OF THE PIPE IN USING COMPACTION EQUIPMENT, AVOID CONTACT WITH THE PIPE AND DO NOT COMPACT DIRECTLY OVER THE PIPE UNTIL SUFFICIENT BACKFILL HAS BEEN PLACED TO AVOID DAMAGES TO THE PIPE. LITTLE OR NO TAMPING OF THE INITIAL BACKFILL DIRECTLY OVER AND AROUND THE PIPE TO A POINT 6 INCHES ABOVE THE PIPE SHALL BE PERMITTED. FINAL BACKFILL SHALL BE COMPACTED TO AN APPROVED DENSITY EQUAL TO THE ADJOINING SOIL MATERIALS AND AS STATED ABOVE FOR TRENCHES UNDER EXISTING OR PROPOSED PAVEMENT.



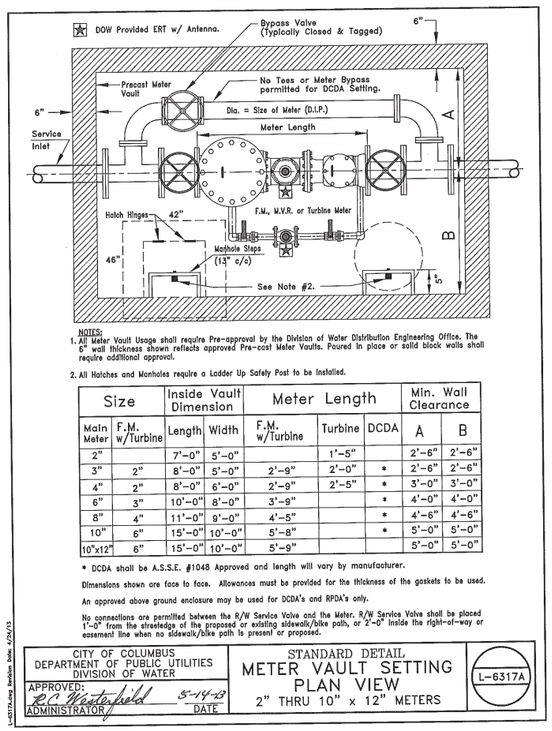
CITY OF COLUMBUS
DEPARTMENT OF PUBLIC UTILITIES
DIVISION OF WATER

APPROVED: R.C. Westerfield 5-14-13
ADMINISTRATOR DATE

STANDARD DETAIL
TYPICAL CURB BOX

L-1001

L-1001Dwg Revision Date: 1/2/13



Size		Inside Vault Dimension		Meter Length			Min. Wall Clearance	
Main Meter	F.M. w/Turbine	Length	Width	F.M. w/Turbine	Turbine	DCDA	A	B
2"		7'-0"	5'-0"		1'-5"		2'-6"	2'-6"
3"	2"	8'-0"	5'-0"	2'-9"	2'-0"	*	2'-6"	2'-6"
4"	2"	8'-0"	6'-0"	2'-9"	2'-5"	*	3'-0"	3'-0"
6"	3"	10'-0"	8'-0"	3'-9"		*	4'-0"	4'-0"
8"	4"	11'-0"	9'-0"	4'-5"		*	4'-6"	4'-6"
10"	6"	15'-0"	10'-0"	5'-8"		*	5'-0"	5'-0"
10"x12"	6"	15'-0"	10'-0"	5'-9"			5'-0"	5'-0"

* DCDA shall be A.S.S.E. #1048 Approved and length will vary by manufacturer.

Dimensions shown are face to face. Allowances must be provided for the thickness of the gaskets to be used.

An approved above ground enclosure may be used for DCDA's and RPDA's only.

No connections are permitted between the R/W Service Valve and the Meter. R/W Service Valve shall be placed 1'-0" from the streetage of the proposed or existing sidewalk/bike path, or 2'-0" inside the right-of-way or easement line when no sidewalk/bike path is present or proposed.

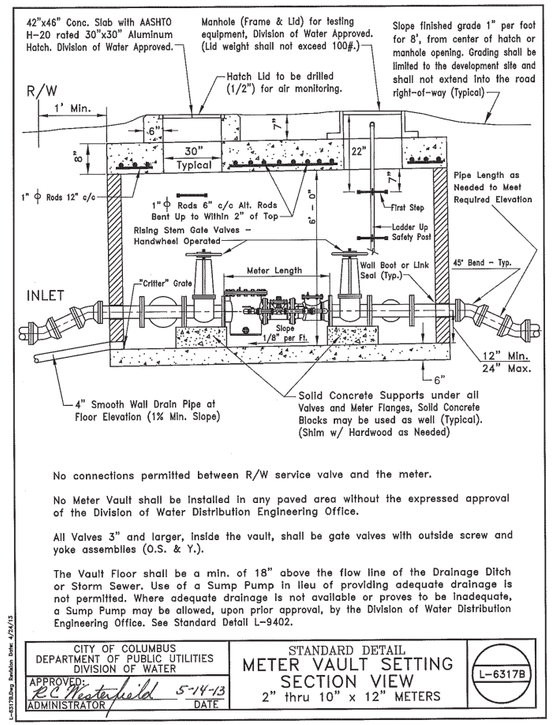
CITY OF COLUMBUS
DEPARTMENT OF PUBLIC UTILITIES
DIVISION OF WATER

APPROVED: R.C. Westerfield 5-14-13
ADMINISTRATOR DATE

STANDARD DETAIL
METER VAULT SETTING
PLAN VIEW
2" THRU 10" x 12" METERS

L-6317A

L-6317A.Dwg Revision Date: 4/24/13



No connections permitted between R/W service valve and the meter.

No Meter Vault shall be installed in any paved area without the expressed approval of the Division of Water Distribution Engineering Office.

All Valves 3" and larger, inside the vault, shall be gate valves with outside screw and yoke assemblies (O.S. & Y.).

The Vault Floor shall be a min. of 18" above the flow line of the Drainage Ditch or Storm Sewer. Use of a Sump Pump in lieu of providing adequate drainage is not permitted. Where adequate drainage is not available or proves to be inadequate, a Sump Pump may be allowed, upon prior approval, by the Division of Water Distribution Engineering Office. See Standard Detail L-9402.

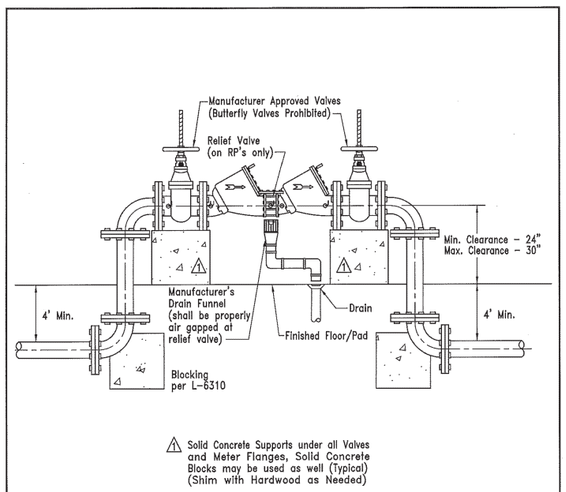
CITY OF COLUMBUS
DEPARTMENT OF PUBLIC UTILITIES
DIVISION OF WATER

APPROVED: R.C. Westerfield 5-14-13
ADMINISTRATOR DATE

STANDARD DETAIL
METER VAULT SETTING
SECTION VIEW
2" thru 10" x 12" METERS

L-6317B

L-6317B.Dwg Revision Date: 4/24/13



CITY OF COLUMBUS
DEPARTMENT OF PUBLIC UTILITIES
DIVISION OF WATER

APPROVED: R.C. Westerfield 5-16-13
ADMINISTRATOR DATE

STANDARD DETAIL
TYPICAL BACKFLOW
PREVENTER SETTING
(INSIDE BUILDING or HOT BOX)
2" THRU 12" METERS

L-9002G

L-9002G.Dwg Revision Date: 4/24/13

EASEMENT REFERENCE			
CITY NO.	COUNTY RECORDER VOL.	COUNTY RECORDER PAGE	GRANTOR

REVISIONS		
NO.	DESCRIPTION	APPROVAL/DATE

PLANS PREPARED BY :

OSBORN
ENGINEERING
990 West Third Avenue, Suite 200
Columbus, Ohio 43212
Ph 614.556.4272

PROJECT TITLE:
PRIVATE WATER SERVICE PLAN
FOR
URBAN AIR ADVENTURE PARK
7679-7685 PLAIN CITY-DUBLIN ROAD (SR161)
DUBLIN, OHIO 43064

DIVISION USE ONLY	OWNER
	CONTRACTOR
	INSPECTOR
	AGREEMENT / COMPLETED
	RPD / CKD / CLD / CON. DR.

CITY OF COLUMBUS
DEPARTMENT OF PUBLIC UTILITIES
DIVISION OF WATER
DIVISION USE ONLY

WATER SERVICE PLAN #5945

SCALE: NTS

SHEET: 1 / 4

CONTRACT DRAWING NO.

RECORD PLAN NO.

ES-A-4000SS

Series 4000SS

Reduced Pressure Zone Assemblies

Sizes: 2½" – 10" (65 – 250mm)

LEAD FREE

Features

- Stainless steel construction provides long term corrosion resistance and maximum strength
- Stainless steel body is half the weight of competitive designs reducing installation & shipping costs
- Short end-to-end dimensions makes retrofit easy
- Cam-check assembly provides maximum flow at low pressure drop
- No special tools required for servicing
- Compact construction allows for smaller enclosures
- Stainless steel relief valve features a balanced rolling diaphragm to eliminate sliding seals and lower maintenance costs

Available Models

Suffix:

NRS – non-rising stem resilient seated gate valves
OSY – UL/FM outside stem and yoke resilient seated gate valves
**OSY FxG – flanged inlet gate connection and grooved outlet gate connection
**OSY GxF – grooved inlet gate connection and flanged outlet gate connection
**OSY GxG – grooved inlet gate connection and grooved outlet gate connection
LG – less gates

Available with grooved NRS gate valves - consult factory**

Post indicator plate and operating nut available – consult factory**

**Consult factory for dimensions

NOTICE

The installation of a drain line is recommended. When installing a drain line, an air gap is necessary. The 4000SS should be installed with a minimum clearance of 12" between lowest point of the assembly and the floor drain or grade.

***The wetted surface of this product contacted by consumable water contains less than (0.25%) of lead by weight.**

Series 4000SS Reduced Pressure Zone Assemblies are designed to provide protection of the potable water supply in accordance with national codes. This series can be used where approved by the local authority having jurisdiction on health-hazard cross-connections. Series 4000SS features short lay length, lightweight stainless steel body, corrosive resistant stainless steel relief valve, and patented cam-check assembly.

Specifications

A Reduced Pressure Zone Assembly shall be installed at each cross-connection to prevent backsiphonage and backpressure of hazardous materials into the potable water supply. The series 4000SS features Lead Free* construction to comply with Lead Free* installation requirements. The assembly shall consist of a pressure differential relief valve located in a zone between two positive seating cam-check assemblies. The main valve body shall be manufactured from 300 Series stainless steel for corrosion resistance. The cam-check assembly shall be of thermoplastic construction with stainless steel hinge pins, cam arm, and cam bearing. The cam-check assembly shall utilize a single torsion spring design to minimize pressure drop through the assembly. The cam-check assembly shall be modular and shall seal to the main valve body by the use of an O-ring. There shall be no brass or bronze parts used within the check assembly or relief valve. The use of seat screws to retain the check valve seat is prohibited. All internal parts shall be accessible through a single cover on the valve assembly securely held in place by a two-bolt grooved coupling. The differential relief valve shall be of stainless steel construction and shall utilize a rolling diaphragm and no sliding seals. The relief valve shall be bottom mounted and supplied with a steel reinforced sensing hose. The assembly shall include two resilient seated shutoff valves & four ball type test cocks. The assembly shall be an Ames Company Series 4000SS.

Standards

AWWA C511-92

Approvals

1013 | 864.5 | Sizes 2½" – 10", OSY | OSY Only

NOTICE

When installing a drain line on Series 4000SS backflow preventer, use air gap.

See Literature ES-A-AG/EL/TC for additional information.

Job Name _____ Contractor _____

Job Location _____ Approval _____

Engineer _____ Contractor's P.O. No. _____

Approval _____ Representative _____

amesfirewater.com

ES-A-4000SS 1410

Materials

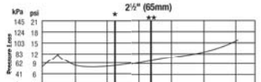
All internal metal parts: 300 Series stainless steel
Main valve body: 300 Series stainless steel
Check assembly: Noryl®
Flange dimension in accordance with AWWA Class D

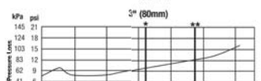
Capacity

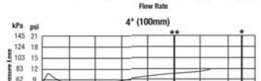
Series 4000SS performance as established by an independent testing laboratory (1996 UL). UL certified flow characteristics.

Documented flow characteristics (including shutoff valves).

*UL Rated **UL Tested

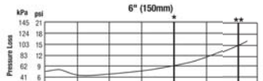


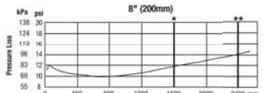


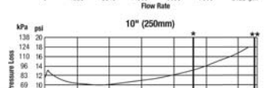


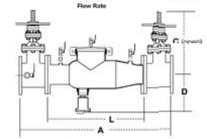
Pressure — Temperature

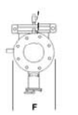
Temperature Range: 33°F – 110°F (0.5°C – 43°C)
Maximum Working Pressure: 175psi (12.1 bar)











Dimensions – Weights

Note: Strainer sold separately

SIZE	DIMENSIONS A		C (OSY)		C(NRS)		D		F		L		NET WEIGHT w/Gates		w/o Gates	
in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	lb.	kg.	lb.	kg.
2½	65	37	940	16⅝	416	9⅜	238	10½	267	7	178	22	559	148	67	60	27
3	80	38	965	18⅛	479	10¼	260	10½	267	7½	191	22	559	226	103	62	28
4	100	40	1016	22⅛	578	12⅞	310	10½	267	9	229	22	559	235	107	65	30
6	150	48½	1232	30⅛	765	16	406	11½	292	11	279	27½	699	380	172	110	50
8	200	52½	1334	37⅛	959	19 15/16	506	12½	318	13½	343	29½	749	571	259	179	81
10	250	55½	1410	45⅛	1162	23 13/16	605	12½	318	16	406	29½	749	773	351	189	86

Noryl® is a registered trademark of General Electric Company

NOTICE

Inquire with governing authorities for local installation requirements

A Watts Water Technologies Company

USA: Backflow Tel: (978) 689-6066 • Fax: (978) 975-8350 • AmesFireWater.com
USA: Control Valves Tel: (713) 943-0688 • Fax: (713) 944-9445 • AmesFireWater.com
Canada: Tel: (905) 332-4090 • Fax: (905) 332-7068 • AmesFireWater.ca
Latin America: Tel: (52) 81-1001-8600 • Fax: (52) 81-8000-7091 • AmesFireWater.com

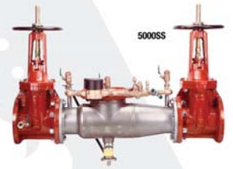
ES-A-4000SS 1410

ES-A-5000SS

Series 5000SS

Reduced Pressure Detector Assemblies

Sizes: 2½" – 6" (65 – 150mm)



Features

- Stainless steel construction provides long term corrosion resistance and maximum strength
- Stainless steel body is light weight reducing installation and shipping costs
- Short end to end dimensions makes retrofit easy
- Bottom mounted relief valve reduces clearance requirements when installed against an outside wall
- Cam-check valves provides maximum flow at low pressure drop
- No special tools required for servicing
- Compact construction allows for smaller enclosures
- Stainless steel relief valve features a balanced rolling diaphragm to eliminate sliding seals and lower maintenance costs
- Detects underground leaks and unauthorized water use.
- GPM or CFM meter available

Available Models

Suffix:

LG - less gates
OSY - UL/FM outside stem and yoke resilient seated gate valves
*OSY FxG – flanged inlet gate connection and grooved outlet gate connection
*OSY GxF – grooved inlet gate connection and flanged outlet gate connection
*OSY GxG – grooved inlet gate connection and grooved outlet gate connection
¾" Bypass Line:
CFM - cubic feet per minute meter
GPM - gallons per minute meter
LM - less meter

Available with grooved NRS gate valves - consult factory*

Post indicator plate and operating nut available – consult factory*

*Consult factory for dimensions

NOTICE **The installation of a drain line is recommended. When installing a drain line, an air gap is necessary.**

The SilverBullet™ Series 5000SS Reduced Pressure Detector Assemblies are designed to protect drinking water supplies from dangerous cross-connections in accordance with national plumbing codes and water authority requirements for non-potable service applications such as irrigation, fireline, or industrial processing. Used in health hazard applications.

Specifications

A Reduced Pressure Detector Assembly shall be installed at each cross-connection to prevent backsiphonage and backpressure of hazardous materials into the potable water supply. The assembly shall consist of a pressure differential relief valve located in a zone between two positive seating cam-check valves. The main valve body shall be manufactured from 300 Series stainless steel for corrosion resistance. The cam-check valves shall be of thermoplastic construction with stainless steel hinge pins, cam arm, and cam bearing. The cam-check valve shall utilize a single torsion spring design to minimize pressure drop through the assembly. The cam-check valves shall be modular and shall seal to the main valve body by the use of an O-ring. There shall be no brass or bronze parts used within the cam-check assembly or relief valve. The use of seat screws to retain the check valve seat is prohibited. All internal parts shall be accessible through a single cover on the valve assembly securely held in place by a two-bolt grooved coupling. The differential relief valve shall be of stainless steel construction and shall utilize a rolling diaphragm and no sliding seals. The relief valve shall be bottom mounted and supplied with a steel reinforced sensing hose. The assembly shall include two resilient shutoff valves and four ball type test cocks and a hydraulically balanced by-pass line. The bypass line shall include a meter, small diameter reduced pressure zone assembly and isolation valves. The bypass reduced pressure assembly shall have a single bolted on cover and top mounted test cocks. The assembly shall be an Ames Company Series 5000SS.

Job Name _____ Contractor _____

Job Location _____ Approval _____

Engineer _____ Contractor's P.O. No. _____

Approval _____ Representative _____

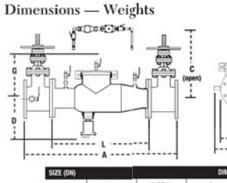
amesfirewater.com

ES-A-5000SS 1409

Materials

- All internal metal parts: 300 Series stainless steel
- Main valve body: 300 Series stainless steel
- Check assembly: Noryl®
- Flange dimension in accordance with AWWA Class D

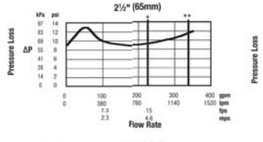
Dimensions — Weights

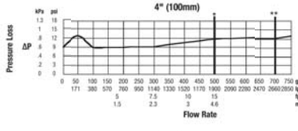


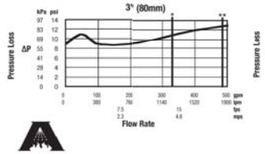
SIZE (DN)	DIMENSIONS A		B		C (OSY)		D		E		F		G		L		WEIGHTS with Gates		without Gates	
in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	lbs.	kgs.	lbs.	kgs.
2½	65	37	940	16½	416	10½	267	12½	318	7	178	10	254	22	559	170	77	61	28		
3	80	38	965	18¼	479	10½	267	13	330	7½	191	10	254	22	559	205	93	65	29		
4	100	40	1016	22⅛	578	10½	267	14½	368	9	229	10	254	22	559	270	122	67	30		
6	150	48½	1232	30⅛	765	11½	292	15½	394	11	279	11½	292	27½	699	405	184	105	48		

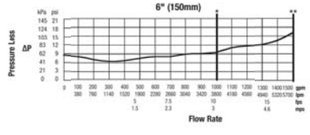
Capacity

*UL Rated **UL Tested









⚠ WARNING

It is illegal to use this product in any plumbing system providing water for human consumption, such as drinking or dishwashing, in the United States. Before installing standard material product, consult your local water authority, building and plumbing codes.

Pressure — Temperature

Temperature Range: 33°F – 110°F (0.5°C – 43°C)
Maximum Working Pressure: 175psi (12.1 bar)

Standards

AWWA C511-92

Approvals

1047 Horizontal | 864.5

NOTICE

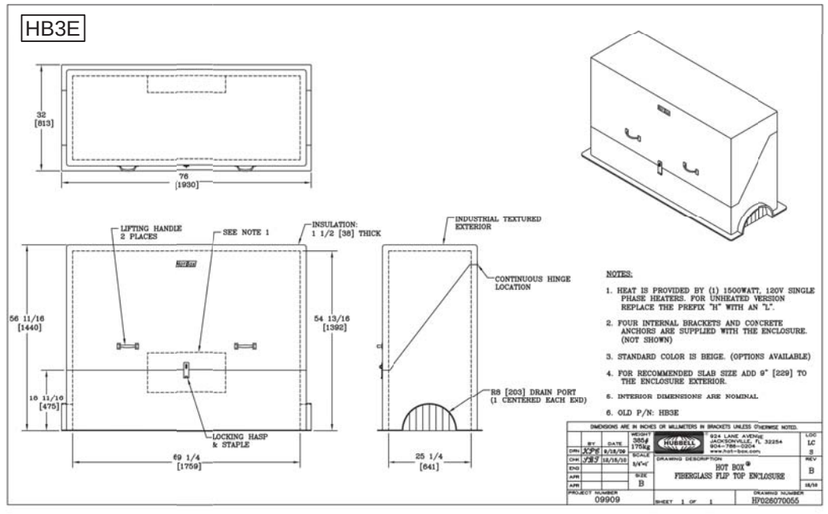
Inquire with governing authorities for local installation requirements

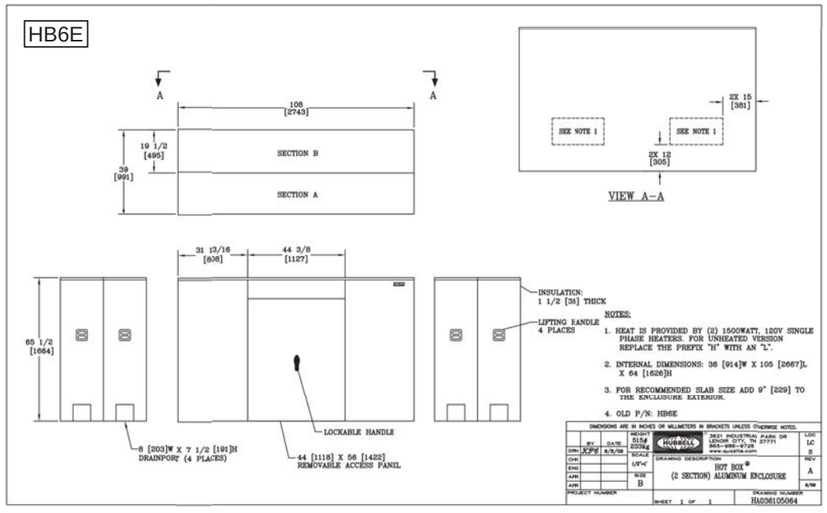
Noryl® is a registered trademark of General Electric Company.

A Watts Water Technologies Company

USA: Backflow Tel: (978) 689-6066 • Fax: (978) 975-8350 • AmesFireWater.com
USA: Control Valves Tel: (713) 943-0688 • Fax: (713) 944-9445 • AmesFireWater.com
Canada: Tel: (905) 332-4090 • Fax: (905) 332-7068 • AmesFireWater.ca
Latin America: Tel: (52) 81-1001-8600 • Fax: (52) 81-8000-7091 • AmesFireWater.com

ES-A-5000SS 1409





EASEMENT REFERENCE				REVISIONS		
CITY NO.	COUNTY RECORDER VOL.	COUNTY RECORDER PAGE	GRANTOR	NO.	DESCRIPTION	APPROVAL/DATE

PLANS PREPARED BY :

OSBORN ENGINEERING
990 West Third Avenue, Suite 200
Columbus, Ohio 43212
Ph 614.556.4272

PROJECT TITLE:

PRIVATE WATER SERVICE PLAN
FOR
URBAN AIR ADVENTURE PARK
7679-7685 PLAIN CITY-DUBLIN ROAD (SR161)
DUBLIN, OHIO 43064

DIVISION USE ONLY	OWNER
	CONTRACTOR
	INSPECTOR
	AGREEMENT / COMPLETED
	RPD / CKD / CLD / CON. DR.

CITY OF COLUMBUS
DEPARTMENT OF PUBLIC UTILITIES
DIVISION OF WATER
DIVISION USE ONLY

WATER SERVICE PLAN #5945

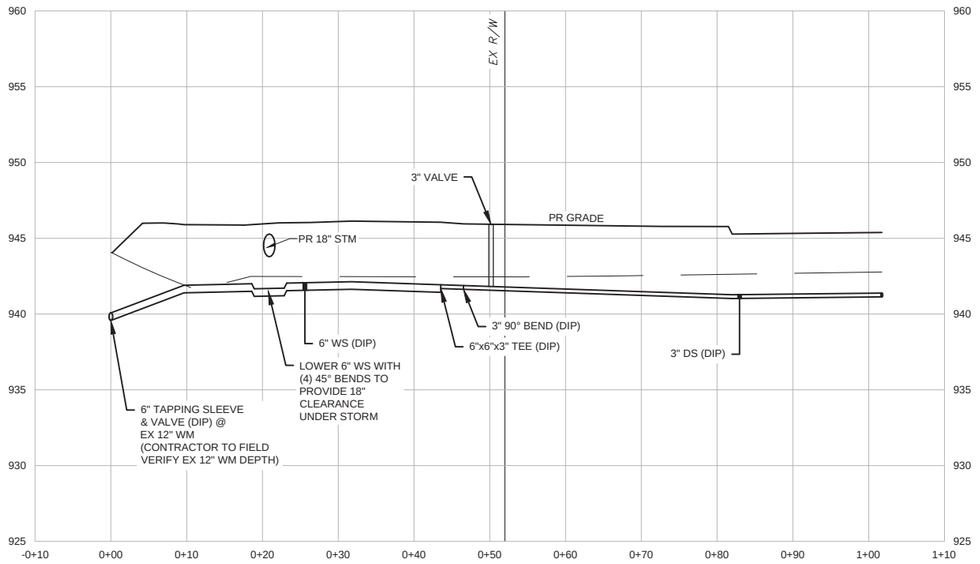
SCALE: NTS

SHEET: 3 / 4

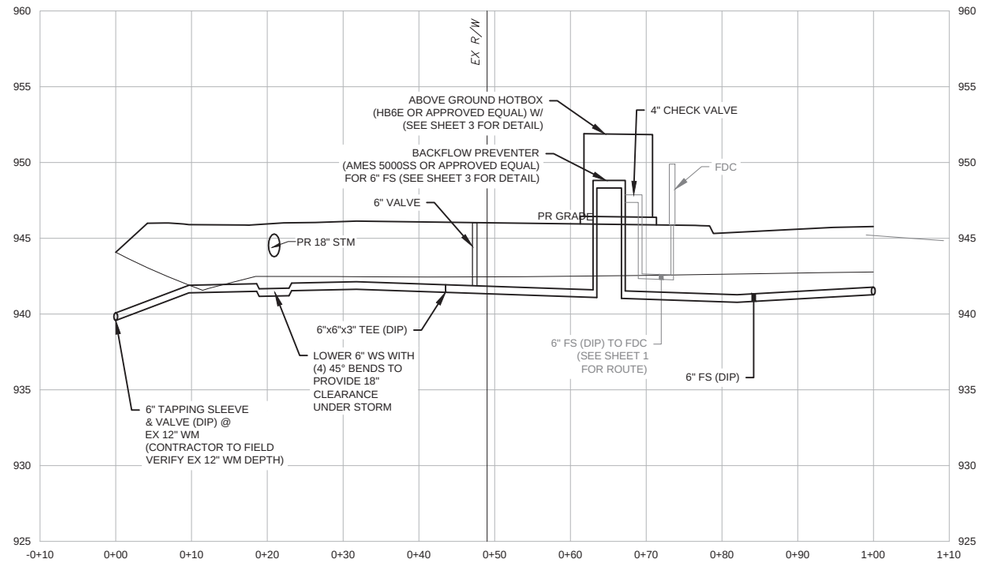
CONTRACT DRAWING NO.

RECORD PLAN NO.

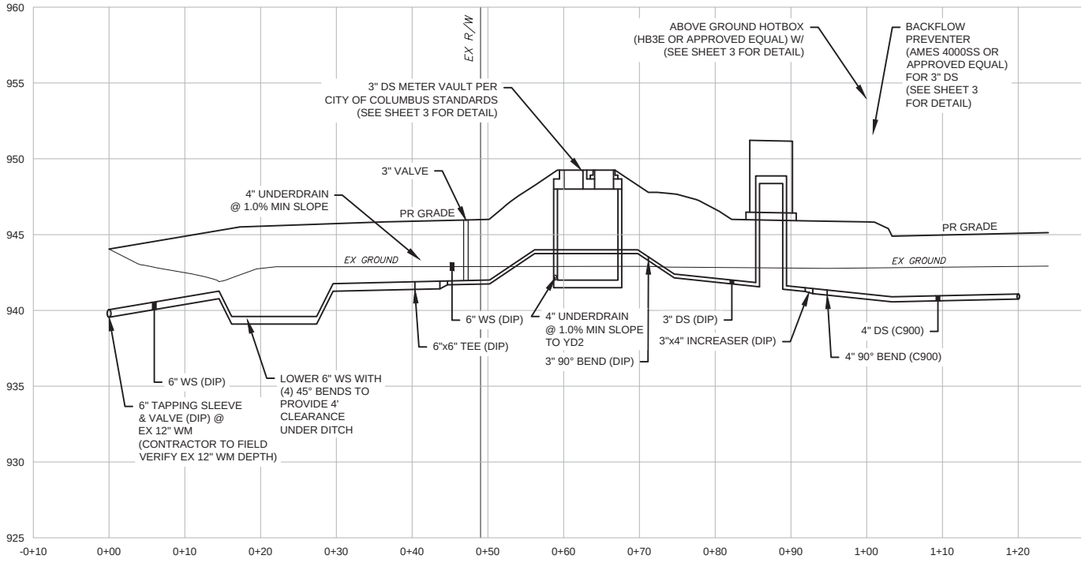
PHASE 1 DOMESTIC SERVICE PROFILE



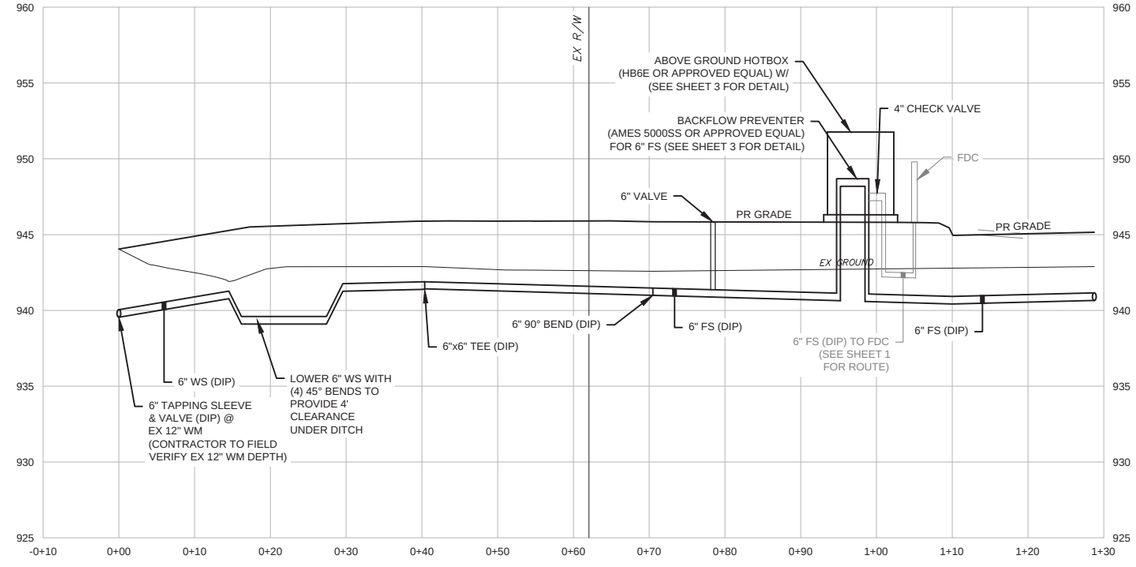
PHASE 1 FIRE SERVICE PROFILE



PHASE 2 DOMESTIC SERVICE PROFILE



PHASE 2 FIRE SERVICE PROFILE



VERTICAL SCALE

5 0 2.5 5

(IN FEET)

1 inch = 5 ft.

HORIZONTAL SCALE

10 0 5 10

(IN FEET)

1 inch = 10 ft.

EASEMENT REFERENCE			
CITY NO.	COUNTY RECORDER VOL.	COUNTY RECORDER PAGE	GRANTOR

REVISIONS		
NO.	DESCRIPTION	APPROVAL/DATE

PLANS PREPARED BY :

OSBORN ENGINEERING

990 West Third Avenue, Suite 200
Columbus, Ohio 43212
Ph 614.556.4272

PROJECT TITLE:

PRIVATE WATER SERVICE PLAN
FOR
URBAN AIR ADVENTURE PARK
7679-7685 PLAIN CITY-DUBLIN ROAD (SR161)
DUBLIN, OHIO 43064

DIVISION USE ONLY	OWNER
	CONTRACTOR
	INSPECTOR
	AGREEMENT / COMPLETED
	RPD / CKD / CLD / CON. DR.

CITY OF COLUMBUS
DEPARTMENT OF PUBLIC UTILITIES
DIVISION OF WATER
DIVISION USE ONLY

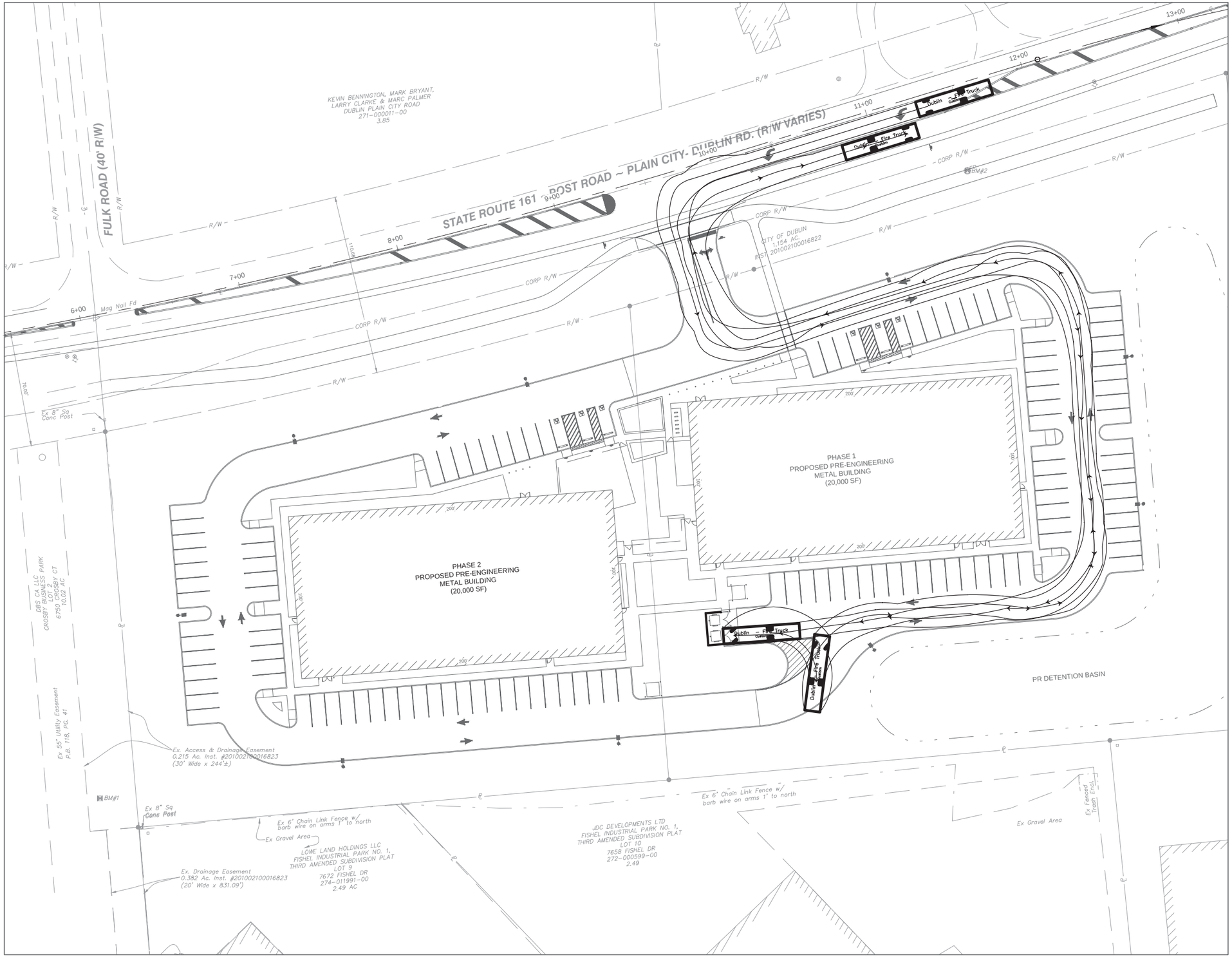
WATER SERVICE PLAN #5945

SCALE: 1"=10'H
1"=5'V

SHEET: 4 / 4

CONTRACT DRAWING NO.

RECORD PLAN NO.



NORTH

GRAPHIC SCALE

30 0 15 30

(IN FEET)

1 inch = 30 ft.

m+a

775 Yard Street, Suite 325
Columbus, Ohio 43212
p 614 764 0407
f 614 764 0237
www.ma-architects.com

OSBORN
ENGINEERING
1100 Superior Ave - Suite 300 | Cleveland, OH 44114
441 Wolf Ledges Road - Suite 300 | Akron, OH 44311
990 West Third Avenue | Columbus, OH 43212

URBAN AIR

7679-7685 PLAIN CITY-DUBLIN ROAD | DUBLIN, OH 43064

STATUS:

REVISION:

PROJECT NUMBER:
2016.223

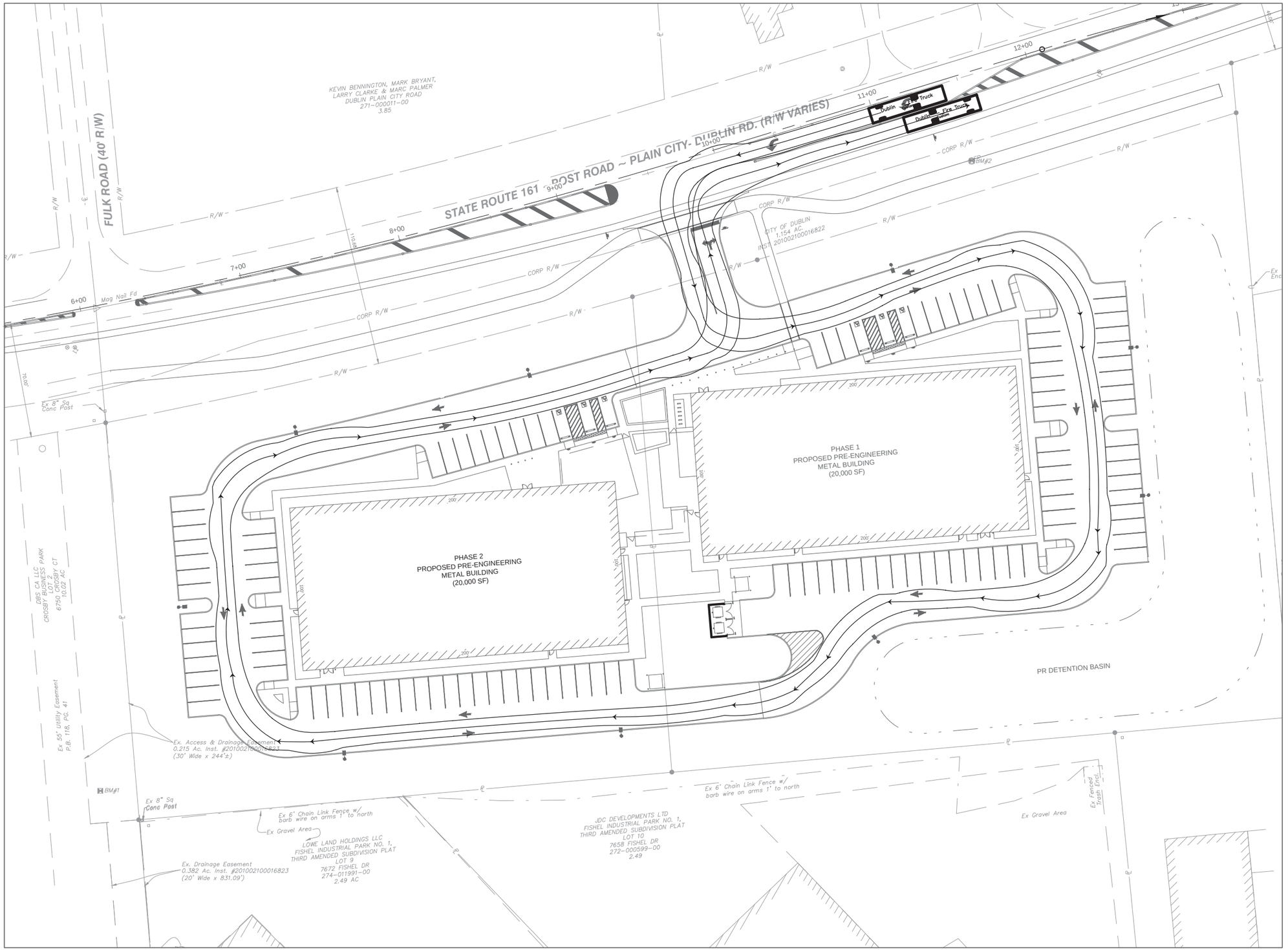
DRAWN BY:
SF

DATE:
23 MARCH 2018

SHEET NAME:
TRUCK EXHIBIT
PHASE 1

SHEET NUMBER:
TT-1

m+a architects



NORTH

GRAPHIC SCALE

30 0 15 30

(IN FEET)

1 inch = 30 ft.

775 Yard Street, Suite 325
Columbus, Ohio 43212
p 614 764 0407
f 614 764 0237
www.ma-architects.com

OSBORN ENGINEERING
1100 Superior Ave - Suite 300 | Cleveland, OH 44114
441 Wolf Ledges Road - Suite 300 | Akron, OH 44311
990 West Third Avenue | Columbus, OH 43212

URBAN AIR

7679-7685 PLAIN CITY-DUBLIN ROAD | DUBLIN, OH 43064 |

STATUS:

REVISION:

PROJECT NUMBER: 2016.223

DRAWN BY: SF

DATE: 23 MARCH 2018

SHEET NAME: TRUCK EXHIBIT PHASE 2

SHEET NUMBER: TT-2

ma architects