

CITY OF CANTON

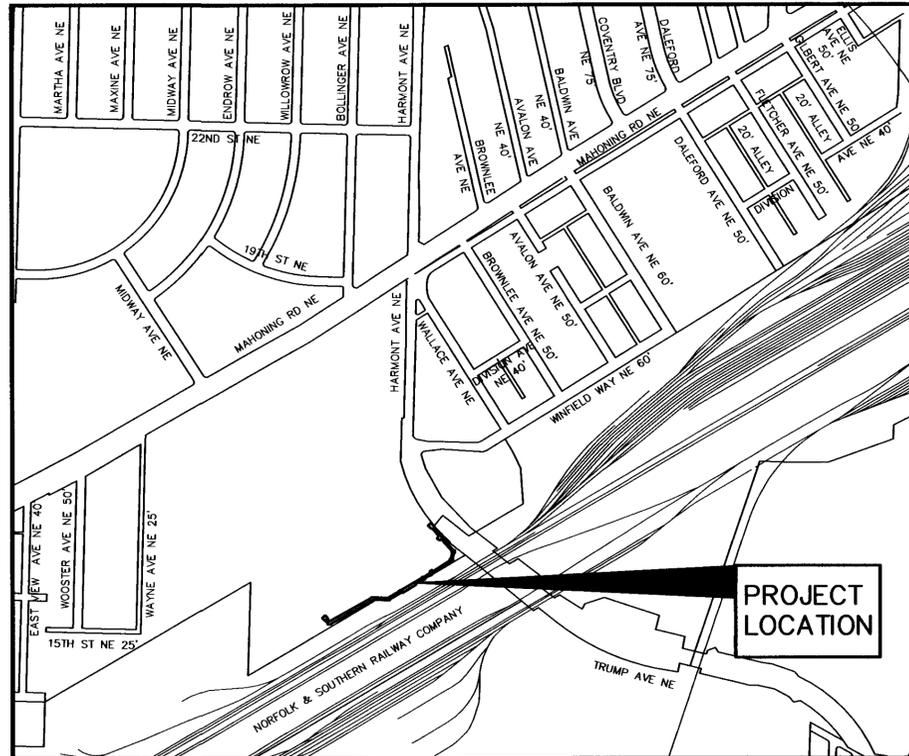
EAST SIDE INTERCEPTOR SEWER RELOCATION

G.P. # 1113

STARK COUNTY, STATE OF OHIO
FEBRUARY 2015

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VICINITY MAP
SCALE: 1"=500'

CITY OFFICIALS

MAYOR WILLIAM J. HEALY II
DIRECTOR OF PUBLIC SERVICE WILLIAM BARTOS

APPROVAL

Dan Moeglin 2/20/15
DANIEL J. MOEGLIN P.E., S.I. DATE
CITY ENGINEER

OHIO
Utilities Protection
SERVICE
Call Before You Dig
1-800-362-2764
CALL TWO WORKING DAYS BEFORE YOU DIG
(NON MEMBERS MUST BE CALLED DIRECTLY)

PLANS PREPARED BY



220 MARKET AVENUE SOUTH, SUITE 700
CANTON, OH 44702
330-466-7733

Todd M. Kramer
TODD M. KRAMER
REG. ENGINEER NO. 66563

2/20/15
DATE



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I. PRECONSTRUCTION INCIDENTALS

(A) PROJECT SPECIFICATIONS/REQUIREMENTS:

ALL WORK REQUIRED TO COMPLETE THIS IMPROVEMENT SHALL BE PERFORMED IN ACCORDANCE WITH SPECIFICATIONS/REQUIREMENTS OF THE CITY OF CANTON AND THE LATEST EDITION OF THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS, EXCEPT AS HEREIN AMENDED. IN THE CASE OF A CONFLICT BETWEEN THE CITY OF CANTON AND THE OHIO DEPARTMENT OF TRANSPORTATION SPECIFICATIONS/REQUIREMENTS, THE CITY OF CANTON REQUIREMENTS WILL TAKE PRECEDENCE, UNLESS OTHERWISE DIRECTED BY THE CITY ENGINEER.

THE CONTRACTOR SHALL COMPLY WITH THE CITY OF CANTON SUPPLEMENTAL SPECIFICATION 01-00 PROJECT DOCUMENTATION AND SUBMITTAL REQUIREMENTS.

THE CONTRACTOR SHALL WORK DAILY WITH FRESH MARK TO COORDINATE DELIVERIES. MAINTAINING ACCESS FOR FRESH MARK DELIVERIES IS PARAMOUNT.

(B) ADMINISTRATIVE REQUIREMENTS:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR FULLY COMPLYING WITH ALL THE ADMINISTRATIVE DUTIES HEREIN CONTAINED.

THE CONTRACTOR SHALL DESIGNATE TO THE CITY AN EMPLOYEE RESPONSIBLE FOR CORRESPONDENCE, NOTIFICATIONS, AND SUBMITTALS PERTINENT TO THE PROJECT.

(C) PRECONSTRUCTION MEETING:

A PRECONSTRUCTION MEETING WITH THE DEVELOPER, CONTRACTOR, REPRESENTATIVES OF ALL UTILITY COMPANIES, THE CITY OF CANTON ENGINEERING DEPARTMENT AND THE CITY OF CANTON WATER DEPARTMENT IS REQUIRED FOR THIS PROJECT PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITY.

FOR SUBDIVISION DEVELOPMENTS, THE DEVELOPER SHALL CONTACT THE CITY ENGINEER'S OFFICE TO ARRANGE A MEETING DATE. THE DEVELOPER WILL CONTACT THE ABOVE AGENCIES TO CONFIRM THE MEETING DATE.

FOR CITY GENERAL PROJECTS, THE CITY ENGINEER WILL CONTACT THE CONTRACTOR TO ARRANGE A MEETING DATE. THE CITY ENGINEER WILL CONTACT THE ABOVE AGENCIES TO CONFIRM THE MEETING DATE.

IF THE PROPOSED PROJECT LAND-DISTURBANCE AREA IS ONE (1) OR MORE ACRES, A SEPARATE PRE-CONSTRUCTION MEETING IS ALSO REQUIRED. THIS MEETING SHALL OCCUR ON-SITE BETWEEN THE CONTRACTOR AND THE STARK SOIL & WATER CONSERVATION DISTRICT (SWCD). THE CONTRACTOR IS RESPONSIBLE FOR ARRANGING THIS MEETING. NO LAND-DISTURBANCE ACTIVITIES SHALL START UNTIL SAID MEETING HAS OCCURRED AND APPROVAL HAS BEEN GRANTED BY STARK SWCD.

(D) PROJECT SAFETY:

THE CONTRACTOR SHALL MAINTAIN A SAFE WORKING ENVIRONMENT AT THE PROJECT SITE AT ALL TIMES. THE CONTRACTOR SHALL PROPERLY SUPPORT AND/OR MAINTAIN ALL EXCAVATIONS PER APPLICABLE SAFETY REQUIREMENTS AND COMPLY WITH ALL O.S.H.A. REGULATIONS. APPROPRIATE BARRICADES, WARNING LIGHTS, SIGNS, FENCING, ETC. SHALL BE ERECTED AROUND THE CONSTRUCTION AREA DURING ALL NON-WORKING HOURS TO ALERT PERSONS OF THE POTENTIAL DANGER ASSOCIATED WITH THE AREA UNDER CONSTRUCTION AS WELL AS TO PREVENT ACCESS BY UNAUTHORIZED PERSONNEL TO THE CONSTRUCTION SITE/AREA. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THE SAFETY OF THE GENERAL PUBLIC AS WELL AS ALL CONSTRUCTION PERSONNEL. PUBLIC STREETS SHALL BE KEPT CLEAN AND FREE OF DEBRIS (MUD, STONE, ETC.) AT ALL TIMES. THE CONTRACTOR SHALL ALERT ALL LOCAL EMERGENCY AGENCIES (FIRE, POLICE, AMBULANCE, ETC.) OF THE NATURE OF THE PROPOSED PROJECT PRIOR TO BEGINNING AND CONSTRUCTION ACTIVITY. ACCESS FOR EMERGENCY VEHICLES SHALL BE MAINTAINED AT ALL TIMES.

(E) UNDERGROUND UTILITIES:

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES SHOWN ON THE PLANS WERE OBTAINED BY FIELD OBSERVATIONS, FROM EXISTING RECORDS, AND/OR FROM THE OWNERS OF THE RESPECTIVE UTILITIES. THE INFORMATION AS SHOWN IS BELIEVED TO BE CORRECT; HOWEVER, THE COMPLETENESS AND ACCURACY OF THIS INFORMATION CANNOT BE GUARANTEED. THE CONTRACTOR SHALL BE RESPONSIBLE TO CONTACT ALL THE VARIOUS UTILITY COMPANIES (PUBLIC AND PRIVATE) TO VERIFY THE EXISTENCE, LIMITS AND/OR LOCATION OF ANY UTILITIES WHICH MAY BE ALONG THE ROUTE OR WITHIN THE VICINITY OF THIS IMPROVEMENT.

(F) UTILITY NOTIFICATION:

AT LEAST TWO WORKING DAYS PRIOR TO COMMENCING OPERATIONS ON THIS PROJECT, THE CONTRACTOR SHALL NOTIFY THE CITY ENGINEER, THE REGISTERED UTILITY PROTECTION AGENCY/SERVICE, AND THE OWNERS OF ANY OTHER UTILITIES (PUBLIC AND/OR PRIVATE) THAT MAY HAVE UTILITY LINES OR FACILITIES WITHIN THE VICINITY OF THIS PROJECT BUT WHO ARE NOT MEMBERS OF THE REGISTERED UTILITY PROTECTION SERVICE. THE OWNERS OF ANY UNDERGROUND UTILITY FACILITY SHALL, WITHIN 48 HOURS AFTER NOTICE IS RECEIVED, EXCLUDING SATURDAYS, SUNDAYS AND OTHER LEGAL HOLIDAYS; STAKE, MARK OR OTHERWISE DESIGNATE THE EXISTENCE AND/OR LOCATION OF THE UNDERGROUND UTILITY FACILITIES IN THE CONSTRUCTION AREA IN SUCH A MANNER AS TO INDICATE THEIR COURSE TOGETHER WITH THE APPROXIMATE DEPTH AT WHICH THEY WERE INSTALLED. THE MARKING AND/OR LOCATING SHALL BE COORDINATED TO STAY APPROXIMATELY TWO WORKING DAYS AHEAD OF THE PLANNED CONSTRUCTION.

OHIO UTILITIES PROTECTION SERVICE: 1-800-362-2764 (CONTACT NON-MEMBERS DIRECTLY).

THE PRIMARY UTILITIES WITHIN THE CITY OF CANTON AREA:

NATURAL GAS DIST./TRANS.
DOMINION EAST OHIO GAS
320 SPRINGSIDE DR.
AKRON, OHIO 44333
330-664-2409
ATTN: MARY LONG
RELOCATION@DOM.COM
EMERGENCY NO.
1-800-521-4400

COMMUNICATIONS CABLE
TIME WARNER CABLE
5520 WHIPPLE AVE N.W.
NORTH CANTON, OHIO 44720
330-494-9200, EXT. 87

SANITARY AND STORM SEWER
CITY ENGINEER'S OFFICE
2436-30TH ST. N.E.
CANTON, OHIO 44705
330-489-3381
ATTN: DAN MOEGLIN

WATER
WATER DEPARTMENT
2664 HARRISBURG RD. N.E.
CANTON, OHIO 44708
330-489-3310
ATTN: LEWI MILLER

THE CITY ENGINEER'S OFFICE IS TO BE CONTACTED DIRECTLY FOR SANITARY AND STORM SEWER AND TRAFFIC INTERCONNECT FACILITIES LOCATION: 330-489-3381.

(G) PROPOSED PUBLIC UTILITY LOCATION IN PROPOSED SUBDIVISIONS:

THE CONTRACTOR AND REPRESENTATIVES OF THE CITY OF CANTON SHALL MEET WITH REPRESENTATIVES OF THE VARIOUS PUBLIC UTILITY COMPANIES (EAST OHIO GAS, AMERICAN ELECTRIC POWER, AMERITECH, WARNER CABLE, ETC.) TO DETERMINE THE APPROPRIATE LOCATION FOR THESE UTILITIES WITHIN THE PROJECT SITE. ONCE AN AGREEMENT HAS BEEN REACHED, IT SHALL BE THE RESPONSIBILITY OF THE UTILITY OWNERS TO INSPECT THE INSTALLATION OF THE VARIOUS PUBLIC UTILITY LINES WITHIN THE ROAD RIGHT-OF-WAY TO ENSURE THAT CONFLICTS ARE AVOIDED AND ADEQUATE CLEARANCE AND OFFSETS WITH OTHER UTILITIES ARE MAINTAINED. UTILITY COMPANIES SHALL SUBMIT PLANS INDICATING THEIR PROPOSED IMPROVEMENTS AND FACILITIES TO THE CITY OF CANTON FOR APPROVAL. THE SITE CONTRACTOR SHALL COORDINATE HIS WORK WITH THE INSTALLATION OF THE OTHER UTILITIES NOT OWNED BY THE CITY.

(H) EXPLORATORY BORINGS:

EXPLORATORY SOIL BORING INFORMATION IS NOT THE RESPONSIBILITY OF THE CITY OF CANTON. IT IS THE CONTRACTOR RESPONSIBILITY TO REVIEW ANY AND ALL INFORMATION AVAILABLE. IF CONTRACTOR REQUESTS TO DRILL AND OR EXCAVATE WITHIN THE CITY'S R/W, THE CONTRACTOR SHALL NOTIFY THE CITY ENGINEER AT LEAST 3 WORKING DAYS PRIOR TO THIS WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL UTILITY NOTIFICATION, AS SPECIFIED, ALL TRAFFIC CONTROL, PREMIUM BACKFILL, AND COMPACTION AND RESTORATION, AS NECESSARY.

(I) CONTINGENCY QUANTITIES:

WHEN SPECIFIED ON PLANS OR SPECIFICATIONS, CONTINGENCY QUANTITIES ARE TO BE PERFORMED ONLY UNDER DIRECTION OF THE CITY ENGINEER. THE CONTRACTOR SHALL NOT ORDER ANY CONTINGENCY MATERIAL OR PERFORM ANY WORK UNTIL DIRECTED BY THE ENGINEER. THE ACTUAL WORK LOCATION AND QUANTITIES FOR SUCH ITEMS SHALL BE DOCUMENTED BY THE CONTRACTOR AND THE ENGINEER.

II. CONSTRUCTION INCIDENTALS

(A) PLAN DISCREPANCIES:

ANY DISCREPANCIES FROM THE PLAN INFORMATION SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER SO THAT THE APPROPRIATE ADJUSTMENTS IN ALIGNMENT AND/OR GRADE MAY BE MADE PRIOR TO THE START OF CONSTRUCTION OR THE CONTINUATION OF THE SAME.

FAILURE BY THE CONTRACTOR TO VERIFY AND/OR DETERMINE EXISTING INFORMATION AS INDICATED WILL RESULT IN THE CONTRACTOR BEING RESPONSIBLE FOR ANY CHANGES NECESSARY TO COMPLETE THE WORK SPECIFIED WITHOUT ADDITIONAL COMPENSATION.

(B) VERIFICATION OF UNDERGROUND UTILITIES:

THE CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY THE EXISTENCE AS WELL AS THE ACTUAL LOCATION, ALIGNMENT, AND ELEVATIONS OF ALL EXISTING UTILITIES/FACILITIES WITHIN AND/OR ADJACENT TO THE GENERAL LIMITS OF THESE IMPROVEMENTS INCLUDING WATERLINES, SANITARY AND STORM SEWERS, GAS LINES, COMMUNICATION LINES/BANKS, ELECTRIC LINES, ETC. THIS MAY REQUIRE EXPLORATORY EXCAVATIONS TO BE PERFORMED BY THE CONTRACTOR FOR WHICH HE WILL NOT BE REIMBURSED. THE CONTRACTOR SHALL NOT ASSUME THAT EXISTING UTILITIES/CONDUITS WERE INSTALLED AT TYPICAL/STANDARD DEPTHS OR AT UNIFORM SLOPES/GRADES/DEPTHS BETWEEN ACCESS POINTS (CATCH BASINS, MANHOLES, JUNCTION CHAMBERS, ETC.)

WHERE PLANS PROVIDE FOR A PROPOSED CONDUIT TO BE CONNECTED TO, OR CROSS OVER OR UNDER AN EXISTING SEWER OR UNDERGROUND UTILITY, THE CONTRACTOR SHALL LOCATE THE EXISTING PIPES OR UTILITIES BOTH AS TO LINE AND GRADE BEFORE STARTING TO INSTALL THE PROPOSED CONDUIT.

(C) PROTECTION OF UTILITIES:

THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PROTECT AND SUPPORT EXISTING UTILITIES ENCOUNTERED DURING THE CONSTRUCTION OF THE PROPOSED IMPROVEMENTS AS APPROVED BY THE OWNERS OF THE UTILITY AND THE CITY ENGINEER.

THE CONTRACTOR SHALL BE RESPONSIBLE TO CLOSELY COORDINATE THEIR WORK WITH ALL UTILITY COMPANIES; ANY POTENTIAL DELAYS WILL NOT BE THE RESPONSIBILITY OF THE CITY.

THE CONTRACTOR SHOULD EXPECT AT A MINIMUM ONE SANITARY SEWER LATERAL, ONE ROOF DRAIN, ONE WATER SERVICE, AND ONE GAS SERVICE FOR EACH LOT. ANY OF THE ABOVE UTILITIES DAMAGED DUE TO THE CONTRACTOR'S WORK SHALL BE RESTORED TO THE UTILITY OWNER'S SATISFACTION AT THE CONTRACTOR'S EXPENSE, UNLESS OTHERWISE NOTED IN THE PLANS OR SPECIFICATIONS.

(D) MAINTENANCE OF UTILITY SERVICES:

THE CONTRACTOR SHALL BE RESPONSIBLE TO MAINTAIN UTILITY SERVICES AT ALL TIMES.

~~WATER SERVICE MAY BE INTERRUPTED FOR LIMITED PERIODS (4 HOURS MAXIMUM) DURING CONNECTION BETWEEN EXISTING WATER LINES AND RELOCATED/NEW WATER MAINS WHICH CANNOT BE COMPLETED OTHERWISE. NO SHUT DOWN SHALL OCCUR WITHOUT WRITTEN PERMISSION OF THE CITY OF CANTON WATER DEPARTMENT. PROPERTY OWNERS AFFECTED BY APPROVED INTERRUPTED SERVICE SHALL BE NOTIFIED 48 HOURS IN ADVANCE BY THE CONTRACTOR.~~

STORM SEWER AND SANITARY SEWER SERVICES SHALL BE MAINTAINED WITHOUT INTERRUPTION, UNLESS APPROVED BY THE CITY ENGINEER.

IN THE EVENT THAT CONSTRUCTION DISRUPTS THE FLOW OF A SANITARY SEWER, THE CONTRACTOR SHALL IMMEDIATELY RECTIFY THE DISRUPTED SEWER BY EITHER TEMPORARILY FLUMING WITH MATERIALS ACCEPTABLE TO THE ENGINEER OR BYPASSING WITH PUMPS. COST OF MAINTAINING AND REPAIR OF SANITARY SEWERS DISTURBED BY CONSTRUCTION SHALL BE AT THE CONTRACTOR'S EXPENSE, UNLESS OTHERWISE NOTED IN THE PLANS OR SPECIFICATIONS.

(E) CONSTRUCTION NOISE:

CONSTRUCTION NOISE ASSOCIATED WITH ANY IMPROVEMENT PROJECT SHALL BE LIMITED TO LEVELS COMMENSURABLE WITH ADJOINING LAND AND THEIR ASSOCIATED USAGE AS DETERMINED BY THE CITY ENGINEER. IN ORDER TO MINIMIZE ANY ADVERSE CONSTRUCTION NOISE IMPACTS, ANY POWER-OPERATED CONSTRUCTION-TYPE DEVICES SHALL NOT BE OPERATED BETWEEN THE HOURS OF 7:00 P.M. AND 7:00 A.M. UNLESS AUTHORIZED BY THE CITY ENGINEER.

(F) OPEN TRENCH CONSTRUCTION:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EXCAVATION/TRENCHING PRACTICES FOR THE PROPOSED IMPROVEMENT, OR AS FURTHER SHOWN ON THE PLANS AND SPECIFICATIONS.

THE CONTRACTOR SHALL FOLLOW ALL APPLICABLE LOCAL AND STATE SAFETY REGULATIONS, INCLUDING CODE OF FEDERAL REGULATIONS, PART 1926 (SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION), SUBPART P (EXCAVATIONS), FOR ALL APPLICABLE REQUIREMENTS AND RESPONSIBILITIES.

PRIOR TO COMMENCING CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE CITY ENGINEER OF THE PROJECT'S ASSIGNED "COMPETENT PERSON" IN OSHA EXCAVATION STANDARDS.

(G) TRENCH CLOSING AND TEMPORARY TOPPING:

THE CONTRACTOR SHALL BE RESPONSIBLE TO DETERMINE THE NECESSARY LEVELS OF PROTECTION AND SAFEGUARDING OF ALL OPEN TRENCHES, WHEN WORK IS EITHER COMPLETED AT THE END OF THE DAY OR SUSPENDED FOR ANY OTHER REASON.

(H) DUST CONTROL:

THE CONTRACTOR SHALL FURNISH AND APPLY WATER AND CALCIUM CHLORIDE FOR DUST CONTROL AS DIRECTED BY THE ENGINEER. SUFFICIENT QUANTITIES OF CALCIUM CHLORIDE SHALL BE STORED ON THE JOB SITE AT ALL TIMES TO BE USED FOR DUST CONTROL.

(I) TESTING OF UTILITIES:

ALL NEWLY CONSTRUCTED WATERLINES, SANITARY SEWERS (INCLUDING LATERALS) AND FORCE MAINS MUST BE INSTALLED AND TESTED IN ACCORDANCE WITH APPLICABLE STANDARDS (AWWA, ETC.) PER THE OHIO ENVIRONMENTAL PROTECTION AGENCY, AND PER THE REQUIREMENTS OF THE CITY OF CANTON WATER AND ENGINEERING DEPARTMENTS.

SANITARY SEWERS SHALL BE TESTED BY CONTRACTOR IN ACCORDANCE WITH THE CITY OF CANTON'S SUPPLEMENTAL SPECIFICATIONS:

02-00 TESTING FOR EXCESSIVE DEFLECTION FOR NON-PRESSURE THERMOPLASTIC SEWER PIPE.

04-01 STANDARD TEST METHOD FOR CONCRETE SEWER MANHOLES BY THE NEGATIVE AIR PRESSURE TEST.

SANITARY AND STORM SEWERS CONSTRUCTED WITH THIS PROJECT SHALL BE TELEVIEWED BY THE CONTRACTOR ONLY WHEN A PAY ITEM IS PROVIDED IN ACCORDANCE WITH CITY OF CANTON'S SUPPLEMENTAL SPECIFICATION:

05-01 SEWER TELEVISION INSPECTION AND DOCUMENTATION PROCEDURE.

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| DESIGNED BY | | DRAWN BY | | CHECKED BY | | APPROVED BY | |
|-------------|--------------|----------|-----|------------|-----|-------------|--|
| TMK | AJP | TMK | AJP | TMK | WAD | | |
| NO. | DESCRIPTIONS | DATE | BY | APPD | | | |
| | | | | | | | |

REVISIONS

CANTON, OHIO
EAST SIDE INTERCEPTOR
SEWER RELOCATION
G.P. #113
GENERAL NOTES



| | |
|-----------|----------|
| JOB NO. | E13029 |
| DATE | 9/2014 |
| SCALE | AS SHOWN |
| SHEET NO. | C3 |

CTI PROJECT: ---, DRAWING: CTI-2010 (197279v21/2/19/15 4:47PM), LAYOUT: C4GN

II. CONSTRUCTION INCIDENTALS (continued)

(J) PRESERVATION AND RESTORATION OF DISTURBED FEATURES:

EXISTING DRIVES, BERMS, LAWNS, PAVEMENTS, CURBS, SIDEWALKS, SIGNS, MAILBOXES, FENCES, RETAINING WALLS, LANDSCAPING ITEMS, OR OTHER APPURTENANCES DISTURBED DURING CONSTRUCTION BUT NOT SPECIFICALLY DESIGNATED FOR REMOVAL/REPLACEMENT SHALL BE RESTORED BY THE CONTRACTOR AT HIS EXPENSE TO A CONDITION EQUAL TO OR BETTER THAN THAT WHICH EXISTED PRIOR TO DISTURBANCE AND TO THE COMPLETE SATISFACTION OF THE CITY ENGINEER.

RESTORATION OF EXISTING ROADWAYS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CITY, TOWNSHIP, COUNTY, AND/OR OTHER AGENCIES HAVING AUTHORITY. COST FOR THE RESTORATION OF THESE ITEMS SHALL BE THE RESPONSIBILITY OF THE DEVELOPER/CONTRACTOR, UNLESS OTHERWISE SPECIFIED IN THE PLANS OR SPECIFICATIONS. NO PUBLIC ROADWAY SHALL BE DISTURBED WITHOUT PRIOR WRITTEN APPROVAL FROM THE GOVERNING AGENCY AND ACQUISITION OF NECESSARY PERMITS.

(K) SALVAGED CASTINGS:

WHEN DIRECTED BY THE CITY ENGINEER, ALL METAL CASTINGS SHALL BE CAREFULLY REMOVED AND STORED ON SITE OR DELIVERED TO A LOCATION DESIGNATED BY THE CITY ENGINEER.

(L) PLUG EXISTING CONDUIT:

THIS ITEM SHALL CONSIST OF THE CONSTRUCTION OF BULKHEADS IN AN EXISTING CONDUIT TO BE ABANDONED.

BULKHEADS SHALL CONSIST OF BRICK AND/OR CONCRETE MASONRY WITH A MINIMUM THICKNESS OF 12 INCHES.

PAYMENT FOR PLUGGING OF EXISTING CONDUIT FOR ABANDONMENT SHALL BE INCLUDED IN THE UNIT BID OF THE VARIOUS ITEMS OF THE PROJECT.

(M) CONSTRUCTION LAYOUT:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION LAYOUT UTILIZING PERTINENT PLAN DATA. THE CITY ENGINEER WILL NOT BE RESPONSIBLE FOR STAKING HORIZONTAL OR VERTICAL CONTROL. CONSTRUCTION LAYOUT SHALL BE IN ACCORDANCE WITH ODOT 623 CONSTRUCTION LAYOUT STAKES.

AT THE CITY ENGINEER'S REQUEST, THE CONTRACTOR SHALL MAKE AVAILABLE ALL SURVEY FIELD NOTES FOR REVIEW.

(N) EXISTING MONUMENTATION:

THE CONTRACTOR SHALL PRESERVE ALL CORNERSTONES, IRON PINS, CONCRETE MONUMENTS AND/OR ANY TYPE OF LAND MONUMENT. THE CONTRACTOR SHALL HAVE ALL MONUMENTS IN THE PROXIMITY OF THE WORK REFERENCED. THE CONTRACTOR SHALL REPLACE/RESET ANY DISTURBED OR DAMAGED MONUMENTS AND SHALL FURNISH A CERTIFICATION BY A REGISTERED SURVEYOR THAT THE MONUMENTS HAVE BEEN RESTORED.

(O) ELEVATION DATUM:

ALL ELEVATIONS ARE BASED ON THE **NAVD 1988 DATUM**.

(P) DEWATERING OPERATIONS

WHEN DEEMED NECESSARY, THE CONTRACTOR MAY INSTALL DEWATERING EQUIPMENT PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. DEWATERING IS INCIDENTAL AND WILL NOT BE A SEPARATE PAY ITEM.

THE PROPOSED LOCATION OF WELL POINTS, HEADER PIPE, ELECTRICAL DISTRIBUTION, GENERATORS AND DISCHARGE PIPES, ETC. SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

CONTRACTOR SHALL PREPARE AND SUBMIT A DEWATERING PLAN TO THE CITY ENGINEER'S OFFICE IN ACCORDANCE WITH THE GEOTECHNICAL REPORT DATED 11/20/2013 PAGE 6 "GROUND WATER CONTROL" WHICH IS LOCATED IN APPENDIX "A" SUBSURFACE INVESTIGATION INFORMATION.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL PERMITS FOR THE INSTALLATION AND SUBSEQUENT REMOVAL OF DEWATERING EQUIPMENT AS WELL AS PROPER WATER DISCHARGE PROCEDURES AS MAY BE REQUIRED PER STATE AND LOCAL GOVERNING AGENCIES.

INSTALLATION OF ALL ELECTRICAL EQUIPMENT, INCLUDING GROUNDING AND PROTECTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

CONTRACTOR SHALL PROVIDE ALL COMBUSTIBLE ENGINE DRIVEN GENERATORS WITH "HOSPITAL GRADE" MUFFLERS. MUFFLERS SHALL BE RATED, AT A MAXIMUM OF 67 dB AT 23 FEET AWAY RUNNING FULL LOAD.

(Q) INSPECTION:

FOLLOWING THE PRE-CONSTRUCTION MEETING(S) AND ESTABLISHMENT OF AN APPROVED SCHEDULE, THE CONTRACTOR SHALL GIVE A MINIMUM 48 HOUR NOTICE BEFORE STARTING ANY WORK ON THIS PROJECT AND SHALL KEEP THE CITY INFORMED OF HIS/HER CONSTRUCTION SCHEDULE. ALL WORK REQUIRED FOR THIS IMPROVEMENT SHALL BE SUBJECT TO INSPECTION BY THE CITY OF CANTON OR THEIR DESIGNATED REPRESENTATIVE. NO WORK SHALL BE PERFORMED WITHOUT AN AUTHORIZED INSPECTOR PRESENT, UNLESS OTHERWISE APPROVED.

(R) FIELD OFFICE:

IF A PAY ITEM IS PROVIDED, THE CONTRACTOR SHALL PROVIDE A FIELD OFFICE IN ACCORDANCE WITH ODOT 619. THE FIELD OFFICE SHALL BE TYPE 'A', UNLESS OTHERWISE SPECIFIED.

III. EARTHWORK / SITE WORK

(A) EASEMENTS AND RIGHT-OF WAY:

THE CONTRACTOR SHALL STAY WITHIN THE DESIGNATED PROPERTIES, EASEMENTS, AND/OR RIGHT-OF-WAY PROVIDED FOR THE PROJECT AT ALL TIMES. NO MATERIAL SHALL BE STORED NOR ANY WORK PERFORMED ON PRIVATE PROPERTY UNLESS OTHERWISE APPROVED. DISTURBANCE OF EXISTING FEATURES AND/OR IMPROVEMENTS SHALL BE KEPT TO AN ABSOLUTE MINIMUM AND AS APPROVED BY THE CITY ENGINEER/PROPERTY OWNER.

(B) SUITABILITY OF SITE:

THE CITY OF CANTON SHALL NOT BE RESPONSIBLE FOR THE TYPE AND/OR SUITABILITY OF THE MATERIAL UNDERLYING THE PROJECT SITE. THE CONTRACTOR MUST APPRAISE THEMSELVES OF ANY EXISTING SITE CONDITIONS WHICH MAY AFFECT THEIR BID OR THE PERFORMANCE OF THE REQUIRED WORK. THE CONTRACTOR SHALL PERFORM ANY INVESTIGATIONS AND/OR TESTING NECESSARY TO ADEQUATELY DETERMINE/ESTIMATE TO THEIR SATISFACTION ALL SITE CONDITIONS WHICH COULD AFFECT THE PERFORMANCE OF THE PROPOSED IMPROVEMENTS. THIS COULD INCLUDE, BUT NOT BE LIMITED TO, UNSUITABLE AND/OR UNSTABLE SOIL/SUBSURFACE CONDITIONS, ROCK, WATER (PERCHED OR FREE), SPRINGS, ETC.

REFER TO CITY STANDARD DRAWING NO. 19 FOR ADDITIONAL DETAILS.

(C) REMOVAL/REPLACEMENT OF UNSUITABLE MATERIAL:

THE CONTRACTOR SHALL UNDERCUT AND REPLACE UNSUITABLE MATERIAL ENCOUNTERED DURING INSTALLATION OF THE PROPOSED UTILITIES AND ROADWAY IN ACCORDANCE WITH CITY STANDARD DRAWING NO. 19.

IV. ROADWAY / DRIVE APPROACHES / WALK / CURB

(C) ASPHALT/CONCRETE:

IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE ENGINEER 48 HOURS IN ADVANCE OF BEGINNING WORK WHICH REQUIRES COMPACTION TESTING AND/OR PRE-POUR INSPECTION PRIOR TO PLACEMENT OF ASPHALT OR CONCRETE. WORK SHALL NOT PROCEED UNTIL TESTING AND/OR INSPECTION HAS BEEN COMPLETED AND APPROVED BY THE CITY ENGINEER.

V. SANITARY SEWERS / STORM SEWERS

(A) SEWER STANDARDS:

ALL SANITARY/STORM SEWER CONDUITS AND APPURTENANCES SHALL BE CONSTRUCTED ACCORDING TO APPLICABLE CITY STANDARD DRAWINGS AND SPECIFICATIONS (LISTED BELOW) AND ODOT SPECIFICATIONS EFFECTIVE AT THE TIME OF CONSTRUCTION, UNLESS SPECIFIED OTHERWISE ON THE PLANS.

CITY STANDARD DRAWING NO.:

- MANHOLES**
- 10 "PRECAST STORM OR SANITARY MANHOLE"**
- 11 "OUTSIDE DROP CONNECTION FOR SANITARY MANHOLE"**
- 12 "MANHOLE COVER"**

- CONDUITS AND TRENCHES**
- 19 "UTILITY TRENCH REQUIREMENTS"**
- 20 "SANITARY SEWERS AND LATERALS"**
- 21 "CONCRETE ENCASUREMENT DETAIL"**

- DRIVEWAYS, CURBS, AND PAVEMENT**
- 32 "TYPICAL SECTION - LOCAL STREET"**

VI. STORM WATER POLLUTION PREVENTION:

FOR PROJECTS LESS THAN ONE (1) ACRE OF TOTAL LAND-DISTURBANCE:

AN EPA NPDES CONSTRUCTION STORM WATER PERMIT AND SWP3 IS NOT REQUIRED. HOWEVER, THE CONTRACTOR SHALL STILL ENSURE THAT APPROPRIATE PRACTICES ARE IN PLACE TO PROVIDE CONSTRUCTION RUNOFF AND EROSION AND SEDIMENT CONTROLS WITHIN THE PROJECT LIMITS. SUCH PRACTICES MAY INCLUDE THE USE OF SILT FENCE, STORM DRAIN INLET PROTECTION, JUTE MATTING, TEMPORARY SEEDING, MULCHING, CHECK DAMS, CONSTRUCTION ENTRANCES, CONCRETE WASHOUT AREAS, ETC. ALL PRACTICES SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE CURRENT EDITION OF THE OHIO DEPARTMENT OF NATURAL RESOURCES' RAINWATER AND LAND DEVELOPMENT MANUAL, AS APPLICABLE.

EROSION AND SEDIMENT CONTROL PRACTICES MUST BE INSTALLED PRIOR TO BEGINNING CONSTRUCTION ACTIVITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTINUED INSPECTION AND MAINTENANCE OF ALL PRACTICES AND WILL BE HELD RESPONSIBLE FOR ADDRESSING ANY ON-OR OFF-SITE EROSION/SEDIMENT ISSUES RELATED TO THE PROJECT. THE OWNER/CONTRACTOR SHALL ABIDE BY ALL ORDERS ISSUED BY THE CITY PURSUANT TO INSPECTION OF THE PROJECT SITE.

VII. POST CONSTRUCTION INCIDENTALS

(A) PROPOSED MONUMENTATION:

THE CONTRACTOR'S SURVEYOR SHALL NOTIFY THE CITY ENGINEER IN WRITING UPON THE COMPLETION OF MONUMENTS BEING SET AS PER PLAN OR RECORD PLAT.

(B) RELEASE OF RETAINER/BONDS:

PRIOR TO THE RELEASE OF RETAINER/CONSTRUCTION BOND BY THE CITY OF CANTON, THE CONTRACTOR SHALL HAVE COMPLETED THE ENGINEER'S PROJECT PUNCHLIST AND SUBMIT FINAL WAIVER OF LIEN, IN ACCORDANCE WITH CITY SS 01-00.

GENERAL NOTES

1. THE CONTRACTOR SHALL VERIFY FLOW LINE ELEVATIONS OF EXISTING SANITARY SEWERS AND SANITARY LATERALS PRIOR TO WORK. ANY ADJUSTMENT OF GRADES SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION.
2. ALL DISTURBED EARTH SHALL BE SEEDED AND MULCHED AS SOON AS POSSIBLE TO PRECLUDE EROSION. JUTE MATTING SHALL BE PLACED IN AREAS WHERE GRASS COVER CANNOT BE ESTABLISHED DUE TO STEEP SLOPES.
3. ROOF DRAINS, FLOOR DRAINS, AND ALL CLEAN WATER CONNECTIONS SHALL BE PROHIBITED FROM CONNECTING TO THE SANITARY SYSTEMS.
4. NO GROUND OR SURFACE WATER ENCOUNTERED DURING SEWER LINE EXCAVATION WILL BE ALLOWED TO ENTER THE SANITARY SEWER COLLECTION SYSTEM.
5. A MINIMUM 10-FOOT HORIZONTAL SEPARATION (MEASURED OUT-TO-OUT CLEAR) BETWEEN THE SANITARY SEWER AND EXISTING WATER LINES SHALL BE MAINTAINED.
6. A MINIMUM 18" VERTICAL CLEARANCE (MEASURED OUT-TO-OUT CLEAR) BETWEEN THE SANITARY SEWER AND EXISTING WATER LINES SHALL BE MAINTAINED.
7. ACCESS TO ALL DRIVEWAYS AND PARKING AREAS WITHIN THE PROJECT LIMITS SHALL BE MAINTAINED AT ALL TIMES. ALL OPEN TRENCHES SHALL BE BACKFILLED AS SOON AS POSSIBLE.

EXCAVATED MATERIAL

ALL EXCAVATED MATERIAL AND ALL MATERIAL USED IN CONSTRUCTION OF THE WORK SHALL BE PILED IN A MANNER THAT WILL NOT ENDANGER THE WORK AND THAT WILL LEAVE DRIVEWAYS, OR OTHER CONTROLS UNOBSTRUCTED AND ACCESSIBLE WHILE THE WORK IS BEING COMPLETED. SATISFACTORY PROVISIONS SHALL BE MADE FOR STREET DRAINAGE, AND NATURAL WATERCOURSES SHALL NOT BE OBSTRUCTED. DURING THE PROGRESS OF THE WORK, ALL MATERIAL PILES SHALL BE KEPT TRIMMED UP AND MAINTAINED IN A NEAT MANNER. ALL EXCAVATED WASTE SOIL MAY BE DISPOSED ON FRESH MARK PARCEL # 1400045, AS DIRECTED BY THE OWNER.

ENVIRONMENTAL WORK

GENERAL NOTE:

FRESH MARK HAS INVESTIGATED AND REMOVED ANY HAZARDOUS MATERIAL FROM THE SITE PRIOR TO CONSTRUCTION OF THIS PROJECT.

SOIL BORING B-1 NOTE

SOIL BORING #1 NOTED A PETROLEUM ODOR. THE SOILS FROM WHICH THIS ODOR WAS NOTED HAVE BEEN REMOVED AND PROPERLY DISPOSED OF BY FRESH MARK, AND TO THE BEST OF EVERYONE'S KNOWLEDGE THE REST OF THE PROJECT AREA IS FREE OF ANY POTENTIAL CONTAMINANTS. HOWEVER, IN THE EVENT THAT ADDITIONAL CONTAMINANTS ARE FOUND DURING THE PERFORMANCE OF THIS PROJECT, THE CITY OF CANTON'S CONTRACTOR WILL VACATE THE CONTAMINATED AREA AND FRESH MARK'S CONTRACTOR WILL BE RESPONSIBLE FOR REMOVING AND DEPOSING OF THE MATERIAL.

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| | | TMK | | AJP | | TMK | | WAD | |
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CANTON, OHIO
 EAST SIDE INTERCEPTOR
 SEWER RELOCATION
 G.P. #113
 GENERAL NOTES



| | |
|----------|----------|
| JOB NO. | E13029 |
| DATE | 2/2015 |
| SCALE | AS SHOWN |
| SHEET NO | C4 |

2/20/2015 10:45:03 AM

| REF. NO. | ITEM SPEC NO. | SHEET NUMBER | | | | ITEM SPEC NO. | GRAND TOTAL | UNIT | DESCRIPTION |
|----------|----------------|--------------|------|-----|-----|----------------|-------------|------|--|
| | | C6 | C7 | C8 | N/A | | | | |
| 1 | 01380 | | | | 1 | 01380 | 1 | LS | PRECONSTRUCTION PHOTOGRAPHY |
| 2 | 02050 | | | | 1 | 02050 | 1 | LS | DEMOLITION |
| 3 | 02270 | | | | 1 | 02270 | 1 | LS | SLOPE PROTECTION AND EROSION CONTROL |
| 4 | 02310 | | | | 1 | 02310 | 1 | LS | ENGINEERED SHORING |
| 5 | 02322 | | | | 1 | 02322 | 1 | LS | GEOTECHNICAL INSTRUMENTATION AND MONITORING |
| 6 | 02485 | | | | 1 | 02485 | 1 | LS | SEEDING |
| 7 | 02534 | | | | 1 | 02534 | 1 | LS | SEWER FLOW CONTROL |
| 8 | 02560 | | 2 | | | 02560 | 2 | EA | SANITARY MANHOLES NO. 3 & NO. 4, 72 INCH DIAMETER |
| 9 | 02560 | | 1 | 3 | | 02560 | 4 | EA | SANITARY MANHOLES NO. 2, NO. 5, NO. 6 & NO. 7 84 INCH DIAMETER |
| 10 | 02570 OR 03300 | | 1 | | | 02570 OR 03300 | 1 | LS | MANHOLE JUNCTION STRUCTURE MANHOLE NO. 1 CAST-IN-PLACE CONCRETE OR PRECAST CONCRETE |
| 11 | 02570 OR 03300 | | | 1 | | 02570 OR 03300 | 1 | LS | MANHOLE JUNCTION STRUCTURE MANHOLE NO. 8 CAST-IN-PLACE CONCRETE OR PRECAST CONCRETE |
| 12 | 02560 | | 4 | 4 | | 02560 | 8 | EA | MANHOLE AND JUNCTION STRUCTURE EXTERIOR WATERPROOFING, COAL TAR |
| 13 | 02567 | | 4 | 4 | | 02567 | 8 | EA | MANHOLE AND JUNCTION STRUCTURE SEALING WITH PROTECTIVE POLYMER LINING |
| 14 | 03300 | | | | | 03300 | 340 | CY | EXISTING 42 INCH SEWER AND MANHOLES FILL WITH CONTROLLED DENSITY FILL |
| 15 | 15061 | | 500 | 558 | | 15061 | 1058 | LF | FIBERGLASS REINFORCED POLYMER MORTAR PIPE FOR SANITARY SEWER |
| 16 | CAN 05-01 | | 500 | 558 | | CAN 05-01 | 1058 | LF | SEWER TELEVISION INSPECTION AND DOCUMENTATION |
| 17 | ODOT 202 | | 95 | 438 | | ODOT 202 | 533 | LF | FENCE REMOVED |
| 18 | ODOT 202 | | 2054 | 746 | | ODOT 202 | 2800 | SY | PAVEMENT REMOVAL INCLUDING SAW CUTTING |
| 19 | ODOT 202 | | 1 | 2 | | ODOT 202 | 3 | EA | EXISTING CATCH BASIN REMOVAL |
| 20 | ODOT202 | | 330 | 180 | | ODOT202 | 510 | LF | EXISTING WATERLINE REMOVAL 8 INCH TO 12 INCH DIA |
| 21 | ODOT 202 | | 35 | 55 | | ODOT 202 | 90 | LF | EXISTING STORM SEWER REMOVAL 8 INCH DIA |
| 22 | ODOT 202 | | | 11 | | ODOT 202 | 11 | LF | EXISTING STORM SEWER REMOVAL 30 INCH DIA |
| 23 | ODOT 301 | | 265 | 98 | | ODOT 301 | 363 | CY | ASPHALT CONCRETE BASE COURSE, 6 INCHES THICKNESS |
| 24 | ODOT 304 | | 357 | 130 | | ODOT 304 | 487 | CY | LIMESTONE, 8 INCHES FOR PAVEMENT REPLACEMENT |
| 25 | ODOT 448 | | 91 | 33 | | ODOT 448 | 124 | CY | ASPHALT CONCRETE SURFACE COURSE TYPE 1, 2 INCHES THICKNESS |
| 26 | ODOT 607 | 962 | | | | ODOT 607 | 962 | LF | CONSTRUCTION FENCE |
| 27 | ODOT 607 | | 95 | 438 | | ODOT 607 | 533 | LF | FENCE TYPE CLT |
| 28 | ODOT 623 | | | | 1 | ODOT 623 | 1 | LS | CONSTRUCTION STAKING |
| 29 | ODOT 624 | | | | 1 | ODOT 624 | 1 | LS | MOBILIZATION/DEMOLITION |
| 30 | CAN STD DWG 19 | | | | 1 | CAN STD DWG 19 | 50 | CY | CONTINGENCY FOR EXTRA EXCAVATION AND FOUNDATION MATERIAL, OPTION B (#57 LIMESTONE) |

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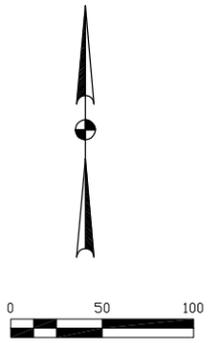
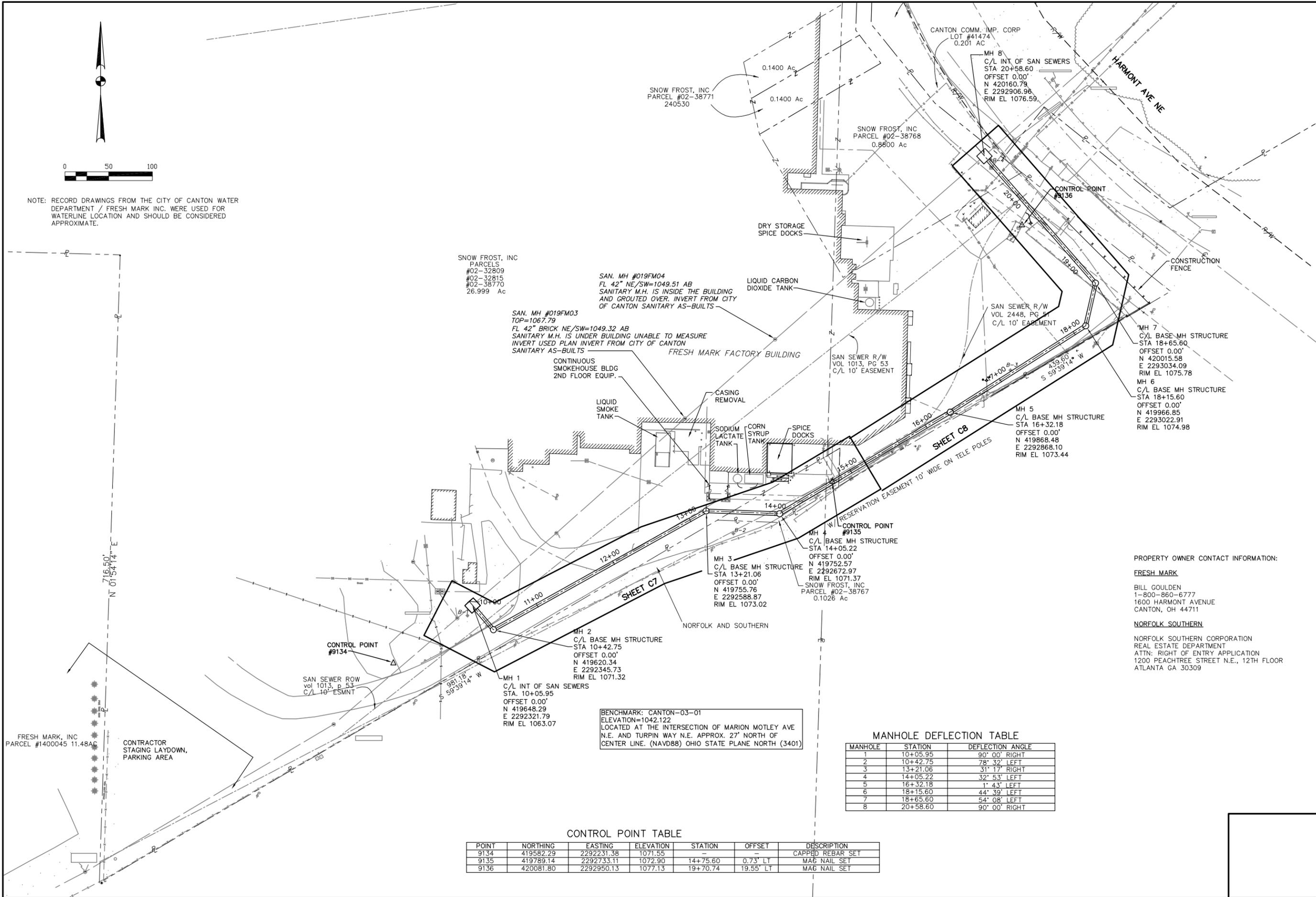
CANTON, OHIO
EAST SIDE INTERCEPTOR
SEWER RELOCATION
G.P. #113
GENERAL SUMMARY



| | |
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| JOB NO. | E13029 |
| DATE | 2/2015 |
| SCALE | AS SHOWN |
| SHEET NO | C5 |

2/20/2015 2:54:27 PM

FILE: E:\13029 FRESH MARK\06 C10 PP C11 C19 SHITS REVISED.dwg Feb 20, 2015 - C.TI ENGINEERS, INC.



NOTE: RECORD DRAWINGS FROM THE CITY OF CANTON WATER DEPARTMENT / FRESH MARK INC. WERE USED FOR WATERLINE LOCATION AND SHOULD BE CONSIDERED APPROXIMATE.

SNOW FROST, INC
PARCELS
#02-32809
#02-32815
#02-38770
26.999 Ac

SAN. MH #019FM04
FL 42" NE/SW=1049.51 AB
SANITARY M.H. IS INSIDE THE BUILDING
AND GROUTED OVER. INVERT FROM CITY
OF CANTON SANITARY AS-BUILTS

SAN. MH #019FM03
TOP=1067.79
FL 42" BRICK NE/SW=1049.32 AB
SANITARY M.H. IS UNDER BUILDING UNABLE TO MEASURE
INVERT USED PLAN INVERT FROM CITY OF CANTON
SANITARY AS-BUILTS

CONTINUOUS SMOKEHOUSE BLDG
2ND FLOOR EQUIP.

LIQUID SMOKE TANK

CASING REMOVAL

SODIUM LACTATE TANK

CORN SYRUP TANK

SPICE DOCKS

MH 2
C/L BASE MH STRUCTURE
STA 10+42.75
OFFSET 0.00'
N 419620.34
E 2292345.73
RIM EL 1071.32

MH 1
C/L INT OF SAN SEWERS
STA. 10+05.95
OFFSET 0.00'
N 419648.29
E 2292321.79
RIM EL 1063.07

BENCHMARK: CANTON-03-01
ELEVATION=1042.122
LOCATED AT THE INTERSECTION OF MARION MOTLEY AVE
N.E. AND TURPIN WAY N.E. APPROX. 27' NORTH OF
CENTER LINE. (NAVD88) OHIO STATE PLANE NORTH (3401)

MH 3
C/L BASE MH STRUCTURE
STA 13+21.06
OFFSET 0.00'
N 419755.76
E 2292588.87
RIM EL 1073.02

MH 4
C/L BASE MH STRUCTURE
STA 14+05.22
OFFSET 0.00'
N 419752.57
E 2292672.97
RIM EL 1071.37

MH 5
C/L BASE MH STRUCTURE
STA 16+32.18
OFFSET 0.00'
N 419868.48
E 2292868.10
RIM EL 1073.44

MH 6
C/L BASE MH STRUCTURE
STA 18+15.60
OFFSET 0.00'
N 419966.85
E 2293022.91
RIM EL 1074.98

MH 7
C/L BASE MH STRUCTURE
STA 18+65.60
OFFSET 0.00'
N 420015.58
E 2293034.09
RIM EL 1075.78

MH 8
C/L INT OF SAN SEWERS
STA 20+58.60
OFFSET 0.00'
N 420160.79
E 2292906.96
RIM EL 1076.59

MANHOLE DEFLECTION TABLE

| MANHOLE | STATION | DEFLECTION ANGLE |
|---------|----------|------------------|
| 1 | 10+05.95 | 90° 00' RIGHT |
| 2 | 10+42.75 | 78° 32' LEFT |
| 3 | 13+21.06 | 31° 17' RIGHT |
| 4 | 14+05.22 | 32° 53' LEFT |
| 5 | 16+32.18 | 1° 43' LEFT |
| 6 | 18+15.60 | 44° 39' LEFT |
| 7 | 18+65.60 | 54° 08' LEFT |
| 8 | 20+58.60 | 90° 00' RIGHT |

CONTROL POINT TABLE

| POINT | NORTHING | EASTING | ELEVATION | STATION | OFFSET | DESCRIPTION |
|-------|-----------|------------|-----------|----------|-----------|------------------|
| 9134 | 419582.29 | 2292231.38 | 1071.55 | - | - | CAPPED REBAR SET |
| 9135 | 419789.14 | 2292733.11 | 1072.90 | 14+75.60 | 0.73' LT | MAG NAIL SET |
| 9136 | 420081.80 | 2292950.13 | 1077.13 | 19+70.74 | 19.55' LT | MAG NAIL SET |

PROPERTY OWNER CONTACT INFORMATION:
FRESH MARK
BILL GOULDEN
1-800-860-6777
1600 HARMONT AVENUE
CANTON, OH 44711
NORFOLK SOUTHERN
NORFOLK SOUTHERN CORPORATION
REAL ESTATE DEPARTMENT
ATTN: RIGHT OF ENTRY APPLICATION
1200 PEACHTREE STREET N.E., 12TH FLOOR
ATLANTA GA 30309

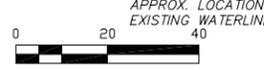
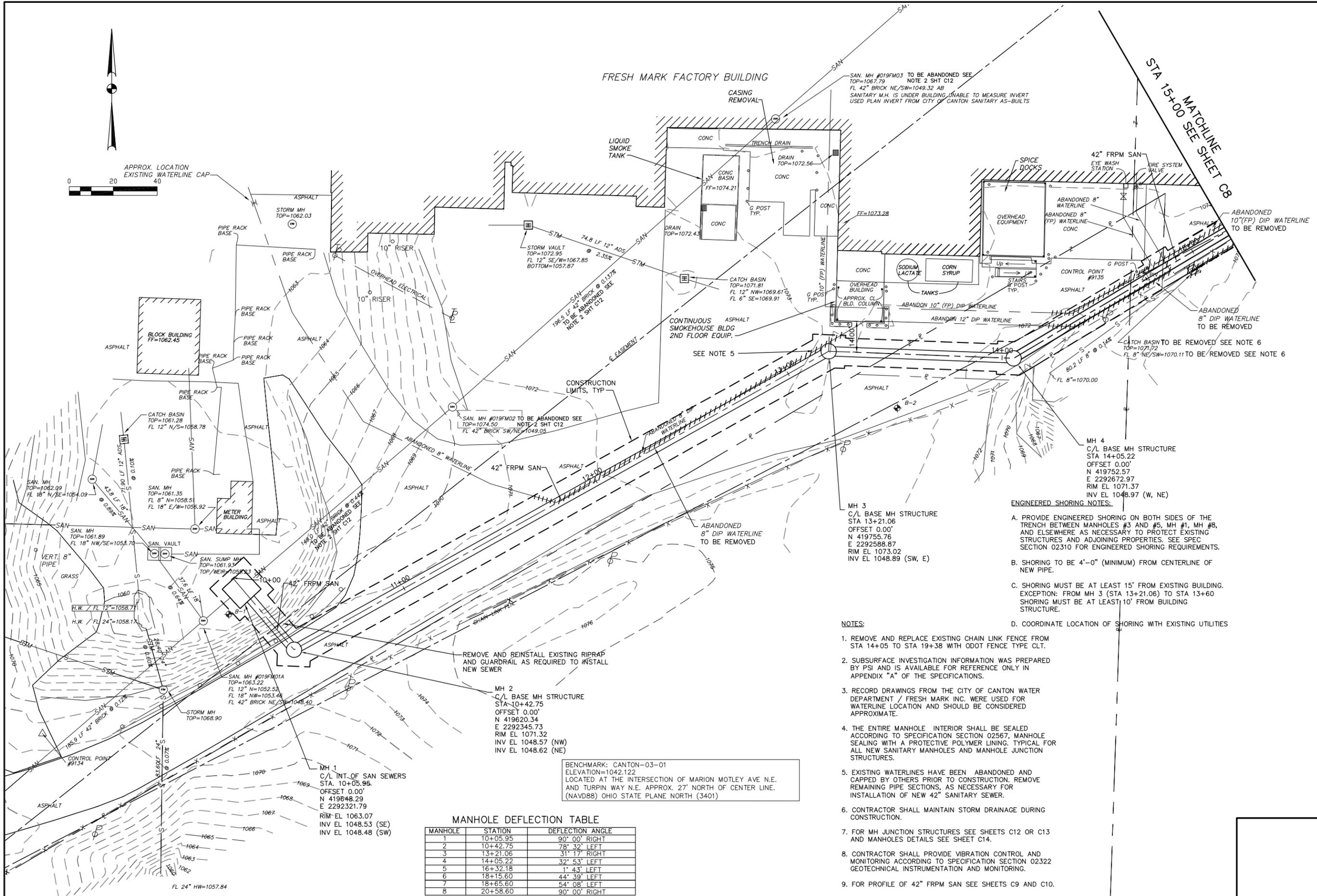
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| NO. | DESCRIPTIONS | DATE | BY | APP'D |
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CANTON, OHIO
**EAST SIDE INTERCEPTOR
SEWER RELOCATION
G.P. #113**
OVERALL SITE AND CONTROL
PLAN



| |
|-------------------|
| JOB NO. E13029 |
| DATE 2/2015 |
| SCALE AS SHOWN |
| SHEET NO. C6 |



FRESH MARK FACTORY BUILDING

STA 15+00 MATCHLINE SHEET C8

MANHOLE DEFLECTION TABLE

| MANHOLE | STATION | DEFLECTION ANGLE |
|---------|----------|------------------|
| 1 | 10+05.95 | 90° 00' RIGHT |
| 2 | 10+42.75 | 78° 32' LEFT |
| 3 | 13+21.06 | 31° 17' RIGHT |
| 4 | 14+05.22 | 32° 53' LEFT |
| 5 | 16+32.18 | 1° 43' LEFT |
| 6 | 18+15.60 | 44° 39' LEFT |
| 7 | 18+65.60 | 54° 08' LEFT |
| 8 | 20+58.60 | 90° 00' RIGHT |

BENCHMARK: CANTON-03-01
 ELEVATION=1042.122
 LOCATED AT THE INTERSECTION OF MARION MOTLEY AVE N.E.
 AND TURPIN WAY N.E. APPROX. 27' NORTH OF CENTER LINE.
 (NAVD88) OHIO STATE PLANE NORTH (3401)

- ENGINEERED SHORING NOTES:**
- PROVIDE ENGINEERED SHORING ON BOTH SIDES OF THE TRENCH BETWEEN MANHOLES #3 AND #5, MH #1, MH #8, AND ELSEWHERE AS NECESSARY TO PROTECT EXISTING STRUCTURES AND ADJOINING PROPERTIES. SEE SPEC SECTION 02310 FOR ENGINEERED SHORING REQUIREMENTS.
 - SHORING TO BE 4'-0" (MINIMUM) FROM CENTERLINE OF NEW PIPE.
 - SHORING MUST BE AT LEAST 15' FROM EXISTING BUILDING. EXCEPTION: FROM MH 3 (STA 13+21.06) TO STA 13+60 SHORING MUST BE AT LEAST 10' FROM BUILDING STRUCTURE.
 - COORDINATE LOCATION OF SHORING WITH EXISTING UTILITIES

- NOTES:**
- REMOVE AND REPLACE EXISTING CHAIN LINK FENCE FROM STA 14+05 TO STA 19+38 WITH ODOT FENCE TYPE CLT.
 - SUBSURFACE INVESTIGATION INFORMATION WAS PREPARED BY PSI AND IS AVAILABLE FOR REFERENCE ONLY IN APPENDIX "A" OF THE SPECIFICATIONS.
 - RECORD DRAWINGS FROM THE CITY OF CANTON WATER DEPARTMENT / FRESH MARK INC. WERE USED FOR WATERLINE LOCATION AND SHOULD BE CONSIDERED APPROXIMATE.
 - THE ENTIRE MANHOLE INTERIOR SHALL BE SEALED ACCORDING TO SPECIFICATION SECTION 02567, MANHOLE SEALING WITH A PROTECTIVE POLYMER LINING. TYPICAL FOR ALL NEW SANITARY MANHOLES AND MANHOLE JUNCTION STRUCTURES.
 - EXISTING WATERLINES HAVE BEEN ABANDONED AND CAPPED BY OTHERS PRIOR TO CONSTRUCTION. REMOVE REMAINING PIPE SECTIONS, AS NECESSARY FOR INSTALLATION OF NEW 42" SANITARY SEWER.
 - CONTRACTOR SHALL MAINTAIN STORM DRAINAGE DURING CONSTRUCTION.
 - FOR MH JUNCTION STRUCTURES SEE SHEETS C12 OR C13 AND MANHOLES DETAILS SEE SHEET C14.
 - CONTRACTOR SHALL PROVIDE VIBRATION CONTROL AND MONITORING ACCORDING TO SPECIFICATION SECTION 02322 GEOTECHNICAL INSTRUMENTATION AND MONITORING.
 - FOR PROFILE OF 42" FRPM SAN SEE SHEETS C9 AND C10.

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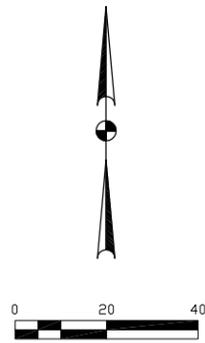
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| DESIGNED BY | TMK | DRAWN BY | AJP | CHECKED BY | TMK | APPROVED BY | WAD |
|-------------|-----|----------|-----|------------|-----|-------------|-----|

CANTON, OHIO
EAST SIDE INTERCEPTOR
SEWER RELOCATION
G.P. #113
SEWER PLAN
STA 10+00 TO STA 15+00

220 MARKET AVENUE SOUTH, SUITE 750
 CANTON, OH 44702
 330-855-7733

| | |
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| JOB NO. | E13029 |
| DATE | 1/2015 |
| SCALE | AS SHOWN |
| SHEET NO | C7 |

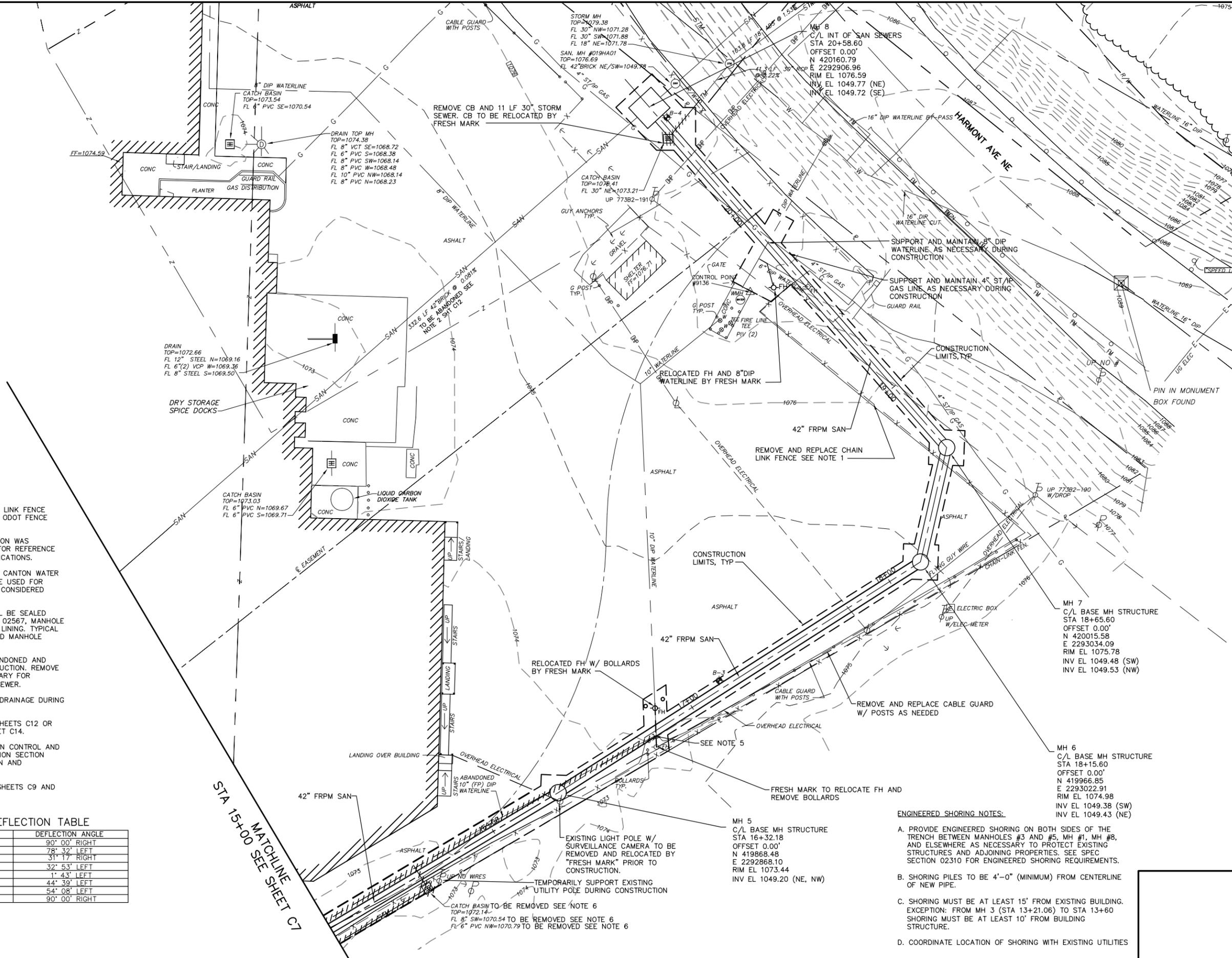


NOTES:

1. REMOVE AND REPLACE EXISTING CHAIN LINK FENCE FROM STA 14+05 TO STA 19+38 WITH ODOT FENCE TYPE CLT.
2. SUBSURFACE INVESTIGATION INFORMATION WAS PREPARED BY PSI AND IS AVAILABLE FOR REFERENCE ONLY IN APPENDIX "A" OF THE SPECIFICATIONS.
3. RECORD DRAWINGS FROM THE CITY OF CANTON WATER DEPARTMENT / FRESH MARK INC. WERE USED FOR WATERLINE LOCATION AND SHOULD BE CONSIDERED APPROXIMATE.
4. THE ENTIRE MANHOLE INTERIOR SHALL BE SEALED ACCORDING TO SPECIFICATION SECTION 02567, MANHOLE SEALING WITH A PROTECTIVE POLYMER LINING, TYPICAL FOR ALL NEW SANITARY MANHOLES AND MANHOLE JUNCTION STRUCTURES.
5. EXISTING WATERLINES HAVE BEEN ABANDONED AND CAPPED BY OTHERS PRIOR TO CONSTRUCTION. REMOVE REMAINING PIPE SECTIONS, AS NECESSARY FOR INSTALLATION OF NEW 42" SANITARY SEWER.
6. CONTRACTOR SHALL MAINTAIN STORM DRAINAGE DURING CONSTRUCTION.
7. FOR MH JUNCTION STRUCTURES SEE SHEETS C12 OR C13 AND MANHOLES DETAILS SEE SHEET C14.
8. CONTRACTOR SHALL PROVIDE VIBRATION CONTROL AND MONITORING ACCORDING TO SPECIFICATION SECTION 02322 GEOTECHNICAL INSTRUMENTATION AND MONITORING.
9. FOR PROFILE OF 42" FRPM SAN SEE SHEETS C9 AND C10.

MANHOLE DEFLECTION TABLE

| MANHOLE | STATION | DEFLECTION ANGLE |
|---------|----------|------------------|
| 1 | 10+05.95 | 90° 00' RIGHT |
| 2 | 10+42.75 | 78° 32' LEFT |
| 3 | 13+21.06 | 31° 17' RIGHT |
| 4 | 14+05.22 | 32° 53' LEFT |
| 5 | 16+32.18 | 1° 43' LEFT |
| 6 | 18+15.60 | 44° 39' LEFT |
| 7 | 18+65.60 | 54° 08' LEFT |
| 8 | 20+58.60 | 90° 00' RIGHT |



STA 15+00 SEE SHEET C7
MATCHLINE

ENGINEERED SHORING NOTES:

- A. PROVIDE ENGINEERED SHORING ON BOTH SIDES OF THE TRENCH BETWEEN MANHOLES #3 AND #5, MH #1, MH #8, AND ELSEWHERE AS NECESSARY TO PROTECT EXISTING STRUCTURES AND ADJOINING PROPERTIES. SEE SPEC SECTION 02310 FOR ENGINEERED SHORING REQUIREMENTS.
- B. SHORING PILES TO BE 4'-0" (MINIMUM) FROM CENTERLINE OF NEW PIPE.
- C. SHORING MUST BE AT LEAST 15' FROM EXISTING BUILDING. EXCEPTION: FROM MH 3 (STA 13+21.06) TO STA 13+60 SHORING MUST BE AT LEAST 10' FROM BUILDING STRUCTURE.
- D. COORDINATE LOCATION OF SHORING WITH EXISTING UTILITIES

| NO. | REVISIONS | DATE | BY |
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DESIGNED BY: TMK
DRAWN BY: AJP
CHECKED BY: TMK
APPROVED BY: WAD

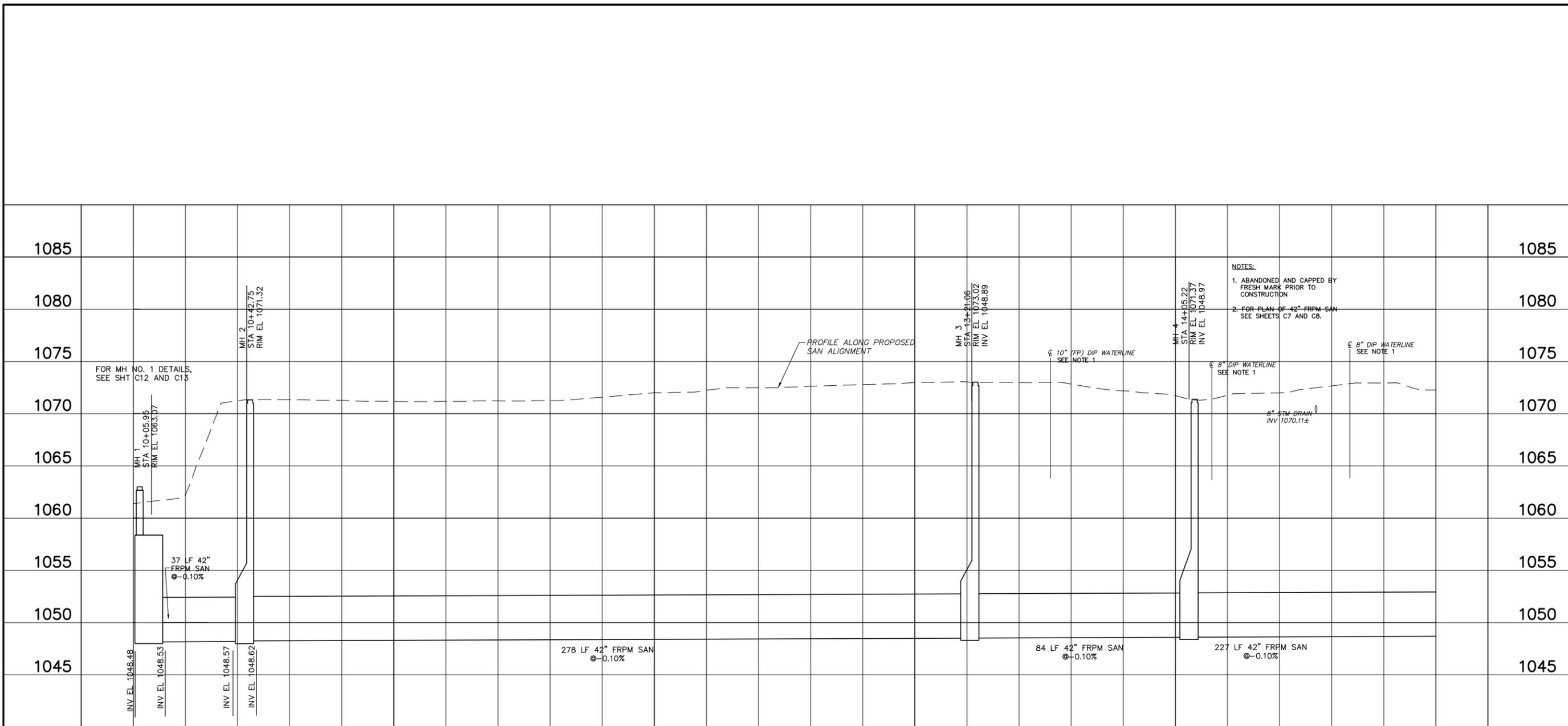


CANTON, OHIO
EAST SIDE INTERCEPTOR
SEWER RELOCATION
G.P. #1113
SEWER PLAN
STA 15+00 TO STA 20+58

| | |
|-----------|----------|
| JOB NO. | E13029 |
| DATE | 1/2015 |
| SCALE | AS SHOWN |
| SHEET NO. | C8 |

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C.T.I. ENGINEERS, INC.
220 MARKET AVENUE SOUTH, SUITE 750
CANTON, OH 44702
330-855-7733



NOTES:
 1. ABANDONED AND CAPPED BY FRESH MARK PRIOR TO CONSTRUCTION
 2. FOR PLAN OF 42" FRPM SAN SEE SHEETS C7 AND C8.

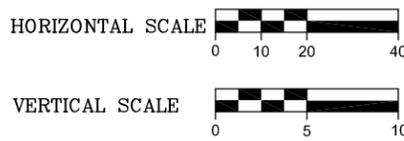
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DESIGNED BY: TMK
 DRAWN BY: AJP
 CHECKED BY: TMK
 APPROVED BY: WAD

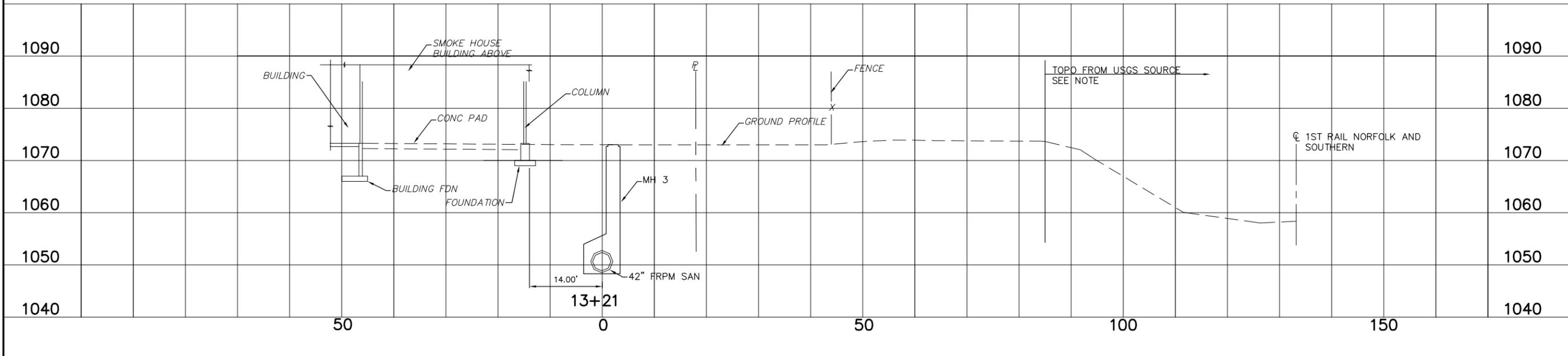
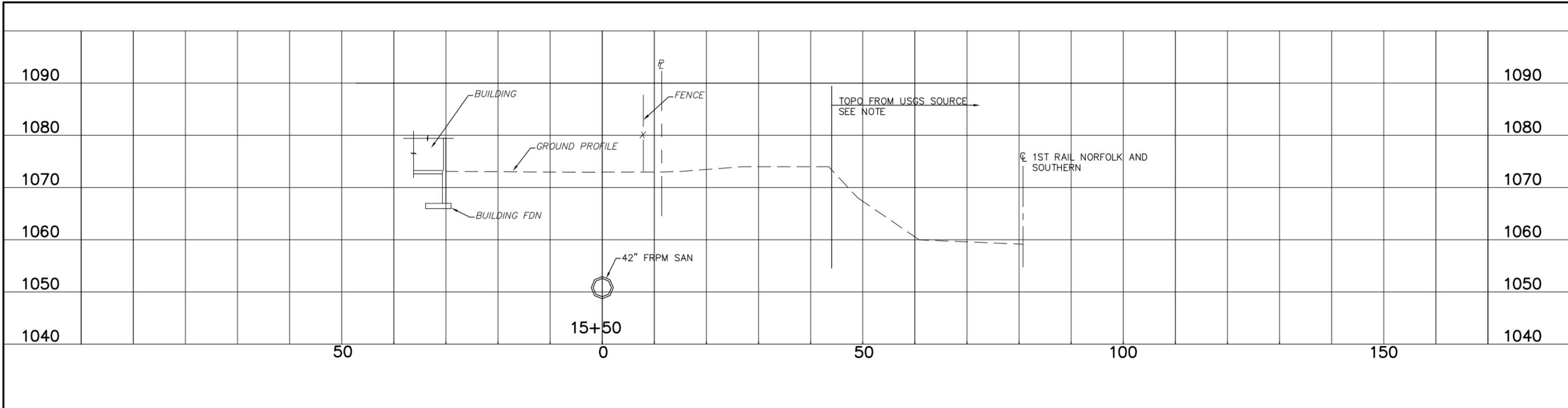
CANTON, OHIO
 EAST SIDE INTERCEPTOR
 SEWER RELOCATION
 G.P. #113
 SANITARY PROFILE
 STA 10+00 TO STA 15+00



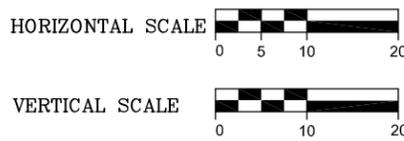
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| JOB NO. | E13029 |
| DATE | 1/2015 |
| SCALE | AS SHOWN |
| SHEET NO | C9 |



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- NOTES:
1. IF MORE DETAILED TOPOGRAPHIC INFORMATION IS NECESSARY TO DEVELOP ENGINEERED SHORING DESIGN THE CONTRACTOR IS RESPONSIBLE TO OBTAIN INFORMATION FROM NORFOLK AND SOUTHERN RAILROAD
 2. THE EXISTING FRESH MARK LUNCHMEAT ADDITION/ALTERATIONS BUILDING FOUNDATION DRAWINGS (JOB # 5349.20) DATED JUNE 25, 1997 WERE PROVIDED BY FRESH MARK TO CTI FOR THE SEWER DESIGN.



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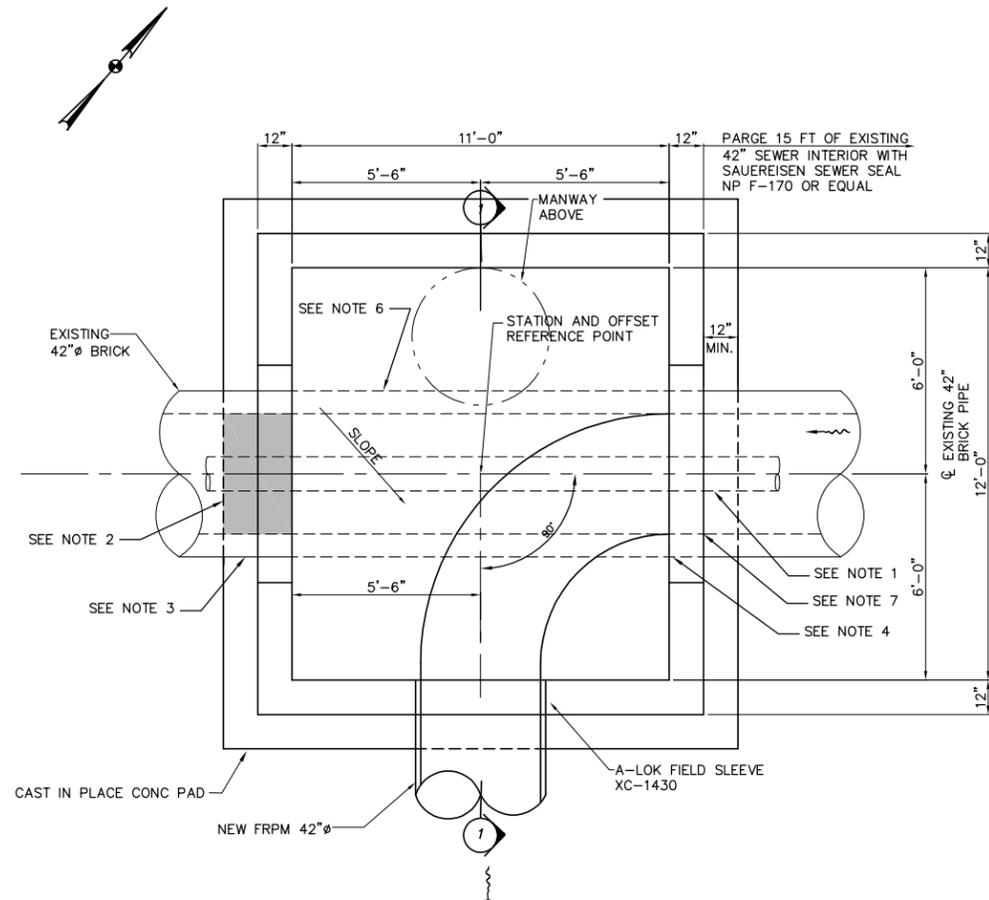
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DESIGNED BY: TMK
 DRAWN BY: AJP
 CHECKED BY: TMK
 APPROVED BY: WAD

CANTON, OHIO
 EAST SIDE INTERCEPTOR
 SEWER RELOCATION
 G.P. #113
 SEWER SECTIONS

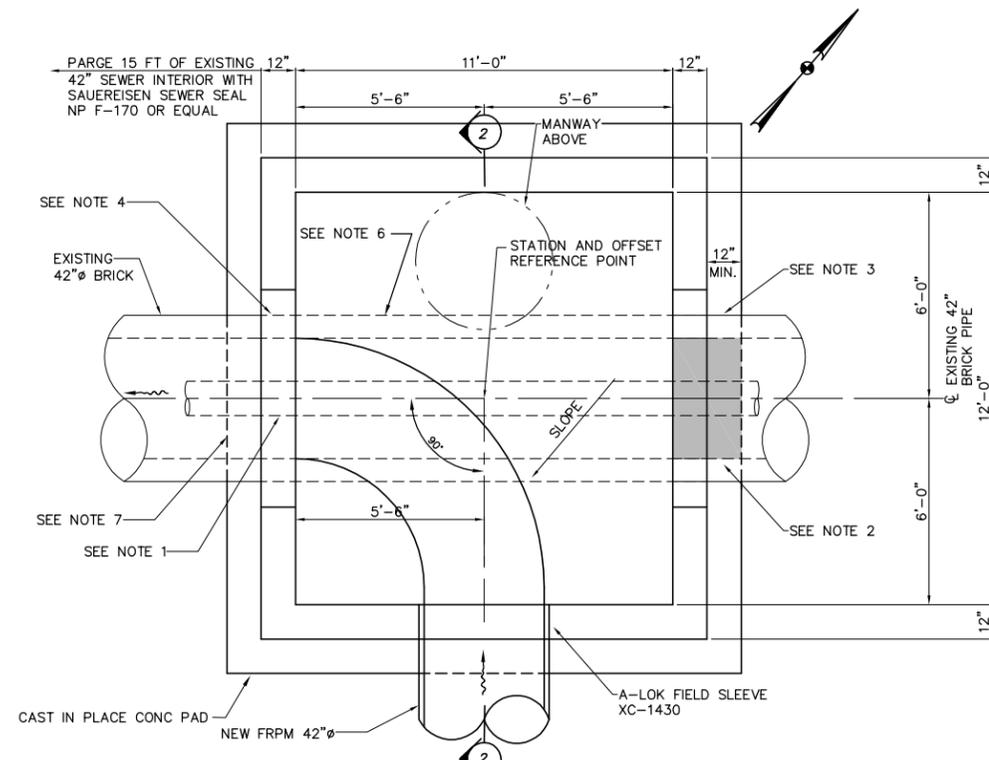


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| JOB NO. | E13029 |
| DATE | 1/2015 |
| SCALE | AS SHOWN |
| SHEET NO | C11 |



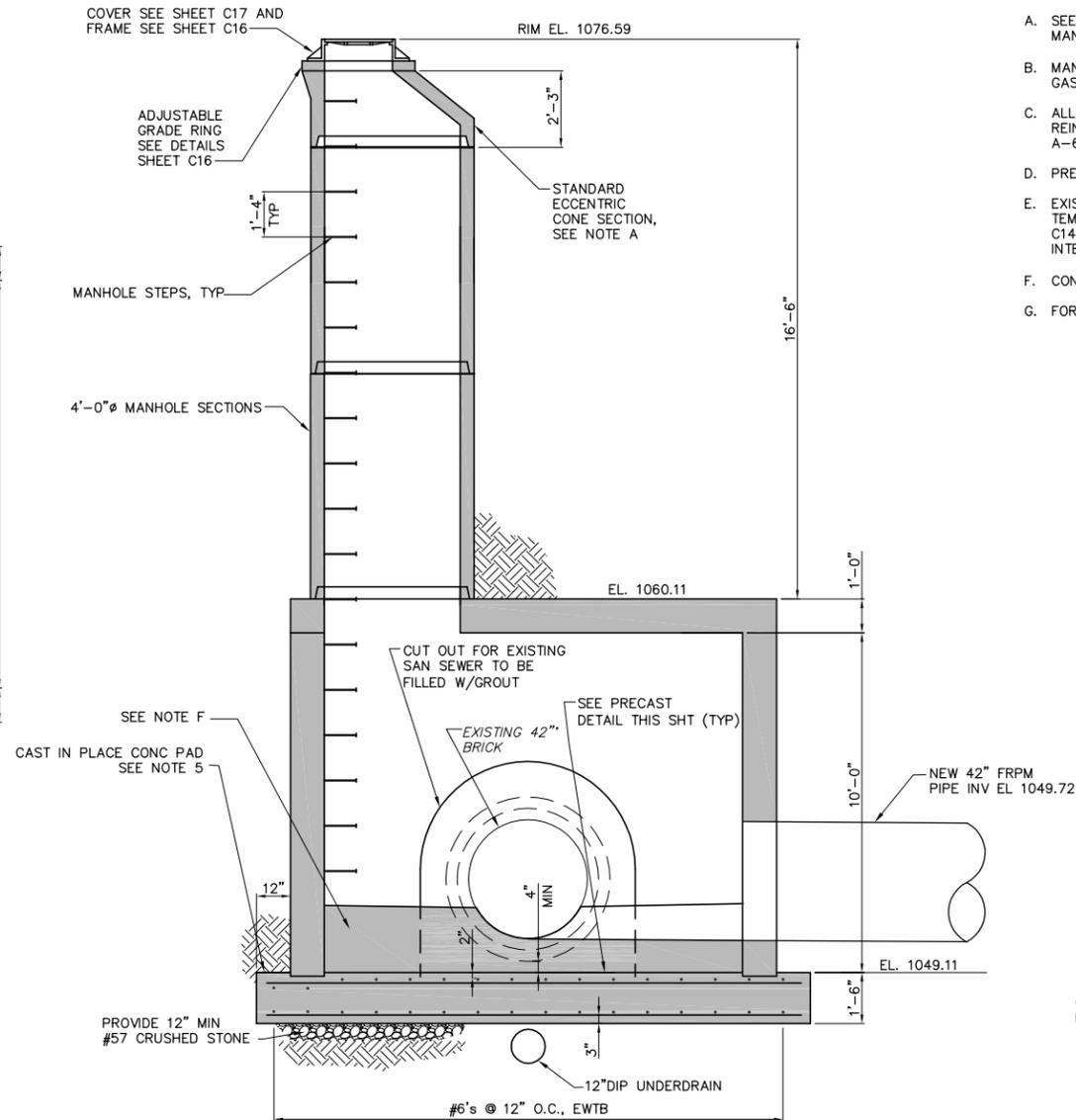
MANHOLE JUNCTION STRUCTURE NO 8 PLAN

SCALE: 3/8"=1'-0"



MANHOLE JUNCTION STRUCTURE NO 1 PLAN

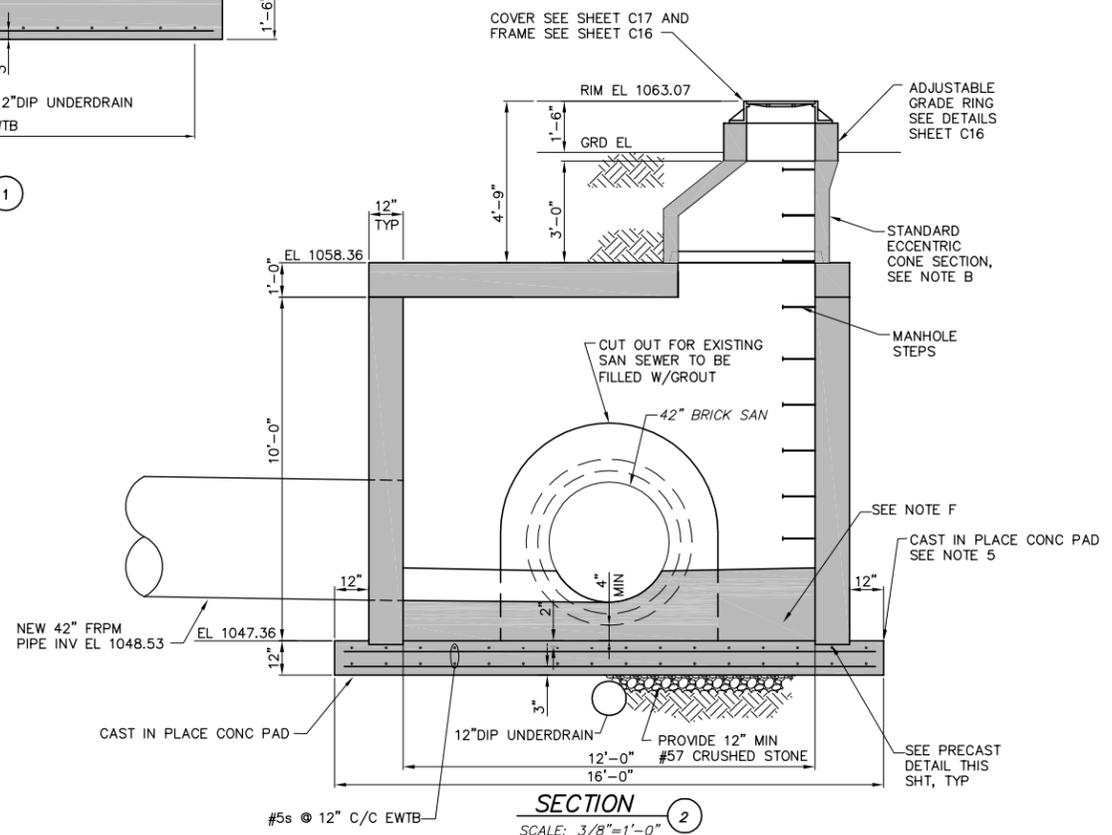
SCALE: 3/8"=1'-0"



SECTION 1

SCALE: 3/8"=1'-0"

- NOTES:
- EXISTING 12"Ø UNDERDRAIN, SEE DETAIL SHT C14, TO BE REPLACED UNDER NEW STRUCTURE WITH 12" DUCTILE IRON PIPE AND CONNECT TO EXISTING PIPE AT BOTH ENDS.
 - AFTER FLOW IS DIVERTED TO NEW PIPE EXISTING 42" SEWER AND MANHOLES #019FM03 AND # 019FM04 SHALL BE FILLED COMPLETELY WITH CONTROLLED DENSITY FILL MATERIAL. SEE SPECIFICATIONS SECTION 03300.
 - PLACE A-LOK WATER-STOP AROUND BRICK BEFORE GROUTING WALL OPENING (TYP.)
 - EXPOSE EXISTING BRICK PIPE EXTERIOR AND CLEAN SURFACE A MIN 10" APPLY ANTI-HYDRO-NONSHRINK GROUT. TROWEL SMOOTH SURFACE APPLY A BEAD OF HYDRO FILLET (SIKA PRODUCT) CAULK 1/2" WIDE AND APPLY A-LOK WATERSTOP OVER HYDRO-FILLET CAULK-BEAD.
 - CAST-IN-PLACE, REINFORCED CONCRETE SLAB. SLAB ELEVATION BASED ON THE BRICK SEWER CONSTRUCTED WITH 2 LAYERS OF BRICK. IF SEWER HAS THICKER WALLS, ADJUST SLAB TOP ELEVATION TO PROVIDE AT LEAST 4-INCHES OF CLEARANCE TO BOTTOM OF OUTSIDE BRICK LAYER.
 - REMOVE ALL EXISTING BRICK WITHIN STRUCTURE.
 - THE CONTRACT WILL BE MODIFIED IF THE "AS FOUND" CONDITION OF THE EXISTING BRICK SEWER WILL NOT PERMIT THE MODIFICATIONS SHOWN ON THE CONTRACT DRAWINGS.

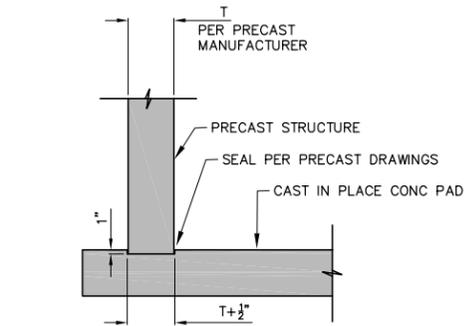


SECTION 2

SCALE: 3/8"=1'-0"

NOTES:

- SEE SHEETS C15 THRU C18 FOR CITY OF CANTON CONSTRUCTION STANDARD FOR MANHOLES, MANHOLE CONES AND COVERS.
- MANHOLE BARRELS AND CONES SHALL CONFORM TO ASTM C-478. PROVIDE "O-RING" GASKETS MEETING ASTM C-443 IN ALL JOINTS.
- ALL CONCRETE USED FOR PRECAST COMPONENTS SHALL BE 5000 PSI AT 28 DAYS. REINFORCEMENT SHALL BE BY PRECAST CONCRETE MANUFACTURER PER ASTM A-615 OR A-617, GRADE 60.
- PRECAST TOP SLABS SHALL BE DESIGNED TO SUPPORT HS-20 LOADING.
- EXISTING SEWER FLOWS MUST BE MAINTAINED AT ALL TIMES. DETAILS FOR RECOMMENDED TEMPORARY FLOW DIVERSION METHOD AT MANHOLES NO 1 AND NO 8 PROVIDED ON SHEET C14. CONTRACTOR IS SOLELY RESPONSIBLE FOR MAINTAINING SEWER FLOWS WITHOUT INTERRUPTION.
- CONSTRUCT BENCHES FROM CLASS "B" CONCRETE.
- FOR BUILDING REFERENCE POINTS SEE SHEET C6



PRECAST CONCRETE DETAIL

SCALE: 1/2" = 1'-0"

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DESIGNED BY
KGP/TMK

DRAWN BY
JD/AJP

CHECKED BY
KGP/TMK

APPROVED BY
WAD

CANTON, OHIO
EAST SIDE INTERCEPTOR
SEWER RELOCATION
G.P. #113
PRECAST CONCRETE
MANHOLE STRUCTURES

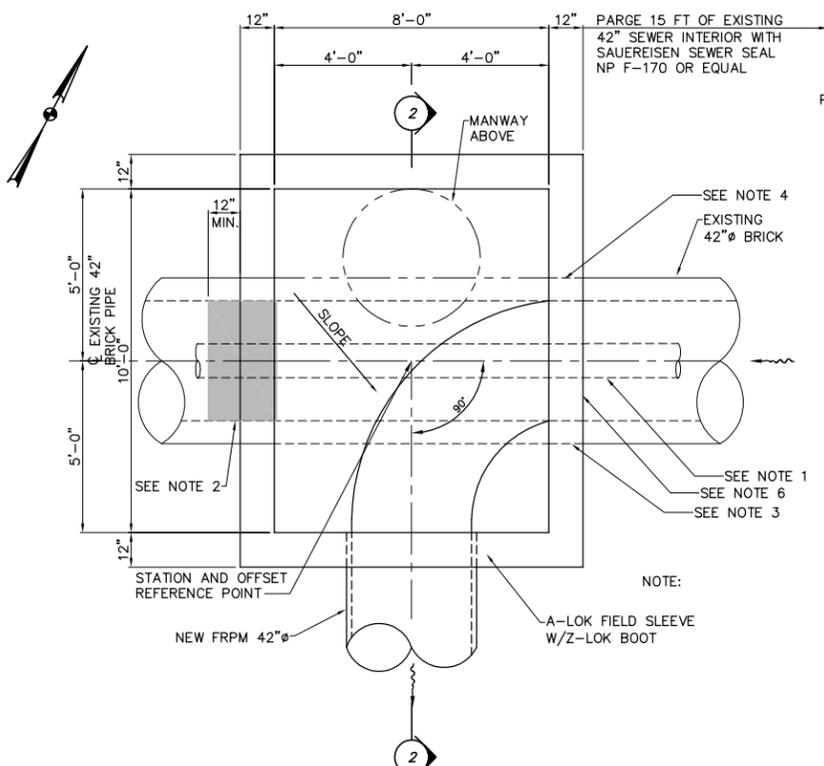


JOB NO.
E13029

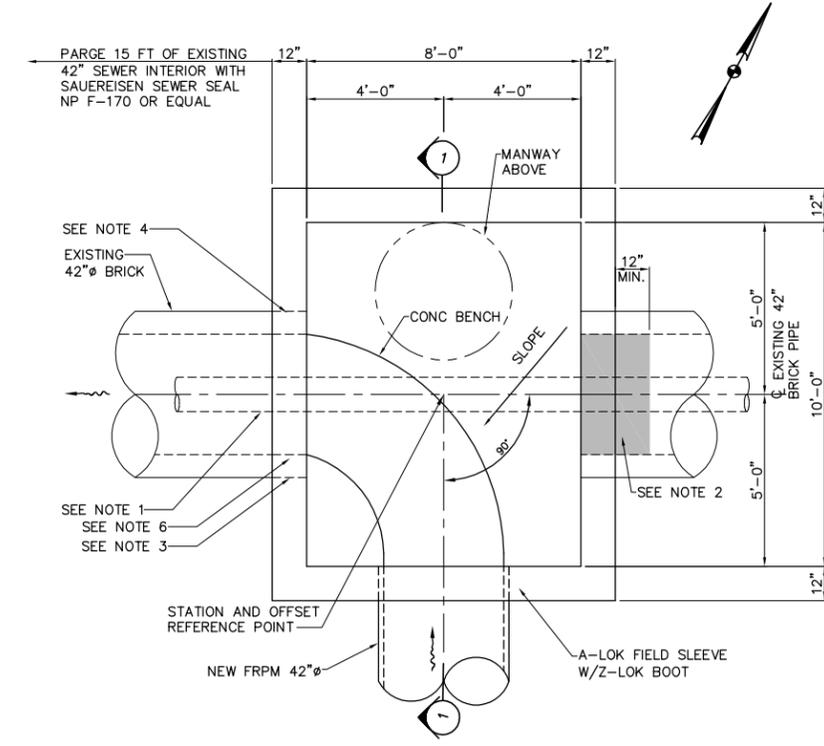
DATE
12/2014

SCALE
AS NOTED

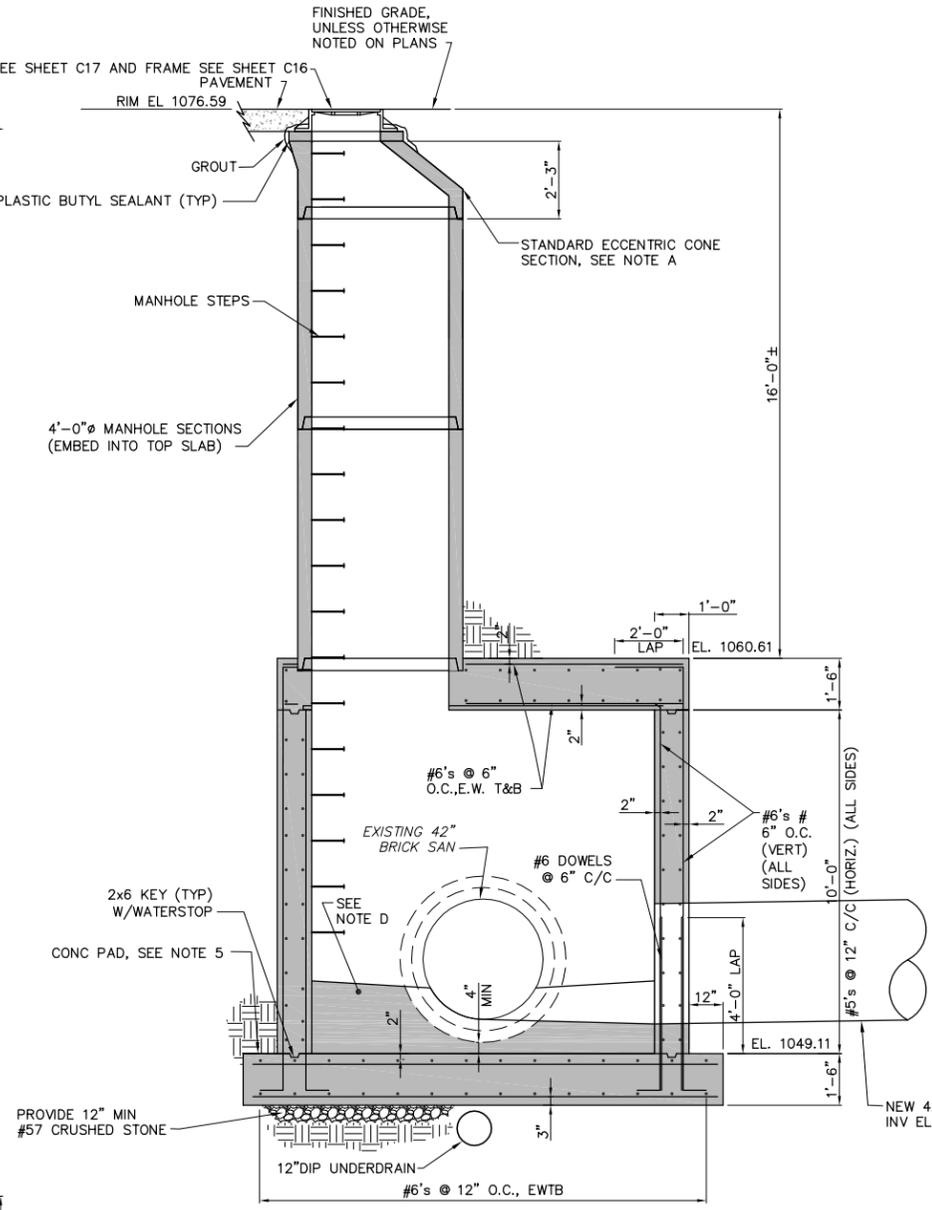
SHEET NO.
C12



CAST IN PLACE CONCRETE MANHOLE JUNCTION STRUCTURE NO 8 PLAN
SCALE: 3/8" = 1'-0"

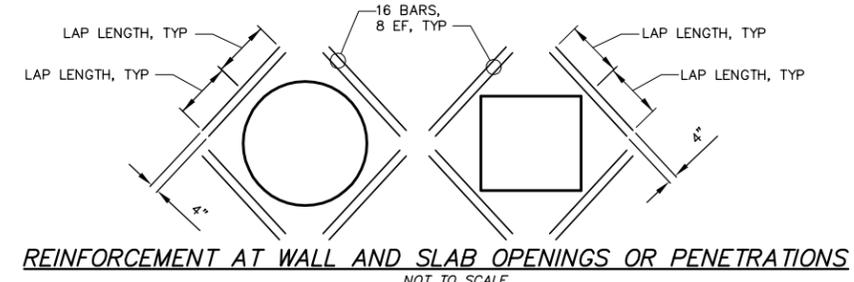


CAST IN PLACE CONCRETE MANHOLE JUNCTION STRUCTURE NO 1 PLAN
SCALE: 3/8" = 1'-0"



SECTION 2
SCALE: 3/8"=1'-0"

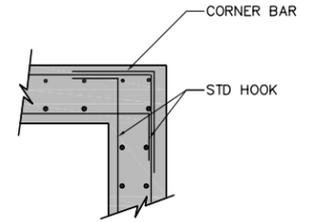
- NOTES:
- EXISTING 12" UNDERDRAIN, SEE DETAIL SHT C14, TO BE REPLACED UNDER NEW STRUCTURE WITH 12" DUCTILE IRON PIPE AND CONNECT TO EXISTING PIPE AT BOTH ENDS.
 - AFTER FLOW IS DIVERTED TO NEW PIPE EXISTING 42" SEWER AND MANHOLES #019FM03 AND # 019FM04 SHALL BE FILLED COMPLETELY WITH CONTROLLED DENSITY FILL MATERIAL SEE SPECIFICATIONS SECTION 03300.
 - PLACE A-LOK WATER-STOP AROUND BRICK BEFORE GROUTING WALL OPENING (TYP.)
 - EXPOSE EXISTING BRICK PIPE EXTERIOR AND CLEAN SURFACE A MIN 10" APPLY ANTI-HYDRO-NONSHRINK GROUT. TROWEL SMOOTH SURFACE APPLY A BEAD OF HYDRO FILLET (SIKA PRODUCT) CAULK 1/2" WIDE AND APPLY A-LOK WATERSTOP OVER HYDRO-FILLET CAULK-BEAD.
 - CAST-IN-PLACE, REINFORCED CONCRETE SLAB. SLAB ELEVATION BASED ON THE BRICK SEWER CONSTRUCTED WITH 2 LAYERS OF BRICK. IF SEWER HAS THICKER WALLS, ADJUST SLAB TOP ELEVATION TO PROVIDE AT LEAST 4-INCHES OF CLEARANCE TO BOTTOM OF OUTSIDE BRICK LAYER.
 - THE CONTRACT WILL BE MODIFIED IF THE "AS FOUND" CONDITION OF THE EXISTING BRICK SEWER WILL NOT PERMIT THE MODIFICATIONS SHOWN ON THE CONTRACT DRAWINGS.



REINFORCEMENT AT WALL AND SLAB OPENINGS OR PENETRATIONS
NOT TO SCALE

| BAR SIZE | LAP LENGTH * |
|----------|--------------|
| #4 | 2'-0" |
| #5 | 2'-6" |
| #6 | 3'-0" |
| #7 | 3'-6" |
| #8 | 4'-6" |
| #9 | 4'-6" |

*NOTE: VALUES APPLY UNLESS OTHERWISE SHOWN

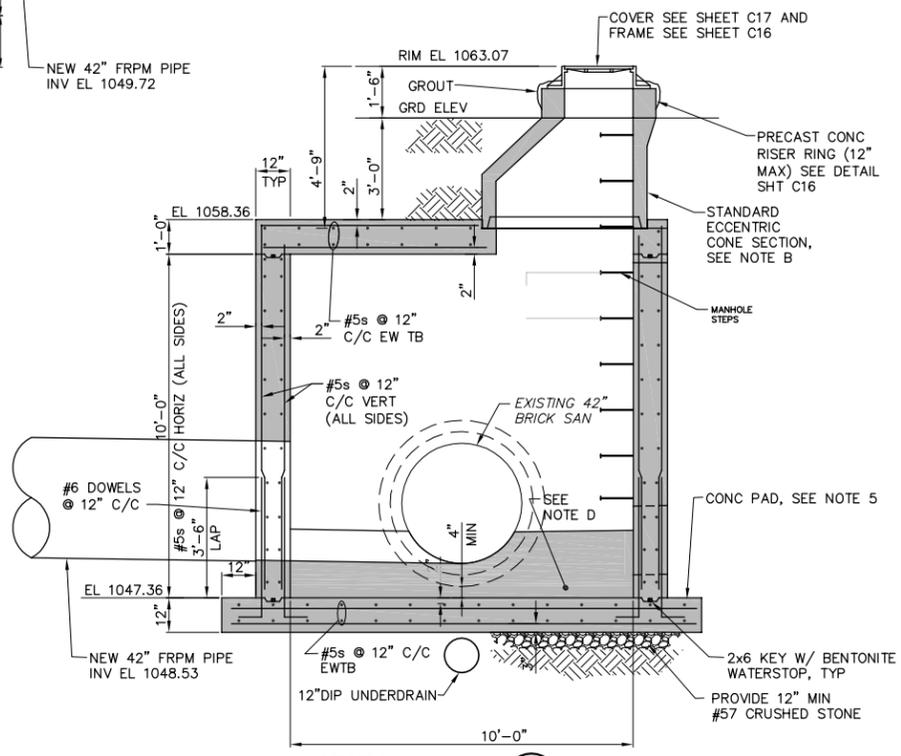


NOTE: STRUCTURAL SECTIONS INDICATE WHETHER HORIZONTAL OR VERTICAL STEEL SHALL BE PLACED NEAREST TO THE FORMED SURFACE.

REINFORCING BAR LAP SCHEDULE

TYPICAL WALL CORNER DETAIL
NOT TO SCALE

- NOTES:
- SEE SHEETS C15 THRU C18 FOR CITY OF CANTON CONSTRUCTION STANDARD FOR MANHOLES, MANHOLE CONES AND COVERS.
 - MANHOLE BARRELS AND CONES SHALL CONFORM TO ASTM C-478. PROVIDE "O-RING" GASKETS MEETING ASTM C-443 IN ALL JOINTS.
 - ALL CONCRETE USED FOR PRECAST COMPONENTS SHALL BE 5000 PSI AT 28 DAYS. REINFORCEMENT SHALL BE BY PRECAST CONCRETE MANUFACTURER PER ASTM A-615 OR A-617, GRADE 60.
 - CONSTRUCT ALL CAST-IN-PLACE STRUCTURAL CONCRETE ELEMENTS FROM CLASS "A" CONCRETE. CONSTRUCT BENCHES FROM CLASS "B" CONCRETE.
 - EXISTING SEWER FLOWS MUST BE MAINTAINED AT ALL TIMES. DETAILS FOR RECOMMENDED TEMPORARY FLOW DIVERSION METHOD AT MANHOLES NO 1 AND NO 8 PROVIDED ON SHEET C14. CONTRACTOR IS SOLELY RESPONSIBLE FOR MAINTAINING SEWER FLOWS WITHOUT INTERRUPTION
 - FOR BUILDING REFERENCE POINTS SEE SHEET C6



SECTION 1
SCALE: 3/8"=1'-0"

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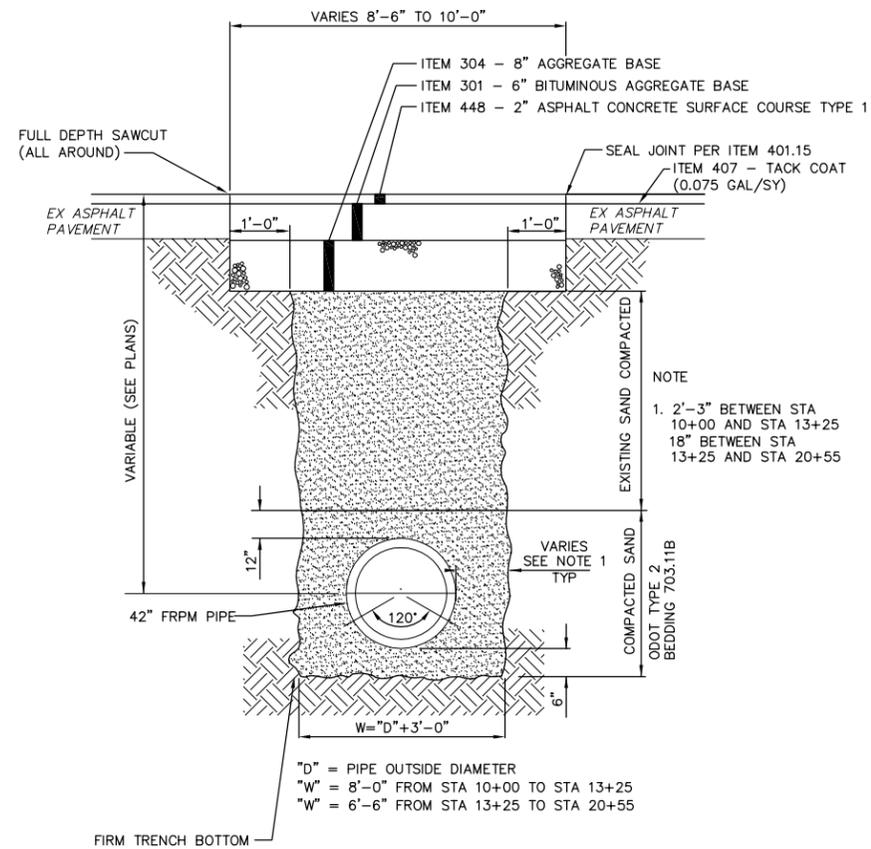
| NO. | DESCRIPTIONS | DATE | BY | APP'D |
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DESIGNED BY: KGP/TMK
 DRAWN BY: JD/AJP
 CHECKED BY: KGP/TMK
 APPROVED BY: WAD

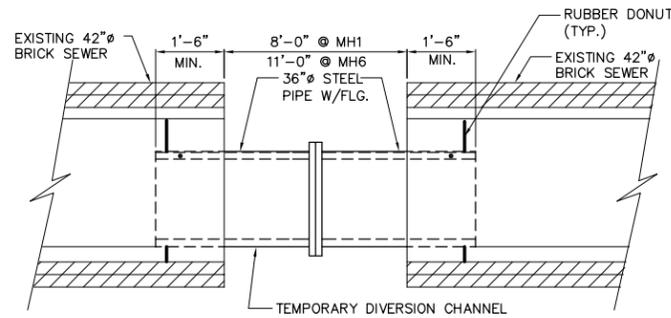
CANTON, OHIO
 EAST SIDE INTERCEPTOR
 SEWER RELOCATION
 G.P. #113
 CAST IN PLACE CONCRETE MANHOLE
 STRUCTURES AND DETAILS

GTI ENGINEERS, INC.
 220 MARKET AVENUE SOUTH, SUITE 750
 CANTON, OH 44702
 330-855-7733

| | |
|-----------|----------|
| JOB NO. | E13029 |
| DATE | 12/2014 |
| SCALE | AS NOTED |
| SHEET NO. | C13 |



PAVEMENT RELACEMENT & PIPE BEDDING DETAIL
SCALE: NONE

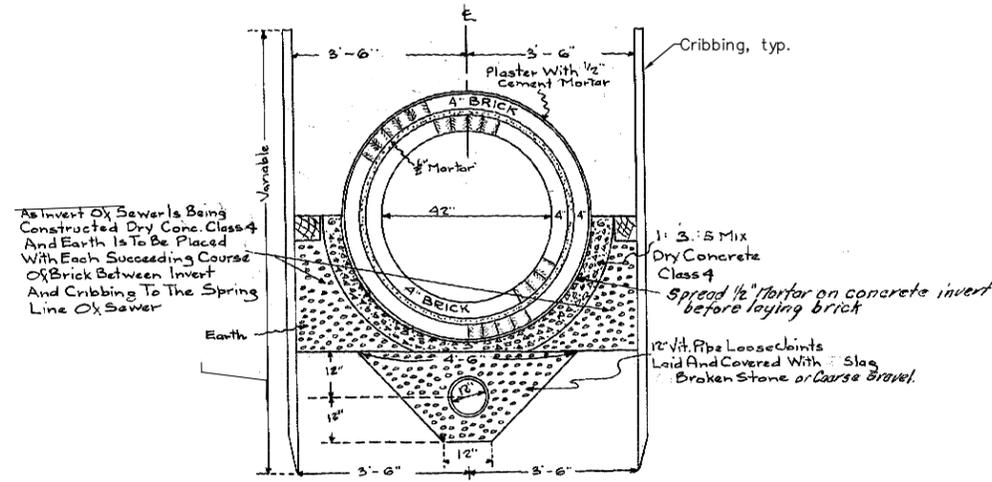


RECOMMENDED DETAIL FOR TEMPORARY FLOW DIVERSION STRUCTURE AT MANHOLES 1 & 8
NOT TO SCALE

(CONTRACTOR IS NOT REQUIRED TO FOLLOW THIS RECOMMENDED APPROACH. CONTRACTOR TO SUBMIT DESCRIPTION OF SELECTED FLOW DIVERSION METHOD. METHOD MUST BE APPROVED BY CANTON CITY ENGINEER.)

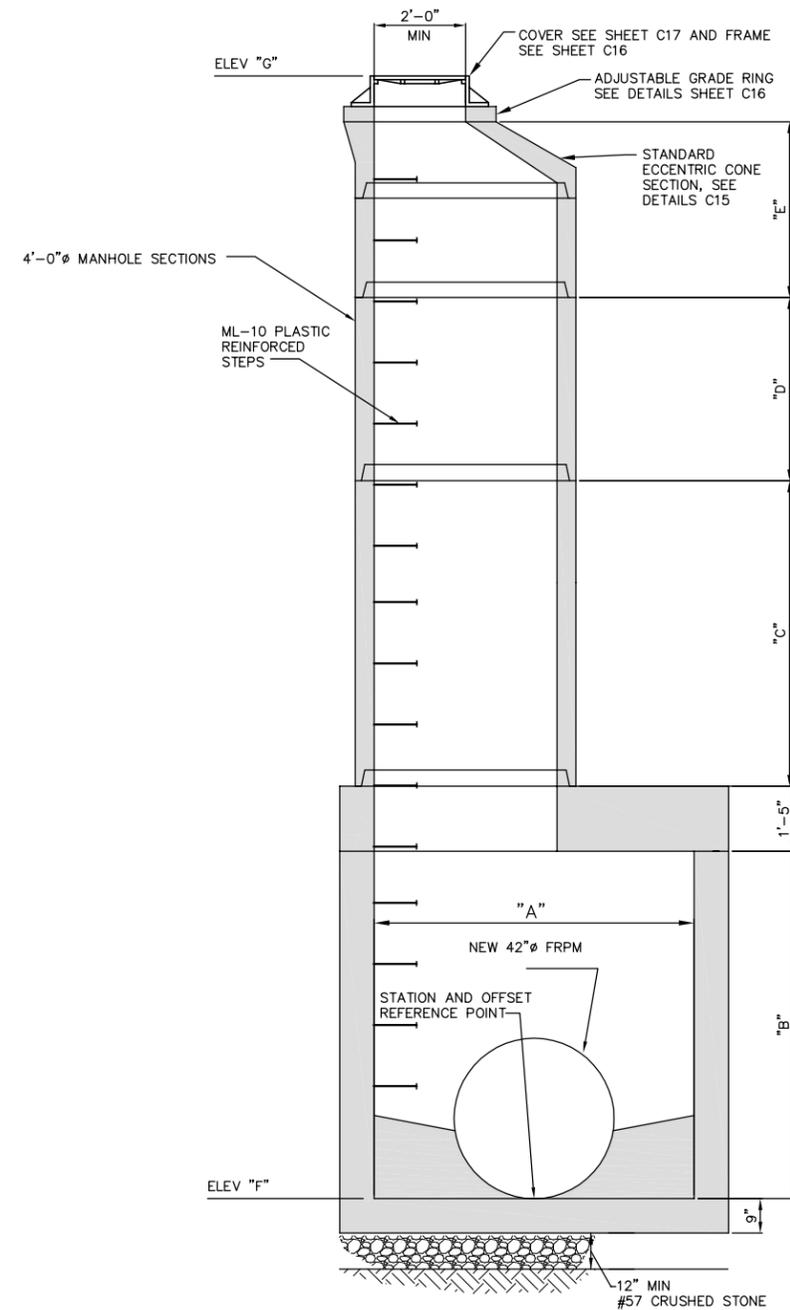
CONSTRUCTION SEQUENCE FLOW RECOMMENDED FLOW DIVERSION:

1. SAW CUT VERTICALLY AND HORIZONTALLY AND REMOVE TOP OF EXISTING BRICK SEWER TO SPRING LINE (CENTERLINE) FOR LENGTH SHOWN.
2. INSERT STEEL PIPE SECTIONS AND CONNECT FLANGES.
3. INSERT RUBBER "DONUT" SEALS. USE ONLY ENOUGH PRESSURE TO FORM SEAL.
4. SAW CUT AND REMOVE REMAINDER OF EXISTING BRICK SEWER.
5. PROTECT AND SUPPORT FREE ENDS OF BRICK SEWER TO BE INCORPORATED INTO NEW STRUCTURE.
6. REMOVE STEEL PIPE SECTIONS BEFORE INSTALLING TOP SLAB.
7. FOR RECOMMENDED DETAIL FOR TEMPORARY FLOW DIVERSION STRUCTURE AT MANHOLES 1 & 8, SEE THIS SHEET
8. PROVIDE TEMPORARY BULKHEAD IN NEW 42" FRPM PIPE INSIDE MANHOLES 1 & 8 UNTIL EXISTING 42" SEWER CAN BE ABANDONED AND FLOW REDIRECTED TO NEW 42" FRPM PIPE.



CROSS SECTION 42" BRICK CIRCULAR BRICK SEWER AND 8" UNDER DRAIN.

4.01 Cu.Ft Concrete Per Foot Sewer.
Class 4 Concrete.



PRECAST MANHOLE ELEVATION
SCALE: NONE

| MANHOLE TABLE | | | | | | | |
|---------------|--------------|------------|-------------|-------------|----------|---------|---------|
| MH NO | "A" DIAMETER | "B" HEIGHT | "C" SECTION | "D" SECTION | "E" CONE | ELEV F | ELEV G |
| 2 | 84" | 91" | 80" | 32" | 50" | 1048.59 | 1071.32 |
| 3 | 72" | 74" | 80" | 64" | 50" | 1048.89 | 1073.02 |
| 4 | 72" | 76" | 80" | 64" | 24" | 1048.97 | 1071.37 |
| 5 | 84" | 91" | 80" | 48" | 50" | 1049.20 | 1073.44 |
| 6 | 84" | 91" | 80" | 64" | 50" | 1049.40 | 1074.98 |
| 7 | 84" | 91" | 80" | 64" | 50" | 1049.50 | 1075.78 |

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| DESIGNED BY | | DRAWN BY | | CHECKED BY | | APPROVED BY | |
|-------------|--|----------|--|------------|--|-------------|--|
| KGP/TMK | | JD/AJP | | KGP/TMK | | WAD | |

| NO. | DESCRIPTIONS | DATE | BY |
|-----|-----------------------------|----------|-----|
| 1 | REVISION TO PRECAST MANHOLE | 11/14/14 | AJP |

CANTON, OHIO
EAST SIDE INTERCEPTOR SEWER RELOCATION G.P. #113
MISCELLANEOUS DETAILS



JOB NO. E13029
DATE 9/2014
SCALE AS NOTED
SHEET NO C14

CANTON CONSTRUCTION STANDARDS NOTES FOR MODIFIED ODOT MANHOLE 3 (SCD MH-1.2)

- NOTE 1. LIFT HOLES INSIDE THE MANHOLES MUST BE SEALED WITH GROUT.
- NOTE 2. TOP AND TRANSITION SECTIONS MUST BE ECCENTRIC CONE ONLY. USE FLAT SLAB FOR SHALLOW MANHOLE APPLICATIONS OR SPECIAL CIRCUMSTANCES AS DIRECTED BY THE CITY.
- NOTE 3. 6" EXTENDED BASE IS STANDARD FOR ALL SANITARY AND STORM MANHOLES. SET MANHOLE BASE ON 6" OF AASHTO M 43 NO. 56, 57, OR 62 CRUSHED STONE SET ON UNDISTURBED EARTH.
- NOTE 4. PIPE CONNECTIONS INTO THE MANHOLES MUST NOT EXTEND INTO THE MANHOLE MORE THAN 2" AT THE SIDES OF THE PIPE AT THE SPRING-LINE OF SAID PIPE.

SANITARY CONNECTIONS

SANITARY SEWER PIPE INLETS, WITH FLOWLINES MORE THAN 2' HIGHER THAN THE CHANNEL BENCH MUST BE OUTSIDE DROP CONNECTIONS. DROP CONNECTIONS MUST BE FABRICATED AND CAST INTEGRALLY WITH THE MANHOLE SECTIONS OR INSTALLED PER CITY STANDARD DWG. 11, OUTSIDE DROP CONNECTION FOR SANITARY MANHOLES. NO INSIDE DROPS PERMITTED FOR PRIVATE SEWER CONNECTIONS. INSIDE DROP FOR CITY-OWNED SEWERS ARE SUBJECT TO THE CITY ENGINEER'S APPROVAL.

SANITARY PIPE INLETS MUST BE FLUMED OVER THE BENCH, DIRECTING FLOW INTO THE CHANNEL, USING CONCRETE AND/OR CLAY SEWER BRICK AND MORTAR.

CAST OPENINGS MUST BE THE OUTSIDE DIAMETER OF THE PIPE PLUS 2 INCHES WITH A BUTYL RUBBER A-LOK, X-CEL GASKET, OR APPROVED EQUAL.

CORED OPENINGS MUST BE MACHINE CORED, THE OPENING SHALL BE PER PIPE-TO-MANHOLE CONNECTOR SPECS. USE "KOR-N-SEAL" FLEXIBLE PIPE-TO-MANHOLE CONNECTOR WITH STAINLESS WEDGE ASSEMBLY OR APPROVED EQUAL CONFORMING TO ASTM C-930 OR ASTM C-923.

STORM CONNECTION

OPENINGS FOR STORM PIPE INLETS MAY BE CAST OR MACHINE CORED. OPENINGS SHALL NOT EXCEED THE O.D. OF PIPE + 2". MAKE WATER-TIGHT JOINTS WITH NON-SHRINK CEMENT OR CLASS 'C' CONCRETE APPLIED FROM INSIDE AND OUTSIDE OF MANHOLE.

- NOTE 5. STEPS SHALL BE 1/2" STEEL REINFORCED POLYPROPYLENE STEPS 12" W X 5-3/4" BY AMERICAN STEP CO., INC. OR APPROVED EQUAL, MEETING ASTM 478.

FRAMES AND COVER SHALL CONFORM WITH CITY OF CANTON STD. DWG. NO. 12.

- NOTE 6. GRADE RINGS FOR NEW MANHOLES MAY BE PRECAST CONCRETE, RUBBER COMPOSITE, OR CLAY BRICK AND MORTAR. CONCRETE BRICK IS NOT PERMITTED.

HEIGHT OF GRADE RINGS COLLECTIVELY SHALL NOT EXCEED 12".

PRECAST CONCRETE GRADE RINGS MUST BE REINFORCED CLASS 'C' CONCRETE AND CONNECTED USING TWO CONCENTRIC RINGS OF 1/2" TO 1" BEADS OF BUTYL RUBBER SEALANT CON-SEAL OR APPROVED EQUAL. SEAL OUTSIDE JOINTS WITH 1/2" NON SHRINK CEMENT PLASTER.

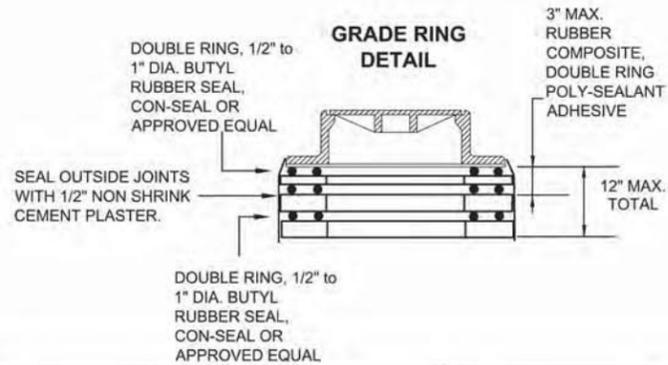
RUBBER COMPOSITE GRADE RINGS MUST BE "INFRA-RISER" BY EJIW OR APPROVED EQUAL, AND CONNECTED USING TWO PARALLEL BEADS OF POLY-SEALANT ADHESIVE PER MANUFACTURER RECOMMENDATION. RUBBER COMPOSITE GRADE RINGS HEIGHT MUST NOT EXCEED 3" AND MUST BE PLACED DIRECTLY UNDER MANHOLE FRAME.

BRICK AND MORTAR RINGS MUST BE BELDEN BRICK, FINE GRIND, ASTM C32-90, OR APPROVED EQUAL WITH HIGH STRENGTH, AIR ENTRAINED, MORTAR. SEAL OUTSIDE JOINTS WITH 1/2" NON SHRINK CEMENT PLASTER.

USE TWO PARALLEL 3/4" BEADS OF BUTYL RUBBER SEALANT CON-SEAL OR APPROVED EQUAL, BETWEEN GRADE RINGS OF DIFFERENT MATERIAL AND BETWEEN GRADE RINGS AND MANHOLE FRAME.

- NOTE 7. FOR BACKFILL MATERIAL AND COMPACTION, AND ROCK EXCAVATION, IF APPLICABLE, REFER TO CITY STD.DWG. NO. 19.

- NOTE 8. SANITARY MANHOLES TO BE TESTED ACCORDING TO CITY ENGINEER'S SPECIFICATION 04-01 (NEGATIVE AIR PRESSURE TEST).



OPTIONAL MANHOLE BID ITEMS

| ITEM | QTY. | UNIT | DESCRIPTION OPTION "A" |
|------|------|------|------------------------------------|
| 604 | | V.F. | MH WATERPROOFING, COAL TAR, A.P.P. |

IF REQUESTED BY THE CITY ENGINEER, OR SPECIFIED IN THE PLAN, THE CONTRACTOR SHALL PROVIDE UNIT PRICE FOR WATERPROOFING THE EXTERIOR OF DESIGNATED MANHOLES. THIS ITEM IS "CITY OPTIONAL" AND THE PRICE IS PAID PER VERTICAL FOOT OF EACH MANHOLE WATERPROOFED AS DIRECTED BY THE ENGINEER. THIS OPTION IS A CONTINGENCY BID ITEM UNLESS SPECIFIED OTHERWISE.

APPLY IN THE FIELD A COAL TAR EPOXY TO THE OUTSIDE OF THE MANHOLE PER MANUFACTURER'S SPECIFICATIONS AND INSTRUCTIONS FROM THE TOP OF THE EXTENDED BASE TO THE BOTTOM OF THE MANHOLE COVER CASTING.

| ITEM | QTY. | UNIT | DESCRIPTION OPTION "B" |
|------|------|------|-------------------------------------|
| 604 | | EACH | NEW MH, POLYMER LINING, A.P.P. |
| 604 | | V.F. | EXISTING MH, POLYMER LINING, A.P.P. |

IF REQUESTED BY THE CITY ENGINEER, OR SPECIFIED IN THE PLAN, THE CONTRACTOR SHALL PROVIDE UNIT PRICE FOR CORROSION RESISTANT POLYMER LININGS AS DESIGNATED. THIS ITEM IS "CITY OPTIONAL" AND THE PRICE IS PAID PER VERTICAL FOOT OR PER EACH MANHOLE LINED AS DIRECTED BY THE ENGINEER. THE UNIT COST FOR THIS ITEM INCLUDES ALL COSTS FOR LABOR, MATERIALS, EQUIPMENT AND INCIDENTALS REQUIRED FOR SUPPLYING AND INSTALLING THE LININGS INCLUDING THE COST FOR BYPASSING EXISTING SEWER FLOWS FOR THE DURATION OF THE INSTALLATION AND CURING TIME AS SPECIFIED. THIS OPTION IS INCLUDED AS A CONTINGENCY BID ITEM. UNLESS SPECIFIED OTHERWISE.

APPLY IN THE FIELD A CORROSION RESISTANT POLYMER LINING (PLASITE 5371 BY CARBOLINE OR APPROVED EQUAL) TO THE INSIDE OF THE NEW OR EXISTING MANHOLE PER MANUFACTURER'S SPECIFICATIONS AND INSTRUCTIONS. APPLY FROM THE TOP OF THE BENCH TO THE BOTTOM OF THE MANHOLE COVER CASTING.

FOR EXISTING MANHOLES, PRIOR TO POLYMER LINING APPLICATION, RESTORE INSIDE WALLS AS PER LINING MANUFACTURER'S RECOMMENDATIONS OR AS DIRECTED BY THE CITY ENGINEER.

THE CITY'S STANDARD MANHOLE FOR SANITARY AND STORM SEWERS IS THE ODOT MH-3 WITH THE MODIFICATIONS NOTED.

THIS DRAWING IS AN INSTRUMENT OF SERVICE OWNED BY CTE ENGINEERS (CTE), WHICH SHALL BE DEMONSTRATED BY THE CITY OF CANTON. IT SHALL NOT BE REPRODUCED, COPIED, OR DISTRIBUTED TO OTHERS WITHOUT THE WRITTEN CONSENT OF CTE. CTE IS NOT RESPONSIBLE FOR CONSEQUENCES RELATED TO UNAUTHORIZED USE OR REUSE OF THIS DRAWING OR PORTIONS THEREOF.

| NO. | DESCRIPTIONS | REVISIONS | |
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| | | DATE | BY |
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DESIGNED BY: TMK
 DRAWN BY: AJP
 CHECKED BY: TMK
 APPROVED BY: WAD

CANTON, OHIO
 EAST SIDE INTERCEPTOR
 SEWER RELOCATION
 G.P. #1113
 CITY OF CANTON
 STANDARD DRAWINGS

OFFICE OF THE CITY ENGINEER
CANTON, OHIO
 DANIEL J. MOEGLIN, P.E., CITY ENGINEER
 2436 30th St. NE 44705 330-489-3381 www.cantonohio.gov/engineering

APPROVED DATE: JAN 2012

APPROVED BY: CDB, RMB, SLH

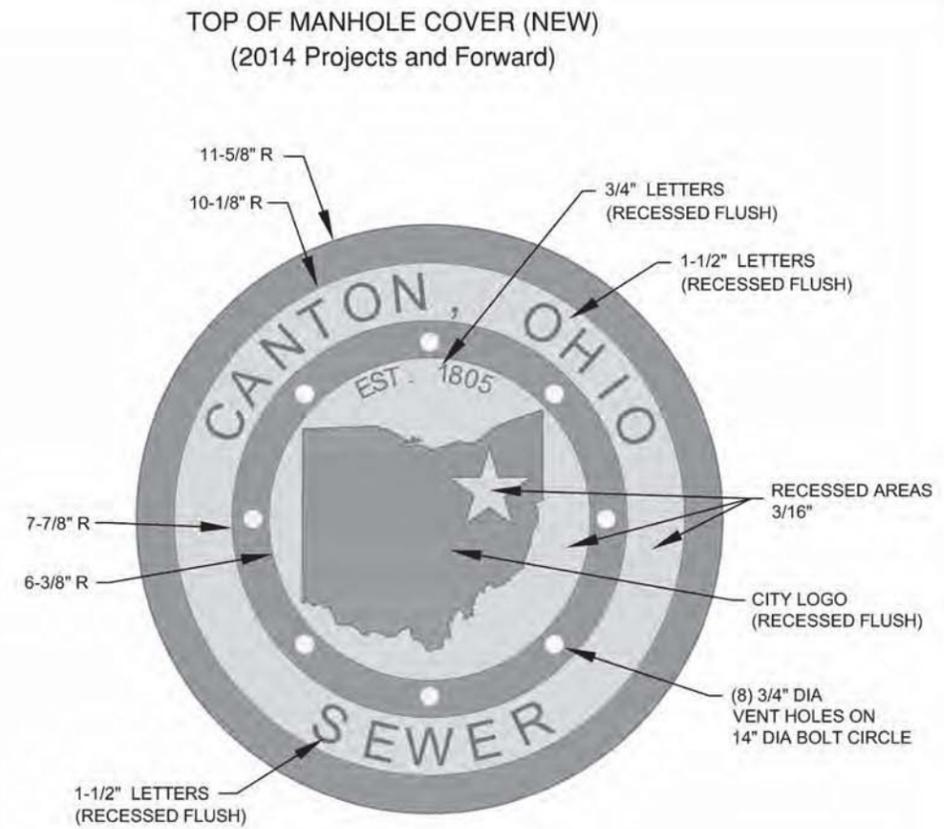
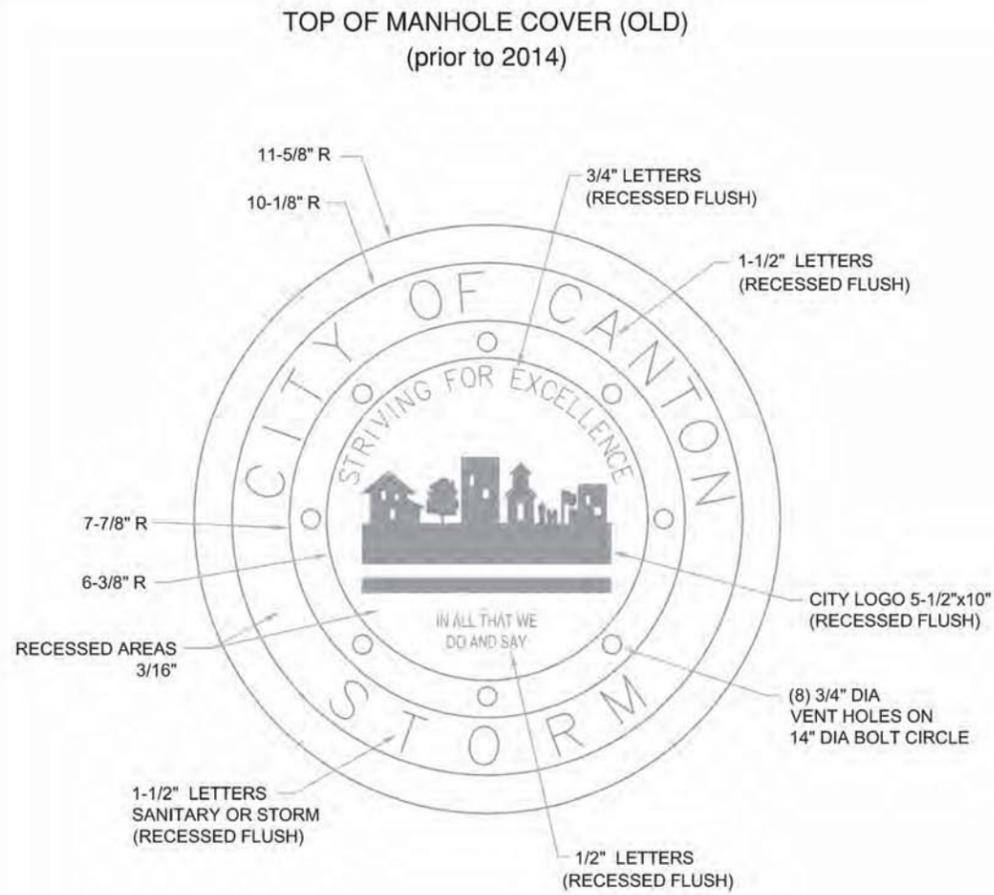
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| DESCRIPTION | DATE | BY |
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STANDARD DRAWING NO. 10
PRECAST STORM OR
SANITARY MANHOLE
 SHEET 3 OF 3

GFI ENGINEERS, INC.
 228 MARKET AVENUE SOUTH, SUITE 108
 CANTON, OH 44702
 330-455-7733

| | |
|-----------|--------|
| JOB NO. | E13029 |
| DATE | 9/2014 |
| SCALE | NONE |
| SHEET NO. | C16 |



NOTES:

1. COVER AND FRAME TO BE CAST OF GRAY IRON IN COMPLIANCE WITH ASTM SPEC. ASTM A-48 CLASS 35. CASTINGS SHALL BE OF THE HEAVY DUTY RATING.
2. EAST JORDAN 1850 B COVER (PRODUCT NO. 185026) AND 1850 FRAME, OR NEENAH R-1654 FRAME AND LID, OR EQUAL APPROVED BY CITY ENGINEER.
3. MACHINE BEARING SURFACES BETWEEN LID AND FRAME.
4. CONTACT CITY ENGINEER FOR CAD DRAWING OF CITY LOGO.
5. CONTRACTORS/SUPPLIER MAY USE COVERS IN STOCK WITH OLD CITY LOGO AS PERMITTED BY THE CITY ENGINEER. OTHERWISE, PROJECTS MUST USE COVERS WITH NEW LOGO.

THIS DRAWING IS AN INSTRUMENT OF SERVICE OWNED BY CTE ENGINEERS (CTE), WHICH SHALL BE DEEMED TO BE THE PROPERTY OF CTE. IT IS TO BE USED ONLY FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED HEREON. IT IS NOT TO BE REPRODUCED, COPIED, OR DISTRIBUTED TO OTHERS IN ANY FORM OR FOR ANY OTHER PURPOSE WITHOUT THE WRITTEN PERMISSION OF CTE. CTE IS NOT RESPONSIBLE FOR CONSEQUENCES RELATED TO UNAUTHORIZED USE OR REUSE OF THIS DRAWING OR PORTIONS THEREOF.

| DESIGNED BY | | DRAWN BY | | CHECKED BY | | APPROVED BY | |
|-------------|--|----------|--|------------|--|-------------|--|
| TMK | | AJP | | TMK | | WAD | |

CANTON, OHIO
EAST SIDE INTERCEPTOR
SEWER RELOCATION
G.P. #113
CITY OF CANTON
STANDARD DRAWINGS



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|-----------|--------|
| JOB NO. | E13029 |
| DATE | 9/2014 |
| SCALE | NONE |
| SHEET NO. | C17 |

**OFFICE OF THE CITY ENGINEER
CANTON, OHIO**
DANIEL J. MOEGLIN, P.E., CITY ENGINEER
2436 30th St. NE 44705 330-489-3381 www.cantonohio.gov/engineering

APPROVED DATE: JAN 2012
APPROVED BY: CDB, RMB, SLH
DRAWING FILE NAME: ce_12.dwg

| REVISIONS | | |
|-------------------|-----------|-----|
| DESCRIPTION | DATE | BY |
| MH COVER CITYLOGO | 2/28/2014 | RMB |
| | | |
| | | |

STANDARD DRAWING NO. 12
MANHOLE COVER

SHEET 1 OF 1

NOTES: (CONTINUED)

7. PAY LIMITS

- A) **BEDDING AND BACKFILL** IS INCLUDED IN WITH THE COST OF PIPE UNLESS BID OTHERWISE.
- B) **PAVEMENT RESTORATION:** THE WIDTH MEASUREMENT OVER THE TRENCH FOR PAVEMENT RESTORATION SHALL NOT EXCEED THE OUTSIDE DIAMETER (O.D.) OF PIPE PLUS A SET MEASUREMENT DEPENDENT ON DEPTH OF PIPE. AREA MEASUREMENTS AT MANHOLE AND CATCH BASIN STRUCTURES SHALL NOT EXCEED THE AREA OF THE BASE OF THE STRUCTURE + 3'-0" OFFSET AREA AROUND THE STRUCTURE'S BASE.
- C) **EXTRA FOUNDATION MATERIAL:**

WHEN IN THE OPINION OF THE CITY ENGINEER, SOFT/UNSTABLE MATERIALS ARE ENCOUNTERED WHICH ARE UNSUITABLE FOR BEDDING FOUNDATION, SAID MATERIAL SHALL BE REMOVED BY THE CONTRACTOR TO THE DEPTH DIRECTED BY THE ENGINEER AND REPLACED WITH SUITABLE MATERIAL. THE PAYABLE WIDTH OF THE EXTRA FOUNDATION MATERIAL SHALL NOT EXCEED THE LESSER OF THE APPLICABLE MINIMUM OR MAXIMUM TYPICAL BEDDING WIDTH, AS NOTED ON SHEET 1 OF STD. DWG. NO. 19. THE CONTRACTOR SHALL BE PAID FOR OVER-EXCAVATION AND BEDDING FOUNDATION MATERIAL UNDER THE CONTINGENCY BID ITEMS FOR EXTRA FOUNDATION MATERIAL.

EXTRA FOUNDATION MATERIAL, OPTION A, B, C, & D, MAY BE USED IN ANY COMBINATION AS DIRECTED BY THE CITY ENGINEER:

- OPTION A: CRUSHED STONE, AASHTO M 43 NO. 1 AND/OR 2
- OPTION B: CRUSHED STONE, AASHTO M 43 NO. 56, 57, OR 67
- OPTION C: ODOT 703.11, TYPE 1 (304, 411 OR 617 GRADATION)
- OPTION D: TENSAR GEOGRID T1100, OR APPROVED EQUAL

EXTRA FOUNDATION MATERIAL, CONTINGENCY BID ITEMS

| ITEM | QTY. | UNIT | DESCRIPTION |
|------|------|------|--|
| 603 | | C.Y. | EXTRA FOUNDATION, OPTION A (#1,#2 STONE) |
| 603 | | C.Y. | EXTRA FOUNDATION, OPTION B (#56,57,67 STONE) |
| 603 | | C.Y. | EXTRA FOUNDATION, OPTION C (304,411,617) |
| 603 | | S.F. | EXTRA FOUNDATION, OPTION D (GEOGRID) |

NOTES: (CONTINUED)

8. EXCAVATION OF ROCK OR BURIED/ABANDONED CONCRETE STRUCTURE REMOVAL

EXCAVATION FOR NEW MANHOLES AND CATCH BASINS, UNLESS OTHERWISE SPECIFIED OR SHOWN ON CONSTRUCTION PLANS, SHALL BE MEASURED BETWEEN VERTICAL PLANES ONE (1) FOOT BEYOND THE OUTSIDE EDGE OF THE FOUNDATION OF THE STRUCTURES ON ALL SIDES, AND PARALLEL THERETO, AND FROM THE SURFACE OF THE ROCK TO THE BOTTOM OF THE ROCK OR THE NEAT LINES OF THE BOTTOM OF THE STRUCTURES PLUS THE DEPTH OF THE BASE MATERIAL, USE THE MEASUREMENT WHICH IS LESSER.

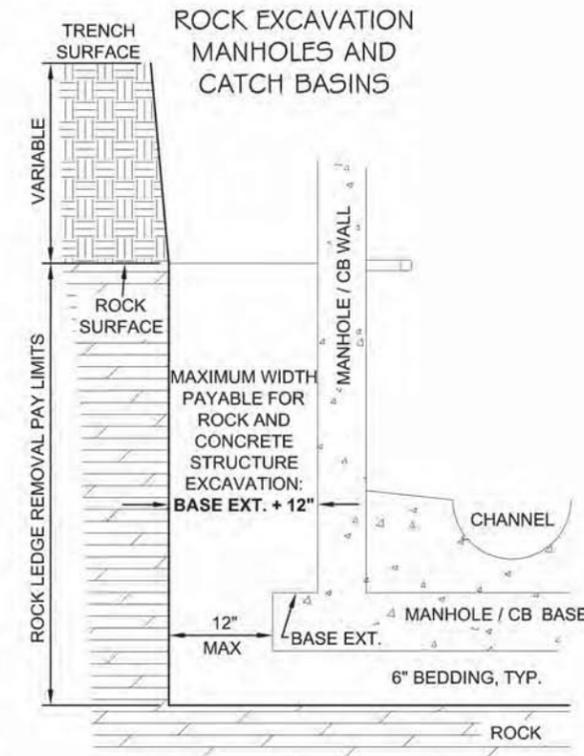
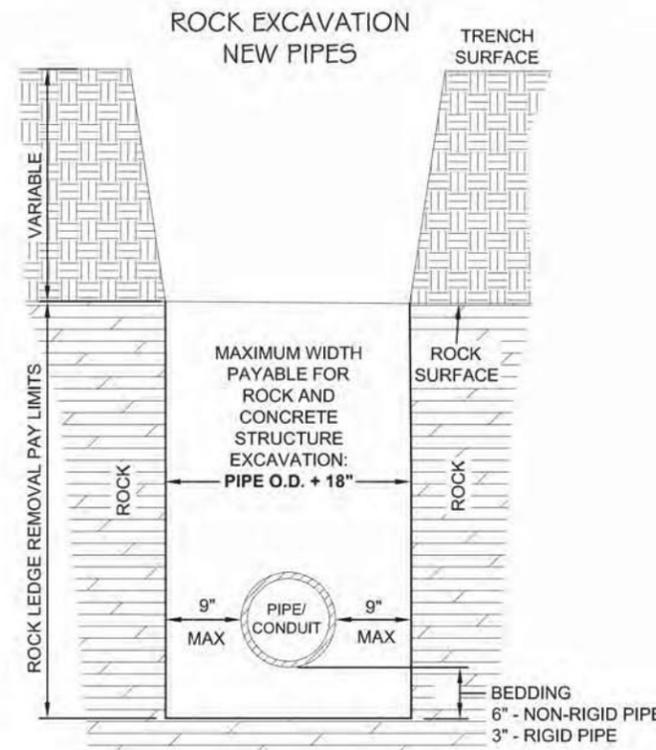
EXCAVATION FOR NEW PIPES, UNLESS OTHERWISE SPECIFIED OR SHOWN ON CONSTRUCTION PLANS, SHALL BE MEASURED BETWEEN TRENCH WALLS (NOT TO EXCEED PIPE O.D. + 18", AND FROM THE SURFACE OF THE ROCK TO THE BOTTOM OF THE ROCK OR THE BOTTOM OF THE PIPE BEDDING, USE THE MEASUREMENT WHICH IS LESSER.

EXCAVATION OF BURIED AND ABANDONED CONCRETE STRUCTURES SHALL BE MEASURED IN THE SAME MANNER AS ROCK REMOVAL.

THE CONTRACTOR SHALL BE PAID FOR ROCK REMOVAL AND CONCRETE STRUCTURE REMOVAL UNDER THE CONTINGENCY BID ITEMS FOR ROCK OR CONCRETE STRUCTURE REMOVAL. IF A CONTINGENCY BID ITEM IS NOT INCLUDED IN THE BID PROPOSAL, THE CONTACTOR MAY SUBMIT A PROPOSAL (PRIOR TO WORK BEING STARTED) TO THE CITY ENGINEER FOR REVIEW AND APPROVAL.

ROCK AND BURIED & ABANDONED CONCRETE STRUCTURE REMOVAL, CONTINGENCY BID ITEMS

| ITEM | QTY. | UNIT | DESCRIPTION |
|------|------|------|----------------------------|
| 603 | | C.Y. | ROCK REMOVAL |
| 603 | | C.Y. | CONCRETE STRUCTURE REMOVAL |



**OFFICE OF THE CITY ENGINEER
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APPROVED DATE: JAN 2012

APPROVED BY: CDB, RMB, SLH

DRAWING FILE NAME: ce_19.dwg

REVISIONS

| DESCRIPTION | DATE | BY |
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STANDARD DRAWING NO. 19

UTILITY TRENCH REQUIREMENTS

SHEET 2 OF 2

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DESIGNED BY: TMK
DRAWN BY: AJP
CHECKED BY: TMK
APPROVED BY: WAD

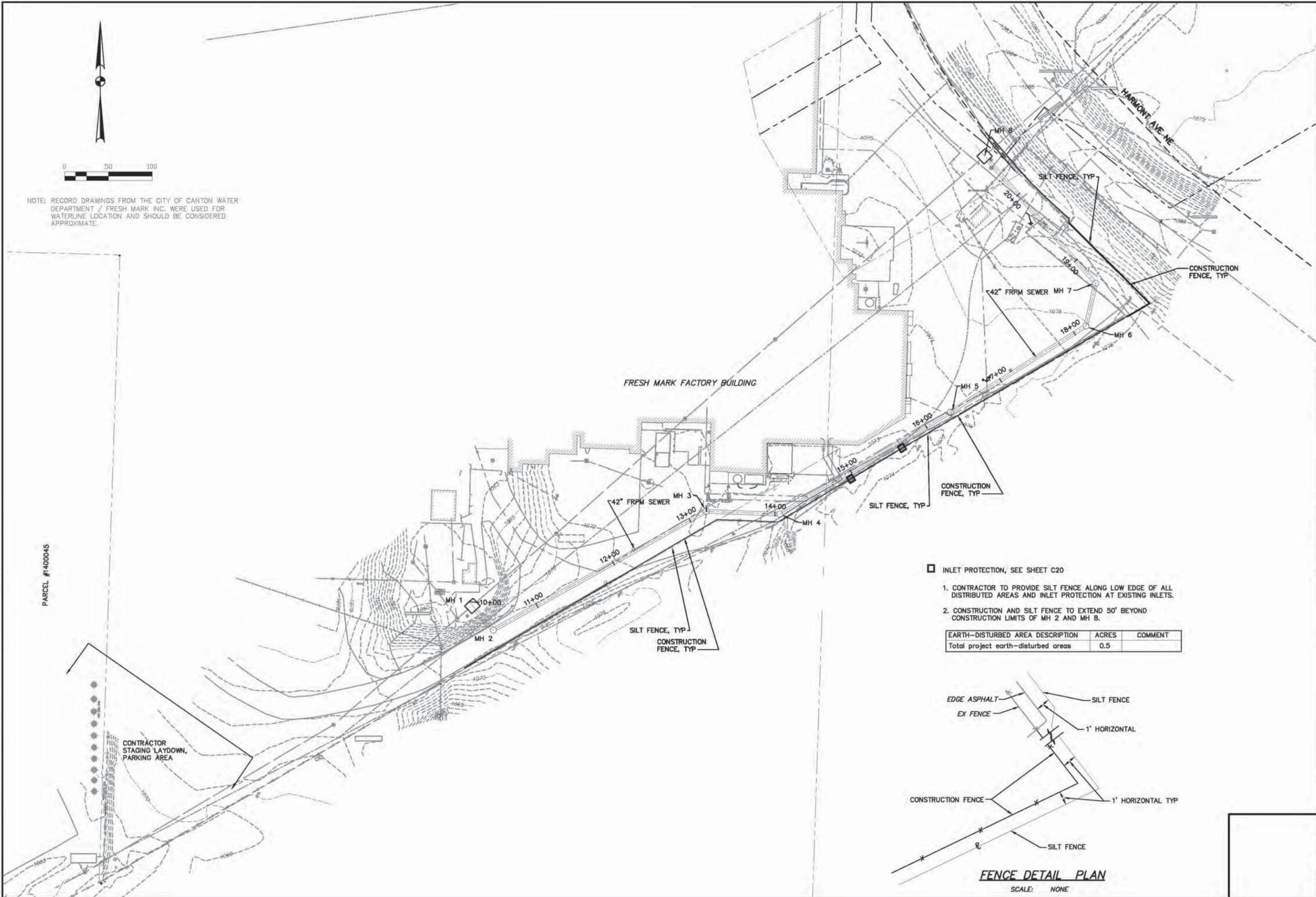
CANTON, OHIO
EAST SIDE INTERCEPTOR
SEWER RELOCATION
G.P. #1113
CITY OF CANTON
STANDARD DRAWINGS



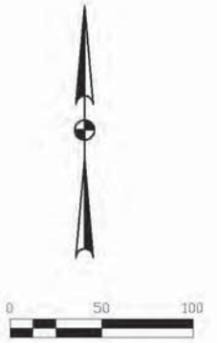
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| JOB NO. | E13029 |
| DATE | 9/2014 |
| SCALE | NONE |
| SHEET NO. | C18 |

2/20/2015 10:13:16 AM

FILE: E:\E13029 FRESH MARK\C06 C10 PP C11 C19 SHITS REVISED.dwg Feb 20, 2015 - CTE ENGINEERS, INC.



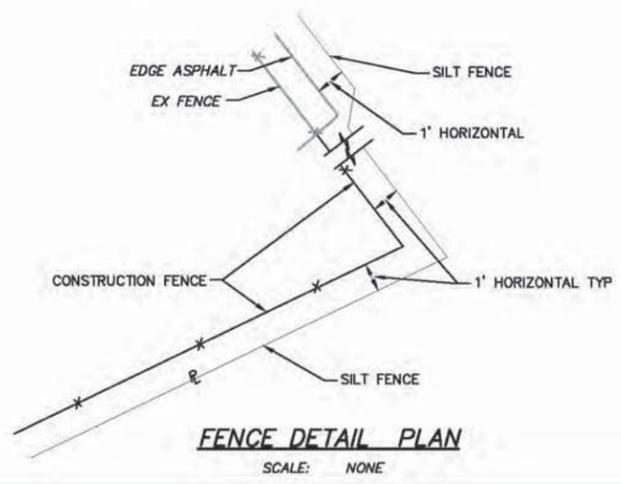
NOTE: RECORD DRAWINGS FROM THE CITY OF CANTON WATER DEPARTMENT / FRESH MARK INC. WERE USED FOR WATERLINE LOCATION AND SHOULD BE CONSIDERED APPROXIMATE.



PARCEL #1400045

- INLET PROTECTION, SEE SHEET C20
- 1. CONTRACTOR TO PROVIDE SILT FENCE ALONG LOW EDGE OF ALL DISTRIBUTED AREAS AND INLET PROTECTION AT EXISTING INLETS.
- 2. CONSTRUCTION AND SILT FENCE TO EXTEND 50' BEYOND CONSTRUCTION LIMITS OF MH 2 AND MH 8.

| EARTH-DISTURBED AREA DESCRIPTION | ACRES | COMMENT |
|-------------------------------------|-------|---------|
| Total project earth-disturbed areas | 0.5 | |



THIS DRAWING IS AN INSTRUMENT OF SERVICE PROVIDED BY CTE ENGINEERS (CTE), WHICH SHALL BE DEEMED TO BE A PUBLIC DOCUMENT. IT SHALL NOT BE REPRODUCED, COPIED, OR DISTRIBUTED TO OTHERS WITHOUT THE WRITTEN CONSENT OF CTE ENGINEERS. CTE ENGINEERS SHALL NOT BE RESPONSIBLE FOR CONSEQUENCES RELATED TO UNAUTHORIZED USE OR REUSE OF THIS DRAWING OR PORTIONS THEREOF.

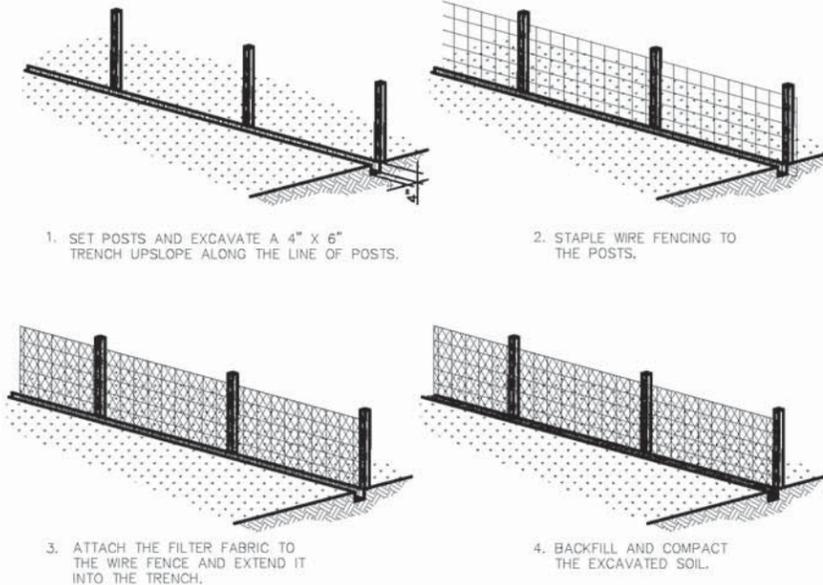
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DESIGNED BY: TMK
 DRAWN BY: AJP
 CHECKED BY: TMK
 APPROVED BY: WAD

CANTON, OHIO
 EAST SIDE INTERCEPTOR
 SEWER RELOCATION
 G.P. #113
 SWPP PLAN



| |
|-------------------|
| JOB NO. E13029 |
| DATE |
| SCALE AS SHOWN |
| SHEET NO. C19 |



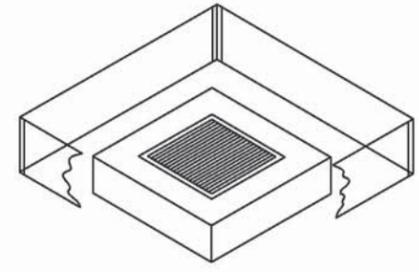
1. SET POSTS AND EXCAVATE A 4" X 6" TRENCH UPSLOPE ALONG THE LINE OF POSTS.

2. STAPLE WIRE FENCING TO THE POSTS.

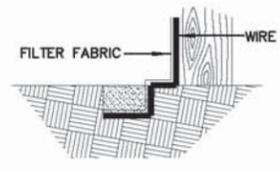
3. ATTACH THE FILTER FABRIC TO THE WIRE FENCE AND EXTEND IT INTO THE TRENCH.

4. BACKFILL AND COMPACT THE EXCAVATED SOIL.

SILT FENCE DETAIL



INLET PROTECTION
INLET PROTECTION TO BE PLACED AT ALL INLETS ARE INSTALLED, UNTIL SITE IS STABILIZED.



EXTENSION OF FABRIC AND WIRE INTO THE TRENCH.

EROSION CONTROL GENERAL NOTES

- EROSION PREVENTION AND SEDIMENT CONTROL MEASURES & PRACTICES MUST COMPLY WITH THE CONSTRUCTION GENERAL PERMIT PART III.G - SWP3 REQUIREMENTS AND BE INSTALLED IN ACCORDANCE WITH STANDARDS AND SPECIFICATIONS IN THE 2006 VERSION OF THE ODNR RAINWATER AND LAND DEVELOPMENT HANDBOOK OR EQUAL APPROVED BY THE STARK COUNTY SWCD.
- MEASURES & PRACTICES SHALL BE IMPLEMENTED DURING CONSTRUCTION AS FEASIBLE, TO PRESERVE NATURAL CONDITIONS, INCLUDING: PROTECTION OF EXISTING VEGETATION (INCLUDING INDIVIDUAL TREES) AND RIPARIAN AREAS; MAINTENANCE OF VEGETATION BUFFER STRIPS ALONG ANY DRAINAGES, WATER BODIES AND WETLANDS; AND PHASING CONSTRUCTION AND CLEARING LAND IN STAGES TO MINIMIZE THE AMOUNT OF AREA DISTURBED AT ANY ONE TIME.
- INDIVIDUAL TREES, TREE AREAS, AND VEGETATION TO BE SAVED SHALL BE MARKED AND PROTECTED WITH A BARRIER IF NECESSARY. ENSURE THAT THERE IS NO STORAGE OF SOIL OR MATERIAL, OR CONSTRUCTION TRAFFIC WITHIN THE DRIP LINE OF THE TREES. NO TREE REMOVAL SHALL BE PERMITTED OUTSIDE THE CONSTRUCTION AREA WITHOUT SPECIFIC PERMISSION OF THE PROJECT ENGINEER.
- PRIOR TO GRADING AND WITHIN 7 DAYS FROM THE START OF GRUBBING, APPROPRIATE STRUCTURAL MEASURES & PRACTICES SHALL BE IMPLEMENTED TO DIRECT RUNOFF AWAY FROM, LIMIT RUNOFF FROM, AND CONTROL RELEASE OF SEDIMENT FROM ANY AREA DISTURBED BY CONSTRUCTION OR ASSOCIATED ACTIVITY ON OR OFF THE PROJECT SITE. MEASURES & PRACTICES SUCH AS PERIMETER SEDIMENT BARRIERS, SEDIMENT BASINS AND DIVERSIONS INTO THEM, PIPE SLOPE DRAINS, ROCK CHECK DAMS, AND PROTECTIVE GRADING MAY BE USED.
- STRUCTURAL MEASURES & PRACTICES TO CONTROL EROSION AND TRAP SEDIMENT SHALL BE IMPLEMENTED ON ANY AREA THAT IS TO REMAIN DISTURBED FOR MORE THAN 14 DAYS. MEASURES & PRACTICES SUCH AS SILT FENCES, SETTLING PONDS, STORM DRAIN INLET PROTECTION, AND DIKES OR CHANNELS TO DIRECT RUNOFF FROM DISTURBED AREAS TO A SETTLING POND SHALL BE USED.
- ANY DISTURBED AREA ON OR OFF THE PROJECT SITE INCLUDING ANY SOIL STOCKPILE THAT WILL REMAIN IDLE FOR MORE THAN 21 DAYS, SHALL BE STABILIZED BY QUICKLY PROVIDING COVER TO CONTROL EROSION. DISTURBED AREAS MAY BE STABILIZED USING MEASURES & PRACTICES SUCH AS: SEEDING, DORMANT SEEDING, MULCHING, MULCH BLANKET, GEOTEXTILE, SOD, PRESERVATION OF EXISTING COVER, ALTERNATIVE GROUND COVER, AND USE OF CONSTRUCTION ENTRANCES. STABILIZATION OF SLOPES GREATER THAN 6% FILL SLOPES, AND OTHER AREAS TENDING TO BE UNSTABLE SHALL INCLUDE MEASURES SUCH AS EROSION CONTROL BLANKET OR MATTING.
- ANY DISTURBED AREA NOT AT FINAL GRADE THAT WILL REMAIN IDLE FOR MORE THAN 14 DAYS AND LESS THAN 1 YEAR SHALL BE TEMPORARILY STABILIZED. ANY SUCH DISTURBED AREA THAT IS WITHIN 50 FEET OF A WATER BODY OR DRAINAGE COURSE, SHALL BE STABILIZED WITHIN 2 DAYS OF MOST RECENT DISTURBANCE. ANY AREA NOT WITHIN 50 FEET OF A WATER BODY OR DRAINAGE COURSE SHALL BE STABILIZED WITHIN 7 DAYS.
- DISTURBED AREAS AT FINAL GRADE SHALL BE PERMANENTLY STABILIZED TO ACHIEVE FINAL STABILIZATION USING MEASURES & PRACTICES SUCH AS: PERENNIAL VEGETATION COVER, LANDSCAPING MULCH, MATTING, SOD, RIP RAP, AND LANDSCAPING TECHNIQUES. FINAL STABILIZATION IS ACHIEVED WHEN UNIFORM PERENNIAL COVERAGE OF AT LEAST 70% IS ESTABLISHED ON ALL AREAS NOT PAVED OR LANDSCAPED, OR WHEN EQUIVALENT PERMANENT STABILIZATION MEASURES HAVE BEEN EMPLOYED. TRAPPED SEDIMENT SHALL BE PERMANENTLY STABILIZED AND TEMPORARY CONTROL PRACTICES REMOVED AFTER FINAL STABILIZATION.
- ANY AREA WITHIN 50 FEET OF A WATER BODY OR DRAINAGE COURSE SHALL BE PERMANENTLY STABILIZED WITHIN 2 DAYS OF REACHING FINAL GRADE. ANY AREA THAT IS MORE THAN 50 FEET FROM A WATER BODY OR DRAINAGE COURSE SHALL BE PERMANENTLY STABILIZED WITHIN 7 DAYS OF REACHING FINAL GRADE. EROSION AND SEDIMENT CONTROLS SHALL BE MAINTAINED IN FUNCTIONAL CONDITION UNTIL FINAL STABILIZATION IS ACHIEVED.
- ANY DISTURBED AREA OR PART OF ANY DISTURBED AREA THAT WILL REMAIN IDLE FOR MORE THAN 1 YEAR OR OVER THE WINTER, OR ON WHICH WORK IS TO BE SUSPENDED, SHALL BE PERMANENTLY STABILIZED WITHIN 7 DAYS OF MOST RECENT DISTURBANCE. DISTURBED AREAS SHALL BE STABILIZED PRIOR TO THE ONSET OF WINTER. EROSION AND SEDIMENT CONTROLS SHALL BE MAINTAINED IN FUNCTIONAL CONDITION DURING INTERRUPTION OF CONSTRUCTION.
- AS CONSTRUCTION IS COMPLETED ON A PART OF THE PROJECT SITE OR AN AREA ON OR OFF THE SITE IS NO LONGER NEEDED FOR STORAGE OR EQUIPMENT TRAFFIC, ANY DISTURBED AREAS NOT TO BE PAVED SHALL BE FINE GRADED AND PERMANENTLY STABILIZED. THE AREAS SHALL BE GRADED TO BE CONSISTENT WITH SURROUNDING CONTOURS FOR PROPER DRAINAGE AND AESTHETICS.
- ANY SITE PREPARATION THAT WILL INVOLVE EARTH MOVING (SUCH AS CLEARING AND GRUBBING) WILL NOT BEGIN MORE THAN 2 WEEKS IN ADVANCE OF THE START OF EXCAVATION. THE PURPOSE OF THIS RESTRICTION IS TO PREVENT THE EXISTENCE OF LARGE AREAS OF EXPOSED SOILS FOR EXTENDED PERIODS OF TIME WHEN CONSTRUCTION IS NOT PROCEEDING.
- ALL DISTURBED VEGETATION IS TO BE RESEED AS PART OF RESTORATION, UNLESS THE AREA WILL BE PAVED OR OCCUPIED BY ABOVE GROUND FACILITIES. TOP SOILING FOR THE RESTORATION OF VEGETATED AREAS DISTURBED BY CONSTRUCTION SHALL AVERAGE (6) INCHES IN THICKNESS.
- ALL DEWATERING FLOWS SHALL BE SILT-FREE PRIOR TO DISCHARGE, AND DISCHARGE SHALL BE DIRECTLY TO STABILIZED SITES SUCH AS STREAMS, STORM SEWERS OR EXISTING GRASSED DRAINAGES, NOT ONTO EXPOSED SOILS OR ANY OTHER SITE WHERE FLOWS COULD CAUSE EROSION.
- 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 UNTIL LONG-TERM RESTORATION CAN OCCUR.
- STOCK PILED TOPSOIL AND FILL MATERIALS SHALL BE PROTECTED WITH EROSION CONTROL BARRIERS OR TEMPORARY SEEDING.
- IN AREAS WHERE EARTH MOVING WILL BE EXTENSIVE, A COMBINATION OF DIVERSION CHANNELS (WITH EROSION CONTROL BARRIERS) AND SEDIMENTATION BASINS SHALL BE USED TO CONTROL RUNOFF AND EROSION.
- EXCESS SOIL THAT IS STOCK PILED MUST BE EITHER REMOVED OR REGRADED WITHIN 15 DAYS OF THE COMPLETION OF THE CONSTRUCTION.
- IF TREE REMOVAL IS NECESSARY, TREES SHALL BE FELLED IN A MANNER THAT AVOIDS DAMAGE TO ADJACENT TREES TO REMAIN STANDING. WHERE ROOT DAMAGE CANNOT BE AVOIDED, PRUNING AS APPROPRIATE TO COMPENSATE FOR THE DAMAGE SHALL BE DONE BY AN AUTHORIZED ARBORIST.
- NO FILL, TOPSOIL OR HEAVY EQUIPMENT SHALL BE STORED WITHIN 200 FEET OF A STREAM BANK OR WITHIN THE DRIP LINE OF TREADED AREAS.
- CONSTRUCTION AND RESTORATION ACTIVITIES SHALL NOT SIGNIFICANTLY ALTER EXISTING DRAINAGE PATTERNS AND/OR VELOCITY OF STORM WATER FLOW.
- THE EROSION CONTROL MEASURES DESCRIBED HEREIN ARE TYPICAL. THE CONTRACTOR SHALL USE THIS PLAN AS A GUIDE TO CONTROL EROSION. IN THE EVENT OF ADVERSE WEATHER CONDITIONS, ETC. ADDITIONAL MEASURES SHOULD BE TAKEN TO ESTABLISH AND MAINTAIN PROTECTIVE VEGETATION.
- CONTINUOUS MAINTENANCE WILL BE REQUIRED AS NECESSARY UNTIL PERMANENT, STABLE VEGETATIVE COVER HAS BEEN ESTABLISHED AND EROSION HAS BEEN CONTROLLED. THIS INCLUDES BUT IS NOT LIMITED TO RESEEDING, MULCHING, EARTH FILLING, ETC.
- DISTURBED AREAS SHALL BE KEPT TO A MINIMUM WITH RESPECT TO AREAS EXPOSED AND TIME OF EXPOSURE. ALL TOPSOIL SHALL BE STOCKPILED.
- TO ASSIST IN EROSION CONTROL, ALL TREES AND VEGETATION OUTSIDE OF GRADED AREAS SHALL REMAIN.
- SILT FENCE FABRIC SHALL BE EXXON GTF-100S OR APPROVED EQUAL.
- ADJACENT ROADS SHALL BE KEPT FREE OF DIRT AND DEBRIS AT ALL TIMES.
- ALL S.W.P.P.P. ITEMS MUST BE INSTALLED PRIOR TO ANY EARTH MOVING OPERATIONS.
- EROSION CONTROL BLANKETS WITH MATTING WILL BE USED ON DITCHES GREATER THAN 1.5% AND ALL OTHER SLOPES GREATER THAN 6.0% GRADE.
- OTHER EROSION CONTROL AND SEDIMENT CONTROL ITEMS MAY BE NECESSARY DUE TO ENVIRONMENTAL CONDITIONS.
- REGULAR INSPECTION AND MAINTENANCE WILL BE PROVIDED FOR ALL EROSION CONTROL PRACTICES. PERMANENT RECORDS OF MAINTENANCE AND INSPECTIONS MUST BE KEPT THROUGHOUT CONSTRUCTION PERIOD. INSPECTIONS MUST BE MADE A MINIMUM OF ONCE EVERY 7 DAYS AND IMMEDIATELY AFTER STORM EVENTS GREATER THAN 0.5 INCHES IN A 24 HOUR PERIOD. PROVIDE NAME OF INSPECTOR, MAJOR OBSERVATIONS, DATE OF INSPECTION, CERTIFICATION OF COMPLIANCE AND CORRECTIVE MEASURES TAKEN.
- NO SOLID OR LIQUID WASTE SHALL BE DISCHARGED INTO STORM WATER RUNOFF.
- OFF-SITE VEHICLE TRACKING SEDIMENT SHALL BE MINIMIZED. CONSTRUCTION VEHICLES ARE LIMITED TO THE CONSTRUCTION ACCESS ROAD(S) NOTED ON THE PLAN.
- FILTER FABRIC AND STRAW BALES ARE NOT SUITABLE MATERIALS FOR DITCH CHECKS UNLESS PRIOR APPROVAL FOR LOCATION SPECIFIC USE IS GIVEN BY THE OSPA-DSW STORM WATER INSPECTOR.
- STRAW BALES SHALL ONLY BE USED FOR RUNOFF DIVERSION AND SEDIMENT CONTROL IN COMBINATION WITH OTHER MATERIALS. AN EXAMPLE IS AN ANCHORED BALE BERM OR BARRIER COVERED WITH FILTER FABRIC WHICH IS TRENCHED AND BACKFILLED ON THE UPSLOPE SIDE.
- UNNECESSARY OPERATION OF CONSTRUCTION MACHINERY SHALL BE AVOIDED NEAR A WATER BODY, WETLAND, DRAINAGE COURSE, OR STREAM RIPARIAN AREA. A BUFFER STRIP OF VEGETATION SHALL BE PRESERVED UNDISTURBED OR CREATED AND MAINTAINED ALONG SUCH AREAS.
- PRIOR TO STARTING WORK, FILTER FABRIC FENCING SHALL BE INSTALLED AND MAINTAINED TO MARK THE BOUNDARY OF THE AREA TO BE DISTURBED OR THE BUFFER STRIP. THE BUFFER SHALL MEET THE MOST RESTRICTIVE OF LOCAL, STATE OR FEDERAL REQUIREMENTS, BUT SHOULD BE AT LEAST 25 FEET WIDE WHERE FEASIBLE, AS MEASURED FROM THE TOP OF THE BANK OR THE ORDINARY HIGH WATER MARK.

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DESIGNED BY: **TMK**
 DRAWN BY: **AJP**
 CHECKED BY: **TMK**
 APPROVED BY: **WAD**

CANTON, OHIO
EAST SIDE INTERCEPTOR
SEWER RELOCATION
G.P. #113

SWPP NOTES AND DETAILS



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| JOB NO. | E13029 |
| DATE | 9/2014 |
| SCALE | NONE |
| SHEET NO. | C20 |