# CITY OF DUBLIN, OHIO

# TUSWELL DRIVE WATERLINE RELOCATION



LEGEND

16-012-CIP

-T- EX UNDERGROUND TELEPHONE, PEDESTAL PROP WATER LINE PROP WATER VALVE AND HYDRANT E EX UNDERGROUND ELECTRIC, PEDESTAL =(0)===== EX STORM SEWER, MANHOLE, CATCH BASIN - -G - -G - EX GAS LINE. VALVE -----ET EX LIGHTING CONDUIT, PULL BOX ---EX R/W--- EX RIGHT-OF-WAY LINE HTEL GAS/TELEPHONE MARKER PROP RIGHT-OF-WAY LINE POLE GUY WIRE EX SIGN MAILBOX TREE, TREE TO BE REMOVED IRON PIN FOUND -• - CONSTRUCTION LIMITS DEFL - DEFLECTION LF - LINEAR FEET EX CURB AND GUTTER STA - STATION ELEV - ELEVATION ---- EX EDGE OF PAVEMENT EX - EXISTING STD - STANDARD ----- EX SIDEWALK PROP - PROPOSED EX PAVEMENT TO BE REMOVED 英一W一 壶 EX WATER MAIN, HYDRANT AND, VALVE HORIZ - HORIZONTAL WM - WATER MAIN - SAN - - (SA) EX SANITARY SEWER AND MANHOLE

SHIER-RINGS RE Dublin

PROJECT AREA

## BENCHMARKS (NAVD 88)

CONTROL ROADWAY MONUMENT, DESIGNATED # 2211RESET, LOCATED AT THE CENTERLINE INTERSECTION OF AVERY ROAD WITH WOERNER TEMPLE ROAD. ELEV. = 925.32

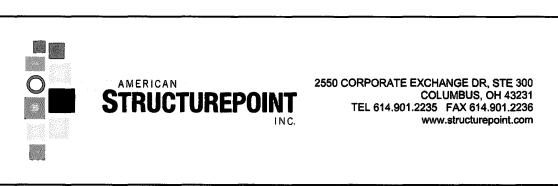
TOP OF ALUMINUM I.D. CAP INSIDE OF FRANKLIN COUNTY SURVEY CONTROL ROADWAY MONUMENT, DESIGNATED # 7748, LOCATED AT THE CENTERLINE OF AVERY ROAD. ELEV = 927.18

TOP OF ALUMINUM I.D. CAP INSIDE OF FRANKLIN COUNTY SURVEY CONTROL ROADWAY MONUMENT, DESIGNATED # 7749, LOCATED AT THE CENTERLINE OF AVERY ROAD. ELEV. = 924.47

TOP OF ALUMINUM I.D. CAP INSIDE OF FRANKLIN COUNTY SURVEY CONTROL ROADWAY MONUMENT, DESIGNATED # 7750, LOCATED AT THE CENTERLINE OF AVERY ROAD. ELEV. = 923.19



PLAN PREPARED BY:



LATITUDE: N 40° 05′ 23″ LONGITUDE: W 83° 09′ 30″

LOCATION MAP

SCALE IN MILES



STANDARD CONSTRUCTION DRAWINGS								
CITY OF DUBLIN		CITY OF	COLUMBUS	O.D.O.T.				
RD-05	05/01/14	L-6309A	05/14/13					
WA-01	05/01/14	L-6309B	05/14/13					
		L-6309E	05/14/13					
		L-6310	05/14/13					
_		L-6311	05/14/13					
		L-6312	05/14/13					
		L-6637A	05/16/13					
		L-7401	05/05/15					
					<del></del>			

INDEX

TITLE SHEET 2 - 3 GENERAL NOTES SURVEY COORDINATE DATA, GENERAL SUMMARY 6" WATER MAIN PLAN AND PROFILE 12" WATER MAIN PLAN AND PROFILE

> MICHAEL " 5/31/2016

> > DATE

CITY OF DUBLIN

MICHAEL T. LONG, P.E.

SIGNATURES BELOW SIGNIFY ONLY CONCURRENCE WITH THE GENERAL PURPOSES AND GENERAL LOCATION OF THE PROJECT. ALL TECHNICAL DETAILS REMAIN THE

ESPONSIBILITY OF THE ENGINEER PREPARING THE PLANS.

6.7.2016 DATE

P.E. NO. 75319

CITY ENGINEER / DIRECTOR OF ENGINEERING PAUL A. HAMMERSMITH, P.E.

CITY OF COLUMBUS

APPROVAL ON THE PART OF THE CITY OF COLUMBUS IS GIVEN PURSUANT TO THE PROVISIONS OF THE WATER SERVICE AGREEMENT BETWEEN THE CITY OF DUBLIN AND THE CITY OF COLUMBUS, OHIO, ON APRIL 13, 1993 AND ALL SUBSEQUENT AMENDMENTS THEREOF.

TEH L.C. Westerfield DP ADMINISTRATOR, DIVISION OF WATER

6/20/16 DATE

Jacie Davis by anluty DIRECTOR, DEPARTMENT OF PUBLIC UTILITIES

6.21.2016 DATE

#16-034

#### GENERAL

THE CONTRACTOR INTENDING TO SUBMIT A BID FOR THIS PROJECT SHALL BE PREQUALIFIED WITH THE OHIO DEPARTMENT OF TRANSPORTATION IN ACCORDANCE WITH SECTION 102 OF THE ODOT CONSTRUCTION AND MATERIAL SPECIFICATIONS. AND CHAPTER 5525 OF THE OHIO REVISED CODE CONCERNING CONSTRUCTION CONTRACTS.

ALL ITEMS OF WORK CALLED FOR ON THE PLANS FOR WHICH NO SPECIFIC METHOD OF PAYMENT IS PROVIDED SHALL BE PERFORMED BY THE CONTRACTOR WITH THE COST TO BE INCLUDED IN THE UNIT PRICE BID FOR THE VARIOUS RELATED ITEMS.

IT IS THE INTENTION OF THE CONTRACT DOCUMENTS TO PROVIDE AND REQUIRE A COMPLETED PROJECT READY FOR OPERATION. ANY WORK ITEMS OMITTED FROM THE CONTRACT DOCUMENTS WHICH ARE CLEARLY NECESSARY FOR COMPLETION OF THE WORK AND ITS APPURTENANCES SHALL BE CONSIDERED A PART OF SUCH WORK, THOUGH NOT DIRECTLY SPECIFIED OR CALLED FOR IN THE CONTRACT DOCUMENTS. THIS INCLUDES, BUT IS NOT LIMITED TO, SUCH INCIDENTAL ITEMS AS RELOCATION OF MAIL BOXES. SAW CUTTING. AND REMOVAL AND/OR RELOCATION OF SIGNS, SPRINKLERS, OR OTHER MISCELLANEOUS ITEMS.

THE CITY ENGINEER IS NOT RESPONSIBLE FOR MEANS, METHODS, PROCEDURES, TECHNIQUES, OR SEQUENCES OF CONSTRUCTION THAT ARE NOT SPECIFIED HEREIN. THE CITY ENGINEER IS NOT RESPONSIBLE FOR SAFETY ON THE WORK SITE. OR FOR FAILURE BY THE CONTRACTOR TO PERFORM WORK ACCORDING TO THE CONTRACT DOCUMENTS.

THE CONTRACTOR SHALL NOTIFY THE CITY OF DUBLIN DIVISION OF ENGINEERING AT LEAST 3 WORKING DAYS PRIOR TO BEGINNING CONSTRUCTION.

THE DEVELOPER AND/OR CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS.

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 CAUTION 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.

ANY MODIFICATIONS TO THE WORK AS SHOWN ON THESE APPROVED PLANS SHALL HAVE PRIOR WRITTEN APPROVAL OF THE CITY ENGINEER.

THE CONTRACTOR SHALL NOT ORDER MATERIALS OR PERFORM WORK FOR ITEMS DESIGNATED BY PLAN NOTE TO BE USED "AS DIRECTED BY THE ENGINEER" UNLESS AUTHORIZED BY THE CITY ENGINEER.

FOLLOWING COMPLETION OF CONSTRUCTION, A PROOF SURVEY SHALL BE PROVIDED BY THE CONTRACTOR DOCUMENTING AS-BUILT INFORMATION ON ALL PUBLIC UTILITIES (SANITARY, STORM, WATER) COMPLETED AS PART OF THIS PROJECT. THE SURVEY SHALL BE PREPARED AND SIGNED BY AN OHIO PROFESSIONAL SURVEYOR. THE CONTRACTOR SHALL REVISE THE ORIGINAL MYLARS IN RED INK, TO THE SATISFACTION OF THE CITY, SHOWING ALL CHANGES IN THE WORK. THE COST OF THE PROOF SURVEY. INCLUDING MYLAR REVISIONS, WILL BE PAID AT THE LUMP SUM PRICE BID FOR ITEM SPECIAL - PROOF SURVEY.

THE CONTRACTOR SHALL RESTRICT CONSTRUCTION ACTIVITY TO PUBLIC RIGHT-OF-WAY, AREAS DEFINED AS PERMANENT AND/OR TEMPORARY CONSTRUCTION EASEMENTS. AND/OR THE LIMITS OF DISTURBANCE SHOWN.

PROPERTY BOUNDARIES, INCLUDING PROPERTY LINES AND ROAD RIGHT-OF-WAY, ARE SHOWN FROM THE BEST INFORMATION AVAILABLE AND ARE NOT NECESSARILY COMPLETE OR CORRECT.

THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. THE INSTALLATION AND OPERATION OF ALL TEMPORARY TRAFFIC CONTROL AND TEMPORARY TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS SHALL BE PROVIDED BY THE CONTRACTOR WHETHER INSIDE OR OUTSIDE THE WORK LIMITS.

TEMPORARY EASEMENTS ARE INTENDED FOR USE BY THE CONTRACTOR FOR CONSTRUCTION AND GRADING PURPOSES ONLY. THE CONTRACTOR SHALL NOT USE RIGHTS-OF-WAY OR TEMPORARY EASEMENTS FOR STORAGE OF EQUIPMENT OR MATERIALS UNLESS THE ADJACENT PROPERTY OWNER(S) AGREES TO SUCH USE AND THE CONTRACTOR HAS OBTAINED WRITTEN APPROVAL FROM THE CITY. COMPLIANCE WITH THIS REQUIREMENT ALONG WITH ADDITIONAL PROVISIONS OF THE CONTRACT SPECIFICATIONS SHALL NOT IN ANY WAY RELIEVE THE CONTRACTOR OF HIS LEGAL RESPONSIBILITIES OR I TABILITIES FOR THE SAFETY OF THE PUBLIC. THE CONTRACTOR SHALL INFORM THE CITY OF ANY PLAN FOR ON-SITE STORAGE OF EQUIPMENT AND MATERIALS AT THE PRECONSTRUCTION MEETING.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE FINISHED WORK CONFORMING TO THE LINES, GRADES, ELEVATIONS, AND DIMENSIONS CALLED FOR ON THE DRAWINGS AND TYPICAL SECTIONS. PAYMENT FOR CONSTRUCTION LAYOUT SHALL BE MADE AT THE LUMP SUM PRICE BID FOR ITEM 623 -CONSTRUCTION LAYOUT STAKES.

THE CONTRACTOR SHALL CAREFULLY PRESERVE BENCH MARKS, PROPERTY CORNERS, REFERENCE POINTS, STAKES, AND OTHER SURVEY REFERENCE MONUMENTS OR MARKERS. IN CASES OF 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 AT THE CONTRACTOR'S EXPENSE.

THE CONTRACTOR SHALL RESTORE ALL DISTURBED AREAS TO EQUAL OR BETTER CONDITION THAN EXISTED BEFORE CONSTRUCTION. DRAINAGE DITCHES OR WATER COURSES THAT ARE DISTURBED BY CONSTRUCTION SHALL BE RESTORED TO THE GRADES AND CROSS-SECTIONS THAT EXISTED BEFORE CONSTRUCTION.

ALL SIGNS, FENCES, LANDSCAPING, STRUCTURES, OR OTHER APPURTENANCES DISTURBED OR DAMAGED DURING CONSTRUCTION SHALL BE REPLACED OR REPAIRED TO THE SATISFACTION OF THE CITY ENGINEER. THE COST OF THIS WORK SHALL BE PAID FOR BY THE CONTRACTOR.

WHERE THE WORK REQUIRES REMOVAL OF BUSINESS SIGNS OR PRIVATE LANDSCAPING SUCH AS DECORATIVE ROCKS. CROSSTIES, FENCES, OR OTHER SALVAGEABLE AND REUSABLE ITEMS. THE CONTRACTOR SHALL COORDINATE SUCH REMOVAL WITH THE PROPERTY OWNER PRIOR TO THE START OF WORK. IF THESE ITEMS CANNOT BE REPLACED TO THEIR ORIGINAL LOCATION FOLLOWING COMPLETION OF THE WORK, THE CONTRACTOR SHALL BE OBLIGATED TO RELOCATE THESE ITEMS TO A STORAGE FACILITY OF THE OWNER'S CHOICE LOCATED ON THE SAME PROPERTY. IF THE PROPERTY OWNER DOES NOT WISH TO SALVAGE THESE ITEMS THEN THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER REMOVAL AND DISPOSAL. PUBLIC PROPERTY TO BE SALVAGED MUST BE DELIVERED BY THE CONTRACTOR TO THE MAINTENANCE FACILITY ON SHIER RINGS ROAD. THE COST FOR THIS WORK SHALL BE INCLUDED IN THE VARIOUS RELATED ITEMS OF THE CONTRACT.

NON-RUBBER TIRED VEHICLES SHALL NOT BE MOVED ON OR ACROSS PUBLIC STREETS OR HIGHWAYS WITHOUT WRITTEN PERMISSION FROM THE CITY ENGINEER.

TRACKING OR SPILLING MUD. DIRT. OR DEBRIS UPON STREETS, RESIDENTIAL OR COMMERCIAL DRIVES, SIDEWALKS, OR SHARED-USE PATHS IS PROHIBITED AND ANY SUCH OCCURRENCE SHALL BE CLEANED UP IMMEDIATELY BY THE CONTRACTOR. IF THE CONTRACTOR FAILS TO REMOVE THE MUD, DIRT, DEBRIS, OR SPILLAGE, THE CITY OF DUBLIN RESERVES THE RIGHT TO REMOVE THESE MATERIALS AND CLEAN AFFECTED AREAS, THE COST OF WHICH SHALL BE WITHHELD FROM MONIES THAT ARE DUE OR MAY BECOME DUE THE CONTRACTOR.

THE CONTRACTOR'S CONSTRUCTION ACTIVITIES SHALL BE CONDUCTED SO AS TO ELIMINATE ALL UNNECESSARY NOISE. DUST. AND ODORS. THE USE OF OIL OR OTHER MATERIAL FOR DUST CONTROL, WHICH MAY CAUSE TRACKING, IS NOT PERMITTED.

ANY DEVICE SHALL NOT BE OPERATED AT ANY TIME IN SUCH A MANNER THAT THE NOISE CREATED SUBSTANTIALLY EXCEEDS THE NOISE CUSTOMARILY AND NECESSARILY ATTENDANT TO THE REASONABLE AND EFFICIENT PERFORMANCE OF SUCH EQUIPMENT.

ALL NON-PAVEMENT AREAS DISTURBED WITHIN THE DESIGNATED EASEMENTS, RIGHTS-OF-WAY, AND LIMITS OF DISTURBANCE AS SHOWN, SHALL BE SEEDED AND MULCHED IN ACCORDANCE WITH ITEM SPECIAL - SEEDING AND MULCHING, AS PER PLAN. ALL AREAS DISTURBED OUTSIDE THESE LIMITS SHALL BE SEEDED AND MULCHED AT THE CONTRACTOR'S EXPENSE.

#### UTILITIES

LISTED BELOW ARE ALL UTILITIES THAT ARE KNOWN TO BE LOCATED WITHIN THE PROJECT CONSTRUCTION LIMITS TOGETHER WITH THEIR PROSPECTIVE OWNERS:

COLUMBIA GAS OF OHIO 3350 JOHNNY APPLESEED CT. COLUMBUS, OHIO 43231 (614) 818-2113 CELL: (614) 315-3770 ATTN: MATT MYERS

CITY OF DUBLIN DIVISION OF ENGINEERING 5800 SHIER-RINGS ROAD DUBLIN, OHIO 43016 (614) 410-4621 ATTN: MIKE SWEDER. P.E.

TIME WARNER TELECOM 3760 INTERCHANGE DRIVE COLUMBUS, OH 43204 OFFICE: (614) 481-5262 ATTN: RAY MAURER

COLUMBUS DEPARTMENT OF UTILITIES (WATER) 910 DUBLIN ROAD COLUMBUS, OH 43215 (614) 645-7788

FRONTIER COMMUNICATIONS 2780 LIBERTY STREET DELAWARE, OH 43015 (740) 363-3450 ATTN: ROBERT CARDUCCI

AEP850 TECH CENTER DRIVE GAHANNA, OH 43230 OFFICE: (614) 883-6831 ATTN: PAUL PAXTON

WOW INTERNET CABLE & PHONE 3675 CORPORATE DRIVE COLUMBUS, OH 43231 OFFICE: (614) 948-4616 ATTN: MARK FREY

THE CONTRACTOR SHALL GIVE NOTICE OF INTENT TO CONSTRUCT TO OHIO UTILITIES PROTECTION SERVICE (TELEPHONE NUMBER 811 OR 800-362-2764) 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.

THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS AS REQUIRED BY SECTION 153.64 O.R.C. AND ARE SHOWN AS ACCURATELY AS PROVIDED BY 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 PLANS. IF DAMAGE IS CAUSED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR OF THE SAME AND FOR ANY RESULTING CONTINGENT DAMAGE.

LOCATION, SUPPORT, PROTECTION AND RESTORATION OF ALL EXISTING UTILITIES AND APPURTENANCES, SHOWN OR NOT SHOWN ON THE PLANS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE COST OF THIS WORK SHALL BE INCLUDED IN THE PRICES BID FOR THE VARIOUS ITEMS OF THE CONTRACT.

WHEN UNKNOWN OR INCORRECTLY LOCATED UNDERGROUND UTILITIES ARE ENCOUNTERED DURING CONSTRUCTION. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE UTILITY OWNER AND THE CITY ENGINEER.

#### ITEM 608 - 4" CONCRETE WALK, AS PER PLAN

IN ADDITION TO THE CONCRETE WALK, THE CONTRACTOR SHALL SHAPE AND UNIFORMLY COMPACT THE SUBGRADE TO A SURFACE CONFORMING TO THE PLANS AND THE REQUIREMENTS OF ITEM 204 AND PLACE A 4" BASE OF #57 CRUSHED AGGREGATE THE FULL WIDTH OF THE WALK. THE COST OF THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR ITEM 608 - 4" CONCRETE WALK, AS PER PLAN.

#### ITEM 653 - 3" TOPSOIL FURNISHED AND PLACED, AS PER PLAN

A MINIMUM 3 INCHES OF TOPSOIL SHALL BE PLACED IN ALL AREAS TO BE SEEDED. PRIOR TO PLACING TOPSOIL IN CUT AREAS. THE EARTH SHALL BE EXCAVATED TO A DEPTH SUFFICIENT TO PLACE 3 INCHES OF TOPSOIL. THE COST OF EXCAVATION AND DISPOSAL OF SURPLUS MATERIALS WILL NOT BE PAID FOR SEPARATELY. BUT SHALL BE INCLUDED IN THE COST OF THE VARIOUS CONTRACT ITEMS.

TOPSOIL SHALL BE REMOVED AND WASTED OR UTILIZED IN NON-LOAD BEARING FILLS IN ACCORDANCE WITH THE SPECIFICATIONS. NO EXTRA COMPENSATION SHALL BE PAID FOR THE REMOVAL OF EXCESS TOPSOIL AS REQUIRED TO OBTAIN A SUITABLE SUBGRADE. PAYMENT FOR TOPSOIL REMOVAL IS INCLUDED IN ITEM 203 - EXCAVATION.

ALL TOPSOIL MATERIALS AND FINAL AREA OF SUBGRADE PREPARATION SHALL BE FREE FROM ROCK AND OTHER FOREIGN MATERIAL OF 1/2" OR GREATER IN ANY DIMENSION. TOPSOIL REMOVED ON SITE CAN BE REUSED FOR ITEM 653 -TOPSOIL FURNISHED AND PLACED, AS PER PLAN, IF SUITABLE AS APPROVED BY THE ENGINEER.

#### ITEM 659 - SEEDING AND MULCHING. AS PER PLAN

SEED: CERTIFICATION OF GRASS SEED SHALL BE PROVIDED BY SEED VENDOR FOR EACH GRASS-SEED MIXTURE STATING THE BOTANICAL AND COMMON NAME. PERCENTAGE BY WEIGHT OF EACH SPECIES AND VARIETY: AND PERCENTAGE OF PURITY. GERMINATION, AND WEED SEED. INCLUDE THE YEAR OF PRODUCTION AND DATE OF PACKAGING. FURNISH NATIONAL TURFGRASS EVALUATION PROGRAM (NTEP) DATA FOR EACH SPECIES TO BE USED.

GRASS SEED MUST BE FRESH, CLEAN, DRY, NEW-CROP SEED COMPLYING WITH THE A.O.S.A. "JOURNAL OF SEED TECHNOLOGY" RULES FOR TESTING SEEDS FOR PURITY AND GERMINATION TOLERANCES.

SEED SPECIES SHALL BE AS FOLLOWS, WITH NOT LESS THAN 90 PERCENT GERMINATION, NOT LESS THAN 98 PERCENT PURE SEED. AND NOT MORE THAN 0.5 PERCENT WEED SEED.

TURFGRASS SEED MIX PROPORTIONED BY WEIGHT:

- A. 80 PERCENT TALL FESCUE (FESTUCA ARUNDINACEA), WITH A MINIMUM OF 3 IMPROVED TURF-TYPE VARIETIES. KENTUCKY-31 AND ALTA VARIETIES ARE NOT APPROVED.
- B. 20 PERCENT PERENNIAL RYEGRASS (LOLIUM PERENNE).





#### ITEM 659 - SEEDING AND MULCHING, AS PER PLAN (CONTINUED)

SEEDING: SOW SEED AT A TOTAL RATE OF 7-9 LB. / 1000 SF WITH A SPREADER OR SEEDING MACHINE. RAKE SEED LIGHTLY INTO TOP 1/8 INCH OF SOIL, ROLL LIGHTLY, AND WATER WITH FINE SPRAY. THOROUGHLY COVER WITH STRAW AND TACK TO PREVENT THE STRAW FROM BEING BLOWN OR WASHED AWAY.

PROTECT SEEDED AREAS WITH SLOPES EXCEEDING 3:1 WITH EROSION CONTROL BLANKETS AS DIRECTED BY THE ENGINEER. COST OF EROSION CONTROL BLANKETS, MATERIAL, AND LABOR SHALL BE PAID FOR BY THE CITY.

HYDRO-SEEDING & HYDRO-MULCHING ARE NOT PERMITTED

TURF MAINTENANCE: MAINTAIN AND ESTABLISH TURF BY WATERING, FERTILIZING, WEEDING, MOWING, TRIMMING, AND REPLANTING TO ESTABLISH HEALTHY, VIABLE TURF. ROLL, REGRADE, AND REPLANT BARE OR ERODED AREAS AND REMULCH TO PRODUCE A UNIFORMLY SMOOTH TURF. PROVIDE THE SAME MATERIALS AND INSTALLATION AS THOSE USED IN THE ORIGINAL INSTALLATION. WATER TURF WITH FINE SPRAY AT A MINIMUM RATE OF 1 INCH PER WEEK UNLESS RAINFALL PRECIPITATION IS ADEQUATE.

MOW TURFGRASS SEED MIX AREAS AS SOON AS TOP GROWTH IS TALL ENOUGH TO CUT. REPEAT MOWING TO MAINTAIN SPECIFIED HEIGHT WITHOUT CUTTING MORE THAN 1 /3 OF GRASS HEIGHT. MOW AREAS TO A HEIGHT OF 2 TO 3 INCHES.

THE FOLLOWING QUANTITIES ARE PROVIDED TO PROMOTE GROWTH AND CARE OF PERMANENT SEEDED AREAS:

#### ITEM 659 - SEEDING AND MULCHING. AS PER PLAN

SEEDING AND MULCHING SHALL BE APPLIED TO ALL AREAS OF EXPOSED SOIL WITHIN THE CONSTRUCTION LIMITS. QUANTITY CALCULATIONS FOR SEEDING AND MULCHING ARE BASED ON THESE LIMITS AND WERE DERIVED FROM CADD AREAS.

### CITY OF COLUMBUS - GENERAL NOTES

THE CITY OF COLUMBUS, CONSTRUCTION AND MATERIAL SPECIFICATIONS, 2012 EDITION AND ALL REVISIONS, INCLUDING ALL SUPPLEMENTS THERETO, SHALL GOVERN ALL CONSTRUCTION ITEMS THAT ARE A PART OF THIS PLAN. UNLESS OTHERWISE NOTED.

ALL WATER MAIN MATERIALS AND INSTALLATIONS SHALL BE IN ACCORDANCE WITH THE CURRENT RULES AND REGULATIONS OF THE CITY OF COLUMBUS. DIVISION OF WATER. ALL CITY OF COLUMBUS. DIVISION OF WATER STANDARD DRAWINGS SHALL APPLY TO THE PROJECT, UNLESS OTHERWISE NOTED.

FOR ANY EMERGENCIES INVOLVING THE WATER DISTRIBUTION SYSTEM, PLEASE CONTACT THE DIVISION OF WATER DISTRIBUTION MAINTENANCE OFFICE AT 614-645-7788.

ALL BRASS FITTINGS ASSOCIATED WITH WATER WORK, INCLUDING REPAIRS TO THE EXISTING SYSTEM, SHALL CONFORM TO THE REVISED ALLOWABLE LEAD EXTRACTION LIMIT PER THE UPDATED NSF/ANSI 61 STANDARD. THE DIVISION OF WATER'S APPROVED MATERIALS LIST HAS BEEN UPDATED TO REFLECT THIS REQUIREMENT.

IT SHALL BE UNLAWFUL FOR ANY PERSON TO PERFORM ANY WORK ON CITY OF COLUMBUS WATER LINE SYSTEMS WITHOUT FIRST SECURING LICENSE TO ENGAGE IN SUCH WORK. AS INDICATED IN COLUMBUS CITY CODE SECTION 1103.02 AND 1103.06. THIS WORK INCLUDES ANY ATTACHMENTS, ADDITIONS TO OR ALTERATIONS IN ANY CITY SERVICE PIPE OR APPURTENANCES (INCLUDING WATER SERVICE LINES AND TAPS). THIS REQUIREMENT MAY BE MET BY UTILIZATION OF A SUBCONTRACTOR WHO HOLDS A CITY OF COLUMBUS WATER CONTRACTOR LICENSE OR A COMBINED WATER/SEWER CONTRACTOR LICENSE TO PERFORM THIS WORK. UTILIZATION OF A SUBCONTRACTOR MUST MEET THE LICENSING REQUIREMENTS OF CITY OF COLUMBUS BUILDING CODE, IN PARTICULAR SECTION 4114.119 AND 4114.529.

THE CONTRACTOR SHALL OBTAIN THE PROPER HYDRANT PERMIT(S), AND PAY ANY APPLICABLE FEES, FOR ANY APPROVED HYDRANT USAGE DEEMED NECESSARY FOR WORK UNDER THIS IMPROVEMENT. PERMITS MAY BE OBTAINED THROUGH THE DIVISION OF WATER PERMIT OFFICE (645-7330). THE CONTRACTOR SHALL ADHERE TO ALL RULES & REGULATIONS GOVERNING SAID PERMIT AND MUST HAVE THE ORIGINAL PERMIT ON SITE ANYTIME IN WHICH THE HYDRANT IS IN USE. COST TO BE INCLUDED IN THE VARIOUS BID ITEMS.

ALL WATER MAINS SHALL BE CLEANED AND FLUSHED, AND ANY WATER MAIN 12-INCH AND LARGER MUST BE PROPERLY PIGGED. IN ACCORDANCE WITH SECTION 801.13 OF THE CITY OF COLUMBUS. CONSTRUCTION AND MATERIAL SPECIFICATIONS.

ALL WATER MAINS SHALL BE PRESSURE TESTED IN ACCORDANCE WITH SECTION 801.14 OF THE CITY OF COLUMBUS. CONSTRUCTION AND MATERIAL SPECIFICATIONS. 150 PSI OF PRESSURE SHALL BE MAINTAINED FOR AT LEAST TWO HOURS IN ANY TESTED SECTION. THE CITY MAY NOT APPROVE ANY TEST LASTING LESS THAN TWO HOURS REGARDLESS OF THE AMOUNT OF LEAKAGE.

ALL WATER MAINS SHALL BE DISINFECTED IN ACCORDANCE WITH SECTION 801.15 OF THE CITY OF COLUMBUS CONSTRUCTION AND MATERIAL SPECIFICATIONS. SPECIAL ATTENTION IS DIRECTED TO APPLICABLE SECTIONS OF A.W.W.A. C-651. WHEN THE WATER MAINS ARE READY FOR DISINFECTION, THE INSPECTOR SHALL SUBMIT A WRITTEN REQUEST FOR CHLORINATION OF THE MAINS THAT NEED DISINFECTED, THREE (3) SETS OF "AS-BUILT" PLANS (FULL SIZE SHEETS ONLY). THE AS-BUILT SURVEY COORDINATES. WATER SERVICE REPORTS AND A PRESSURE TEST TO THE CITY OF COLUMBUS, DIVISION OF WATER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH THE DISINFECTION OF ALL WATER MAINS CONSTRUCTED UNDER THIS PLAN.

ONLY ONE CONNECTION TO AN EXISTING WATER LINE IS PERMITTED BEFORE DISINFECTION OF A NEW WATER LINE HAS BEEN COMPLETED. ALL OTHER CONNECTIONS MUST BE MADE AFTER THE LINE HAS BEEN DISINFECTED.

WHERE INDICATED ON THE PLANS. THE EXISTING WATER MAIN SHALL BE ABANDONED AND ANY EXISTING WATER SERVICES OFF THIS MAIN SHALL BE TRANSFERRED TO THE NEW WATER MAIN. PRIOR TO ABANDONMENT OF THE EXISTING WATER MAIN. THE PROPOSED WATER MAIN SHALL BE PIGGED (IF REQUIRED), TESTED, CHLORINATED AND PUT IN SERVICE AND THEN THE EXISTING WATER SERVICES SHALL BE TRANSFERRED. THE CONTRACTOR SHALL MAINTAIN WATER SERVICES TO ALL PROPERTIES DURING CONSTRUCTION OF THE NEW WATER MAIN AND SHALL NOTIFY ALL CUSTOMERS AFFECTED BY THE TRANSFER OF SERVICES. TO ENSURE THAT ALL EXISTING SERVICES ARE TRANSFERRED TO THE NEW MAIN, NO WATER MAIN SHALL BE ABANDONED UNTIL THE NEW WATER MAIN HAS BEEN PUT IN SERVICE; ALL AFFECTED WATER SERVICES HAVE BEEN TRANSFERRED; AND THE EXISTING WATER MAIN TO BE ABANDONED HAS BEEN SHUT DOWN FOR 24 HOURS. ALL VISIBLE VALVE BOXES, FIRE HYDRANTS, AND SERVICE BOXES ON THE WATER MAIN TO BE ABANDONED, WHICH WILL NO LONGER BE IN SERVICE, SHALL BE REMOVED. ALL WATER MAINS TO BE ABANDONED SHALL BE MADE WATER TIGHT. THE REQUIRED SURFACE RESTORATION SHALL BE PAID FOR UNDER THE APPROPRIATE BID ITEM(S).

MAINTAIN EIGHTEEN (18) INCHES VERTICAL AND TEN (10) FEET HORIZONTAL SEPARATION BETWEEN ANY SANITARY OR STORM SEWER PIPING AND ALL PROPOSED WATER MAINS.

WHEN CONTROLLED DENSITY FILL (ITEM 613) IS TO BE USED AS BACKFILL, THE CONTRACTOR SHALL PROVIDE SIZE NO. 57 CRUSHED CARBONATE STONE (CCSS) 1 FOOT BELOW TO 1 FOOT ABOVE THE EXISTING WATER LINE.

"SURVEY COORDINATES" SHALL INCLUDE ALL MATERIAL, EQUIPMENT. AND LABOR NECESSARY TO OBTAIN HORIZONTAL AND VERTICAL (NORTHING, EASTING, AND ELEVATION) SURVEY COORDINATES FOR THE WATER MAIN IMPROVEMENTS. THE SURVEY COORDINATES SHALL BE OBTAINED FOR THE COMPLETED WATER MAIN CONSTRUCTION AND SHALL INCLUDE ALL VALVES, TEES, CROSSES, BENDS, DEFLECTIONS, PLUGS, REDUCERS, TAPPING SLEEVES, BLOW OFFS, CHLORINATION TAPS, FIRE HYDRANTS, AIR RELEASES, CURB STOPS, CASING PIPE TERMINI, AND OTHER FITTINGS. ADDITIONAL SURVEY COORDINATES ARE REQUIRED ON THE WATER MAIN EVERY 500' WHERE NO FITTING OR OTHER WATER MAIN STRUCTURE IS BEING INSTALLED WITHIN THAT LENGTH OF THE IMPROVEMENT.

ALL SURVEY COORDINATES SHALL BE REFERENCED TO THE APPLICABLE COUNTY ENGINEER'S MONUMENTS, AND SHALL BE BASED ON THE NORTH AMERICAN DATUM OF 1983 (NAD 83) WITH THE (NSRS2007) ADJUSTMENT. WITH FURTHER REFERENCE MADE TO THE OHIO STATE PLANE SOUTH COORDINATE SYSTEM. SOUTH ZONE. WITH ELEVATIONS BASED ON NAVD 88 DATUM. ALL COORDINATES (NORTHING, EASTING, & ELEVATION) SHALL BE REFERENCED TO THE NEAREST HUNDREDTH (N XXXXXXXXXX, E XXXXXXXXX, € ELEVATION XXX.XX). ALL SURVEY COORDINATES SHALL BE ACCURATE TO WITHIN 1.0 FOOT HORIZONTAL AND A TENTH OF A FOOT (0.10) OR LESS VERTICAL.

THE COORDINATES SHALL BE DOCUMENTED TO THE MUNICIPALITY ENGINEER OR DESIGNATED REPRESENTATIVE IN DIGITAL SPREADSHEET FORM AND SHALL INCLUDE THE APPLICABLE ITEM, STATION, NORTHING, EASTING, AND ELEVATION. COORDINATES SHALL BE SUBMITTED TO THE MUNICIPALITY ENGINEER OR DESIGNATED REPRESENTATIVE ON A BI-WEEKLY BASIS. COORDINATES SHALL ALSO BE REQUIRED TO BE SUBMITTED TO THE DIVISION OF WATER AS PART OF THE REQUEST FOR CHLORINATION.

LUMP SUM PAYMENT IS FULL COMPENSATION FOR ALL WORK INVOLVED IN OBTAINING AND DOCUMENTING THE SURVEY COORDINATES AS DESCRIBED IN THIS SPECIFICATION.

#### CITY OF COLUMBUS - SPECIAL NOTES

ALL WATER LINE VALVE BOXES, SERVICE BOXES, TEST STATIONS, PITOMETER TAP STRUCTURES, METER PIT COVERS AND OTHER SURFACE UTILITY STRUCTURES WITHIN THE DISTURBED AREA SHALL BE ADJUSTED TO GRADE. ANY OF THESE STRUCTURES LOCATED WITHIN PAVEMENT. DRIVEWAYS OR OTHER TRAVELED AREAS, WHETHER EXISTING OR PROPOSED, SHALL BE EQUIPPED WITH A TRAFFIC RATED, HEAVY DUTY VALVE BOX AND/OR COVER IN ACCORDANCE WITH THE STANDARD DRAWINGS. EXISTING WATER SERVICE BOXES TO REMAIN THAT ARE ENCOUNTERED WITHIN THE PROJECT LIMITS SHALL BE CLEANED OUT, CENTERED OVER THE CURB STOP. AND ADJUSTED TO THE PROPOSED GRADE.

WHERE NEW CONDUIT (EXCEPT STORM & SANITARY) IS PROPOSED TO CROSS AN EXISTING OR PROPOSED WATER MAIN OR WATER SERVICE, A MINIMUM OF 12-INCHES OF VERTICAL CLEARANCE SHALL BE MAINTAINED BETWEEN THE CONDUIT AND THE WATER MAIN OR SERVICE. A MINIMUM OF 3-FEET HORIZONTAL CLEARANCE (OUT TO OUT) IS REQUIRED AT LOCATIONS WHERE THE CONDUIT IS PARALLEL TO THE WATER MAIN AND AT LOCATIONS OF WATER LINE THRUST BLOCKS.

A MINIMUM OF 3-FEET OF HORIZONTAL CLEARANCE (OUT TO OUT) SHALL BE MAINTAINED BETWEEN ALL EXISTING WATER MAINS AND FOUNDATIONS FOR POLES, PULL BOXES, PUSH BUTTON PEDESTALS, AND OTHER MISCELLANEOUS ELECTRICAL STRUCTURE.

A MINIMUM OF 4 FEET OF COVER IS REQUIRED. PRIOR TO PRESSURE TESTING ANY WATER MAIN A SUFFICIENT AMOUNT OF BACKFILL SHALL BE INSTALLED TO PROVIDE THE ADEQUATE RESTRAINT IN AREAS WHERE REQUIRED.

THE PROPOSED WATER MAIN SHALL BE LOCATED A MINIMUM DISTANCE OF TWENTY (20) FEET AWAY FROM ANY EXISTING OR PROPOSED STRUCTURE, OVERHANG OR FOOTER.

ALL VALVE BOXES, SERVICE BOXES, AND FIRE HYDRANTS SHALL BE LOCATED WITHIN THE EASEMENT AREA.

NO TWO (2) ADJACENT FIRE HYDRANTS SHALL BE TAKEN OUT OF SERVICE CONCURRENTLY.

THE CONTRACTOR SHALL NOTIFY THE DIVISION OF FIRE ALARM OFFICE, 221-3132, WHENEVER FIRE HYDRANTS ARE TAKEN OUT OF SERVICE AND PLACED BACK IN SERVICE.

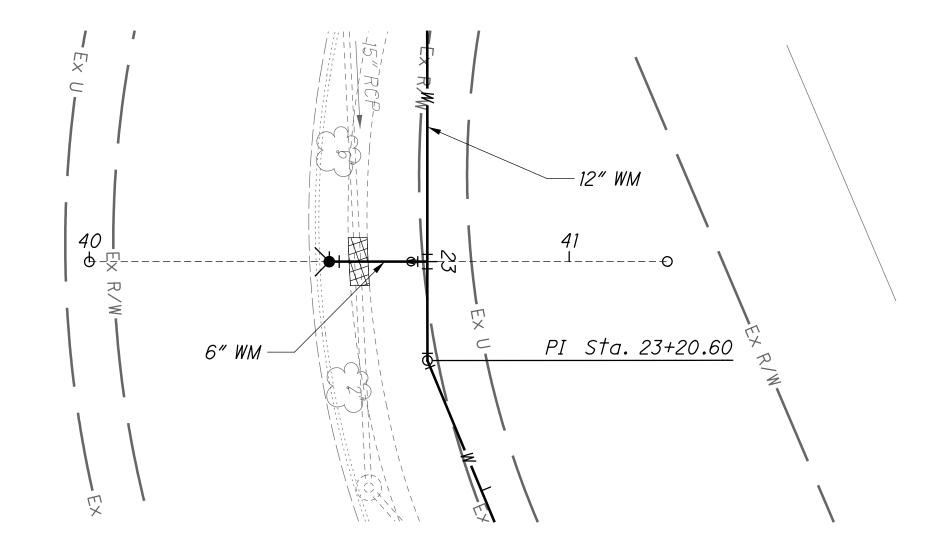
RELOCATED FIRE HYDRANTS SHALL BE PUT BACK IN SERVICE AS SOON AS POSSIBLE.

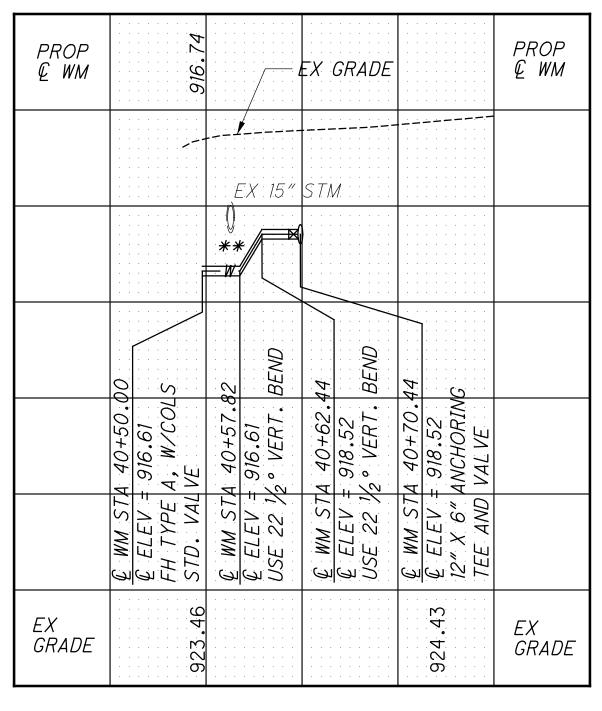
THE CONTRACTOR SHALL COORDINATE HIS WORK SUCH THAT NO WATER CUSTOMER WILL HAVE THEIR SERVICE DISRUPTED MORE THAN TWO (2) TIMES THROUGHOUT THE DURATION OF THIS PROJECT.

FIRE HYDRANT RELOCATIONS SHALL CONFORM TO APPLICABLE SECTIONS OF ITEM 809 OF THE CITY OF COLUMBUS CONSTRUCTION AND MATERIAL SPECIFICATIONS. WORK SHALL CONSIST OF REMOVING THE EXISTING HYDRANT, INSTALLING NEW 6" PIPE AND FITTING AS REQUIRED TO LOCATE THE FIRE HYDRANT 2 FEET FROM BACK OF PROPOSED CURB OR 8 FEET OFF EDGE OF PAVEMENT, RESETTING HYDRANT AND BLOCKING AS REQUIRED. ALL 6" PIPE SHALL BE INSTALLED AT 4'-0" MINIMUM COVER. HYDRANT EXTENSIONS SHALL BE PROVIDED PER ITEM 810, AS REQUIRED. RELOCATED FIRE HYDRANTS SHALL BE ADJUSTED TO PROPER GRADE AND FACED IN THE PROPER DIRECTION. WHEN A HYDRANT IS RELOCATED FIFTEEN (15) FEET OR MORE FROM THE "TYPICAL HYDRANT SETTING" VALVE LOCATION (SEE L-6409A & L-6637A), AN ADDITIONAL VALVE SHALL BE INSTALLED, AND RESTRAINED. WITHIN TWO (2) FEET OF THE RELOCATED HYDRANT. PAYMENT IS TO BE INCLUDED UNDER ITEM 809. FIRE HYDRANT RELOCATED.

ITEM	DESCRIPTION	GRAND TOTAL	UNIT	SEE SHEET NO.
	ROADWAY			
201	CLEARING AND GRUBBING		LUMP	
202	WALK REMOVED AND DISPOSED OF	209	SQ FT	
608	4" CONCRETE WALK, AS PER PLAN	209	SQ FT	2
653	3" TOPSOIL FURNISHED AND PLACED, AS PER PLAN	20	CU YD	2
	EROSION CONTROL			
659	SEEDING AND MULCHING, AS PER PLAN	260	SQ YD	2,3
SPEC	INLET SEDIMENT PROTECTION	1	EACH	
	WATER WORKS			
801	6" DUCTILE IRON WATER PIPE & FITTINGS	25	FEET	
801	12" DUCTILE IRON WATER PIPE & FITTINGS	461	FEET	
802	6" VALVE AND APPURTENANCES	1	EACH	
802	12" VALVE AND APPURTENANCES	1	EACH	
809	FIRE HYDRANT, TYPE A	1	EACH	
816	12" WATER MAIN ABANDONED	1	EACH	
SPEC	SURVEY COORDINATES		LUMP	
	MISCELLANEOUS			
623	CONSTRUCTION LAYOUT STAKES		LUMP	
624	MOBILIZATION		LUMP	
SPEC	PROOF SURVEY		LUMP	

	T	USWELL [	DRIVE				
					AS-BUILT		
WATER FEATURE	STATION	OFFSET	C/L ELEVATION	NORTHING	EASTING	C/L ELEVATION	
	VATER MAIN						
TIE-IN TO EXISTING							
12" 22.5° HORIZONTAL BEND	21+00.00	_	919.57±				
12" 22.5° HORIZONTAL BEND	21+29.15	_	919.42				
12" 22.5° HORIZONTAL BEND	22+43.68	_	918.82				
12" × 6" ANCHORING TEE	23+00.00	_	918.52				
12" 22.5° HORIZONTAL BEND	23+20.60	-	918.41				
12" 22.5° HORIZONTAL BEND	23+68.10	_	918.16				
12" 22.5° HORIZONTAL BEND	24+47.50	_	917.75				
12" 45° HORIZONTAL BEND	25+12.36	-	917.41				
12" GATE VALVE	25+32.36	-	917.30				
12" 45° HORIZONTAL BEND	25+53.42	-	917.19				
12" 45° HORIZONTAL BEND	25+60.91	-	917.15±				
TIE-IN TO EXISTING							
6" W	VATER MAIN						
12" × 6" ANCHORING TEE	40+70.44	-	918.52				
6" GATE VALVE	40+70.44	-	918.52				
6" 22.5° VERTICAL BEND	40+62.44	_	918.52				
6" 22.5° VERTICAL BEND	40+57.82	_	916.61				
FIRE HYDRANT, TYPE A	40+50.00	-	916.61				





\*\* - CONTRACTOR TO MAINTAIN 18" MIN CLEARANCE

