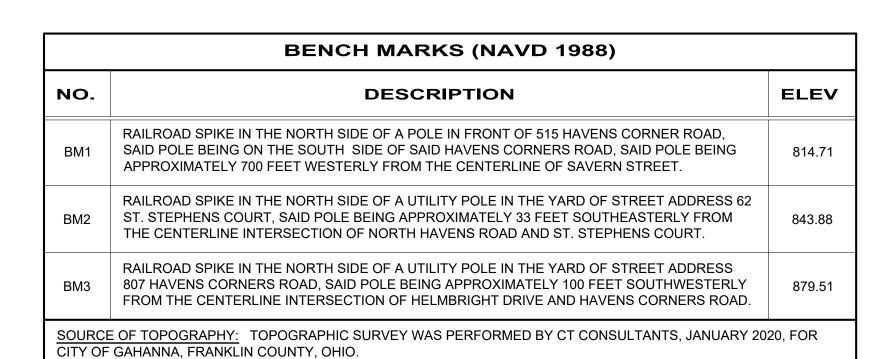
# HAVENS CORNERS RD WATERLINE REPLACEMENT

CITY OF GAHANNA, OHIO IMPROVEMENT #: ST-1072 2021



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SHEET NUMBER	SHEET TITLE
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#### CITY OF COLUMBUS STANDARD DRAWING

CITY OF COLUMBUS STANDARD DRAWINGS

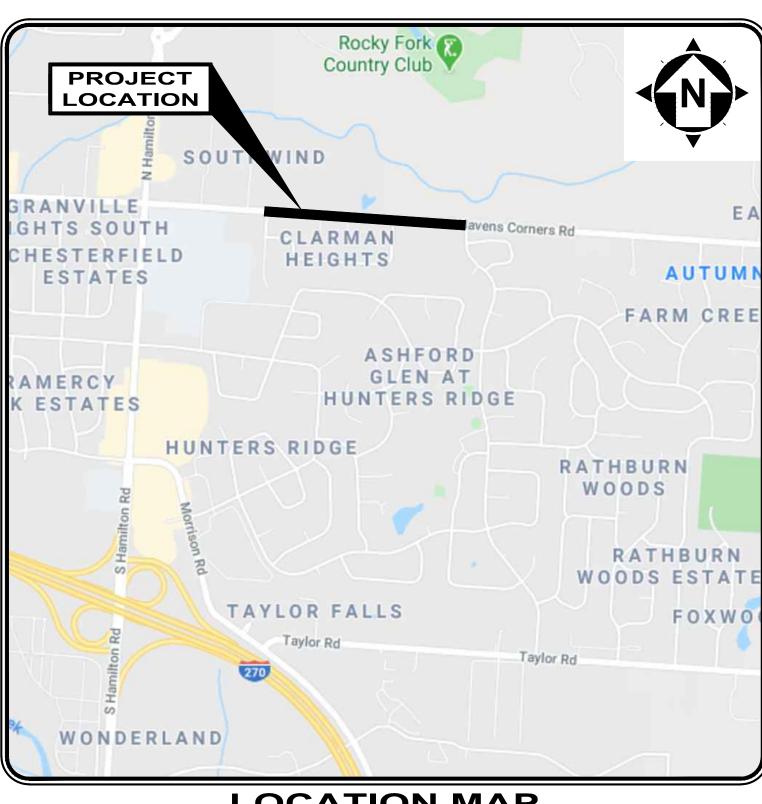
THE STANDARD CONSTRUCTION DRAWINGS LISTED ON THESE PLANS SHALL BE CONSIDERED A PART THEREOF.

# DIVISION OF WATER

L-1001	L-6310	L-6637A
L-6306	L-6311	L-7001
L-6309A	L-6312	L-7002
L-6309B	L-6316A	L-7102B



- 1. UNDERGROUND BUILDING SERVICE UTILITY LINES ARE NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING, MAINTAINING AND REPLACING AS NECESSARY TO ENSURE CONTINUAL SERVICE TO BUILDINGS.
- 2. THE CONTRACTOR IS RESPONSIBLE TO CALL OHIO UTILITIES PROTECTION SERVICE @ 1-800-362-2764, THREE WORKING DAYS PRIOR TO CONSTRUCTION.



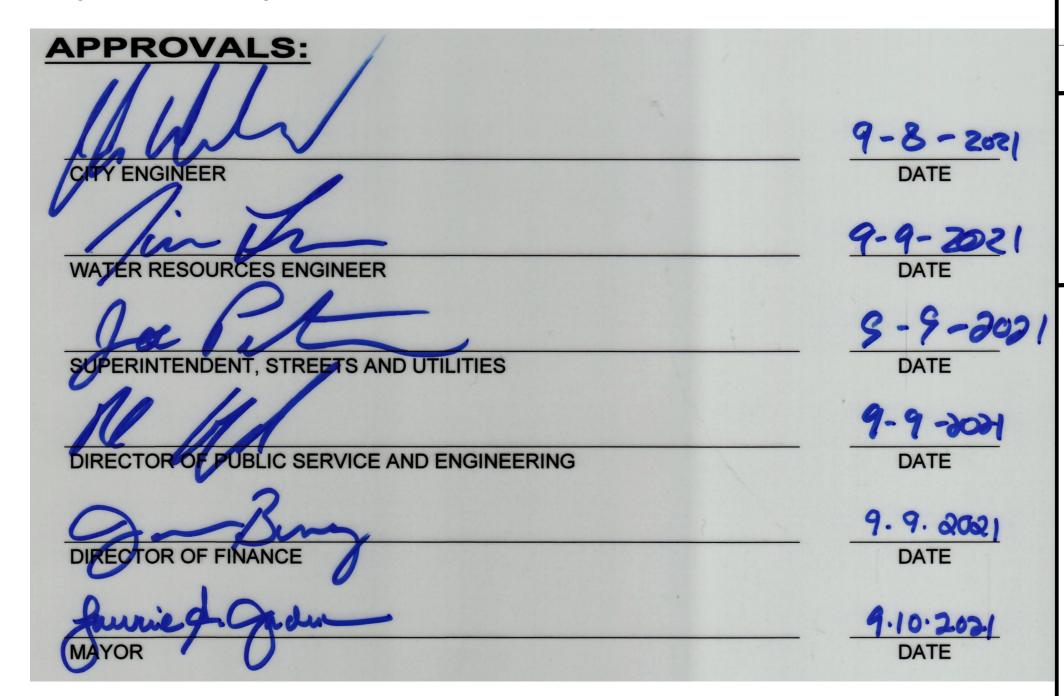
**LOCATION MAP** 



**ENGINEER'S PROJECT No. 200145** 



THE SIGNATURES BELOW SIGNIFY ONLY CONCURRENCE WITH THE PURPOSE AND GENERAL LOCATION OF THE PROJECT. ALL TECHNICAL DETAILS REMAIN THE RESPONSIBILITY OF THE ENGINEER PREPARING THE PLANS



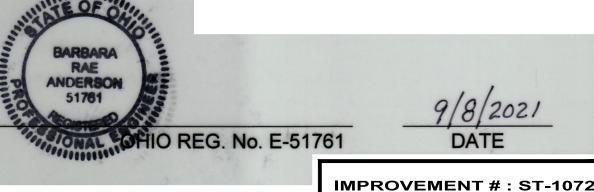
## **ENGINEER:**

CT CONSULTANTS, INC. 148 NORTH HIGH STREET GAHANNA, OH 43230

(614) 471-7310 PHONE (614) 471-7320 FAX

Barbara L. Arderson

BARBARA R. ANDERSON



FRANKLIN COUNTY

PROJECT NO.

200145

DISCIPLINE

GENERAL

SHEET NAME

G-01

SHEET OF

**23** 

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#### GENERAL NOTES:

THE CURRENT CITY OF COLUMBUS CONSTRUCTION AND MATERIAL SPECIFICATIONS (CMS) TOGETHER WITH THE REQUIREMENTS OF THE CITY OF GAHANNA, OHIO, SHALL GOVERN MATERIALS AND WORKMANSHIP INVOLVED IN IMPROVEMENTS SHOWN ON THESE PLANS, EXCEPT THOSE SPECIFICATIONS MODIFIED BY THE FOLLOWING SPECIFICATIONS OR CONSTRUCTION DETAILS SET FORTH HEREIN.

ALL PERTINENT STANDARD CONSTRUCTION DRAWINGS ARE AVAILABLE UPON REQUEST AT THE OFFICE OF THE CITY OF GAHANNA ENGINEER.

ALL WORK IS TO BE ACCEPTABLE TO CITY OF GAHANNA OFFICIALS. NO WORK IS TO COMMENCE UNTIL ARRANGEMENTS HAVE BEEN MADE WITH THE CITY OF GAHANNA ENGINEER FOR INSPECTION.

THE CONTRACTOR SHALL NOTIFY THE CITY OF GAHANNA ENGINEER AT LEAST TWO WORKING DAYS PRIOR TO CONSTRUCTION.

THE CONTRACTOR IS TO SCHEDULE A PRE-CONSTRUCTION MEETING ONE BUSINESS WEEK PRIOR TO CONSTRUCTION. THE MEETING SHALL TAKE PLACE AT LEAST ONE BUSINESS WEEK PRIOR TO THE FOLLOWING: SITE CLEARING, MATERIAL DELIVERED ON-SITE, EQUIPMENT ON-SITE AND FIELD OFFICE ON-SITE.

THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR COMPLYING WITH ALL FEDERAL, STATE AND LOCAL SAFETY REQUIREMENTS INCLUDING THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970. THE CONTRACTOR SHALL EXERCISE PRECAUTION ALWAYS FOR THE PROTECTION OF PERSONS (INCLUDING EMPLOYEES) AND PROPERTY. IT SHALL ALSO BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO INITIATE, MAINTAIN AND SUPERVISE ALL SAFETY REQUIREMENTS, PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK, INCLUDING THE REQUIREMENTS FOR CONFINED SPACES PER 29 CFR 1910.146.

THE PRICE(S) QUOTED SHALL INCLUDE ALL ITEMS OF LABOR, MATERIALS, TOOLS, EQUIPMENT, INSURANCE AND OTHER COSTS NECESSARY TO FULLY COMPLETE THE WORK PURSUANT TO THE CONTRACT DOCUMENTS. IT IS THE INTENTION OF THE CONTRACT DOCUMENTS TO PROVIDE AND REQUIRE A COMPLETED WORK PROJECT READY FOR OPERATION. ANY WORK ITEMS OMITTED FROM SUCH CONTRACT DOCUMENTS WHICH ARE CLEARLY NECESSARY FOR THE COMPLETION OF SUCH WORK AND ITS APPURTENANCES SHALL BE CONSIDERED A PART OF SUCH WORK ALTHOUGH NOT DIRECTLY SPECIFIED OR CALLED FOR IN THE CONTRACT DOCUMENTS.

ALL FIELD TILE BROKEN DURING EXCAVATION SHALL BE REPLACED WITH PERFORATED PIPE OR CONNECTED TO THE STORM SEWER SYSTEM. THE COST FOR THIS WORK SHALL BE INCLUDED IN PRICE BID FOR THE VARIOUS RELATED ITEMS.

NO NATURAL DRAINAGE COURSES SHALL BE ALTERED AND NO FILL, MATERIALS OR STRUCTURES SHALL BE PLACED IN IT UNLESS PROVISIONS ARE MADE FOR THE FLOW OF WATER IN A MANNER SATISFACTORY TO THE CITY ENGINEER.

DURING CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE ADEQUATE DRAINAGE AND PROPER SOIL EROSION CONTROL MEASURES FOR PROTECTION OF ALL ADJACENT ROADS AND LANDS

THE CONTRACTOR SHALL REPAIR OR REPLACE ANY OR ALL EXISTING SIGNS, SHRUBS, FENCES, OR OTHER PHYSICAL FEATURES DAMAGED DURING THE EXECUTION OF THIS CONTRACT AT THEIR OWN EXPENSE. ALL REPAIRS SHALL BE TO THE SATISFACTION OF THE CITY OF GAHANNA.

THE CONTRACTOR SHALL CONFINE ACTIVITIES TO THE PROJECT SITE, EXISTING RIGHT-OF-WAYS, TEMPORARY EASEMENTS AND PERMANENT EASEMENTS, AND SHALL NOT ENTER UPON OTHER PROPERTIES WITHOUT WRITTEN PERMISSION OF THE PROPERTY

SHOULD WATER BE ENCOUNTERED, THE CONTRACTOR SHALL FURNISH AND OPERATE SUITABLE PUMPING EQUIPMENT OF SUCH CAPACITY ADEQUATE TO DEWATER THE TRENCH. THE TRENCH SHALL BE SUFFICIENTLY DEWATERED SO THAT THE PLACEMENT OF BEDDING AND LAYING AND JOINING OF THE PIPE IS MADE IN A TRENCH FREE OF STANDING WATER. THE CONTRACTOR SHALL CONVEY ALL TRENCH WATER TO A NATURAL DRAINAGE CHANNEL OR STORM SEWER WITHOUT CAUSING ANY PROPERTY DAMAGE. THE COST FOR DEWATERING ACTIVITIES SHALL BE INCLUDED IN PRICE BID FOR THE VARIOUS RELATED

THE CONTRACTOR IS ULTIMATELY RESPONSIBLE TO ENSURE CONSTRUCTION TO PLAN GRADE. THE CONTRACTOR SHALL ENSURE THERE IS A SURVEYOR'S LEVEL AND ROD ON THE PROJECT FOR USE IN PERFORMING GRADE CHECKS WHENEVER SEWER LINE STRUCTURES OR PIPES ARE BEING INSTALLED. THE CONTRACTOR SHALL MAKE THIS EQUIPMENT AVAILABLE FOR USE AND ASSIST THE CITY INSPECTOR IN PERFORMING GRADE CHECKS WHEN REQUESTED BY THE INSPECTOR. THE INSPECTOR WILL MAKE ALL REASONABLE ATTEMPTS TO CONFINE REQUESTS FOR ASSISTANCE IN PERFORMING GRADE CHECKS TO TIMES CONVENIENT TO THE CONTRACTOR. THESE CHECKS WILL BE PERFORMED TO ENSURE THAT CONSTRUCTION MATCHES PLAN GRADE, AND TO ENSURE THAT ALL EXISTING INVERTS ALONG WITH THE PROPOSED TOP OF CASTING ELEVATIONS ARE VERIFIED DURING CONSTRUCTION OF THE SEWER.

THE CONTRACTOR SHALL REFERENCE ALL IRON PINS OR MONUMENTS. IF ANY PINS OR MONUMENTS ARE DESTROYED OR DAMAGED BY THE CONTRACTOR, THEY SHALL BE ACCURATELY REPLACED BY A REGISTERED SURVEYOR IN THE STATE OF OHIO AT THE COMPLETION OF THE PROJECT.

VERTICAL CONTROL HAS BEEN ESTABLISHED FOR THE PROJECT AS SHOWN ON THE PLANS. THE CONTRACTOR IS RESPONSIBLE FOR ALL REQUIRED SURVEYS TO COMPLETE THE PROJECT INCLUDING REESTABLISHMENT OF CONTROL POINTS, PROJECT LAYOUT AND STAKING OF EASEMENTS.

ALL CURB RAMPS AND SIDEWALKS SHALL BE CONSTRUCTED IN FULL COMPLIANCE WITH REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT (ADA) OF 1990, INCLUDING ALL SUPPLEMENTS IN ACCORDANCE WITH THE CITY OF COLUMBUS STANDARD DRAWING 2319, INCLUDING ALL SUPPLEMENTS AND/OR REPLACEMENTS, CURRENT ON THE DATE OF THE START OF PROJECT CONSTRUCTION. SIDEWALKS SHALL BE CONSTRUCTED WITH A 3/16" PER FOOT (1.56%) CROSS SLOPE.

NO NON-RUBBER TIRED VEHICLES SHALL BE MOVED ON CITY STREETS, EXISTING PRIVATE ROADWAYS, OR PARKING LOTS UNLESS WRITTEN APPROVAL IS GRANTED BY THE APPROPRIATE CITY AUTHORITY OR PROPERTY OWNER. ANY DAMAGE MUST BE REPAIRED BY THE CONTRACTOR TO THE SATISFACTION OF THE CITY OF GAHANNA AT NO COST TO THE CITY OR PROPERTY OWNER.

THE CONTRACTOR SHALL MAKE HIS OWN PROVISIONS TO PROVIDE A SITE STAGING AREA AND JOB TRAILER (IF REQUIRED) FOR THE PROJECT IMPROVEMENTS.

ORANGE CONSTRUCTION FENCING SHALL BE PLACED AROUND THE EXISTING TREES TO BE SAVED AND REMAIN IN PLACE DURING THE DEVELOPMENT CONSTRUCTION. THE LOCATION AND LIMITS OF THE FENCING AND ANY CLEARING NECESSARY SHALL BE AS PER THE APPROVED PLANS.

INCONVENIENCE TO THE ADJACENT PROPERTY OWNERS AND TO THE TRAVELING PUBLIC SHALL BE KEPT TO AN ABSOLUTE MINIMUM. ALL WORK IS TO CONTINUE ON A UNIFORM BASIS AND ON SCHEDULE, PARTICULARLY THE RESTORATION AND CLEAN UP OF DISTURBED AREAS AFTER CONSTRUCTION.

#### ITEM SPECIAL - SEDIMENT AND EROSION CONTROL

THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING, INSTALLING, INSPECTION, MAINTAINING AND REMOVING TREE PROTECTION ZONE FENCING, ORANGE CONSTRUCTION FENCE, AND ALL TEMPORARY SEDIMENT AND EROSION CONTROLS FOR THE WORK AS REQUIRED BY GOVERNING LOCAL, STATE AND FEDERAL AGENCIES AS WELL AS ITEM 207 OF THE CMSC. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PAYMENT OF ANY PERMIT FEES ASSOCIATED WITH THE SEDIMENT AND EROSION CONTROLS. ALL EXPENDITURES REQUIRED FOR THIS WORK SHALL BE PAID FOR UNDER THE LUMP SUM CONTRACT PRICE FOR ITEM SPECIAL - SEDIMENT AND EROSION CONTROL. ANTICIPATED AREA OF DISTURBANCE <1.0 ACRES.

#### UTILITIES:

THE CONTRACTOR SHALL GIVE NOTICE TO THE OHIO UTILITIES PROTECTION SERVICE (PHONE 1-800-362-2764) AND TO THE OWNERS OF THE UTILITY FACILITIES SHOWN ON THE PLAN WHO ARE NOT MEMBERS OF A REGISTERED UTILITY PROTECTION SERVICE. THE ABOVE MENTIONED NOTICE SHALL BE GIVEN AT LEAST 48 HOURS PRIOR TO THE START OF CONSTRUCTION

THE CONTRACTOR IS RESPONSIBLE FOR THE INVESTIGATION, LOCATION, SUPPORT, PROTECTION, AND RESTORATION OF ALL EXISTING UTILITIES AND APPURTENANCES WHETHER SHOWN ON THESE PLANS OR NOT. THE COST OF THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR THE VARIOUS RELATED ITEMS. THE CONTRACTOR SHALL EXPOSE ALL UTILITIES OR STRUCTURES PRIOR TO CONSTRUCTION TO VERIFY THE VERTICAL AND HORIZONTAL EFFECTS ON THE PROPOSED CONSTRUCTION. THE CONTRACTOR SHALL GIVE NOTICE TO OUPS AND OTHER UTILITY OWNERS PER THE GENERAL NOTES.

WHERE POTENTIAL GRADE CONFLICTS MIGHT OCCUR WITH EXISTING UTILITIES, THE CONTRACTOR SHALL EXPOSE AND VERIFY THE DEPTH OF THE EXISTING UTILITY IN ADVANCE OF THE PROPOSED CONSTRUCTION.

THE IDENTITY AND LOCATIONS OF EXISTING UNDERGROUND UTILITIES IN THE CONSTRUCTION AREA HAVE BEEN SHOWN ON THE APPROVED CONSTRUCTION DRAWINGS AS ACCURATELY AS PROVIDED BY THE UTILITY OWNER. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OR DEPTHS OF UNDERGROUND FACILITIES SHOWN ON THE APPROVED CONSTRUCTION DRAWINGS. IF DAMAGE IS CAUSED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR OF THE SAME AND FOR ANY RESULTING CONTINGENT DAMAGE.

THE FOLLOWING UTILITIES AND OWNERS ARE LOCATED WITHIN THE WORK LIMITS OF THIS PROJECT AND ARE REGISTERED MEMBERS OF THE UNDERGROUND UTILITY PROTECTION SERVICE:

UTILITY	OWNER	CONTACT INFO
WATER FACILITIES	CITY OF GAHANNA WATER DIVISION	200 S. HAMILTON RD GAHANNA, OH 43230 P:(614)342-4440 F:(614)342-4100
SEWER FACILITIES	CITY OF GAHANNA SEWER DIVISION	200 S. HAMILTON RD GAHANNA, OH 43230 P:(614)342-4440 F:(614)342-4100
ELECTRIC FACILITIES	AMERICAN ELECTRIC POWER	850 TECH CENTER DR GAHANNA, OH 43230 P:(614)883-6811 F:(614)883-6868
GAS	COLUMBIA GAS OF OHIO	200 CIVIC CENTER DR COLUMBUS, OH 43215 P:(614)460-6000 F:(614)460-4265
TELEPHONE	AT&T	150 E. GAY ST COLUMBUS, OH 43212 P:(800)660-1000 F:(614)223-6296

#### WATER NOTES:

ALL WATER LINE MATERIALS AND INSTALLATIONS SHALL BE IN ACCORDANCE WITH THE CURRENT RULES AND REGULATIONS OF THE CITY OF COLUMBUS, DIVISION OF WATER AND THE DIRECTION OF THE CITY OF GAHANNA.

WATER MAINS AND FIRE HYDRANT LEADS SHALL BE DUCTILE IRON PIPE, CLASS 53 (AWWA C151) WITH CEMENT MORTAR LINING AND SEAL COAT (AWWA C104) OR PVC, CLASS 150 MEETING AWWA C900. JOINTS SHALL BE RUBBER GASKET PUSH-ON MECHANICAL (AWWA C110)

FIRE HYDRANTS SHALL BE SUPPLIED AND INSTALLED IN ACCORDANCE AS SHOWN ON THE CITY OF COLUMBUS L-6409 AND L-6637 STANDARD CONSTRUCTION DRAWINGS. FIRE HYDRANTS SHALL BE MUELLER SUPER CENTURION 250 FIRE HYDRANT, AMERICAN DARLING 4-1/2 MK73 - 5, OR APPROVED EQUAL AND PAINTED GREY AND RED.

ALL WATER SERVICES SHALL BE INSTALLED IN ACCORDANCE AS SHOWN ON THE CITY OF COLUMBUS L-9901 STANDARD CONSTRUCTION DRAWING. TWO BOLT STAINLESS STEEL SERVICE SADDLES SHALL BE PROVIDED FOR ALL WATER SERVICE TAPS.

ALL WATER SERVICES SHALL BE INSTALLED WITH 1-1/2" POLY CONDUIT SLEEVE PIPE.

WATER SUPPLY TO PROPERTIES DURING TRANSFERRING OF WATER SERVICE CONNECTIONS, SHALL ONLY BE SHUT OFF ONCE FOR A 6 HOUR MAXIMUM DURATION.

ALL GATE VALVES SHALL BE RESILIENT SEAT TYPE MANUFACTURED TO MEET OR EXCEED TO REQUIREMENTS OF ANSI/AWWA C509, LATEST REVISION.

WATERLINES SHALL BE LAID WITH A MINIMUM OF 4'-5" OF COVER FROM THE FINISHED GRADE TO THE TOP OF THE WATER LINE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE HORIZONTAL AND VERTICAL DEFLECTIONS OR BENDS OF THE WATER LINES IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS. DEFLECT WATER LINES TO PROVIDE A 1'-6" VERTICAL AND 10'-0" HORIZONTAL CLEARANCE WITH SEWERS.

ALL WATER MAINS SHALL BE TESTED UNDER A MINIMUM HYDROSTATIC TEST OF 150 PSI AND IN ACCORDANCE WITH AWWA C-605 AND CITY OF COLUMBUS CMS ITEM 801.12. NO PRESSURE TEST SHALL BE PERFORMED IF THE TEMPERATURE IS BELOW FREEZING.

THE CONTRACTOR SHALL SUBMIT TWO (2) COPIES OF THE PLANS, RESULTS OF THE PRESSURE TEST AND A LETTER REQUESTING CHLORINATION TO THE CITY OF GAHANNA. COST OF CHLORINATION SHALL BE INCLUDED IN THE PRICE BID FOR THE WATER LINE ITEMS.

NO PERSON SHALL INSTALL OR MAINTAIN A WATER SERVICE CONNECTION WHERE A BOOSTER PUMP HAS BEEN INSTALLED.

ALL MECHANICAL JOINTS ARE REQUIRED TO BE MEGALUGGED. ALL MECHANICAL PIPE DEFLECTIONS ARE REQUIRED TO BE MEGALUGGED, ALL-THREADED, CONCRETE BACKED, AND JOINT RESTRAINTS MAY BE REQUIRED BY THE ENGINEER. THE HYDRANT TEE IS TO BE ALL THREADED TO THE MAINLINE VALVE FOR FUTURE EXPANSION. 1 FULL STICK OF PIPE (20') IS TO BE LAID BEFORE FOR THE PLUG.

INSTALL COPPERHEAD® OR EQUAL 12-GAUGE HIGH STRENGTH 452LB BREAK STRENGTH 30 MIL HDPE JACKET, COPPER-CLAD, STEEL REINFORCED TRACER WIRE ON ALL WATER MAIN AND SERVICE LINES INSTALLED BY TRENCHING METHODS.

INSTALL COPPERHEAD® OR EQUAL 12-GAUGE EXTRA HIGH STRENGTH 1150LB BREAK STRENGTH 45 MIL HDPE JACKET, COPPER-CLAD, STEEL REINFORCED TRACER WIRE ON ALL WATER MAIN AND SERVICE LINES INSTALLED BY BORING METHODS.

FASTEN WIRE TO PIPE IN TWO PLACES PER PIPE SECTION. EXTEND TRACER WIRE TO GROUND SURFACE AT ALL VALVES AND HYDRANTS. SPLICE WIRES USING BURNDY COPPER SPLIT BOLT KS-15. THOROUGHLY WRAP THE CONNECTOR AND BARE WIRES WITH 3M TEMFLEX 2155 RUBBER SPLICING TAPE, COVER ENTIRE CONNECTION WITH SCOTCH SUPER 88 HEAVY DUTY GRADE ELECTRICAL TAPE.

CONNECT ALL SERVICE LINE WIRES TO MAIN LINE WIRES USING BURNDY COPPER SPLIT BOLT KS-15. THOROUGHLY WRAP THE CONNECTOR AND BARE WIRES WITH 3M TEMFLEX 2155 RUBBER SPLICING TAPE, COVER ENTIRE CONNECTION WITH SCOTCH SUPER 88 HEAVY DUTY GRADE ELECTRICAL TAPE.

CONTRACTOR SHALL TEST THE CONTINUITY OF ALL WIRE USING A THIRD-PARTY TESTER. CONTRACTOR SHALL CONTACT THE CITY OF GAHANNA DEPARTMENT OF PUBLIC SERVICE AND ENGINEERING A MINIMUM OF 24 HOURS PRIOR TO TEST. TESTER SHALL SEND A SIGNED REPORT TO CITY OF GAHANNA AFFIRMING ALL WIRE HAS CONTINUITY. CONTRACTOR SHALL REPAIR ALL DEFICIENCIES.

ALL FITTINGS ARE TO BE GPS LOCATED PRIOR TO BACKFILL USING X,Y AND Z COORDINATES.

THE WATER LINE AND SEWER LINE TRENCH UNDER THE INFLUENCE OF PAVEMENT ARE TO BE COMPACTION TESTED.

ALL WATER LINES SHALL BE DISINFECTED IN ACCORDANCE WITH COLS ITEM 801.15. SPECIAL ATTENTION IS DIRECTED TO APPLICABLE SECTIONS OF A.W.W.A. C-651, PARTICULARLY FOR FLUSHING (SECTION 5) AND FOR CHLORINAE VALVES AND FOR FIRE HYDRANTS (SECTION 7). COST OF WORK IS TO BE INCLUDED IN PRICE BID FOR ITEM 801.

THE NORMAL WORKING PRESSURE OF THE SYSTEM SHALL NOT DECREASE BELOW 35 PSI.

THE SYSTEM IS DESIGNED TO MAINTAIN A MINIMUM PRESSURE OF 20 PSI AT GROUND LEVEL AT ALL POINTS IN THE SYSTEM UNDER ALL CONDITIONS OF FLOW.

ALL FIRE HYDRANT DRAINS SHALL BE FITTED WITH A WATERTIGHT PLUG.

# SANITARY SEWER NOTES:

SERVICE RISERS, ITEM 914, SHALL BE INSTALLED WHERE DEPTHS FROM THE WYES TO THE EXISTING OR PROPOSED ELEVATIONS EXCEED 10'. THE TOPS OF RISERS SHALL BE NO MORE THAN ±9' BELOW THE EXISTING OR PROPOSED SURFACE ELEVATION, WHICHEVER IS HIGHER

A MINIMUM VERTICAL CLEARANCE OF 1.5' SHALL BE PROVIDED BETWEEN THE PROPOSED SANITARY SERVICE AND EXISTING UTILITIES OR STRUCTURES UNLESS OTHERWISE NOTED ON THESE PLANS.

CONFORMANCE WITH THE REQUIREMENTS OF ITEM 901 OF THE CITY OF COLUMBUS, CONSTRUCTION AND MATERIAL SPECIFICATIONS, CURRENT VERSION.

PIPE FOR ALL 6" SANITARY SERVICES SHALL BE PVC SEWER PIPE ASTM D-3034, SDR-35. THE

ALL PVC SEWER LINES SHALL BE DEFLECTION TESTED AFTER INSTALLATION IN

SERVICES SHALL BE FIELD TESTED BY THE INFILTRATION, EXFILTRATION OR AIR TEST.

ALL PIPES SHALL BE LAID WITH TYPE 1 GRANULAR MATERIAL BEDDING AND BACKFILL AS

ALL VISIBLE VALVE BOXES, FIRE HYDRANTS, AND CURB BOXES ON THE WATER MAIN TO BE ABANDONED, WHICH WILL NO LONGER BE IN SERVICE, SHALL BE REMOVED. FIRE HYDRANTS SHALL BE DELIVERED TO THE OWNER. ALL WATER MAINS TO BE ABANDONED SHALL BE MADE WATERTIGHT. THE COST TO ABANDON THE EXISTING WATER MAIN, REMOVE ABANDONED VALVE AND CURB BOXES, REMOVE HYDRANTS, AND DELIVER HYDRANTS TO OWNER IS TO BE INCLUDED IN THE PRICE BID UNDER ITEM 801. THE REQUIRED SURFACE

RESTORATION SHALL BE PAID FOR UNDER THE APPROPRIATE BID ITEM(S).

SHOWN ON STANDARD CONSTRUCTION CITY OF COLUMBUS AA-S151. INSTALLATION SHALL

#### STORM SEWER NOTES:

ANY PLACEMENT OF STORM SEWERS BENEATH EXISTING OR PROPOSED PAVEMENT SHALL BE BACKFILLED IN ACCORDANCE WITH COLUMBUS CMS ITEM 912, COMPACTED GRANULAR BACKFILL.

ALL PIPES SHALL BE LAID WITH TYPE 1 GRANULAR MATERIAL BEDDING AND BACKFILL AS SHOWN ON STANDARD CONSTRUCTION CITY OF COLUMBUS AA-S151. INSTALLATION SHALL CONFORM TO CMS SECTION 901.

ALL CONCRETE PIPE AND STORM SEWER STRUCTURES SHALL BE STAMPED OR HAVE SUCH IDENTIFICATION NOTING THAT SAID PIPE AND/OR STORM STRUCTURES HAVE BEEN INSPECTED BY THE CITY OF COLUMBUS AND MEETS THEIR SPECIFICATIONS. PIPE AND STRUCTURES WITHOUT PROPER IDENTIFICATION WILL NOT BE PERMITTED FOR INSTALLATION.

ALL CURB INLETS AND MANHOLES SHALL BE CHANNELED AS DIRECTED. THE COST FOR THIS WORK IS TO BE INCLUDED IN THE PRICE BID FOR VARIOUS STORM SEWER ITEMS.

IN CASE OF CONFLICT IN GRADE BETWEEN WATER LINES AND STORM SEWERS, THE WATER LINES SHALL BE LOWERED DURING CONSTRUCTION.

ALL PLASTIC SEWER LINES SHALL BE DEFLECTION TESTED AFTER INSTALLATION IN CONFORMANCE WITH THE REQUIREMENTS OF COLUMBUS CMS ITEM 901.

# MAINTENANCE OF TRAFFIC:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION AND SAFE MOVEMENT OF PEDESTRIANS THROUGH, AROUND AND AWAY FROM THE CONSTRUCTION SITE AS DESIGNATED IN SECTION 60.01 OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (OMUTCD).

THE SAFETY OF PEDESTRIAN TRAFFIC SHALL BE CONSIDERED AT ALL TIMES IN THE PROVISION OF TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS AND NOTES. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE LIGHTS, SIGNS, BARRICADES AND OTHER WARNINGS TO PHYSICALLY SEPARATE THE PEDESTRIAN FROM HAZARDS INCIDENTAL TO THE CONSTRUCTION OPERATIONS SUCH AS OPEN EXCAVATIONS, ETC.

ALL TRAFFIC CONTROL DEVICES SHALL BE FURNISHED, ERECTED, MAINTAINED AND REMOVED BY THE CONTRACTOR IN ACCORDANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (OMUTCD) FOR CONSTRUCTION AND MAINTENANCE OPERATIONS. ALL DEVICES SHALL MEET FP-85 REFLECTANCE STANDARDS AND IN FULL COMPLIANCE WITH "QUALITY STANDARDS FOR WORK ZONE TRAFFIC CONTROL DEVICES" PUBLISHED BY ATTSSA. ALL TRAFFIC CONTROL DEVICES MUST MEET NCHRP 350.

STEADY BURNING, TYPE "C" LIGHTS SHALL BE REQUIRED ON ALL BARRICADES, DRUMS AND SIMILAR TRAFFIC CONTROL DEVICES IN USE AT NIGHT. ALL SIGNS, NINE SQUARE FEET (36" X 36") AND OVER SHALL HAVE YELLOW TYPE "A" LOW INTENSITY FLASHING WARNING LIGHTS AND THREE FLAGS. CONES ARE NOT APPROVED FOR USE AT NIGHT.

THE ROADWAY SHALL NOT BE OPENED TO TRAFFIC UNTIL PERMANENT TRAFFIC CONTROLS ARE IN PLACE OR UNTIL TEMPORARY TRAFFIC CONTROLS APPROVED BY THE INSPECTOR ARE INSTALLED. THE CONTRACTOR ASSUMES ALL LIABILITY FOR THE PREMATURE REMOVAL OF TEMPORARY TRAFFIC CONTROLS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REINSTALLATION AND/OR REPLACEMENT OF ALL PERMANENT TRAFFIC CONTROL DEVICES DAMAGED OR REMOVED DURING THE CONSTRUCTION. PERMANENT TRAFFIC CONTROLS NO LONGER IN CONFLICT WITH TEMPORARY TRAFFIC CONTROLS SHALL BE REPLACED IMMEDIATELY.

ALL PERMANENT TRAFFIC CONTROLS NOT IN CONFLICT WITH THE TEMPORARY TRAFFIC CONTROLS SHALL BE MAINTAINED THROUGHOUT THE PROJECT BY THE CONTRACTOR. THE CONTRACTOR SHALL ASSUME ALL LIABILITY FOR MISSING, DAMAGED, AND IMPROPERLY PLACED TRAFFIC CONTROL DEVICES.

ALL TRENCHES WITHIN THE ROAD RIGHT-OF-WAY SHALL BE BACKFILLED OR SECURELY PLATED DURING NON-WORKING HOURS.

ALL LANES SHALL BE FULLY OPEN TO TRAFFIC ON ALL PUBLIC STREETS AND ALLEYS UNLESS OTHERWISE APPROVED BY THE CITY OF GAHANNA.

ANY WORK DONE BY THE CITY INCLUDING INSTALLATION, RELOCATION, REMOVAL AND/OR REPLACEMENT OF PERMANENT TRAFFIC CONTROL DEVICES AS A RESULT OF WORK DONE BY THE CONTRACTOR OR AS A RESULT OF THE NEGLIGENCE OF THE CONTRACTOR SHALL BE AT THE EXPENSE OF THE CONTRACTOR.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING AND CONTROLLING TRAFFIC ON ALL STREETS AND ROADS AFFECTED BY CONSTRUCTION AND SHALL, PRIOR TO ANY CONSTRUCTION, SUBMIT A CONSTRUCTION SCHEDULE, MOT/DETOUR PLAN TO THE OWNER FOR APPROVAL INDICATING DATES AND DURATION OF EACH PHASE OF CONSTRUCTION.

LOCAL TRAFFIC SHALL HAVE ACCESS TO THEIR RESPECTIVE PROPERTIES AT ALL TIMES. THE CONTRACTOR SHALL COORDINATE DRIVEWAY REPLACEMENT WITH PROPERTY OWNERS AND PROVIDE THEM SUFFICIENT PRIOR NOTICE BEFORE CLOSING ANY PRIVATE DRIVES. NO PRIVATE DRIVES MAY BE CLOSED FOR MORE THAN SEVEN (7) CONSECUTIVE HOURS AND SHALL BE OPEN TO TRAFFIC AT THE END OF EACH WORKING DAY. NO SEPARATE PAYMENT WILL BE MADE.

#### ITEM SPECIAL - SURVEY COORDINATES

"ITEM SPECIAL - SURVEY COORDINATES" SHALL INCLUDE ALL MATERIAL, EQUIPMENT, AND LABOR NECESSARY TO OBTAIN HORIZONTAL AND VERTICAL (NORTHING, EASTING, AND CENTERLINE OF PIPE ELEVATION) SURVEY COORDINATES FOR THE WATER MAIN IMPROVEMENTS. THE SURVEY COORDINATES SHALL BE OBTAINED FOR THE COMPLETED WATER MAIN CONSTRUCTION AND SHALL INCLUDE ALL VALVES, TEES, CROSSES, BENDS, HORIZONTAL DEFLECTIONS, PLUGS, REDUCERS, TAPPING SLEEVES, FIRE HYDRANTS, AIR RELEASES, CURB STOPS, AND CASING PIPE TERMINI. ADDITIONAL SURVEY COORDINATES ARE REQUIRED ON THE WATER MAIN EVERY 200 FEET WHERE NO FITTING OR OTHER WATER MAIN STRUCTURE IS BEING INSTALLED WITHIN THAT LENGTH OF THE IMPROVEMENT.

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

THE COORDINATES SHALL BE DOCUMENTED TO THE ENGINEER IN DIGITAL SPREADSHEET FORM AND SHALL INCLUDE THE APPLICABLE ITEM, STATION, NORTHING, EASTING, AND CENTERLINE OF PIPE ELEVATION. COORDINATES SHALL BE SUBMITTED TO THE ENGINEER ON A BI-WEEKLY BASIS.

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

#### ITEM SPECIAL - VALVE ABANDONED IN PLACE

THE WORK INCLUDED UNDER THIS ITEM INCLUDES FURNISHING ALL LABOR, MATERIAL, AND EQUIPMENT FOR ABANDONMENT OF EXISTING VALVES AND VALVE BOXES, INCLUDING EXCAVATION, ROCK EXCAVATION, BACKFILLING, TEMPORARY PAVING, ALL OTHER ASSOCIATED WORK AND ALL OTHER ITEMS NOT IDENTIFIED IN OTHER PAY ITEMS IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS.

MEASUREMENT WILL BE MADE PER EACH VALVE ABANDONED IN PLACE COMPLETE.

PAYMENT WILL BE MADE AT THE CONTRACT UNIT PRICE PER EACH FOR A VALVE ABANDONED IN PLACE AS STATED IN THE BID SCHEDULE COMPLETE.

your trusted advisor

Consultants archite

 ISSUED FOR:
 BIDDING
 NO
 REVISION
 DATE

 ISSUE DATE:
 1/23/2023
 1/1/08/2021
 11/08/2021

 SCALE:
 NONE
 \$ SURVEY COORDINATES TABLE ADDED TO SHEET 3
 1/23/2023

 DESIGNED BY:
 AGD
 REVISED SHEET NAME
 1/23/2023

 DRAWN BY:
 AGD
 REVISED SHEET NAME
 1/23/2023

 CHECKED BY:
 BRA
 REVISED SHEET NAME
 1/23/2023

HAVENS CORNERS RD.
WATERLINE REPLACEMEN
- FRANKLIN COUNTY -

GENERAL
SHEET NAME
G-02
SHEET OF

23

PROJECT NO.

200145

DISCIPLINE

IMPROVEMENT # : ST-1072

C:\CT\CAD\\_DRIVES\\_H\2020\:200145\DWG\SHEETS\C\_200145 - GENERAL NOTES.DWG - G-02 - 2/6/2023 3:22:29 PM - ADAM DAWSON

SPEC	DESCRIPTION	UNIT	QUANTITY
202	CONCRETE WALK REMOVED	SF	441
202	CURB REMOVED	LF	50
202	CURB AND GUTTER REMOVED	LF	72
259	PAVEMENT REPAIR (TYPE IIIA - ASPHALT DRIVEWAYS)	CY	7
259	PAVEMENT REPAIR (TYPE IIIB - CONCRETE DRIVEWAYS)	CY	5
259	PERMANENT PAVEMENT (TYPE I - ASPHALT)	CY	278
608	CURB RAMPS	SF	36
608	DETECTABLE WARNING TYPE E	SF	8
608	CONCRETE WALK	SF	660
609	CURB, STRAIGHT 18"	LF	10
609	COMBINATION CURB AND GUTTER	LF	72
614	MAINTAINING TRAFFIC	LS	1
614	DETOUR SIGNING	LS	1
614	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	LS	1
615	TEMPORARY PAVEMENT	SY	397
623	CONSTRUCTION LAYOUT STAKES AND SURVEYING	LS	1
624	MOBILIZATION	LS	1
644	EDGE LINE, 4 INCH	MI	0.35
644	STOP LINE	FT	12
644	CENTER LINE	MI	0.05
659	SEEDING AND MULCH, CLASS 1	LS	1
801	6" WATER PIPE AND FITTINGS	LF	544
801	8" WATER PIPE AND FITTINGS (DR18 CL235 C900 PVC)	LF	20
801	12" WATER PIPE AND FITTINGS (DR18 CL235 C900 PVC)	LF	1513
801	12" WATER PIPE AND FITTINGS (RESTRAINED JOINT - DR 18 CL235 C900 PVC)	LF	1821
802	6" VALVE AND APPURTENANCES	EA	14
802	8" VALVE AND APPURTENANCES	EA	2
802	12" VALVE AND APPURTENANCES	EA	12
805	3/4 INCH CURB STOP	EA	31
805	CURB BOX	EA	31
805	3/4 INCH WATER TAP	EA	31
805	3/4 INCH WATER SERVICE LINE TRANSFER	EA	31
808	CUT AND PLUG (CAP) 8 INCH WATER MAIN OR WATER TAP	EA	3
809	6" FIRE HYDRANT	EA	10
809	FIRE HYDRANT, REMOVED	EA	8
SPEC	VALVE ABANDONED IN PLACE	EA	16
SPEC	SEDIMENT AND EROSION CONTROL	LS	1

Sheet	Description	Plan	Field	Field	Field	Field	Field
meet	Description	Station	Station	Offset	Northing	Easting	CL Ele
12	12" to 8" reducer	0+96.53					
12	12" gate valve	0+99					
12	45 vertical bend	1+15					
12	45 vertical bend	1+24					
12	45 vertical bend	1+85					
	45 vertical bend	1+94					
12	12" x 12" x 6" tee to 6" hydrant	2+37					
12	6" watch valve	2+37					
	4-1/2" hydrant	2+37					
	Water service connection	2+60					
	Water service connection	3+19					
	12" gate valve	5+40					
	12" x 12" x 6" tee to 6" hydrant	5+47					
	6" watch valve	5+47					
	4-1/2" hydrant	5+45					
	12" x 12" x 6" tee- Southwind Dr.	6+75					
	6" gate valve- Southwind Dr.	6+75					
	45 bend- Southwind Dr.	6+75					
	45 bend- Southwind Dr.	6+70					
	12" x 12" x 6" tee to 6" hydrant	8+66					-
	6" watch valve	8+66					
	4-1/2" hydrant	8+64					-
	12" gate valve	8+69				1	
	12" x 12" x 6" tee to Savern Pl.	8+83					
	45 bend- Savern Pl.	8+83				1	
	6" gate valve- Savern Pl.	8+85					
175	45 bend- Savern Pl.	8+88					
	12" gate valve	9+35					
	Water service connection	10+28					
	Water service connection	10+58					
	Water service connection Water service connection	11+48					
		11+58					
	12" x 12" x 6" tee to 6" hydrant 6" watch valve	12+70					
	4-1/2" hydrant	12+70 12+70					
	Water service connection	12+70					
	Water service connection	13+23					
	Water service connection	13+25					
	Water service connection	15+49					
	12" gate valve	15+55					
	12" x 12" x 6" tee to St. Stephens Ct.	15+92					
	6" gate valve- St. Stephens Ct.	15+92					
	12" gate valve	16+05					
	12" x 12" x 6" tee to 6" hydrant	16+87					
	6" watch valve	16+87					
	4-1/2" hydrant	16+85					
	Water service connection	18+84					
	12" gate valve	18+93					
	12" x 12" x 6" tee to St. Martin Ct.	19+32					
	6" gate valve- St. Martin Ct.	19+32					
	12" gate valve	19+45					
	Water service connection	19+64					
	12" x 12" x 6" tee to 6" hydrant	20+64					
	Water service connection	20+97					
16	Water service connection	21+35					
16	Water service connection	22+18					
16	Water service connection	23+05					
	Water service connection	23+24					
16	12" gate valve	23+56					
16	12" x 12" x 8" tee to Jonsol Ct.	24+71					
16	8" gate valve- Jonsol Ct.	24+71					
16	12" gate valve	24+77					
17	Water service connection	26+45					
17	12" x 12" x 6" tee to 6" hydrant	28+81					
18	12" x 12" x 6" tee to 6" hydrant	32+72					
18	12" x 6" tee to St. Mathews Church	33+39					
18	45 bend	33+39					
18	6" gate valve- St. Mathews	33+36					
18	45 bend	33+34					
18	12" gate valve	33+73					
18	12" x 12" x 12" tee at Helmbright Dr.	33+75					
18	12" gate valve	33+77					
10	i	22.00					
	22.5 deg. horiz. bend	33+86				<u> </u>	

	FIE	LD INSTALL	<b>ATION SUI</b>	RVEY COOP	RDINATES		
Sheet	Description	Plan	Field	Field	Field	Field	Field
Silect	Description	Station	Station	Offset	Northing	Easting	CL Elev.
	ST. STEPHENS COURT						
19	Water service connection	0+79					
19	Water service connection	1+15					
19	Water service connection	1+73					
19	Water service connection	1+74					
19	Water service connection	2+17					
19	Water service connection	2+18					
19	6" watch valve	2+24					
19	5-1/4" hydrant	2+26					
	ST. MARTIN COURT						
20	Water service connection	0+87					
20	Water service connection	1+15					
20	Water service connection	1+73					
20	Water service connection	1+74					
20	45 deg horiz. Bend	2+00					
20	Water service connection	2+03					
20	Water service connection	2+19					
20	6" watch valve	2+23					
20	5-1/4" hydrant	2+25					



	21	8				
DATE	11/08/2021	1/23/2023				
REVISION	OEPA CONFORMANCE	SURVEY COORDINATES TABLE ADDED TO SHEET 3 & REVISED SHEET NAME				
ON	4	$\sqrt{2}$				
BIDDING	1/23/2023	NONE	AGD	AGD	BRA	
ISSUED FOR:	ISSUE DATE:	SCALE:	DESIGNED BY:	DRAWN BY:	CHECKED BY:	

GENERAL

SHEET NAME

G-03

SHEET OF

3 23

PROJECT NO.

200145

DISCIPLINE

IMPROVEMENT # : ST-1072 **3** 

ITEM 614, MAINTAINING TRAFFIC

THIS PROJECT INVOLVES THE CONSTRUCTION OF A 12"
WATERLINE. THE CONTRACTOR SHALL USE TA-6 SIGNING
FROM THE OMUTCD FOR NORMAL CONSTRUCTION ACTIVITIES
FROM APPROXIMATE STA. 7+00 TO APPROXIMATE STA.
27+00. FROM THE BEGINNING OF THE PROJECT TO
APPROXIMATE STA. 7+00 AND FROM APPROXIMATE STA.
27+00 TO THE END OF THE PROJECT, THE CONTRACTOR
SHALL USE A TEMPORARY LANE SHIFT AS PER OHIO
STANDARD CONSTRUCTION DRAWING MT-95.61. THE
MAJORITY OF THE WORK WILL BE COMPLETED BETWEEN THE
PAVEMENT AND RIGHT OF WAY.

TRAFFIC TO DRIVES AND PUBLIC ROADWAY SHALL BE MAINTAINED AT ALL TIMES USING THE EXISTING PAVEMENT. FLAGGERS. OR PLATING. NO LANE RESTRICTIONS SHALL BE IN PLACE DURING PEAK HOURS (6-9 AM, 3-6 PM) OR DURING THE ARRIVAL/DEPARTURE OF SCHOOL TRAFFIC. PART WIDTH CONSTRUCTION MAY BE REQUIRED TO MAINTAIN ACCESS AT ALL TIMES. ALL PAVEMENT TRENCHES SHALL HAVE FINAL BACKFILL AND PAVEMENT MATERIAL IN PLACE WITHIN FIVE CALENDAR DAYS OF DISTURBANCE. IN THE AREAS WHERE TA-6 CAN BE IMPLEMENTED, A SHADOW VEHICLE WITH TRUCK-MOUNTED ATTENUATOR WILL BE REQUIRED. THE CONTRACTOR SHALL COORDINATE WITH THE PROJECT ENGINEER AND THE PROPERTY OWNERS INVOLVING ALL DRIVE ACCESS RESTRICTIONS A MINIMUM OF 48 HOURS PRIOR. CARE SHALL BE TAKEN TO MINIMIZE ANY BACKUPS AT THE HAMILTON ROAD INTERSECTION CAUSED BY THE CONTRACTOR.

THE ENTRANCE TO HELMBRIGHT DRIVE SHALL BE CLOSED TO TRAFFIC WHILE WORK IS BEING COMPLETED AT THAT INTERSECTION. HELMBRIGHT DRIVE TRAFFIC SHALL BE REROUTED AS PER THE DETOUR PLAN. WORK AT THE HELMBRIGHT DRIVE INTERSECTION SHALL ONLY BE COMPLETED DURING NIGHT-TIME HOURS.

LENGTH AND DURATION OF LANE CLOSURES AND
RESTRICTIONS SHALL BE AT THE APPROVAL OF THE
ENGINEER. IT IS THE INTENT TO MINIMIZE THE IMPACT TO
THE TRAVELING PUBLIC. LANE CLOSURES OR RESTRICTIONS
OVER SEGMENTS OF THE PROJECT IN WHICH NO WORK IS
ANTICIPATED WITHIN A REASONABLE TIME FRAME, AS
DIRECTED BY THE ENGINEER, SHALL NOT BE PERMITTED.
THE LEVEL OF UTILIZATION OF MAINTENANCE OF TRAFFIC
DEVICES SHALL BE COMMENSURATE WITH THE WORK IN
PROGRESS.

FLAGGING OPERATIONS SHALL MEET THE REQUIREMENTS
SHOWN ON STD. DWG. MT-97-10. LENGTHS OF FLAGGING
OPERATIONS SHALL BE LIMITED TO 500'. ADDITIONAL
FLAGGERS MAY BE REQUIRED IF A CLOSURE ZONE HAS AN
INTERSECTION LOCATED WITHIN IT.

ANY EXISTING FEATURE, IE, SIDEWALK, MAILBOXES, SIGNING, ETC. DAMAGED BY THE CONTRACTOR DURING CONSTRUCTION SHALL BE REPLACED PER CURRENT ODOT SPECIFICATIONS AND STANDARD DRAWINGS TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH C&MS 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGNS, AS
PER PLAN

THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN
AND REMOVE, WHEN NO LONGER NEEDED, A CHANGEABLE
MESSAGE SIGN. THE SIGN SHALL BE OF A TYPE SHOWN ON
A LIST OF APPROVED PCMS UNITS AVAILABLE ON THE
OFFICE OF MATERIALS MANAGEMENT WEB PAGE. THE LIST
CONTAINS CLASS A AND B UNITS WITH MINIMUM
LEGIBILITY DISTANCES OF 800 FEET AND 650 FEET,
RESPECTIVELY.

EACH SIGN SHALL BE TRAILER-MOUNTED AND EQUIPPED
WITH A FUNCTIONAL DIMMING MECHANISM, TO DIM THE
SIGN DURING DARKNESS, AND A TAMPER AND VANDAL
PROOF ENCLOSURE. EACH SIGN SHALL BE PROVIDED WITH
APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO
ENABLE ON-SITE PERSONNEL TO OPERATE AND
TROUBLESHOOT THE UNIT. THE SIGN SHALL ALSO BE
CAPABLE OF BEING POWERED BY AN ELECTRICAL SERVICE
DROP FROM A LOCAL UTILITY COMPANY. THE PCMS SHALL
BE DELINEATED IN ACCORDANCE WITH C&MS 614.03.

PLACEMENT, OPERATION, MAINTENANCE AND ALL
ACTIVATION OF THE SIGNS BY THE CONTRACTOR SHALL BE
AS DIRECTED BY THE ENGINEER. THE PCMS SHALL BE
LOCATED IN A HIGHLY VISIBLE POSITION YET PROTECTED
FROM TRAFFIC. THE CONTRACTOR SHALL, AT THE
DIRECTION OF THE ENGINEER, RELOCATE THE PCMS TO
IMPROVE VISIBILITY OR ACCOMMODATE CHANGED
CONDITIONS. WHEN NOT IN USE, THE PCMS SHALL BE
TURNED OFF. ADDITIONALLY, WHEN NOT IN USE FOR
EXTENDED PERIODS OF TIME, THE PCMS SHALL BE TURNED
AWAY FROM ALL TRAFFIC.

THE ENGINEER SHALL BE PROVIDED ACCESS TO EACH SIGN
UNIT AND SHALL BE PROVIDED WITH APPROPRIATE
TRAINING AND OPERATION INSTRUCTIONS TO ENABLE CITY
PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT,
AND TO REVISE SIGN MESSAGES, IF NECESSARY.

THE CONTRACTOR SHALL IMPLEMENT A SYSTEM WHEREBY CHANGEABLE MESSAGES WILL BE IMPLEMENTED WITHIN 4 HOURS FOLLOWING TELEPHONE NOTIFICATION FROM THE PROJECT ENGINEER TO A DESIGNATED PHONE.

ALL MESSAGES TO BE DISPLAYED ON THE SIGN WILL BE PROVIDED BY THE ENGINEER. A LIST OF ALL REQUIRED PRE-PROGRAMMED MESSAGES WILL BE GIVEN TO THE CONTRACTOR AT THE PROJECT PRECONSTRUCTION CONFERENCE. THE SIGN SHALL HAVE THE CAPABILITY TO STORE UP TO 99 MESSAGES. MESSAGE MEMORY OR PRE-PROGRAMMED DISPLAYS SHALL NOT BE LOST AS A RESULT OF POWER FAILURES TO THE ON-BOARD COMPUTER. THE SIGN LEGEND SHALL BE CAPABLE OF BEING CHANGED IN THE FIELD. THREE-LINE PRESENTATION FORMATS WITH UP TO SIX MESSAGE PHASES SHALL BE SUPPORTED. PCMS FORMAT SHALL PERMIT THE COMPLETE MESSAGE FOR EACH PHASE TO BE READ AT LEAST TWICE.

THE PCMS SHALL CONTAIN AN ACCURATE CLOCK AND PROGRAMMING LOGIC WHICH WILL ALLOW THE SIGN TO BE ACTIVATED, DEACTIVATED OR MESSAGES CHANGED AUTOMATICALLY AT DIFFERENT TIMES OF THE DAY FOR DIFFERENT DAYS OF THE WEEK.

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGNS, AS PFR PLAN (CONT)

THE PCMS UNIT SHALL BE MAINTAINED IN GOOD WORKING ORDER BY THE CONTRACTOR IN ACCORDANCE WITH THE PROVISIONS OF C&MS 614.07. THE CONTRACTOR SHALL. PRIOR TO ACTIVATING THE UNIT. MAKE ARRANGEMENTS. WITH AN AUTHORIZED SERVICE AGENT FOR THE PCMS. TO ASSURE PROMPT SERVICE IN THE EVENT OF FAILURE. ANY FAILURE SHALL NOT RESULT IN THE SIGN BEING OUT OF SERVICE FOR MORE THAN 12 HOURS, INCLUDING WEEKENDS. FAILURE TO COMPLY MAY RESULT IN AN ORDER TO STOP WORK AND OPEN ALL TRAFFIC LANES AND/OR IN THE CITY TAKING APPROPRIATE ACTION TO SAFELY CONTROL TRAFFIC. THE ENTIRE COST TO CONTROL TRAFFIC. ACCRUED BY THE CITY DUE TO THE CONTRACTOR'S NONCOMPLIANCE, WILL BE DEDUCTED FROM MONEYS DUE, OR TO BECOME DUE THE CONTRACTOR ON HIS CONTRACT.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR

24-HOUR-PER-DAY OPERATION AND MAINTENANCE OF THESE

SIGNS ON THE PROJECT FOR THE DURATION OF THE

PHASES WHEN THE PLAN REQUIRES THEIR USE.

PAYMENT FOR THE ABOVE DESCRIBED ITEM SHALL BE AT THE CONTRACT UNIT PRICE. PAYMENT SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, FUELS, LUBRICATING OILS, SOFTWARE, HARDWARE, AND INCIDENTALS TO PERFORM THE ABOVE DESCRIBED WORK.

PAYMENT FOR THE ABOVE DESCRIBED ITEM SHALL BE FOR 2 SIGN MONTHS ASSUMING 2 PCMS SIGNS FOR 1 MONTH.



your trusted advisor

Consultants archite

	<b>&gt;</b>	ISSUE DATE: 1	1/23/2023	V)	OEPA CONFORMANCE
PROJE	- FRANKLIN COUNTY -	SCALE:	NONE	2	SURVEY COORDINATES TABLE ADDE & REVISED SHEET NAME
CT NO.		DESIGNED BY:	DJR		
	ZY	DRAWN BY:	JDC		
	GENERAL NOTES	CHECKED BY:	DJR		

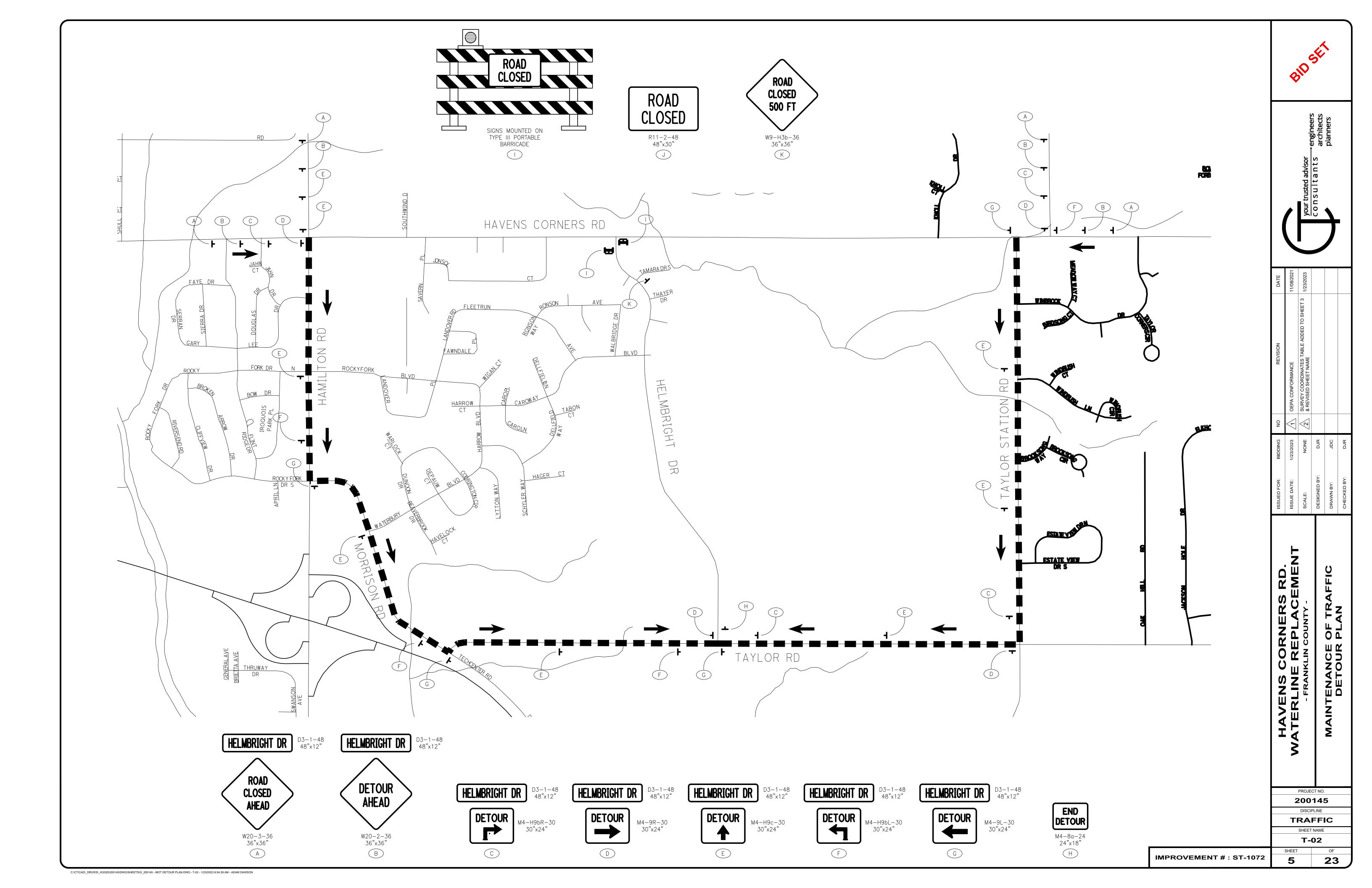
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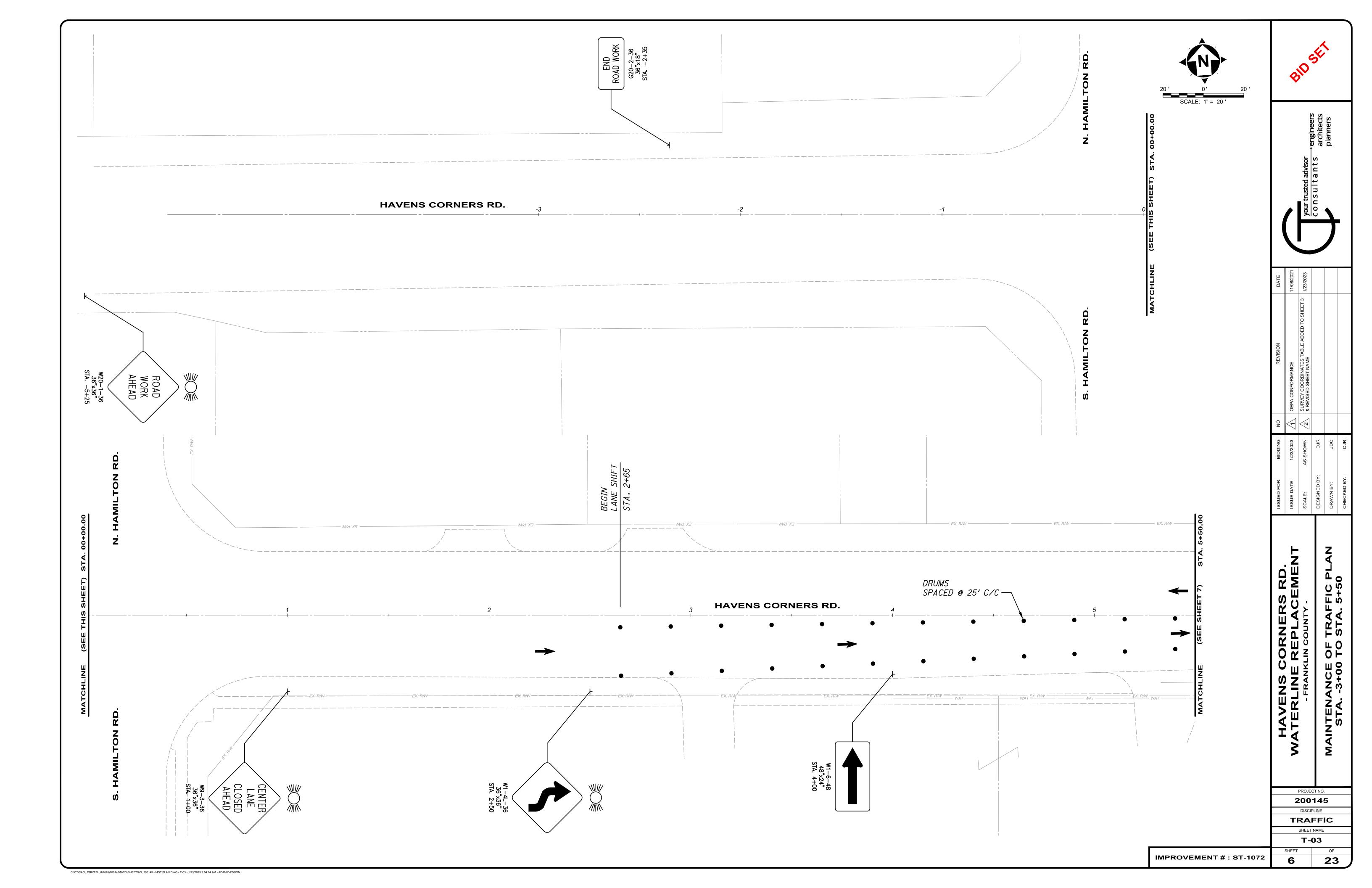
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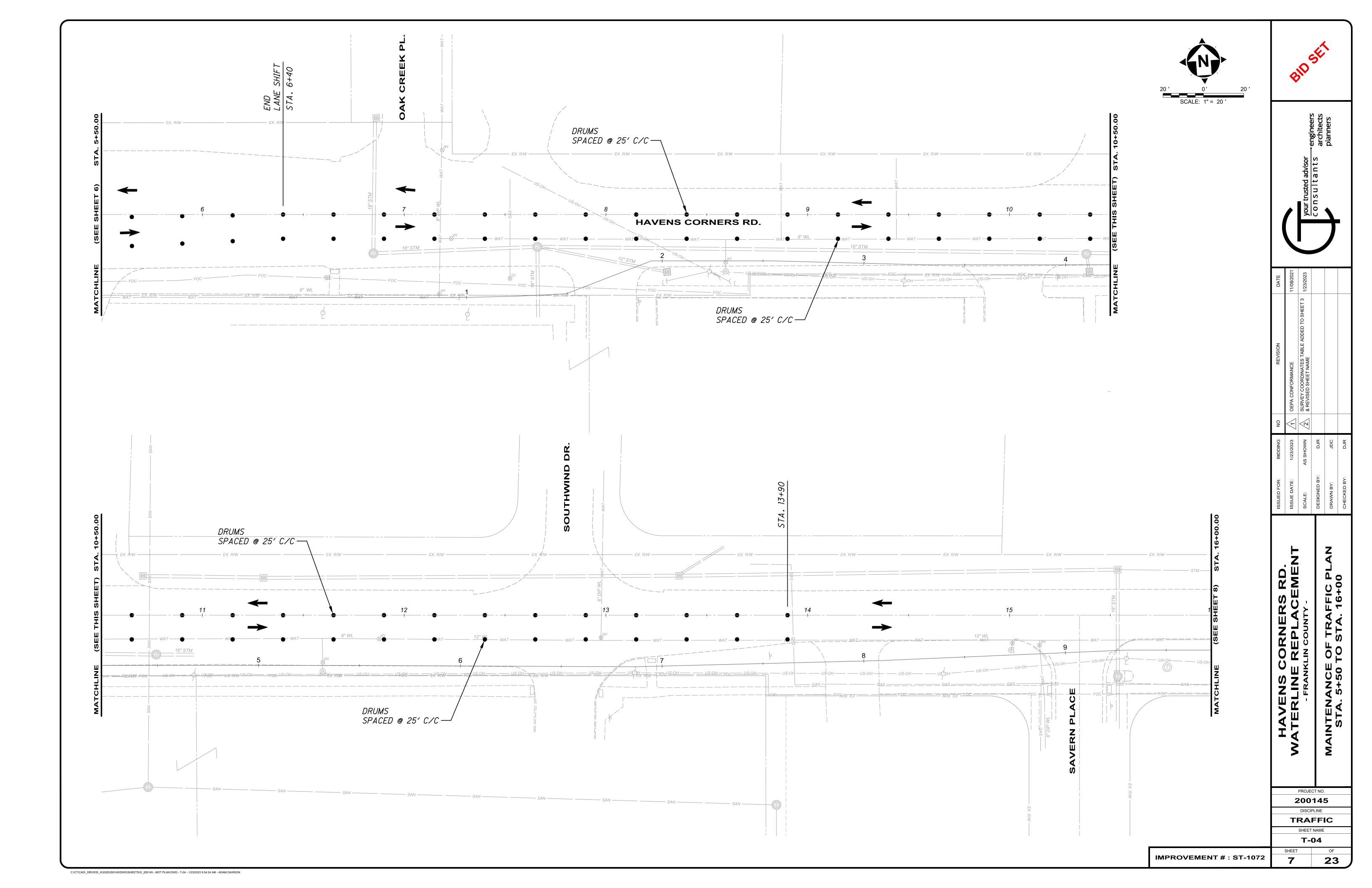
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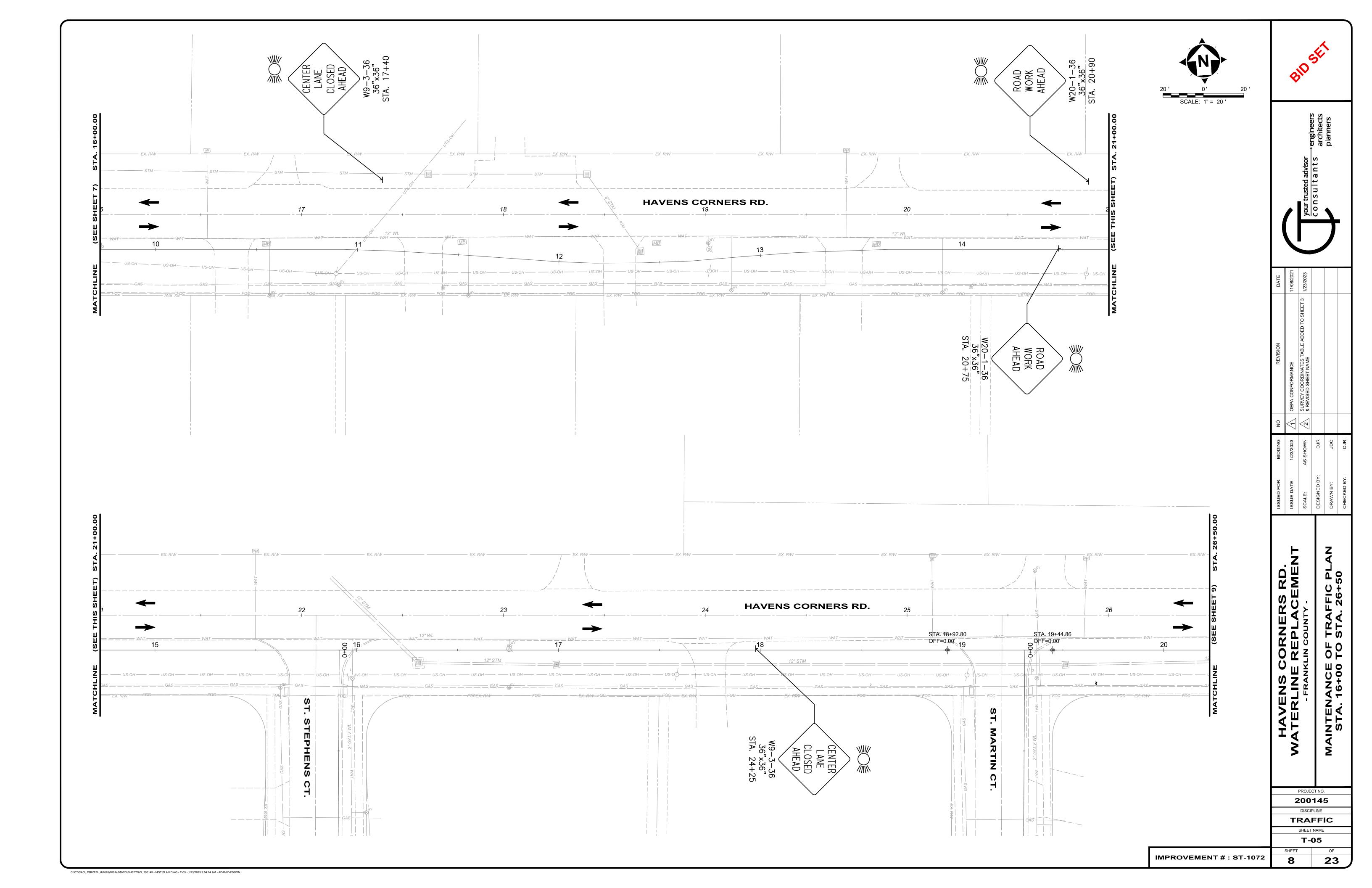
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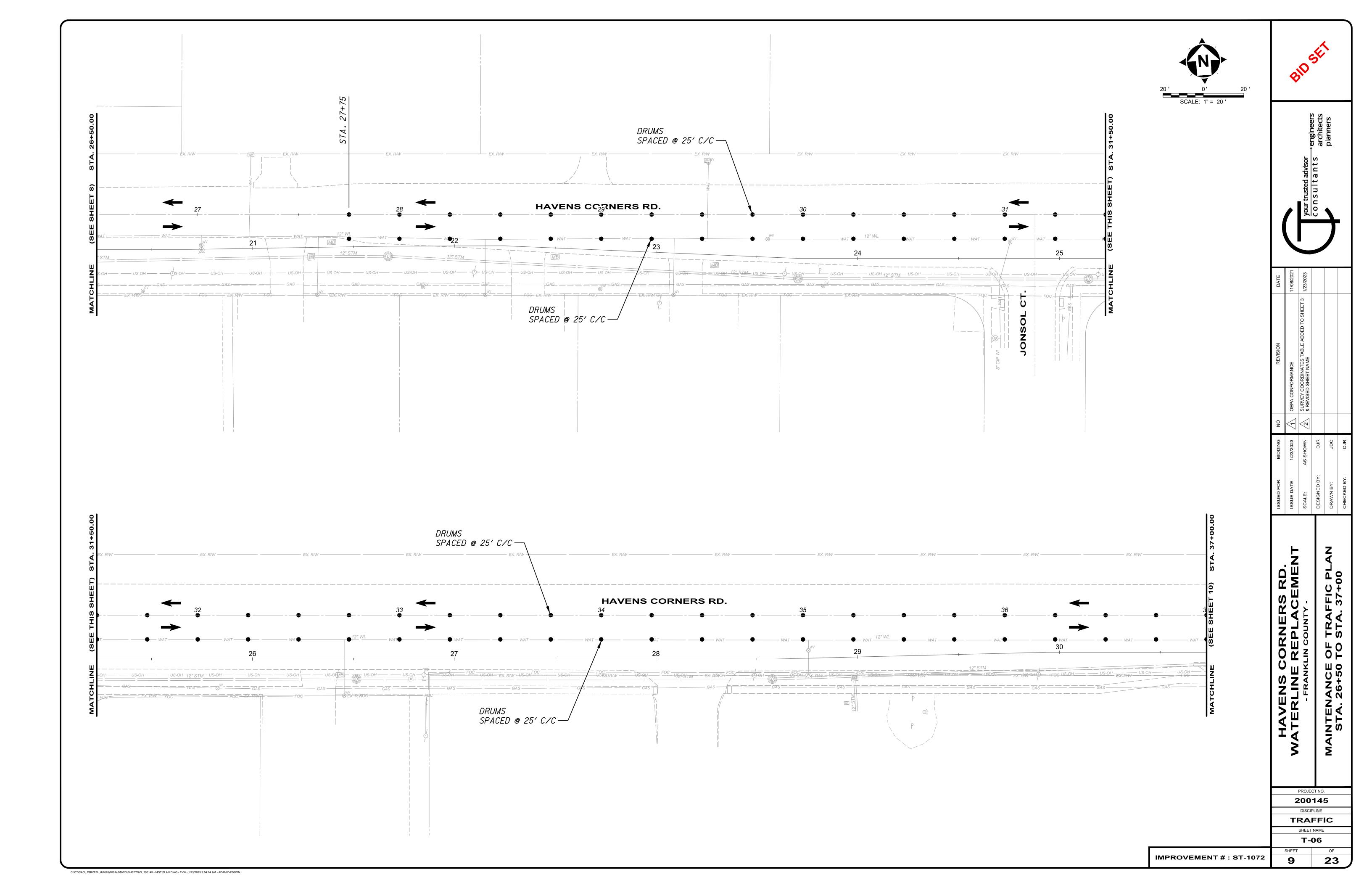
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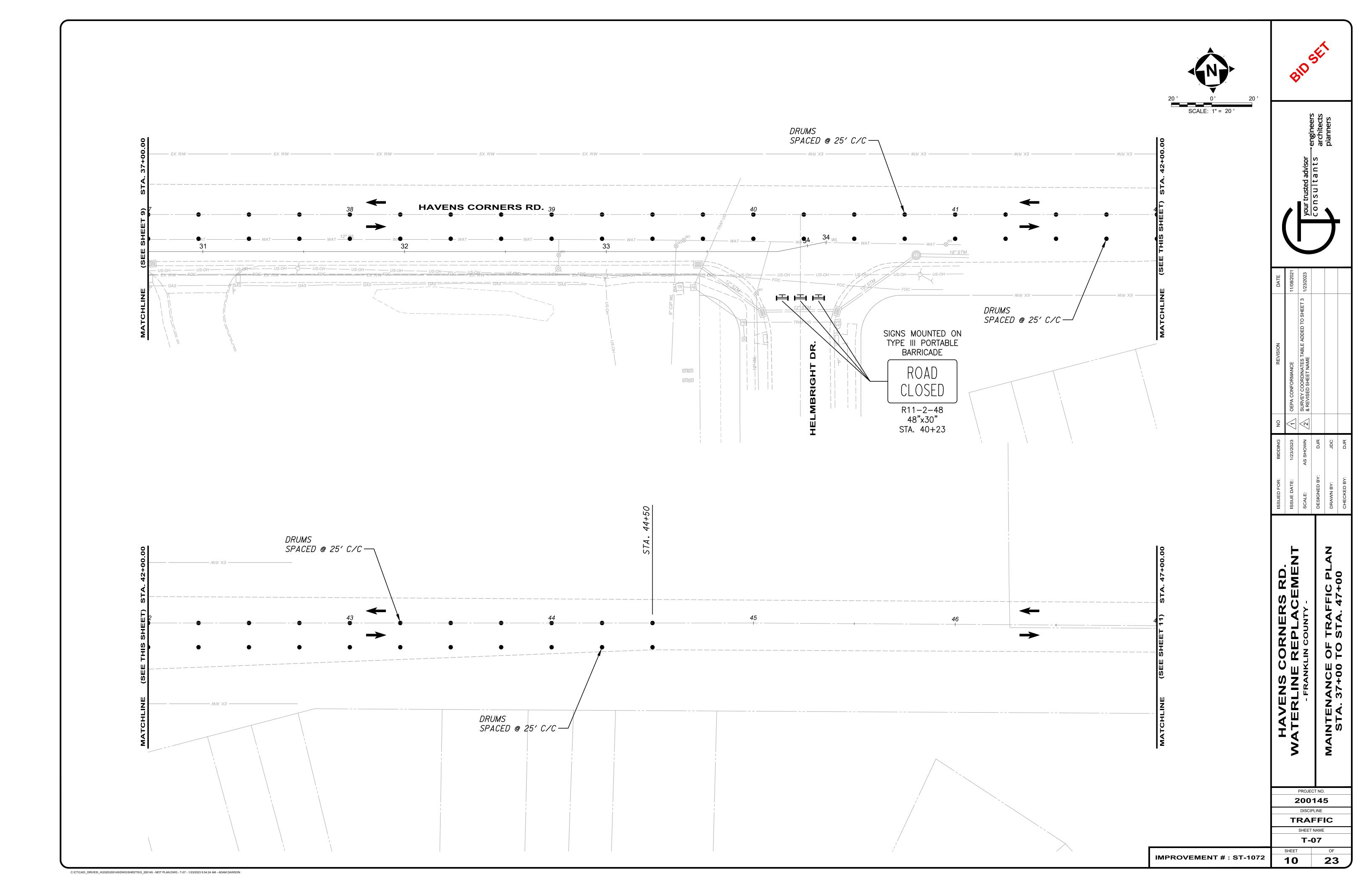


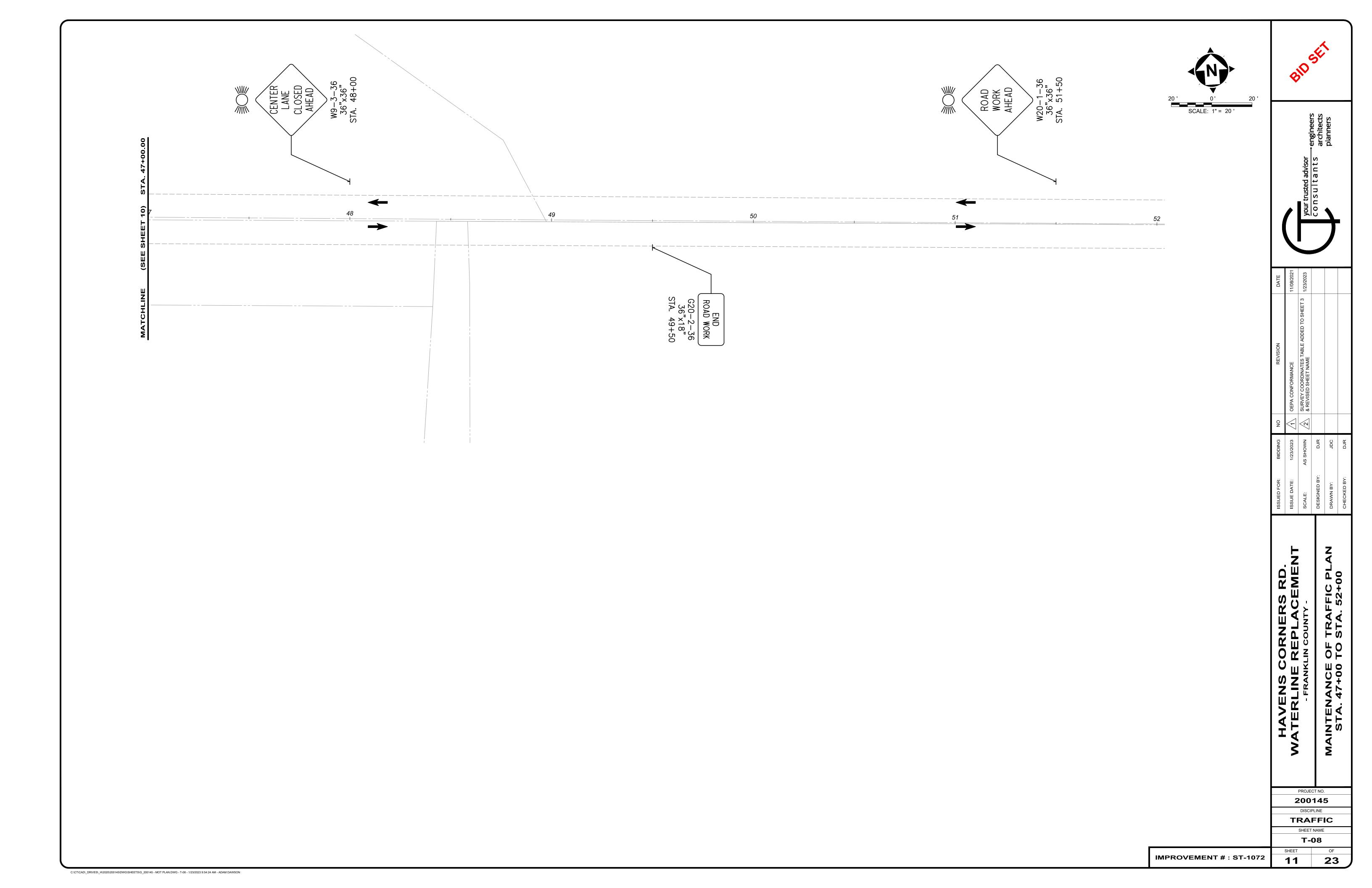


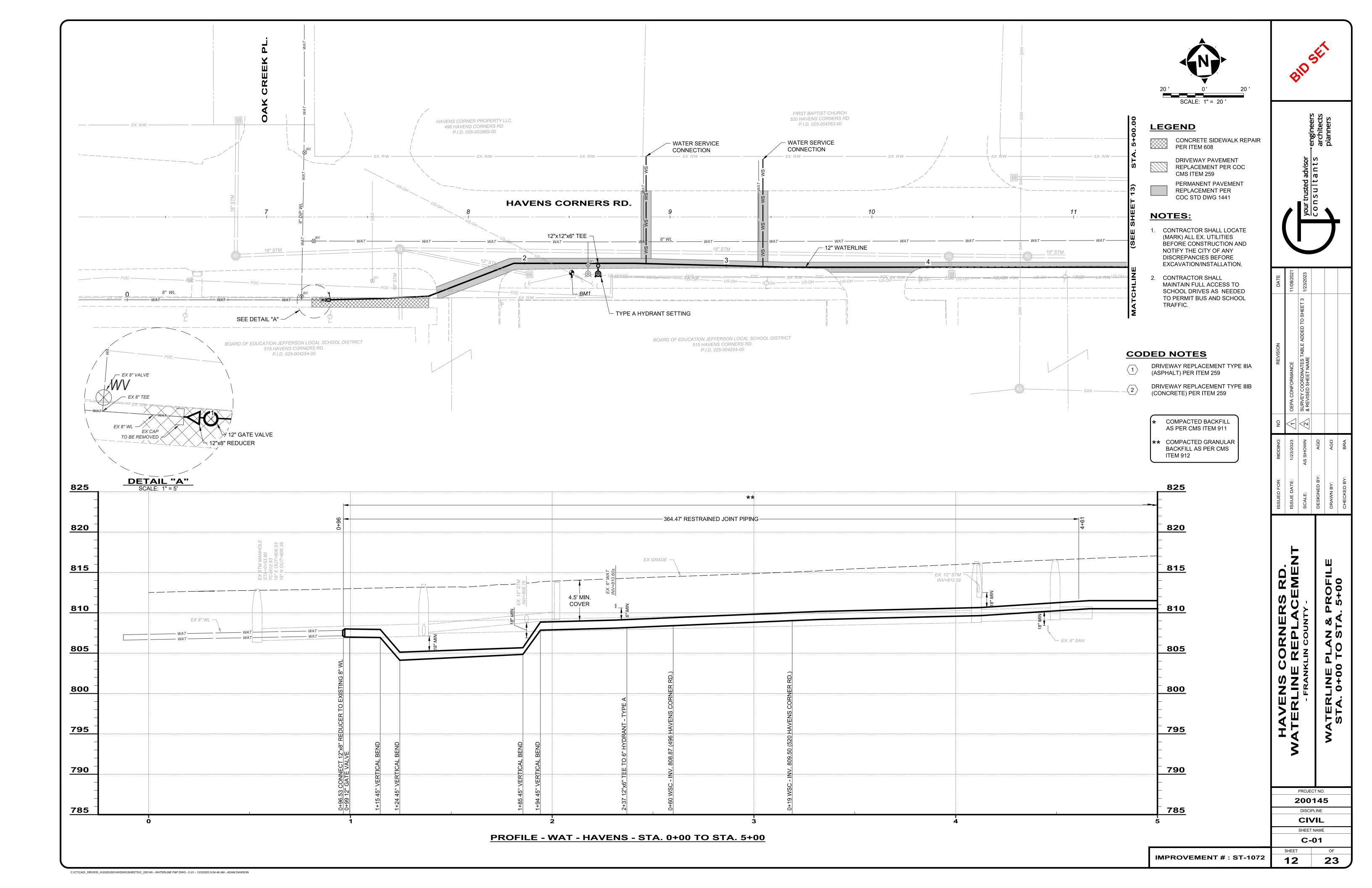


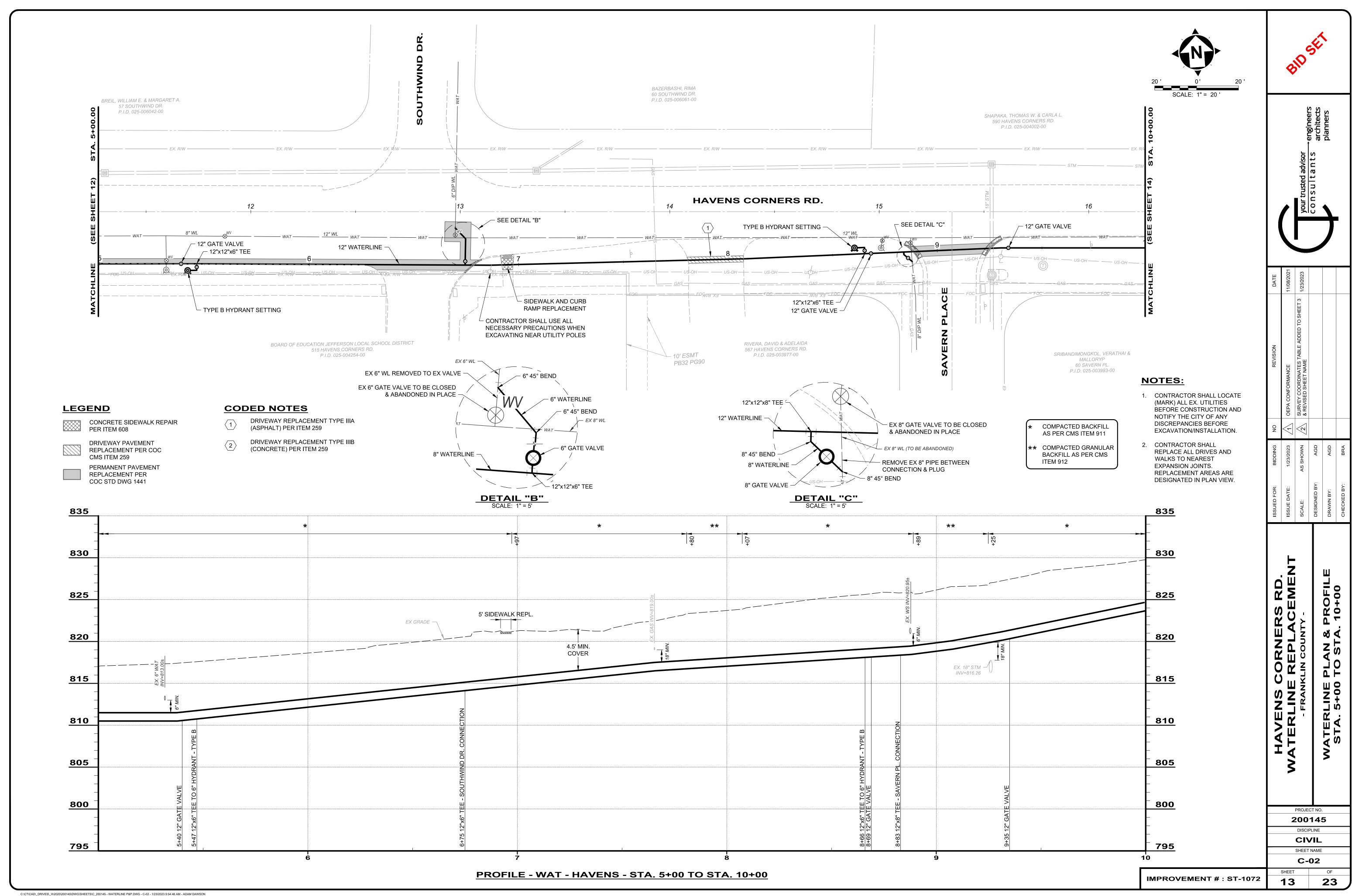


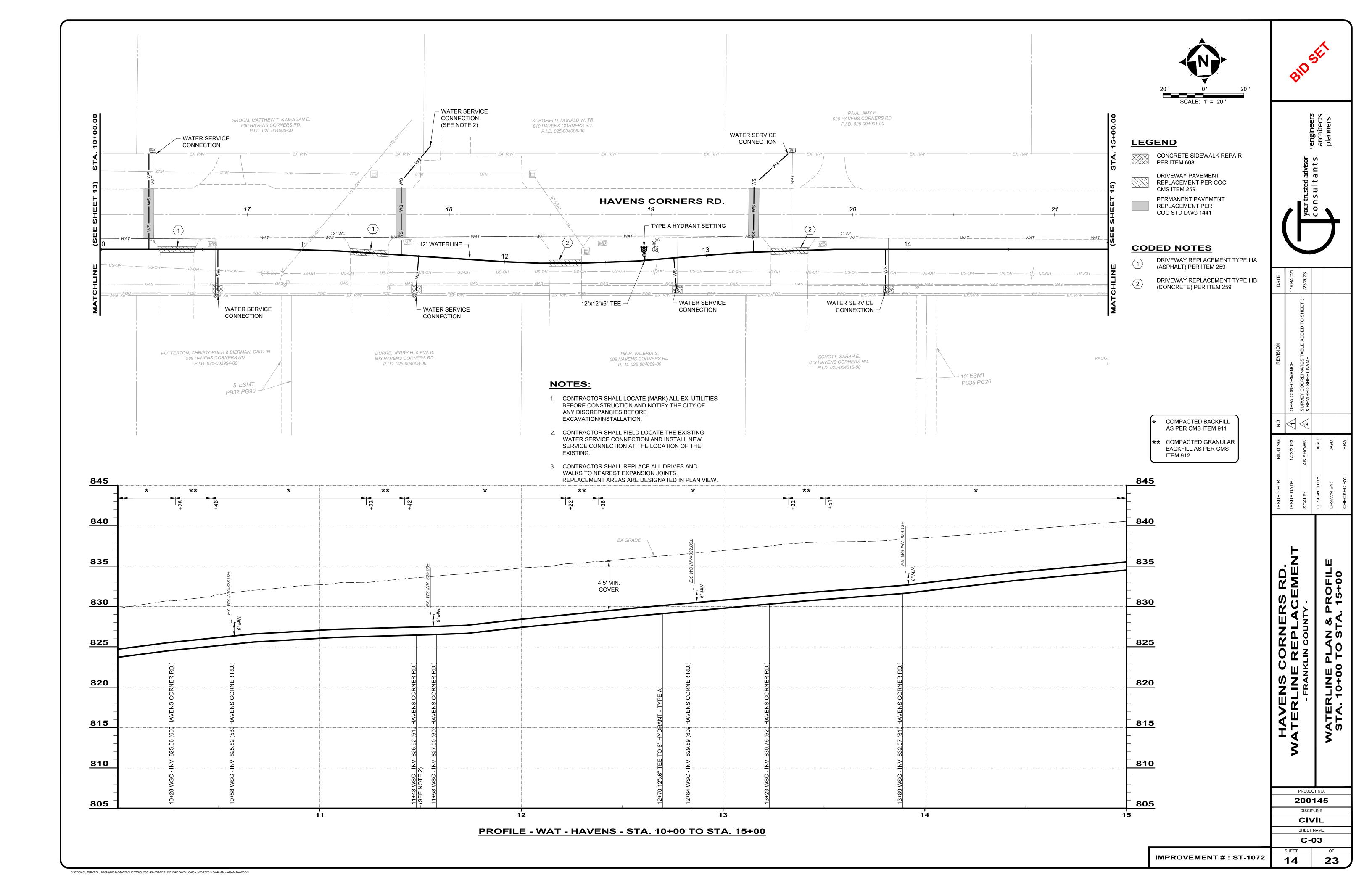


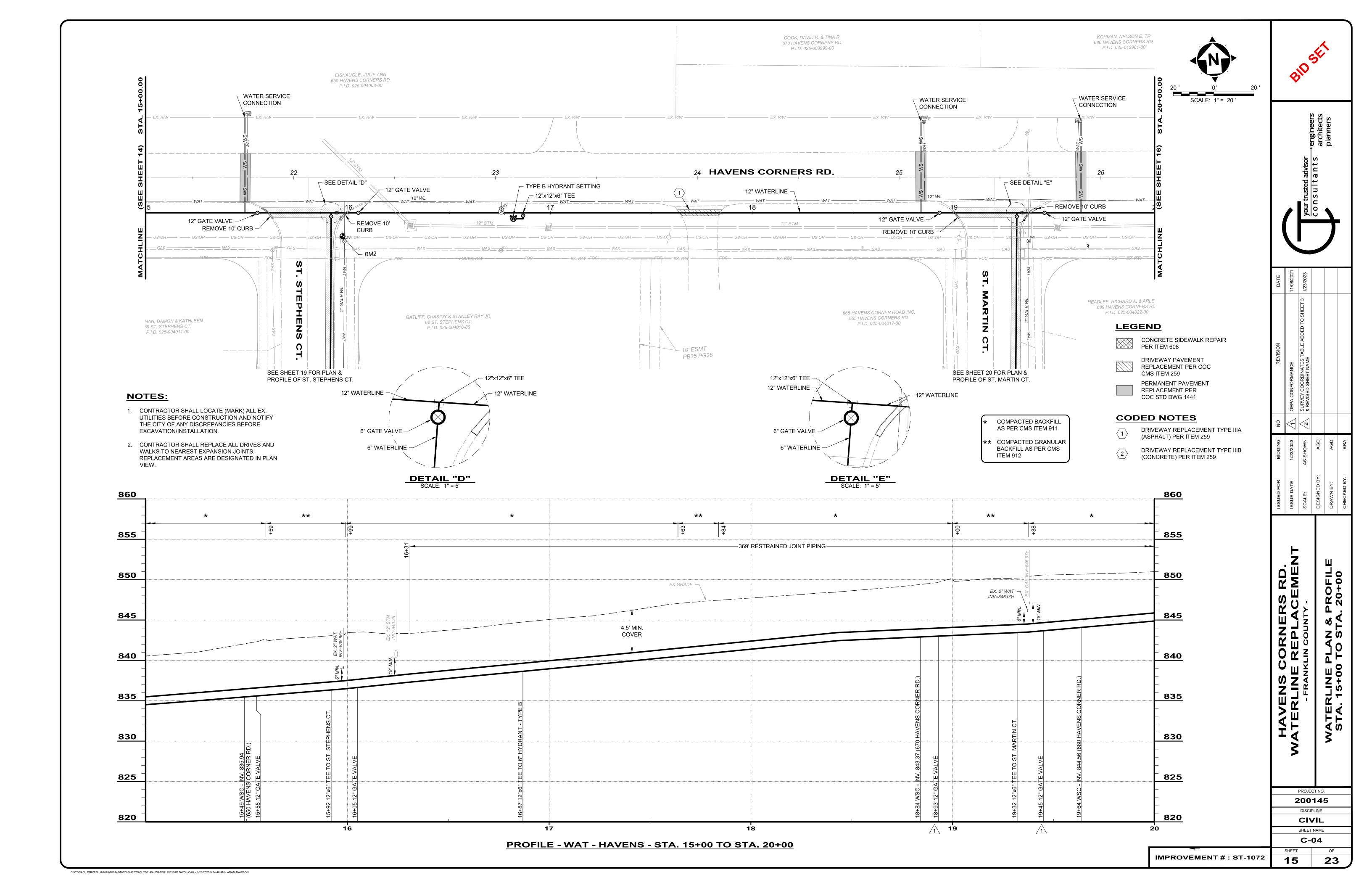


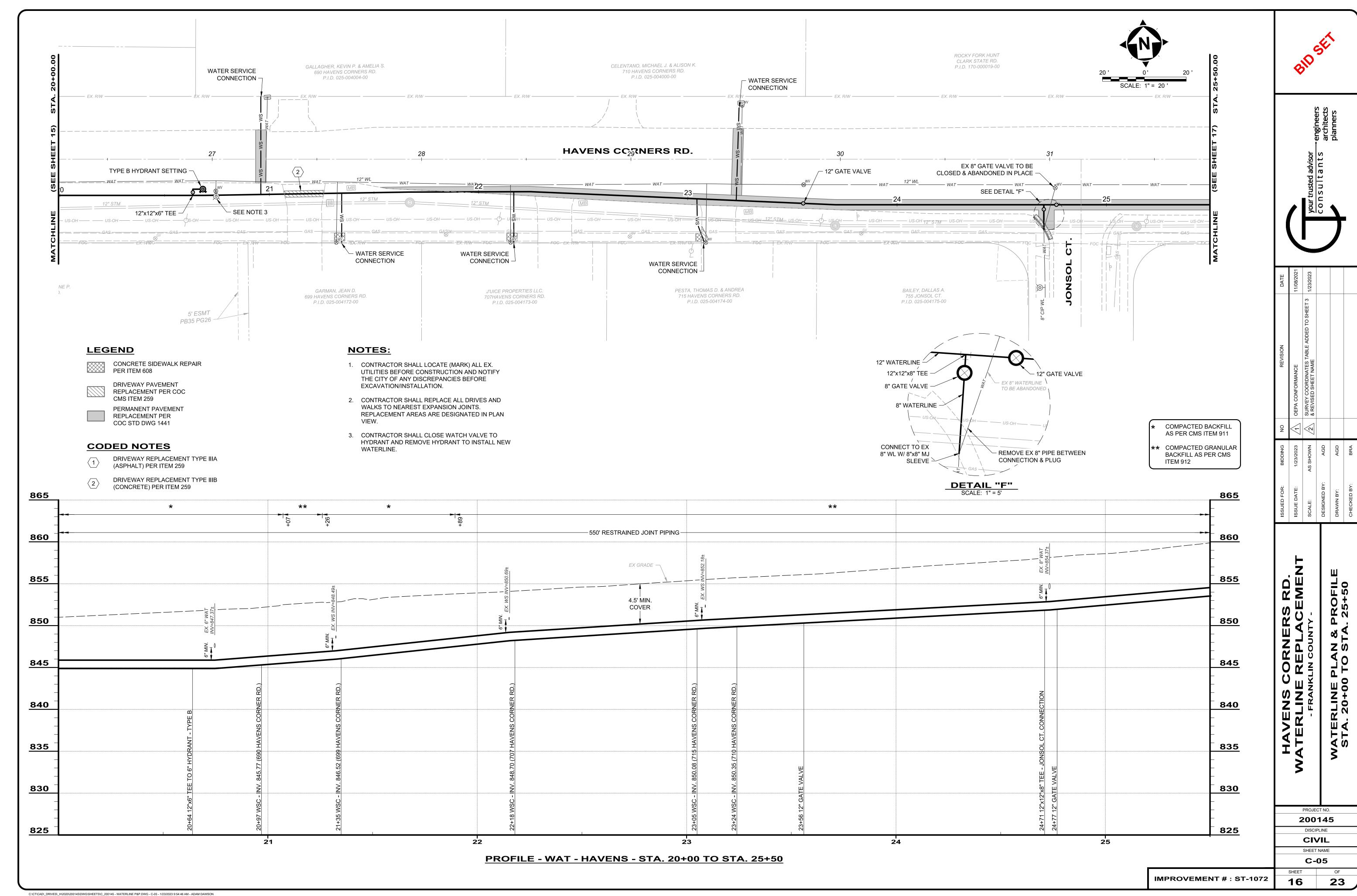


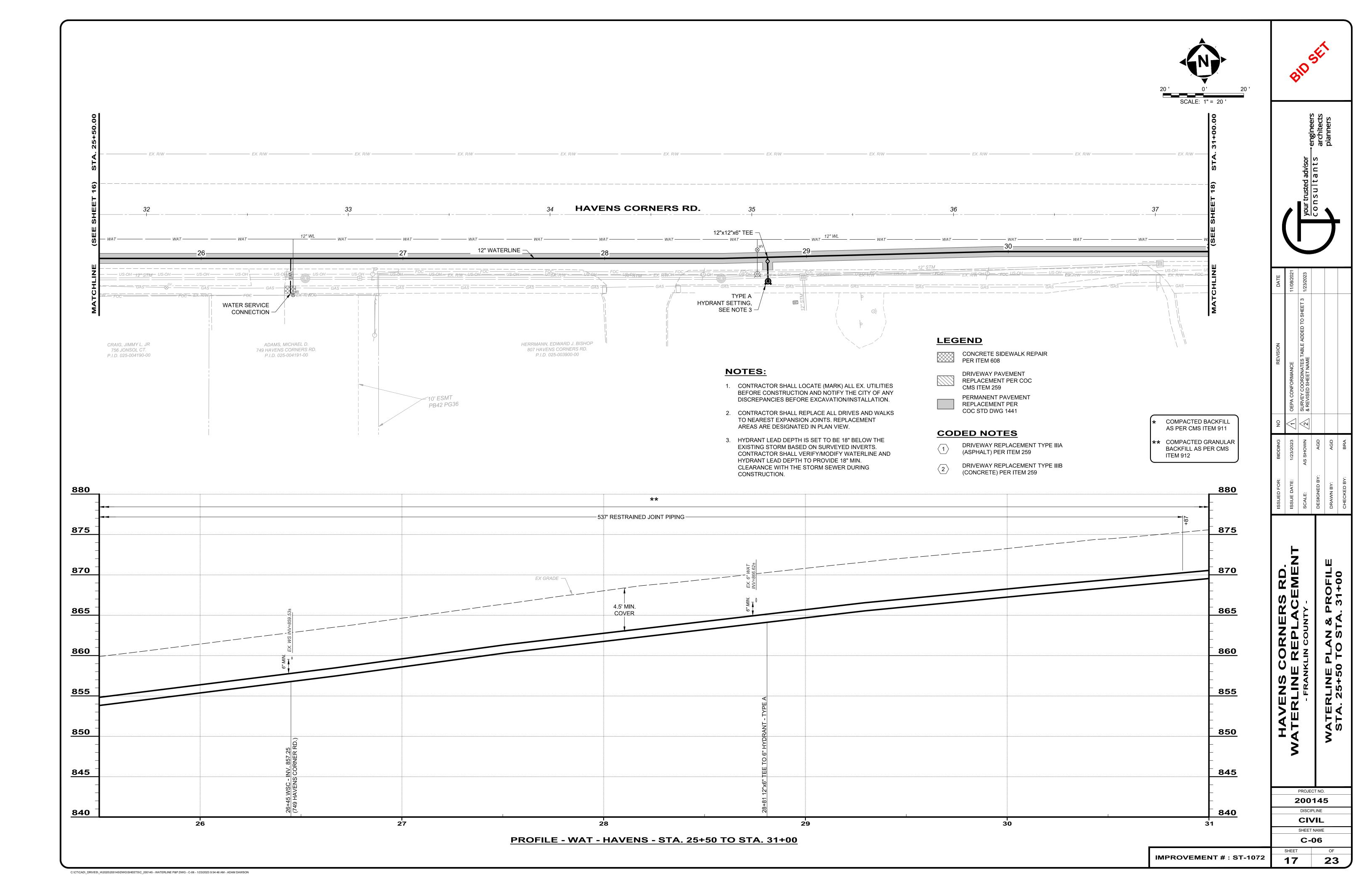


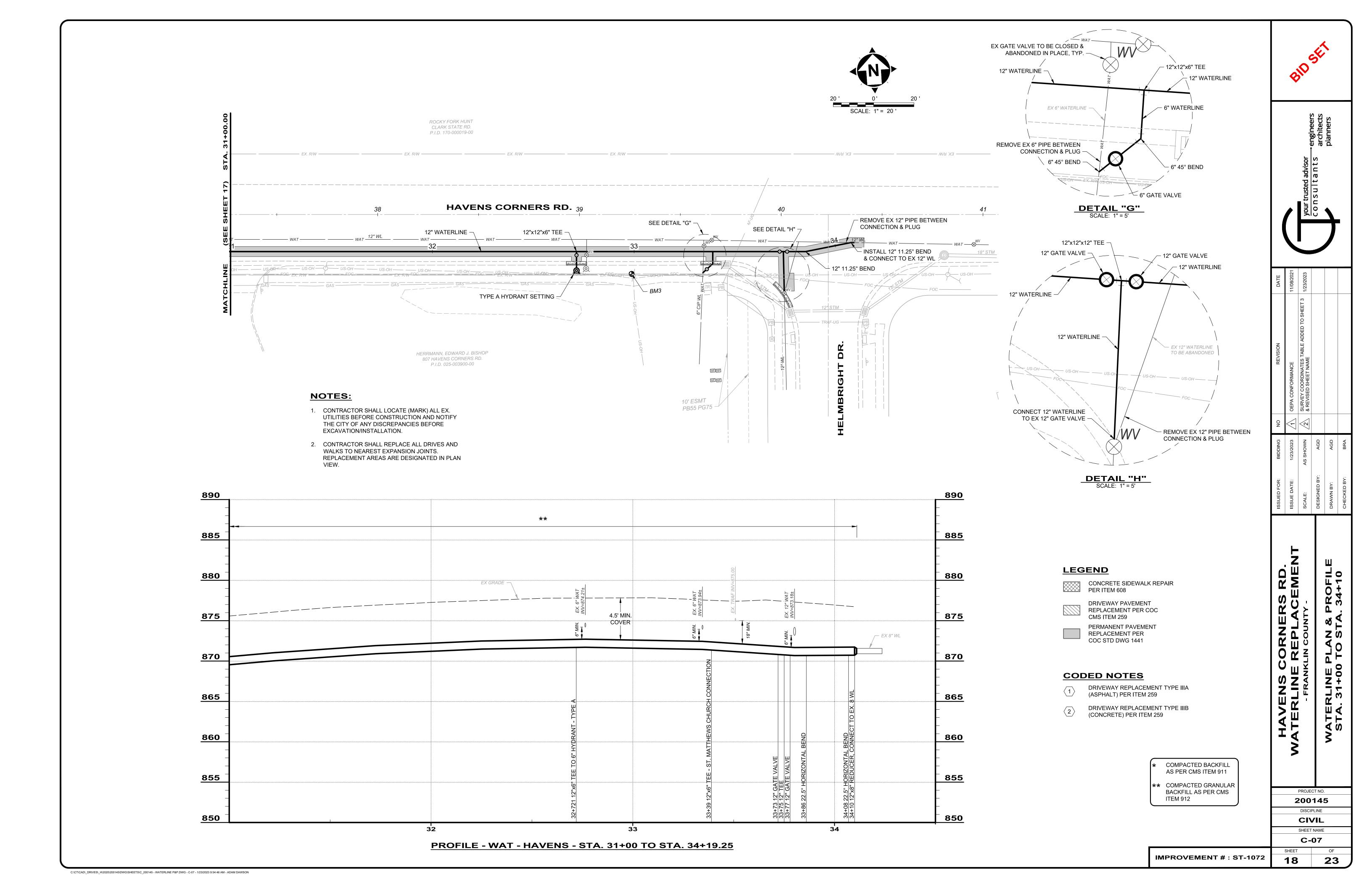


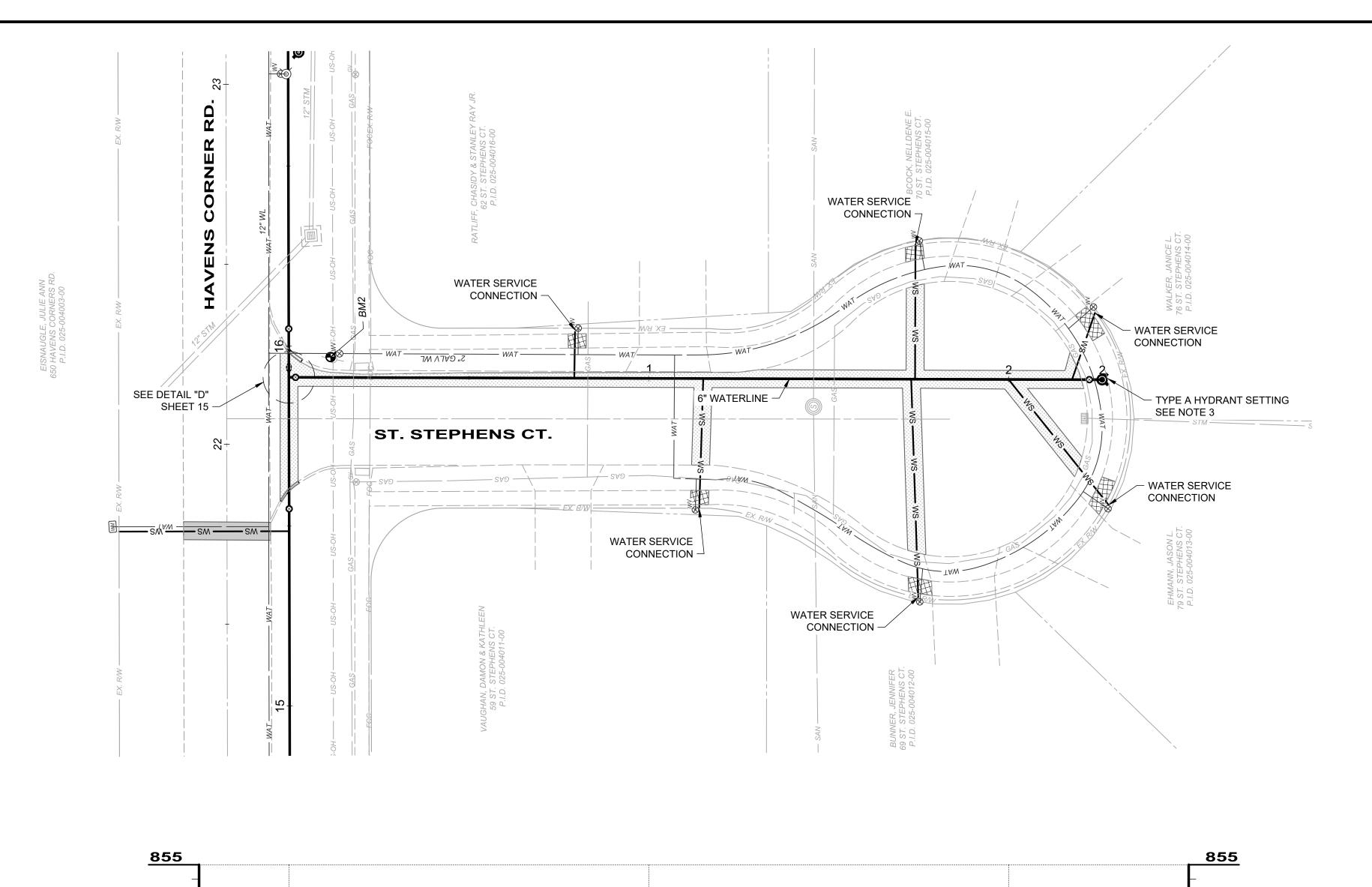












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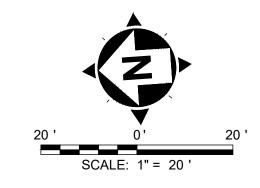
**PROFILE - WAT - ST. STEPHENS** 

EX. 8" SAN INV=827.00

1+73 WSC - INV. 831.86 (69 ST. STEPHE 1+74 WSC - INV. 831.82 (70 ST. STEPHE

EX GRADE -

4.5' MIN. COVER



## **LEGEND**

CONCRETE SIDEWALK REPAIR CONCRETE SIDI PER ITEM 608

DRIVEWAY PAVEMENT REPLACEMENT PER COC CMS ITEM 259

> PERMANENT PAVEMENT REPLACEMENT PER COC STD DWG 1441

ALTERNATE 1 TEMPORARY PAVEMENT REPLACEMENT PER COC STD DWG 2161

#### **CODED NOTES**

DRIVEWAY REPLACEMENT TYPE IIIA (ASPHALT) PER ITEM 259

DRIVEWAY REPLACEMENT TYPE IIIB (CONCRETE) PER ITEM 259

## **NOTES:**

**850** 

845

840

835

830

825

820

<u>815</u>

EX. 2" WAT INV=833.26±

2+17 WSC - INV. 831.72 (76 ST. STEPHENS CT. 2+18 WSC - INV. 831.71 (79 ST. STEPHENS CT. 2+26 6" HYDRANT & VALVE - TYPE A

- 1. CONTRACTOR SHALL LOCATE (MARK) ALL EX. UTILITIES BEFORE CONSTRUCTION AND NOTIFY THE CITY OF ANY DISCREPANCIES BEFORE EXCAVATION/INSTALLATION.
- 2. CONTRACTOR SHALL REPLACE ALL DRIVES AND WALKS TO NEAREST EXPANSION JOINTS. REPLACEMENT AREAS ARE DESIGNATED IN PLAN VIEW.
- 3. BELL RESTRAINTS TO BE USED FOR A MINIMUM OF 3 JOINTS OR 60' OF PIPING PRIOR TO HYDRANT SETTING.

\* COMPACTED BACKFILL AS PER CMS ITEM 911

\*\* COMPACTED GRANULAR
BACKFILL AS PER CMS
ITEM 912



+eng	arc pla
your trusted advisor	

OEPA CONFORMANCE	SURVEY COORDINATES TABLE ADDED TO SHEET 3  & REVISED SHEET NAME			
$\overline{\langle}$	$\sqrt{2}$			
1/23/2023	AS SHOWN	AGD	AGD	BRA
ISSUE DATE:	SCALE:	DESIGNED BY:	DRAWN BY:	СНЕСКЕВ ВҮ:

MATERLINE REPLACEMENT - FRANKLIN COUNTY - WATERLINE PLAN & PROFILE ST. STEPHENS COURT
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PROJECT NO. 200145

> DISCIPLINE **CIVIL** SHEET NAME

C-08

23

19

IMPROVEMENT #: ST-1072

C:\CT\CAD\\_DRIVES\\_H\2020\200145\DWG\SHEETS\C\_200145 - WATERLINE P&P.DWG - C-08 - 1/23/2023 9:54:46 AM - ADAM DAWSON

<u>850</u>

845

840

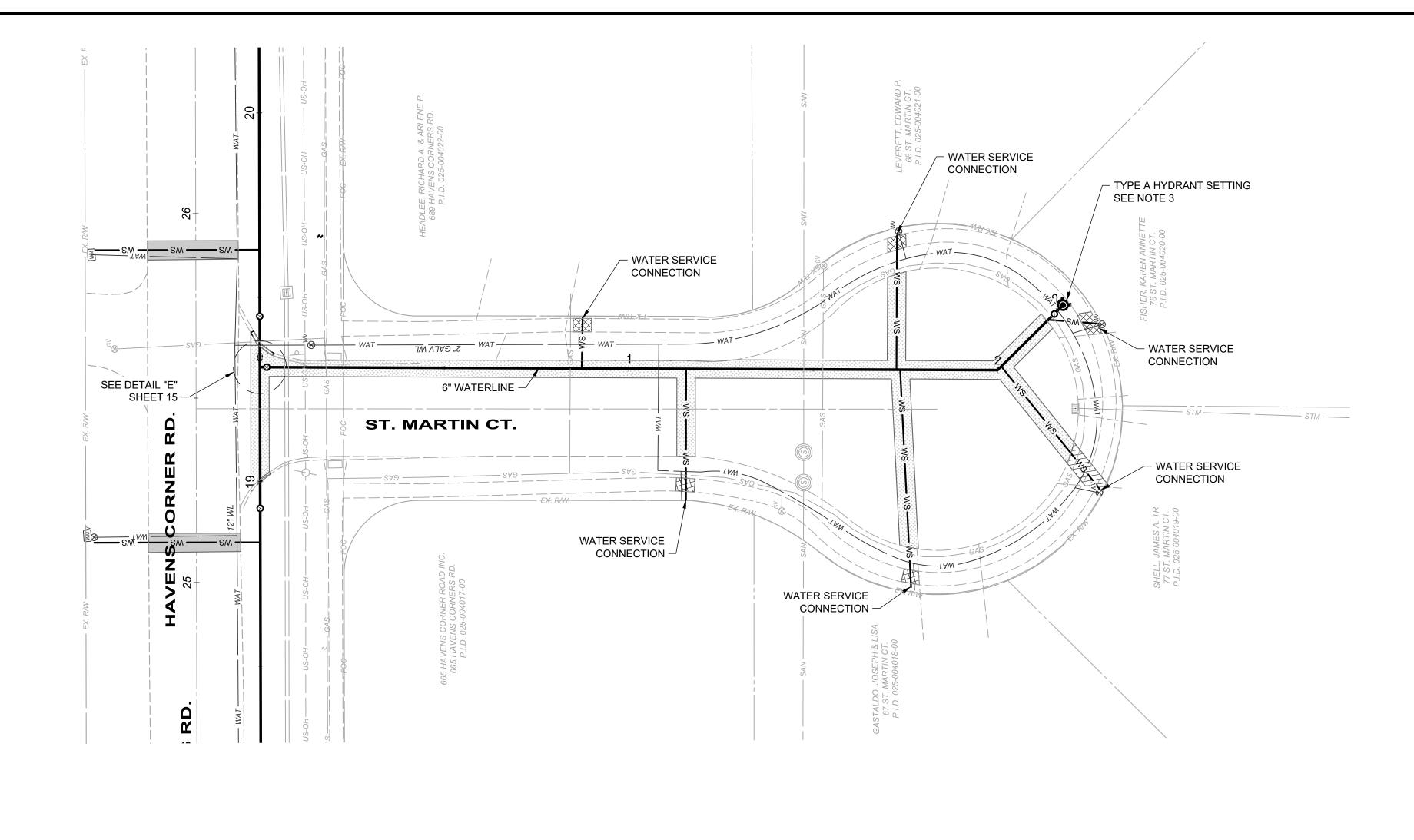
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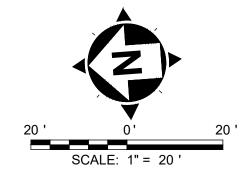
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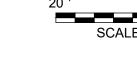
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820

815







#### **LEGEND**

CONCRETE SIDEWALK REPAIR PER ITEM 608

DRIVEWAY PAVEMENT REPLACEMENT PER COC CMS ITEM 259

PERMANENT PAVEMENT REPLACEMENT PER COC STD DWG 1441

ALTERNATE 1 TEMPORARY PAVEMENT REPLACEMENT PER COC STD DWG 2161

#### **CODED NOTES**

DRIVEWAY REPLACEMENT TYPE IIIA (ASPHALT) PER ITEM 259

DRIVEWAY REPLACEMENT TYPE IIIB (CONCRETE) PER ITEM 259

# **NOTES:**

- 1. CONTRACTOR SHALL LOCATE (MARK) ALL EX. UTILITIES BEFORE CONSTRUCTION AND NOTIFY THE CITY OF ANY DISCREPANCIES BEFORE EXCAVATION/INSTALLATION.
- 2. CONTRACTOR SHALL REPLACE ALL DRIVES AND WALKS TO NEAREST EXPANSION JOINTS. REPLACEMENT AREAS ARE DESIGNATED IN PLAN VIEW.
- 3. BELL RESTRAINTS TO BE USED FOR A MINIMUM OF 3 JOINTS OR 60' OF PIPING PRIOR TO HYDRANT SETTING.

COMPACTED BACKFILL AS PER CMS ITEM 911

\*\* COMPACTED GRANULAR BACKFILL AS PER CMS ITEM 912

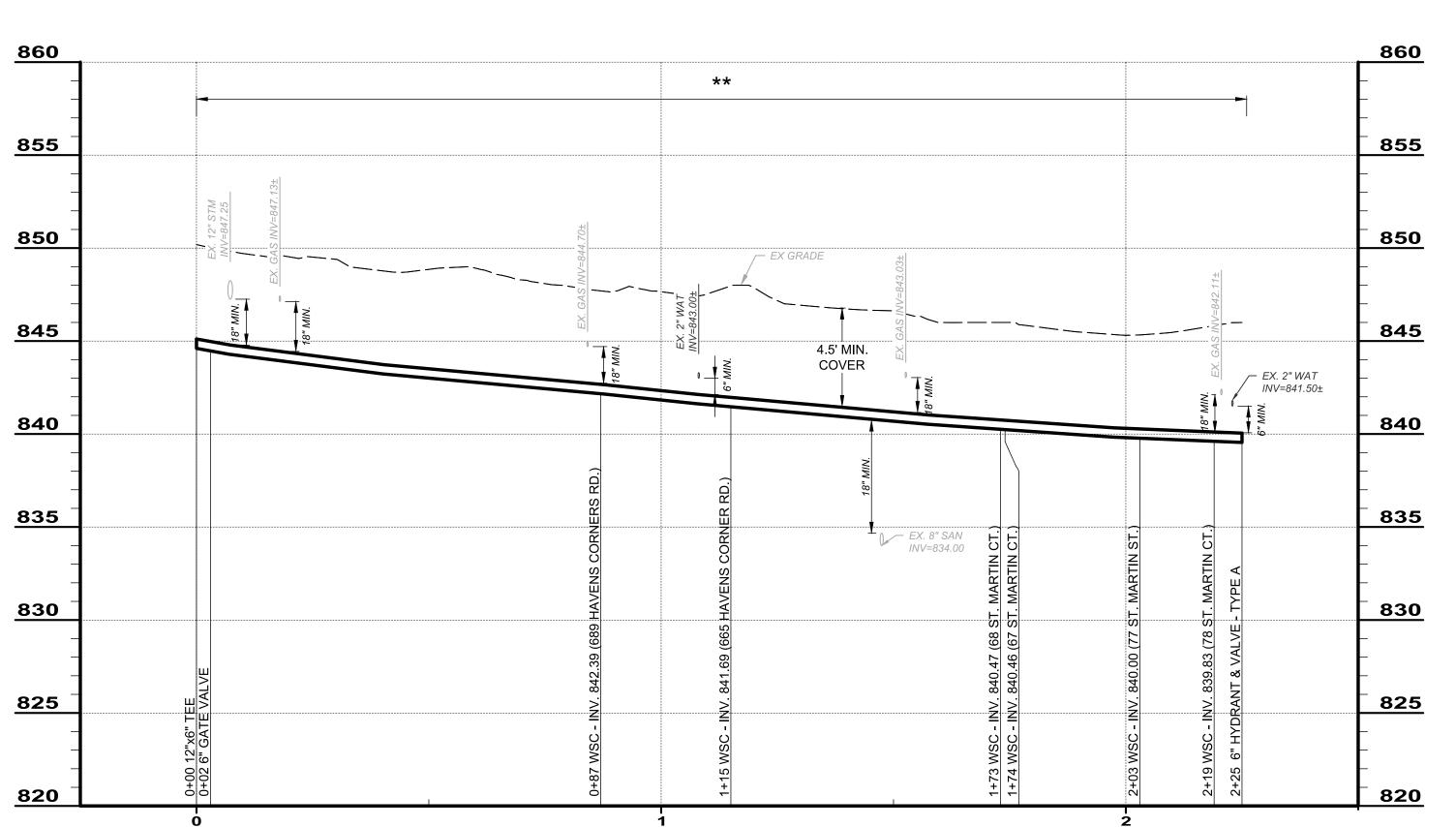
AVENS CORNERS RD.	ISSUED FOR:	BIDDING	ON	REVISION
FERLINE REPLACEMENT	ISSUE DATE:	1/23/2023	¥	OEPA CONFORMANCE
- FRANKLIN COUNTY -	SCALE:	AS SHOWN	\ <u>2</u>	SURVEY COORDINATES TABLE ADDED TO S & REVISED SHEET NAME
	DESIGNED BY:	AGD		
TERLINE PLAN & PROFILE	DRAWN BY:	AGD		
SI. MAKIIN COUKI	СНЕСКЕD ВУ:	BRA		

PROJECT NO. 200145 DISCIPLINE

> CIVIL SHEET NAME C-09

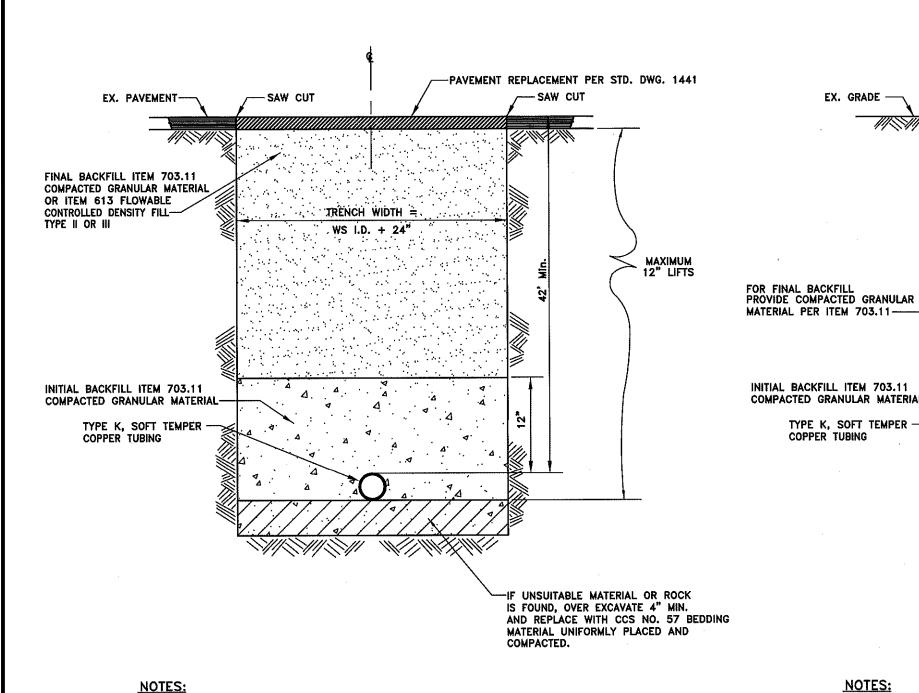
IMPROVEMENT #: ST-1072

20 23



**PROFILE - WAT - ST. MARTIN** 

C:\CT\CAD\\_DRIVES\\_H\2020\200145\DWG\SHEETS\C\_200145 - WATERLINE P&P.DWG - C-09 - 1/23/2023 9:54:46 AM - ADAM DAWSON



EX. GRADE -

TYPE K, SOFT TEMPER

1. REFER TO OSHA REQUIREMENTS FOR MAXIMUM ALLOWABLE TRENCH SLOPES.

COMPACTED NATIVE OR EXCAVATED MATERIAL

2. PROVIDE FILTER FABRIC WHEN VERY FINE OR UNSTABLE MATERIAL IS ENCOUNTERED.

-6" TOPSOIL (OPEN AREAS)

MAXIMUM 12" LIFTS

-- IF UNSUITABLE MATERIAL OR ROCK

IS FOUND, OVER EXCAVATE 4" MIN.

MATERIAL UNIFORMLY PLACED AND

AND REPLACE WITH CCS NO. 57 BEDDING

- 3. BACKFILL SHALL BE COMPACTED PER THE REQUIREMENTS OF ITEM 801.12.
- 4. IF CONTAMINATED SOILS ARE ENCOUNTERED DURING EXCAVATION, CEASE DIGGING AND CONTACT THE DIVISION OF WATER DISTRIBUTION ENGINEERING SECTION.

# -PAVEMENT REPLACEMENT PER STD. DWG. 1441 EX. PAVEMENT-SAW CUT FINAL BACKFILL ITEM 703.11 COMPACTED GRANULAR MATERIAL OR ITEM 613 FLOWABLE TRENCH WIDTH = CONTROLLED DENSITY FILL TYPE II OR III . WS I.D. + 24" INITIAL BACKFILL ITEM 703.11 COMPACTED GRANULAR MATERIAL FOR DEPTH OF COVER < 10' PROVIDE FLAT BOTTOM TRENCH FOR DEPTH OF COVER > 10' PROVIDE 6" BEDDING CCS NO. 57 -IF UNSUITABLE MATERIAL OR ROCK IS FOUND, OVER EXCAVATE 4" MIN. AND CCS NO. 57 BEDDING MATERIAL UNIFORMLY PLACED AND COMPACTED.

TO PIPE O.D. -

PROVIDE COMPACTED GRANULAR MATERIAL PER ITEM 703.11

INITIAL BACKFILL ITEM 703.11

COMPACTED GRANULAR MATERIAL-

FOR INITIAL BACKFILL -

- 1. REFER TO OSHA REQUIREMENTS FOR MAXIMUM ALLOWABLE TRENCH SLOPES.
- 2. PROVIDE FILTER FABRIC WHEN VERY FINE OR UNSTABLE MATERIAL IS ENCOUNTERED.

COMPACTED NATIVE OR EXCAVATED MATERIAL

-6" TOPSOIL (OPEN AREAS)

-FOR DEPTH OF COVER < 10'

PROVIDE FLAT BOTTOM TRENCH

FOR DEPTH OF COVER > 10' PROVIDE 6" BEDDING CCS NO. 57

IS FOUND, OVER EXCAVATE 4" MIN.

AND CCS NO. 57 BEDDING MATERIAL

UNIFORMLY PLACED AND COMPACTED.

- 3. BACKFILL SHALL BE COMPACTED PER THE REQUIREMENTS OF ITEM 801.12.
- 4. IF CONTAMINATED SOILS ARE ENCOUNTERED DURING EXCAVATION, CEASE DIGGING AND CONTACT THE DIVISION OF WATER DISTRIBUTION ENGINEERING SECTION.

- 1. REFER TO OSHA REQUIREMENTS FOR MAXIMUM ALLOWABLE TRENCH SLOPES.
- 2. PROVIDE FILTER FABRIC WHEN VERY FINE OR UNSTABLE MATERIAL IS ENCOUNTERED.
- 3. BACKFILL SHALL BE COMPACTED PER THE REQUIREMENTS OF ITEM 801.12.
- 4. IF CONTAMINATED SOILS ARE ENCOUNTERED DURING EXCAVATION, CEASE DIGGING AND CONTACT THE DIVISION OF WATER DISTRIBUTION ENGINEERING SECTION.

TYP. TRENCH EXCAVATION AND BACKFILL UNDER

**INFLUENCE OF PAVEMENT FOR 2" AND SMALLER** 

**WATER TAPS, COC L-1701B DETAIL** 

NOT TO SCALE

### TYP. TRENCH EXCAVATION AND BACKFILL OUTSIDE **INFLUENCE OF PAVEMENT FOR 2" AND SMALLER** WATER TAPS, COC L-1701B DETAIL

NOT TO SCALE

TYP. TRENCH EXCAVATION AND **BACKFILL UNDER INFLUENCE OF PAVEMENT, COC L-6309A DETAIL** NOT TO SCALE

1. REFER TO OSHA REQUIREMENTS FOR MAXIMUM ALLOWABLE TRENCH SLOPES.

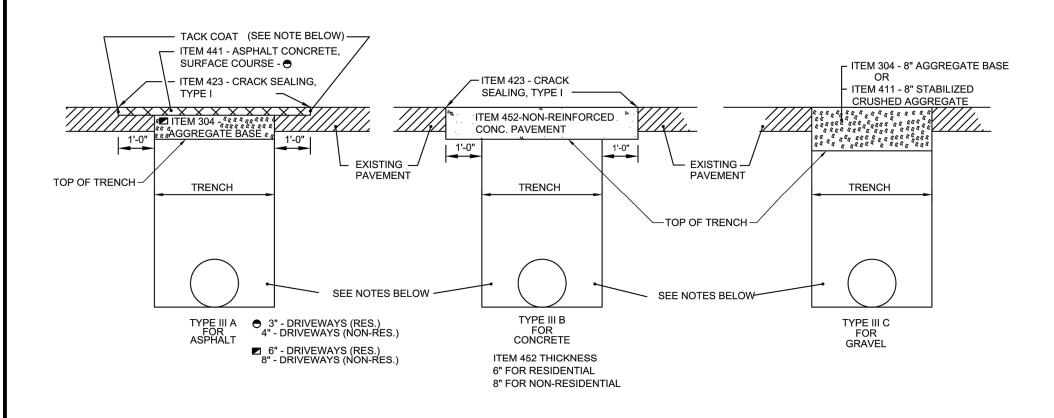
3. BACKFILL SHALL BE COMPACTED PER THE REQUIREMENTS OF ITEM 801.12.

CONTACT THE DIVISION OF WATER DISTRIBUTION ENGINEERING SECTION.

2. PROVIDE FILTER FABRIC WHEN VERY FINE OR UNSTABLE MATERIAL IS ENCOUNTERED.

4. IF CONTAMINATED SOILS ARE ENCOUNTERED DURING EXCAVATION, CEASE DIGGING AND

#### TYP. TRENCH EXCAVATION AND BACKFILL OUTSIDE **INFLUENCE OF PAVEMENT, COC L-6309B DETAIL** NOT TO SCALE



BACKFILL FOR ALL TRENCHES SHALL BE IN ACCORDANCE WITH APPLICABLE SPECIFICATIONS. PERMANENT REPAVING SHALL NOT BE DONE UNTIL SO ORDERED OR APPROVED BY THE ENGINEER. THE EDGE SHALL BE CUT VERTICAL AND TRIMMED TO PROVIDE A STRAIGHT LINE.

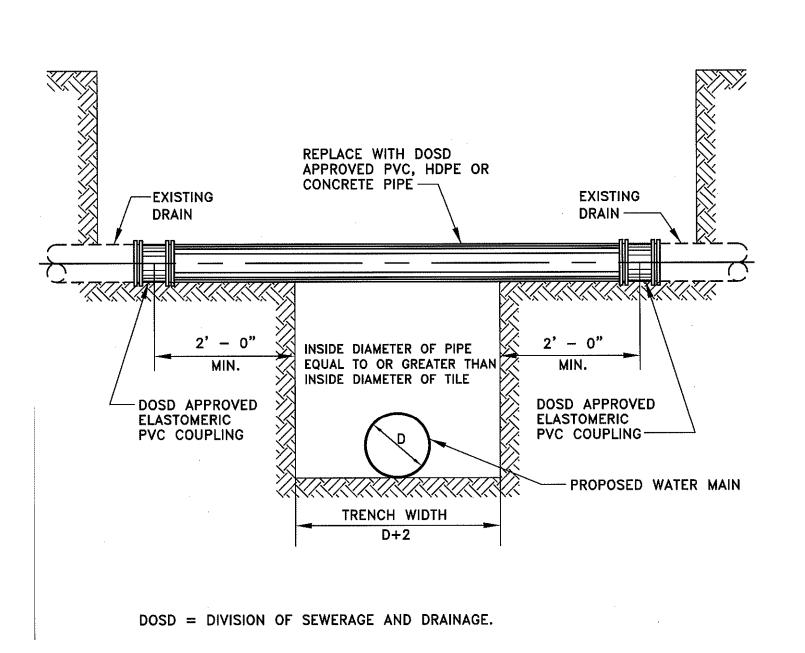
ITEM 407 - TACK COAT SHALL BE APPLIED AT A RATE OF 0.08 GAL/SY.

ALL EXISTING CONCRETE WALKS OR CONCRETE PAVEMENTS BEING REPLACED SHALL BE REMOVED AT AN EXISTING JOINT AND REPLACED PER STANDARD DRAWING.

DRIVEWAY PAVEMENT SHALL BE REPLACED BY EITHER MATCHING THE EXISTING MATERIALS & THICKNESS, OR BY USING THE ABOVE THICKNESS, WHICHEVER IS GREATER.

IF COMPLETE DRIVE APPROACH IS BEING REBUILT REFERENCE THE STANDARD DRAWING APPLICABLE TO THE DRIVE.

**DRIVEWAY REPLACEMENT COC STD DWG 2160 DETAIL** 

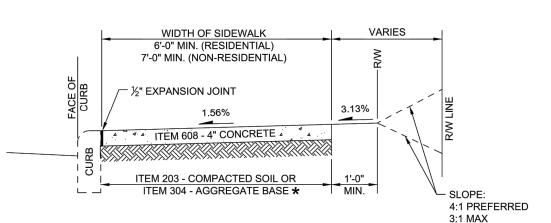


DRAIN TILE REPLACEMENT COC L-7002 DETAIL NOT TO SCALE

UTILITY STRIP/TREE LAWN

2' 0" MIN 

4'-0" MIN. (RESIDENTIAL) 5'-0" MIN. (NON-RESIDENTIAL) 3.13% <sup>4</sup> ITEM 608 - 4" CONCRETE ITEM 203 - COMPACTED SOIL OR ITEM 304 - AGGREGATE BASE\* FLATTER PREFERRED 3:1 MAX



WHERE SIDEWALKS ABUT DRIVEWAYS OR ALLEY APPROACHES, THE CONCRETE THICKNESS OF THE WALK SHALL EQUAL THE THICKNESS OF THE APPROACH (6" MINIMUM) FOR A DISTANCE OF ONE (1) FULL PANEL OR MINIMUM 5 FEET. SEE STANDARD DRAWING OF THE APPLICABLE DRIVEWAY OR ALLEY.

WHERE NEW WALK ABUTS ADJOINING WALK, SAWCUT EXISTING WALK TO NEAREST JOINT AND INSTALL EXPANSION JOINT.

EXPANSION JOINT LOCATION AND SPACING PER ITEM 608.03.

WATER AND UTILITY BOXES IN THE SIDEWALK AREA SHALL BE ADJUSTED FLUSH WITH FINAL SURFACE.

ROOF DRAINS SHALL BE EXTENDED UNDER THE SIDEWALK AND THROUGH THE CURB. SEE STD DWG 2320.

ITEM NUMBERS REFER TO THE CITY OF COLUMBUS CMSC, CURRENT EDITION. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THESE

**★**#57 AGGREGATE MAY BE USED FOR REPLACEMENT

SPECIFICATIONS.

SIDEWALK REPLACEMENT **COC STD DWG 2300 DETAIL**  CIVIL SHEET NAME C-10

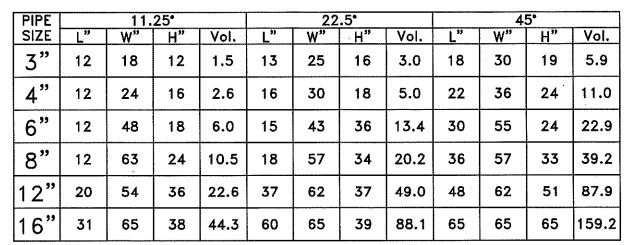
**IMPROVEMENT #: ST-1072** NOT TO SCALE

DISCIPLINE 23

PROJECT NO.

200145

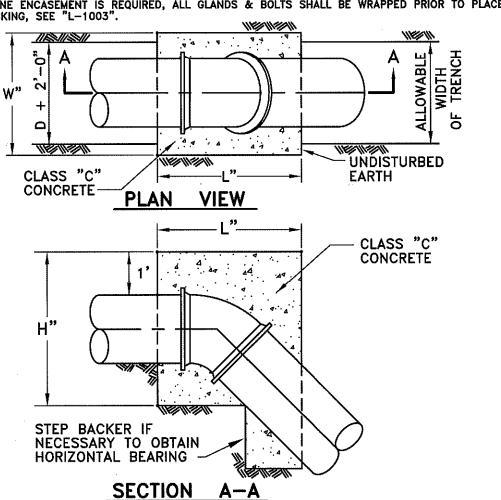
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VOLUMES GIVEN IN CUBIC FEET.

- BACKER TO BE CENTERED HORIZONTALLY ON BEND.
  STEEL WILL BE USED AS REQUIRED BY THE ENGINEER.
  ALL NEW PIPE 20" & LARGER SHALL BE RESTRAINED JOINT PER CCMS ITEM 801 UNLESS OTHERWISE PER PLAN
- OR AS DIRECTED BY THE ENGINEER.
  EXISTING WATER MAINS 20" AND GREATER MUST HAVE PRIOR APPROVAL FROM DOW TO LOWER UNDER A PROPOSED UTILITY. APPROVAL WILL ONLY BE GIVEN UNDER SPECIAL CIRCUMSTANCES AND CONTINGENT UPON THE CONTRACTOR
- SUBMITTING A DESIGNED DRAWING, STAMPED BY A PROFESSIONAL ENGINEER, DETAILING HOW THE LOWERED WATER MAIN WILL BE RESTRAINED TO THE EXISTING WATER MAIN.

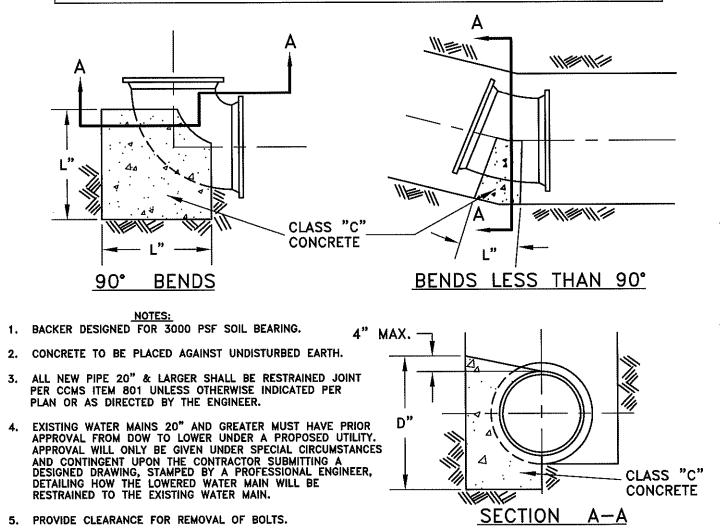
  WHERE POLYETHYLENE ENCASEMENT IS REQUIRED, ALL GLANDS & BOLTS SHALL BE WRAPPED PRIOR TO PLACEMENT OF CONCRETE BLOCKING, SEE "L-1003".



#### **BACKING FOR VERTICAL BENDS** COC L-6310 DETAIL

NOT TO SCALE

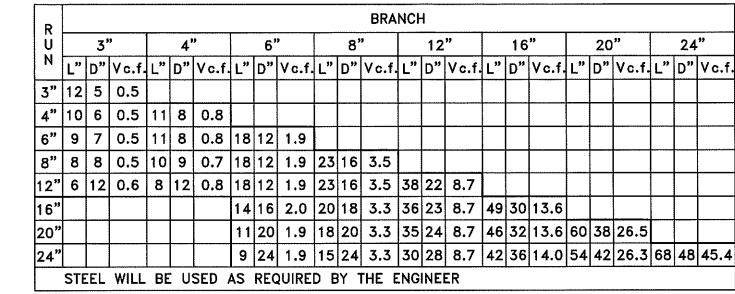
DEGREE OF BEND 90° (HORZ. ONLY) 22.50° 45° 11.25° L" D" Vc.f. D" Vc.f. L" D" Vc.f. | L" | D" Vc.f. 0.7 | 20 25 0.7 12 18 10.7 1.8 | 14 | 3.6 | 36 18 6.8 32 32 26 | 25.6 STEEL WILL BE USED AS REQUIRED BY ENGINEER

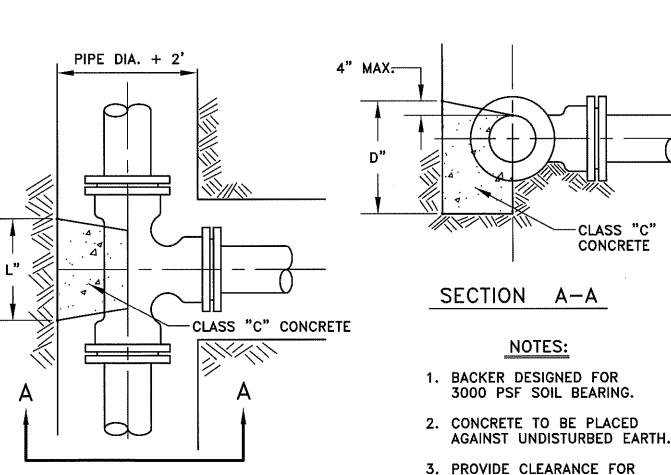


#### **BACKING FOR BENDS** COC L-6311 DETAIL NOT TO SCALE

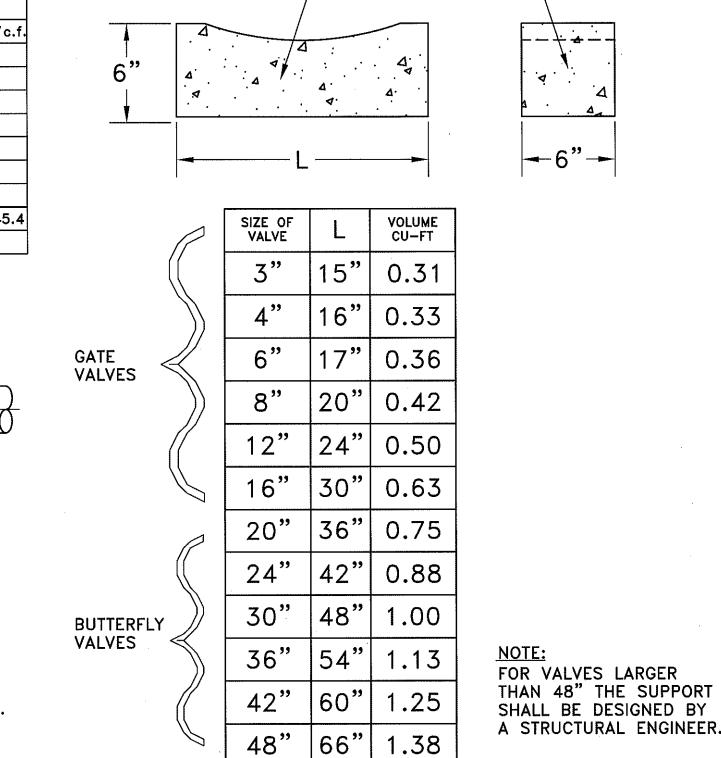
Note: If an existing water tap is within the limits of the

water main lowering, refer to Note 7 below.





#### **BACKING FOR TEES** COC L-6312 DETAIL NOT TO SCALE



CLASS "C"

CONCRETE

**CONCRETE VALVE SUPPORTS** COC L-6306 DETAIL

NOT TO SCALE

# Max. 2' Curb Box, See L-1001 \* Replace exist. curb stop with new curb stop. \* -Exist. Water Main To Be Abandoned <u>New</u> Water Main as required. New Copper Water Tubing from Corp. Stop to Curb Stop. \*\* LIMITS OF WATER TAP

ALL WATER TAPS 2 INCHES AND UNDER SHALL BE TYPE "K" COPPER MEETING THE REQUIREMENTS OF SECTION 805.03.

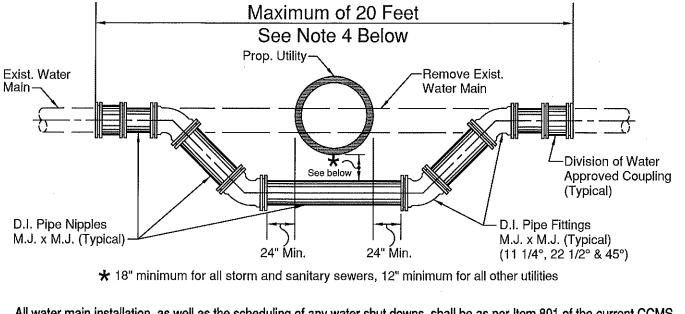
CONTRACTOR SHALL REPLACE ANY DAMAGED CURB BOX ENCOUNTERED IN TRANSFERRING WATER SERVICE LINES AS DETERMINED BY THE ENGINEER. REFER TO THE GENERAL NOTES FOR ESTIMATED CONTINGENCY QUANTITIES WHICH HAVE BEEN INCLUDED IN THE QUANTITY SUMMARY FOR REPLACING DAMAGED CURB BOXES.

ANY CURB BOXES DAMAGED BY THE CONTRACTOR SHALL BE REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE CITY.

- \* FOR REFERENCE IN PLACING NEW CURB STOPS AND CURB BOXES SEE "L-9901".
- \*\* PIPE SHALL BE COPPER TUBING SIZE (C.T.S.)

WATER SERVICE LINE TRANSFER COC L-7102B DETAIL

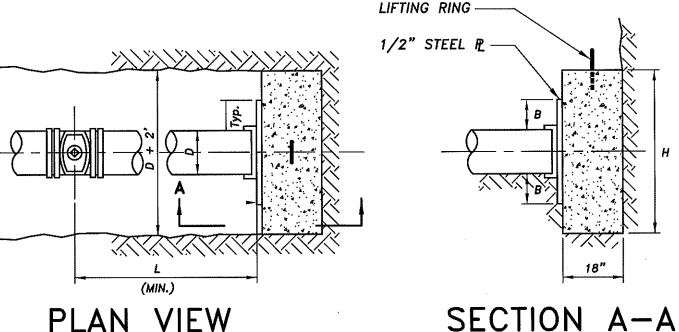
NOT TO SCALE



Existing Ground —

- 1. All water main installation, as well as the scheduling of any water shut downs, shall be as per Item 801 of the current CCMS. Time and duration of all shut downs shall be determined by Division of Water. The Contractor shall notify all water customers effected by the proposed work at least 24 hours in advance of the scheduled shut down.
- 2. Existing Water Mains 20" and greater must have prior approval of DOW to lower under a proposed utility. Approval will only be given under special circumstances and contingent upon the Contractor submitting a designed drawing, stamped by a Professional Engineer, detailing how the lowered main will be restrained to the existing water main.
- 3. All bends shall be secured by restraining glands, rodding or other methods as approved by the Engineer to restore the water main to service as soon as possible. For water mains 16" and under, concrete backing shall then be provided in accordance with Standard Detail L-6310 for over bends and L-6311 for sag bends. For water mains 20" and larger, refer to the design plans for any specific information regarding restraint methods and concrete backing.
- 4. All water main lowerings shall be less than or equal to 20 feet in length (cut to cut). If more than 20 feet is required, a water main relocation shall occur and will require pressure testing and chlorination.
- 5. All water mains shall be disinfected by swabbing with a 5% Hypochlorite Solution in accordance with the applicable sections of A.W.W.A. C-651,
- 6. 16" mains and smaller for a depth of cover less than ten (10) feet, provide a flat bottom trench. 16" mains and smaller - for a depth of cover greater than ten (10) feet, provide 6-inches of CCS No. 57 for bedding. 20" mains and larger - provide 6-inches of CCS No. 57 for bedding for all situations.
- If an existing water tap is within the limits of the water main lowering, Contractor shall expose the customer's water service line at the curb stop to determine the existing material prior to cutting the existing pipe. If the customer's water service line is found to be lead, DO NOT proceed with the lowering, and contact the Division of Water Distribution Engineering Group immediately at 614-645-7677. If after hours, DO NOT perform the lowering and contact the Division of Distribution Engineering Group immediately the following business day.

WATER MAIN LOWERING COC L-7401 DETAIL NOT TO SCALE



PLAN VIEW

4" 6" 1" 10' 1.76

6" 8" 1" 10' 2.52

8" 12" 1" 10' 4.00

12" 23" 3" 18' 8.64 16" 37" 3" 18' 15.39

PLAN VIEW

LIFT RING DETAIL

REMOVAL OF BOLTS.

# NOTES:

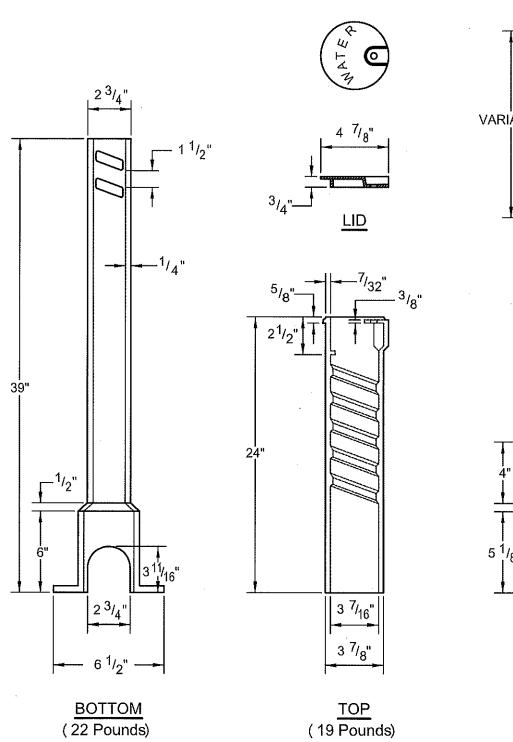
BACKER DESIGNED FOR 3000 PSF SOIL BEARING.

B L VOLUME

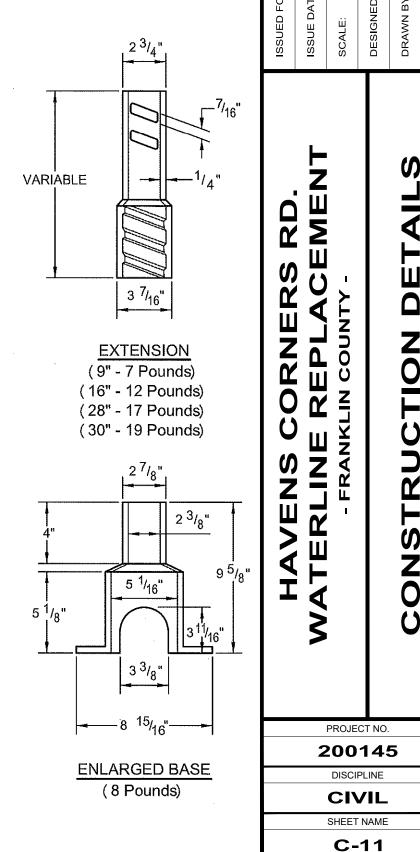
1" | 10' | 1.43

- 2. END OF PIPE CAPPED OR PLUGGED.
- 3. GREASE STEEL PLATE WHERE IN CONTACT WITH CONCRETE BACKER.
- 4. PLACE CONCRETE AGAINST UNDISTURBED SOIL.
- 5. THOROUGHLY COMPACT BACKFILL BETWEEN VALVE AND END OF PIPE.
- 6. FOR WATER MAINS 20" AND GREATER, A THRUST RESTRAINT SYSTEM FOR DEAD END PIPE MUST BE DESIGNED BASED UPON EXISTING SITE CONDITIONS AND PROJECT REQUIREMENTS. DESIGN DRAWINGS AND CALCULATIONS SHALL BE PREPARED BY A PROFESSIONAL ENGINEER AND BE SUBMITTED TO DOW FOR REVIEW.

THRUST BLOCK COC L-7001 DETAIL NOT TO SCALE



**TYPICAL CURB BOX** COC L-1001 DETAIL NOT TO SCALE



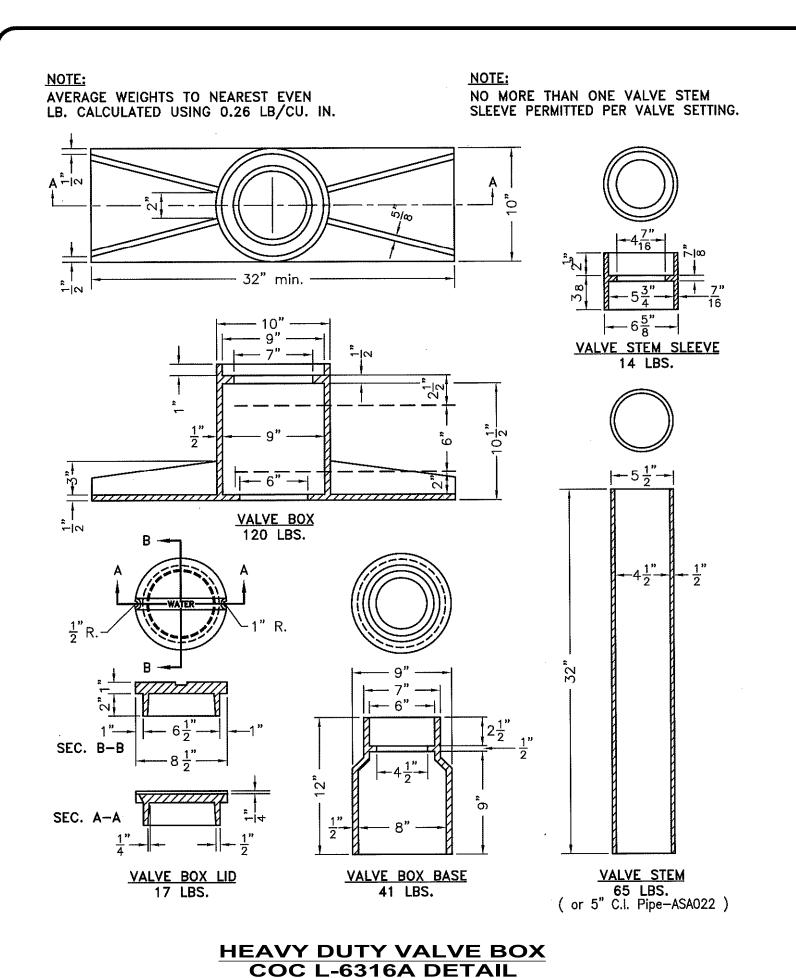
**IMPROVEMENT #: ST-1072** 

SHEET

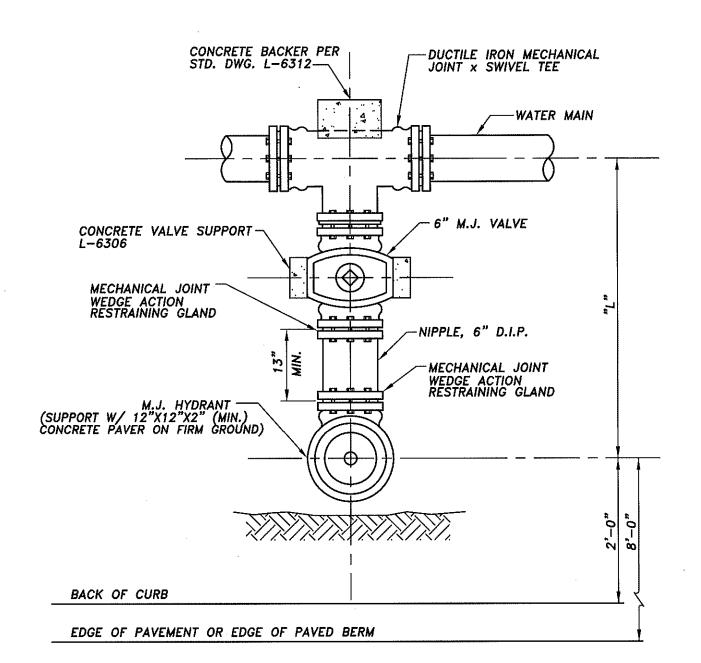
**22** 

23

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NOT TO SCALE



MAIN	DIMENSION "L"
LINE	TYPE "A"
6"	39"
8"	40"
12"	43"
16"	46"
20"	58"
24"	61"
30"	64"

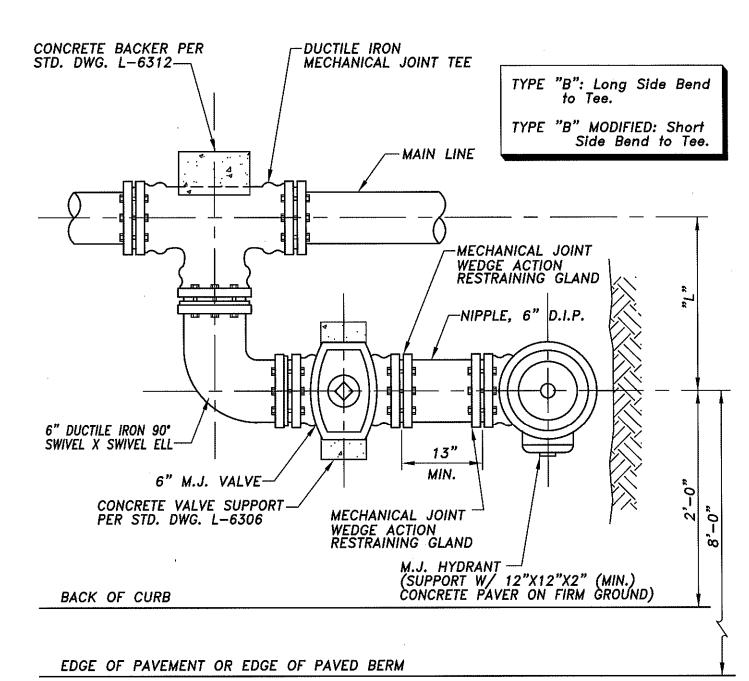
1. FIRE HYDRANT SHALL HAVE A MAXIMUM BURY OF 7'-0". MODIFICATION OF THE HYDRANT LEAD TO MEET THIS REQUIREMENT SHALL BE IN THAT SECTION FROM THE VALVE TO THE HYDRANT AS PER STANDARD DETAIL L-7601.

2. FIRE HYDRANTS SHALL BE SET A MINIMUM OF 6' FROM ALL DRIVEWAY OPENINGS.

3. TEE USED TO CONNECT HYDRANT LEAD TO WATER MAIN IS INCLUDED IN COST OF ITEM 809, FIRE HYDRANT. **TYPICAL TYPE "A" HYDRANT SETTING** 

**COC L-6637A DETAIL** 

NOT TO SCALE



MAIN	DIMENSION "L"	
LINE	TYPE "B"	TYPE "B" MOD.
6"	24"	19"
8"	25"	20"
12"	28"	23"

26"

28"

31"

34"

31"

33"

36"

39"

16"

20"

24"

30"

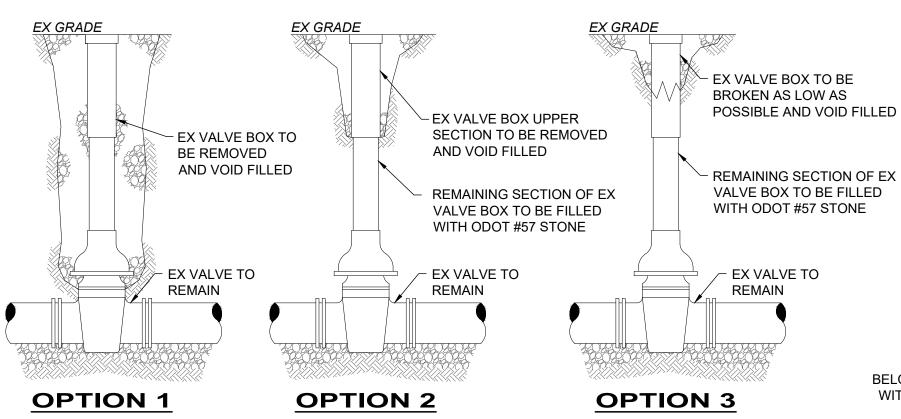
1. FIRE HYDRANT SHALL HAVE A MAXIMUM BURY OF 7'-0". MODIFICATION OF THE HYDRANT LEAD TO MEET THIS REQUIREMENT SHALL BE IN THAT SECTION FROM THE VALVE TO THE HYDRANT AS PER STANDARD DETAIL L-7601.

2. FIRE HYDRANTS SHALL BE SET A MINIMUM OF 6' FROM ALL DRIVEWAY OPENINGS.

3. TEE USED TO CONNECT HYDRANT LEAD TO WATER MAIN IS INCLUDED IN COST OF ITEM 809, FIRE HYDRANT.

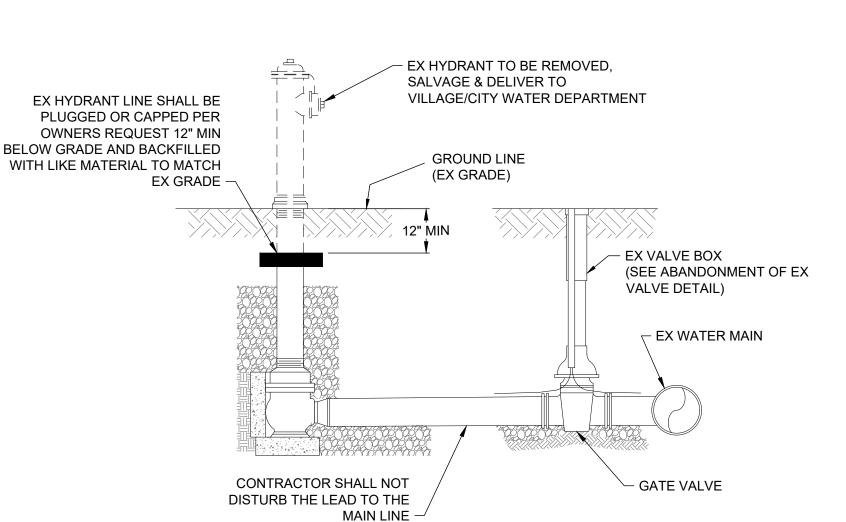
**TYPICAL TYPE "B" AND "B" MODIFIED HYDRANT SETTING, COC L-6409A DETAIL** 

NOT TO SCALE



- EXISTING VALVES TO BE ABANDONED IN PLACE AND SHALL BE LEFT IN THE "CLOSED" OR "OPEN" POSITION AS DESIGNATED BY THE OWNER OR AS OUTLINED IN THE DRAWINGS. PRIOR TO REMOVAL OF THE VALVE BOX THE VALVE SHALL BE ACTUATED TO A FULLY OPEN OR FULLY CLOSED POSITION AND THE POSITION VERIFIED BY THE OWNER OR THE OWNER'S REPRESENTATIVE BEFORE FURTHER ACTION IS TAKEN.
- FOLLOWING VERIFICATION OF VALVE POSITION THE VALVE BOX SHALL BE REMOVED UTILIZING ONE OF THE THREE OPTIONS SHOWN. OPTION 1 IS THE PREFERRED ALTERNATIVE FOR REMOVAL OF THE VALVE BOX, HOWEVER, WHERE THE VALVE IS LOCATED IN AN AREA OF PAVEMENT THAT IS NOT TO BE DISTURBED OR ACCESS FOR EXCAVATION OF THE VALVE BOX AREA IS LIMITED, OPTION 2 OR OPTION 3 MAY BE APPLIED AS AN ALTERNATE. CONTRACTOR SHALL COORDINATE WITH THE OWNER AND/OR THE OWNER'S REPRESENTATIVE ON THE OPTION TO BE UTILIZED PRIOR TO INITIATING THE WORK.
- ONCE THE VALVE BOX HAS BEEN REMOVED, THE REMAINING VOID IS TO BE FILLED WITH COMPACTED GRANULAR MATERIAL AND THE SURFACE RESTORED TO MATCH ADJACENT IN ACCORDANCE WITH DRAWINGS.
- WHERE EXISTING VALVE BOX IS LOCATED IN PAVEMENT THE PAVEMENT SURFACE REMOVED FOR ACCESS TO THE VALVE SHALL BE SAW CUT.

**ABANDONMENT OF EXISTING VALVE** NOT TO SCALE



**HYDRANT ABANDONMENT** NOT TO SCALE

**IMPROVEMENT #: ST-1072** 

PROJECT NO. 200145 DISCIPLINE CIVIL SHEET NAME C-12

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