

CITY OF MASSILLON
CITY ENGINEER DEPARTMENT
STARK COUNTY, OHIO
GRIFFITH AVE. SW SANITARY SEWER REPLACEMENT

AS-BUILTS

PROJECT DESCRIPTION

REPLACEMENT OF EXISTING DETERORATED 6" CLAY SANITARY SEWER AND BRICK MANHOLES
ORIGINALLY CONSTRUCTED IN 1916 WITH 1587 L.F. OF 8" SDR 35 AND PRECAST SANITARY
MANHOLES.

EARTH DISTURBED AREAS

PROJECT EDA = 0.00 ACRES
EST. CONTRACTOR EDA = N/A (MAINTENANCE PROJECT)
NOTICE OF INTENT EDA = N/A (MAINTENANCE PROJECT)

CONVENTIONAL SIGNS

RIGHT OF WAY . . . EXISTING: _____, PROPOSED: _____
COUNTY LINE . . . _____
TOWNSHIP LINE . . . _____
CORPORATION LINE . . . _____
FENCE LINE . . . EXISTING: _____, PROPOSED: _____
GUARDRAIL . . . EXISTING: _____, PROPOSED: _____
MANHOLES . . . EXISTING: ☉, PROPOSED: ☉, REHABILITATED: ●
CATCH BASINS . . . EXISTING: ☐, PROPOSED: ☐, REHABILITATED: ☐
SIGNS . . . 1-POST: †, 2-POST: ‡, 3-POST: ≡, STREET: ‡
EXISTING POLES . . . POWER: ⚡, TELEPHONE: ⚡, LIGHT: ⚡, SPAN: ○
PROPOSED POLES . . . POWER: ⚡, TELEPHONE: ⚡, LIGHT: ⚡, SPAN: ●
EXIST. UTILITIES . . . VALVE: ⚙, HYDRANT: ⚙, METERS: ⚙, GUY: C

PERMIT TO INSTALL

SANITARY SEWER PERMIT TO INSTALL (P.T.I.) HAS BEEN RECEIVED FROM THE OHIO
ENVIROMENTAL PROTECTION AGENCY PROTECTION AGENCY THIS _____ DAY
OF _____, 20____.
PTI No. _____

UNDERGROUND UTILITIES

TWO WORKING DAYS
BEFORE YOU DIG

CALL 1-800-362-2764 (TOLL FREE)

OHIO UTILITIES PROTECTION SERVICE
NON-MEMBERS
MUST BE CALLED DIRECTLY

TWO WORKING DAYS
BEFORE YOU DIG

1-800-925-0988 (TOLL FREE)

OIL & GAS PRODUCERS UNDERGROUND
PROTECTION SERVICE

PLAN PREPARED BY:
CITY OF MASSILLON
Engineering Department

OWNER:
CITY OF MASSILLON
151 Lincoln Way East
Massillon, Ohio 44646



LOCATION MAP

PORTION TO BE IMPROVED
STREETS



Kathy Catazaro-Perry, Mayor
Massillon
City of Champions

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STATE OF OHIO
KEITH A. DYLEWSKI
E-76607
REGISTERED
PROFESSIONAL ENGINEER

5/13/13

CITY ENGINEERKEITH A. DYLEWSKI, P.E., P.S. DATE

CITY OF MASSILLON ELECTED OFFICIALS

KATHY CATAZARO-PERRY	MAYOR
PERICLES G. STERGIOS	LAW DIRECTOR/PROSECUTOR
JAYNE FERRERO	AUDITOR
MAUDE SLAGLE	TREASURER
COUNCIL	
TONY M. TOWNSEND	PRESIDENT
SARITA CUNNINGHAM-HEDDERLY	1st WARD
NANCY HALTER	2nd WARD
ANDREA SCASSA	3rd WARD
QUENESSA HAMPTON	4th WARD
DONNIE PETERS JR.	5th WARD
ED LEWIS	6th WARD
PAUL MANSON	AT LARGE
LARRY SLAGLE	AT LARGE
MILAN CHOVAN	AT LARGE

HORIZONTAL
SCALE IN FEET

CHECKED BY:
KAD

DATE:
MAY, 2013

DRAWN BY:
FPW

DATE:
MAY, 2013

REVISIONS:

DATE	DESCRIPTION

Griffith Ave. SW Sanitary Sewer Replacement
Title Sheet
City of Massillon
Stark County, Ohio

Kathy Catazaro-Perry, Mayor

Massillon
City of Champions

DRAWING NAME:
GriffithTitle-NS.DWG

CITY NUMBER:
10ss05

1 / 11

* THE FOLLOWING NOTES ARE CITY OF MASSILLON STANDARD NOTES AND MAY NOT BE APPLICABLE TO ALL PROJECTS.

UTILITIES

LISTED BELOW ARE ALL KNOWN UTILITIES LOCATED WITHIN THE PROJECT CONSTRUCTION LIMITS TOGETHER WITH THEIR RESPECTIVE OWNERS:

AT&T 50 W.BOWERY, 6TH FLOOR AKRON, OH 44308 800-384-8057	AQUA WATER P.O. BOX 584 MASSILLON, OH 44648 (330) 833-4156	OHIO EDISON STARK DIVISION 2600 S. ERIE ST. MASSILLON, OH 44545 (330) 830-7085	MASSILLON CABLE TV P.O. BOX 814 MASSILLON, OH 44648 (330) 833-4134	GREAT LAKES 104 6TH ST. S.W. CANTON, OH 44702 (330) 456-2454
CITY OF MASSILLON SANITARY SEWER 151 LINCOLN WAY EAST MASSILLON, OH 44646 (330) 830-1722	AT&T COMMUNICATIONS 2535 E. 40TH AVE. DENVER, CO 80205-3601 (800) 852-3786	DOMINION EAST OHIO GAS COMPANY 4725 SOUTHWAY ST. S.W. CANTON, OH 44706 (330) 478-3142	NORTHEAST OHIO NATURAL GAS CORP. 9081 S.R. 250 STRASBURG, OH 44680-9766 (330) 878-5589	

THE CONTRACTOR SHALL NOTIFY ALL UTILITIES 48 HOURS PRIOR TO WORK.

THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE SHOWN AT APPROXIMATE LOCATIONS AND WHERE OBTAINED AS REQUIRED FROM THE OWNERS AS REQUIRED BY SECTION 153.64 OF THE OHIO REVISED CODE

OPUS - 1-800-362-2764
OUTPUTS - 1-800-925-0988

DATUM ELEVATION

ALL BENCHMARKS ARE BASED ON REFERENCE BENCHMARKS PROVIDED BY THE CITY OF MASSILLON

STATIONING

ALL STATIONING SHOWN IS REFERENCED TO THE BASELINE AS SHOWN.

NOTIFICATION OF SAFETY FORCES AND BUS GARAGES

THE CONTRACTOR SHALL NOTIFY ALL AGENCY LISTED BELOW AT LEAST 48 HOURS IN ADVANCE OF ANY STREET CLOSING OR TRAFFIC CHANGE.

MASSILLON SAFETY SERVICE 330-830-1702	MASSILLON FIRE DEPARTMENT 330-833-1053	PERRY TOWNSHIP HALL 330-833-2141	NORTH LAWWRANCE FIRE DEPT. 330-832-6347	TUSCARAWAS TOWNSHIP HALL 330-832-4337
JACKSON FIRE DEPARTMENT 330-832-1553	MASSILLON POLICE DEPARTMENT 330-830-1735	PERRY POLICE DEPARTMENT 330-833-3865	JACKSON TOWNSHIP HALL 330-832-7416	PERRY FIRE DEPARTMENT 330-478-5121
JACKSON POLICE DEPARTMENT 330-497-7440	JACKSON SCHOOL BUS GARAGE 330-830-8042	PERRY SCHOOL BUS GARAGE 330-477-1300	STARK COUNTY SHERIFF 330-430-3887	MASSILLON SCHOOL BUS GARAGE 330-830-1849
SARTA 330-454-5333	TUSCARAWAS SCHOOL BUS GARAGE 330-837-7805			

SUBSURFACE CONDITIONS

IT IS THE OBLIGATION AND RESPONSIBILITY OF THE CONTRACTOR TO MAKE HIS OWN INVESTIGATION OF SUBSURFACE CONDITIONS PRIOR TO SUBMITTING A BID. PROSPECTIVE BIDDERS ARE TO COORDINATE WITH THE OWNER FOR ACCESS TO THE SITE FOR INSPECTIONS AND EXPLORATORY EXCAVATION IF NEEDED. THE BIDDER SHALL CONTACT THE OWNER AT LEAST 72 HOURS IN ADVANCE OF THE DESIRED INSPECTION OR EXCAVATION. THE BIDDER SHALL CONTACT O.U.P.S. AND OBTAIN LOCATIONS OF OTHER UTILITIES.

QUANTITIES

QUANTITIES ARE INDICATED FOR COMPARISON OF BIDS ONLY. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY QUANTITIES BEFORE ORDERING MATERIALS. VARIATIONS FROM THE PLAN QUANTITIES SHALL BE APPROVED BY THE CITY OF MASSILLON ENGINEER BEFORE MATERIAL ORDERS ARE PLACED. MATERIALS REJECTED DUE TO INCOMPATIBILITY BETWEEN ORDERED QUANTITIES AND FIELD CONDITIONS SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

CONSTRUCTION SPECIFICATIONS & STANDARDS

ALL CONSTRUCTION IS TO BE COMPLETED ACCORDING TO THE CURRENT CITY OF MASSILLON SPECIFICATIONS AND STANDARDS, AND THE LATEST EDITION OF THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS. WHEN A CONFLICT ARISES BETWEEN THE CITY OF MASSILLON AND ODOT'S STANDARDS, THE MORE STRINGENT STANDARD WILL BE USED AT THE DISCRETION OF THE CITY OF MASSILLON ENGINEER. THE CONTRACTOR SHALL FOLLOW ALL OSHA AND ADA REGULATIONS AND REQUIREMENTS.

PRESERVATION OF EXISTING UTILITY SERVICES

ANY EXISTING WATER LINE, SANITARY SEWER, STORM SEWER, GAS LINE OR OTHER UTILITY IN OR OUTSIDE OF THE CONSTRUCTION LIMITS, DAMAGED DURING CONSTRUCTION OF THE PROPOSED PROJECT SHALL BE REPLACED AT THE CONTRACTORS EXPENSE.

CONTRACTOR AVAILABILITY

THE CONTRACTOR SHALL SUPPLY THE ENGINEER WITH A 24 HOUR PHONE NUMBER WHERE THE CONTRACTOR SHALL BE AVAILABLE FOR EMERGENCIES.

CONDITIONS OF WORK

ALL WORK PERFORMED UNDER THIS CONTRACT SHALL COMPLY WITH THE U.S. DEPARTMENT OF LABOR, OCCUPATIONAL SAFETY AND HEALTH ACT, STATE, COUNTY, AND CITY OF MASSILLON LAWS AND REGULATIONS. ALL WORK, AT ALL TIMES SHALL BE SUBJECT TO OBSERVATION BY THE CITY OF MASSILLON ENGINEER AND/OR HIS REPRESENTATIVE. ALL WORK SHALL COMPLY WITH THE CONDITIONS OF THE CONTRACT DOCUMENTS AND OHIO EPA, AND STANDARDS OF THE CITY OF MASSILLON. ALL ELECTRICAL WORK SHALL COMPLY WITH THE NATIONAL ELECTRICAL CODE, AND APPLICABLE CITY, COUNTY, STATE AND FEDERAL CODES.

IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO MAINTAIN SAFE AND SATISFACTORY ACCESS TO ALL ABUTTING PROPERTIES TO THE PROJECT SITE. ADJACENT ROADS SHALL BE MAINTAINED AND KEPT CLEAN OF MUD AND OTHER DEBRIS THAT MAY BE CAUSED BY TRAFFIC EXITING THE WORK SITE. THE CONTRACTOR SHALL COORDINATE AND PROVIDE FOR ALL NECESSARY TRAFFIC CONTROL. TRAFFIC CONTROL SHALL FOLLOW THE MORE STRINGENT GUIDELINES OF THE CITY OF MASSILLON OR ODOT AT THE DESECRATION OF THE CITY OF MASSILLON ENGINEER.

IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE AND MAINTAIN FACILITIES FOR A CONSTRUCTION OFFICE, EMPLOYEE PARKING, AND EMPLOYEE SANITARY FACILITIES. ON STREET PARKING WILL NOT BE PERMITTED. THE CONTRACTOR SHALL PROVIDE FOR THE LAWFUL OFF-SITE DISPOSAL OF DEMOLITION DEBRIS AND CONSTRUCTION WASTE.

ITEM 659. TOPSOIL, SEEDING AND MULCHING

ITEM 659 SHALL BE APPLIED TO ALL EXPOSED SOIL AREAS DISTURBED DURING CONSTRUCTION. SUCH AS SPECIFIED IN ITEM 659 AND IS NOT LIMITED TO JUST TOPSOIL, SEEDING AND MULCHING.

THE CITY SHALL APPROVE SEED MIX PRIOR TO APPLICATION TO BE USED THROUGHOUT CONSTRUCTION LIMITS.

EXISTING DATA

EACH CONTRACTOR SHALL VISIT THE SITE PERSONALLY TO ASCERTAIN THE NATURE OF THE WORK AND BECOME THOROUGHLY FAMILIARIZED WITH THE SITE PRIOR TO BID SUBMISSION.

EXISTING STRUCTURES, GRADES, PIPING, ETC. ARE INDICATED IN APPROXIMATE LOCATION ON THE PLAN. INFORMATION SHOWN IS NOT GUARANTEED TO BE CORRECT AND COMPLETE. THE DATA SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR. THE EXISTENCE OF FACILITIES ABOVE OR BELOW GROUND, WHICH MAY NOT BE SHOWN, WILL NOT BE A BASIS FOR A CLAIM FOR EXTRA WORK.

EXISTING UNDERGROUND UTILITIES SHOWN ARE RECORDS PROVIDED BY UTILITY COMPANIES AND ARE APPROXIMATE ONLY. SERVICE LATERALS ARE NOT SHOWN.

IT IS THE RESPONSIBILITY OF CONTRACTOR TO NOTIFY THE CITY, PRIOR TO BID OPENING NON-CONFORMING OR CONFLICTING INFORMATION.

EXCAVATED MATERIAL

ALL EXCAVATED MATERIAL AND ALL MATERIAL USED IN CONSTRUCTION OF THE WORK SHALL BE PILED AND STORED IN A MANNER THAT WILL NOT ENDANGER THE WORK AND THAT WILL LEAVE DRIVEWAYS OR OTHER CONTROLS UNOBSTRUCTED AND ACCESSIBLE WHILE THE WORK IS TO BE COMPLETED. SATISFACTORY PROVISIONS SHALL BE MADE FOR STREET DRAINAGE, AND NATURAL WATERCOURSES SHALL NOT BE OBSUCTED. DURING THE PROGRESS OF THE WORK, ALL MATERIAL PILES SHALL BE KEPT TRIMMED UP AND MAINTAINED IN A NEAT MANNER. ALL EXCAVATED WASTE MATERIAL SHALL BE REMOVED FROM THE PROJECT SITE, AS DIRECTED BY THE ENGINEER. THE WASTE SITE IS TO BE PROVIDED BY THE CONTRACTOR AT NO COST TO THE CITY, UNLESS OTHERWISE NOTED IN THE SPECIFICATIONS ALONG WITH A LETTER FROM THE PROPOSED WASTE SITE OWNER PERMITTING SUCH AND HOLDING THE CITY HARMLESS.

RESTORATION

FOR SANITARY SEWER INSTALLED, TESTED, AND ACCEPTED UP TO MAY 15TH OF ANY CALENDAR YEAR, RESTORATION SHALL BE COMPLETE BY JUNE 30th OF THAT YEAR. FOR INSTALLATION OF SANITARY SEWER TESTED AND ACCEPTED FROM MAY 15th TO SEPTEMBER 30th OF ANY CALENDAR YEAR, RESTORATION SHALL BE COMPLETE BY NOVEMBER 15th OF THAT CALENDAR YEAR. FOR SANITARY SEWER INSTALLED, TESTED, AND ACCEPTED AFTER NOVEMBER 15TH OF ANY CALENDAR YEAR, RESTORATION SHALL BE COMPLETE BY MAY 15th OF THE NEXT CALENDAR YEAR.

PAVEMENT CROSSINGS WILL RECEIVE TYPE C PAVEMENT REPLACEMENT WITH FULL WIDTH PAVEMENT OVERLAY.

CONTRACTOR TO REPLACE ALL PAVEMENT MARKINGS, WITH THE COST TO BE INCLUDED IN THE UNIT PRICE BID FOR PAVEMENT.

CONTRACTOR TO USE HOT APPLIED JOINT CRACK SEALER ON ASPHALT PAVEMENT AT ALL ENDS AND INTERSECTIONS.

ALL TRENCHES IN ROAD RIGHT OF WAY WILL RECEIVE FULL DEPTH PREMIUM GRANULAR BACKFILL.

PAYMENT FOR THE OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 603 CONDUIT ITEM.

REMOVAL AND RELOCATION OF EXISTING UTILITIES

THE CONTRACTOR IS REQUIRED TO COOPERATE WITH EACH RESPECTIVE UTILITY OWNER FOR THE REMOVAL AND/OR RELOCATION OF ANY AND ALL UTILITIES THAT CREATE A CONFLICT WITH CONSTRUCTION OF THE PROJECT.

ITEM 623. CONSTRUCTION STAKING

CONTRACTOR IS RESPONSIBLE FOR ALL CONSTRUCTION LAYOUT. THIS WORK IS TO BE UNDER ITEM 623 CONSTRUCTION STAKING.

CROSSING OR CONNECTING TO EXISTING PIPES AND UTILITIES

WHERE THE 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 LAY THE PROPOSED CONDUIT.

IF IT IS DETERMINED THAT THE ELEVATION OF THE EXISTING CONDUIT, OR EXISTING APPURTENANCE TO BE CONNECTED, DIFFERS FROM THE PLAN ELEVATION OR RESULTS IN A CHANGE IN THE PLAN CONDUIT SLOPE, THE CITY OF MASSILLON ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WILL BE AFFECTED BY THE VARIANCE IN THE EXISTING ELEVATIONS.

PAYMENT FOR THE OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 603 CONDUIT ITEM.

REVIEW OF SANITARY AND DRAINAGE FACILITIES

BEFORE ANY WORK IS STARTED ON THE PROJECT AND AGAIN BEFORE FINAL ACCEPTANCE BY THE CITY OF MASSILLON AND THE CONTRACTOR, ALONG WITH LOCAL REPRESENTATIVES, SHALL MAKE AN INSPECTION OF ALL EXISTING SEWERS WHICH ARE TO REMAIN IN SERVICE AND WHICH MAY BE AFFECTED BY THE WORK. THE CONDITION OF THE EXISTING CONDUITS AND THEIR APPURTENANCES SHALL BE DETERMINED FROM FIELD OBSERVATIONS. RECORDS OF THE INSPECTION SHALL BE KEPT IN WRITING BY THE CITY OF MASSILLON.

ALL NEW CONDUITS, INLETS, CATCH BASINS, AND MANHOLES CONSTRUCTED AS A PART OF THE PROJECT SHALL BE FREE OF ALL FOREIGN MATTER AND IN A CLEAN CONDITION BEFORE THE PROJECT WILL BE ACCEPTED BY THE CITY OF MASSILLON.

ALL EXISTING SEWERS INSPECTED INITIALLY BY THE ABOVE MENTIONED PARTIES SHALL BE MAINTAINED AND LEFT IN A CONDITION REASONABLY COMPARABLE TO THAT DETERMINED BY THE ORIGINAL INSPECTION. ANY CHANGE IN THE CONDITION RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE CORRECTED BY THE CONTRACTOR TO THE SATISFACTION OF THE CITY OF MASSILLON ENGINEER.

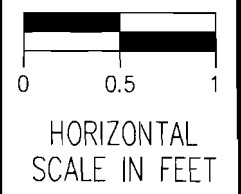
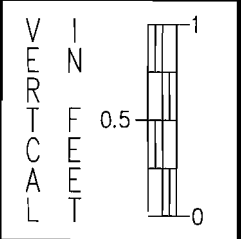
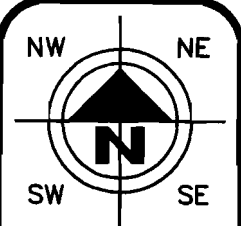
PAYMENT FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 603 CONDUIT ITEMS.

PRESERVATION OF PRIVATE PROPERTY

THE CONTRACTOR SHALL PERFORM WORK AS TO NOT DISTURB, DAMAGE OR DESTROY ANY TELEPHONE OR POWER POLES, SIGNS, LANDSCAPING ITEMS, ETC.. ANY ITEM DAMAGED OR DESTROYED SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE AND ANY ITEM DISTURBED OR IN CONFLICT WITH THE WORK TO BE PERFORMED SHALL BE REMOVED AND RESET AT THE CONTRACTOR'S EXPENSE. PRIOR ENGINEER APPROVAL IS REQUIRED BEFORE ANY OF THE ABOVE ITEMS ARE PERFORMED.

EROSION CONTROL

THE CONTRACTOR SHALL PREPARE AND SUBMIT A STORM WATER POLLUTION CONTROL PLAN TO THE CITY OF MASSILLON ENGINEER TO BE FORWARDED TO THE APPROPRIATE PERMITTING AGENCIES. SAID PLAN MUST COMPLY WITH THE MOST CURRENT RULES AND REGULATIONS OF THE CITY OF MASSILLON.



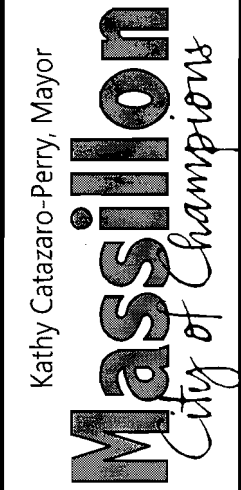
HORIZONTAL
SCALE IN FEET

CHECKED BY:
KAD
DATE:
MAY, 2013
DRAWN BY:
FPW

DATE:
MAY, 2013

REVISIONS:	DATE	DESCRIPTION

Griffith Ave. SW Sanitary Sewer Replacement
Genral Notes
City of Massillon
Stark County, Ohio



DRAWING NAME:
Griffithmotel-NS.DWG
CITY NUMBER:
10ss05

SANITARY SEWER SPECIFICATIONS

SANITARY SEWER CONSTRUCTION PROPOSED FOR THIS PROJECT SHALL CONFORM TO THE LATEST CITY OF MASSILLON STANDARDS AND CONSTRUCTION AND MATERIALS SPECIFICATIONS, TEN STATE STANDARDS, AND THE LATEST EDITION OF THE ODOT CMS, OR MODIFIED BY THE CONTRACT DRAWINGS. IF A CONFLICT ARISES BETWEEN SAID STANDARDS IT SHALL BE AT THE DISCRETION OF THE CITY OF MASSILLON ENGINEER AS TO WHICH STANDARD SHALL GOVERN. THE PROJECT CONTRACT DRAWINGS SHALL GOVERN UNLESS NOTED OTHERWISE.

SANITARY GRAVITY SEWER PIPE AND FITTINGS SHALL BE PVC SDR 35 CONFORMING TO ASTM D-3034 UNLESS OTHERWISE NOTED. PVC COMPOUNDS SHALL CONFORM TO ASTM D-1784 PVC PIPE AND FITTINGS SHALL HAVE BELL AND SPIGOT TYPE JOINTS CONFORMING TO ASTM D-3212 AND GASKETS CONFORMING TO ASTM F-477

BACKFILL IN SEWER TRENCHES SHALL CONFORM TO ODOT ITEM 603.10 AND BE PLACED IN LAYERS SUFFICIENT TO MEET THE COMPACTION REQUIREMENT OF 100% OF MAXIMUM LABORATORY DRY DENSITY PER ASTM D-698 AND THOROUGHLY COMPACTED WITH MACHINE MOUNDED COMPACTION EQUIPMENT. THE PLACING OF BACKFILL MATERIAL SHALL BE CONTINUED UNTIL THE TRENCH IS ENTIRELY FILLED AND COMPACTED WITH THE APPROVED GRANULAR MATERIAL TO THE GRADE CALLED FOR ON THE CONTRACT DRAWINGS. EXCAVATED MATERIAL CONFORMING TO ODOT ITEM 203 MAY BE USED FOR BACKFILLING EXISTING STRUCTURES (AFTER REMOVAL) ONLY ST THE DISCRETION OF THE MASSILLON CITY ENGINEER. CRUSHED GRAVEL CONFORMING TO GRADATION REQUIREMENTS OF ODOT ITEM 304 OR APPROVED EQUAL AS SHOWN IN ODOT TABLE 703-1 SHALL BE USED FOR BACKFILLING ALL SEWER TRENCH AREAS SHOWN ON THE PLANS AND AS DIRECTED BY THE CITY OF MASSILLON ENGINEER. FLOODING, JETTING, OR PUDDLING OF BACKFILL MATERIAL WILL NOT BE PERMITTED UNLESS APPROVED BY THE CITY OF MASSILLON ENGINEER. COMPACTION TESTING OF THE BACKFILL BY A GEOTECHNICAL ENGINEER MAY BE REQUIRED BY THE OWNER AT THE EXPENSE OF THE CONTRACTOR.

SANITARY SEWERS SHALL BE AIR TESTED FOR LEAKAGE AND MANDREL TESTED FOR DEFLECTION. THE MAXIMUM ALLOWABLE PIPE DEFLECTION SHALL BE 5%.

PRIOR TO FINAL PAYMENT FOR AND ACCEPTANCE OF SANITARY SEWER INSTALLATION THE RESULTS OF THE AIR PRESSURE TESTS, TELEVISION TESTS AND MADREL TESTS SHALL BE FORWARDED TO THE CITY OF MASSILLON ENGINEER.

DEFLECTION TESTING

MAXIMUM ALLOWABLE PIPE DEFLECTION (REDUCTION IN VERTICAL INSIDE DIAMETER) SHALL BE 5%. DEFLECTION TESTS OF PIPE SHALL BE PERFORMED NOT SOONER THAN 30 DAYS AFTER THE BACKFILL HAS BEEN PROPERLY PLACED AND BEFORE FINAL ACCEPTANCE. LOCATIONS WITH EXCESS DEFLECTION SHALL BE EXCAVATED AND REPAIRED BY RE-BEDDING OR REPLACEMENT OF THE PIPE AT THE CONTRACTOR'S EXPENSE. DEVICES FOR TESTING INCLUDE A DEFLECTOMETER METER, OR PROPERLY SIZED (60, NO-GO) MANDREL OR SEWER BALL. THE DEFLECTION TESTING MUST BE CONDUCTED WITHOUT MECHANICAL PULLING DEVICES. FOR THE PURPOSE OF DEFLECTION MEASUREMENTS, THE BASE INSIDE PIPE DIAMETERS WITHOUT DEFLECTION ARE PROVIDED IN TABLE A. THE MAXIMUM ALLOWABLE DEFLECTION SHALL BE APPLIED TO THE BASE INSIDE DIAMETER IN DETERMINING THE MINIMUM PERMISSIBLE DIAMETER. IT MUST BE EMPHASIZED THAT TO INSURE ACCURATE TESTING, THE LINES MUST BE THOROUGHLY CLEANED.

TABLE A INSIDE DIAMETERS FOR DEFLECTION MEASUREMENTS OF ASTM D 3034 SDR 35 / SDR 21 PVC SEWER PIPE				
SIZE	SDR	AVG. O.D.	BASE I.D.	DEFLECTION MANDREL
6"	35	6.275	5.742	5.54
8"	35	8.400	7.665	7.28
10"	35	10.500	9.563	9.08
12"	35	12.500	11.361	10.79

TELEVISION TESTING

ALL SANITARY SEWERS, 8-INCH DIAMETER AND LARGER, MUST PASS AN INTERNAL TELEVISION INSPECTION. THE CONTRACTOR SHALL PROVIDE A COMPLETE INTERNAL INSPECTION DVD TO THE CITY OF MASSILLON ENGINEERING DEPARTMENT. THE RECORDING PROCEDURE SHALL BE IN ACCORDANCE WITH CITY OF MASSILLON ENGINEERING DEPARTMENT STANDARDS.

LEAKAGE TESTS

LEAKAGE TESTS SHALL BE PERFORMED WHICH MAY INCLUDE APPROPRIATE WATER OR LOW PRESSURE AIR TESTING. THE TESTING METHODS SELECTED SHOULD TAKE INTO CONSIDERATION THE RANGE IN GROUNDWATER ELEVATIONS DURING THE TEST AND ANTICIPATED DURING THE DESIGN LIFE OF THE SEWER COMPLETED AND ACCEPTED.

WATER (HYDROSTATIC) TEST

THE LEAKAGE EXFILTRATION OR INFILTRATION SHALL NOT EXCEED 100 GALLONS PER INCH OF PIPE DIAMETER PER MILE PER DAY [9L/(MM OF PIPE DIAMETER KM D)] FOR ANY SECTION OF THE SYSTEM. AN EXFILTRATION OR INFILTRATION TEST SHALL BE PERFORMED WITH A MINIMUM POSITIVE HEAD OF 2 FEET (0.6 M).

NEGATIVE AIR PRESSURE (VACUUM) TESTING OF MANHOLES AS PER ASTM C-1244

PREPARATION OF THE MANHOLE:

- A. ALL LIFT HOLES SHALL BE PLUGGED.
- B. ALL PIPES ENTERING THE MANHOLE SHALL BE TEMPORARILY PLUGGED, TAKING CARE TO SECURELY BRACE THE PIPES AND PLUGS TO PREVENT THEM FROM BEING DRAWN INTO THE MANHOLE.

PROCEDURE:

- A. THE TEST HEAD SHALL BE PLACED AT THE TOP OF THE MANHOLE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
- B. A VACUUM OF 10 IN. OF MERCURY SHALL BE DRAWN ON THE MANHOLE, THE VALVE ON THE VACUUM LINE OF THE TEST HEAD CLOSED, AND THE VACUUM PUMP SHUT OFF. THE TIME SHALL BE MEASURED FOR THE VACUUM TO DROP TO 9 IN OF MERCURY.
- C. THE MANHOLE SHALL PASS IF THE TIME FOR THE VACUUM READING TO DROP FROM 10 IN. OF MERCURY TO 9 IN. OF MERCURY MEETS OR EXCEEDS THE VALUES INDICATED IN TABLE BELOW.

MINIMUM TEST TIMES FOR MANHOLES										
DEPTH (FT)	DIAMETER, IN.									
	30	33	36	42	48	54	60	66	72	
TIME, IN SECONDS										
8	11	12	14	17	20	23	26	29	33	
10	14	15	18	21	25	29	33	36	41	
12	17	18	21	25	30	35	39	43	49	
14	20	21	25	30	35	41	46	51	57	
16	22	24	39	34	40	46	52	58	67	
18	25	27	32	38	45	52	59	65	73	
20	28	30	35	42	50	53	65	72	81	
22	31	33	39	46	55	64	72	79	89	
24	33	36	42	51	59	64	78	87	97	
26	36	39	46	55	64	75	85	94	105	
28	39	42	49	59	69	81	91	101	113	
30	42	45	53	63	74	87	98	108	121	

AIR TESTING AS PER ASTM F1417

AIR TESTING WILL BE CONDUCTED AS THE PROJECT IS BEING CONSTRUCTED. AT NO TIME WILL MORE THAN 900 FEET OF PIPE BE INSTALLED BEFORE AIR TESTING IS PERFORMED. SEWAGE WILL NOT BE DIVERTED TO ANY SECTION OF PIPE, REGARDLESS OF LENGTH, UNTIL ALL TESTING IS COMPLETED AND ACCEPTED.

AFTER BACKFILLING A MANHOLE TO MANHOLE REACH OF SANITARY SEWER LINE, THE CONTRACTOR SHALL, AT HIS EXPENSE, CONDUCT THE LINE ACCEPTANCE TESTS. THE TESTS SHALL BE PERFORMED ACCORDING TO THE STATED PROCEDURES AND UNDER THE SUPERVISION OF THE CITY OF MASSILLON ENGINEER OR HIS REPRESENTATIVE.

EQUIPMENT USED SHALL MEET THE FOLLOWING MINIMUM REQUIREMENTS AND BE APPROVED BY THE CITY OF MASSILLON ENGINEER:

1. PNEUMATIC PLUGS SHALL HAVE A SEALING LENGTH EQUAL TO OR A GREATER THAN THE DIAMETER OF THE PIPE BEING INSPECTED.
2. PNEUMATIC PLUGS SHALL RESIST INTERNAL TEST PRESSURES WITHOUT REQUIRED EXTERNAL BRACING OR BLOCKING.
3. ALL AIR USED SHALL PASS THROUGH A SINGLE CONTROL PANEL.
4. THREE INDIVIDUAL HOSES SHALL BE USED FOR THE FOLLOWING CONNECTIONS:

a. FROM CONTROL PANEL TO PNEUMATIC PLUGS FOR INFLATION.

b. FROM CONTROL PANEL TO SEALED LINE FOR INTRODUCING THE LOW PRESSURE AIR.

c. FROM SEALED LINE TO CONTROL PANEL FOR CONTINUALLY MONITORING AIR PRESSURE RISE IN THE SEALED LINE.

ALL PNEUMATIC PLUGS SHALL BE SEAL TESTED BEFORE BEING USED IN THE ACTUAL TEST INSTALLATION. ONE LENGTH OF PIPE SHALL BE LAID ON THE GROUND AN SEALED AT BOTH ENDS WITH THE PNEUMATIC PLUGS TO BE CHECKED. THE SEALED PIPE SHALL BE PRESSURED TO 5 PSIG. THE PLUGS MUST HOLD AGAINST THIS PRESSURE WITHOUT HAVING TO BE BRACED.

AFTER A MANHOLE TO MANHOLE REACH OF PIPE HAS BEEN BACKFILLED AND CLEANED, AND THE PNEUMATIC PLUGS ARE CHECKED BY THE ABOVE PROCEDURE, THE PLUGS SHALL BE PLACED IN THE LINE AT EACH MANHOLE. LOW PRESSURE AIR SHALL BE SLOWLY INTRODUCED INTO THIS SEALED LINE UNTIL THE INTERNAL AIR PRESSURE REACHES APPROXIMATELY 4 PSIG.

AT LEAST TWO MINUTES SHALL BE ALLOWED FOR THE AIR PRESSURE TO STABILIZE. WHEN THE PRESSURE HAS STABILIZED AND IS AT OR ABOVE 3.5 PSIG, THE AIR HOSE FROM THE CONTROL PANEL TO THE AIR SUPPLY SHALL BE DISCONNECTED. THE PORTION OF THE LINE BEING TESTED SHALL BE TERMED "ACCEPTABLE" IF THE TIME REQUIRED IN MINUTES FOR THE PRESSURE TO DECREASE FROM 3.5 TO 2.5 PSIG (GREATER THEN THE AVERAGE BACK PRESSURE OF ANY GROUNDWATER THAT MAY BE OVER THE PIPE) SHALL NOT BE LESS THAN THE TIME SHOWN FOR THE GIVEN DIAMETERS IN THE FOLLOWING TABLE:

PIPE DIAMETER IN.	MINIMUM TIME MINUTES	LENGTH FOR MINUTES TIME, FT.	TIME FOR LONGER LENGTH, S	SPECIFICATION TIME LENGTH (L) SHOWN, MINUTES							
				100 FT.	150 FT.	200 FT.	250 FT.	300 FT.	350 FT.	400 FT.	450 FT.
4	3:46	597	0.380 L	3:46	3:46	3:46	3:46	3:46	3:46	3:46	3:46
6	5:40	398	0.854 L	5:40	5:40	5:40	5:40	5:40	5:40	5:42	6:24
8	7:34	298	1.520 L	7:34	7:34	7:34	7:36	7:36	8:52	10:08	11:24
10	9:26	239	2.374 L	9:26	9:26	9:26	9:53	11:52	13:51	15:49	17:48
12	11:20	198	3.416 L	11:20	11:20	11:24	14:15	17:05	19:56	22:47	25:38
15	14:10	159	6.342 L	14:10	14:10	17:46	22:15	26:42	31:09	35:36	40:04
18	17:0	133	7.692 L	17:00	19:13	25:38	32:09	38:27	44:52	51:16	57:41
21	19:50	114	10.470 L	19:50	26:10	36:54	43:37	52:21	81:00	69:48	78:31
24	22:40	99	13.674 L	22:47	34:11	45:34	56:58	68:22	79:46	91:10	102:33
27	25:30	88	17.306 L	28:51	43:16	57:41	72:07	86:32	100:57	115:22	129:48
30	28:20	80	21.366 L	35:37	53:25	71:13	89:02	106:50	124:38	142:26	160:15
33	31:10	72	25.852 L	49:05	64:38	86:10	107:43	129:16	150:43	172:21	193:53
36	34:00	66	30.768 L	51:17	76:55	102:34	128:12	153:50	170:29	205:07	230:46

IN AREAS WHERE GROUND WATER IS KNOWN TO EXIST, THE CONTRACTOR SHALL INSTALL A 1/2 INCH DIAMETER CAPPED PIPE NIPPLE APPROXIMATELY 10 INCHES LONG, THROUGH THE MANHOLE WALL ON TOP OF ONE OF THE SANITARY SEWER LINES ENTERING THE MANHOLE. THIS SHALL BE DONE AT THE TIME THE SANITARY SEWER LINE IS INSTALLED. IMMEDIATELY PRIOR TO THE PERFORMANCE OF THE LINE ACCEPTABILITY TEST, THE GROUND WATER SHALL BE DETERMINED BY REMOVING THE PIPE CAP, BLOWING AIR THROUGH THE PIPE NIPPLE IN THE GROUND SO AS TO CLEAR IT, AND THEN CONNECTING A CLEAR PLASTIC TUBE TO THE NIPPLE. THE PLASTIC TUBE SHALL BE VERTICAL AND A MEASUREMENT OF THE HEIGHT, IN FEET OF WATER OVER THE INVERT OF THE PIPE, SHALL BE TAKEN AFTER THE WATER HAS STOPPED RISING IN THIS PLASTIC TUBE. THE HEIGHT, IN FEET OF WATER OVER THE INVERT OF THE PIPE, SHALL BE TAKEN AFTER THE WATER HAS STOPPED RISING IN THIS PLASTIC TUBE. AIR TEST PRESSURE IS TO BE INCREASED BY 0.433 PSI FOR EACH FOOT THE GROUND WATER IS ABOVE THE INVERT OF THE SEWER LINE BEING TESTED. THE ALLOWABLE DROP OF ONE POUND AND THE TIMING OF THE TEST REMAIN THE SAME.

IF A LINE ACCEPTABILITY TEST IS BEING CONDUCTED ON MORE THAN ONE MANHOLE REACH OF PIPE, THE ENTIRE SECTION BEING TESTED SHALL MEET THE LINE ACCEPTABILITY REQUIREMENTS AS IF ONLY ONE (1) OF THE MANHOLE REACHES IN THE SECTION WERE BEING TESTED.

CLEAN WATER STATEMENT

ROOF DRAINS, FOUNDATION DRAINS, AND OTHER CLEAN WATER CONNECTIONS TO THE SANITARY SEWER ARE PROHIBITED.

RELATION TO WATER MAINS

SEWERS SHALL BE LAID AT LEAST 10 FEET HORIZONTALLY FROM ANY EXISTING OR PROPOSED WATER MAIN. THE DISTANCE SHALL BE MEASURED EDGE TO EDGE.

SEWERS CROSSING WATER MAINS SHALL BE LAID TO PROVIDE A MINIMUM VERTICAL DISTANCE OF 18 INCHES BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF THE SEWER.

WORKING AREA

NO EXCAVATION WITH SIDE SLOPES STEEPER THAN 2:1 AND/OR DEEPER THAN 2', OPEN CASTINGS AND PIPES SHALL BE LEFT EXPOSED WHEN THE SITE IS UNATTENDED BY THE CONTRACTOR. THE CONTRACTOR SHALL SECURE ALL SUCH EXCAVATIONS, OPEN CASTINGS AND PIPES AGAINST UNAUTHORIZED ENTRY COVERING WITH STEEL PLATES, TEMPORARY BACKFILLING, FENCING AND SECURITY SERVICES SHALL BE INCLUDED IN THE PRICE BID FOR THE WORK.

FINAL APPROVAL

A VIDEO IN THE FORM OF DVD WILL BE MADE BY THE CONTRACTOR AND SUBMITTED TO THE CITY OF MASSILLON ENGINEER PRIOR TO THE PROJECT COMMENCING. AFTER THE FINAL INVOICE IS SUBMITTED THE SITE SHALL BE VIDEOED AGAIN BY THE CONTRACTOR. ANY DISCREPANCIES WILL BE RESOLVED PRIOR TO FINAL PAYMENT. AS BUILT DRAWINGS SHALL BE CREATED BY THE CONTRACTOR AND SUBMITTED TO THE CITY OF MASSILLON ENGINEER IN A CLEAR AND LEGENDABLE MANNER PRIOR TO FINAL INVOICE.

COST OF THIS WORK SHALL BE INCLUDED IN ITEM 623 CONSTRUCTION STAKING

NWNE

SWSE

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HORIZONTAL

SCALE IN FEET

CHECKED BY:

KAD

DATE:

May, 2013

DRAWN BY:

FPW

DATE:

May, 2013

REVISIONS:

DESCRIPTION

DATE

Griffith Ave. SW Sanitary Sewer Replacement

General Notes

City of Massillon

Stark County, Ohio

Kathy Catazaro-Perry, Mayor

Massillon

City of Champions

DRAWING NAME:

Griffthnote2-NS.DWG

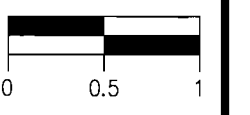
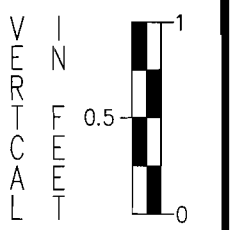
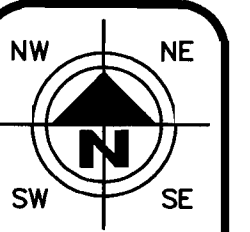
CITY NUMBER:

10ss05

3 / 11

GENERAL SUMMARY

SHEET No.																	ITEM	GRAND TOTAL	UNIT	DESCRIPTION
1	2	3	4	5	6	7	8	9	10	11										
																				ROADWAY
				1	1	2	1										201SPEC	LUMP	LUMP	CLEARING AND GRUBBING
				415	375	332	639	35									202	5	SF	MANHOLE REMOVED
				25													202	1796	LF	PIPE REMOVED
				572			777										202	25	LF	GUARDRAIL REMOVED
				43													202	1349	LF	REMOVE AND RESET FENCE
				25		157											202	LUMP	LUMP	EXISTING LATERAL REMOVAL OR PLUGGED AND FILLED
				2													254	200	SY	2" PAVEMENT PLANNING
																	606	25	LF	GUARDRAIL TYPE, 5
																	606	2	EACH	GUARDRAIL FLARED END
																				EROSION CONTROL
	LUMP				670		265										207	1535	LF	FILTER FABRIC FENCE
																	659	LUMP	LUMP	TOPSOIL, SEEDING AND MULCHING
																				PAVEMENT
				5		16											407	21	GAL	TACK COAT
				3		9											448	12	CY	2" ASPHALT CONCRETE SURFACE COURSE
																				DRAINAGE
																</				



HORIZONTAL
SCALE IN FEET

CHECKED BY:
KAD

DATE: May, 2013

DRAWN BY:
FPW

DATE: May, 2013

REVISIONS:	
DATE	DESCRIPTION

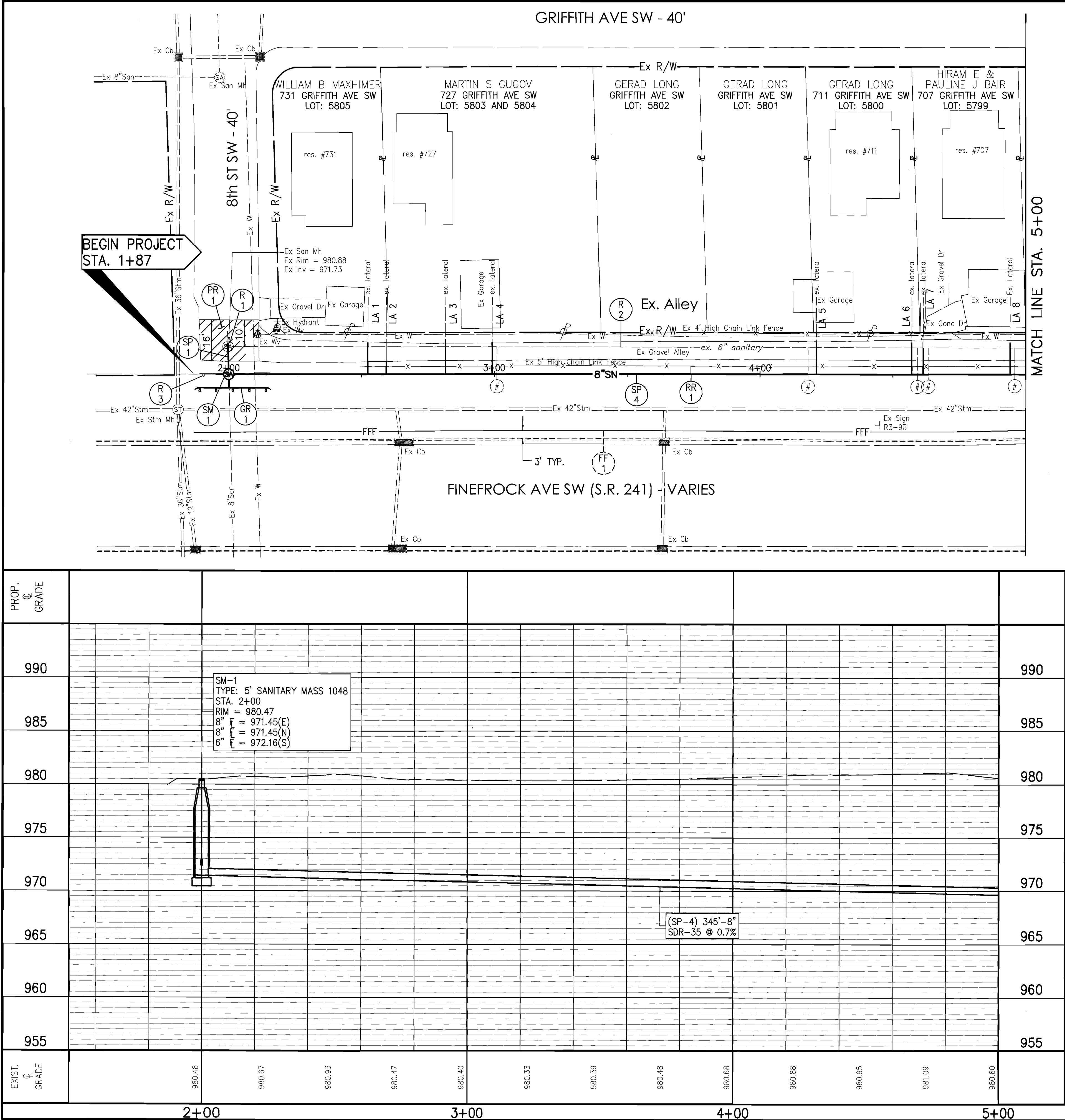
Griffith Ave. SW Sanitary Sewer Replacement

Kathy Catazaro-Perry, Mayor

DRAWING NAME:
GriffithGsum1-NS.DWG

CITY NUMBER:
10-05

4 / 11



CONTROL			
DESCRIPTION	NORTH	EAST	ELEVATION
NAIL SET #1			
NAIL SET #2			
STA. 1+50	407741.29	2237029.27	
STA. 11+00	407730.31	2238648.56	

Bench Mark No. 1
Top of hydrant @ Sta. 2+18±,
18± Rt.
Elevation 982.54

NOTE

FINAL LATERAL CONNECTION TO EXISTING LATERALS
TO BE DONE AFTER ALL TESTING OF THE PROPOSED
HAS BEEN DONE

LEGEND

- * EXISTING LATERAL LOCATIONS ARE APPROXIMATE BASED
OF INSPECTION OF EXISTING MAIN AND ARE MESURED
FROM THE UPSTREAM MANHOLE
- ITEM 254-2" PAVEMENT PLANNING
ITEM 448-2" ASPHALT CONCRETE SURFACE
- EXISTING LATERAL TO BE REMOVED OR
PLUGGED AND FILLED

REF. No.	SIDE	STATION		MANHOLE REMOVED	PIPE REMOVED	GUARDRAIL REMOVED	REMOVE AND RESET FENCE	6" LATERAL SDR 35	8" TYPE SDR 35	MANHOLE SANITARY MASS 1048	GUARDRAIL TYPE, 5	GUARDRAIL FLARED END	2" PAVEMENT PLANNING	TACK COAT @ 0.1 GAL SURFACE PER S.Y.	448 ASPHALT CONCRETE SURFACE COURSE
		FROM	TO												
R-1	RT	2+00	2+00	1	25										
R-2	RT/LT	2+00	5+48		350										
R-3	RT/LT	1+87	2+12			25									
RR-1	RT/LT	2+49	8+21				572								
GR-1	LT	1+87	2+12												
PR-1	LT	1+88	2+12												
SM-1	QL	2+00								1					
SP-1	LT	12+00													
SP-2	LT	12+00													
SP-4	LT	2+00	5+50												
LA-1	LT	* FIELD DETERMINED, 53'			5										
LA-2	LT	* FIELD DETERMINED, 60'			5										
LA-3	LT	* FIELD DETERMINED, 82'			5										
LA-4	LT	* FIELD DETERMINED, 100'			5										
LA-5	RT	* FIELD DETERMINED, 222'			5										
LA-6	RT	* FIELD DETERMINED, 257'			5										
LA-7	RT	* FIELD DETERMINED, 262'			5										
LA-8	RT	* FIELD DETERMINED, 295'			5										
TOTALS CARRIED TO GENERAL SUMMARY				1	415	25	572	96	362	1	25	2	43	5	3

Griffith Ave. SW Sanitary Sewer Replacement
Plan and Profile Sta. 9+50 and Sta. 13+00
City of Massillon
Stark County, Ohio

Kathy Cataano Perry, Mayor
Massillon
City of Champions

DRAWING NAME:
GriffithPP1-NS.DWG
CITY NUMBER:
108805
5/11

REVISIONS:
DATE DESCRIPTION
May, 2013
May, 2013

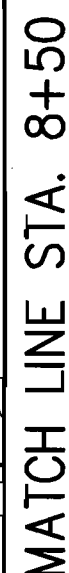
CHECKED BY:
KAD
DATE:
May, 2013
DRAWN BY:
FPW
DATE:
May, 2013

SCALE: 1" = 20'
HORIZONTAL SCALE IN FEET

CONTROL
Bench Mark No. 1
Top of hydrant @ Sta. 2+18±,
18± Rt.
Elevation 982.54

NOTE
FINAL LATERAL CONNECTION TO EXISTING LATERALS
TO BE DONE AFTER ALL TESTING OF THE PROPOSED
HAS BEEN DONE

LEGEND
* EXISTING LATERAL LOCATIONS ARE APPROXIMATE BASED
OF INSPECTION OF EXISTING MAIN AND ARE MESURED
FROM THE UPSTREAM MANHOLE
ITEM 254-2" PAVEMENT PLANNING
ITEM 448-2" ASPHALT CONCRETE SURFACE
EXISTING LATERAL TO BE REMOVED OR
PLUGGED AND FILLED



MATCH LINE STA. 8+50

LEGEND

- * EXISTING LATERAL LOCATIONS ARE APPROXIMATE BASED
OF INSPECTION OF EXISTING MAIN AND ARE MESURED
FROM THE UPSTREAM MANHOLE
-  - ITEM 254-2" PAVEMENT PLANNING
ITEM 448-2" ASPHALT CONCRETE SURFACE
-  - EXISTING LATERAL TO BE REMOVED OR
PLUGGED AND FILLED

[illegible]



N

VERTICAL
SCALE IN FEET



0 10 20



0 10 20

HORIZONTAL
SCALE IN FEET

CHECKED BY: KAD

DATE: May, 2013

DRAWN BY: FPW

DATE: May, 2013

REVISIONS:	
DATE	DESCRIPTION

Griffith Ave. SW Sanitary Sewer Replacement

Plan and Profile Sta. 9+50 and Sta. 13+00

City of Massillon
Stark County, Ohio

Kathy Catzaro-Perry, Mayor

Massillon

City of Champions

DRAWING NAME:
GriffithP22-NS.DWG

CITY NUMBER:
10ss05

6 / 11



MATCH LINE STA. 15+50

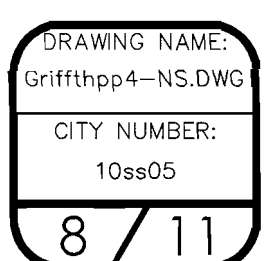
FINAL LATERAL CONNECTION TO EXISTING LATERALS
TO BE DONE AFTER ALL TESTING OF THE PROPOSED
HAS BEEN DONE

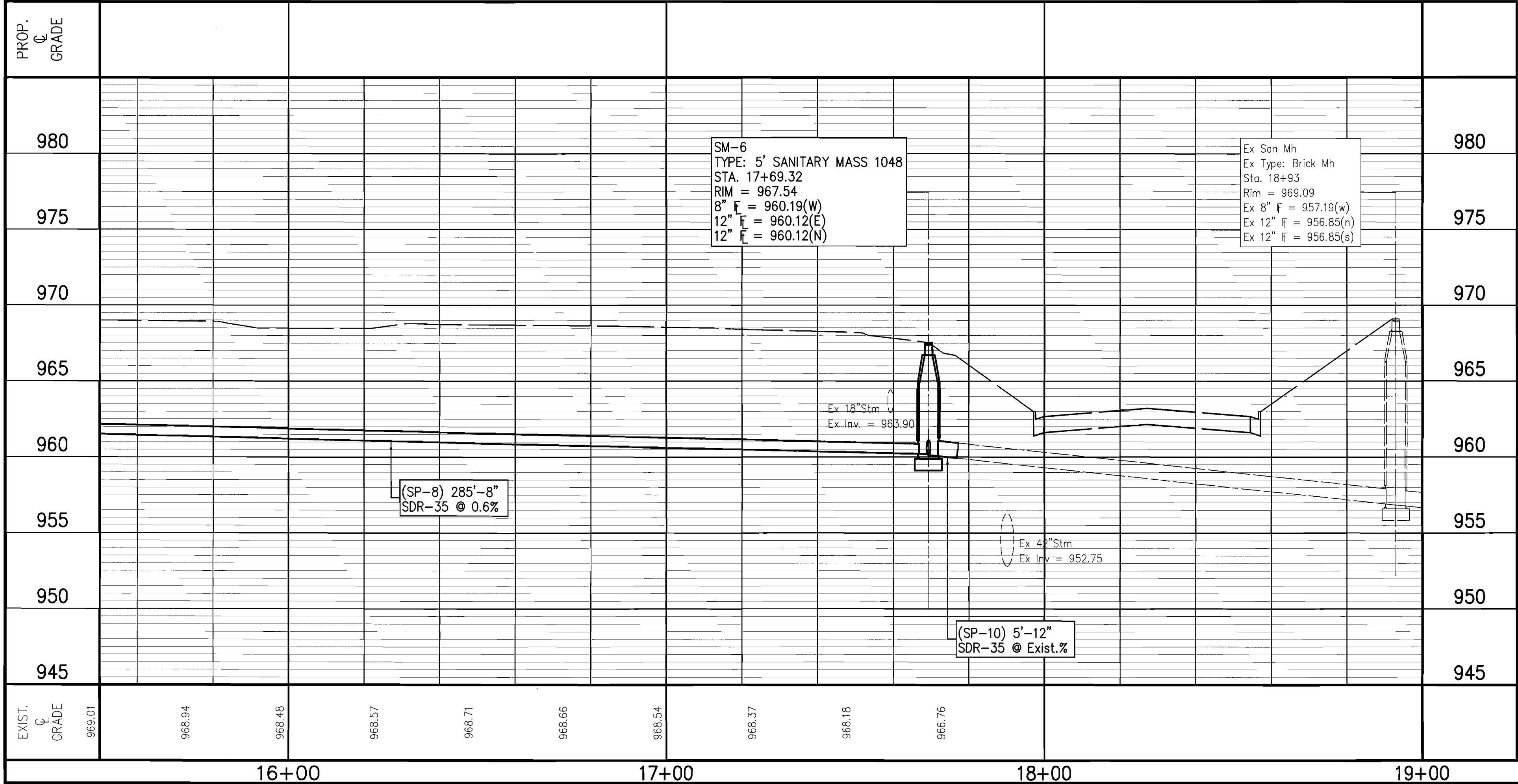
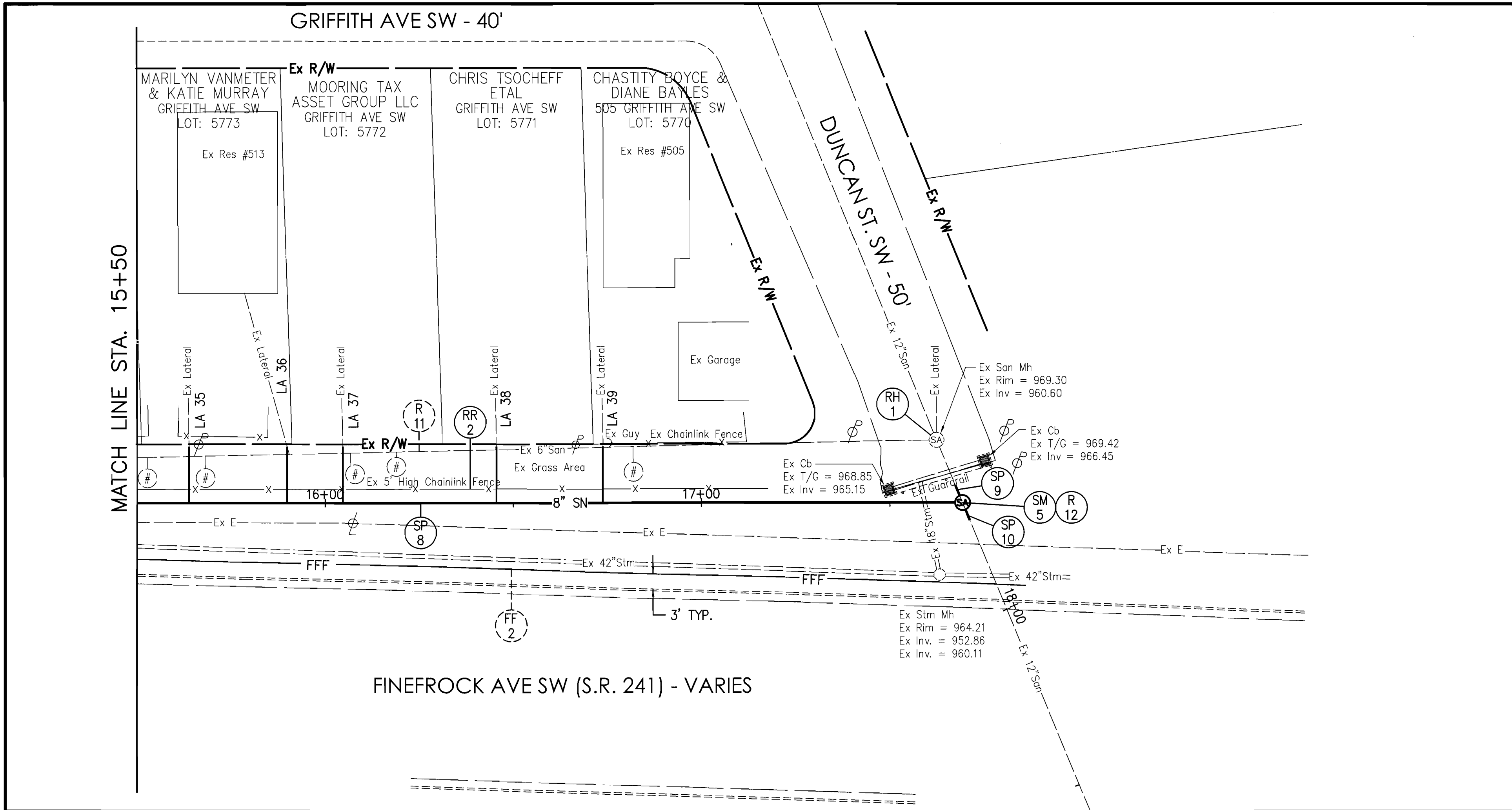
* EXISTING LATERAL LOCATIONS ARE APPROXIMATE BASED
OF INSPECTION OF EXISTING MAIN AND ARE MESURED
FROM THE UPSTREAM MANHOLE

-  - ITEM 254-2" PAVEMENT PLANNING
 ITEM 448-2" ASPHALT CONCRETE SURFACE
-  - EXISTING LATERAL TO BE REMOVED OR
 PLUGGED AND FILLED

 - ITEM 254-2" PAVEMENT PLANNING
 ITEM 448-2" ASPHALT CONCRETE SURFACE

 - EXISTING LATERAL TO BE REMOVED OR
 PLUGGED AND FILLED





NOTE

FINAL LATERAL CONNECTION TO EXISTING LATERALS TO BE DONE AFTER ALL TESTING OF THE PROPOSED HAS BEEN DONE

LEGEND

- EXISTING LATERAL LOCATIONS ARE APPROXIMATE BASED OF INSPECTION OF EXISTING MAIN AND ARE MESURED FROM THE UPSTREAM MANHOLE
- ITEM 254-2" PAVEMENT PLANNING
ITEM 448-2" ASPHALT CONCRETE SURFACE
- EXISTING LATERAL TO BE REMOVED OR PLUGGED AND FILLED

REVISIONS:

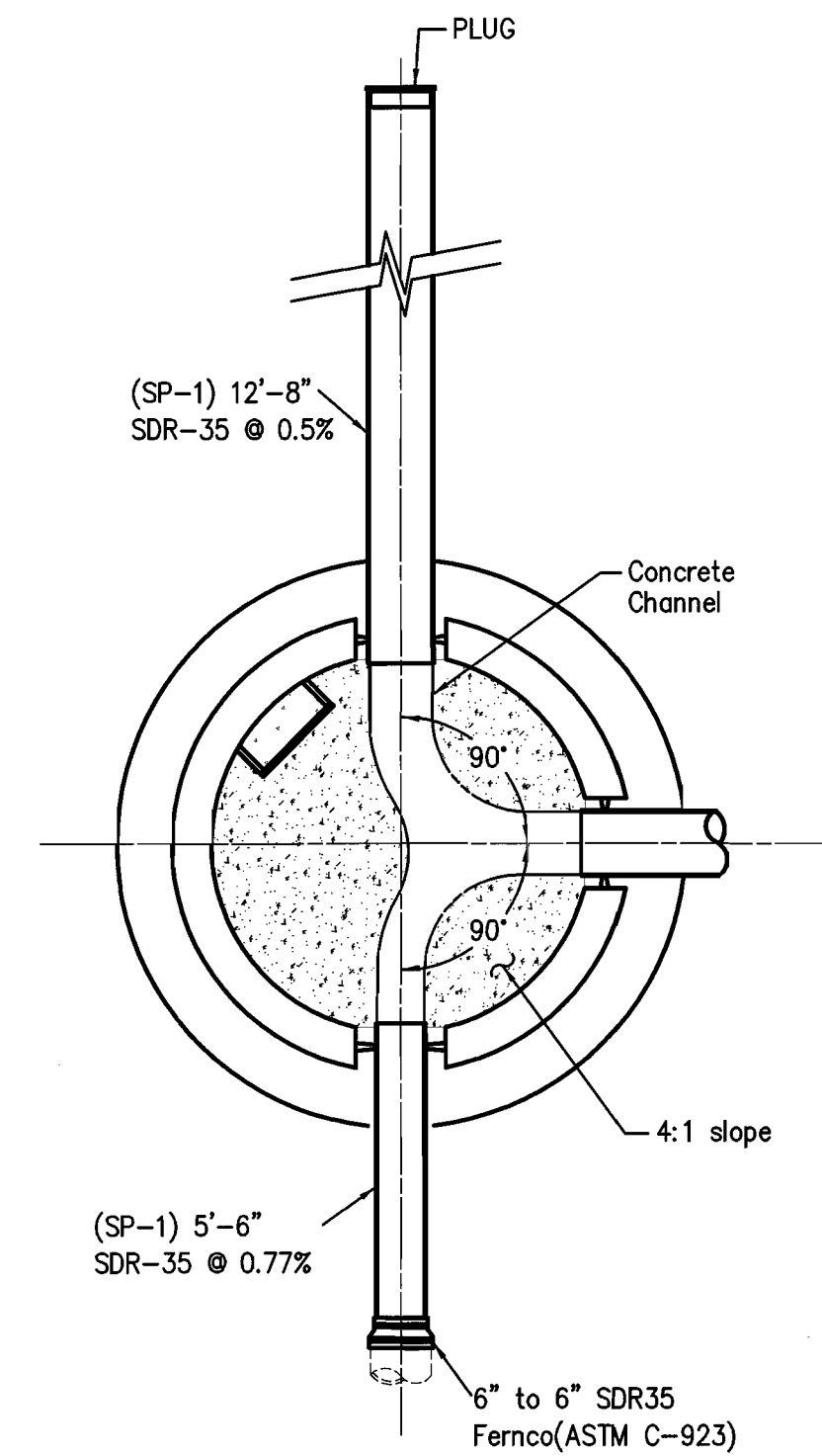
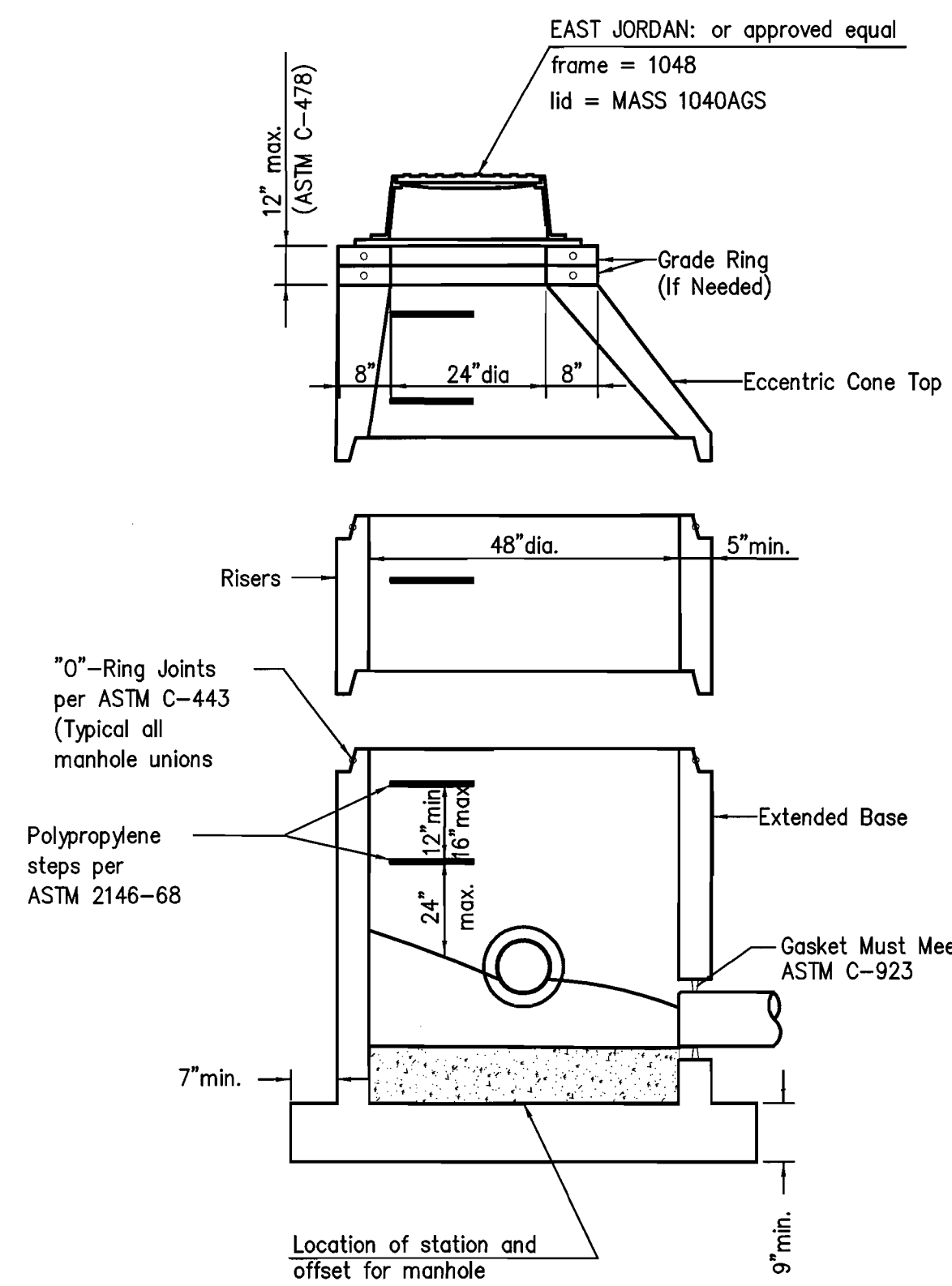
DATE	DESCRIPTION

REF. No.	SIDE	STATION	ITEM	QUANTITY
R-12	LT/CL	17+72	17+80	10
RH-1	CL	18+93		
SM-5	CL	17+69.32		
SP-8	LT	14+85	17+69.32	
SP-9	LT	17+67	17+69.32	5
SP-10	LT	17+69.32	17+74.32	5
LA-35	LT	* FIELD DETERMINED - 15'		5
LA-36	LT	* FIELD DETERMINED - 15'		5
LA-37	LT	* FIELD DETERMINED - 15'		5
LA-38	LT	* FIELD DETERMINED - 15'		5
LA-39	RT	* FIELD DETERMINED - 15'		5
TOTALS CARRIED TO GENERAL SUMMARY			35	

Griffith Ave. SW Sanitary Sewer Replacement
Plan and Profile Sta. 15+50 and Sta. 18+00
City of Massillon
Stark County, Ohio

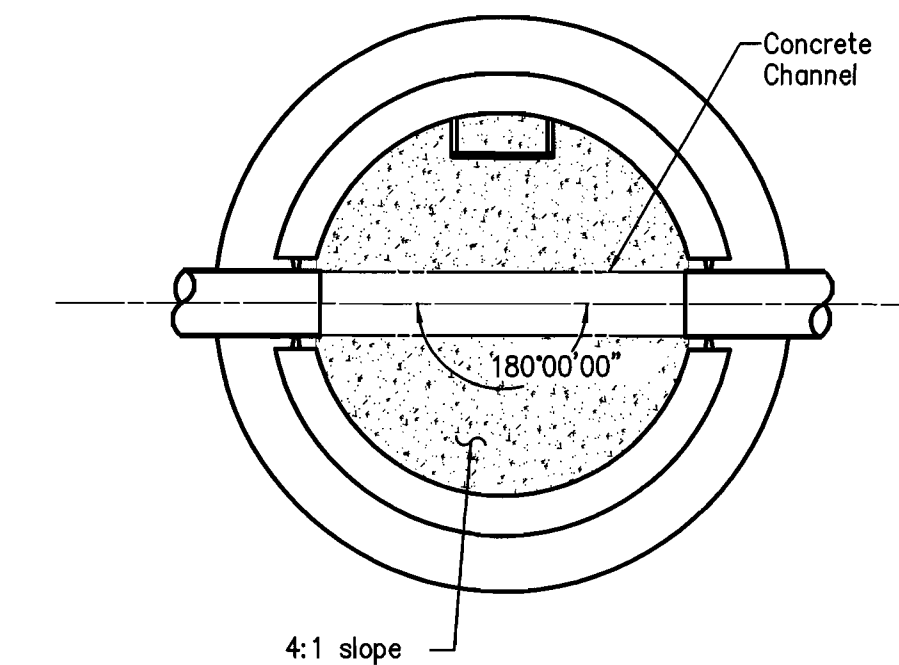
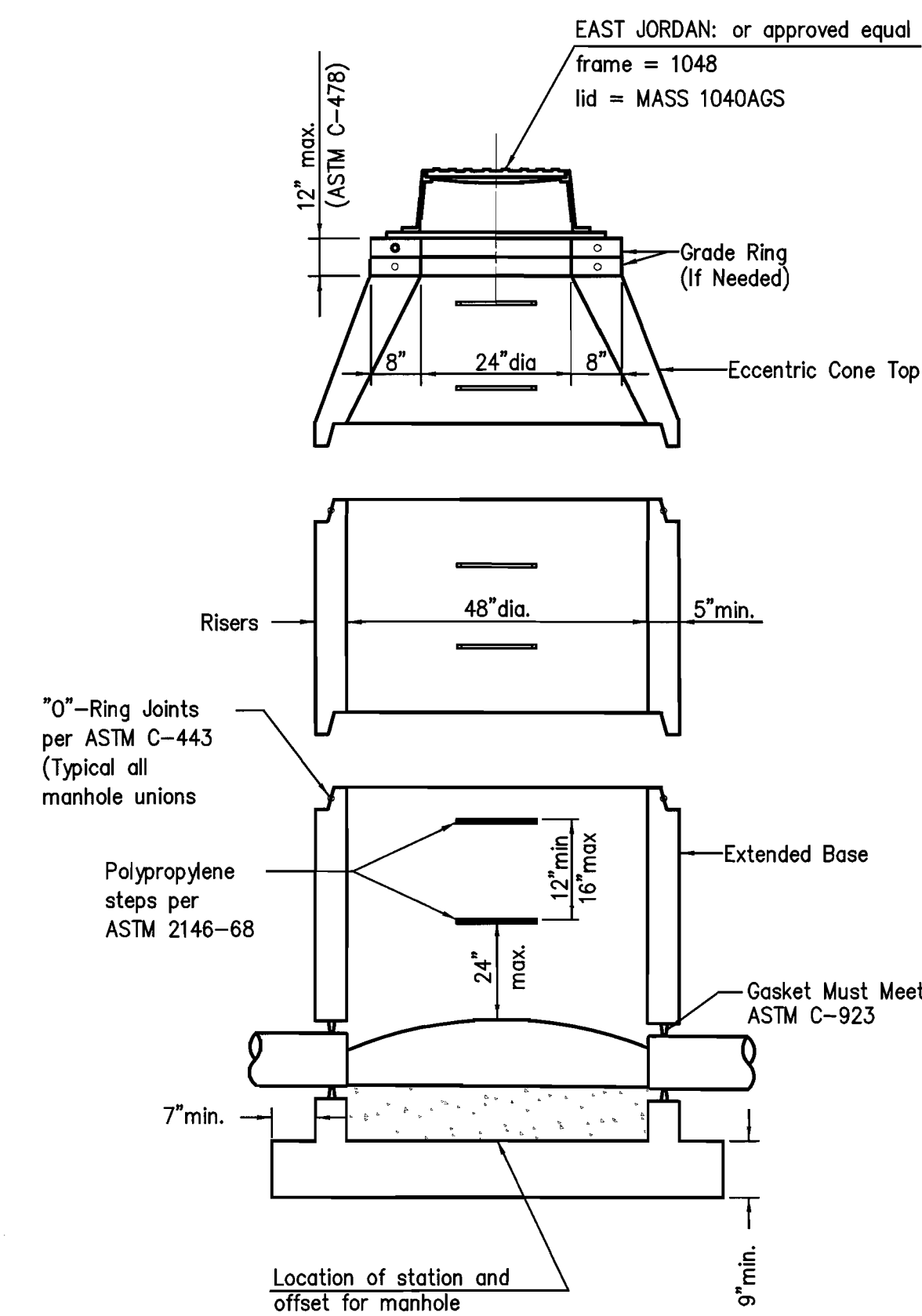
Kathy Catanzo-Perry, Mayor
Massillon
City of Champions

DRAWING NAME:
Griffithpp5-NS.DWG
CITY NUMBER:
10ss05
9 / 11



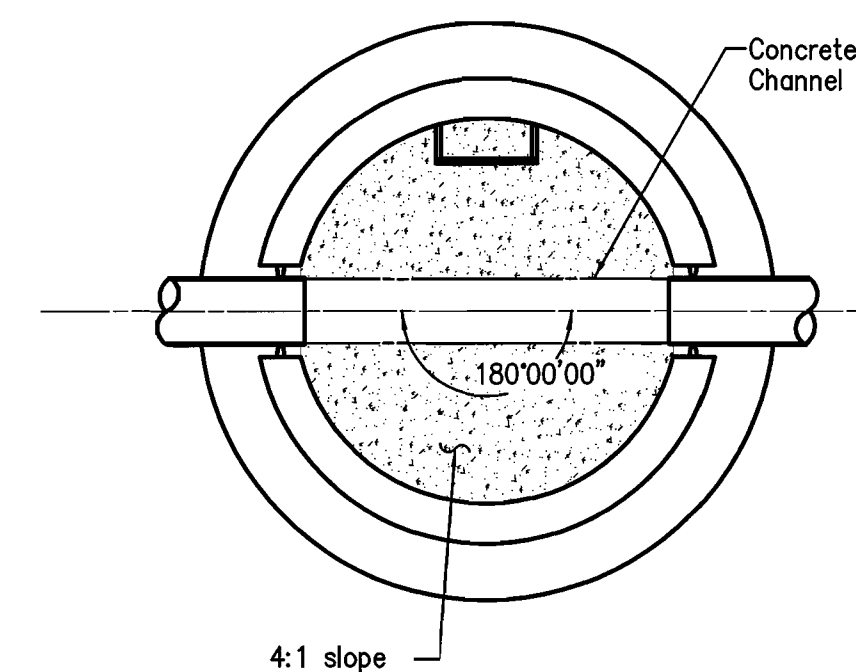
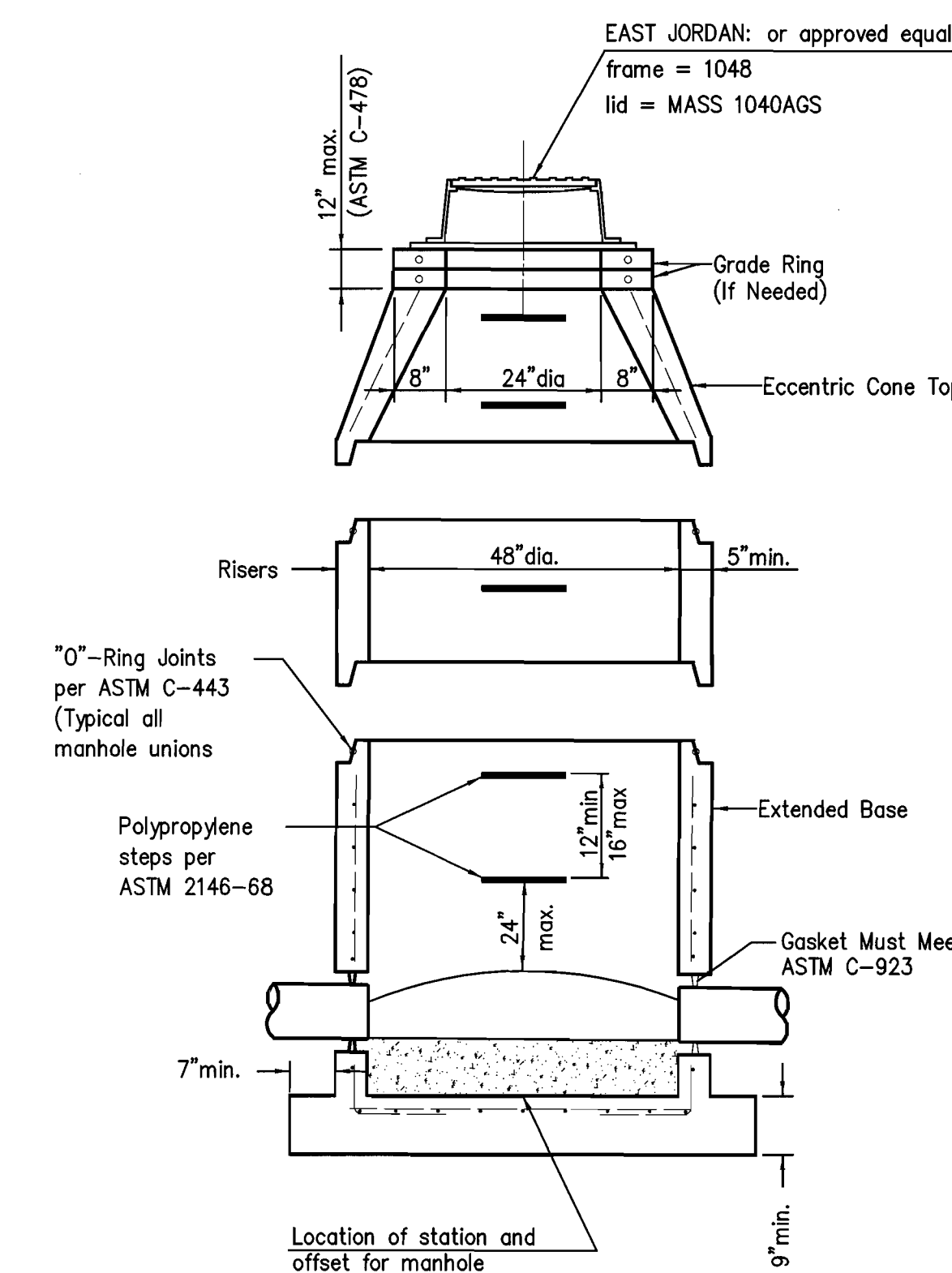
SM-1

48" ϕ PRECAST CONCRETE MANHOLE
JOINTS TO BE SEALED WITH CON SEAL FED SPEC SS-S-210A



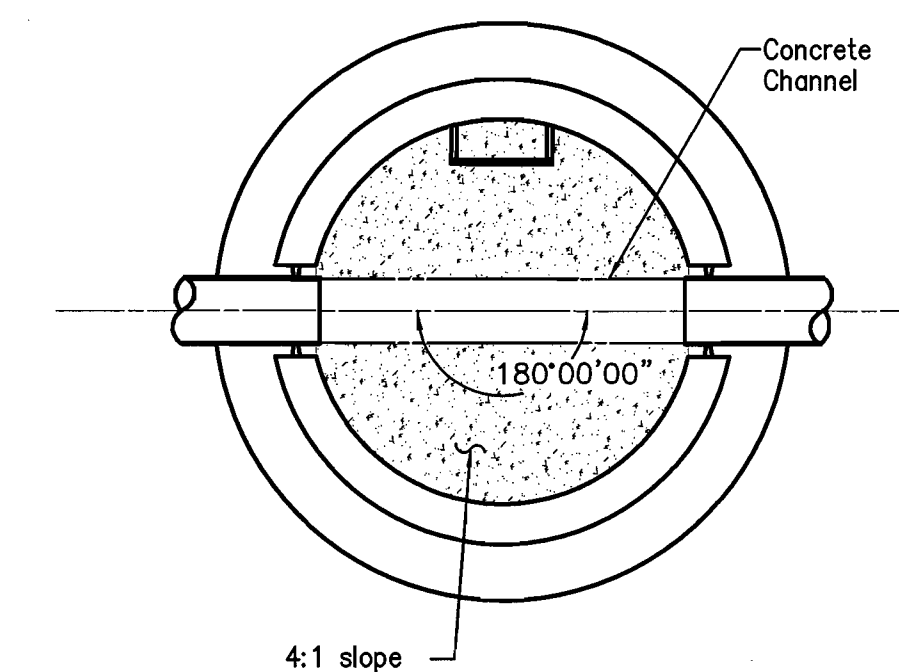
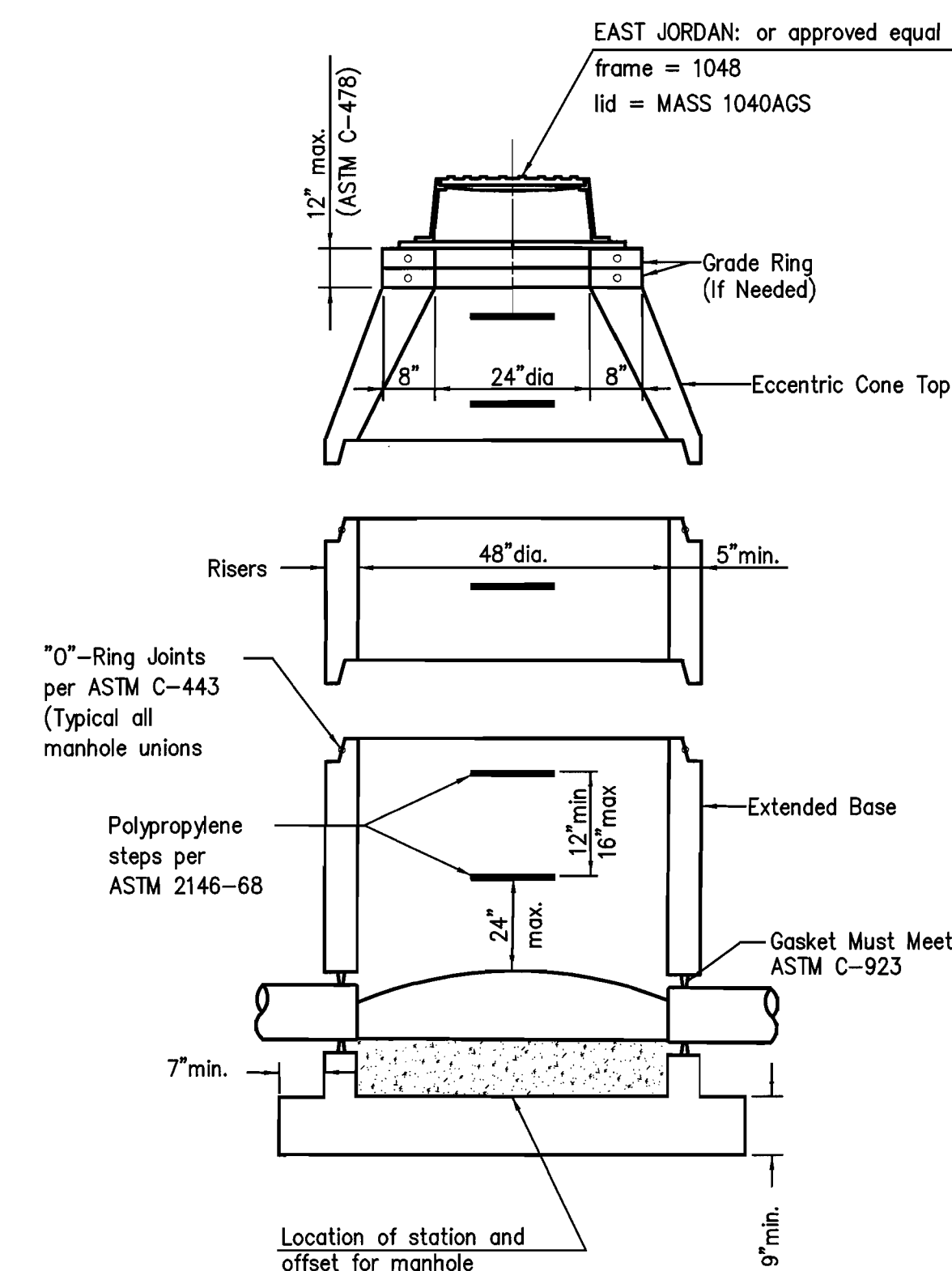
SM-2

48" ϕ PRECAST CONCRETE MANHOLE
JOINTS TO BE SEALED WITH CON SEAL FED SPEC SS-S-210A



SM-3

48" ϕ PRECAST CONCRETE MANHOLE
JOINTS TO BE SEALED WITH CON SEAL FED SPEC SS-S-210A



SM-4

48" ϕ PRECAST CONCRETE MANHOLE
JOINTS TO BE SEALED WITH CON SEAL FED SPEC SS-S-210A

NW NE
SW SE

1" = 2'-0" (VERTICAL)
1" = 10'-0" (HORIZONTAL)

HORIZONTAL SCALE IN FEET

0 1 2

CHECKED BY:
KAD

DATE:
May, 2013

DRAWN BY:
FPW

DATE:
May, 2013

REVISIONS:

DESCRIPTION

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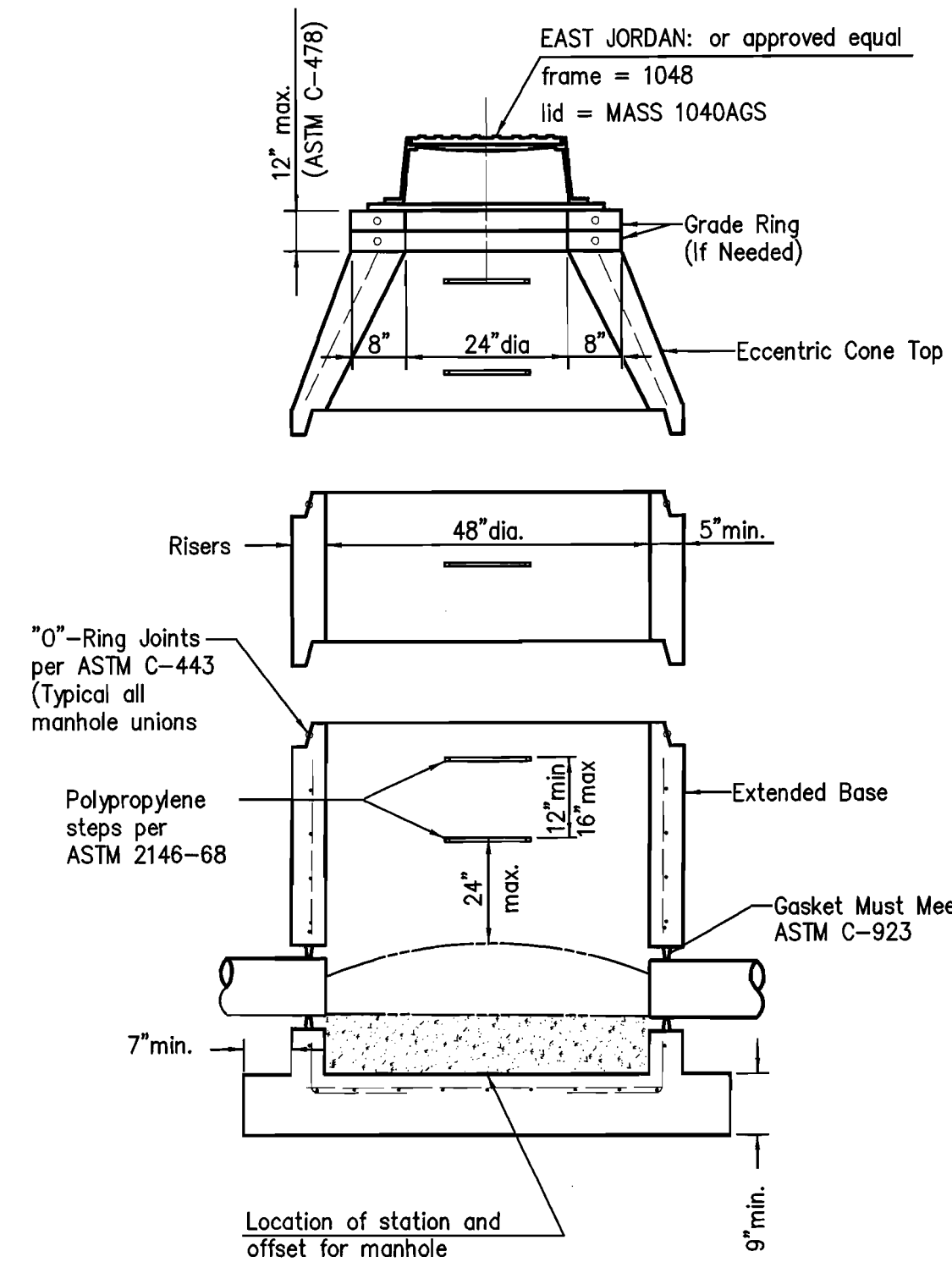
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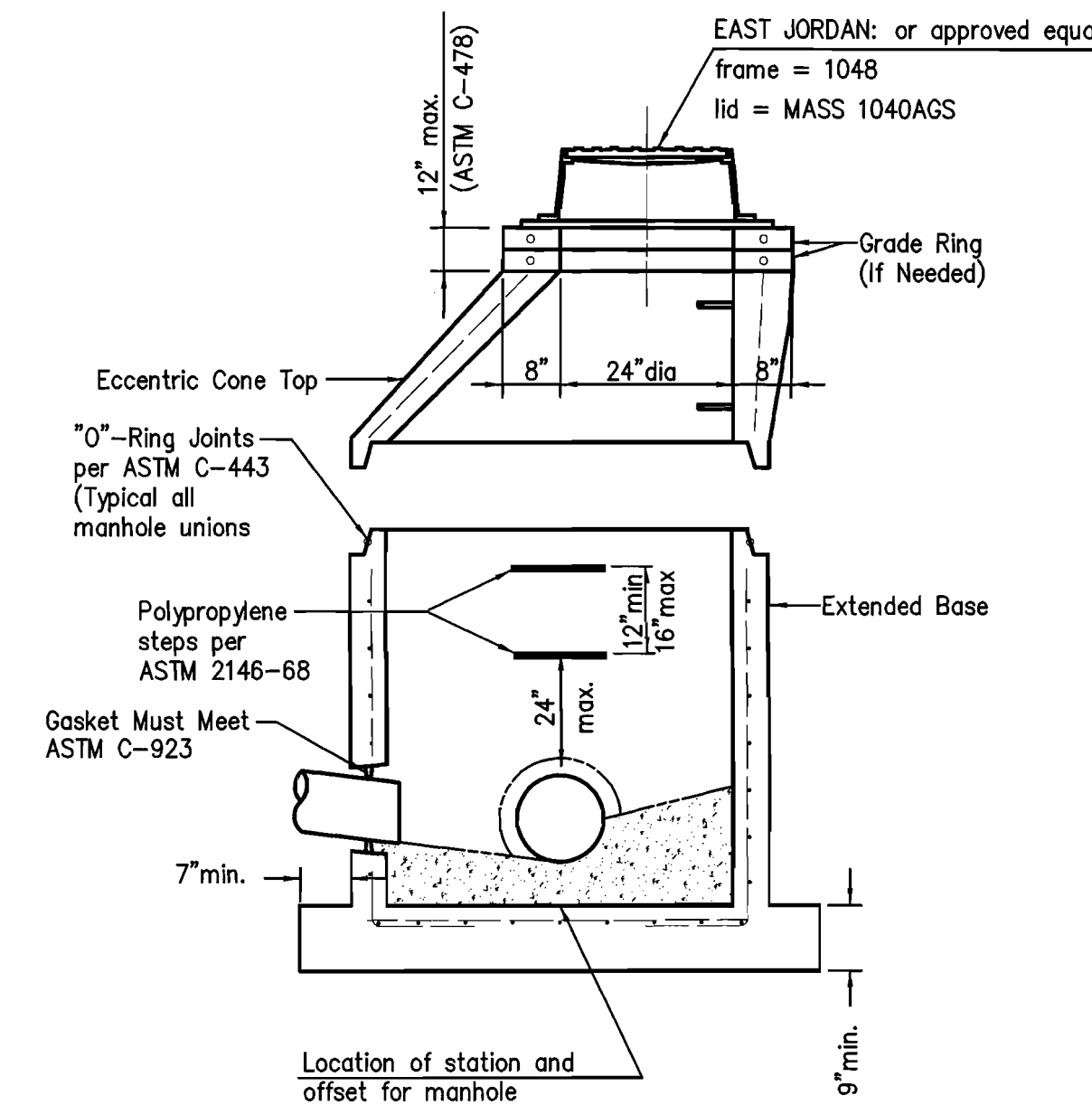
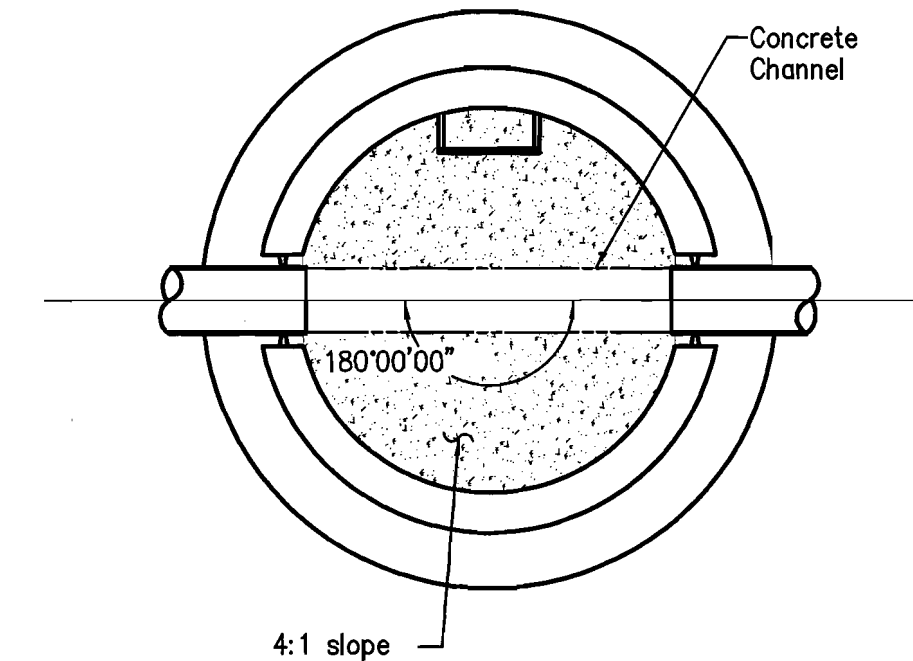
REVISIONS:



SM-5

PRECAST CONCRETE MANHOLE

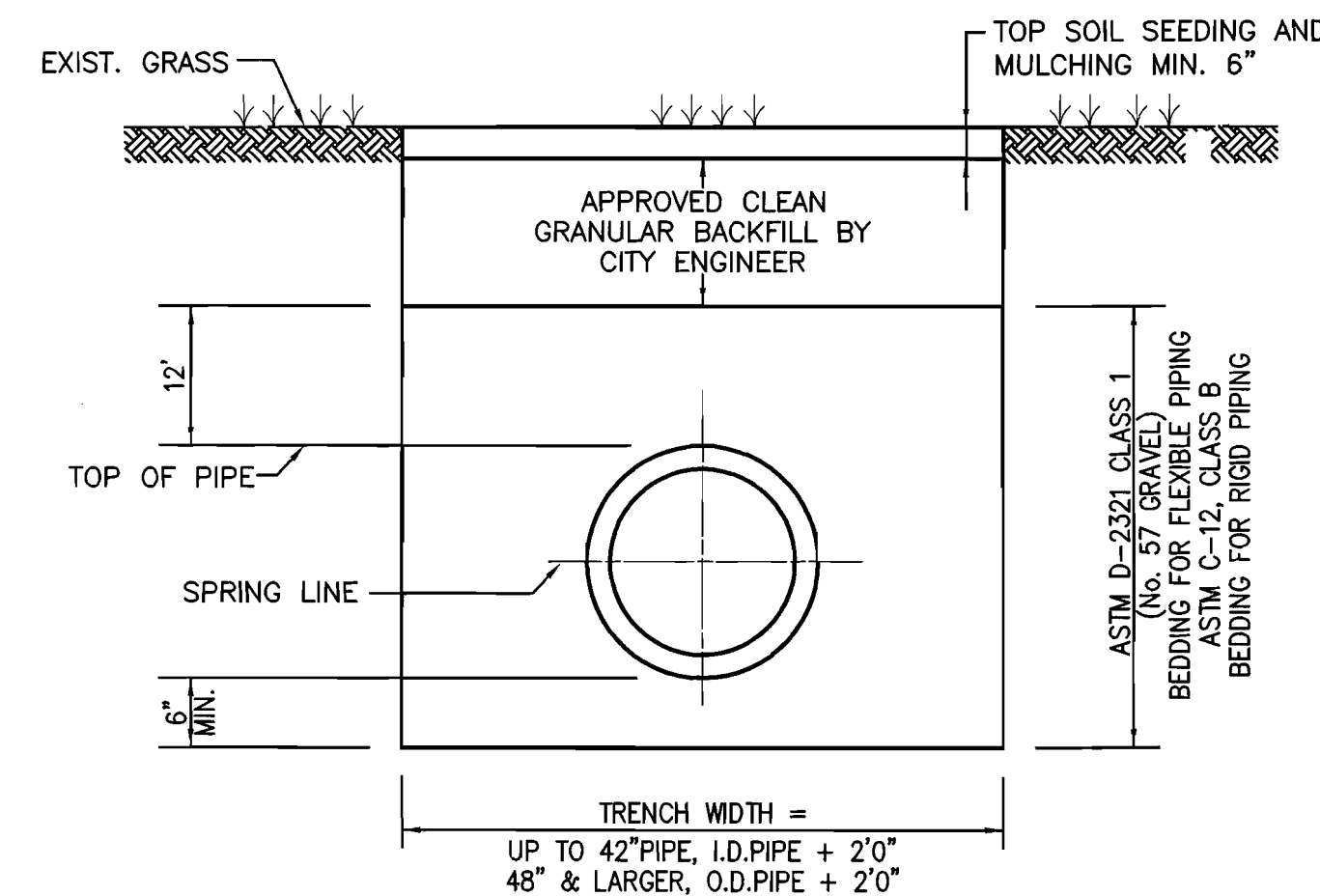
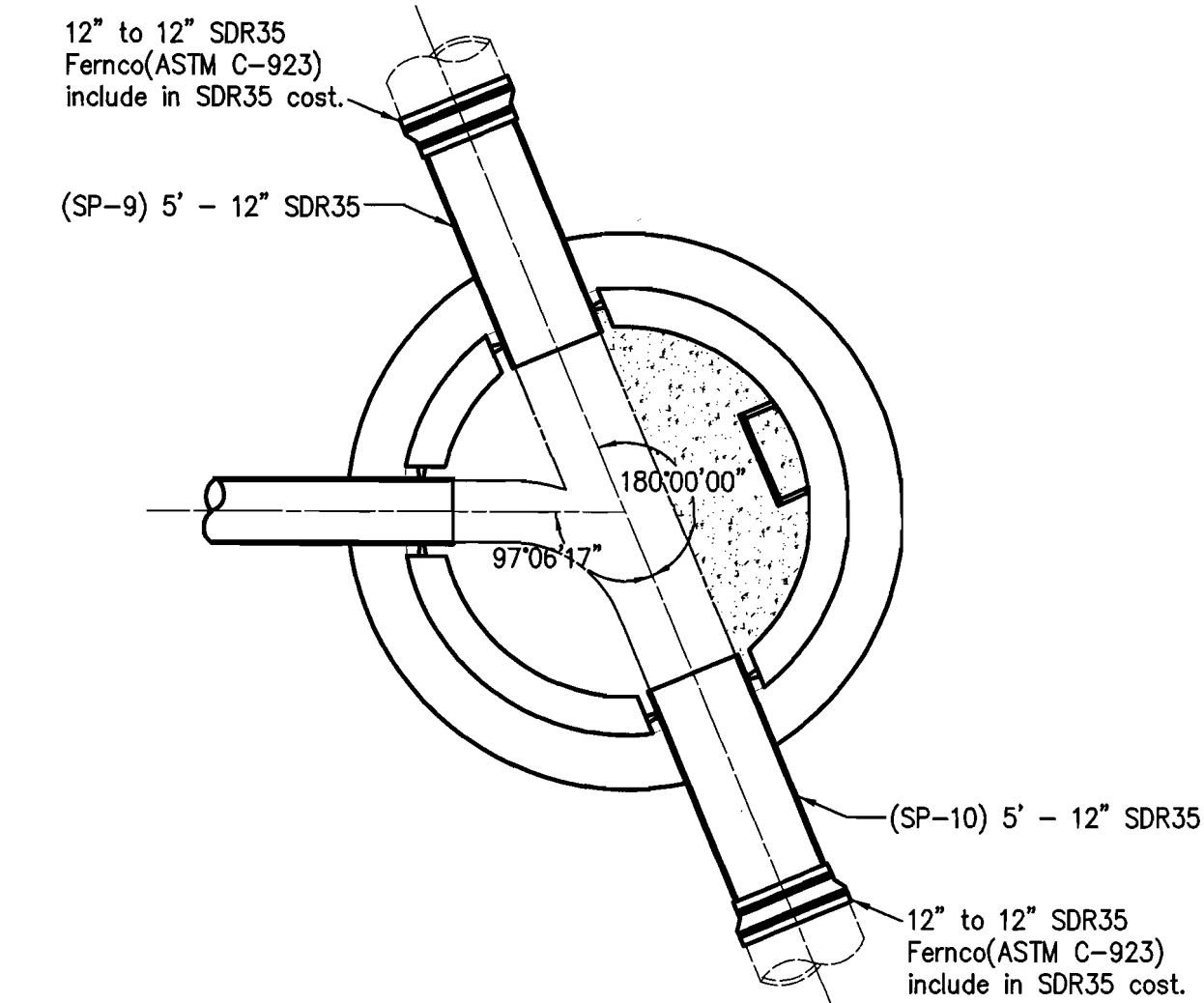
JOINTS TO BE SEALED WITH CON SEAL FED SPEC SS-S-210A



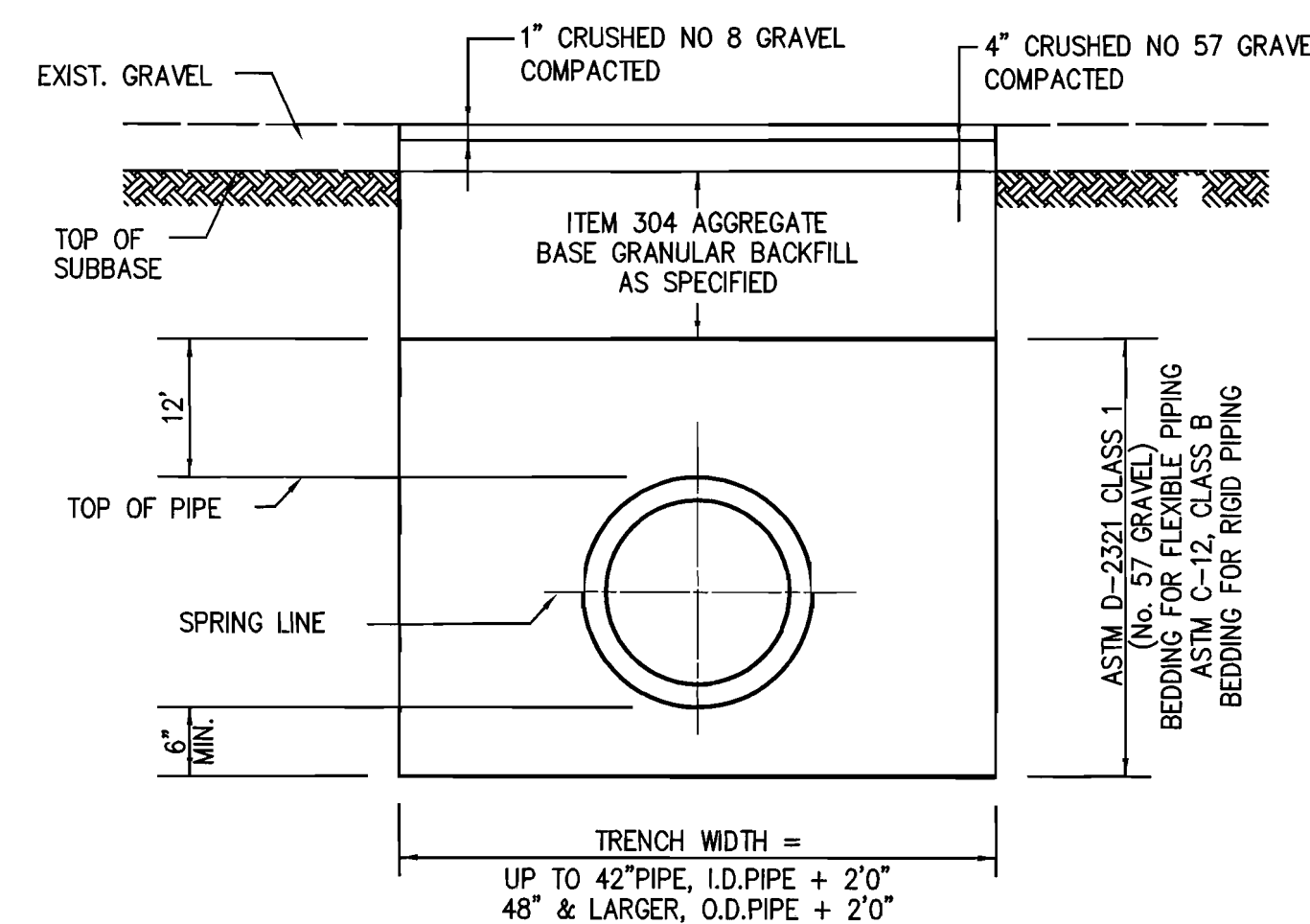
SM-6

PRECAST CONCRETE MANHOLE

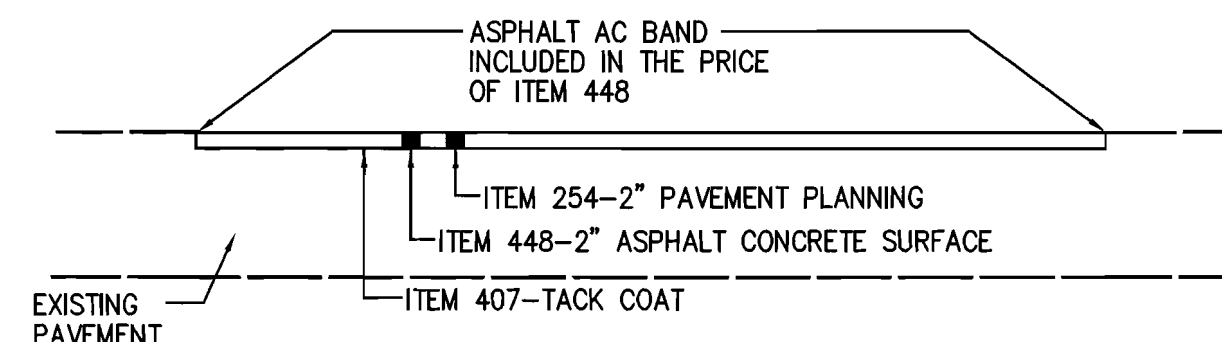
JOINTS TO BE SEALED WITH CON SEAL FED SPEC SS-S-210A



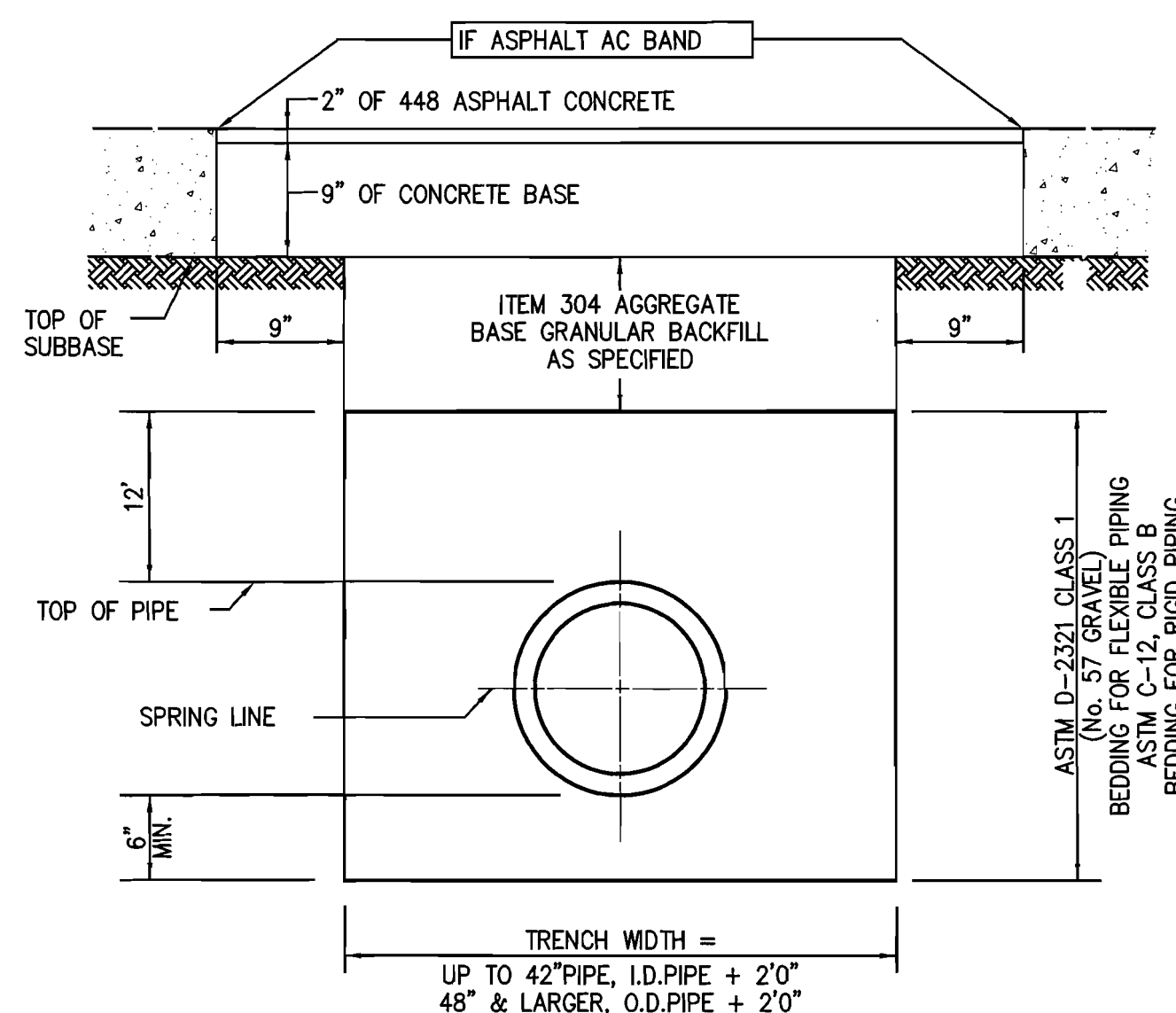
TRENCH DETAIL DETAIL NON PAVEMENT AREA



TRENCH DETAIL DETAIL GRAVEL AREA



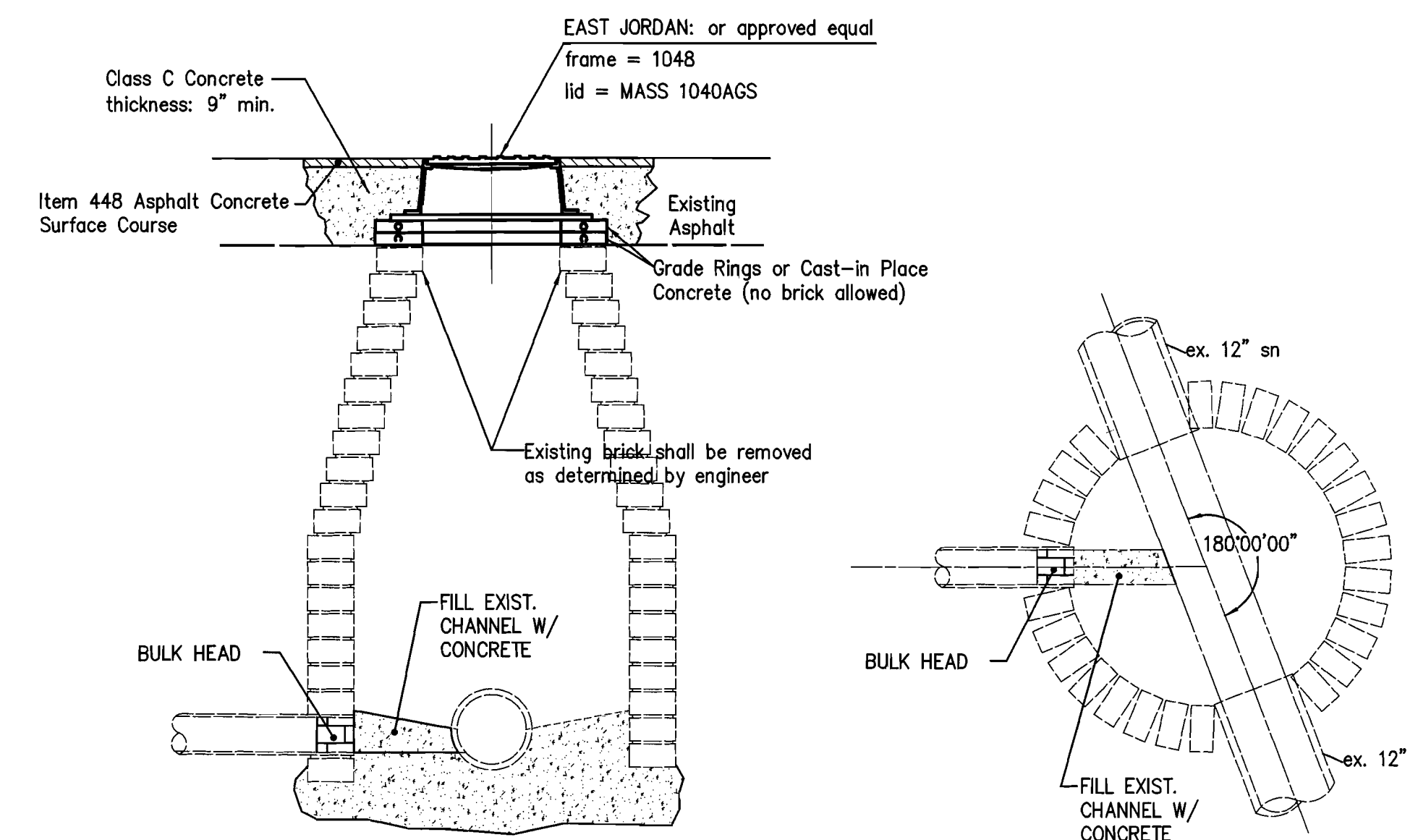
PAVEMENT RESTORATION



NOTES

CONCRETE BASE SHALL BE OF 1:2:4, 6 BAG MIX, PORTLAND CEMENT CONCRETE USING HIGH EARLY STRENGTH CEMENT AND IT MUST BE CURED AT LEAST 48 HRS.

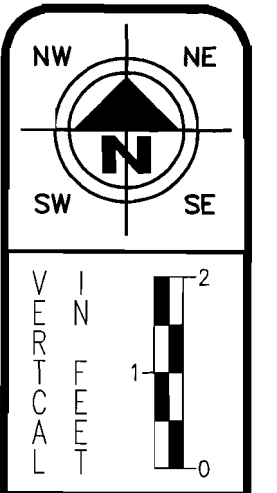
TRENCH DETAIL WITHIN PAVEMENT AREA



NOTE: All Castings, Lids and Grates are to be carefully removed and stored by the Contractor for salvage by the City of Massillon

**ITEM 604SPEC SANITARY MANHOLE
REHABILITATION TYPE MASS 1048**

WORK SHALL INCLUDED ALL REMOVAL AND DISPOSAL OF EXISTING



HORIZONTAL
SCALE IN FEET

CHECKED BY:
KAD

DATE:
May, 2013

DRAWN BY:
FPW

DATE:
May, 2013

REVISIONS:	DESCRIPTION
DATE	

Griffith Ave. SW Sanitary Sewer Rehabilitation
Details
City of Massillon
Stark County, Ohio

Kathy Catzaro-Perry, Mayor
Massillon
City of Champions

DRAWING NAME:
GriffithDet12-NS.DWG

CITY NUMBER:
100005

11/11