

STORM SEWER

- 1. LOCATION OF EXISTING UTILITIES IS BASED ON FIELD MARKINGS BY DIGGERS HOTLINE. ALL UTILITIES ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY AND ARE NOT GUARANTEED TO BE ACCURATE. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE LOCATION OF UTILITIES IN THE FIELD PRIOR TO ANY CONSTRUCTION.
2. ALL UTILITY WORK SHALL BE DONE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN - LATEST EDITION, AND ALL STATE AND LOCAL CODES AND SPECIFICATIONS.
3. LENGTH OF ALL UTILITIES ARE TO CENTER OF STRUCTURES OR FITTINGS AND MAY VARY SLIGHTLY FROM PLAN. LENGTHS SHALL BE VERIFIED IN THE FIELD DURING CONSTRUCTION.
4. VERIFY ALL ELEVATIONS, LOCATIONS AND SIZES OF SANITARY, WATER AND STORM LATERALS AND CHECK ALL UTILITY CROSSINGS FOR CONFLICTS.
5. STORM SEWER SPECIFICATIONS :

PIPE - ALL PIPE MATERIAL SHALL BE HIGH DENSITY POLYETHYLENE SMOOTH-WALL INTERIOR CORRUGATED PIPE, UNLESS OTHERWISE SPECIFIED ON THE PLANS. HIGH DENSITY POLYETHYLENE SMOOTH-WALL INTERIOR CORRUGATED PIPE SHALL BE AS MANUFACTURED BY ADS OR EQUAL, WITH WATER TIGHT JOINTS, HAVING A MANNING "N" VALUE OF 0.010, OR EQUAL.
CLEANOUTS - CLEANOUTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE "STANDARD SPECIFICATIONS" OR APPROVED EQUAL. FOR STORM SEWER ONLY, MAY USE A FIELD TYPE INLET IN PLACE OF A CLEANOUT.
TRACER WIRE - INSTALL TRACER WIRE ON ALL NON-METALLIC PIPE. TRACER WIRE SHALL BE MINIMUM 16 GAUGE, GREEN WIRE, INSTALLED WITH SPS 382.

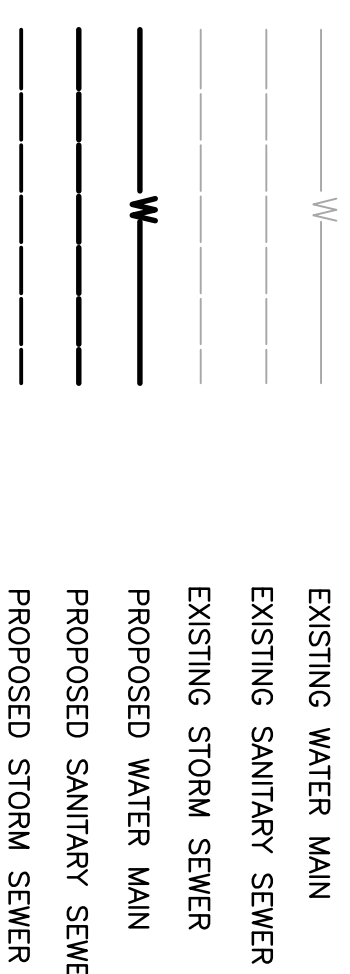
SANITARY SEWER

- 1. ALL TRENCHING SHALL BE PERFORMED ACCORDING TO OSHA STANDARDS.
2. ALL TESTING, FITTINGS, BEDDING AND GRANULAR GRADE WHERE NECESSARY SHALL BE INCLUDED IN THE UNIT COSTS FOR THE INSTALLATION OF THE UNDERGROUND FACILITIES.
3. REFER TO BUILDING PLANS FOR EXACT LOCATIONS OF NEW UTILITY ENTRES.
4. SANITARY SEWER PIPE MATERIALS SHALL BE SDR 35 P.V.C. FOR DEPTHS < 15' AND SDR 26 FOR DEPTHS > 15' IN ACCORDANCE WITH ASTM DESIGNATION D 3034, AND JOINT MATERIAL SHALL BE ELASTOMER GASKETS IN ACCORDANCE WITH ASTM DESIGNATION D 3212.
5. ALL SANITARY SEWER SHALL BE TESTED FOR EXFILTRATION OF AIR UNDER PRESSURE. INFILTRATION OF WATER AND DETECTION FOR FLEXIBLE THERMOPLASTIC PIPE PER THE STANDARD SPECIFICATIONS FOR WATER & SEWER MAIN CONSTRUCTION IN WISCONSIN.
6. ALL SANITARY SEWER SHALL BE CONSTRUCTED SUCH THAT VERTICAL AND HORIZONTAL SEPARATION ARE MAINTAINED PER THE STANDARD SPECIFICATIONS FOR WATER & SEWER MAIN CONSTRUCTION IN WISCONSIN.
7. ALL SANITARY SEWER LATERALS SHALL BE 6" PVC INSTALLED AT 2% MINIMUM SLOPE FROM THE MAIN.
8. TRENCH BACKFILL MATERIAL LOCATED WITHIN A PROPOSED ROADWAY SHALL CONFORM TO CRUSHED ROAD GRAVEL TABLE 39 SEC. 8.43.7 AS SPECIFIED IN THE LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR WATER & SEWER MAIN CONSTRUCTION IN WISCONSIN.
9. THE CONTRACTOR SHALL CLEAR ALL ADJACENT STREETS OF ANY SEDIMENT OR DEBRIS BY SWEEPING BEFORE THE END OF THE WORKING DAY.
10. ADD TRACER WIRE FOR SANITARY LATERAL, GROUND NEAR THE SANITARY MAIN AND EXTEND ALONG LATERAL TO POINT INSIDE BUILDING. TRACER WIRE SHALL BE MINIMUM 18 GAUGE, GREEN WIRE, INSTALLED WITH SPS 382.

GENERAL NOTES

- 1. THIS PROJECT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE FOLLOWING :
A. THE "STANDARD SPECIFICATIONS FOR SEWER AND WATER IN WISCONSIN", CURRENT EDITION (WITH ADDENDA).
B. THE CITY OF WAUKESHA MUNICIPAL CODE, CURRENT EDITION.
2. THE CONTRACTOR SHALL FIELD VERIFY THE ELEVATIONS OF THE BENCHMARKS PRIOR TO COMMENCING WORK. THE CONTRACTOR SHALL ALSO FIELD VERIFY LOCATION, ELEVATION AND SIZES OF EXISTING UTILITIES AND SANITARY SEWER MAINS. THE CONTRACTOR SHALL VERIFY HORIZONTAL CONTROL PRIOR TO PROCEEDING WITH WORK.
3. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO BEGINNING CONSTRUCTION (CALL DIGGERS HOTLINE AT 800-242-8511). COST OF REPLACEMENT OR REPAIR OF EXISTING UTILITIES DAMAGED AS A RESULT OF CONTRACTOR'S OPERATION SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
4. EXISTING UTILITY INFORMATION IS SHOWN FROM SURVEY WORK, FIELD OBSERVATIONS, AVAILABLE PUBLIC RECORDS AND AS-BUILT DRAWINGS. EXACT LOCATIONS AND ELEVATIONS OF UTILITIES SHALL BE DETERMINED PRIOR TO INSTALLING NEW WORK. EXCAVATE TEST PITS AS REQUIRED.
5. PROPERTY CORNERS SHALL BE CAREFULLY PROTECTED UNTIL THEY HAVE BEEN REFERENCED BY A PROFESSIONAL LAND SURVEYOR. PROPERTY MONUMENTS DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
6. ALL MATERIALS SHALL BE APPROVED BY THE CITY OF WAUKESHA PUBLIC WORKS DEPARTMENT PRIOR TO INSTALLATION.
7. THE CITY OF WAUKESHA PUBLIC WORKS DEPARTMENT SHALL BE NOTIFIED 48 HOURS IN ADVANCE OF CONSTRUCTION OF SANITARY SEWERS, INCLUDING FINAL MANHOLE ADJUSTMENTS.
8. MCCLURE ENGINEERING SHALL BE NOTIFIED 48 HOURS IN ADVANCE OF PERFORMING ANY CONSTRUCTION.

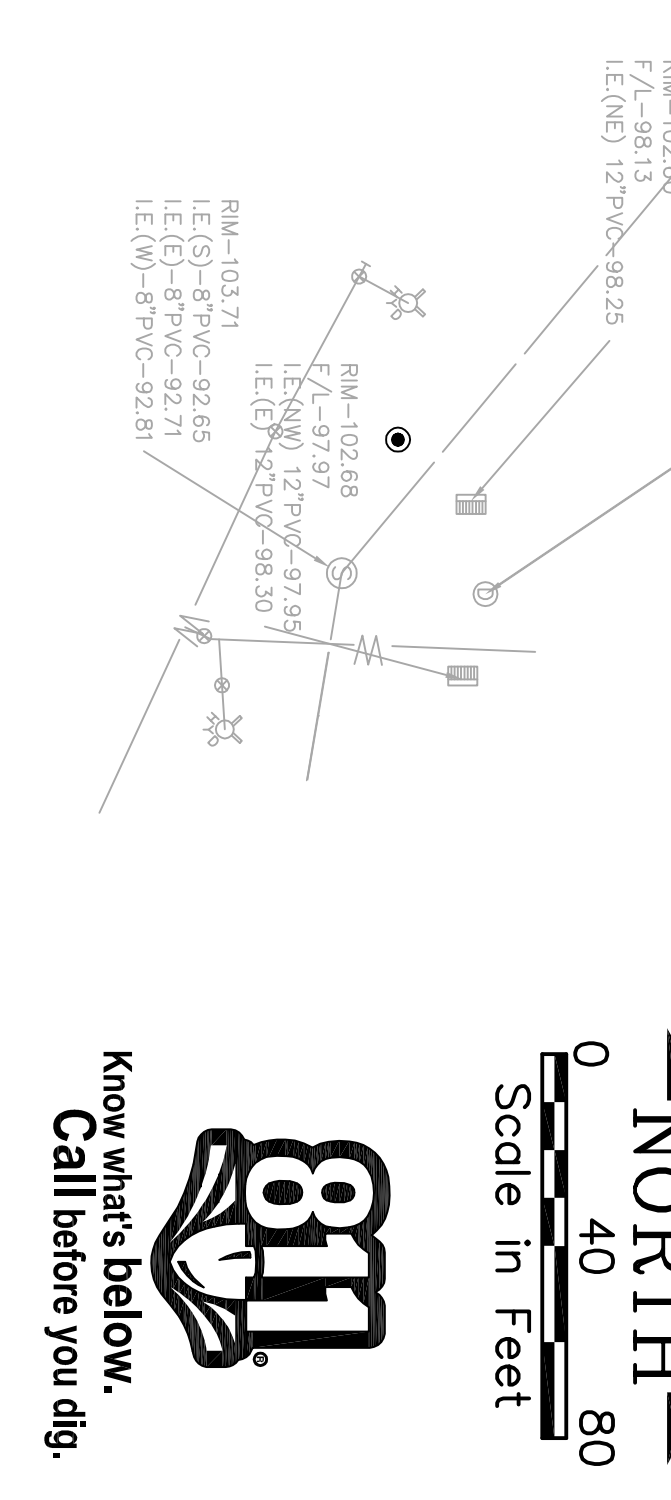
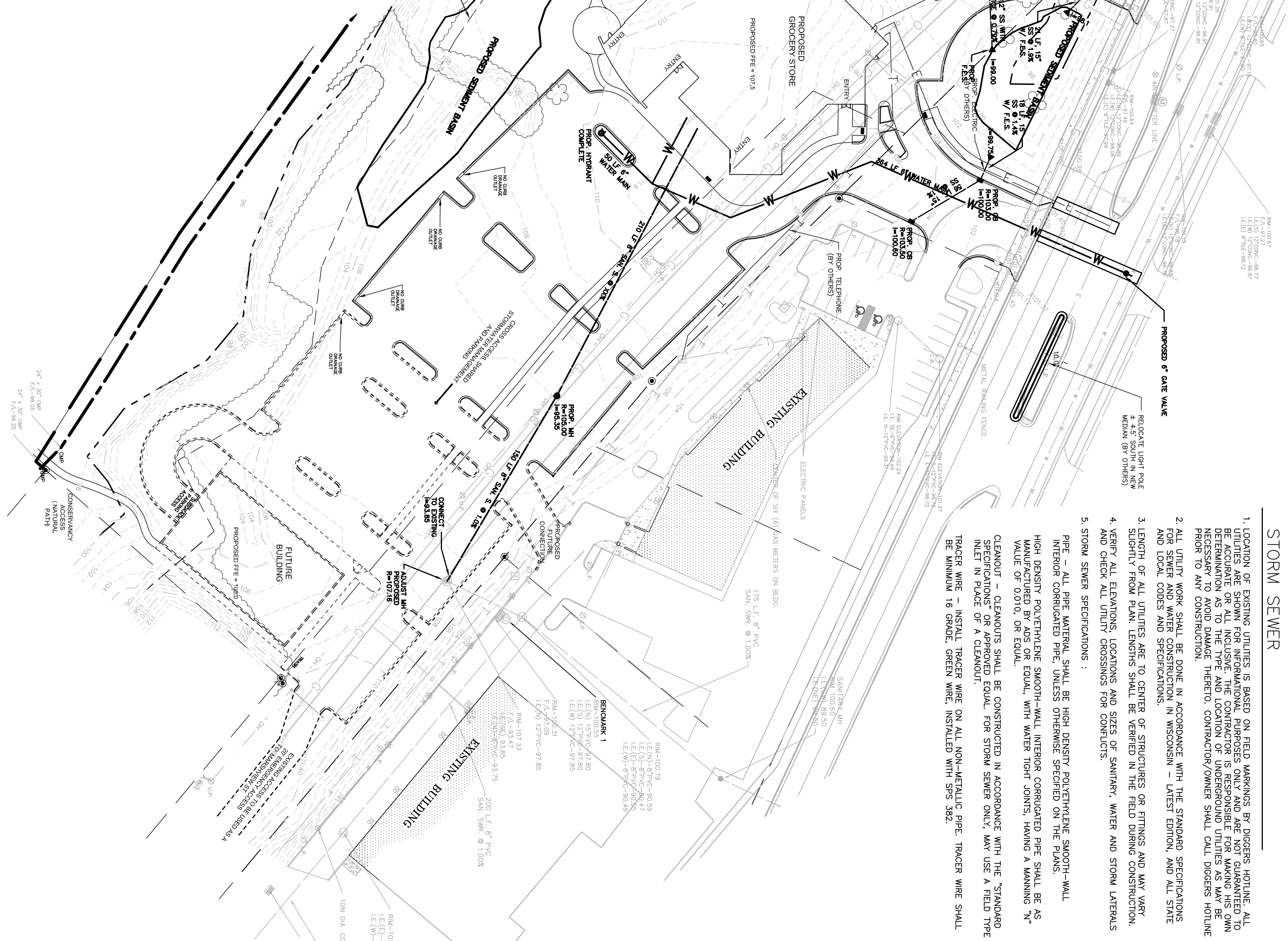
LEGEND



WATER SERVICE

- 1. ALL WATERMAIN SHALL BE Laid AT A DEPTH SUCH THAT A MINIMUM OF 6 FEET OF COVER IS MAINTAINED IN ORDER TO ENSURE THE PREVENTION OF POSSIBLE FREEZING. FOR LOCATIONS WHERE IS NOT POSSIBLE OR PRACTICAL TO HAVE MORE THAN 5 FEET OF COVER OVER THE TOP OF THE WATERMAIN PIPE, THE WATERMAIN SHALL BE INSULATED IN ACCORDANCE WITH SECTION 6.50.2 OF THE "STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN", LATEST EDITION AND THE LOCAL STANDARDS AND SPECIFICATIONS. THIS WORK SHALL BE INCLUDED IN THE UNIT COST FOR WATERMAIN CONSTRUCTION.
2. BEDDING, PIPE COVER AND BACKFILL
A. BEDDING AND COVER MATERIAL - BEDDING AND COVER MATERIAL SHALL CONFORM TO THE APPROPRIATE SECTIONS OF THE "STANDARD SPECIFICATIONS" WITH THE FOLLOWING MODIFICATION : COVER MATERIAL SHALL BE THE SAME AS USED FOR BEDDING AND SHALL CONFORM TO SECTION 8.43.2 (A). BEDDING AND COVER MATERIAL SHALL BE PLACED IN A MINIMUM OF THREE SEPARATE LIFTS, OR AS REQUIRED TO ENSURE ADEQUATE COMPACTION OF THESE MATERIALS, WITH ONE LIFT OF BEDDING MATERIAL ENDING AT OR NEAR THE SPRING LINE OF THE PIPE. THE CONTRACTOR SHALL TAKE CARE TO COMPLETELY WORK BEDDING MATERIAL UNDER THE HAUNCH OF THE PIPE TO PROVIDE ADEQUATE SIDE SUPPORT".
B. BACKFILL - BACKFILL MATERIAL AND INSTALLATION SHALL BE IN ACCORDANCE WITH CHAPTER 2.6.D OF THE "STANDARD SPECIFICATIONS". GRAVEL BACKFILL IS REQUIRED IN ALL PAVED AREAS AND TO A POINT 5 FEET BEYOND THE EDGE OF PAVEMENT. TRENCHES RUNNING PARALLEL TO AND LESS THAN 5 FEET FROM THE EDGE OF PAVEMENT SHALL ALSO REQUIRE GRAVEL BACKFILL. LANDSCAPED AREAS MAY BE BACKFILLED WITH EXCAVATED MATERIAL IN CONFORMANCE WITH SECTION 8.43.5 OF THE "STANDARD SPECIFICATIONS".
3. ALL WATERMAIN SHALL BE TESTED FOR WATER QUALITY AND JOINT TIGHTNESS PER AWWA STANDARDS AND WILL NOT BE ACCEPTED UNTIL PASSAGE IS AFFIRMED.
4. ALL WATER SERVICES SHALL BE INSTALLED TO MEET ASTM D1785 AND ASTM D2241 STANDARDS.
5. ALL VALVE BOXES SHALL BE DUCTILE IRON AND WRAPPED IN POLYETHYLENE MATERIAL FOR CORROSION PROTECTION.
6. ADD TRACER WIRE FOR WATER LATERAL. INSTALL TRACER WIRE ON ALL NON-METALLIC PIPE. TRACER WIRE SHALL BE MINIMUM 16 GAUGE, BLUE WIRE, INSTALLED WITH SPS 382.

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Project information block containing: REVISIONS table, PLOTTING SCALE: 1" = 40', DESIGNED BY: KCH, DRAWN BY: JBB, CHECKED BY: KCH, DATE: MAY 28, 2014; McClure Engineering Associates, Inc. logo and address (5417 North 118th Court, Milwaukee, WI); UTILITY PLAN title; GOOD HARVEST MARKET II, LLC; 1850 MEADOW LANE; 262-544-9380; WAUKESHA, WI.; FILE NAME: W:\USERS\jheff\goodharvest\13025 EB.dwg; JOB NUMBER: 08-15-13-025