



WATER MAIN

GENERAL NOTES:

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE MOST RECENT VERSION OF THE "CITY OF LEE'S SUMMIT, DESIGN AND CONSTRUCTION MANUAL", WATER UTILITIES DEPARTMENT AND "JOB SPECIAL PROVISIONS" (J.S.P.).
2. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL FITTINGS REQUIRED TO PROVIDE PROPER HORIZONTAL AND VERTICAL ALIGNMENT FOR NEW WATER MAINS, CONNECTIONS TO EXISTING WATER MAINS AND INSTALLATION OF FIRE HYDRANTS AT THE PROPER LOCATION AND ELEVATION, WHETHER OR NOT THE PROPER FITTINGS, LOCATION OR ELEVATIONS ARE CALLED OUT ON THESE DRAWINGS, INCLUDING MODIFICATION OF EXISTING INFRASTRUCTURE REQUIRED TO MAKE ALL OF THE WORK CONFORM TO CURRENT WATER UTILITIES DEPARTMENT STANDARDS.
3. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL TEMPORARY BLOW-OFF ASSEMBLIES, FITTINGS, THRUST BLOCKING, AND RESTRAINING DEVICES REQUIRED FOR TEMPORARY CONNECTIONS FOR FLUSHING, PRESSURE TESTING, CHLORINATION, AND DE-CHLORINATION OF THE NEW WATER MAINS. PRIOR TO PLACING NEW MAINS IN SERVICE THE CONTRACTOR SHALL REMOVE ANY CORPORATION COCKS USED FOR TESTING OR CHLORINATION AND REPLACE THEM WITH TAPERED BRASS PLUGS.
4. THE CONTRACTOR SHALL INSTALL POLYETHYLENE ENCASEMENT ON ALL DUCTILE IRON WATER MAINS, VALVES, FITTINGS, AND OTHER APPURTENANCES FOR THE FULL LENGTH OF THE PROJECT IN ACCORDANCE WITH THE "CITY OF LEE'S SUMMIT DESIGN AND CONSTRUCTION MANUAL", WATER UTILITIES DEPARTMENT AND "JOB SPECIAL PROVISIONS" (J.S.P.).
5. SCHEDULING OF WATER MAIN SHUTS AND CONNECTION TO EXISTING MAINS SHALL BE AT THE DISCRETION OF THE WATER SERVICES DEPARTMENT.
6. THE LOCATIONS OF EXISTING UTILITIES, AS SHOWN, ARE APPROXIMATE. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE LOCATIONS AND ELEVATIONS OF ALL EXISTING UTILITIES.
7. THE CONTRACTOR SHALL COMPLY WITH STATE LAW REQUIRING ANY PERSON OR FIRM DOING EXCAVATION ON THE PUBLIC RIGHT-OF-WAY DO SO ONLY AFTER GIVING NOTICE TO AND OBTAINING INFORMATION FROM UTILITY COMPANIES.
8. STREETS AND PARKING AREAS ARE TO BE TO GRADE AND CURBS IN PLACE PRIOR TO CONSTRUCTION OF THE WATER MAINS. WATER MAINS SHALL BE INSTALLED WITH A MINIMUM GROUND COVER OF 42 INCHES BELOW FINISHED GRADE.
9. WATER MAINS SHALL BE LAID AT LEAST 10 FEET, HORIZONTALLY FROM ANY SEWER. WHEN LOCAL CONDITIONS PREVENT A HORIZONTAL SEPARATION OF 10 FEET, A WATER MAIN MAY BE LAID CLOSER THAN 10 FEET TO A SEWER, PROVIDED THAT THE WATER MAIN IS LAID IN A SEPARATE TRENCH, OR ON AN UNDISTURBED EARTH SHELF LOCATED ON ONE SIDE OF THE SEWER, AT SUCH AN ELEVATION THAT THE BOTTOM OF THE WATER MAIN IS AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER. WATER MAINS SHALL BE LAID SUCH THAT THERE IS A MINIMUM OF 18" CLEARANCE BETWEEN THE PIPE WALL AND THE EXTERIOR OF ANY MANHOLE AND/OR INLET ON THE SEWER LINE.
10. WHENEVER A WATER MAIN MUST CROSS ABOVE A SEWER, A VERTICAL SEPARATION OF 18 INCHES BETWEEN THE BOTTOM OF THE WATER MAIN AND THE TOP OF THE SEWER SHALL BE MAINTAINED. WHENEVER A WATER MAIN MUST CROSS UNDER A SEWER, A VERTICAL SEPARATION OF 18 INCHES BETWEEN THE BOTTOM OF THE SEWER AND THE TOP OF THE WATER MAIN SHALL BE MAINTAINED. A FULL LENGTH OF WATER MAIN PIPE SHALL BE CENTERED ON THE SEWER TO BE CROSSED SO THAT THE JOINTS WILL BE EQUALLY DISTANT FROM THE SEWER AND AS FAR AWAY AS POSSIBLE. THE 18 INCH VERTICAL SEPARATION SHALL BE MAINTAINED FOR THAT PORTION OF THE WATER MAIN LOCATED WITHIN 10 FEET, HORIZONTALLY, OF ANY SEWER IT CROSSES.
11. WHEN IT IS IMPOSSIBLE TO OBTAIN PROPER HORIZONTAL SEPARATION AS STIPULATED ABOVE, OR WHEN A WATER MAIN MUST CROSS UNDER A SEWER, THE SEWER MUST BE RECONSTRUCTED OF DUCTILE IRON PIPE MEETING THE REQUIREMENTS OF SECTION 02618 OF THE "STANDARDS AND SPECIFICATIONS FOR WATER MAIN EXTENSIONS AND RELOCATIONS"; PRE-STRESSED CONCRETE CYLINDER PIPE MEETING THE REQUIREMENTS OF SECTION 02619; OR PVC PRESSURE PIPE CONFORMING TO AWWA C-900 OR C-905, AND SHALL BE PRESSURE TESTED TO ASSURE WATER TIGHTNESS BEFORE BACKFILLING. THE REQUIRED LENGTH OF SEWER TO BE REPLACED OR CONSTRUCTED OF PRESSURE PIPE WILL BE THE LENGTH NECESSARY TO ACHIEVE 10 FEET HORIZONTAL SEPARATION.
12. WHERE THESE CONDITIONS CANNOT BE MET, THE WATER SERVICES DEPARTMENT SHALL BE CONSULTED AS TO THE PRECAUTIONS TO BE TAKEN TO PROTECT THE PUBLIC WATER SUPPLY.
13. AN EXCAVATION PERMIT MUST BE OBTAINED FROM THE CITY ENGINEER PRIOR TO COMMENCING CONSTRUCTION WITHIN THE PUBLIC RIGHT-OF-WAY. CONTACT THE PUBLIC WORKS DEPARTMENT PERMIT COUNTER AT CITY HALL.
14. A STREET CLOSURE PERMIT MAY BE REQUIRED FOR THIS WORK. CONTACT THE STREET AND TRAFFIC DIVISION AT CITY HALL.
15. ALL WORK SHALL CONFORM TO THE LATEST REVISION OF THE LEES SUMMIT, MISSOURI EROSION AND SEDIMENT CONTROL SPECIFICATIONS, WHICH ARE MADE A PART HEREOF BY REFERENCE. EROSION CONTROL PLANS SHALL BE SUBMITTED TO THE CITY ENGINEER, PUBLIC WORKS DEPARTMENT FOR REVIEW AND APPROVAL PRIOR TO THE START OF THIS PROJECT



THIS SHEET HAS BEEN  
PRINTED, SEALED, AND SIGNED  
ELECTRONICALLY.

DATE PREPARED 1/8/2015	
ROUTE 50	STATE MO
DISTRICT KC	SHEET NO. 289
COUNTY JACKSON	
JOB NO. J4P2233	
CONTRACT ID. .	
PROJECT NO. .	
BRIDGE NO. .	

DATE	DESCRIPTION
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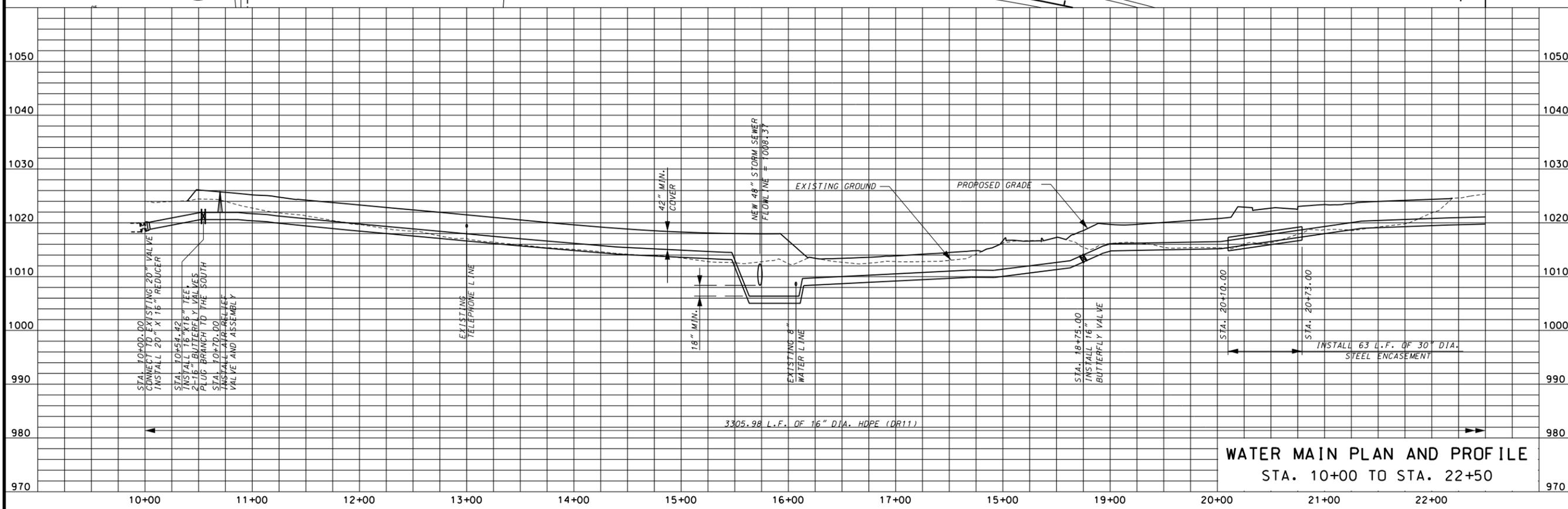
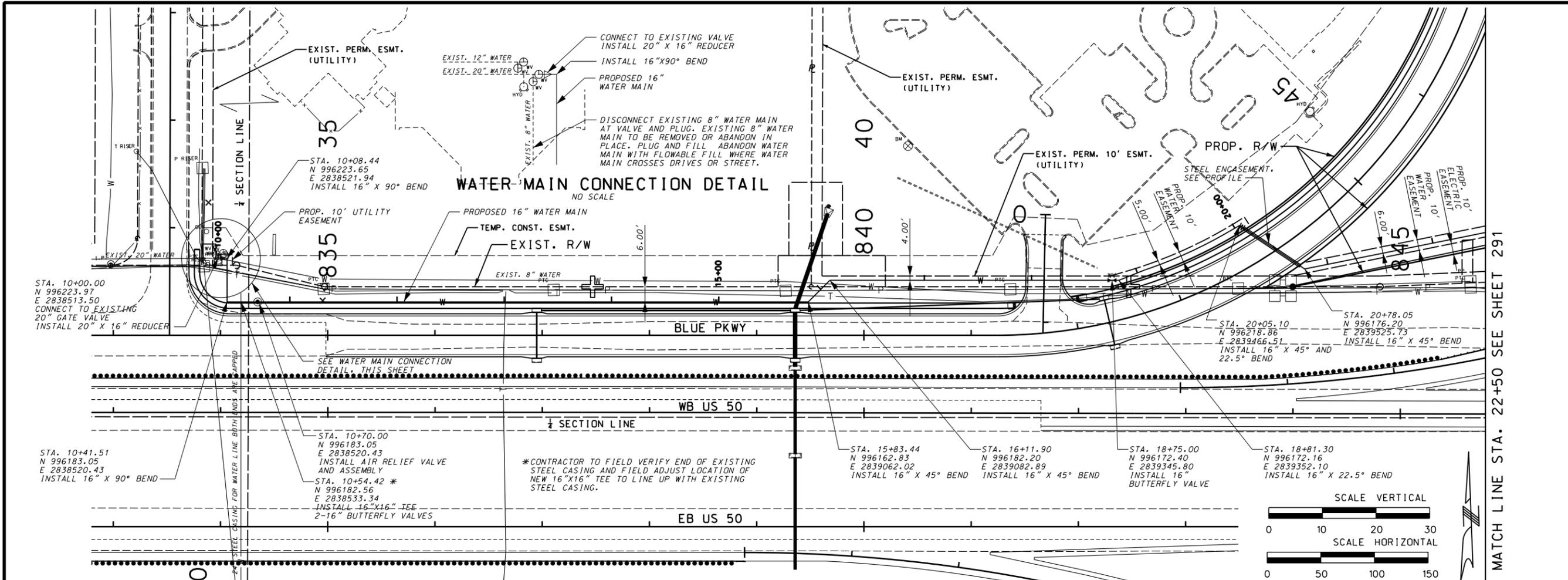
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL  
JEFFERSON CITY, MO 65102  
1-888-ASK-MODOT (1-888-275-6636)

TRANSYSTEMS CORP.  
2400 PERSHING ROAD  
SUITE 400  
KANSAS CITY, MO 64108  
PHONE: (816) 329-8600  
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MO STATE CERTIFICATE OF AUTHORITY # 273  
ENGINEERING

GENERAL NOTES



STATE OF MISSOURI  
JAMES H. LARSON  
LICENSE NUMBER  
E-29507  
PROFESSIONAL ENGINEER

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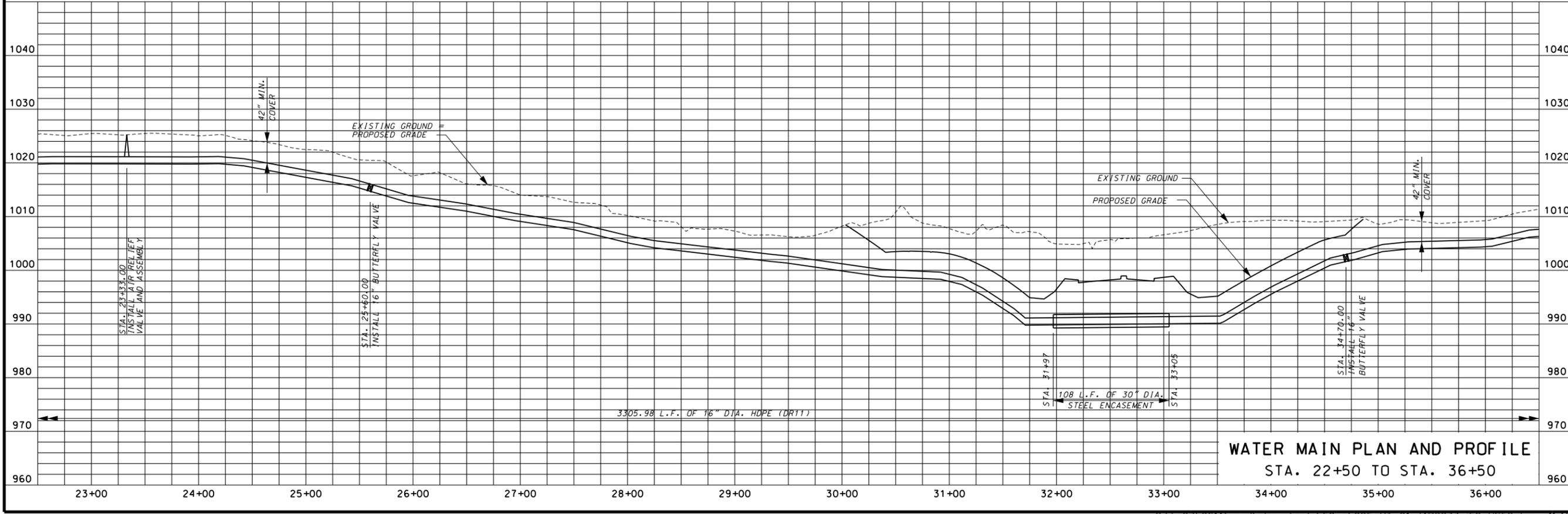
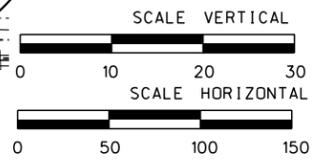
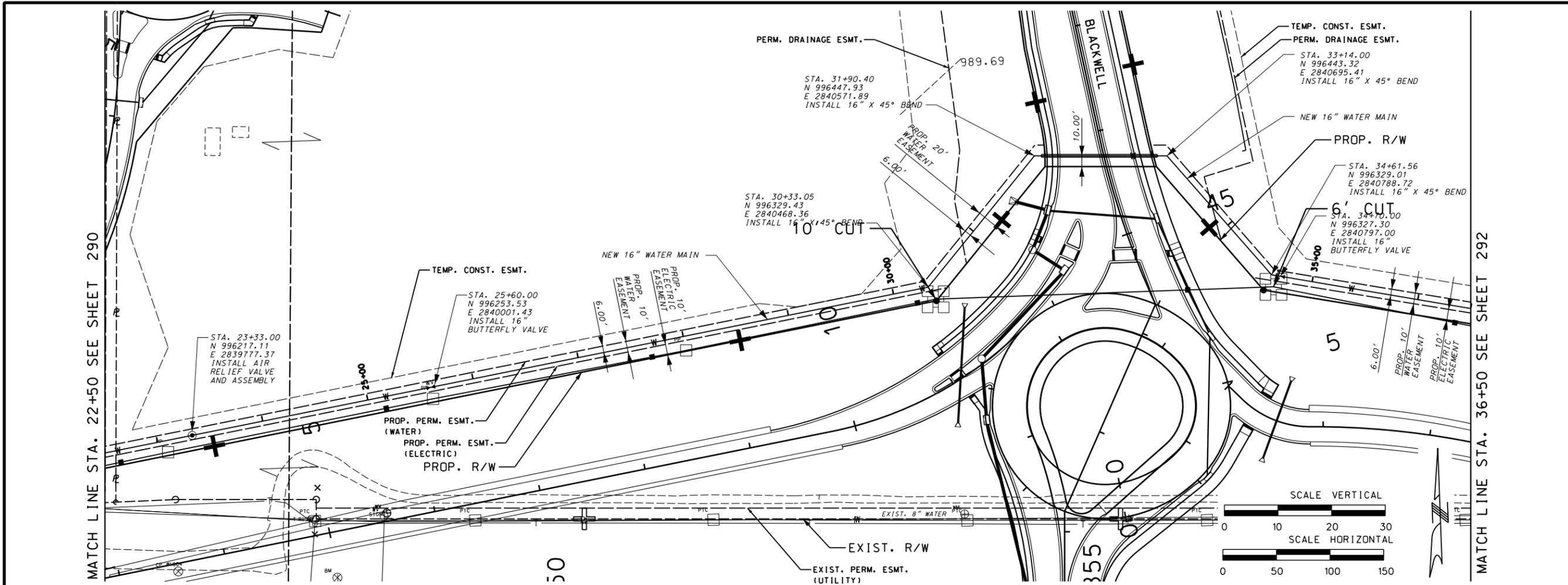
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**WATER MAIN PLAN AND PROFILE**  
STA. 22+50 TO STA. 36+50

DATE PREPARED: 1/8/2015

ROUTE: 50 STATE: MO

DISTRICT: KC SHEET NO.: 291

COUNTY: JACKSON

JOB NO.: J4P2233

CONTRACT ID.:

PROJECT NO.:

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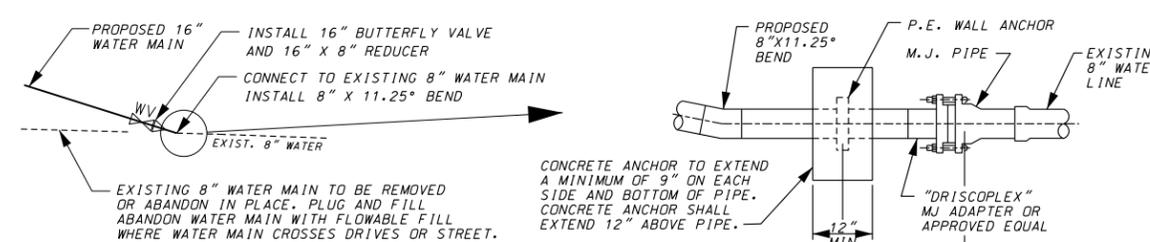
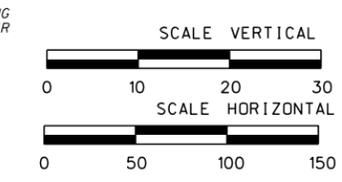
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**WATER MAIN CONNECTION DETAIL**  
NO SCALE

