

**SYMBOLS LEGEND**

--GW-- NEW GREASE WASTE STUB-IN  
--SS-- NEW SANITARY STUB-IN  
— G — NEW NATURAL GAS STUB-IN  
— CW — NEW WATER STUB-IN (WITH GATE VALVE)  
[M] NEW GAS METER  
[E/F] EQUIPMENT/FIXTURE DESIGNATION  
▽ KEYED NOTE  
△ REVISION NUMBER  
TYP. TYPICAL  
F.V. FIELD VERIFY

**PARTIAL PLAN AT DUMPSTERS**  
SCALE: NOT TO SCALE

**SPECIFICATIONS**

- GENERAL CONDITIONS**
- THE GENERAL AND SPECIAL CONDITIONS OF THE ARCHITECTURAL SPECIFICATIONS SHALL BE INCLUDED AS PART OF THESE DOCUMENTS.
  - ALL MATERIALS SHALL BE NEW, UNUSED, AND THE BEST OF THEIR RESPECTIVE KINDS AND FREE FROM DEFECTS.
  - THE CONTRACTOR SHALL PAY ALL FEES, GIVE ALL NOTICES, FILE ALL NECESSARY DRAWINGS AND OBTAIN ALL PERMITS AND CERTIFICATES OF APPROVAL REQUIRED IN CONNECTION WITH ALL WORK UNDER THIS CONTRACT. ALL WORK SHALL BE FURNISHED AND INSTALLED IN FULL ACCORDANCE WITH ALL LOCAL LAWS, ORDINANCES, RULES AND REGULATIONS.
  - DRAWINGS ARE DIAGRAMMATIC ONLY, INTENDING TO SHOW GENERAL RUNS AND LOCATIONS OF THE WORK AND ARE NOT INTENDED TO BE RIGID IN SPECIFIC DETAIL.
  - THE CONTRACTOR SHALL BE HELD TO HAVE EXAMINED THE SITE FOR HIS WORK BEFORE HAVING SUBMITTED HIS PROPOSAL. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR CONDITIONS FOUND DURING THE COURSE OF THE CONTRACT.
  - THE CONTRACTOR SHALL VERIFY ALL MEASUREMENTS AT THE SITE AND BE RESPONSIBLE FOR THE CORRECTNESS OF THE SAME.
  - THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF HIS WORK WITH LIGHTING PLANS, REFLECTED CEILING PLANS, SPRINKLER PLANS AND ALL OTHER TRADES.
  - THE INSTALLATION OF ALL EQUIPMENT AND MATERIALS REQUIRING ACCESS SHALL BE MADE IN SUCH MANNER AS TO MAKE THE EQUIPMENT AND MATERIALS READILY ACCESSIBLE FOR OPERATION, MAINTENANCE AND REPAIRS.
  - STORAGE OF CONSTRUCTION EQUIPMENT AND MATERIALS SHALL BE ONLY IN DESIGNATED SPACES.
  - CONSTRUCTION DEBRIS AND RUBBISH GENERATED BY THE CONTRACTOR SHALL BE REMOVED FROM PREMISES AS OFTEN AS NECESSARY OR AS DIRECTED TO MAINTAIN A CLEAN AND WORKABLE AREA.
  - ALL WORK AND EQUIPMENT SHALL BE FULLY GUARANTEED FOR ONE (1) YEAR FROM THE DATE OF FINAL PAYMENT AND ACCEPTANCE.
  - ALL WORK AND EQUIPMENT WITHIN THE CONTRACT AREA FURNISHED AND INSTALLED UNDER THIS CONTRACT SHALL BE CLEANED TO THE SATISFACTION OF THE OWNER BEFORE TURNING SAME OVER TO THE OWNER.
  - CONNECT NEW WORK TO EXISTING IN A NEAT AND APPROVED MANNER.
  - ALL DESIGN SHALL INCORPORATE CURRENT ASHRAE METHODS.

- PLUMBING SPECIFICATIONS**
- SUPPLY PIPING SHALL BE TYPE "L" COPPER INSTALLED WITH LEADLESS SOLDER. CONDENSATE PIPING ON ROOF SHALL BE COPPER OR PVC. COLD WATER SUPPLY PIPING SHALL BE INSULATED WITH A MINIMUM 1/2" FIBERGLASS WITH VAPOR PROOF ALL SERVICE JACKET OR EQUIVALENT CLOSED CELL FOAM INSULATION, AS ALLOWED BY LOCAL CODES. FOR INSTALLATION IN RETURN AIR PLENUMS, NATURAL GAS PIPE 2" AND SMALLER SHALL BE THREADED SCHEDULE 40 THICKNESS (ANSI B36.10) BLACK STEEL FINISHED WITH RUST INHIBITIVE PRIMER AND PAINT.
  - HANGERS, SUPPORTS AND SLEEVES
    - THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL PIPING SUPPORTS, HANGERS AND METHODS FOR ATTACHMENT TO WALLS AND PARTITIONS.
    - ALL DRAIN, WASTE, HOT AND COLD WATER AND NATURAL GAS PIPING EXPOSED, ABOVE GRADE AND IN FURRED AREAS, SHALL BE SUPPORTED IN PLACE WITH SECURELY FASTENED SOLID PIPE HANGERS NOT OVER 8'-0" APART, AND AT EACH CHANGE IN DIRECTION (5'-0" ON CAST IRON PIPE).
    - PIPE HANGERS SHALL BE INSTALLED AROUND THE OUTSIDE OF INSULATION WITH VAPOR BARRIERS, AND INSULATION SHALL BE PROTECTED AGAINST CRUSHING BY SHEET METAL JACKET OF PROPER AREA AND WEIGHT.
    - ALL WATER PIPING RUNNING THROUGH FLOORS OR WALLS SHALL BE ISOLATED FROM THE PENETRATION WITH A SLEEVE. MAINTAIN THE FIRE RATING OF ALL WALL AND FLOOR PENETRATIONS BY USE OF APPROVED FIRE STOP MATERIALS.
    - SLEEVES THROUGH WALLS SHALL BE CUT SO AS TO BE FLUSH WITH THE FINISHED SURFACE OF THE WALL, IN EACH CASE, AND SHALL BE MADE WATERTIGHT.
  - CONTRACTOR SHALL VERIFY ALL DIMENSIONS, SPACES AND CONDITIONS PRIOR TO FABRICATION AND INSTALLATION OF EQUIPMENT AND MATERIAL.
  - CONTRACTOR SHALL GUARANTEE ALL WORK FREE FROM DEFECTS OF WORKMANSHIP AND/OR MATERIAL FOR A PERIOD OF ONE (1) YEAR FROM DATE OF ACCEPTANCE.
  - DIELECTRIC UNIONS SHALL BE PROVIDED WHEREVER DISSIMILAR METALS ARE JOINED.

**KEYED NOTES**

- EXTEND NEW 4" SANITARY LINE TO CONNECTION WITH SANITARY BY CIVIL. SEE CIVIL FOR INVERT ELEVATION, YARD CLEANOUT, AND CONTINUATION BEYOND 5'-0" FROM THE EXTERIOR FACE OF THE BUILDING.
- EXTEND NEW 4" SANITARY STUB 5'-0" INSIDE THE BUILDING SHELL. CONTRACTOR SHALL TEMPORARILY CAP SANITARY STUB-IN FOR FUTURE CONNECTION BY TENANT.
- EXTEND NEW 2" DOMESTIC WATER FROM NEW WATER METER (SEE CIVIL FOR LOCATION). ROUTE RISER TIGHT TO INSIDE OF EXTERIOR WALL, AND EXTEND PIPING UP TO 14'-0" ABOVE FINISHED FLOOR.
- PROVIDE BALL SHUT-OFF VALVE IN CEILING SPACE AND TEMPORARILY CAP 2" WATER LINE WITHIN 5'-0" INSIDE THE BUILDING SHELL FOR FUTURE CONNECTION BY TENANT. DO NOT ROUTE WATER PIPING ABOVE ELECTRICAL EQUIPMENT - VERIFY IN FIELD.
- INSTALL HOSE BIBB (HB-1) AT 24" ABOVE GRADE. PROVIDE 3/4" CW LINE TO HB-1.
- HB-1: HOSE BIB / WALL HYDRANT: WOODFORD # B65 ANTI-CONTAMINATION, NON-FREEZE WITH COVER PLATE. PROVIDE IN FINISH MOST CLOSELY MATCHED TO EXTERIOR WALL COLOR. ENSURE LANDLORD HAS KEYS TO REMOVE COVER PLATE AT PROJECT COMPLETION.
- HB-2: HOSE BIB / YARD HYDRANT: WOODFORD #Y2 AUTOMATIC DRAINING, FREEZELESS YARD HYDRANT WITH BACKFLOW PREVENTER FOR FUTURE CONNECTION BY TENANT. INSTALL PER MANUFACTURER'S INSTRUCTIONS AT FRONT CORNER OF DUMPSTER ENCLOSURE. CLEAR OF ANY CONFLICTS WITH TRAFFIC OR GATE OPERATION (SEE CIVIL AND/OR FIELD VERIFY). ENSURE PROPER INSULATION, BURY DEPTH, ETC. FOR LOCAL CONDITIONS IS PROVIDED. POSITION UNIT SO THAT HOSE ATTACHMENT FACES AWAY FROM DUMPSTER ENCLOSURE WITHOUT IMPEDING OPERATION OF FLOW LEVER.
- MAINTAIN EXISTING HOSE BIBB FOR FUTURE TENANT.

**CIVIL ENGINEERING DESIGN COORDINATION NOTICE**

NOTICE TO ALL PARTIES HAVING AN INTEREST IN THIS CONSTRUCTION PROJECT

1.) CONTRACTORS RELYING ON DOCUMENTS NOT COORDINATED WITH THE CIVIL ENGINEERING WORK SHALL DO SO AT THEIR OWN RISK.

2.) COORDINATION WITH THE CIVIL ENGINEERING DOCUMENTS HAS BEEN COMPLETED ONLY AS SHOWN BELOW.

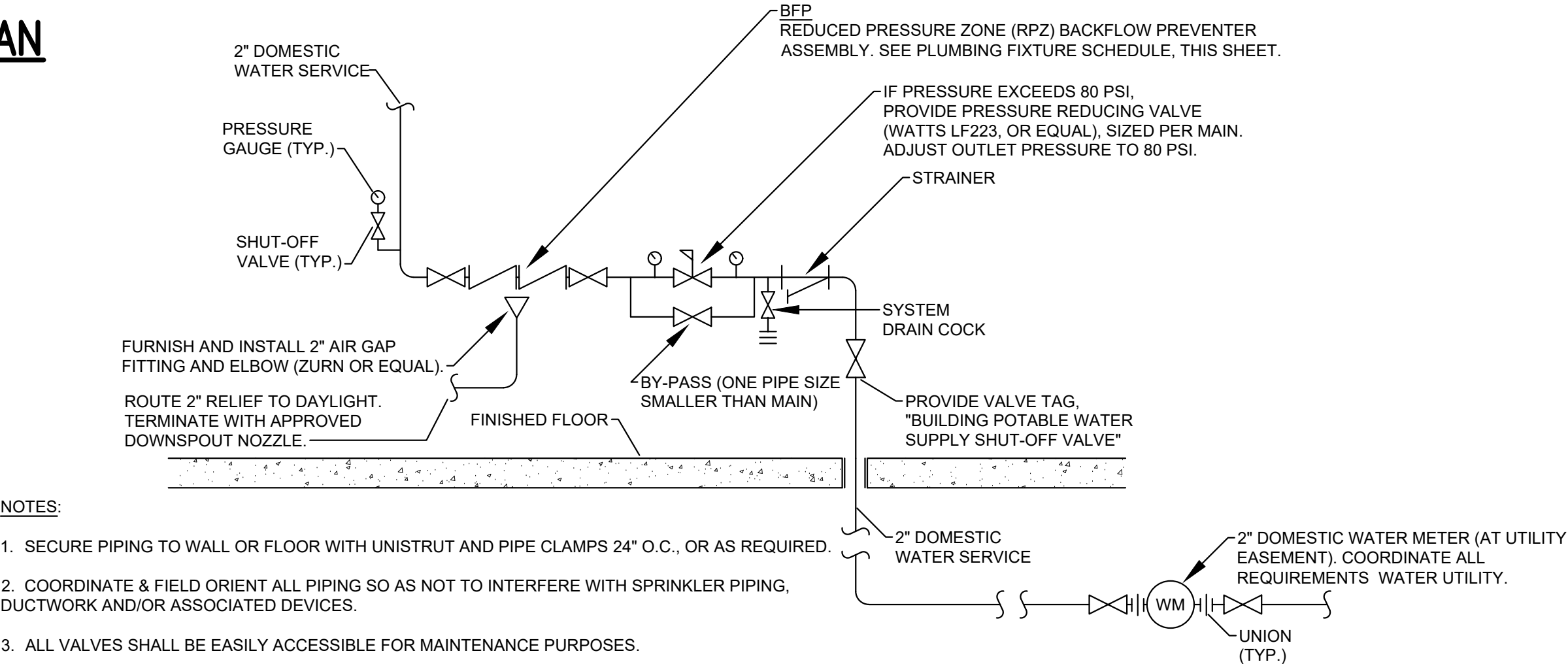
CIVIL ENGINEERING CONSULTANT IS: CASCO CIVIL  
ST. LOUIS, MO

CIVIL SHT. DWG. NO.	CIVIL SHEET DWG. TITLE	REV. NO.	REV. DATE	REV. NO.	REV. DATE	REV. NO.	REV. DATE
C0.0	COVER						
C1.0	DEMOLITION PLAN						
C2.0	SITE AND UTILITY PLAN						
C3.0	GRADING PLAN						
C4.0	SITE DETAILS						
C5.0	EROSION & SEDIMENT CONTROL PLAN						
C5.1	EROSION & SEDIMENT CONTROL DETAILS						

COORDINATION CHECKED BY: \_\_\_\_\_  
DISCIPLINE: \_\_\_\_\_

INITIAL	DATE	INITIAL	DATE	INITIAL	DATE

**PLUMBING PLAN**  
SCALE: 1/8" = 1'-0"



**DOMESTIC WATER SERVICE ENTRANCE**  
SCALE: NOT TO SCALE

**CASCO**  
12 Summit Drive, Suite 100, St. Louis, MO 63143 T: 314.921.1100

**MIDLAND**

Starbucks & Medical Office  
155 S.W. MO-150 HWY  
LEE'S SUMMIT, MO 64802

CONSTR. DOC. & REVISIONS

No.	Description	Date
	Owner Review	05/12/20

CASCO DIVERSIFIED CORPORATION  
PROFESSIONAL ENGINEERING  
CERTIFICATE OF AUTHORITY #000613  
EXP. 12/31/21

*Michael C. Grappenhuis*  
MICHAEL CHARLES GRAPPENHAUS  
REGISTERED PROFESSIONAL ENGINEER  
PE-2008019543  
6/17/20

PROFESSIONAL OF RECORD  
MICHAEL C. GRAPPENHAUS  
License NO.: PE-2008019543  
Expiration Date: 12/31/20

Drawn By/Checked By: BAM/MCG  
Project Number 320488  
Permit Date 06-17-20

**PLUMBING PLAN**

**P101**