

COUNTY OF SUMMIT ENGINEER GENERAL NOTES (10/22/2014):

- C.1) ALL CONSTRUCTION AND MATERIALS INCLUDED ON THIS PROJECT SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS AND THE SPECIFICATIONS AND DETAILS OF THE SCE. WHERE CONFLICTS OCCUR IN THE ABOVE, THE SCE SHALL DETERMINE THE GOVERNING AUTHORITY.
- C.2) ANY DEFECTS IN THE CONSTRUCTION, INCLUDING MATERIALS OR WORKMANSHIP, SHALL BE REPLACED OR CORRECTED BY THE REMOVAL AND REPLACEMENT OR OTHER APPROVED METHOD PRIOR TO ACCEPTANCE BY THE SCE.
- C.3) THE SCE SHALL NOT BE HELD LIABLE FOR DAMAGES OF ANY TYPE WHICH MAY OCCUR AS A RESULT OF ERROR AND/OR OMISSIONS IN THE ENGINEERING DESIGN DATA PRESENTED BY THE DEVELOPER'S ENGINEER. THE SCE SHALL NOT BE LIABLE FOR ANY DAMAGES RESULTING FROM THE DEVELOPER'S CONTRACTOR NOT COMPLYING WITH THE APPROVED PLANS OR BY USING CONSTRUCTION METHODS OR MATERIALS NOT APPROVED BY THE SCE.
- C.4) THE DEVELOPER'S ENGINEER CERTIFIES THAT ALL DESIGN DATA AND CALCULATIONS PERTAINING TO THESE IMPROVEMENT PLANS, WHERE APPLICABLE, ARE CORRECT AND DO CONFORM TO THE CURRENT DESIGN CRITERIA.
- C.5) THE SCE IN APPROVING THESE PLANS AND DEDICATION PLAT THEREOF, DOES NOT, IN ANY WAY, RELIEVE THE DEVELOPER'S ENGINEER OF HIS RESPONSIBILITY FOR ACCURATE AND COMPLETE ENGINEERING DESIGN RELATIVE TO THE PLANS.
- C.6) ALL ROAD SURFACES, EASEMENTS OR RIGHTS-OF-WAY DISTURBED BY CONSTRUCTION OF ANY PART OF THIS IMPROVEMENT ARE TO BE RESTORED COMPLETELY TO THE BEFORE CONSTRUCTION CONDITION OR BETTER WHEN DIRECTED BY THE SCE AND/OR THE SUMMIT COUNTY D.O.E.S. THE CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE AT ALL TIMES AND SHALL BACKFILL AND GRADE EXCAVATED AREAS TO ELIMINATE PONDING ON THE SITE.
- C.7) THE LOCATIONS OF ALL BURIED UTILITY ARE TO BE DETERMINED BY THE CONTRACTOR. EXISTING UTILITY APPURTENANCES ARE TO BE SAFEGUARDED BY THE CONTRACTOR DURING CONSTRUCTION. THE CONTRACTOR SHALL CONTACT THE UTILITIES PROTECTION SERVICE, 1-800-362-2764, AT LEAST FORTY-EIGHT (48) HOURS BEFORE ANY UNDERGROUND WORK IS COMMENCED.
- C.8) A PRE-CONSTRUCTION MEETING SHALL BE SCHEDULED WITH THE SCE PRIOR TO THE START OF ANY CONSTRUCTION OPERATIONS. THE CONTRACTOR SHALL NOT COMMENCE WITH ANY FORM OF CONSTRUCTION WITHOUT NOTIFYING THE SCE FORTY-EIGHT (48) HOURS PRIOR TO STARTING CONSTRUCTION (330-643-2850). IF ANY CHANGE IN THE WORK SCHEDULE BECOMES NECESSARY, IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE INSPECTOR TO AVOID UNNECESSARY INSPECTION COSTS. IF NO NOTIFICATION IS MADE IN REGARDS TO THE CANCELLATION OF WORK, THE DEVELOPER WILL BE CHARGED FOR THE INSPECTION TIME INCURRED. THE DEVELOPER WILL BE BILLED QUARTERLY FOR INSPECTION SERVICES.
- C.9) THE CONTRACTOR OR DEVELOPER SHALL MAINTAIN LOCAL TRAFFIC AT ALL TIMES AND OBTAIN ALL NECESSARY PERMITS. A ROAD OPENING PERMIT IS REQUIRED ON ALL SUBDIVISIONS BEFORE ACCESS IS GRANTED FOR CONSTRUCTION PURPOSES UNDER A PUBLIC RIGHT-OF-WAY. THE SCE WILL NOT INSPECT OR ACCEPT ANY WORK THAT IS DONE WITHOUT A ROAD OPENING PERMIT BEING AVAILABLE ON THE CONSTRUCTION SITE. IN ADDITION, LOCAL TRAFFIC MUST BE MAINTAINED AT ALL TIMES.
- C.10) ANY DISTURBED SIGNS, GUARDRAIL, MAIL/PAPER BOXES, DRIVES, DRIVE CULVERTS, STORM SEWER PIPES, STRUCTURES, PAVEMENTS, BERMS AND DITCHES SHALL BE REPAIRED AND/OR REPLACED AS DIRECTED BY THE SCE. ANY DISTURBED LAWN AREAS SHALL BE REPLACED BY SEEDING AND MULCHING, INCLUDING TOPSOIL WHERE NEEDED, IN ACCORDANCE WITH ODOT ITEM 653 & 659, AS DIRECTED BY THE SCE.
- C.11) THE CONTRACTOR SHALL BE RESPONSIBLE FOR TEMPORARY SOIL EROSION AND SEDIMENT CONTROL IN ACCORDANCE WITH ODOT SUPPLEMENTAL SPECIFICATION 832, SUMMIT SOIL AND WATER CONSERVATION DISTRICT AND THE SCE. EROSION CONTROL MEASURES MUST BE IN PLACE BEFORE ANY OTHER CONSTRUCTION COMMENCES ON THIS SITE. THE CONTRACTOR SHALL, ON A DAILY BASIS, CLEAN ALL EXISTING STREETS OF MUD AND DIRT DURING THE CONSTRUCTION PHASE. THE STORMWATER POLLUTION PREVENTION PLAN MUST BE IMPLEMENTED PRIOR TO THE START OF CONSTRUCTION.
- C.12) ALL STORM SEWER INSTALLATION WITHIN THE RIGHT-OF-WAY LIMITS AND EASEMENTS SHALL CONFORM TO ODOT ITEM 611.
- C.13) WHERE SEWER AND/OR WATER MAIN INTERSECTIONS HAVE LESS THAN EIGHTEEN (18) INCH VERTICAL SEPARATION, ENCASE THE LOWER PIPE AND MONOLITHICALLY CRADLE THE UPPER PIPE IN CLASS C CONCRETE FOR THE WIDTH OF THE TRENCH.
- C.14) STORM SEWER LATERALS SHALL BE PVC (SDR 35). ALL PIPES SHALL HAVE PREFORMED WYES OF 6" DIAMETER FOR HOUSE LATERAL CONNECTIONS. ALL WYES AND LATERALS FOR DOWNSPOUT DRAINS SHALL BE INSTALLED WHEN THE STORM SEWER IS INSTALLED.
- C.15) EACH SUBLLOT MUST ROUTE ALL STORMWATER DRAINAGE FROM A CONDUIT TO THE STORM SEWER LATERAL THAT IS PROVIDED. NO OPEN DISCHARGES FROM A HOUSE CONDUIT ARE PERMITTED.
- C.16) ALL SEWER/UTILITY TRENCH CONSTRUCTION, CONDUIT BEDDING, PIPE COVER, BACKFILL AND COMPACTION SHALL CONFORM TO THE UTILITY TRENCH DETAIL STANDARD DRAWING ON SHEET C7.2.
- C.17) ALL INSPECTION AND TESTING SHALL BE DONE BY AN EXPERIENCED AND QUALIFIED FIRM ENGAGED IN THIS TYPE OF WORK. ALL STORM SEWERS/CULVERTS MUST BE FLUSHED AND HAVE A COLOR TELEVISION INSPECTION ACCOMPANIED WITH A WRITTEN REPORT SUBMITTED TO THE SCE FOR REVIEW AND APPROVAL. THE VIDEOTAPE MUST BE SUBMITTED, REVIEWED AND APPROVED PRIOR TO RELEASE OF THE PERFORMANCE BOND. IF THE STORM SEWER/CULVERT VIDEOTAPE AND WRITTEN REPORT IS NOT APPROVED, THE CONTRACTOR SHALL REPAIR OR REPLACE THE DEFECTS AND RESUBMIT THE INFORMATION. THE INTENT IS TO VIDEOTAPE PIPES NOT EASILY ACCESSIBLE FOR VISUAL INSPECTION. FOR EXAMPLE: A CULVERT UNDER A ROAD THAT CAN BE VISUALLY CHECKED IS EXEMPT FROM VIDEOTAPING. A SYSTEM OF PIPES WITH MANHOLES AND CATCH BASINS WILL BE REQUIRED TO BE VIDEOTAPED. THE SCE WILL DETERMINE IF A PIPE CAN BE VISUALLY CHECKED OR IF A VIDEOTAPE IS REQUIRED.
- C.18) UNDERDRAINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH ODOT ITEM 605; CONDUIT SHALL BE A MINIMUM OF FOUR (4) INCH DIAMETER PIPE AND CONFORMING TO ODOT SPECIFICATION 707.33, 707.41, 707.42 OR 707.45 WITH NO. 8 AGGREGATE ON FOUR (4) INCHES OF BEDDING. THE UNDERDRAIN SHALL BE MODIFIED WITH FOUR (4) ROWS OF PERFORATIONS. SEE UNDERDRAIN STANDARD DRAWING ON SHEET C7.0.
- C.19) ALL PROPOSED STORM SEWER STRUCTURES (MANHOLES, HEADWALLS AND CATCH/INLET BASINS) SHALL ADHERE TO ODOT ITEMS 602 AND 611 AND THE CURRENT EDITION OF THE ODOT STANDARD CONSTRUCTION DRAWINGS.
- C.20) WHEREVER UNSTABLE SOIL CONDITIONS ARE ENCOUNTERED THAT ARE NOT INDICATED ON THE PLANS, THE WORK SHALL BE DISCONTINUED UNTIL THE SCE APPROVES THE METHOD AND MATERIAL TO BE INCORPORATED INTO THE WORK, AS ALL CONDUITS SHALL BE INSTALLED ON A FIRM BED FOR ITS FULL LENGTH IN ACCORDANCE WITH ODOT ITEM 611 UNLESS OTHERWISE SPECIFIED.

- C.21) ALL FILLED AREAS, EXCLUDING TRENCHES, WITHIN RIGHT-OF-WAY AREAS SHALL BE COMPACTED IN ACCORDANCE WITH ODOT ITEM 203. IN ADDITION, FOR ANY FILL IN EXCESS OF TWO (2) FEET, NUCLEAR COMPACTION TESTS SHALL BE PERFORMED BY AN APPROVED TESTING COMPANY IN ACCORDANCE WITH ODOT ITEM 203. THESE TESTS SHALL BE APPROVED BY THE SCE BEFORE ANY PAVEMENT CONSTRUCTION COMMENCES AND SHALL MEET THE COMPACTION REQUIREMENTS OF THE TRENCH DETAIL STANDARD DRAWING ON SHEET C7.2. EMBANKMENT CONSTRUCTION AT DETENTION/RETENTION FACILITIES SHALL BE COMPACTED IN ACCORDANCE WITH ODOT ITEM 203 AND TO A MINIMUM OF 98% OF THE MATERIAL'S STANDARD PROCTOR MAXIMUM DRY DENSITY AND MUST BE WITHIN 2% OF THE MATERIAL'S OPTIMUM MOISTURE CONTENT PRIOR TO COMPACTION.
- C.22) BEFORE ACCEPTANCE OF THE SUB-GRADE BY THE SCE, A FORTY (40) TON PROOF ROLL SHALL BE REQUIRED ON ALL AREAS TO BE PAVED. THE SUBGRADE AND PROOF ROLL MUST BE IN ACCORDANCE WITH ODOT ITEM 204. IN LIEU OF USING THE EQUIPMENT UNDER ODOT ITEM 204, A TANDEM DUMP TRUCK WITH A GROSS WEIGHT OF 60,000 POUNDS MAY BE SUBSTITUTED.
- C.23) FOR ODOT ITEMS 301 & 448, THE CONTRACTOR SHALL PROVIDE THE SCE WITH A JOB MIX FORMULA FOR REVIEW AND APPROVAL PRIOR TO PAVING OPERATIONS. ALL MATERIALS USED MUST BE OBTAINED FROM A SOURCE APPROVED BY ODOT. FOR ITEM 448 SURFACE COURSE, THE COARSE AGGREGATE IN THE MIX SHALL BE CRUSHED LIMESTONE. THE SURFACE COURSE SHALL BE CONSTRUCTED NO LATER THAN ONE (1) YEAR AFTER ITEM 301 IS PLACED.
- C.24) CURB AND GUTTER SHALL BE CONSTRUCTED IN ACCORDANCE WITH ODOT ITEM 609, CAST IN PLACE CONCRETE CURB AND GUTTER. NO ASPHALT AND/OR CONCRETE PAVEMENT AND CURB AND GUTTER SHALL BE LAID ON A FROZEN SURFACE.
- C.25) ALL MONUMENT BOXES SHALL BE IN CONFORMANCE WITH THE CURRENT EDITION OF THE ODOT STANDARD ROADWAY CONSTRUCTION DRAWINGS.
- C.26) IT WILL BE THE RESPONSIBILITY OF THE DEVELOPER OR CONTRACTOR TO NOTIFY THE INSPECTOR WHEN WORK ON SITE IS BEING PERFORMED OR CANCELLED. IF THERE IS NOT ANY NOTIFICATION IN REGARDS TO CANCELLATION OF WORK, THE DEVELOPER WILL BE CHARGED FOR THE INSPECTION TIME INCURRED.
- C.27) THE FINAL SUBLLOT GRADES SHALL BE WITHIN ONE FOOT (+/-) OF THE GRADES AND ELEVATIONS LISTED ON THE APPROVED FINAL GRADING PLAN SHEET.
- C.28) IMMEDIATELY FOLLOWING THE COMPLETION OF GRADING OPERATIONS FOR A PROPOSED DETENTION/RETENTION BASIN, FINAL RESTORATION OF THE BASIN MUST BE COMPLETED TO ESTABLISH PROPER VEGETATION AND LIMIT SOIL EROSION. A MINIMUM THICKNESS OF 3" OF TOPSOIL MUST BE APPLIED TO THE LIMITS OF THE GRADING FOR THE BASIN AND THEN SEEDED AND MULCHED. THE MATERIAL UTILIZED IN RESTORATION OF THE BASIN SHALL ADHERE TO ODOT ITEMS 652, 653 AND 659.

DOES SANITARY SEWER NOTES

- 1) ALL SANITARY SEWERS AND APPURTENANCES SHALL BE CONSTRUCTED IN STRICT ACCORDANCE WITH CURRENT STANDARDS AND SPECIFICATIONS OF THE DEPARTMENT OF ENVIRONMENTAL SERVICES (D.O.E.S.).
- 2) APPROVAL BY THE D.O.E.S. OFFICE CONSTITUTES NEITHER EXPRESSED NOR IMPLIED WARRANTIES AS TO THE FITNESS, ACCURACY, OR SUFFICIENCY OF PLANS, DESIGNS OR SPECIFICATIONS.
- 3) THE DESIGN ENGINEER STATES THAT THE UTILITIES OF RECORD IN EXISTING AND PROPOSED ROADS AND EASEMENTS ARE SHOWN.
- 4) ALL SANITARY SEWERS SHALL PASS THE AIR ACCEPTANCE TEST PRIOR TO ACCEPTANCE BY D.O.E.S.
- 5) ALL SANITARY SEWERS SHALL BE COLOR FILMED BY THE OWNER AND FOUND TO BE FREE OF DEFECTS AND FOREIGN MATTER AND IN PROPER ALIGNMENT PRIOR TO FORMAL ACCEPTANCE BY THE D.O.E.S.
- 6) ALL MANHOLES SHALL BE SUPPLIED WITH SOLID LIDS EXCEPT IN EASEMENTS WHERE MANHOLE COVERS SHALL BE THE SOLID LOCKING TYPE.
- 7) SANITARY SEWER MATERIALS SHALL CONFORM TO D.O.E.S. AND O.E.P.A. STANDARDS.
- 8) THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ALL DAMAGE TO THE EXISTING SEWERAGE SYSTEM RESULTING FROM NONCONFORMANCE WITH SUMMIT COUNTY STANDARDS OR GENERAL NEGLIGENCE.
- 9) 12" GRADE ADJUSTMENT OF MANHOLES IS PERMITTED WITH GRADE RINGS. A MAXIMUM OF TWO COURSES OF BRICK IS PERMITTED, IF NECESSARY. ADJUSTMENT IS NOT TO EXCEED 12". MINIMUM OF ONE GRADE RING IS REQUIRED.
- 10) WHERE INLET AND OUTLET PIPES CONNECT TO MANHOLES A FLEXIBLE WATERTIGHT JOINT AS APPROVED BY THE D.O.E.S. IS REQUIRED.
- 11) ALL SANITARY SEWER MATERIALS SHALL CONSIST OF PVC PIPE ASTM D-3034 OR WITH JOINTS CONFORMING TO ASTM D-3212.
- 12) NO SEWER CONSTRUCTION WILL BE PERMITTED UNTIL SUCH TIME THAT THE PLANS ARE APPROVED BY THE D.O.E.S. AND THE O.E.P.A. INCLUDING PAYMENT OF REVIEW AND "PERMIT TO INSTALL" FEES REQUIRED BY THE O.E.P.A.
- 13) ALL SANITARY SEWERS CONTAINED HEREIN ARE TO BE PUBLICLY OWNED AND MAINTAINED.

- 14) THE OWNER OR CONTRACTOR MUST CALL THE OHIO UTILITIES PROTECTION SERVICE 48 HOURS BEFORE DIGGING (1-800-362-2764).
- 15) ALL ROUGH GRADING (WITHIN 6" OF FINISHED GRADE) SHALL BE COMPLETED WITHIN THE EASEMENT AND RIGHT-OF-WAY PRIOR TO SANITARY SEWER AND WATER LINE CONSTRUCTION.
- 16) ROOF DRAINS, FOUNDATION DRAINS AND OTHER CLEAN WATER CONNECTIONS TO THE SANITARY SEWER LINES ARE PROHIBITED. ORDINANCE NO. 85-656, APPROVED 10/8/85.
- 17) ALL SANITARY SEWER LATERALS SHALL BE LAID AT NO LESS THAN 1% GRADE.
- 18) ALL SANITARY SEWER LATERALS SHALL BE EXTENDED TO NOT LESS THAN 15' INTO THE PROPERTY.
- 19) INTERNAL CHIMNEY SEALS SHALL BE INSTALLED IN ALL MANHOLES.
- 20) MANHOLE COVER INSERTS SHALL BE PROVIDED FOR ALL MANHOLES, REGARDLESS OF THE TYPE OF COVER REQUIRED.

AKRON PUBLIC UTILITIES BUREAU WATER MAIN NOTES (11/01/2014):

- 1) THE CONTRACTOR SHALL SUPPLY ALL OF THE WATER MAIN MATERIALS, INCLUDING THE DUCTILE IRON PIPE, FITTINGS AND FITTING RESTRAINTS, HYDRANTS AND VALVES, POLYETHYLENE ENCASEMENT, ALL OTHER APPURTENANCES AND ANY ITEMS SPECIALLY ITEMIZED AS REQUIRED FOR THE WATER MAIN INSTALLATION. ALL WATER MAIN MATERIALS SHALL COMPLY WITH THE CITY OF AKRON, AKRON ENGINEERING BUREAU, CONSTRUCTION AND MATERIAL SPECIFICATIONS (LATEST EDITION) ITEM 715. WATER MAIN MATERIALS. INSTALLATION OF ALL WATER MAIN MATERIALS SHALL BE IN ACCORDANCE WITH SECTION 250, WATER MAINS. SUBMITTALS OF MATERIAL SPECIFICATIONS ARE TO BE MADE TO THE UTILITIES ENGINEER PRIOR TO PURCHASING MATERIAL.
- 2) MUST MAINTAIN A TEN-FOOT MINIMUM HORIZONTAL CLEARANCE FROM EDGE OF ALL WATER MAIN PIPE TO EDGE OF ALL SANITARY AND STORM SEWER PIPES AND/OR FORCE MAIN PIPES.
- 3) MUST MAINTAIN AN 18-INCH MINIMUM VERTICAL CLEARANCE FROM EDGE OF ALL WATER MAIN PIPE AND/OR SERVICE LINES TO EDGE OF ALL SANITARY SEWER AND STORM PIPES WHERE THEY CROSS.
- 4) THE CONTRACTOR MUST MAINTAIN A 12-INCH MINIMUM VERTICAL CLEARANCE FROM EDGE OF ALL WATER MAIN PIPE TO EDGE OF ALL DIRECT BURIAL CONDUITS, CONCRETE ENCASED ELECTRICAL CONDUITS, LIGHT POLE BASES, AND HAND HOLE PULL BOXES.
- 5) THE CONTRACTOR MUST MAINTAIN A 36-INCH MINIMUM HORIZONTAL CLEARANCE FROM EDGE OF ALL WATER MAIN PIPE TO EDGE OF ALL DIRECT BURIAL CONDUITS, CONCRETE ENCASED ELECTRICAL CONDUITS, LIGHT POLE BASES, AND HAND HOLE PULL BOXES.
- 6) WHERE WATER MAINS CROSS SEWER TRENCHES, THE TRENCH IS TO BE BACKFILLED WITH APPROVED GRANULAR MATERIAL.
- 7) APPROVED PIPE FITTINGS, BOLTS, ETC., FOR AKRON SYSTEM WATER MAIN INSTALLATION:
 PIPE: CLASS 53 DUCTILE IRON PER AWWA C151 SPECIFICATIONS, WITH CEMENT-LINING PER AWWA C104. LABELED POLYETHYLENE ENCASEMENT PER AWWA C105 IS REQUIRED.
 PIPE JOINTS: PUSH-ON JOINTS (TYTON, BELL-TITE, ETC.), PER AWWA C151 SPECIFICATIONS WITH PLAIN OR RESTRAINING RUBBER GASKETS PER AWWA C111 SPECIFICATIONS.
 FITTINGS: CLASS 350 DUCTILE IRON COMPACT FITTINGS PER AWWA C153 OR FULL THICKNESS CASTINGS PER AWWA C110 ARE ACCEPTABLE, WITH MECHANICAL JOINT ENDS AND DUCTILE IRON FOLLOWER GLANDS. ANCHOR PIPE IS REQUIRED ON ALL HYDRANT RUNS BETWEEN THE TEE AND HYDRANT RUN VALVE.
 RESTRAINED PIPE SYSTEMS: PUSH-ON JOINT WITH FIELD LOCK (4 THROUGH 12-INCH ONLY) OR FAST GRIP GASKETS (4 THROUGH 12-INCH ONLY), OR MECHANICAL JOINT WITH RESTRAINED FOLLOWER GLANDS, AND 6 OUNCE ZINC ANODE CAPS ON EVERY BOLT THREAD. SUPER LOCK, TR FLEX OR FLEX-RING REQUIRED ON ALL 16-INCH OR LARGER PIPE DIAMETERS.

- 7) RESTRAINED FITTING DEVICES: ALL VALVES, BENDS, OFFSETS, HYDRANT INLETS, CAPS, PLUGS, AND BRANCHES OF TEES AND WYES MUST BE RESTRAINED USING MECHANICAL JOINT WITH RESTRAINED FOLLOWER GLANDS OR RESTRAINING GASKETS. HARDWOOD BLOCKING IS REQUIRED FOR ALL DIAMETERS 4 THROUGH 8-INCH. CONCRETE BLOCKING AND STRAPPING FOR ALL DIAMETERS 12-INCH AND LARGER. CONCRETE BLOCKING IS REQUIRED ON ALL FIRE LINES AND ON ALL DIAMETERS IN AREAS OVER 100 PSI. RESTRAINED JOINTS FOR DIAMETERS 12-INCH AND UNDER SHALL BE INSTALLED FOR A LENGTH OF 30 FEET ON EACH SIDE OF A VALVE, BEND OR OFFSET USING FIELD-LOCK OR FAST-GRIP RESTRAINING GASKETS OR MECHANICAL JOINT WITH RESTRAINED FOLLOWER GLANDS. RESTRAINED JOINTS FOR DIAMETERS 16-INCH AND LARGER, SHALL BE INSTALLED FOR A LENGTH OF 30 FEET ON EACH SIDE OF A VALVE, BEND OR OFFSET USING MECHANICAL JOINT WITH RESTRAINED FOLLOWER GLANDS.

MECHANICAL JOINT T-HEAD BOLTS: ALL MECHANICAL JOINTS SHALL BE MADE WITH COR-TEN OR CONSTRUCTION-GRADE ALLOYED DUCTILE IRON BOLTS. T-HEAD BOLTS SHALL BE 1/8-INCH LONGER THAN STANDARD LENGTH AND MUST INCLUDE A 6 OZ. ZINC ANODE CAP ON EVERY BOLT THREAD.

HYDRANTS: AKRON-STYLE MUELLER "CENTURIAN" MODEL A423; KENNEDY "GUARDIAN" MODEL K-81A; EU "FLOWMASTER" CD250; AMERICAN FLOW CONTROL MODEL B62B WITH 6-INCH INLET, AMERICAN FLOW CONTROL MODEL B84B WITH 8-INCH INLET. THREADS SHALL BE AKRON STYLE AS SHOWN ON AKRON WATER WORKS STANDARD CONSTRUCTION DRAWINGS F-3258 AND F-3440. HYDRANTS MUST BE LEAD-FREE PER NSF 61-G.

GATE VALVES: RESILIENT-SEAT WEDGE (RSW) VALVES WITH RESTRAINED MECHANICAL JOINTS. VALVES SHALL HAVE NON-RISING STEMS AND SHALL OPEN TO THE RIGHT (CLOCKWISE).

BUTTERFLY VALVES, 16-INCH AND UP: RESTRAINED MECHANICAL JOINT OR SHOULDERED (NOT GROOVED) VICTAULIC ENDS WITH STYLE 44N COUPLINGS AND STAINLESS STEEL 316 BOLTS. RUBBER SEALS IN THE VALVE MUST BE REPLACEABLE. FLANGED END OR WAFER-STYLE VALVES ARE NOT ACCEPTABLE.

VALVE BOXES: BIBBY, TYLER, BINGHAM AND TAYLOR OR EAST JORDAN BRANDS ARE ACCEPTABLE FOR COMPATIBILITY.

CURB BOXES: RISER PIPE MUST BE OF YOLOY CORROSION RESISTANT MATERIAL. PLUG MUST BE CAST IRON AND THREAD INTO A BRASS RING.

- 8) COMPACTED PREMIUM BACKFILL IS REQUIRED FOR UNDERGROUND CONSTRUCTION UNDER OR WITHIN THREE FEET OF ANY PROPOSED OR EXISTING SIDEWALK OR PAVEMENT. THE BACKFILLING SHALL CONFORM TO SECTION 551.09 OF THE CITY OF AKRON CONSTRUCTION AND MATERIAL SPECIFICATIONS, LATEST EDITION.

- 9) ANY EXISTING WATER MAINS, HYDRANTS, VALVES, VALVE BOXES, METER VAULTS, SERVICE LINES, OR CURB BOXES THAT ARE DAMAGED OR MUST BE ADJUSTED AND/OR MOVED MUST BE REPAIRED, ADJUSTED, MOVED AND/OR REPLACED AT THE CONTRACTOR'S EXPENSE. CONTACT DOUG ZWAHLEN, WATER DISTRIBUTION SUPERVISOR, AT (330) 375-2420 TO SCHEDULE THIS WORK.

- 10) NO TAPS FOR WATER SERVICES SHALL BE MADE UNTIL AFTER THE MAINLINE HAS BEEN TESTED AND STERILIZED. ALL TAPS 2-INCH AND SMALLER SHALL BE MADE BY THE CONTRACTOR AND INSPECTED BY THE CITY OF AKRON. ALL BRASS FITTINGS USED SHALL BE LEAD-FREE PER NSF 61-G.

- 11) ALL WATER MAIN CONSTRUCTION SHALL BE INSPECTED BY THE CITY OF AKRON. NOTIFY THE CITY OF AKRON (TONY PUGLIA OR DOUG ZWAHLEN) AT (330) 375-2420 AT LEAST 48 HOURS PRIOR TO BEGINNING CONSTRUCTION AND FOR ALL PRECONSTRUCTION MEETINGS.

- 12) PRIOR TO ACCEPTANCE, THE WATER LINE SHALL BE PRESSURE TESTED, AS SPECIFIED IN AWWA C600, AND DISINFECTED AS SPECIFIED IN AWWA C651 LATEST REVISIONS, BY THE CONTRACTOR.

- 13) USE EXTREME CAUTION WHEN EXCAVATING IN THE AREA OF EXISTING WATER MAIN PIPES, VALVES, HYDRANTS AND THRUST BLOCKS.

- 14) THE CONTRACTOR SHALL SUPPLY A TEMPORARY SAFE WATER SERVICE TO ALL HOMES THAT WILL HAVE THEIR WATER SERVICE INTERRUPTED BY THIS CONSTRUCTION.

- 15) THE PROPOSED FACILITIES MUST MAINTAIN A MINIMUM OF 35 PSI PRESSURE DELIVERED TO THE CURB STOP DURING NORMAL OPERATING CONDITIONS.

- 16) BOOSTER PUMPS ARE NOT PERMITTED ON SERVICE CONNECTIONS.

- 17) ANY CONNECTION TO EXISTING DUCTILE IRON WATER MAIN SHALL BE MADE WITH A DUCTILE IRON SOLID SLEEVE WITH RESTRAINING GLAND. ANY CONNECTION TO EXISTING CAST IRON WATER MAIN MAY BE MADE WITH A CAST COUPLING OR DUCTILE IRON SOLID SLEEVE WITH RESTRAINING GLAND.

OPTIONAL

- 1) HANDLING OF PIPE: PROPER AND SUITABLE TOOLS AND APPLIANCES FOR THE SAFE AND CONVENIENT HANDLING AND LAYING OF PIPE SHALL BE USED, AND GREAT CARE SHALL BE TAKEN TO PREVENT THE PIPE COATING FROM BEING DAMAGED, PARTICULARLY ON THE INSIDE OF THE PIPE. AFTER APPROVAL BY THE CONTRACTOR OF THE PIPE AT THE JOHNSTON STREET STORE YARD, ANY DAMAGE INCURRED IN HAULING, LOADING, UNLOADING, DELIVERING, ETC., SHALL BE AT THE CONTRACTOR'S EXPENSE, AND IN THE CASE DAMAGE OCCURS, THE CONTRACTOR SHALL REPLACE ANY MATERIALS SO DAMAGED OR REIMBURSE THE CITY FOR ANY DAMAGE INCURRED IN THIS OPERATION.

- 2) ALL HYDRANTS AND VALVES SHOWN TO BE REMOVED BY THE CONTRACTOR ARE TO BE SALVAGED AND DELIVERED TO THE AKRON WATER DEPARTMENT STORE YARD AT 565 JOHNSTON STREET. COST OF THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR ITEM 254, DUCTILE IRON PIPE.

- 3) EXISTING WATER MAIN TO BE ABANDONED, AS DESIGNATED ON THE PLANS, SHALL BE ABANDONED PER ITEM 202.11 FOR DIAMETERS 12 INCHES AND LARGER OR ITEM 251.18 FOR DIAMETERS LESS THAN 12 INCHES.

- 4) AFTER THE INSTALLATION OF THE PROPOSED WATER MAIN IS COMPLETE AND AFTER THE LINE HAS PASSED THE BACTERIA TEST, THE CONTRACTOR IS TO ASSIST PUBLIC UTILITIES IN THE TRANSFER OF WATER SERVICES FROM THE OLD WATER MAIN TO THE NEW WATER MAIN. WHILE TRANSFERRING WATER SERVICES, THE CONTRACTOR IS RESPONSIBLE FOR THE EXCAVATION REQUIRED TO EXPOSE THE WATER SERVICE AT THE RIGHT-OF-WAY AND AT THE NEW MAIN WITH A TYPICAL 3' X 5' TRENCH. COST OF THIS WORK IS TO BE INCLUDED IN ITEM 252, TRENCHES FOR WATER SERVICES IN EARTH.

- 5) THE CONTRACTOR IS ALSO RESPONSIBLE FOR ALL EXCAVATION REQUIRED ASSISTING PUBLIC UTILITIES IN THE INSTALLATION OF NEW AND RENEWED COPPER SERVICES ON EXISTING WATER MAINS. THE COST OF THIS WORK SHALL BE INCLUDED IN ITEM 252, TRENCHES FOR WATER SERVICE IN EARTH.

- 6) IN CASING PIPE, ALL JOINTS SHALL BE RESTRAINED BY USING EITHER FIELD LOCK OR FAST GRIP RESTRAINING GASKETS (4 THROUGH 12-INCH ONLY) OR BOLTLESS (TR FLEX) ANCHORS. CARRIER PIPE SHALL HAVE CASING SPACERS WITH PLASTIC RUNNERS. SAND SHALL BE BLOWN INTO THE ANNULAR SPACE. WOODEN RUNNERS ARE NOT ALLOWED.

OHIO EPA SANITARY NOTES:

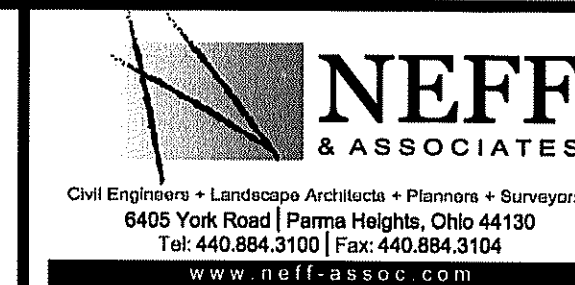
- 1) THE LEAKAGE TEST LIMIT IS 100 GALLONS/IN DIAMETER OF PIPE/MILE/DAY.
- 2) THE MAXIMUM DEFLECTION IS 5% PER SUMMIT COUNTY D.O.E.S. STANDARDS.

OHIO EPA WATER MAIN NOTES:

- 1) BOOSTER PUMPS ARE NOT PERMITTED ON SERVICE CONNECTIONS.
- 2) THE PROPOSED IMPROVEMENTS WILL PROVIDE A MINIMUM 35 PSI PRESSURE AT THE CURB STOP DURING NORMAL OPERATING CONDITIONS.

JOB NO 12269F	SCALE NO SCALE
DRAWN BY MJD	CHECKED BY CJO
DWG NAME 12269C-1	DATE SEPTEMBER, 2014

HILLSIDE ESTATES - PHASE 4
GENERAL NOTES
 TOWNSHIP OF COPLEY, COUNTY OF SUMMIT, STATE OF OHIO



REV NO	DATE	DESCRIPTION	BY
3	02/27/15	REV. PER COSE & SUMMIT SWCD	CJO
2	11/17/14	REV. PER COSE,DOES,AKRON WTR.	CJO
1	09/15/14	ORIGINAL SUBMITTAL	CJO

SHEET NO.

C0.1