

THE CITY OF CANTON WATER DEPARTMENT

WOODLAWN AVE NW
WATER MAIN
IMPROVEMENTS

LOCATED IN PERRY TOWNSHIP
STARK COUNTY, OHIO

OCTOBER 2019

CANTON CITY OFFICIALS:

MAYOR
DIRECTOR OF PUBLIC SERVICE
CANTON WATER DEPT. SUPERINTENDENT

THOMAS M. BERNABEI
JOHN M. HIGHMAN
TYLER S. CONVERSE

MEMBERS OF CANTON CITY COUNCIL:

COUNCIL PRESIDENT
WARD 1
WARD 2
WARD 3
WARD 4
WARD 5
WARD 6
WARD 7
WARD 8
WARD 9
AT LARGE
AT LARGE
AT LARGE

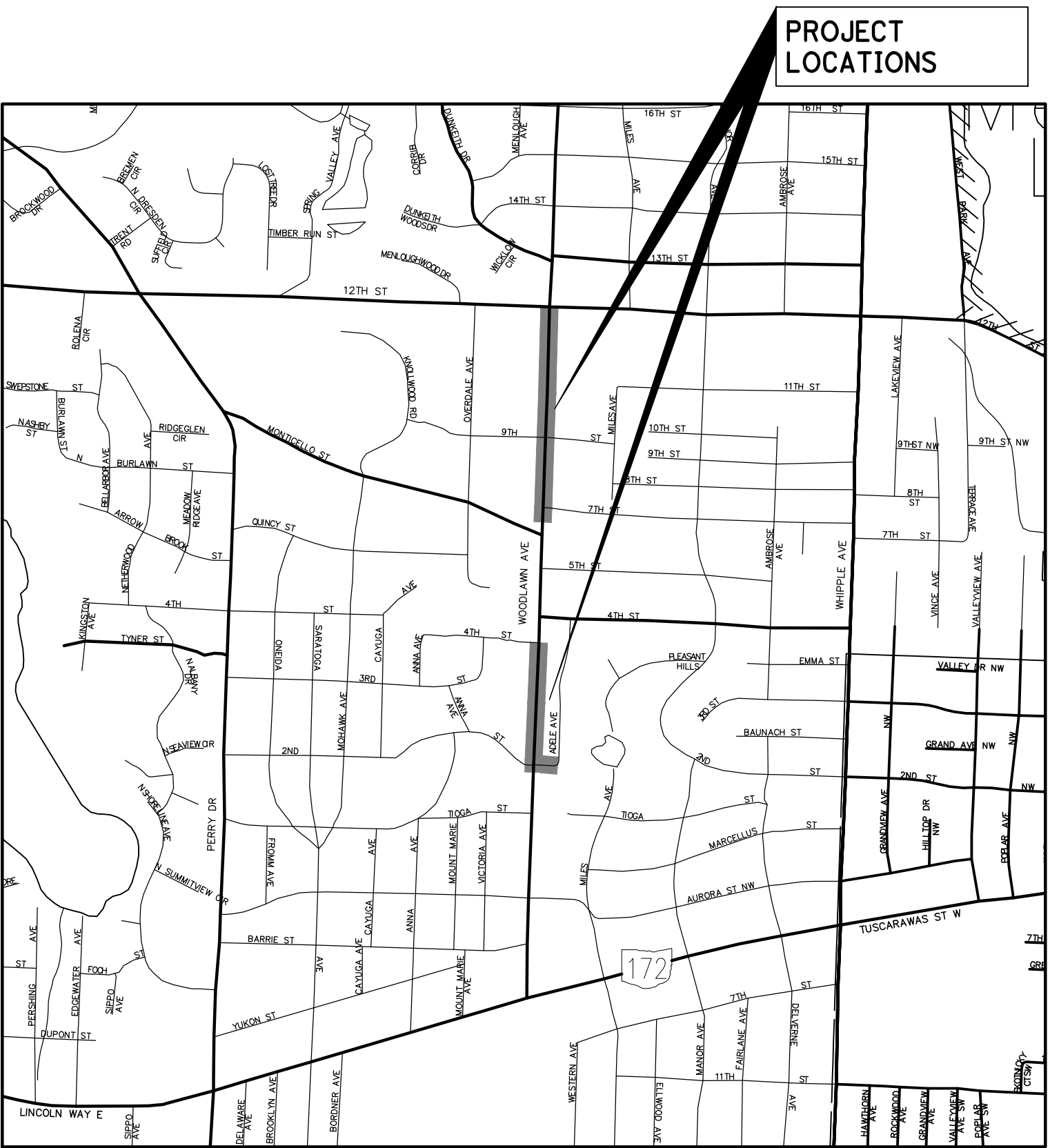
WILLIAM SHERER II
GREG HAWK
BRENDA KIMBROUGH
JASON SCAGLIONE
CHRIS SMITH
ROBERT FISHER
KEVIN D. HALL
JOHN MARIOL II
PETER FERGUSON
FRANK MORRIS
JAMES BABCOCK
BILL SMUCKLER
CHRISTINE SCHULMAN

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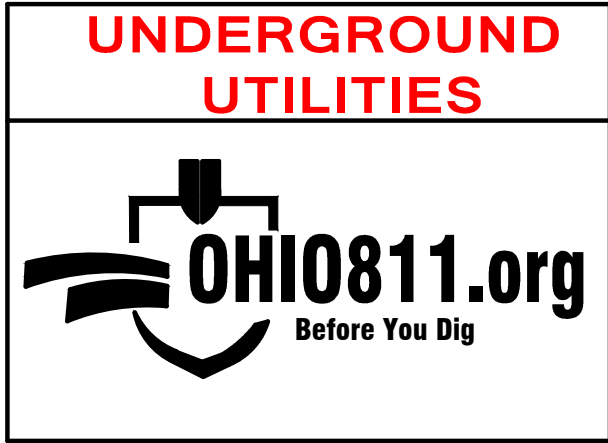
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LEGEND:

	PROPERTY LINE		EXIST. STORM MANHOLE
	CENTERLINE		EXIST. CATCH BASIN
	EXIST. RIGHT-OF-WAY		EXIST. YARD DRAIN
	PROP. RIGHT-OF-WAY		EXIST. HYDRANT
	EXIST. UTILITY EASEMENT		EXIST. LAMP OR YARD LIGHT
	PROP. UTILITY EASEMENT		EXIST. WATER SERVICE VALVE
	QUARTER SECTION LINE		EXIST. WATER GATE VALVE
	SECTION LINE		EXIST. UTILITY POLE
	CORPORATION LINE		DECIDUOUS TREE
	EXIST. SANITARY SEWER		EXIST. GAS METER
	EXIST. STORM SEWER		PROPOSED FIRE HYDRANT
	EXIST. WATER MAIN		PROPOSED WATER GATE VALVE
	PROP. WATER MAIN		EXIST. VALVE (NOT FIELD LOCATED)
	EXIST. GAS LINE		PROPOSED BLOW OFF ASSEMBLY
	BASELINE		PROPOSED PLUG OR CAP
	EXIST. SANITARY LATERAL		H.P. HIGH PRESSURE ZONE
	EXIST. SANITARY LATERAL (SHALLOW)		L.P. LOW PRESSURE ZONE
			PROPOSED ROADWAY TRENCH PAY LIMITS / PAVEMENT REPLACEMENT (SEE DETAIL SHT. __)
			PROPOSED ROADWAY RESURFACING LIMITS OUTSIDE OF TRENCH PAY LIMITS (SEE DETAIL SHT. __)
			PROPOSED (#-SIZE) INCH, WATER SERVICE BRANCH
			(H##, V##) CANTON WATER DEPT. (HYDRANT AND VALVE NUMBERS)



LOCATION MAP
(NOT TO SCALE)



ENGINEERS SEAL:

STATE OF OHIO
SAID W. ABUABDALLAH
E-53224
REGISTERED PROFESSIONAL ENGINEER

SIGNED: *Said W. Abdallah*
DATE: 10/14/2019

PLAN APPROVALS:

WATERLINE IS APPROVED BY THE CITY OF CANTON WATER DEPARTMENT THIS ____DAY OF_____, 20____.

TYLER S. CONVERSE – SUPERINTENDENT

CALCULATED
CHECKED

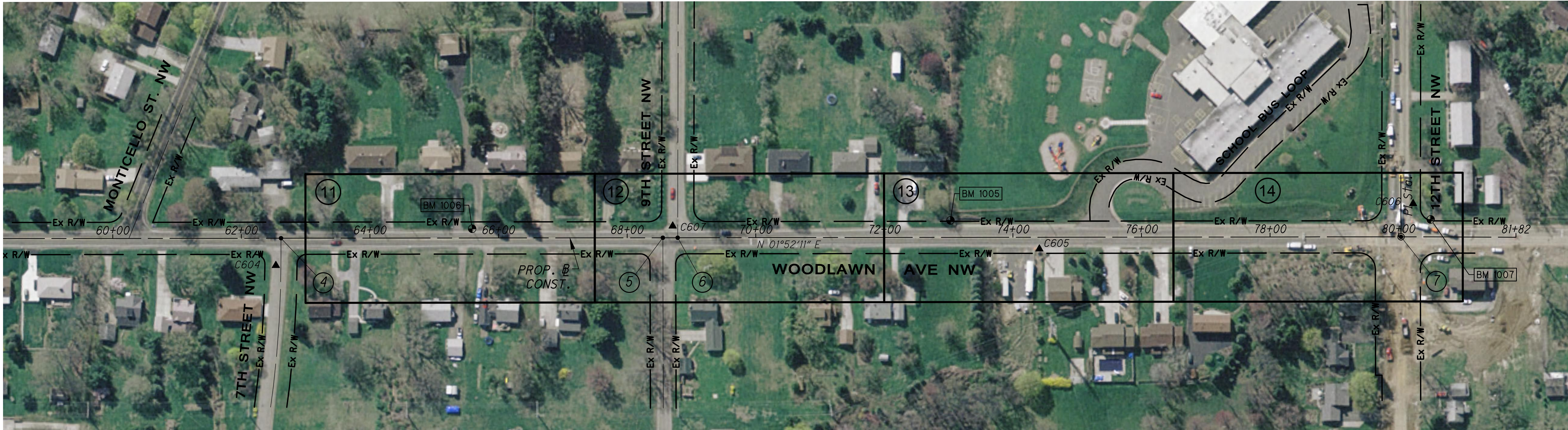
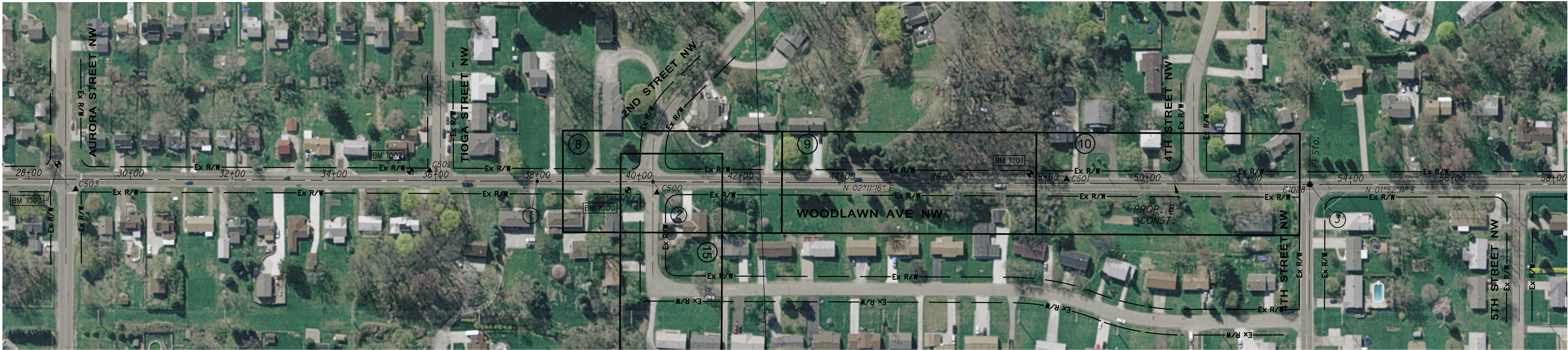
TITLE SHEET

WOODLAWN AVE NW
WATER MAIN
IMPROVEMENTS



1
17

TAG 586



LEGEND

- 00 PLAN AND PROFILE SHEET No.
- # PROP. @ CONSTRUCTION COORDINATE POINT
- C# SURVEY HORIZONTAL CONTROL POINT
- BENCHMARK

BENCHMARK 1000
RAILROAD SPIKE IN UTILITY POLE
N414739.200, E2263112.550
ELEV. = 1121.77

BENCHMARK 1001
RAILROAD SPIKE IN UTILITY POLE
N415531.500, E2263107.660
ELEV. = 1110.09

BENCHMARK 1002
RAILROAD SPIKE IN UTILITY POLE
N414312.850, E2263061.250
ELEV. = 1138.25

BENCHMARK 1003
COTTON GIN SPIKE IN ASPHALT
N413620.510, E2263023.760
ELEV. = 1101.52

BENCHMARK 1004
NW BOLT IN MCDONALD'S SIGN
N412823.980, E2263064.600
ELEV. = 1090.27

BENCHMARK 1005
COTTON GIN SPIKE IN UTILITY POLE
N418062.860, E2263185.520
ELEV. = 1164.72

BENCHMARK 1006
COTTON GIN SPIKE IN UTILITY POLE
N417318.830, E2263173.290
ELEV. = 1160.06

BENCHMARK 1007
COTTON GIN SPIKE IN UTILITY POLE
N418809.360, E2263209.380
ELEV. = 1121.72

SURVEY HORIZONTAL CONTROL			
POINT No.	NORTHING	EASTING	DESCRIPTION
C500	414796.190	2263119.630	AERIAL *O
C501	415602.180	2263120.210	AERIAL *P
C502	414350.380	2263060.980	AERIAL *N
C503	413653.550	2263074.080	AERIAL *M
C504	413254.750	2263027.720	AERIAL *L
C505	412819.660	2263047.860	AERIAL *K
C604	417011.762	2263219.878	AERIAL
C605	418199.604	2263234.611	AERIAL *EE
C606	418782.901	2263183.790	AERIAL *ZZ
C607	417630.719	2263179.614	AERIAL *DD
C1028	416079.920	2263147.170	MONBX *PER-028

PROPOSED @ CONSTRUCTION COORDINATES			
POINT No.	NORTHING	EASTING	PI STA., STREET
1	414561.2213	2263089.1515	STA. 38+00.00, WOODLAWN AVE.
2	414788.6849	2263097.8414	STA. 40+27.63, WOODLAWN AVE.
3	416079.9221	2263147.1711	STA. 53+19.81, WOODLAWN AVE. & 4TH STREET
4	417021.2493	2263177.9007	STA. 62+61.64, WOODLAWN AVE. & 7TH STREET
5	417614.8334	2263197.2783	STA. 68+55.54, WOODLAWN AVE. & 9TH STREET
6	417637.9154	2263198.0319	STA. 68+78.63, WOODLAWN AVE. & 9TH STREET
7	418762.3226	2263234.7382	STA. 80+03.64, WOODLAWN AVE. & 12TH STREET

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

(B) ADMINISTRATIVE REQUIREMENTS:

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

THE DEVELOPER/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.

~~2. 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 PROJECT AREA:

<u>NATURAL GAS DIST./TRANS.</u> DOMINION EAST OHIO GAS 320 SPRINGSIDE DR., SUITE 320 AKRON, OHIO 44333 330-664-2409 ATTN: BRYAN DAYTON RELOCATION@DOM.COM EMERGENCY NO. 1-800-521-4400	<u>TELEPHONE</u> AT&T 50 WEST BOWERY STREET AKRON, OHIO 44308 ATTN: RICH WILSON 330-384-2245 CINDY ZUCHEGNO 330-384-3561 EMERGENCY NO. - 24 HRS. 1-800-572-4545 OPTION#4
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<u>COMMUNICATIONS CABLE</u> TIME WARNER CABLE 5520 WHIPPLE AVE N.W. NORTH CANTON, OHIO 44720 330-494-9200 ATTN: JUSTIN FREUDEMAN 330-555-3192 330-472-4449(CELL)	<u>ELECTRIC</u> AMERICAN ELECTRIC POWER 301 CLEVELAND AVE. S.W. P.O. BOX 24400 CANTON, OHIO 44701-4400 330-438-7718 ATTN: RAY ZITNEY EMERGENCY No. 1-800-672-2017
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<u>SANITARY SEWER</u> STARK COUNTY SANITARY ENGINEERING DEPARTMENT 1701 MAHONING RD. N.E. CANTON, OHIO 44705 330-451-2303 ATTN: TOM DAVIS	<u>WATER</u> WATER DEPARTMENT 2664 HARRISBURG RD. N.E. CANTON, OHIO 44705 330-489-3310 ATTN: LEWIS MILLER OR BRENT BURRIER
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<u>NATURAL GAS</u> ENERVEST OPERATING LLC 125 SR 43, SUITE #100 HARTVILLE, OHIO 44632 330-587-1009 ATTN: TROY VALASEK	<u>STARK COUNTY ENGINEER</u> 5165 SOUTHWAY ST. S.W. CANTON, OHIO 44706 330-477-6787 ATTN: DONALD BENDETTA
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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:

~~2.~~

(H) EXPLORATORY BORINGS:

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

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

THE DEVELOPER/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 DEVELOPER/CONTRACTOR SHALL NOTIFY THE CITY ENGINEER OF THE PROJECT'S ASSIGNED "COMPETENT PERSON" IN OSHA EXCAVATION STANDARDS.

(G) TRENCH CLOSING AND TEMPORARY TOPPING:

THE DEVELOPER/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.

~~2. FOR TRENCH SURFACE REQUIREMENTS, REFER TO NOTE 4 ON CITY STANDARD DRAWING NO. 19.~~

FOR TRENCH SURFACE REQUIREMENTS, REFER TO THE MISCELLANEOUS DETAILS.

(H) DUST CONTROL:

THE DEVELOPER/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: 3

(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 DEVELOPER/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.

FOR WATER LINES TO BE ABANDONED, REFER TO SECTION VIII. WATER MAIN / SERVICES.

REVISIONS/COMMENTS:

~~1.~~ ANY REFERENCE TO "THE CITY ENGINEER" WITHIN THE GENERAL NOTES SHALL MEAN THE CANTON WATER DEPARTMENT SUPERINTENDENT.

~~2.~~ NOT APPLICABLE TO THIS PROJECT

~~3.~~ REFER TO SECTION VIII. WATER MAIN/SERVICES

TAG 586

GENERAL NOTES

WOODLAWN AVE NW
WATER MAIN
IMPROVEMENTS

ARCADIS
222 South Main Street, Suite 300
Akron, Ohio 44308 Tel: 330-434-1995

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17

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II. CONSTRUCTION INCIDENTALS (continued)

(M) CONSTRUCTION LAYOUT:

THE DEVELOPER/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 DEVELOPER/CONTRACTOR MAY INSTALL DEWATERING EQUIPMENT PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.

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

THE DEVELOPER/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 DEVELOPER/CONTRACTOR.

DEVELOPER/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 DEVELOPER/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 DEVELOPER/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 DEVELOPER/CONTRACTOR MUST APPRAISE THEMSELVES OF ANY EXISTING SITE CONDITIONS WHICH MAY AFFECT THEIR BID OR THE PERFORMANCE OF THE REQUIRED WORK. THE DEVELOPER/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.

(C) REMOVAL/REPLACEMENT OF UNSUITABLE MATERIAL:

THE DEVELOPER/CONTRACTOR SHALL UNDERCUT AND REPLACE UNSUITABLE MATERIAL ENCOUNTERED DURING INSTALLATION OF THE PROPOSED UTILITIES AND ROADWAY UNTIL SUCH CONDITIONS ARE CORRECTED AND APPROVED BY THE PROJECT ENGINEER.

THIS WORK SHALL BE INCLUDED IN THE BID PRICE FOR THE UTILITY UNLESS THE PLANS ALLOW FOR A CONTINGENCY ITEM FOR REMOVAL/REPLACEMENT OF UNSUITABLE MATERIAL. IF SO, THE CITY WILL DOCUMENT THE LOCATION OF SUCH AREAS FOR FINAL QUANTITY TABULATION.

(D) CLEARING AND GRUBBING:

THE COST OF CLEARING AND GRUBBING SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ALL ITEMS IN THE PROPOSAL UNLESS LISTED AS A SEPARATE PAY ITEM.

(E) SEEDING AND MULCHING:

ALL SOIL AREAS DISTURBED BY THIS PROJECT SHALL BE RESTORED WITH TOPSOIL (MIN. 4” THICK), SEEDED AND MULCHED IN ACCORDANCE WITH ODOT ITEM 659. THE APPROPRIATE CLASS OF SEED THAT IS USED SHALL MATCH THE EXISTING, ADJACENT VEGETATION. THIS WORK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ALL ITEMS IN THE PROPOSAL UNLESS LISTED AS A SEPARATE PAY ITEM.

IV. ROADWAY / DRIVE APPROACHES / WALK / CURB

(A) PAVEMENT STANDARDS:

SEE MISCELLANEOUS DETAILS

(B) RESTRICTED WORK SCHEDULE:

NO CONCRETE FINISH WORK OR PERMANENT ASPHALT SHALL BE PLACED FROM NOVEMBER 15TH TO APRIL 15TH UNLESS WRITTEN APPROVAL IS GRANTED BY THE CITY ENGINEER.

(C) ASPHALT/CONCRETE:

IT SHALL BE THE RESPONSIBILITY OF THE DEVELOPER/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.

(D) CONCRETE CURB AND GUTTER:

AS SHOWN IN THE PLANS, THE CONTRACTOR SHALL REPLACE CURB AND GUTTER AT LOCATIONS DISTURBED BY WATERLINE TRENCHING OPERATIONS. THE PROPOSED CURB AND GUTTER SHALL MATCH TO ADJACENT EXISTING CURB AND GUTTER AND CONSTRUCTED FLUSH TO PAVEMENT.

(E) DRIVES/PARKING AREAS:

RESIDENTIAL DRIVE APRONS AND PARKING AREAS ADJACENT TO THE ROADWAY MAY BE IMPACTED BY THE WATERLINE TRENCHING OPERATIONS. IT IS THE CONTRACTOR’S RESPONSIBILITY TO MINIMIZE IMPACTS TO THESE FEATURES AND RESTORE ALL IMPACTED DRIVE APRONS/PARKING AREAS TO EXISTING CONDITIONS.

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.:

CATCH BASINS:
1 "CURB INLET CATCH BASIN"
4 "SQUARE-TOP CATCH BASIN"

CONDUITS AND TRENCHES:
18 "HOUSE CONNECTION STACK"
19 "UTILITY TRENCH REQUIREMENTS"
20 "SANITARY SEWERS AND LATERALS"
21 "CONCRETE ENCASEMENT DETAIL"
22 "DOWNSPOUT OUTLET (NON-CURBED STREET)
23 "DOWNSPOUT OUTLET (CURBED STREET)
24 "GROUNDWATER DRAIN LINE CONNECTION"

VI. STORM WATER POLLUTION PREVENTION:

(A) FOR PROJECTS ONE (1) ACRE OR MORE OF TOTAL LAND-DISTURBANCE:

THE OWNER/DEVELOPER SHALL APPLY FOR AND OBTAIN AN OHIO EPA NPDES PERMIT FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY. SAID PERMIT REQUIRES THE PREPARATION AND IMPLEMENTATION OF A STORM WATER POLLUTION PREVENTION PLAN (SWP3) TO ADDRESS CONSTRUCTION SITE STORM WATER RUNOFF AS WELL AS POST–CONSTRUCTION STORM WATER MANAGEMENT. THE SWP3 MUST BE REVIEWED AND APPROVED BY THE STARK COUNTY SOIL & WATER CONSERVATION DISTRICT (SWCD).

THE OWNER/DEVELOPER AND HIS REPRESENTATIVES SHALL COMPLY WITH ALL APPLICABLE REQUIREMENTS OF THE PERMIT AS WELL AS THE SWP3. ALL ACTIVITIES AND PRACTICES SHALL ALSO COMPLY WITH THE CURRENT EDITIONS OF THE CITY OF CANTON STORM WATER MANAGEMENT MANUAL AND THE OHIO DEPARTMENT OF NATURAL RESOURCES’ RAINWATER AND LAND DEVELOPMENT MANUAL, AS APPLICABLE. SUCH PROJECTS ARE ALSO SUBJECT TO INSPECTION BY THE CITY OF CANTON AND/OR ITS AUTHORIZED REPRESENTATIVES (I.E. STARK SWCD) TO ENSURE COMPLIANCE WITH PERMIT AND SWP3 REQUIREMENTS AND LOCAL STORM WATER QUALITY REGULATIONS.

A PRE–CONSTRUCTION MEETING INITIATED BY THE DEVELOPER/CONTRACTOR IS REQUIRED ON–SITE WITH THE STARK SWCD PRIOR TO ANY LAND–DISTURBING ACTIVITIES. THE DEVELOPER/CONTRACTOR SHALL ABIDE BY ALL ORDERS ISSUED BY THE CITY AND/OR STARK SWCD PURSUANT TO INSPECTION OF THE PROJECT SITE.

IT IS THE CONTRACTOR’S RESPONSIBILITY TO SUBMIT CO–PERMITEE APPLICATION TO OHIO EPA PRIOR TO BEGINNING WORK ON THE PROJECT. AS APPLICABLE, THE CONTRACTOR SHALL OBTAIN A COPY OF THE SWP3 AND FAMILIARIZE HIMSELF WITH IT, IMPLEMENTING ALL ITEMS AND ABIDING BY ALL PERMIT REQUIREMENTS AND REGULATIONS.

(B) 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 DEVELOPER/ 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/DEVELOPER/CONTRACTOR SHALL ABIDE BY ALL ORDERS ISSUED BY THE CITY PURSUANT TO INSPECTION OF THE PROJECT SITE.

REVISIONS/COMMENTS:

- 1 ANY REFERENCE TO “THE CITY ENGINEER” WITHIN THE GENERAL NOTES SHALL MEAN THE CANTON WATER DEPARTMENT SUPERINTENDENT.
- 2 NOT APPLICABLE TO THIS PROJECT
- 3 REFER TO SECTION VIII. WATER MAIN/SERVICES

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VII. TRAFFIC:

(A) MAINTAINING TRAFFIC:

THE CONTRACTOR SHALL MAINTAIN TRAFFIC ADJACENT TO AND THROUGH THE PROJECT AS DESCRIBED BELOW AND IN ACCORDANCE WITH THE REQUIREMENTS OF THE OHIO DEPARTMENT OF TRANSPORTATION MANUAL OF CONSTRUCTION AND MATERIALS SPECIFICATIONS ITEM 614 MAINTAINING TRAFFIC. THE CONTRACTOR SHALL FURNISH, MAINTAIN, AND REMOVE ALL SIGNS, FLAGS, FLAGMEN, WATCHMEN, BARRICADES, SIGN SUPPORTS, CONES, BARRELS, AND INCIDENTALS IN CONFORMANCE WITH THE MOST RECENT REVISIONS OF THE CURRENT EDITION OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS. INTERFERENCE WITH VEHICULAR TRAFFIC SHALL BE KEPT TO A MINIMUM AT ALL TIMES. ALL OPEN TRENCHES AND EXCAVATIONS SHALL BE PROTECTED WITH DRUMS, BARRICADES, OR BARRIERS. ACCESS SHALL BE MAINTAINED AT ALL TIMES FOR EMERGENCY AND FIRE DEPARTMENT VEHICLES.

ANY TEMPORARY ROADWAY CLOSING MUST BE APPROVED IN WRITING BY THE CITY TRAFFIC ENGINEER AND ANY OTHER PUBLIC AGENCY HAVING JURISDICTION. THE CONTRACTOR SHALL NOTIFY THE TRAFFIC ENGINEER AT LEAST 72 HOURS IN ADVANCE OF ANY SUCH CLOSINGS FOR PUBLICATION AND EMERGENCY AGENCY NOTIFICATION.

(B) RESIDENTIAL AND BUSINESS AREAS:

THE CONTRACTOR SHALL MAINTAIN ACCESS TO LOCAL RESIDENCES AND BUSINESSES DURING CONSTRUCTION. IN THE EVENT A DRIVE ACCESS NEEDS TO BE CLOSED, THE CONTRACTOR SHALL GIVE NOTICE OF CLOSURE AND DURATION TO THE PROPERTY OWNER 24 HOURS IN ADVANCE. CONTRACTOR SHALL ARRANGE FOR ALTERNATE PARKING AND REASONABLE ACCESS FOR THOSE PROPERTY OWNERS AFFECTED BY DRIVE CLOSURES.

(C) EXISTING STREET NAME AND TRAFFIC CONTROL SIGNS:

WHERE WORK REQUIRES THE MOVEMENT OF EXISTING SIGNS (STOP SIGNS, SPEED LIMIT SIGNS, NO PARKING SIGNS, ETC.). THE CONTRACTOR IS REQUIRED TO MAINTAIN THE FUNCTION OF ALL TRAFFIC CONTROL SIGNS. ALL SIGNS REMOVED BY THE CONTRACTOR SHALL BE STORED ON SITE AND REINSTALLED BY THE CONTRACTOR.

(D) NEW STREET NAME & TRAFFIC CONTROL SIGNS:

ALL STREET NAME AND TRAFFIC CONTROL SIGNS SHALL COME COMPLETE AND BE MADE IN ACCORDANCE WITH THE CITY OF CANTON SIGN AND PAINT DEPARTMENT SPECIFICATIONS. GENERALLY, ALL SIGNS SHALL HAVE III INTENSITY SHEETING AND BE MADE WITH .080-50/52 ALUMINUM. STREET NAME SIGNS SHALL BE MADE WITH WHITE UPPER AND LOWER CASE LETTERING ON GREEN BACKGROUND USING 9" BLANKS, BE DOUBLED SIDED W/RADIUS CORNERS AND HAVE 6" NAME AND 3" SUFFIXES. ALL SIGN RELATED HARDWARE IS TO BE INCLUDED, SUCH AS 6" HEAVY DUTY U-CHANNEL CAPS AND STREET NAME CROSSES.

FOR SUBDIVISION DEVELOPMENTS, ALL PERMANENT STREET NAME SIGNS AND TRAFFIC CONTROL SIGNS SHALL BE FURNISHED AND INSTALLED BY THE DEVELOPER/CONTRACTOR.

(E) EXISTING TRAFFIC SIGNALS:

WHERE WORK REQUIRES INTERFERENCE WITH EXISTING SIGNALIZATION IN THE INTERSECTIONS, ALL WORK SHALL BE COORDINATED THROUGH THE CITY ENGINEER. THE CONTRACTOR SHALL NOT ALTER ANY SIGNALIZATION WITHOUT THE CITY ENGINEER'S AUTHORIZATION.

(F) NEW TRAFFIC SIGNALIZATION:

ALL NEW OR MODIFIED TRAFFIC SIGNALIZATION AT INTERSECTIONS SHALL BE IN ACCORDANCE WITH CITY TRAFFIC ENGINEERING TRAFFIC CONTROL GENERAL NOTES AND ODOT SPECIFICATIONS, WITH SPECIAL EMPHASIS ON ODOT ITEMS 625, 632, 633, 732, AND 733 WHICH DEALS WITH TRAFFIC CONTROL.

(G) TRAFFIC CONTROL PLAN:

THE DEVELOPER/CONTRACTOR SHALL SUBMIT TO THE STARK COUNTY ENGINEER A TRAFFIC CONTROL PLAN IN ACCORDANCE WITH CITY SUPPLEMENTAL SPECIFICATION 01-00 AND REQUIREMENTS OF THE COUNTY ENGINEER. DETOURS, IF NECESSARY, SHALL BE APPROVED BY THE STARK COUNTY ENGINEER PRIOR TO PLAN SUBMISSION.

ENTRANCE/EXIT ACCESS TO WHIPPLE HEIGHTS ELEMENTARY SCHOOL, LOCATED AT THE INTERSECTION OF 12TH STREET NW AND WOODLAWN AVENUE, MUST BE MAINTAINED AT ALL TIMES THROUGHOUT CONSTRUCTION.

VIII. WATER MAIN / SERVICES:

1.

ALL WATER MAINS, SERVICES AND APPURTENANCES SHALL BE DESIGNED AND CONSTRUCTED ACCORDING TO THE CITY OF CANTON WATER DEPARTMENT REQUIREMENTS AND SPECIFICATIONS IN EFFECT AT THE TIME OF CONSTRUCTION.
2.

MAINS – WATER MAINS SHALL BE CLASS 52 (8" AND UNDER), CLASS 53 (12") OR CLASS 54 (OVER 12") DUCTILE IRON, MEETING AWWA C151 WITH PUSH JOINTS. THE OUTSIDE SURFACE OF ALL DUCTILE IRON PIPE, FITTINGS AND APPURTENANCES SHALL BE SHOP COATED WITH ASPHALTIC MATERIAL. IF THE COATING MATERIAL IS FOUND TO BE DAMAGED PRIOR TO THE PIPE TRENCH BEING BACKFILLED, THE CONTRACTOR SHALL PROVIDE AN ADDITIONAL APPROVED MATERIAL AS REQUIRED TO REPAIR AS DIRECTED. THE CONTRACTOR SHALL HAVE SUFFICIENT COATING MATERIALS AVAILABLE AT THE JOB SITE PRIOR TO LAYING THE PIPE. THE INTERIOR OF ALL PIPES AND FITTINGS SHALL BE LINED WITH CEMENT MORTAR AND SEAL COATED IN COMPLETE CONFORMANCE WITH AWWA C104, OR THE LATEST REVISION.
3.

ALL DUCTILE IRON PIPE, INCLUDING FITTINGS, BENDS, TEES, VALVES AND APPURTENANCES BURIED UNDERGROUND, SHALL BE ENCASED WITH 8 MIL. POLYETHYLENE FILM CONFORMING TO AWWA C105.
- 2

4.

~~PLASTIC PIPE LARGER THAN 2" SHALL BE JM EAGLE, ULTRA BLUE PVCO AWWA C909 PRESSURE PIPE, PRESSURE CLASS 235 OR APPROVED EQUAL AND INSTALLED PER MANUFACTURER RECOMMENDATION.~~
- 2

5.

~~WHEN PLASTIC PIPE IS USED, A TRACER WIRE SHALL BE INSTALLED ON TOP OF THE PIPE.~~

A.

~~THE TRACER WIRE SHALL BE #14 AWG COPPER GLAD STEEL WIRE WITH 30 MILS OF HIGH DENSITY POLYETHYLENE (HDPE) INSULATION.~~

B.

~~THE TRACER WIRE SHALL BE INSTALLED IN A CONTINUOUS FASHION WITH THE WIRE ON TOP OF THE WATER MAIN AND SECURE TO THE MAIN EVERY FIVE (5) FEET WITH TAPE.~~

C.

~~THE TRACER WIRE SHALL BE BROUGHT TO THE SURFACE AT EVERY VALVE BOX AND/OR AS CALLED OUT IN THE DRAWINGS. TRACER WIRE SHALL BE BROUGHT TO THE SURFACE AT LEAST EVERY ONE THOUSAND (1,000) FEET.~~

D.

~~IF THE WIRE COATING GETS DAMAGED, REPAIR DAMAGED COATING WITH ELECTRICAL TAPE.~~

E.

~~THE TRACER WIRE SHALL PASS A CONTINUITY TEST BEFORE THE WATERLINE INSTALLATION IS ACCEPTED.~~

6.

THE MINIMUM COVER OVER WATER MAINS SHALL BE 4'-6" FROM GROUND SURFACE TO THE BARREL OF THE PIPE, UNLESS OTHERWISE NOTED ON THE PLANS.

7.

PIPE LENGTHS MAY BE DEFLECTED AT THE JOINT, IF REQUIRED, AT ONE-HALF THE DEGREE RECOMMENDED BY THE MANUFACTURER.

8.

FITTINGS SHALL BE DUCTILE IRON AND BE RATED FOR 250 PSI WORKING PRESSURE IN ACCORDANCE WITH AWWA C110 OR AWWA C153. FITTINGS SHALL INCLUDE, BUT NOT LIMITED TO BENDS, TEES, SLEEVES, COUPLINGS, CROSSES, REDUCERS AND CAPS.

9.

ANY FITTINGS OR VALVES ADJACENT TO A TEE OR CROSS SHALL BE ANCHORED TO THE TEE OR CROSS WITH EITHER THE USE OF AN ANCHOR TEE OR ANCHOR CROSS OR ANCHOR COUPLINGS.

10.

VALVES – THE ITEMS COVERED BY THIS SPECIFICATION SHALL MEET ALL APPLICABLE AWWA C509 OR C515 STANDARDS AND THE FOLLOWING: ALL VALVES SHALL BE NON-RISING STEM, IRON BODY, RESILIENT WEDGE DISC. THE DESIGN OF THE THRUST COLLAR SHALL BE SUCH THAT THE THRUST COLLAR IS SEALED FROM LINE PRESSURE BY MEANS OF AN "O" RING SEAL. ALL VALVES SHALL BE FURNISHED WITH A TWO (2) INCH SQUARE OPERATING NUT, OPEN RIGHT. ALL VALVES SHALL BE FURNISHED WITH MECHANICAL JOINT END CONNECTIONS. THE STEM SHALL BE PROTECTED FROM EXTERNAL GRIT BY A WEATHER SHIELD AND AN UPPER "O" RING. STEM SHALL BE LUBRICATED. GATE COATING SHALL HAVE A MINIMUM THICKNESS OF 10 MILS. VALVE SHALL BE TESTED AT THE RATED WORKING PRESSURE OF 250 PSI WITH NO LEAKAGE. SHELL TEST OF 500 PSI SHALL BE APPLIED TO BODY WITH VALVE IN THE OPEN POSITION WITH NO LEAKAGE THROUGH THE METAL, STEM SEALS OR JOINTS. VALVE MUST HAVE TRADITIONAL STUFFING BOX. ALL BOLTING MATERIAL IN THE THRUST COLLAR AND BONNET SHALL BE #316 SS BOLTS. ALL VALVES WITH ACCESSORIES PACK (FLANGES, RUBBERS, NUTS, BOLTS).

11.

ALL VALVE BOXES SHALL BE HEAVY DUTY, THREE (3) PIECE SCREW TYPE, WITH "WATER" LIDS.

12.

FLUSHING AND DISINFECTION OF WATER MAINS SHALL BE IN ACCORDANCE WITH AWWA C651.

13.

ALL WATER LINE PRESSURE TESTING SHALL CONFORM TO AWWA C600.

14.

WATER MAINS SHALL BE INSTALLED AND BACKFILLED PER O.D.O.T. ITEM 638.

15.

WATER LINES LOCATED WITHIN THE LIMITS OF OR WITHIN A 1/2 TO 1 SLOPE OF EXISTING AND/OR PROPOSED ROADWAYS, PARKING AREAS, BUILDINGS, SIDEWALKS, AND/OR DRIVES SHALL BE INSTALLED AS TYPE B CONDUITS. ALL OTHER WATER MAINS SHALL BE INSTALLED AS TYPE C CONDUITS. BEDDING SHALL BE AS SPECIFIED, EXCEPT THAT SLAG WILL NOT BE PERMITTED.
16.

ALL BENDS, FITTINGS, TEES, VALVES, DEAD ENDS, ETC. SHALL BE SECURED EQUAL. POURED-IN-PLACE CONCRETE THRUST BLOCKS SHALL ALSO BE PROVIDED AT/FOR EACH BENDS, FITTING, TEE, DEAD END, ETC. THIS BLOCKING SHALL BE CAREFULLY PLACED TO ENSURE IT IS POSITIONED PROPERLY TO WITHSTAND THE RESULTANT FORCES AT EACH BEND, FITTING, ETC. AND SHALL BEAR ON STABLE UNDISTURBED GROUND CAPABLE OF WITHSTANDING THE POTENTIAL LOADING. WHEN DIRECTED BY THE CITY, TIE RODS ARE TO BE 3/4 INCH DIAMETER. TWO TIE RODS ARE REQUIRED FOR AN 8 INCH PIPE, AND FOUR TIE RODS ARE REQUIRED FOR 12 INCH AND GREATER PIPE.

17.

IN ADDITION TO THE RESTRAINT OF ALL BENDS, FITTINGS, TEES, VALVES, DEAD ENDS, ETC. THE CONTRACTOR SHALL ALSO SECURE/RESTRAIN ALL JOINTS FOR AT LEAST THREE (3) PIPE JOINTS (50 LF MIN.) BEYOND EACH DEAD END, BEND, FITTING, VALVE, TEE, ETC. UTILIZING MEGALUGS, FIELD LOK GASKETS, OR APPROVED EQUALS.

18.

THE CONTRACTOR SHALL PROVIDE 18" VERTICAL CLEARANCE BETWEEN PROPOSED WATERLINES AND ANY SANITARY OR STORM SEWERS. WHEN 18" CLEARANCE BETWEEN A WATERLINE AND A SANITARY OR STORM SEWER CANNOT BE OBTAINED, THE CONTRACTOR SHALL PROVIDE CONCRETE ENCASEMENT AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL MAINTAIN TEN (10) FOOT HORIZONTAL CLEARANCE BETWEEN WATERLINES/SERVICES AND SANITARY OR STORM SEWERS.

19.

HYDRANTS – THE FIRE HYDRANT SETTING SHALL INCLUDE THE HYDRANT, ANCHOR TEE, VALVE, VALVE BOX, 6 INCH DUCTILE IRON (CLASS 52) PIPING AND ALL FITTINGS NEEDED FOR PROPER INSTALLATION TO FINAL GRADE. FIRE HYDRANTS SHALL BE MUELLER A423 MEETING THE CITY OF CANTON WATER DEPARTMENT STANDARDS AND REQUIREMENTS. ALL COSTS FOR THE 6" PIPING ASSOCIATED WITH THE INSTALLATION OF FIRE HYDRANTS SHALL BE INCLUDED WITH THE FIRE HYDRANT PAY ITEM. ALL HYDRANTS SHALL BE INSTALLED WITH THE PUMPER NOZZLE FACING THE STREET. ALL FIRE HYDRANT THREADS SHALL BE LUBRICATED WITH A FOOD GRADE LUBRICANT AND OPERATED UPON INSTALLATION.

20.

CUT-IN SLEEVES FOR TIE-IN TO EXISTING WATER MAINS SHALL BE SMITH BLAIR 441 SLEEVES WITH #316 SS BOLTS.

21.

ALL WATER TAPS AND SERVICES MUST BE INSTALLED BEFORE ANY PAVEMENT FOR THE PROPOSED ROADWAY HAS BEEN PLACED. CONTRACTOR SHALL MAKE ALL SERVICE TAPS ON THE WATER MAIN.

22.

PRIOR TO MAKING THE TAP, THE CONTRACTOR SHALL EXPOSE THE EXISTING CURB BOX AND VERIFY THE SIZE OF THE WATER SERVICE LINE ON THE OWNER'S SIDE. THE PROPOSED TAP AND SERVICE SHALL MATCH THE SIZE OF THE OWNER'S SERVICE LINE, WITH 1" BEING A MINIMUM. AN EXISTING 1 1/4" SERVICE SHALL BE REPLACED WITH A 1 1/2" SERVICE AND TAP.

23.

THE PROPOSED WATER SERVICES AND TAPS SHALL BE 1" UNLESS NOTED OTHERWISE ON THE PLANS OR DETERMINED OTHERWISE PER PREVIOUS NOTE.

24.

ANY SERVICE TO THE FAR SIDE OF THE STREET SHALL BE PUSHED OR BORED UNDER THE PAVEMENT. TRENCHING ACROSS THE ROAD IS NOT PERMITTED.

25.

THE CONTRACTOR SHALL TAKE ANY AND ALL NECESSARY PRECAUTIONS TO PROTECT AND MAINTAIN IN SERVICE, ANY EXISTING WATER MAINS AND/OR SERVICES EXPOSED DURING CONSTRUCTION.

26.

ANY WATER SERVICE LINE THAT IS BROKEN, CUT OR OTHERWISE DAMAGED, SHALL BE REPLACED FROM THE CORPORATION STOP TO THE CURB STOP WITH A SINGLE PIECE OF HDPE TUBING, CTS, PE4710. NO SPLICING OF THE SERVICE LINE WILL BE PERMITTED.

27.

SERVICE BRANCHES WILL BE INSTALLED AS PER O.D.O.T ITEM 638.16, WITH THE FOLLOWING EXCEPTIONS:

A.

WHEN A SERVICE BRANCH IS DISTURBED FOR LOWERING, RAISING, EXTENDING OR SHORTENING ON THE PROPERTY SIDE ON THE SERVICE STOP, IT SHALL BE REPLACED WITH NEW MATERIALS FROM THE CORPORATION STOP TO THE SERVICE STOP.

28.

POLYETHYLENE WATER MAIN AND SERVICE TUBING 2" AND UNDER SHALL BE COPPER TUBE SIZE, SDR 9, WITH A MINIMUM PRESSURE CLASS OF 200 PSI AND MEET STANDARDS ASTM-D2737 PE4710 AND AWWA C901. THE ACCEPTABLE TUBING IS CP CHEM PERFORMANCE PIPE DRISCOPLEX 5100-ULTRA-LINE, CHARTER PLASTICS INC. BLUE ICE, ENDOT ENDOPURE AND ADS POLYFLEX.
- REVISIONS/COMMENTS:
- 1

ANY REFERENCE TO "THE CITY ENGINEER" WITHIN THE GENERAL NOTES SHALL MEAN THE CANTON WATER DEPARTMENT SUPERINTENDENT.

2

NOT APPLICABLE TO THIS PROJECT

3

REFER TO SECTION VIII. WATER MAIN/SERVICES
- TAG 586
- | | | | |
|--|-----|---------|-----|
| CALCULATED | CAS | CHECKED | SWA |
| GENERAL NOTES | | | |
| WOODLAWN AVE NW
WATER MAIN
IMPROVEMENTS | | | |
| <div><div>ARCADIS</div><div>222 South Main Street, Suite 300
Akron, Ohio 44308 Tel: 330-434-1995</div></div> | | | |
| 5 | | | |
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VIII. WATER MAIN / SERVICES (continued):

29. THE PROPOSED FACILITIES SHALL MAINTAIN A MINIMUM 35 PSI PRESSURE DELIVERED TO THE CURB STOP DURING NORMAL OPERATING CONDITIONS.
30. BOOSTER PUMPS ARE NOT PERMITTED ON SERVICE CONNECTIONS.
31. WHEN AN EXISTING WATER MAIN MUST BE SHUT DOWN TO PERFORM REQUIRED WORK, THE CONTRACTOR SHALL NOTIFY THE PROPERTIES TO BE AFFECTED A MINIMUM OF 24 HOURS IN ADVANCE OF SAID SHUT DOWN. THE WORK WILL BE SCHEDULED AND COORDINATED TO MINIMIZE THE TIME THE MAIN IS OUT OF SERVICE.
32. THE CONTRACTOR SHALL NOTIFY THE CITY 48 HOURS IN ADVANCE OF ANY SHUT DOWN OF AN EXISTING MAIN. THE CONTRACTOR WILL NOT OPERATE ANY VALVES. VALVES WILL BE OPERATED BY CANTON WATER DEPARTMENT PERSONNEL ONLY. VALVES DAMAGED BY THE CONTRACTOR'S OPERATION WILL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
33. ALL VALVE BOXES WILL BE ADJUSTED TO FINAL GRADE OF SURROUNDING PAVEMENT OR FINISHED SURFACE TREATMENTS WHEN THE PROJECT IS COMPLETED.
34. ANY DIGGING WITHIN THE RIGHT-OF-WAY OF ANY STREET REQUIRES A ROAD OPENING PERMIT. PLEASE CONTACT THE APPROPRIATE GOVERNMENTAL ENTITY FOR INFORMATION REGARDING THE PERMITTING PROCESS AND/OR FEES DUE.
35. THE CONTRACTOR SHALL REPLACE ANY TRAFFIC SIGNAL LOOP DETECTOR WIRE DAMAGED DURING THE WATERLINE INSTALLATION. THIS COST SHALL BE INCLUDED IN THE UNIT PRICES BID FOR ALL ITEMS IN THE PROPOSAL.
36. THE CONTRACTOR SHALL REPLACE ANY ROADWAY PAVEMENT MARKINGS DAMAGED OR REMOVED DURING THIS PROJECT. THE PAVEMENT MARKINGS SHALL BE PER THE GOVERNING AUTHORITY'S SPECIFICATIONS. THIS COST SHALL BE INCLUDED IN THE UNIT PRICES BID FOR ALL ITEMS IN THE PROPOSAL.
37. THE CONTRACTOR SHALL REPLACE ANY PRIVATE IRRIGATION SYSTEMS AND/OR UNDERGROUND ELECTRIC FENCES THAT ARE DAMAGED OR REMOVED DURING THE WATERLINE CONSTRUCTION. THIS COST SHALL BE INCLUDED IN THE UNIT PRICES BID FOR ALL ITEMS IN THE PROPOSAL.
38. VALVES THAT ARE CALLED OUT TO BE ABANDONED SHALL INCLUDE ALL LABOR, MATERIAL, AND EQUIPMENT NECESSARY TO ABANDON EXISTING WATER VALVES. THIS ITEM SHALL ALSO INCLUDE ANY NECESSARY EXCAVATION AND BACKFILL REQUIRED. VALVES SHALL BE CLOSED AND HAVE THE TOP 6" OF THE CASTING REMOVED. VALVES IN PAVEMENT SHALL BE FILLED WITH CONCRETE WITH THE TOP 6" MATCHING THE EXISTING PAVEMENT COMPOSITION. VALVES IN YARD AREA SHALL BE FILLED WITH SAND.
39. FIRE HYDRANTS THAT ARE CALLED OUT TO BE REMOVED SHALL INCLUDE ALL LABOR, MATERIAL AND EQUIPMENT NECESSARY TO REMOVE THE FIRE HYDRANT, HYDRANT VALVE AND PLUG THE HYDRANT TEE.
40. FOR WATERLINES CALLED OUT TO BE ABANDONED, THE CONTRACTOR SHALL PLUG AND ABANDON THE EXISTING WATERLINE WITH A DUCTILE IRON PLUG OR AS DIRECTED BY THE CANTON WATER DEPARTMENT.
41. REMOVAL OF ANY EXISTING THRUST BLOCKS WILL BE CONSIDERED INCIDENTAL TO THE OVERALL PROJECT COST.

IX. POST CONSTRUCTION INCIDENTALS

(A) AS-BUILT DRAWINGS:

AS-BUILT REPRODUCIBLE MYLARS SHALL BE PROVIDED TO THE CITY OF CANTON BY THE DESIGN ENGINEER AT THE COMPLETION OF THE PROJECT. AS-BUILT INFORMATION CONSISTS OF POST-CONSTRUCTION FIELD SURVEY DATA OF THE LOCATION, FLOWLINE ELEVATIONS, AND TOP-OF-GRADE/RIM ELEVATIONS FOR ALL STORM AND SANITARY STRUCTURES CONSTRUCTED AND/OR IMPACTED BY THE PROJECT.

FOR PRIVATE PROJECTS, THE CONSTRUCTION BOND WILL NOT BE RELEASED UNTIL THE AS-BUILT DRAWINGS HAVE BEEN ACCEPTED.

(B) PROPOSED MONUMENTATION:

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

(C) 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.

REVISIONS/COMMENTS:

- 1

ANY REFERENCE TO "THE CITY ENGINEER" WITHIN THE GENERAL NOTES SHALL MEAN THE CANTON WATER DEPARTMENT SUPERINTENDENT.
- 2

NOT APPLICABLE TO THIS PROJECT
- 3

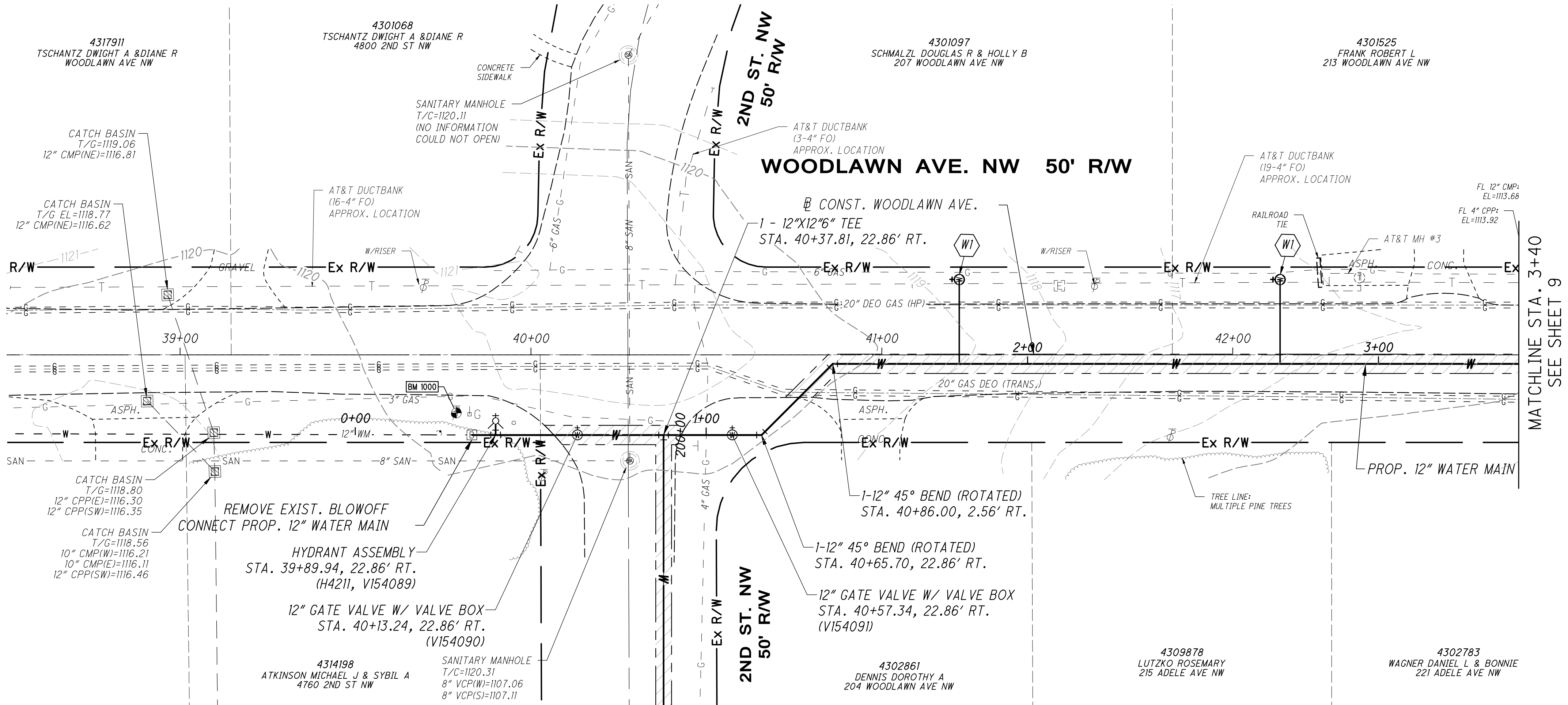
REFER TO SECTION VIII. WATER MAIN/SERVICES
- 4

NOTE REVISED

CALCULATED		CAS	CHECKED	SWA
GENERAL NOTES				
WOODLAWN AVE NW WATER MAIN IMPROVEMENTS				
<div><div>ARCADIS</div><div>222 South Main Street, Suite 300 Akron, Ohio 44308 Tel: 330-434-1995</div></div>				
<div><div>6</div><div>17</div></div>				

ARCADIS
222 South Main Street, Suite 200
Akron, Ohio 44308 Tel: 330-434-1995

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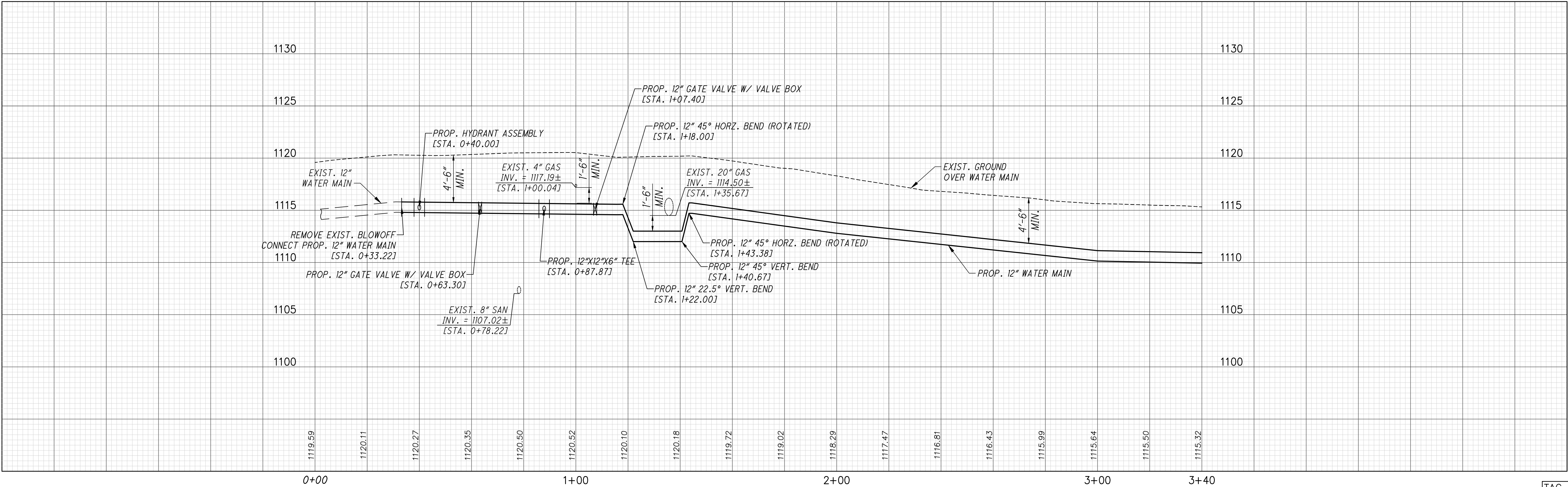


BENCHMARK 1000
RAILROAD SPIKE IN UTILITY
POLE
N414739.200, E2263112.550
ELEV. = 1121.77

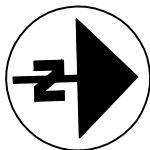
LEGEND

- W# PROPOSED (*-SIZE) INCH, WATER SERVICE CONNECTION (* = SERVICE VALVE NOT FIELD LOCATED)
- # PROPOSED CONST. COORDINATE POINT
- (H##, V##) CANTON WATER DEPT. (HYDRANT AND VALVE NUMBERS)
- PROPOSED ROADWAY TRENCH PAY LIMITS / PAVEMENT REPLACEMENT (SEE DETAIL SHT. 17)

NOTE
EXISTING AT&T DUCTBANKS ARE LOCATED ALONG THE WEST SIDE OF WOODLAWN AVENUE. LOCATIONS SHOWN ARE APPROXIMATE. SIZES AND DEPTHS OF BURY VARY. CONTRACTOR SHALL FIELD LOCATE THE EXISTING DUCTBANKS TO CONFIRM SIZES AND DEPTHS IN ORDER TO PROVIDE ADEQUATE CLEARANCE BETWEEN THE EXISTING UTILITY AND THE PROPOSED WATER SERVICES. CONTRACTOR SHALL USE CAUTION DURING INSTALLATION OF ALL WATER SERVICE CONNECTIONS IN THESE AREA.



TAG 586



CALCULATED
CAS
CHECKED
SWA

WOODLAWN AVE. PLAN AND PROFILE
STA. 0+00 TO STA. 3+40

WOODLAWN AVE NW
WATER MAIN
IMPROVEMENTS

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222 South Main Street, Suite 300
Akron, Ohio 44308 Tel: 330-434-1995

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BENCHMARK 1001
RAILROAD SPIKE IN UTILITY
POLE
N415531.500, E2263107.660
ELEV. = 1110.09

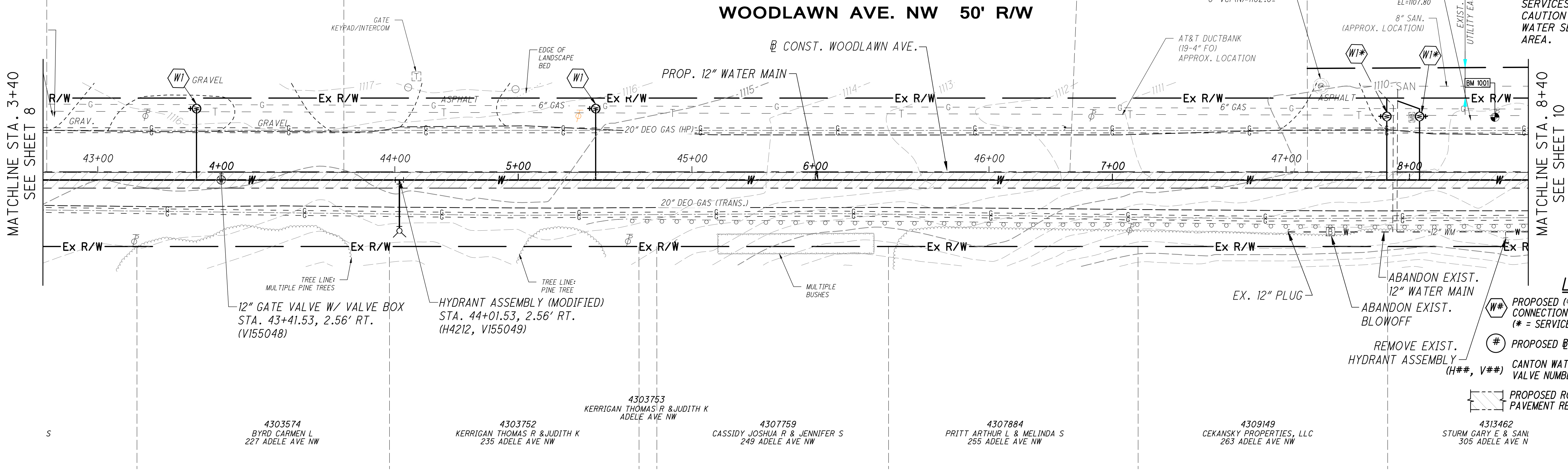
4301377
EASTERLY KENNETH L & SONDR K
225 WOODLAWN AVE NW

4315383
POPOVICH DARRELL JR TRUSTEE OF THE WOODLAWN TRUST
245 WOODLAWN AVE NW

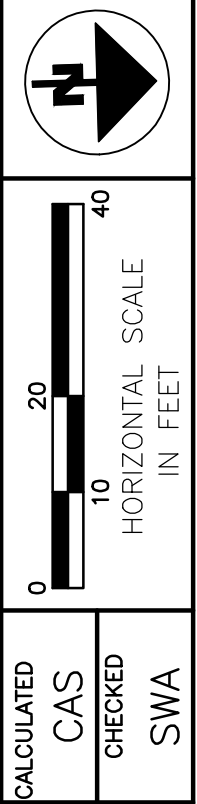
4316243
CLEVINGER GARRY G & GERALDINE K
263/265 WOODLAWN AVE NW

4316242
CLEVINGER GARRY G & GERALDINE K
303/305 WOODLAWN AVE NW

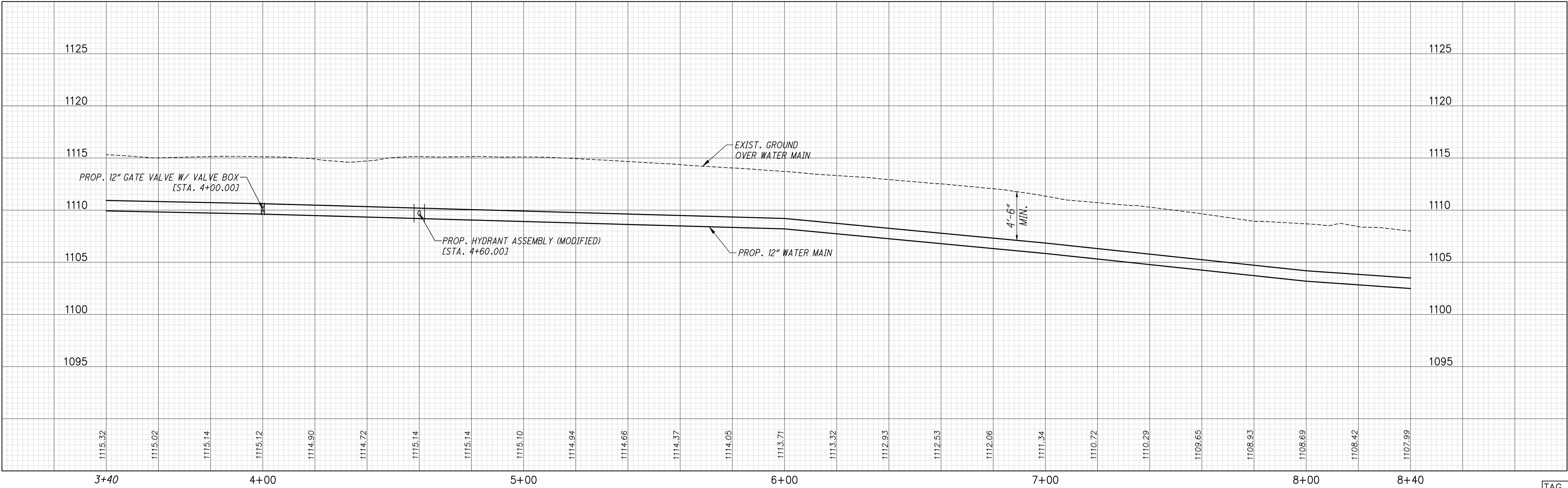
NOTE
EXISTING AT&T DUCTBANKS ARE LOCATED ALONG THE WEST SIDE OF WOODLAWN AVENUE. LOCATIONS SHOWN ARE APPROXIMATE. SIZES AND DEPTHS OF BURY VARY. CONTRACTOR SHALL FIELD LOCATE THE EXISTING DUCTBANKS TO CONFIRM SIZES AND DEPTHS IN ORDER TO PROVIDE ADEQUATE CLEARANCE BETWEEN THE EXISTING UTILITY AND THE PROPOSED WATER SERVICES. CONTRACTOR SHALL USE CAUTION DURING INSTALLATION OF ALL WATER SERVICE CONNECTIONS IN THESE AREA.



- LEGEND**
- PROPOSED (W#)=SIZE INCH, WATER SERVICE CONNECTION
(* = SERVICE VALVE NOT FIELD LOCATED)
 - PROPOSED (#)=CONST. COORDINATE POINT
 - CANTON WATER DEPT. (HYDRANT AND VALVE NUMBERS)
(H##, V##)
 - PROPOSED ROADWAY TRENCH PAY LIMITS / PAVEMENT REPLACEMENT (SEE DETAIL SHT. 17)



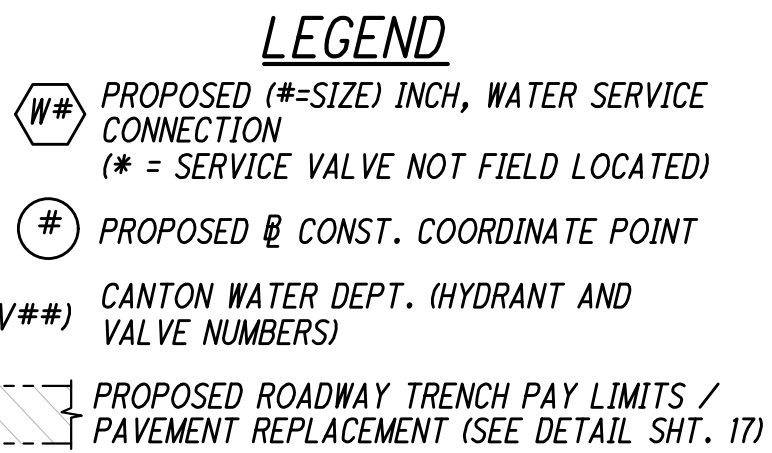
WOODLAWN AVE. NW
STA. 3+40 TO STA. 8+40



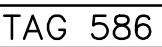
TAG 586

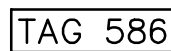
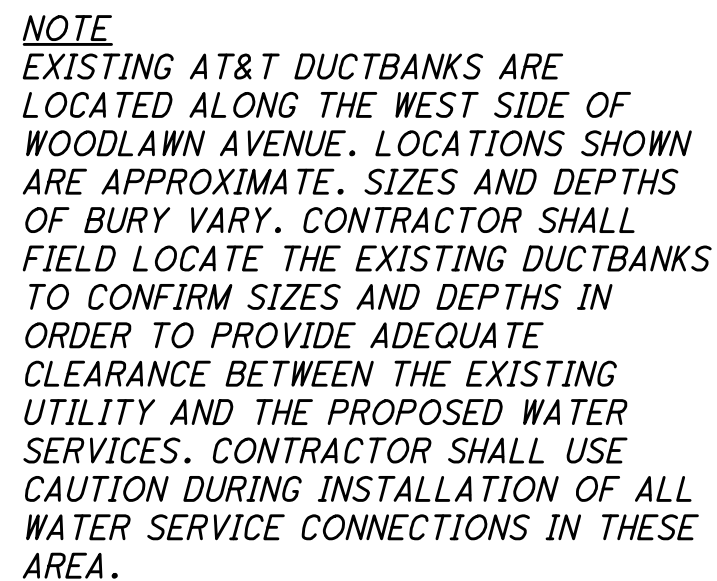
WOODLAWN AVE NW
WATER MAIN
IMPROVEMENTS

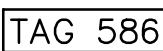
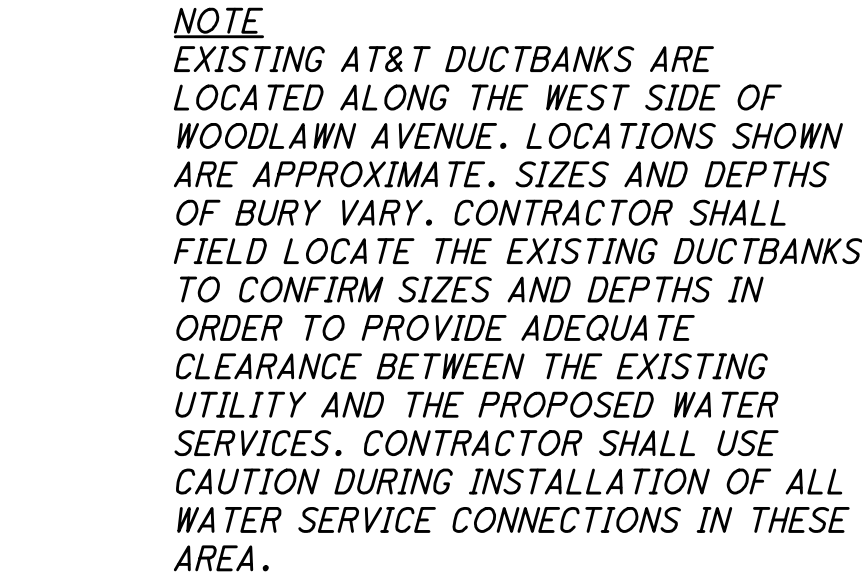
ARCADIS
222 South Main Street, Suite 300
Akron, Ohio 44308 Tel: 330-434-1995



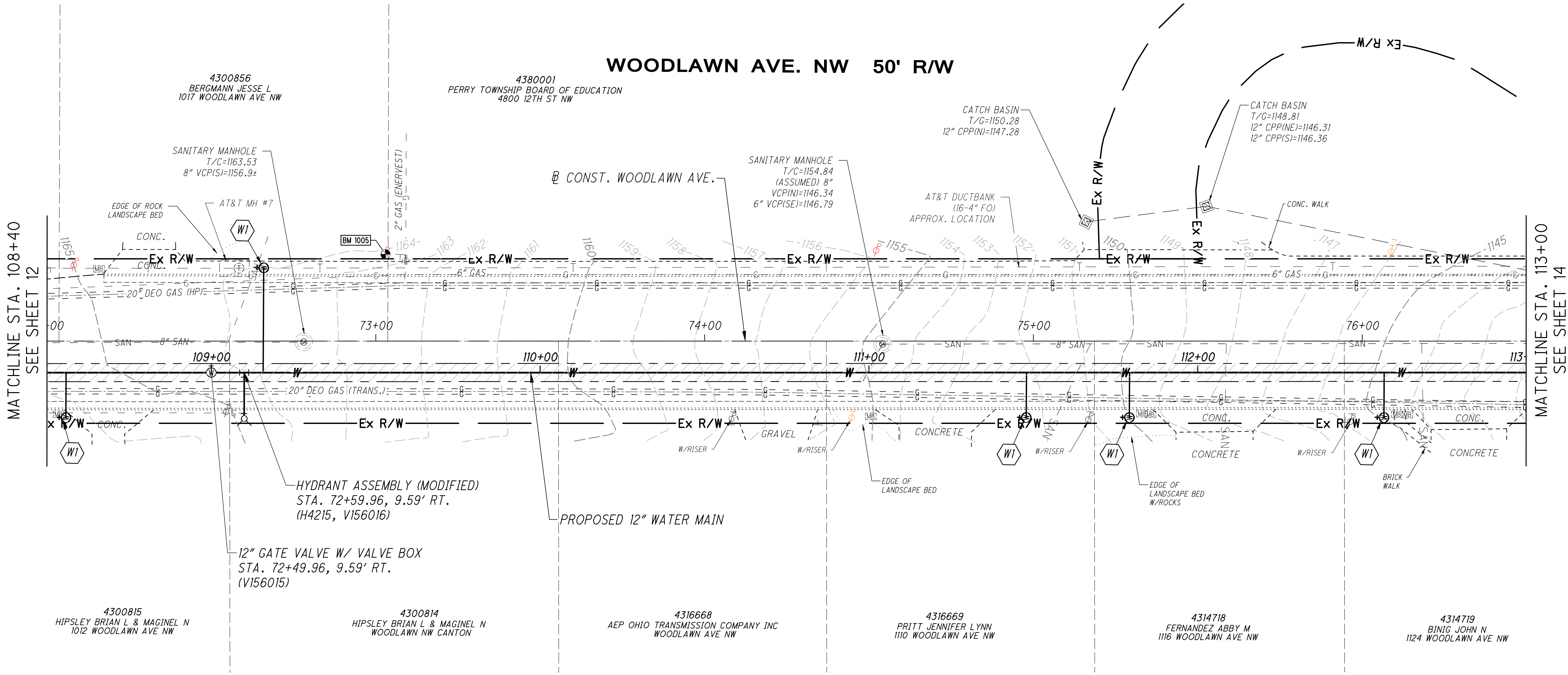
NOTE
EXISTING AT&T DUCTBANKS ARE
LOCATED ALONG THE WEST SIDE OF
WOODLAWN AVENUE. LOCATIONS SHOWN
ARE APPROXIMATE. SIZES AND DEPTHS
OF BURY VARY. CONTRACTOR SHALL
FIELD LOCATE THE EXISTING DUCTBANKS
TO CONFIRM SIZES AND DEPTHS IN
ORDER TO PROVIDE ADEQUATE
CLEARANCE BETWEEN THE EXISTING
UTILITY AND THE PROPOSED WATER
SERVICES. CONTRACTOR SHALL USE
CAUTION DURING INSTALLATION OF ALL
WATER SERVICE CONNECTIONS IN THESE
AREA.



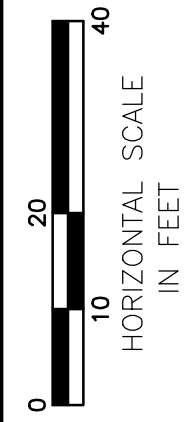
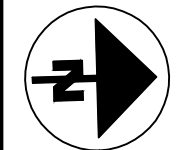




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BENCHMARK 1005
COTTON GIN SPIKE IN
UTILITY POLE
N418062.860, E2263185.520
ELEV. = 1164.72



CALCULATED
CAS
CHECKED
SWA

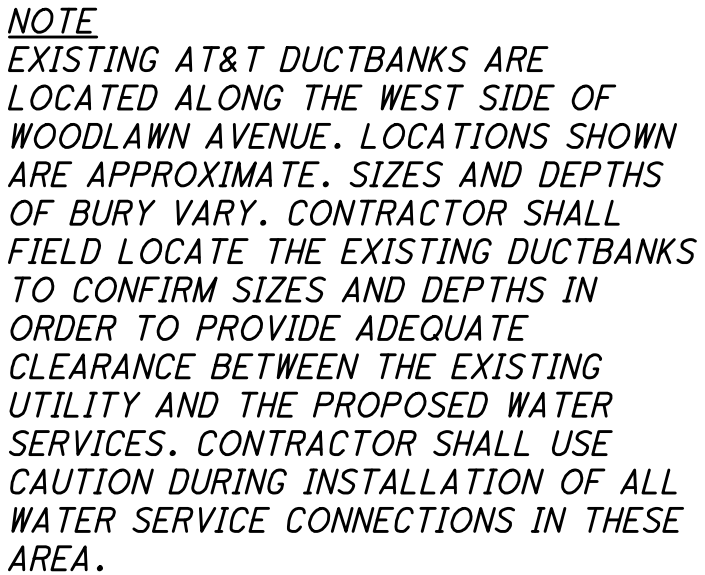
WOODLAWN AVE. NW
WATER MAIN
IMPROVEMENTS



WOODLAWN AVE. NW
WATER MAIN
IMPROVEMENTS

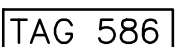
ARCADIS
222 South Main Street, Suite 300
Akron, Ohio 44308 Tel: 330-434-1995

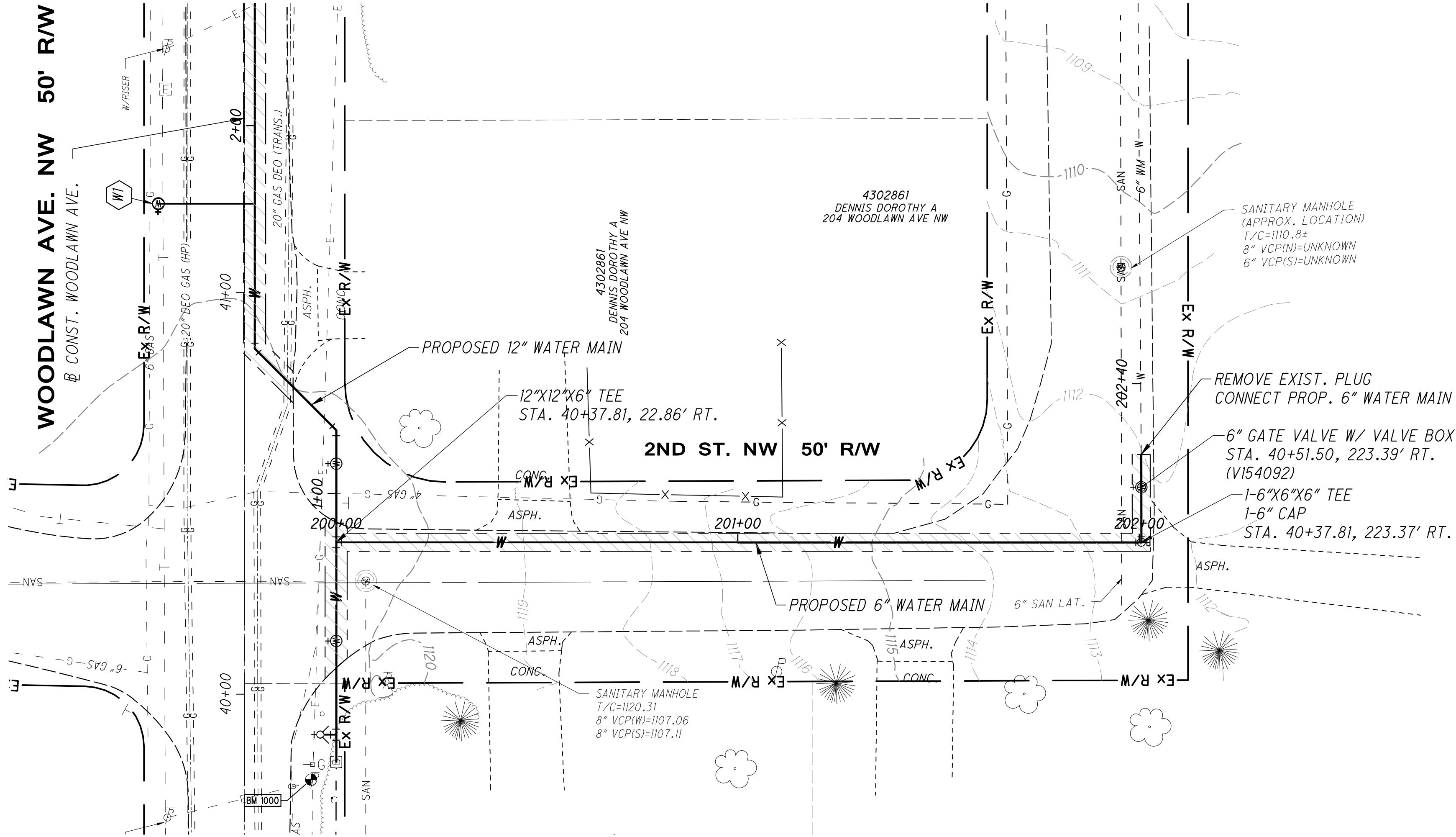
13
17

TAG 586

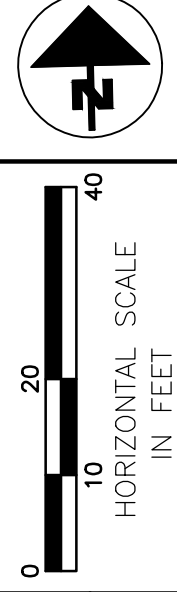


 PROPOSED (W# = SIZE) INCH, WATER SERVICE CONNECTION
 (* = SERVICE VALVE NOT FIELD LOCATED)
 PROPOSED # CONST. COORDINATE POINT
 (H##, V##) CANTON WATER DEPT. (HYDRANT AND VALVE NUMBERS)



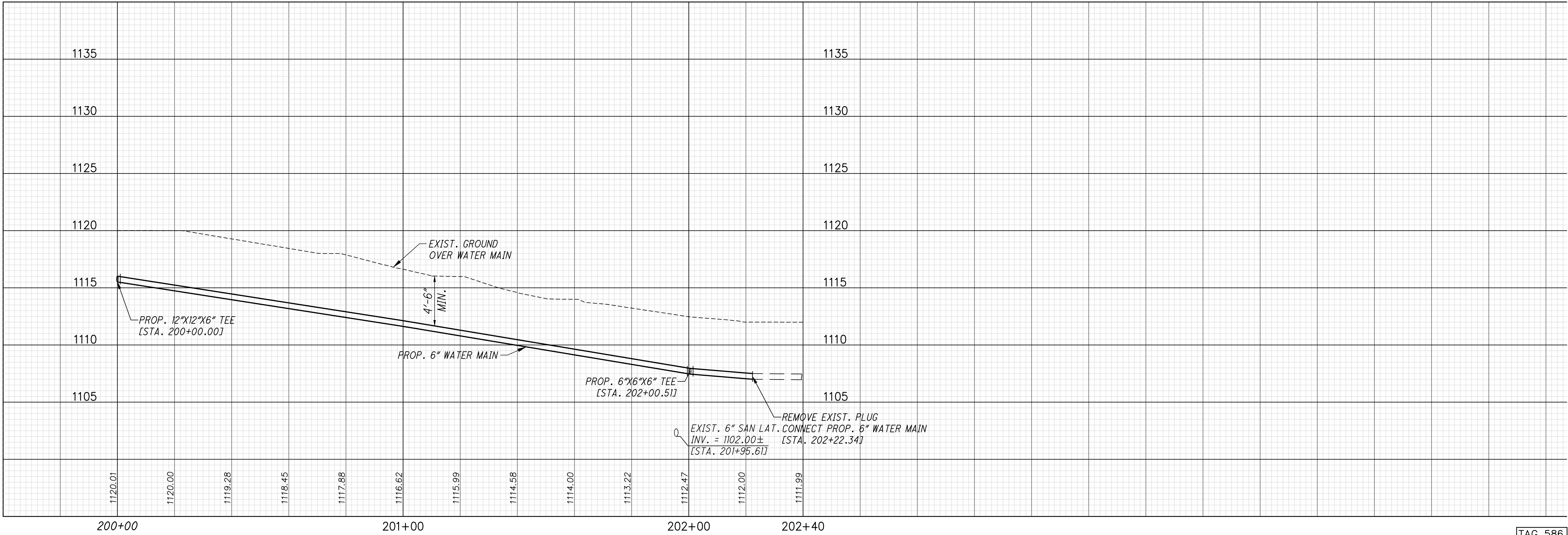


- LEGEND**
- PROPOSED (*-SIZE) INCH, WATER SERVICE CONNECTION
(* = SERVICE VALVE NOT FIELD LOCATED)
 - PROPOSED CONST. COORDINATE POINT
 - CANTON WATER DEPT. (HYDRANT AND VALVE NUMBERS)
(H##, V##)
 - PROPOSED ROADWAY TRENCH PAY LIMITS / PAVEMENT REPLACEMENT (SEE DETAIL SHT. 17)

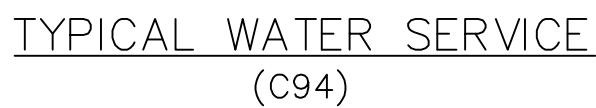
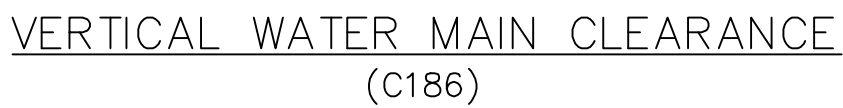
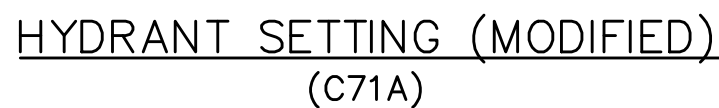
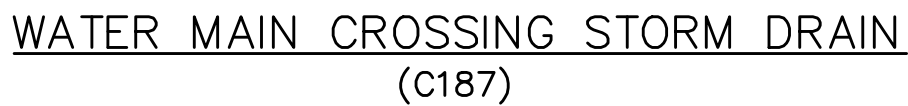
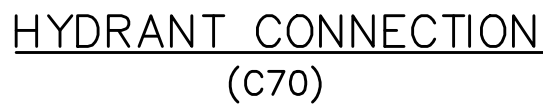
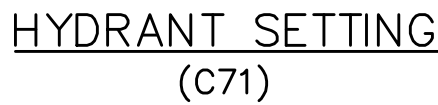


CALCULATED
CAS
CHECKED
SWA

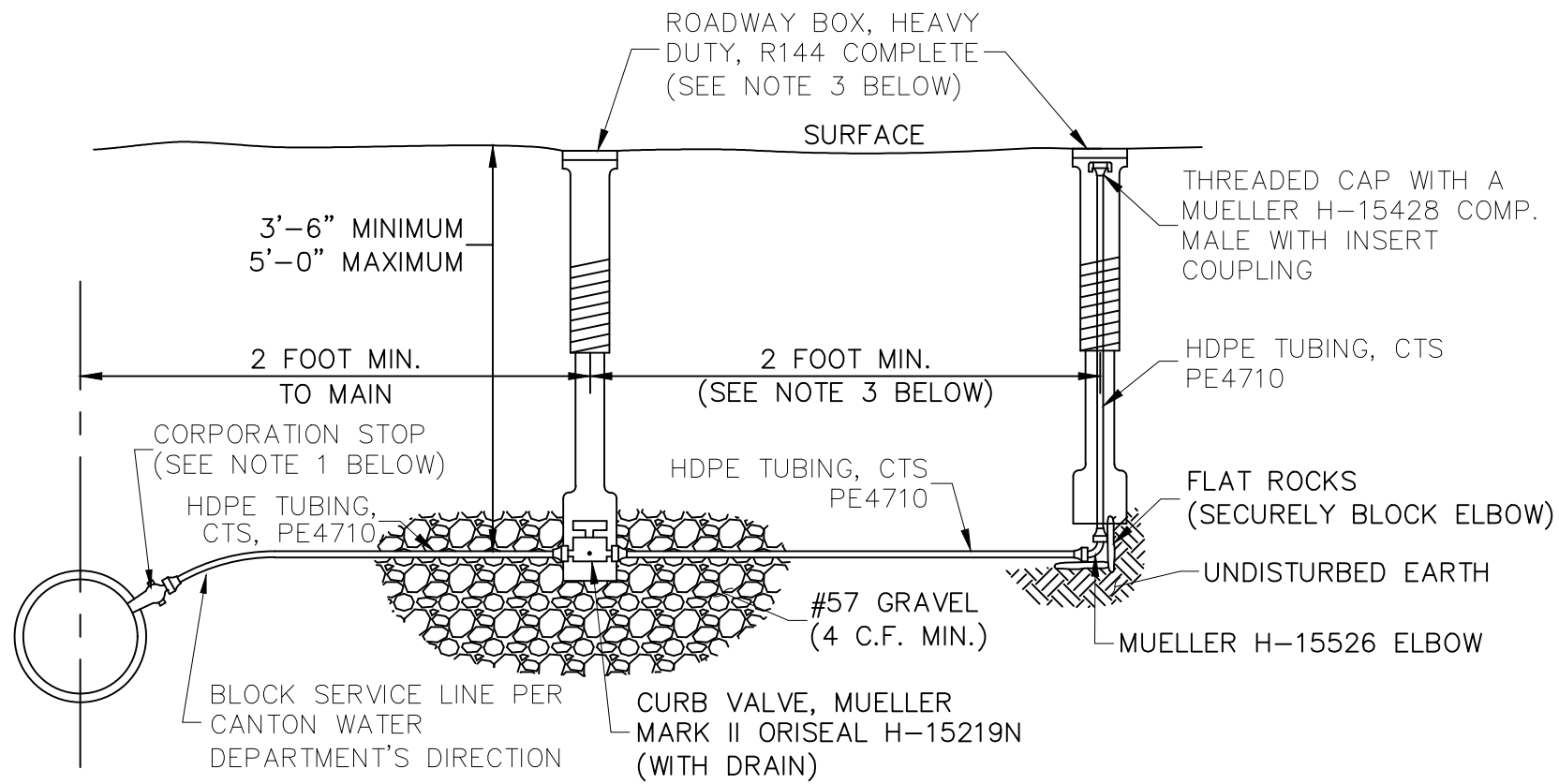
2ND STREET PLAN AND PROFILE



WOODLAWN AVE NW WATER MAIN IMPROVEMENTS



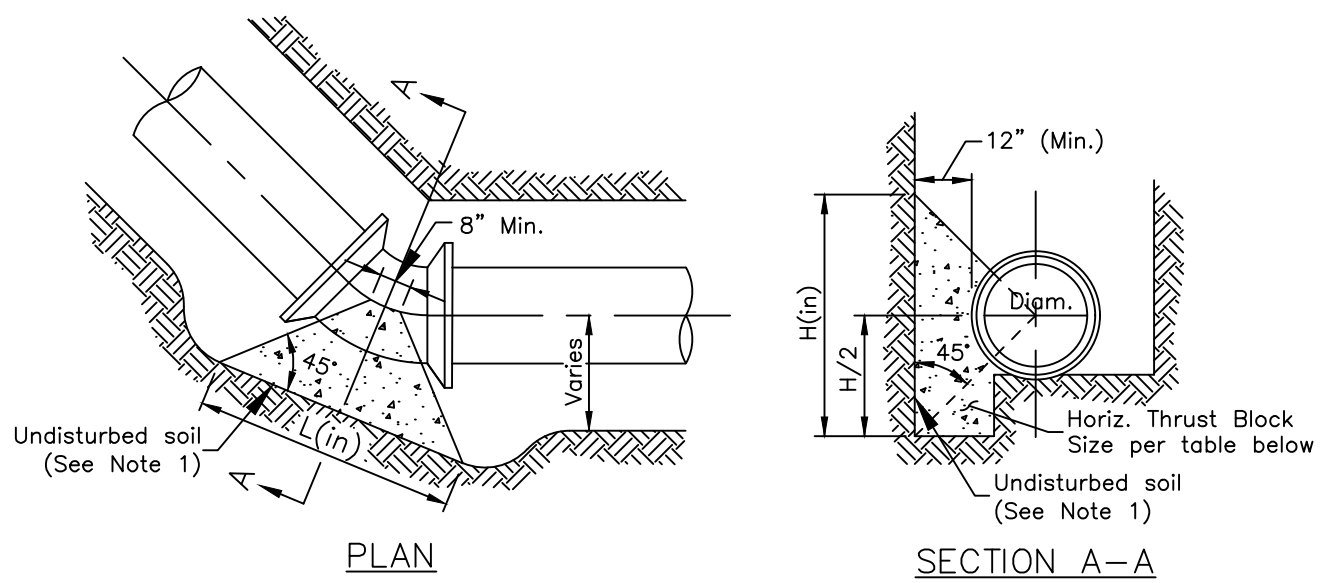
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NOTES:

- CORPORATION STOP AND ASSEMBLY SHALL BE AS FOLLOWS:
1" CORP. STOP ON DIP: INSTALL AT THE 2:00 POSITION, A MUELLER B-25008 CORPORATION STOP WITH A COMPRESSION CONNECTION.
1" CORP. STOP ON PVC C909: INSTALL AT THE 2:00 POSITION, A MUELLER B-25008 CORPORATION WITH A COMPRESSION CONNECTION AND A FORD, STAINLESS STEEL, EPOXY COATED TAPPING SADDLE (FC202 STYLE).
1 1/2" CORP. STOP: INSTALL AT THE 2:00 POSITION, A MUELLER B-25008 CORPORATION STOP WITH A COMPRESSION CONNECTION AND A FORD, STAINLESS STEEL, EPOXY COATED TAPPING SADDLE (FC202 STYLE).
2" CORP. STOP: INSTALL AT A 45° ANGLE, A MUELLER H-10003 CORPORATION STOP WITH 2" IRON TOP, A STANDARD NO LEAD BRASS 45° ELBOW AND A MUELLER H-15428 COMPRESSION MALE WITH INSERT COUPLING. ASSEMBLY SHALL ALSO CONSIST OF A FORD, STAINLESS STEEL, EPOXY COATED TAPPING SADDLE (FC202 STYLE).
- A SERVICE CLAMP MUST BE USED WHEN THE MAIN SIZE IS 2 INCH OR SMALLER.
- HEAVY DUTY VALVE BOXES, COMPLETE, MUST BE USED IN PLACE OF ROADWAY BOXES WHEN THE CURB VALVE IS LOCATED IN ROADWAYS OR ASPHALT DRIVES.
- BRASS REDUCING BUSHINGS OR SWIVEL ELLS WILL NOT BE ALLOWED.
- APPROVED EQUALS MAY BE USED IN PLACE OF SPECIFIED ITEMS.

STANDARD BLOW-OFF ASSEMBLY
(C135)

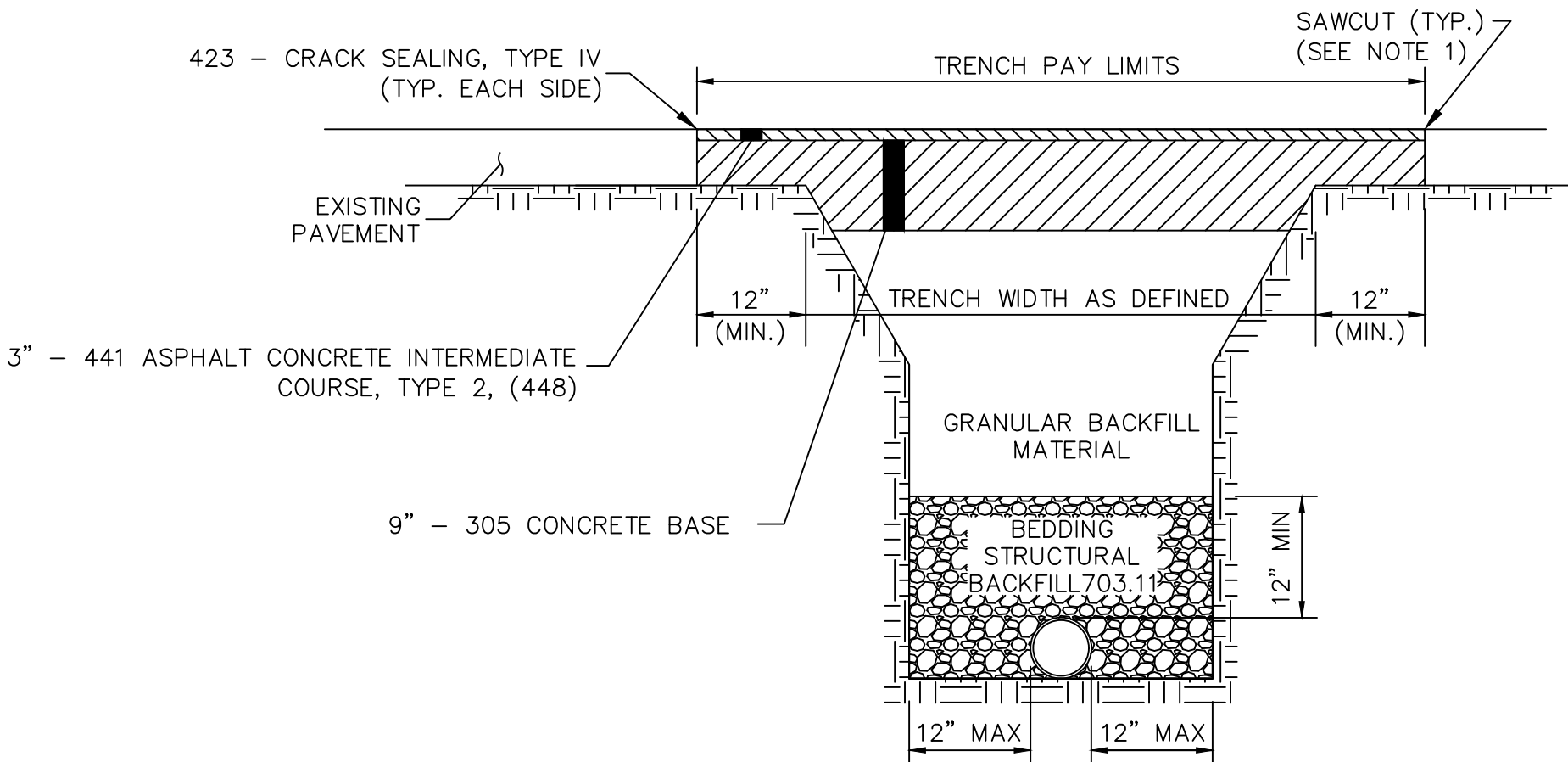


NOTES:

- Thrust blocks shall be placed against undisturbed soil. Where it is not possible, the fill between the bearing surface and undisturbed soil must be compacted to at least 90% Standard Proctor density.
- Pipe, bolts, nuts and fittings shall be wrapped with polyethylene film to prevent corrosion and concrete adhesion.
- All joints to be Megalugged.

SIZE OF PIPE	DEGREE OF BEND							
	11 1/4°				22 1/2°			
	L	H	L	H	L	H	L	H
6"	16	8	16	10	24	14	32	18
8"	16	10	21	14	31	18	44	24
12"	21	16	32	20	48	26	66	36
16"	29	20	42	28	66	34	90	46
20"	37	24	50	36	73	48	107	60
24"	46	28	64	40	93	54	128	72

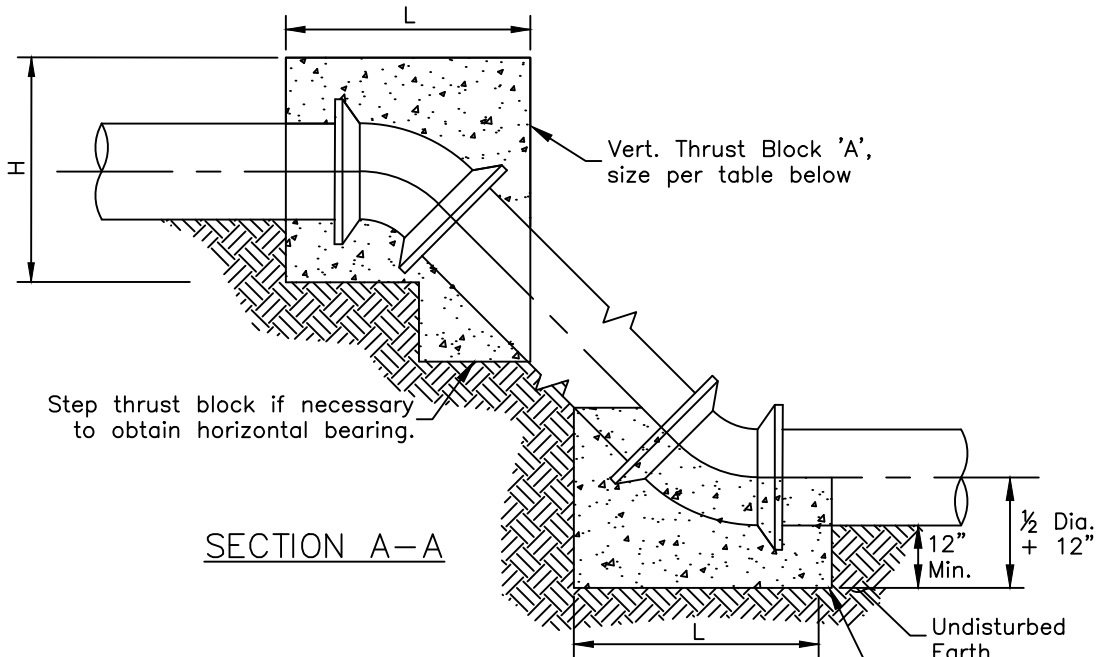
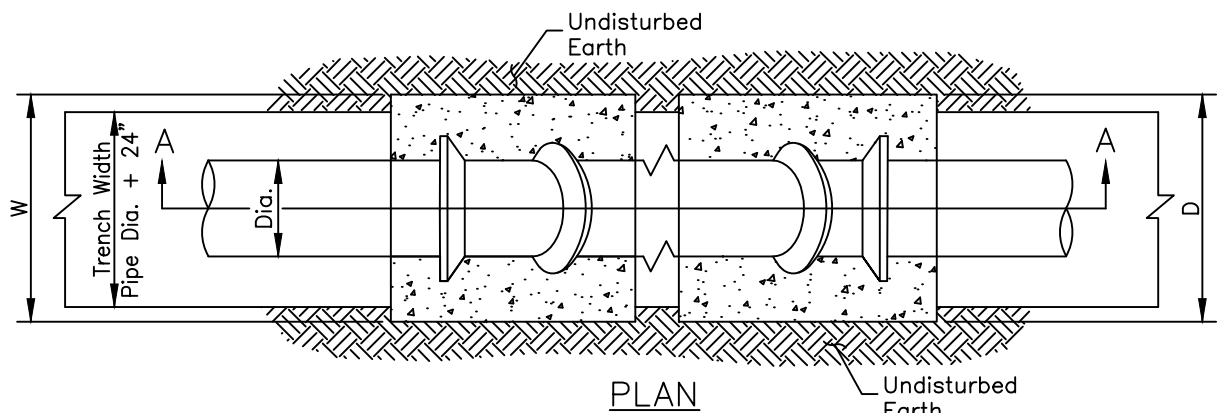
HORIZONTAL THRUST BLOCKS
(C130)



NOTES:

- SAW CUT EXISTING PAVEMENT, SEAL ASPHALT JOINT PER ODOT ITEM 423 - CRACK SEALING, TYPE IV. INCLUDE COST IN BID PRICE FOR THE PROPOSED PAVEMENT.
- IF ADJACENT PAVEMENT IS DAMAGED OR UNDERMINED DURING CONSTRUCTION, ADDITIONAL PAVEMENT SHALL BE SAW CUT AND REMOVED IN ORDER TO PROVIDE A SOUND PAVEMENT EDGE.
- IN THE EVENT THAT THE SAW CUT WOULD LIE WITHIN 3 FEET OF THE EDGE OF PAVEMENT OR FACE OF CURB, THE PAVEMENT REPLACEMENT SHALL EXTEND TO THE EDGE OF PAVEMENT OR FACE OF CURB.

PAVEMENT REPLACEMENT &
TRENCH DETAIL



NOTES:

- Pipe, bolts, nuts and fittings shall be wrapped with polyethylene film to prevent corrosion and concrete adhesion.
- Thrust blocks to be centered on bend horizontally.
- Thrust block 'A' shall be off centered on bend vertically to shift the majority of the block above the fitting.
- All joints to be Megalugged.
- Concrete thrust blocks to be placed on all vertical bends.

SIZE OF PIPE	DEGREE OF BEND															
	11 1/4°				22 1/2°				45°							
	L	W	H	V (cy)	L	W	H	V (cy)	L	W	H	V (cy)	L	W	H	V (cy)
6"	12	48	18	0.2	15	43	36	0.5	28	55	24	0.8				
8"	12	63	24	0.4	18	57	34	0.7	36	57	33	1.4				
12"	20	54	36	0.8	37	62	37	1.7	48	62	51	3.1				
16"	31	65	38	1.6	55	65	39	3.0	65	65	65	5.6				
20"	40	56	50	2.4	57	66	59	4.8	82	74	68	8.8				
24"	48	60	60	3.5	67	72	66	6.9	91	91	72	12.7				

CONCRETE THRUST BLOCKS FOR VERTICAL
BENDS ON WATER MAINS
(POURED IN PLACE, CLASS C)
(C147)

CALCULATED
CAS
CHECKED
SWA

MISCELLANEOUS DETAILS

WOODLAWN AVE NW
WATER MAIN
IMPROVEMENTS

The City of Canton
Water Department
2664 Hamsburg Rd. N.E. • Canton, Ohio 44705
(330) 489-3310



17

17

Signature and Proposal Pages

Signature Page

Woodlawn Ave NE Water Main Extension – TAG 586

To the Director of Public Service of the City of Canton:

The undersigned, having carefully examined the complete invitation to bid, herewith proposes to furnish all the labor and materials required to complete the **Woodlawn Ave NE Water Main Extension – TAG 586** in accordance with the specifications on file, including any and all work and materials that may be necessary to complete the project in a proper and workmanlike manner, and in accordance with the instructions in the bid packet and under the direction of and to the satisfaction of the Director of Public Service of said City.

The bidder hereby agrees that the Director of Public Service has the right to reject any and all bids and to accept the bid(s) deemed most beneficial to the City of Canton.

The bidder hereby certifies that the undersigned _____ is the only person interested in the bid and the bidder herewith certifies that no officer or employee of the City of Canton is in any manner interested therein.

The bidder herewith encloses a _____ (**BID BOND, CERTIFIED/CASHIER'S CHECK**) in the sum of \$ _____ dollars made payable to the CITY OF CANTON as a guaranty that if awarded the contract for the work included in the proposal, _____ will enter into contract therefore, with sureties satisfactory to the Director of Public Service, within the prescribed time of ten (10) days from the date of service of notice of award, otherwise such bond or checks shall become the property of said City, as liquidated damages of the failure on the bidder's part to do said contract within the specified time.

The bidder acknowledges receipt of Addenda Numbers: _____.

SIGNATURE OF BIDDER: _____.

NOTE: If bidder is a corporation, set forth the legal name of the corporation, together with the signature of the officer or officers authorized to sign contracts on behalf of the corporation. If bidder is a partnership, set forth the name of the firm, together with the signature of the partner or partners authorized to sign contracts on behalf of the partnership.

Proposal Page

We (I), the above signed hereby propose to furnish the following article(s) and/or service(s) at the price(s) and terms stated subject to all instructions, conditions, specifications, and all attachments hereto. We (I) have read all attachments including the specifications and fully understand what is required.

BID ITEM	ODOT ITEM	DESCRIPTION	UNIT	QTY	UNIT PRICE LABOR	UNIT PRICE MATERIAL	TOTAL UNIT PRICE	ITEM TOTAL
ROADWAY								
1	305	9" CONCRETE BASE	SY	1756				
2	441	3" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448)	CY	150				
3	653	4" TOPSOIL FURNISHED AND PLACED	LUMP	1				
4	659	SEEDING AND MULCHING	LUMP	1				
5	638	ABANDON VALVE/BLOWOFF	EACH	2				
6	638	FIRE HYDRANT AND GATE VALVE REMOVED, HYDRANT TEE PLUGGED	EACH	1				
7	638	1" WATER SERVICE, COMPLETE - LONG SIDE	EACH	19				
8	638	1" WATER SERVICE, COMPLETE - SHORT SIDE	EACH	10				
9	638	6" WATER MAIN DUCTILE IRON PIPE, CLASS 52	L.F.	224				
10	638	12" WATER MAIN DUCTILE IRON PIPE, CLASS 53	L.F.	2732				
11	638	6 INCH GATE VALVE AND VALVE BOX, COMPLETE	EACH	1				
12	638	12 INCH GATE VALVE AND VALVE BOX, COMPLETE	EACH	6				
13	638	6 INCH PLUG (CAP)	EACH	1				
14	638	6 INCH X 6 INCH X 6 INCH TEE	EACH	1				
15	638	HYDRANT ASSEMBLY	EACH	1				

BID ITEM	ODOT ITEM	DESCRIPTION	QTY	UNIT	UNIT PRICE LABOR	UNIT PRICE MATERIAL	TOTAL UNIT PRICE	ITEM TOTAL
16	638	HYDRANT ASSEMBLY (MODIFIED)	Each	5				
17	638	12 INCH 45 DEGREE BEND	Each	5				
18	638	12 INCH 22.5 DEGREE BEND	Each	3				
19	638	12 INCH PLUG (CAP)	Each	1				
20	638	12 INCH x 12 INCH x 6 INCH TEE	Each	1				
21	207	Erosion Control, Complete	Lump	1				
22	614	Maintaining Traffic, Complete	Lump	1				
23	623	Construction Layout Stakes	Lump	1				
24	624	Mobilization	Lump	1				
TOTAL BASE BID =								

Total Base Bid Price in Figures

Total Base Bid Price in Words

**Base Bid Prices are for Informational Purposes Only.
Total Unit Prices will govern.**