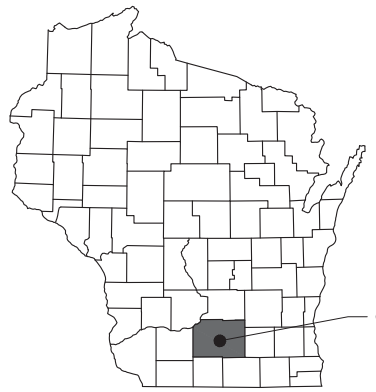
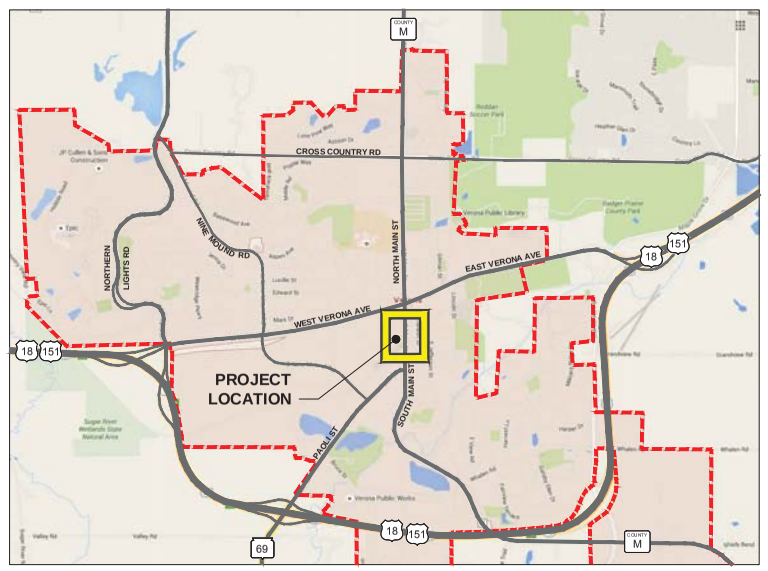
DOWNTOWN STREETSCAPE - PHASE 1
BIDDING DOCUMENTS

CITY OF VERONA, DANE COUNTY, WISCONSIN

AUGUST 4, 2016





CITY OF VERONA
N.T.S.

PROJECT OVERVIEW
N.T.S.

SHEET INDEX

1	TITLE SHEET
2	PROJECT NOTES
3	PROJECT OVERVIEW
4-6	DEMOLITION & EROSION CONTROL PLANS
7-10	LAYOUT PLANS
11-14	GRADING PLANS
15-18	ELECTRICAL PLANS
19-20	PLUMBING PLANS
3 4 21-24	LANDSCAPE PLANS - (SHEETS 22 & 23 NOT USED)
25-39	FOUNTAIN DETAILS
1 40-47	DETAILS

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TITLE SHEET 4

DOWNTOWN STREETSCAPE - PHASE 1

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CITY OF VERONA, DANE COUNTY, WISCONSIN

BIDDING DOCUMENTS

DATE: AUGUST 4, 2016

REVISED:	REV #	DR #
08-10-2016	ADDENDUM 1	1
08-15-2016	ADDENDUM 3	3
08-16-2016	ADDENDUM 4	4

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GENERAL NOTES

1. CONSTRUCTION PROCEDURES & METHODS SHALL BE IN COMPLIANCE WITH ALL LOCAL & STATE CODES & CONFORM TO THE LATEST EDITIONS OF THE FOLLOWING:
   - ***WISCONSIN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS***
   - ***CITY OF VERONA STANDARD SPECIFICATIONS***
   - ***STANDARD SPECIFICATION FOR SEWER & WATER CONSTRUCTION IN WISCONSIN***
2. COORDINATE SITE CONSTRUCTION ACCESS, TRAFFIC CONTROL, & ANY SIDEWALK CLOSURES WITH THE CITY OF VERONA.
3. OWNER ACTIVITIES WILL CONTINUE IN AND ABOUT THE SITE DURING CONSTRUCTION. INSTALL BARRICADE FENCING (SNOW FENCE), AS NECESSARY, TO PROVIDE A SAFE ENVIRONMENT BETWEEN CONSTRUCTION WORK AND GENERAL PUBLIC/PEDESTRIAN CIRCULATION
4. ALL SITE ENTITIES THAT ARE NOT SCHEDULED TO BE MODIFIED SHALL BE PROTECTED, MAINTAINED AND LEFT UNDISTURBED
5. ANY ITEMS THAT ARE DISTURBED BY DEMOLITION / CONSTRUCTION ACTIVITIES THAT WERE NOT SCHEDULED TO BE MODIFIED SHALL BE REPAIRED TO THE ORIGINAL CONDITION AT NO COST TO THE OWNER
6. MAINTAIN BENCH MARKS AND CONTROL POINTS EXISTING ON SITE

EXISTING UTILITIES

1. CONTRACTOR SHALL CONTACT DIGGER'S HOTLINE A MINIMUM OF 3 DAYS PRIOR TO DEMOLITION, CONSTRUCTION, OR EXCAVATION ACTIVITIES
2. THE CONTRACTOR SHALL BE AWARE OF ALL EXISTING UTILITIES ADJACENT TO & WITHIN THE CONSTRUCTION AREA AND SHALL BE RESPONSIBLE FOR EXISTING UTILITY PROTECTION DURING CONSTRUCTION
3. UTILITIES SHOWN ON THE PLANS ARE INDICATED IN ACCORDANCE WITH AVAILABLE RECORDS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING EXACT LOCATIONS AND ELEVATIONS FOR ALL UTILITIES FROM THE OWNERS OF THE RESPECTIVE UTILITY
4. IF EXISTING UTILITIES ARE FOUND TO INTERFERE WITH THE PERMANENT FACILITIES BEING CONSTRUCTED UNDER THIS PROJECT, IMMEDIATELY NOTIFY THE ENGINEER & SECURE HIS WRITTEN INSTRUCTIONS. DO NOT PROCEED WITH PERMANENT RELOCATION OF UTILITIES UNTIL WRITTEN INSTRUCTIONS ARE RECEIVED FROM THE ENGINEER

EROSION CONTROL NOTES

1. ALL EROSION CONTROL MEASURES SHALL BE CONSTRUCTED AND MAINTAINED BY THE CONTRACTOR IN ACCORDANCE WITH THE WISCONSIN DNR TECHNICAL STANDARDS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN A COPY OF THESE STANDARDS.
2. INSTALL EROSION CONTROL MEASURES PRIOR TO ANY SITE WORK, INCLUDING GRADING OR DISTURBANCE OF EXISTING SURFACE MATERIALS AS SHOWN ON PLAN. MODIFICATIONS TO SEDIMENT CONTROL DESIGN MAY BE CONDUCTED TO MEET UNFORESEEN FIELD CONDITIONS IF MODIFICATIONS CONFORM TO WDNR TECHNICAL STANDARDS.
3. EROSION CONTROL MEASURES INDICATED ON THE PLANS SHALL BE CONSIDERED MINIMUMS. IF DETERMINED NECESSARY DURING CONSTRUCTION ADDITIONAL MEASURES SHALL BE INSTALLED TO PREVENT SEDIMENT FROM LEAVING THE SITE.
4. INSPECTIONS AND MAINTENANCE OF ALL EROSION CONTROL MEASURES SHALL BE ROUTINE (ONCE PER WEEK MINIMUM) TO ENSURE PROPER FUNCTION OF EROSION CONTROLS AT ALL TIMES. EROSION CONTROL MEASURES ARE TO BE IN WORKING ORDER AT THE END OF EACH WORK DAY.
5. INSPECT EROSION CONTROL MEASURES AFTER EACH 1/2" OR GREATER RAINFALL. REPAIR ANY DAMAGE OBSERVED DURING THE INSPECTION.
6. NO SITE GRADING OUTSIDE OF THE LIMITS OF DISTURBANCE
7. EROSION CONTROL MEASURES SHALL BE REMOVED ONLY AFTER SITE CONSTRUCTION IS COMPLETE WITH ALL SOIL SURFACES HAVING AN ESTABLISHED VEGETATIVE COVER
8. INSTALL INLET PROTECTION IN ALL STORM SEWER INLETS AND CATCH BASINS THAT MAY RECEIVE RUNOFF FROM DISTURBED AREAS
9. CUT AND FILL SLOPES SHALL BE NO GREATER THAN 3:1
10. SLOPES EXCEEDING 4:1 SHALL BE STABILIZED WITH CLASS I, TYPE B EROSION MATTING AND ALL DRAINAGE SWALES SHALL BE STABILIZED WITH CLASS II, TYPE B EROSION MATTING.
11. ALL INCIDENTAL MUD TRACKING OFF-SITE ONTO ADJACENT PUBLIC THOROUGHFARES SHALL BE CLEANED UP AND REMOVED BY THE END OF EACH WORKING DAY USING PROPER DISPOSAL METHODS. HYDRAULIC FLUSHING IS NOT ALLOWED.
12. ANY DISTURBED AREA THAT REMAINS INACTIVE FOR GREATER THAN 7 DAYS SHALL BE STABILIZED WITH TEMPORARY STABILIZATION METHODS SUCH AS TEMPORARY SEEDING, SOIL TREATMENT, EROSION MATTING, OR MULCH
13. PREVENT EXCESSIVE DUST FROM LEAVING THE CONSTRUCTION SITE IN ACCORDANCE WITH LOCAL AND STATE REGULATIONS.
14. INSTALL EROSION CONTROL MEASURES ON THE DOWNSTREAM SIDE OF STOCKPILES.
15. AT A MINIMUM ALL DISTURBED AREAS SHALL RECEIVE A MINIMUM OF 6" OF TOPSOIL FERTILIZER, SEED AND MULCH. SEE MIXTURE SHALL BE WISCONSIN DOT SEED MIX #40 OR EQUIVALENT APPLIED AT A RATE OF 5 POUNDS PER 1000 SQFT ON ALL DISTURBED AREAS. ANNUAL RYEGRASS AT A RATE OF $1\frac{1}{2}$ POUNDS PER 1000 SQFT SHALL BE ADDED TO THE MIXTURE. FERTILIZER SHALL BE PLACED PER A SOIL TEST.
16. DEWATERING, IF APPLICABLE, SHALL BE CONDUCTED PER WDNR STORM WATER MANAGEMENT TECHNICAL STANDARD 1061.
17. IF EXCESSIVE SILTATION IN THE PONDS IS OBSERVED A SOILS PROBE SHOULD BE COMPLETED TO DETERMINE IF THE ACCUMULATED DEPTH OF SEDIMENT IN THE PONDS HAS IMPACTED FUTURE PERFORMANCE.

CONSTRUCTION SEQUENCE

9-1-2016 INSTALL EROSION CONTROL MEASURES

9-1-2016 COMMENCE EXCAVATION AND GRADING

9-1-2016 COMMENCE CONSTRUCTION

9-15-2016 PAVING

10-15-2016 LANDSCAPING AND RESTORATION

10-30-2016 SUBSTANTIAL COMPLETION

11-15-2016 FINAL COMPLETION

DEMOLITION NOTES

1. ALL WASTE & UNUSED CONSTRUCTION MATERIALS SHALL NOT ALLOWED TO BE CARRIED OFF-SITE BY RUNOFF OR WIND. ANY SEDIMENT DEPOSITS OCCURRING AS A RESULT OF CONSTRUCTION WORK OR A STORM EVENT SHALL BE CLEANED UP BY THE END OF EACH DAY. FLUSHING SHALL NOT BE ALLOWED.
2. TREES SCHEDULED TO BE REMOVED SHALL HAVE THEIR STUMPS, LOGS, ROOTS & OTHER ASSOCIATED ORGANIC MATERIAL REMOVED COMPLETELY
3. ON-SITE BURNING OF TREE REMOVAL MATERIALS IS NOT ALLOWED
4. DISPOSE OF ALL DEMOLITION DEBRIS AND DELETERIOUS MATERIAL OFF THE PROJECT SITE IN A LEGAL MANNER.
5. HORIZONTAL CURB CUTTING IS NOT AN ACCEPTABLE ALTERNATIVE TO CURB AND GUTTER REMOVAL
6. REMOVE PUBLIC SIDEWALKS AS INDICATED ON PLANS. VERIFY AND MATCH EXISTING GRADES AT BACK OF WALK

SITE PREPARATION & GRADING

1. ***SOIL MATERIALS*** - SOIL MATERIALS USED AS FILL, BACKFILL, OR PAVEMENTS, EMBANKMENTS, OR SITE GRADING SHALL CONSIST OF SUITABLE MATERIAL AS FOUND AVAILABLE ON SITE, UNTIL SUCH SUPPLY OF ON-SITE MATERIAL IS DEPLETED. PROVIDE SUITABLE MATERIAL FREE FROM ORGANIC MATTER AND DELETERIOUS SUBSTANCES, CONTAINING NO ROCKS OR LUMPS OVER SIX (6) INCHES (152 MM) IN GREATEST DIMENSION, AND WITH NOT MORE THAN 15% OF THE ROCKS OR LUMPS LARGER THAN TWO AND ONE-HALF (2-1/2) INCHES (64 MM) IN THEIR GREATEST DIMENSION. DO NOT PERMIT ROCKS HAVING A DIMENSION GREATER THAN ONE (1) INCH (25 MM) IN THE UPPER SIX (6) INCHES (152 MM) OF FILL OR EMBANKMENT. SHOULD THE QUANTITY OF SUITABLE ON-SITE MATERIAL BE INSUFFICIENT TO COMPLETE THE WORK, SUITABLE BORROW MATERIAL AS APPROVED BY A LICENSED GEOTECHNICAL ENGINEER SHALL BE PROVIDED BY THE CONTRACTOR AT NO ADDITIONAL EXPENSE TO THE OWNER.
2. **UNSUITABLE EXCAVATED MATERIAL** - REMOVE FROM THE SITE AND DISPOSE OF ALL UNSUITABLE MATERIAL, UNLESS OTHERWISE APPROVED BY THE ENGINEER.
3. ***SUB-GRADE FILL*** - SUB-GRADE FILL SHALL BE APPROVED BY A GEOTECHNICAL ENGINEER
4. ***TOPSOIL*** - TOPSOIL SHALL BE THE DARK BROWN TO BLACK SANDY MATERIAL, IF AVAILABLE, STRIPPED FROM THE SITE. IF STRIPPED TOPSOIL IS NOT SUITABLE OR SUFFICIENT MATERIAL IS NOT AVAILABLE ON SITE, PROVIDE TOPSOIL FROM AN APPROVED OFF-SITE SOURCE. USE TOPSOIL CONSISTING OF MATERIAL REMOVED FROM THE TOP THREE (3) TO SIX (6) INCHES (76 TO 152 MM) OF SOILS. USE TOPSOIL CONTAINING NO STONES, ROOTS OR LARGE CLODS OF SOIL. STOCKPILE TOPSOIL SEPARATE FROM OTHER EXCAVATED MATERIAL. SPREAD TOPSOIL TO A DEPTH OF SIX (6) INCHES (152 MM) MINIMUM UNLESS OTHERWISE NOTED ON THE PLANS. COMPACT TOPSOIL PER COMPACTION REQUIREMENTS
5. ***SAND*** - SAND SHALL BE SHALL COMPLY WITH PAVER SUPPLIER'S SPECIFICATIONS
6. ***GRANULAR FILL*** - SHALL CONFORM TO SECTION 209 OF THE WDOT STANDARD SPECIFICATIONS.
7. ***DISPOSITION OF MATERIALS*** - SURPLUS EARTH: UNLESS DESIGNATED ELSEWHERE FOR USE OR DISPOSAL ON OWNER'S PROPERTY, SURPLUS EARTH BECOMES THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE OWNER'S SITE. THE COST OF DISPOSAL OFF-SITE SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
8. ***MATERIAL BALANCE*** - THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE QUANTITIES OF MATERIAL NECESSARY FOR COMPLETING THE WORK UNDER THIS SECTION, AND THIS INCLUDES THE COST OF IMPORTING APPROVED FILL OR EXPORTING EXCESS MATERIALS.
9. ***DEWATERING*** - PREVENT SURFACE WATER AND SUBSURFACE (GROUND) WATER FROM FLOWING INTO EXCAVATIONS AND FROM FLOODING THE SITE AND SURROUNDING AREA. DO NOT ALLOW WATER TO ACCUMULATE IN EXCAVATIONS. REMOVE WATER TO PREVENT SOIL CHANGES DETRIMENTAL TO STABILITY OF SUBGRADES AND FOUNDATIONS. PROVIDE AND MAINTAIN PUMPS, WELL POINTS, SUCTION AND DISCHARGE LINES, AND OTHER DEWATERING SYSTEM COMPONENTS NECESSARY TO CONVEY WATER AWAY FROM EXCAVATIONS. CONVEY WATER REMOVED FROM EXCAVATIONS AND RAIN WATER TO COLLECTING OR RUN-OFF AREAS. ESTABLISH AND MAINTAIN TEMPORARY DRAINAGE DITCHES AND OTHER DIVERSIONS OUTSIDE EXCAVATION LIMITS FOR EACH STRUCTURE. DO NOT USE TRENCH EXCAVATIONS AS TEMPORARY DRAINAGE DITCHES. THE COST OF DEWATERING SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
10. ***COLD WEATHER PROTECTION*** - PROTECT EXCAVATION BOTTOMS AND BEARING SURFACES AGAINST FREEZING WHEN ATMOSPHERIC TEMPERATURE IS LESS THAN 35 DEGREES F (2 DEGREES C).
11. ***ROCK EXCAVATION*** - IMMEDIATELY NOTIFY THE ENGINEER UPON ENCOUNTERING ROCK OR SIMILAR MATERIAL WHICH CANNOT BE REMOVED OR EXCAVATED BY CONVENTIONAL EARTH MOVING OR RIPPING EQUIPMENT.
12. ***OVER EXCAVATION*** - IN THE EVENT THAT IT IS NECESSARY TO REMOVE UNSUITABLE MATERIAL TO A DEPTH GREATER THAN THAT SHOWN ON THE DRAWINGS, OR OTHERWISE SPECIFIED, THE CONTRACTOR SHALL REMOVE, REPLACE AND COMPACT SUCH MATERIAL WITH SUITABLE MATERIALS AS DIRECTED BY THE GEOTECHNICAL ENGINEER AT NO ADDITIONAL EXPENSE TO THE OWNER.
13. ***PLACING AND COMPACTING*** - PLACE BACKFILL AND FILL MATERIALS IN LAYERS NOT MORE THAN EIGHT (8) INCHES (203 MM) IN LOOSE DEPTH. BEFORE COMPACTING, MOISTEN OR AERATE EACH LAYER AS NECESSARY TO PROVIDE THE OPTIMUM MOISTURE CONTENT. COMPACT EACH LAYER TO REQUIRED PERCENTAGE OF MAXIMUM DENSITY FOR THE AREA. DO NOT PLACE BACKFILL OR FILL MATERIAL ON SURFACES THAT ARE MUDDY, FROZEN, OR CONTAIN FROST OR ICE. PLACE BACKFILL AND FILL MATERIALS EVENLY ADJACENT TO STRUCTURES, TO REQUIRED ELEVATIONS.
14. ***MOISTURE CONTROL*** - DO NOT USE SOIL MATERIAL THAT IS EITHER TOO DRY OR TOO WET TO ACHIEVE PROPER COMPACTION. WHERE SUBGRADE OR LAYER OF SOIL MATERIAL IS TOO DRY TO ACHIEVE PROPER COMPACTION, UNIFORMLY APPLY WATER TO SURFACE OF SOIL MATERIAL SUCH THAT FREE WATER DOES NOT APPEAR ON THE SURFACE DURING OR SUBSEQUENT TO COMPACTING OPERATIONS. REMOVE AND REPLACE, OR SCARIFY AND AIR DRY, SOIL MATERIAL THAT IS TOO WET TO PERMIT COMPACTING TO THE SPECIFIED DENSITY. SOIL MATERIAL THAT HAS BEEN REMOVED BECAUSE IT IS TOO WET TO PERMIT COMPACTING MAY BE STOCKPILED OR SPREAD AND ALLOWED TO DRY. ASSIST DRYING BY DISCING, HARROWING, OR PULVERIZING UNTIL MOISTURE CONTENT IS REDUCED TO A SATISFACTORY VALUE AS DETERMINED BY MOISTURE-DENSITY RELATION TESTS APPROVED BY THE GEOTECHNICAL ENGINEER.
15. ***COMPACTION REQUIREMENTS*** - COMPACT SOILS TO NOT LESS THAN THE FOLLOWING PERCENTAGES OF MAXIMUM DRY DENSITY AS DETERMINED IN ACCORDANCE WITH ASTM D1557, METHOD A (MODIFIED PROCTOR).
    FILL BENEATH PAVED SURFACES: 95%
    TOP TWELVE (12) INCHES (305 MM) OF SUBGRADE: 95%
    LAWN AND UNPAVED OPEN AREAS: 92%.
16. ***FIELD QUALITY CONTROL*** - CONVENTIONAL TESTING AND INSPECTION SERVICES HEREIN DESCRIBE THOSE ITEMS NOT SPECIFICALLY REQUIRED BY 2009 WISCONSIN ENROLLED COMMERCIAL BUILDING CODE; STANDARDS AND REGULATIONS, BUT ARE CONSIDERED ESSENTIAL TO THE PROPER PERFORMANCE OF THE BUILDING SYSTEMS. SECURE A GEOTECHNICAL ENGINEER'S INSPECTION AND WRITTEN APPROVAL OF SUBGRADES AND FILL LAYERS BEFORE SUBSEQUENT CONSTRUCTION IS PERMITTED THEREON. CLASSIFICATION OF MATERIALS USED AND ENCOUNTERED DURING CONSTRUCTION WILL BE PERFORMED IN ACCORDANCE WITH ASTM D2488 AND D2487. COMPACTION TESTING WILL BE PERFORMED IN ACCORDANCE WITH ASTM D698. DOCUMENT PRESENCE OF GROUND WATER WITHIN EXCAVATIONS. VERIFY CUT AND FILL SLOPES AS SPECIFIED IN THE CONTRACT DOCUMENTS. IF TESTS INDICATE WORK DOES NOT MEET SPECIFIED REQUIREMENTS, REMOVE WORK, REPLACE AND RETEST AT NO COST TO OWNER.
17. ***FIELD DENSITY TESTS***: AT AREAS TO RECEIVE PAVING, AT LEAST ONE (1) FIELD DENSITY TEST FOR EVERY FIVE THOUSAND (5,000) SQUARE FEET (465 M) OF SUBGRADE AREA, BUT NOT LESS THAN THREE (3) TESTS. IF, IN A GEOTECHNICAL ENGINEER'S OPINION BASED ON REPORTS OF THE TESTING LABORATORY, SUBGRADE OR FILLS WHICH HAVE BEEN PLACED ARE BELOW SPECIFIED DENSITY, PROVIDE ADDITIONAL COMPACTING AND TESTING UNTIL SPECIFIED REQUIREMENTS ARE MET. ADDITIONAL TESTING WILL BE PROVIDED BY THE OWNER'S SELECTED TESTING LABORATORY AND ALL COSTS FOR THE ADDITIONAL TESTING WILL BE BORNE BY THE CONTRACTOR.
18. ***PROOF ROLLING*** - THE CONTRACTOR SHALL PROOFROLL SUBGRADE FOR AREAS TO RECEIVE PAVING, STRUCTURES ON FILL OR IMPERVIOUS LINING MATERIAL. MAKE NOT LESS THAN THREE (3) PASSES OF A TWENTY-FIVE (25) TO FIFTY (50) TON (23 TO 45 TON) RUBBER TIRED ROLLER OVER THE FULL AREA. UNSTABLE, SOFT OR OTHERWISE UNSUITABLE MATERIALS REVEALED BY THE PROOFROLLING SHALL BE REMOVED AND REPLACED WITH SATISFACTORY MATERIALS, COMPACTED AS SPECIFIED HEREIN.
19. ***PROTECTION OF NEWLY GRADED AREAS*** - PROTECT NEWLY GRADED AREAS FROM TRAFFIC AND EROSION, AND KEEP FREE FROM TRASH AND WEEDS. REPAIR AND RE-ESTABLISH GRADES IN SETTLED, ERODED AND RUTTED AREAS TO THE SPECIFIED TOLERANCES. WHERE COMPLETED COMPACTED AREAS ARE DISTURBED BY SUBSEQUENT CONSTRUCTION OPERATIONS, OR ADVERSE WEATHER, SCARIFY THE SURFACE, RESHAPE, AND COMPACT TO THE REQUIRED DENSITY PRIOR TO FURTHER CONSTRUCTION

4

20. ***RESTORATION*** - ALL GENERAL LANDSCAPE AREAS SHALL RECEIVE 6" OF TOPSOIL, FERTILIZER, SEED & EROSION MATTING. LOT RESTORATION WILL BE COMPLETED BY THE EARTHWORK CONTRACTOR. THE CONTRACTOR SHALL REPAIR ERODED AREAS TO MAINTAIN PLAN LINE AND GRADE UNTIL ALL RE-VEGETATED AREAS HAVE AN ESTABLISHED COVER AT NO ADDITIONAL COST TO THE OWNER.

SITE UTILITY NOTES

1. ***DEWATERING*** - PREVENT SURFACE WATER AND SUBSURFACE (GROUND) WATER FROM FLOWING INTO EXCAVATIONS AND FROM FLOODING THE SITE AND SURROUNDING AREA. DO NOT ALLOW WATER TO ACCUMULATE IN EXCAVATIONS. REMOVE WATER TO PREVENT SOIL CHANGES DETRIMENTAL TO STABILITY OF SUBGRADES AND FOUNDATIONS. PROVIDE AND MAINTAIN PUMPS, WELL POINTS, SUCTION AND DISCHARGE LINES, AND OTHER DEWATERING SYSTEM COMPONENTS NECESSARY TO CONVEY WATER AWAY FROM EXCAVATIONS. CONVEY WATER REMOVED FROM EXCAVATIONS AND RAIN WATER TO COLLECTING OR RUN-OFF AREAS. ESTABLISH AND MAINTAIN TEMPORARY DRAINAGE DITCHES AND OTHER DIVERSIONS OUTSIDE EXCAVATION LIMITS FOR EACH STRUCTURE. DO NOT USE TRENCH EXCAVATIONS AS TEMPORARY DRAINAGE DITCHES.
2. ***COLD WEATHER PROTECTION*** - PROTECT EXCAVATION BOTTOMS AND BEARING SURFACES AGAINST FREEZING WHEN ATMOSPHERIC TEMPERATURE IS LESS THAN 35 DEGREES F (2 DEGREES C).
3. ***ROCK EXCAVATION*** - IMMEDIATELY NOTIFY THE ENGINEER UPON ENCOUNTERING ROCK OR SIMILAR MATERIAL WHICH CANNOT BE REMOVED OR EXCAVATED BY CONVENTIONAL EARTH MOVING OR RIPPING EQUIPMENT.
4. ***SANITARY SEWER*** - THE SANITARY SEWER SHALL BE CONSTRUCTED AND TESTED IN ACCORDANCE WITH THE APPROVED PLANS AND ALL APPLICABLE STANDARDS AND SPECIFICATIONS. SANITARY SEWER PIPE MATERIAL SHALL BE POLYVINYL CHLORIDE (PVC) PIPE CONFORMING TO THE REQUIREMENTS OF ASTM SPECIFICATION D3034, SDR 35, WITH SINGLE ELASTOMERIC GASKET JOINT CONFORMING TO ASTM SPECIFICATION F477. ALL PVC SANITARY LATERALS WILL BE INSTALLED WITH A TRACER WIRE.
10. ***WATER SERVICES, 1-IN. DIA, 1 ½ INCH DIA., AND 2-IN. DIA.***
    - COPPER WATER TUBING: CHAPTER 8.24.0 OF "STANDARD SPECIFICATIONS".
    - TYPE K ANNEALED SEAMLESS COPPER TUBING, PER ASTM B-88
    - ALL WATER MAIN SERVICE TAPS SHALL BE INSTALLED UNDER PRESSURE.
11. ***BEDDING MATERIAL***
    - CONFORM TO REQUIREMENTS OF CHAPTER 8.43.2 OF "STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, SIXTH EDITION DECEMBER 2003, AND ADDENDUM NO.1 AND ADDENDUM NO.2 THERETO," EXCEPT AS MODIFIED HEREIN FOR BEDDING OF SANITARY SEWER.
    - 8.43.2: BEDDING MATERIAL SHALL BE CRUSHED LIMESTONE OR WASHED CRUSHED GRAVEL. PEA GRAVEL NOT ACCEPTABLE.
    - CRUSHED LIMESTONE SHALL CONFORM TO THE GRADATION REQUIREMENTS OF TABLE 32 OR TABLE 33 (FOR PIPE LARGER THAN 18 IN. DIA) OF SECTION 8.43.2 OF THE "STANDARD SPECIFICATIONS."
    - WASHED CRUSHED GRAVEL SHALL CONFORM 'I'O THE GRADATION REQUIREMENTS OF THE FOLLOWING TABLE:

SIEVE SIZE	1 IN.	3/4 IN	3/8 IN	NO. 4	NO. 8	NO. 30
PERCENTAGE PASSING BY WEIGHT	100	90-100	20-80	0-20	0-10	0-5

- AT LEAST 60%, BY COUNT, OF THE NUMBER OF PARTICLES OF AGGREGATE RETAINED IN THE NO. 4 SIEVE SHALL HAVE AT LEAST 1 MACHINE FRACTURE FACE.
- TESTING WILL BE DONE AT INTERVALS AS DETERMINED BY ENGINEER TO ENSURE
- COMPLIANCE WITH THIS SPECIFICATION.
- WATER MAIN SHALL BE BEDDED IN CRUSHED LIMESTONE CHIPS CONFORMING TO THE GRADATION REQUIREMENTS OF TABLE 32 OF CHAPTER 8.43.2 OF THE "STANDARD SPECIFICATIONS" WHERE GROUNDWATER IS PRESENT. WHERE GROUNDWATER IS NOT PRESENT LIMESTONE SCREENING, CONFORMING TO TABLE 34 OF CHAPTER 8.43.2 OF THE "STANDARD SPECIFICATIONS" MAY BE USED.
- STORM SEWER SHALL BE BEDDED IN MATERIAL CONFORMING TO TABLE 33 OF SECTION 8.43.2 OF THE "STANDARD SPECIFICATIONS."

18. ***COVER MATERIAL*** - SHALL BE OF THE SAME MATERIAL AND GRADATION AS THE BEDDING MATERIAL. SANITARY SEWER AND WATERMAIN SHALL HAVE COVER TO 1' ABOVE THE TOP OF PIPE.
19. ***STORM SEWER*** - THE STORM SEWER SHALL BE CONSTRUCTED AND TESTED IN ACCORDANCE WITH THE APPROVED PLANS AND ALL APPLICABLE STANDARDS AND SPECIFICATIONS. STORM SEWER PIPE MATERIAL SHALL BE POLYVINYL CHLORIDE (PVC) PIPE CONFORMING TO THE REQUIREMENTS OF ASTM SPECIFICATION D3034, SDR 35, WITH SINGLE ELASTOMERIC GASKET JOINT CONFORMING TO ASTM SPECIFICATION F477. STORM SEWER CATCH BASINS / STRUCTURES SHALL BE 24" ADS PLASTIC STRUCTURES WITH LOCKABLE SOLID LID. INSTALL PER MANUFACTURER'S SPECIFICATIONS.

    STORM SEWER SHALL BE SIZED PER THE WISCONSIN PLUMBING CODE BY THE INSTALLER. 8" PIPE IS SHOWN ON PLANS CLASH / PIPE INTERFERENCE DETECTION.

    INSULATE STORM SEWER PER WISCONSIN PLUMBING CODE
20. ***CROSSING - SEWER AND WATER LINES*** - WHERE WATER MAIN PASSES OVER SEWER, PROVIDE A MINIMUM CLEARANCE OF 6". WHERE WATER MAIN PASSES UNDER SEWERS, PROVIDE A MINIMUM CLEARANCE OF 18". CROSSINGS OVER OR UNDER SEWER MAINS SHALL BE MADE SO THAT JOINTS OR COUPLINGS ON WATER MAINS SHALL BE A MINIMUM OF 5'-0" EACH SIDE OF SEWER CROSSING.
21. ***TRENCH BACKFILL AND COMPACTION*** - THE COMPACTION OF UTILITY TRENCHES WITHIN THE STREET RIGHT-OF-WAY SHALL CONFORM TO ALL APPLICABLE STANDARD SPECIFICATIONS. THE COMPACTION OF SANITARY SEWER TRENCHES OUTSIDE OF THE STREET RIGHT-OF-WAY BE BACKFILLED UTILIZING EXCAVATED MATERIALS AND COMPACTED TO 95% OF THE MODIFIED PROCTOR. TRENCHES WITHIN THE STREET RIGHT-OF-WAY SHALL BE BACK-FILLED WITH GRANULAR MATERIAL MEETING SECTION 209 OF THE STATE OF WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, 2010 EDITION, AND COMPACTED TO A MINIMUM OF 95% MODIFIED PROCTOR DENSITY FOR THE ENTIRE DEPTH FROM TOP OF PIPE COVER MATERIAL TO TRENCH SURFACE. MANUFACTURED MATERIAL FROM RECLAIMED CINDER, MASONRY OR CONCRETE BLOCK AND CRUSHED CONCRETE IS NOT ACCEPTABLE.

    IF EXCAVATED TRENCH MATERIAL IS UNSUITABLE FOR USE AS BACKFILL, THE CONTRACTOR WILL BE REQUIRED TO TRUCK IN MATERIAL FROM OFFSITE. THE CONTRACTOR SHALL PROVIDE A UNIT PRICE FOR THE ADDITIONAL COSTS OVER AND ABOVE THE TRENCH BACKFILL UNIT PRICES TO TRUCK IN TRENCH BACKFILL MATERIAL FROM OFF-SITE.
22. ***ELECTRICAL CONSTRUCTION*** - ALL ELECTRICAL CONSTRUCTION SHALL CONFORM TO STATE OF WISCONSIN & CITY OF VERON BUILDING CODES. ELECTRICAL APPURTENANCES SHALL BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS

BASE COURSE AND PAVEMENT

1. ***BASE COURSE*** - THE BASE COURSE SHALL BE CONSTRUCTED OF TWO LAYERS OF CRUSHED STONE. THE LOWER LAYER SHALL BE WDOT 3-INCH GRADATION AND THE UPPER LAYER SHALL BE 1-1/4 INCH GRADATION. BASE COURSE SHALL BE CONFORM TO AND BE INSTALLED PER TO THE REQUIREMENTS OF SECTION 305 OF THE WDOT STANDARD SPECIFICATIONS MATERIAL
2. ***CONCRETE CURB AND GUTTER*** - INCLUDED IN THE COST FOR CURB AND GUTTER SHALL BE A CRUSHED STONE BASE AS REQUIRED PER THE CITY OF VERONA SPECIFICATIONS. THE CONTRACTOR SHALL INSTALL THREE NO. 4 REINFORCING RODS (REBAR) FIFTEEN (15) FEET LONG IN CONCRETE CURB AND GUTTERS WHICH SPAN TRENCHES. INSTALL ONE NO.4 REBAR IN GUTTER SECTION IN FRONT OF ALL STORM SEWER INLETS. REBAR SHALL BE 8FT. LONG AND CENTERED ON INLET. CONCRETE USED FOR CURB AND GUTTER SHALL HAVE A MINIMUM 7-DAY STRENGTH OF 3,500 PSI AND A 28-DAY MINIMUM STRENGTH OF 4,500 PSI.
3. ***CONCRETE PAVEMENT*** - CONCRETE USED FOR SIDEWALK SHALL HAVE A MINIMUM 7-DAY STRENGTH OF 3,500 PSI AND A 28-DAY STRENGTH OF 4,500 PSI. ALL CONCRETE PAVEMENT SHALL HAVE A MEDIUM BROOM FINISH THAT IS LAID OUT PERPENDICULAR TO THE PREDOMINANT DIRECTION OF FOOT TRAFFIC. ALL CONCRETE PAVEMENT SHALL BE STANDARD COLOR UNLESS OTHERWISE NOTED. SEE DETAILS FOR COLORED CONCRETE LOCATIONS
4. ***ASPHALT PAVING*** - THE BITUMINOUS MATERIAL FOR BITUMINOUS BINDER PAVEMENT SHALL BE E-1, 19 MM. ASPHALTIC MATERIAL SHALL BE PG58-28.

OWNER DIRECT PURCHASES

1. ***GENERAL NOTE*** - THE FOLLOWING PRODUCTS HAVE BEEN OR WILL BE DIRECTLY PURCHASED AND FURNISHED BY THE OWNER (FBO). BID ITEMS PERTAINING TO THE FOLLOWING PRODUCTS SHALL ONLY INCLUDE THE COST OF INSTALLATION, AS WELL AS ANY REQUIRED MATERIALS NOT SPECIFICALLY CALLED OUT AS FURNISHED BY THE OWNER (FBO). CONTRACTOR SHALL COORDINATE THE DELIVERY AND STAGING OF ALL FBO ITEMS WITH THE OWNER
2. ***INTERLOCKING CONCRETE PAVERS*** - PAVERS & PAVER JOINT SAND SHALL BE FURNISHED BY THE OWNER PER THE DETAILS. PAVER BID ITEM SHALL INCLUDE THE INSTALLATION OF THE FILTER FABRIC, SAND SETTING BED, PAVERS, & JOINT SAND PER THE DETAILS. INSTALL PAVERS AND JOINT SAND PER MANUFACTURER'S SPECIFICATIONS
3. ***MASONRY UNITS*** - MASONRY UNITS SHALL CONSIST OF PRECAST CONCRETE CAP & VENEER BRICK AND SHALL BE FURNISHED BY THE OWNER PER THE DETAILS. MASONRY BID ITEMS SHALL NOT THE COST TO FURNISH THE MASONRY UNITS. MASONRY BID ITEMS SHALL INCLUDE THE INSTALLATION OF THE MASONRY UNITS, AS WELL AS FURNISHING AND INSTALLING THE REQUIRED MATERIALS REQUIRED BY THE DETAILS
4. ***FOUNTAIN PLUMBING*** - ALL PLUMBING PARTS THAT PENETRATE AND/OR PROTRUDE FROM THE FOUNTAIN PAD SHALL BE FURNISHED BY THE OWNER. THE FOUNTAIN PLUMBING BID ITEM SHALL INCLUDE INSTALLING ALL THESE FBO PARTS, AS WELL AS FURNISHING AND INSTALLING ALL THE PIPE AND FITTINGS TO SERVICE THE FOUNTAIN AS REQUIRED BY THE PLANS & DETAILS
5. ***FOUNTAIN ELECTRICAL*** - BID ITEM SHALL INCLUDE INSTALLATION OF WIRING, SUBMERSIBLE JUNCTION BOXES, WATER LEVEL SENSOR, AND FIXTURES AS FURNISHED BY OWNER, AND CONNECTION TO LOW VOLTAGE LIGHTING CONTROLLER LIGHTING CONTROLLER AND AS REQUIRED (1)
6. ***FOUNTAIN VAULT*** - FOUNTAIN VAULT SHALL BE FURNISHED BY THE OWNER. FOUNTAIN VAULT BED ITEM SHALL INCLUDE THE REQUIRED EXCAVATION, BEDDING MATERIAL, & PLACEMENT OF THE VAULT
7. ***FOUNTAIN WALLS*** - FOUNTAIN WALLS SHALL BE FURNISHED AND INSTALLED BY OTHERS
8. ***MILITARY GROUND PLAQUES*** - MILITARY GROUND PLAQUES SHALL BE PURCHASED BY THE OWNER AND INSTALLED BY THE CONTRACTOR. BID ITEM SHALL INCLUDE INSTALLATION OF THE PAVER BORDER AND THE PLAQUE ITSELF PER THE DETAILS
9. ***FLAGPOLES*** - FLAG POLES SHALL BE FURNISHED BY THE OWNER. FLAGPOLE BID ITEM SHALL INCLUDE THE INSTALLATION OF THE FLAGPOLES
10. ***MEMORIAL EAGLE*** - MEMORIAL EAGLE SHALL BE FURNISHED BY OWNER AND INSTALLED BY OTHERS
11. ***MEMORIAL EAGLE BASE*** - THE UPPER MEMORIAL BASE SHALL BE FABRICATED AND INSTALLED BY THE CONTRACTOR. THE LOWER MEMORIAL BASE SHALL BE FURNISHED BY OWNER. MEMORIAL EAGLE BASE BID ITEM SHALL INCLUDE INSTALLING THE LOWER MEMORIAL BASE, AND FABRICATING AND INSTALLING THE UPPER MEMORIAL BASE. (1)
12. ***RAILING MODIFICATION*** - RAILING MODIFICATION BID ITEM SHALL INCLUDE THE DISASSEMBLY, MODIFICATIONS, AND RE-INSTALLATION OF THE EXISTING RAILING PER THE DETAILS
13. ***STREETLIGHT POLES & FIXTURES*** - STREETLIGHT POLES & FIXTURES SHALL BE FURNISHED BY THE OWNER. THE STREETLIGHT BID ITEM SHALL INCLUDE INSTALLATION OF THE POLE AND FIXTURE PER THE MANUFACTURER'S SPECIFICATIONS AS WELL AS FURNISHING AND INSTALLING THE REQUIRED GFCI TRANSFORMER ON EACH POLE.
14. ***STREETLIGHT POLE BASES*** - THE STREETLIGHT POLE BASES BID ITEM SHALL INCLUDE EXCAVATION, FURNISHING AND INSTALLING THE REQUIRED REBAR, CONCRETE, AND ELECTRICAL CONDUIT, AND INSTALLING THE ANCHOR BOLTS. ANCHOR BOLTS TO BE FURNISHED BY STERNBERG. COORDINATE DELIVERY WITH THE OWNER
15. ***ELECTRIC CONTROL CABINET*** - SHALL BE FURNISHED BY OWNER. BID ITEM SHALL INCLUDE THE INSTALLATION OF THE PREFABRICATED CABINET, AS WELL AS THE REQUIRED WIRING TO SET UP THE NEW ELECTRICAL SERVICE
16. ***TEMPORARY ELECTRICAL SERVICE*** - A TEMPORARY SERVICE PANEL AND METER SOCKET SHALL BE FURNISHED BY THE OWNER. BID ITEM SHALL INCLUDE INSTALLATION OF THE TEMPORARY PANEL AND METER SOCKET, AS WELL AS THE REQUIRED WIRING TO SET UP THE NEW ELECTRICAL SERVICE
17. ***LOW VOLTAGE LIGHTING FIXTURES*** - ALL LOW VOLTAGE LIGHTING FIXTURES SHALL BE FURNISHED BY THE OWNER. LOW VOLTAGE LIGHTING TO BE LAID OUT BY LIGHTING DESIGNER PRIOR TO INSTALLATION. BID ITEMS SHALL INCLUDE INSTALLATION OF THE FIXTURES AND WIRING FROM THE PROPOSED SERVICE PANEL TO THE LOW VOLTAGE LIGHTING FIXTURES (1)
18. ***LOW VOLTAGE LIGHTING CONTROL PANELS*** - ALL LOW VOLTAGE LIGHTING CONTROL PANELS SHALL BE FURNISHED BY OWNER. BID ITEM SHALL INCLUDE THE INSTALLATION OF THE CONTROL PANELS WITHIN THE PREFABRICATED ELECTRIC CONTROL CABINET, AS WELL AS THE CONNECTION TO LOW VOLTAGE LIGHTING FIXTURE WIRING.
19. ***DECORATIVE STREET SIGN POST*** - SHALL BE FURNISHED BY THE OWNER. BID ITEM SHALL INCLUDE THE REQUIRED CONCRETE BASE, ANCHOR BOLTS, AND POLE INSTALLATION PER THE DETAILS.

SURVEY LEGEND

These standard symbols will be found in the drawing.

- LIGHT POLE
- POWER POLE
- GUY WIRE
- SANITARY MANHOLE
- STORM MANHOLE
- MONITORING WELL
- CURB INLET
- WATER VALVE
- HYDRANT
- SOIL BORING LOCATION
- CONTROL POINT
- FENCE
- SANITARY SEWER
- STORM SEWER
- POWER OVERHEAD
- BURIED ELECTRIC
- BURIED GAS
- BURIED COMMUNICATIONS
- WATERMAIN
- FIBER OPTICS
- DECIDUOUS TREE
- EVERGREEN TREE
- ELECTRIC METER
- GAS METER
- GAS VALVE
- CONTOUR LINE
- SPOT ELEVATION
- SIGN
- STREET LIGHT

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PROJECT NOTES

DOWNTOWN STREETSCAPE - PHASE 1

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CITY OF VERONA, DANE COUNTY, WISCONSIN

BIDDING DOCUMENTS
DATE: AUGUST 4, 2016
REVISED: REV # DR #
08-10-2016 ADDENDUM 1 (1)
08-16-2016 ADDENDUM 4 (4)
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FN: 14-01-101
Sheet Number:
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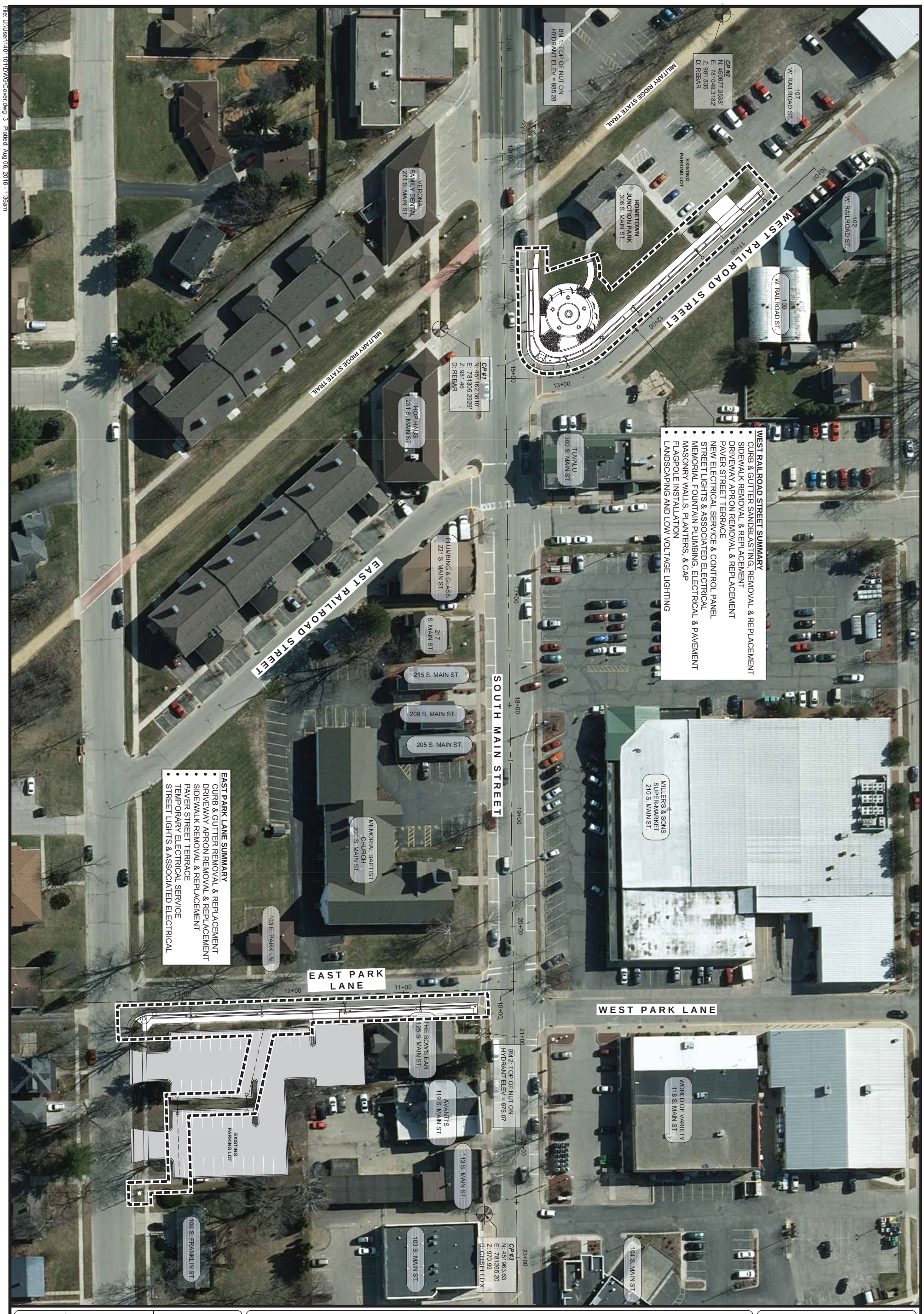

PROJECT OVERVIEW

DOWNTOWN STREETSCAPE - PHASE 1

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CITY OF VERONA, DANE COUNTY, WISCONSIN

BIDDING DOCUMENTS

0 40'

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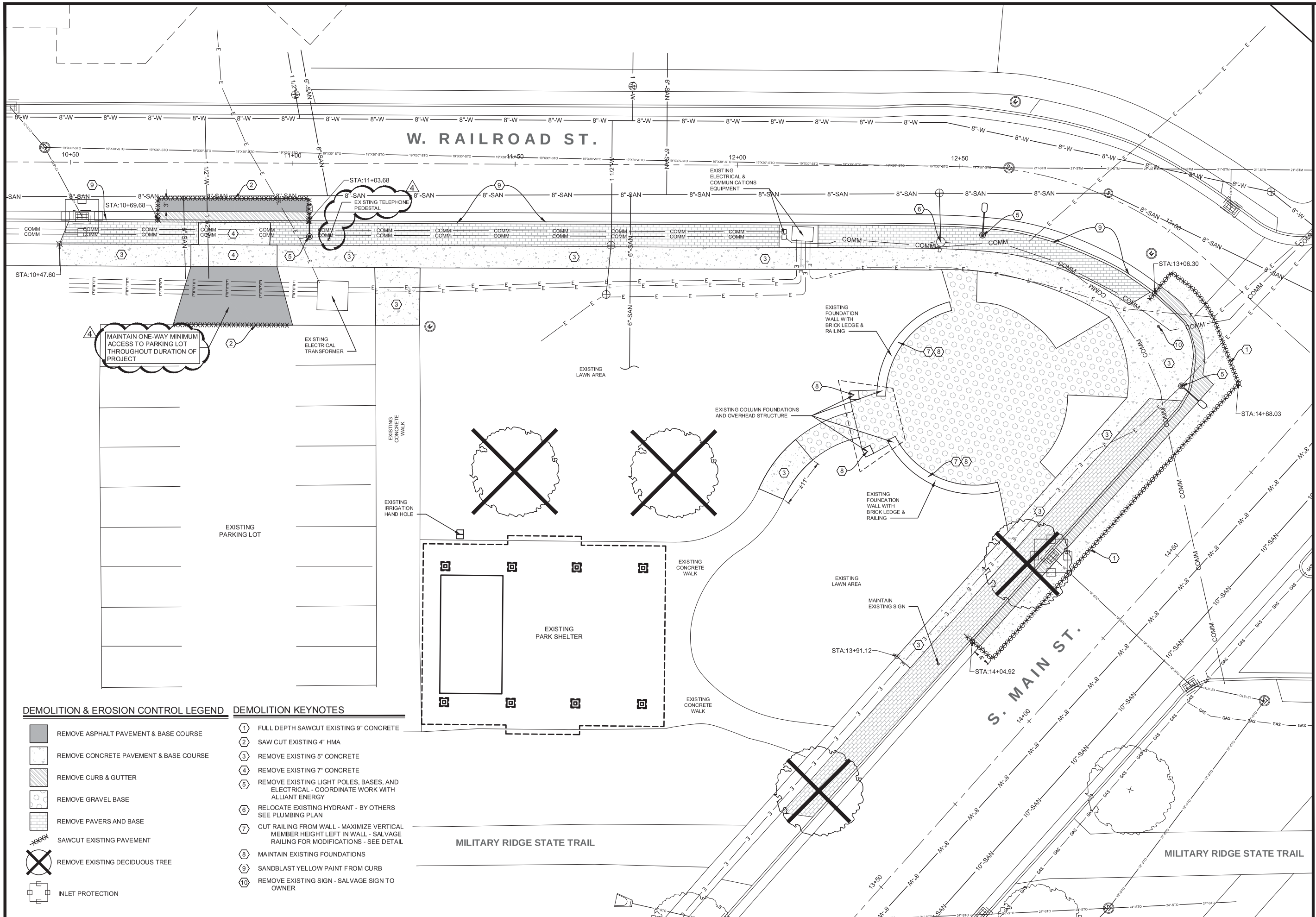

DEMOLITION & EROSION CONTROL LEGEND

- REMOVE ASPHALT PAVEMENT & BASE COURSE
- REMOVE CONCRETE PAVEMENT & BASE COURSE
- REMOVE CURB & GUTTER
- REMOVE GRAVEL BASE
- REMOVE PAVERS AND BASE
- SAWCUT EXISTING PAVEMENT
- REMOVE EXISTING DECIDUOUS TREE
- INLET PROTECTION

DEMOLITION KEYNOTES

1. FULL DEPTH SAWCUT EXISTING 9" CONCRETE
2. SAW CUT EXISTING 4" HMA
3. REMOVE EXISTING 5" CONCRETE
4. REMOVE EXISTING 7" CONCRETE
5. REMOVE EXISTING LIGHT POLES, BASES, AND ELECTRICAL - COORDINATE WORK WITH ALLIANT ENERGY
6. RELOCATE EXISTING HYDRANT - BY OTHERS SEE PLUMBING PLAN
7. CUT RAILING FROM WALL - MAXIMIZE VERTICAL MEMBER HEIGHT LEFT IN WALL - SALVAGE RAILING FOR MODIFICATIONS - SEE DETAIL
8. MAINTAIN EXISTING FOUNDATIONS
9. SANDBLAST YELLOW PAINT FROM CURB
10. REMOVE EXISTING SIGN - SALVAGE SIGN TO OWNER

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DOWNTOWN STREETSCAPE - PHASE 1

DEMOLITION & EROSION CONTROL PLAN

CITY OF VERONA, DANE COUNTY, WISCONSIN

BIDDING DOCUMENTS

DATE: AUGUST 4, 2016

REVISED:
08-16-2016 ADDENDUM 4

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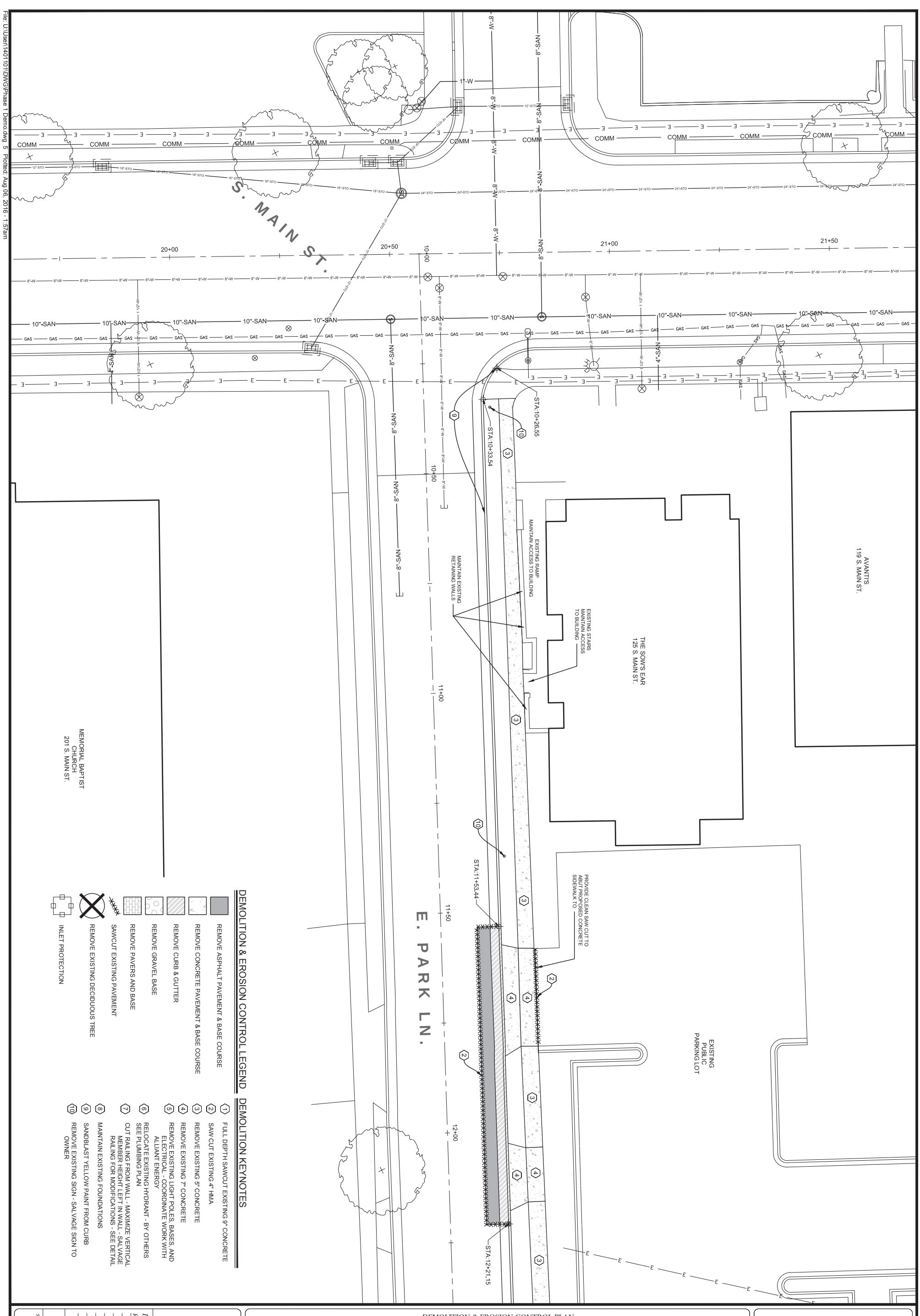

DEMOLITION & EROSION CONTROL LEGEND

- REMOVE ASPHALT PAVEMENT & BASE COURSE
- REMOVE CONCRETE PAVEMENT & BASE COURSE
- REMOVE CURB & GUTTER
- REMOVE GRAVEL BASE
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- REMOVE EXISTING DECIDUOUS TREE
- INLET PROTECTION

DEMOLITION KEYNOTES

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6. RELOCATE EXISTING HYDRANT - BY OTHERS SEE PLUMBING PLAN
7. CUT RAILING FROM WALL - MAXIMIZE VERTICAL MEMBER HEIGHT LEFT IN WALL - SALVAGE RAILING FOR MODIFICATIONS - SEE DETAIL
8. MAINTAIN EXISTING FOUNDATIONS
9. SANDBLAST YELLOW PAINT FROM CURB
10. REMOVE EXISTING SIGN - SALVAGE SIGN TO OWNER

0 10'

DEMOLITION & EROSION CONTROL PLAN

DOWNTOWN STREETSCAPE - PHASE 1

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DEMOLITION & EROSION CONTROL LEGEND

- REMOVE ASPHALT PAVEMENT & BASE COURSE
- REMOVE CONCRETE PAVEMENT & BASE COURSE
- REMOVE CURB & GUTTER
- REMOVE GRAVEL BASE
- REMOVE PAVERS AND BASE
- SAWCUT EXISTING PAVEMENT
- REMOVE EXISTING DECIDUOUS TREE
- INLET PROTECTION

DEMOLITION KEYNOTES

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8. MAINTAIN EXISTING FOUNDATIONS
9. SANDBLAST YELLOW PAINT FROM CURB
10. REMOVE EXISTING SIGN - SALVAGE SIGN TO OWNER

AVANTI'S
119 S. MAIN ST.

THE SOW'S EAR
125 S. MAIN ST.

EXISTING POWER POLE

EXISTING
EMPTY CONDUIT

MAINTAIN PARKING
LOT ACCESS

EXISTING
EMPTY CONDUIT

EXISTING
PUBLIC
PARKING LOT

EXISTING
EMPTY CONDUIT

MAINTAIN PARKING
LOT ACCESS

EXISTING STAIRS
MAINTAIN ACCESS
TO BUILDING

PROVIDE CLEAN SAW CUT TO
ABUT PROPOSED CONCRETE
SIDEWALK TO

STA:11+53.44

STA:12+21.15

STA:13+24.32

STA:13+47.22

MAINTAIN EXISTING
RETAINING WALLS

11+00 11+50 12+00 12+50 13+00 13+50

F R A N K L I N S T.

E. PARK LN.

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DEMOLITION & EROSION CONTROL PLAN

DOWNTOWN STREETSCAPE - PHASE 1

CITY OF VERONA, DANE COUNTY, WISCONSIN

0 10'

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Sheet Number:
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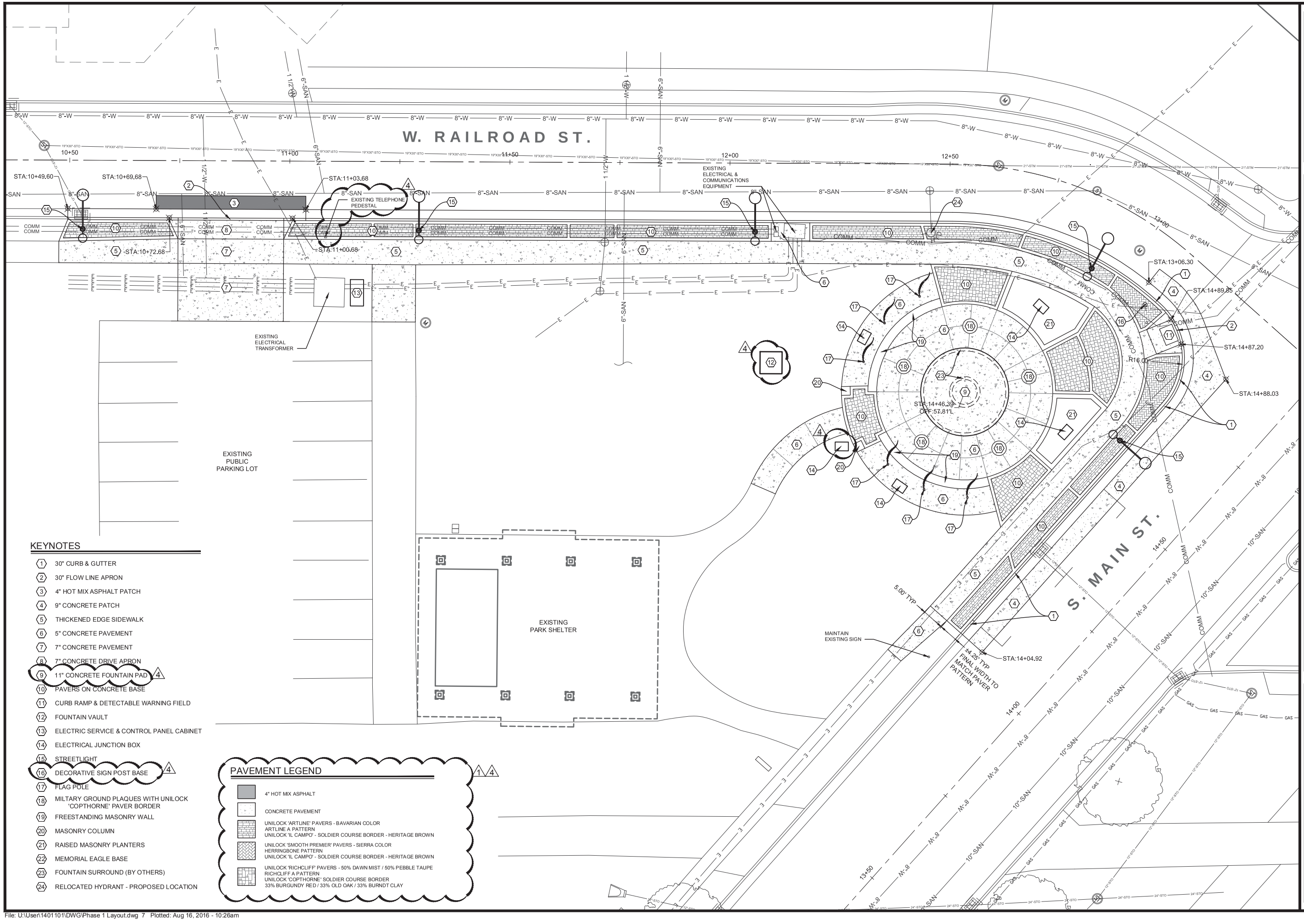

KEYNOTES

1. 30" CURB & GUTTER
2. 30" FLOW LINE APRON
3. 4" HOT MIX ASPHALT PATCH
4. 9" CONCRETE PATCH
5. THICKENED EDGE SIDEWALK
6. 5" CONCRETE PAVEMENT
7. 7" CONCRETE PAVEMENT
8. 7" CONCRETE DRIVE APRON
9. 11" CONCRETE FOUNTAIN PAD 4
10. PAVERS ON CONCRETE BASE
11. CURB RAMP & DETECTABLE WARNING FIELD
12. FOUNTAIN VAULT
13. ELECTRIC SERVICE & CONTROL PANEL CABINET
14. ELECTRICAL JUNCTION BOX
15. STREETLIGHT
16. DECORATIVE SIGN POST BASE 4
17. FLAG POLE
18. MILTARY GROUND PLAQUES WITH UNILOCK 'COPTHORNE' PAVER BORDER
19. FREESTANDING MASONRY WALL
20. MASONRY COLUMN
21. RAISED MASONRY PLANTERS
22. MEMORIAL EAGLE BASE
23. FOUNTAIN SURROUND (BY OTHERS)
24. RELOCATED HYDRANT - PROPOSED LOCATION

PAVEMENT LEGEND 1 4

- 4" HOT MIX ASPHALT
- CONCRETE PAVEMENT
- UNILOCK 'ARTLINE' PAVERS - BAVARIAN COLOR
  ARTLINE A PATTERN
  UNILOCK 'IL CAMPO' - SOLDIER COURSE BORDER - HERITAGE BROWN
- UNILOCK 'SMOOTH PREMIER' PAVERS - SIERRA COLOR
  HERRINGBONE PATTERN
  UNILOCK 'IL CAMPO' - SOLDIER COURSE BORDER - HERITAGE BROWN
- UNILOCK 'RICHCLIFF' PAVERS - 50% DAWN MIST / 50% PEBBLE TAUPE
  RICHCLIFF A PATTERN
  UNILOCK 'COPTHORNE' SOLDIER COURSE BORDER
  33% BURGUNDY RED / 33% OLD OAK / 33% BURNDT CLAY

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DOWNTOWN STREETSCAPE - PHASE 1

--

CITY OF VERONA, DANE COUNTY, WISCONSIN

LAYOUT PLAN

0 10'

BIDDING DOCUMENTS

DATE: AUGUST 4, 2016

REVISED:

08-10-2016 ADDENDUM 1 1

08-16-2016 ADDENDUM 4 4

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PAVEMENT LEGEND

1 4

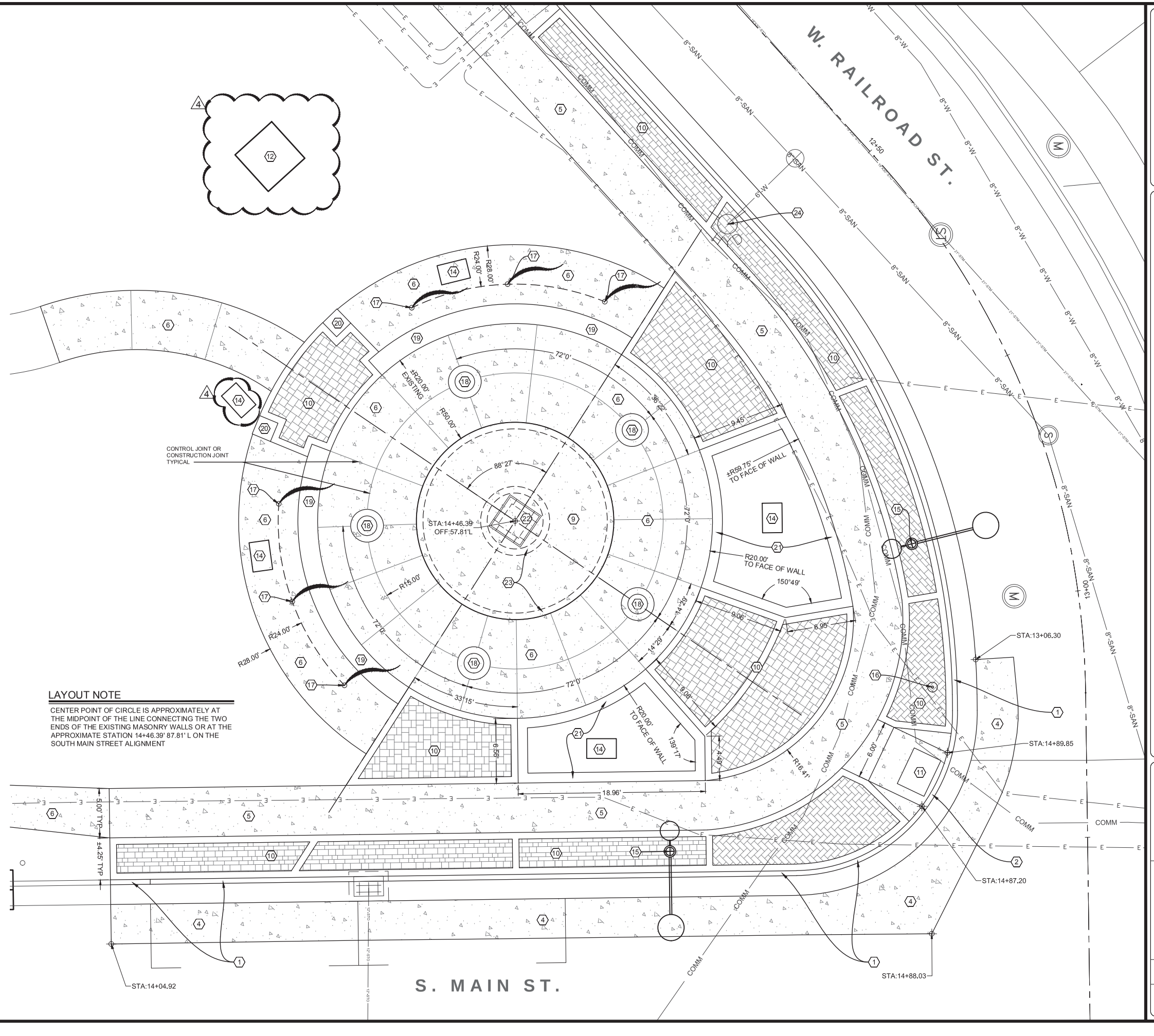
- 4" HOT MIX ASPHALT
- CONCRETE PAVEMENT
- UNILOCK 'ARTLINE' PAVERS - BAVARIAN COLOR
  ARTLINE A PATTERN
  UNILOCK 'IL CAMPO' - SOLDIER COURSE BORDER - HERITAGE BROWN
- UNILOCK 'SMOOTH PREMIER' PAVERS - SIERRA COLOR
  HERRINGBONE PATTERN
  UNILOCK 'IL CAMPO' - SOLDIER COURSE BORDER - HERITAGE BROWN
- UNILOCK 'RICHCLIFF' PAVERS - 50% DAWN MIST / 50% PEBBLE TAUPE
  RICHCLIFF A PATTERN
  UNILOCK 'COPTHORNE' SOLDIER COURSE BORDER
  33% BURGUNDY RED / 33% OLD OAK / 33% BURNDT CLAY

KEYNOTES

1. 30" CURB & GUTTER
2. 30" FLOW LINE APRON
3. 4" HOT MIX ASPHALT PATCH
4. 9" CONCRETE PATCH
5. THICKENED EDGE SIDEWALK
6. 5" CONCRETE PAVEMENT
7. 7" CONCRETE PAVEMENT
8. 7" CONCRETE DRIVE APRON
9. 11" CONCRETE FOUNTAIN PAD 4
10. PAVERS ON CONCRETE BASE
11. CURB RAMP & DETECTABLE WARNING FIELD
12. FOUNTAIN VAULT
13. ELECTRIC SERVICE & CONTROL PANEL CABINET
14. ELECTRICAL JUNCTION BOX
15. STREETLIGHT
16. DECORATIVE SIGN POST BASE 4
17. FLAG POLE
18. MILTARY GROUND PLAQUES WITH UNILOCK 'COPTHORNE' PAVER BORDER
19. FREESTANDING MASONRY WALL
20. MASONRY COLUMN
21. RAISED MASONRY PLANTERS
22. MEMORIAL EAGLE BASE
23. FOUNTAIN SURROUND (BY OTHERS)
24. RELOCATED HYDRANT - PROPOSED LOCATION

LAYOUT NOTE

CENTER POINT OF CIRCLE IS APPROXIMATELY AT THE MIDPOINT OF THE LINE CONNECTING THE TWO ENDS OF THE EXISTING MASONRY WALLS OR AT THE APPROXIMATE STATION 14+46.39' 87.81' L ON THE SOUTH MAIN STREET ALIGNMENT



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DOWNTOWN STREETSCAPE - PHASE 1

LAYOUT PLAN

CITY OF VERONA, DANE COUNTY, WISCONSIN

0 5'

BIDDING DOCUMENTS

DATE: AUGUST 4, 2016

REVISED:

08-10-2016 ADDENDUM 1 1

08-16-2016 ADDENDUM 4 4

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Sheet Number: 8

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AVANTI'S
119 S. MAIN ST.

THE SOW'S EAR
125 S. MAIN ST.

EXISTING
PARKING LOT

MEMORIAL BAPTIST
CHURCH
201 S. MAIN ST.

E. PARK LN.

S. MAIN ST.

STA:10+33.54

STA:11+53.44

STA:11+56.44

STA:11+84.44

STA:12+21.15

4.5' TYP

KEYNOTES

1. 30" CURB & GUTTER
2. 30" FLOW LINE APRON
3. 4" HOT MIX ASPHALT PATCH
4. 9" CONCRETE PATCH
5. THICKENED EDGE SIDEWALK
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21. RAISED MASONRY PLANTERS
22. MEMORIAL EAGLE BASE
23. FOUNTAIN SURROUND (BY OTHERS)
24. RELOCATED HYDRANT - PROPOSED LOCATION

PAVEMENT LEGEND

4" HOT MIX ASPHALT

CONCRETE PAVEMENT

UNILOCK 'ARTLINE' PAVERS - BAVARIAN COLOR
ARTLINE A PATTERN
UNILOCK 'IL CAMPO' - SOLDIER COURSE BORDER - HERITAGE BROWN

UNILOCK 'SMOOTH PREMIER' PAVERS - SIERRA COLOR
HERRINGBONE PATTERN
UNILOCK 'IL CAMPO' - SOLDIER COURSE BORDER - HERITAGE BROWN

UNILOCK 'RICHCLIFF' PAVERS - 50% DAWN MIST / 50% PEBBLE TAUPE
RICHCLIFF A PATTERN
UNILOCK 'COPTHORNE' SOLDIER COURSE BORDER
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DOWNTOWN STREETSCAPE - PHASE 1

LAYOUT PLAN

CITY OF VERONA, DANE COUNTY, WISCONSIN

0 10'

BIDDING DOCUMENTS

DATE: AUGUST 4, 2016

REVISED:
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08-16-2016 ADDENDUM 4 4

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6. 5" CONCRETE PAVEMENT
7. 7" CONCRETE PAVEMENT
8. 7" CONCRETE DRIVE APRON
9. 11" CONCRETE FOUNTAIN PAD (4)
10. PAVERS ON CONCRETE BASE
11. CURB RAMP & DETECTABLE WARNING FIELD
12. FOUNTAIN VAULT
13. ELECTRIC SERVICE & CONTROL PANEL CABINET
14. ELECTRICAL JUNCTION BOX
15. STREETLIGHT
16. DECORATIVE SIGN POST BASE (4)
17. FLAG POLE
18. MILTARY GROUND PLAQUES WITH UNILOCK 'COPTHORNE' PAVER BORDER
19. FREESTANDING MASONRY WALL
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21. RAISED MASONRY PLANTERS
22. MEMORIAL EAGLE BASE
23. FOUNTAIN SURROUND (BY OTHERS)
24. RELOCATED HYDRANT - PROPOSED LOCATION

PAVEMENT LEGEND (1) (4)

- 4" HOT MIX ASPHALT
- CONCRETE PAVEMENT
- UNILOCK 'ARTLINE' PAVERS - BAVARIAN COLOR
  ARTLINE A PATTERN
  UNILOCK 'IL CAMPO' - SOLDIER COURSE BORDER - HERITAGE BROWN
- UNILOCK 'SMOOTH PREMIER' PAVERS - SIERRA COLOR
  HERRINGBONE PATTERN
  UNILOCK 'IL CAMPO' - SOLDIER COURSE BORDER - HERITAGE BROWN
- UNILOCK 'RICHCLIFF' PAVERS - 50% DAWN MIST / 50% PEBBLE TAUPE
  RICHCLIFF A PATTERN
  UNILOCK 'COPTHORNE' SOLDIER COURSE BORDER
  33% BURGUNDY RED / 33% OLD OAK / 33% BURNDT CLAY

AVANTI'S
119 S. MAIN ST.

THE SOW'S EAR
125 S. MAIN ST.

EXISTING
PUBLIC
PARKING LOT

EXISTING
EMPTY CONDUIT

EXISTING
EMPTY CONDUIT

EXISTING
EMPTY CONDUIT

4.5' TYP

4.5' TYP

±2.75' TYP
FINAL WIDTH TO
MATCH PAVER
PATTERN

±2.75' TYP
FINAL WIDTH TO
MATCH PAVER
PATTERN

R155.00'

STA:11+53.44

STA:11+56.44

STA:11+84.44

STA:12+21.15

STA:13+24.32

STA:13+27.32

STA:13+33.32

STA:13+37.12

STA:13+38.91

STA:13+47.22

11+00

12+00

13+00

E. PARK LN.

FRANKLIN ST.

DOWNTOWN STREETSCAPE - PHASE 1

--

CITY OF VERONA, DANE COUNTY, WISCONSIN

LAYOUT PLAN

0 10'

BIDDING DOCUMENTS

DATE: AUGUST 4, 2016

REVISED:

08-10-2016 ADDENDUM 1 (1)

08-16-2016 ADDENDUM 4 (4)

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FN: 14-01-101

Sheet Number:

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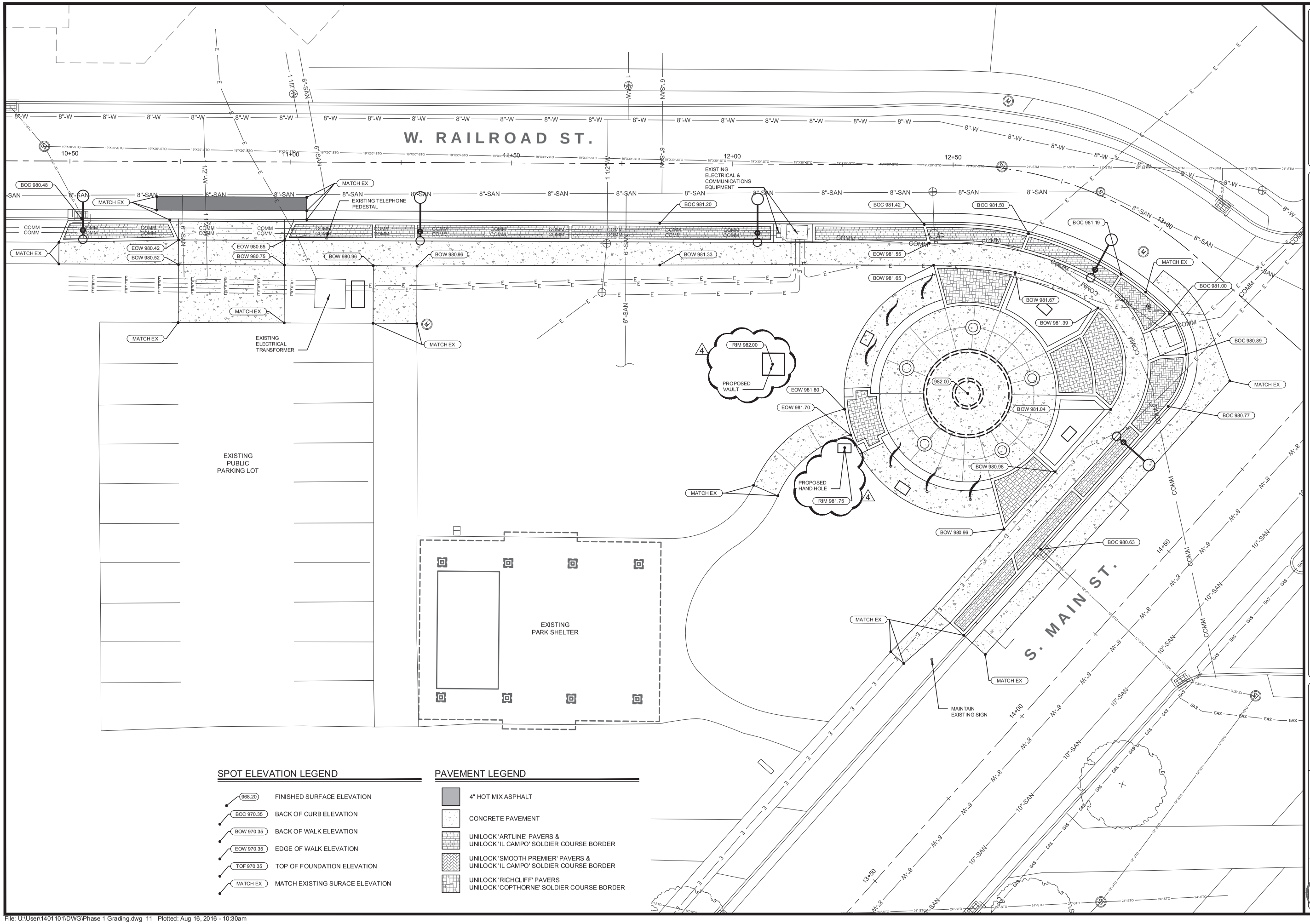

SPOT ELEVATION LEGEND

968.20	FINISHED SURFACE ELEVATION
BOC 970.35	BACK OF CURB ELEVATION
BOW 970.35	BACK OF WALK ELEVATION
EOW 970.35	EDGE OF WALK ELEVATION
TOF 970.35	TOP OF FOUNDATION ELEVATION
MATCH EX	MATCH EXISTING SURACE ELEVATION

PAVEMENT LEGEND

- 4" HOT MIX ASPHALT
- CONCRETE PAVEMENT
- UNILOCK 'ARTLINE' PAVERS & UNILOCK 'IL CAMPO' SOLDIER COURSE BORDER
- UNILOCK 'SMOOTH PREMIER' PAVERS & UNILOCK 'IL CAMPO' SOLDIER COURSE BORDER
- UNILOCK 'RICHCLIFF' PAVERS UNILOCK 'COPTHORNE' SOLDIER COURSE BORDER

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DOWNTOWN STREETSCAPE - PHASE 1

--

GRADING PLAN

CITY OF VERONA, DANE COUNTY, WISCONSIN

0 10'

BIDDING DOCUMENTS

DATE: AUGUST 4, 2016

REVISED:

08-12-2016 ADDENDUM 2 2

08-16-2016 ADDENDUM 4 4

DRAWN BY: MS

FN: 14-01-101

Sheet Number: 11 2

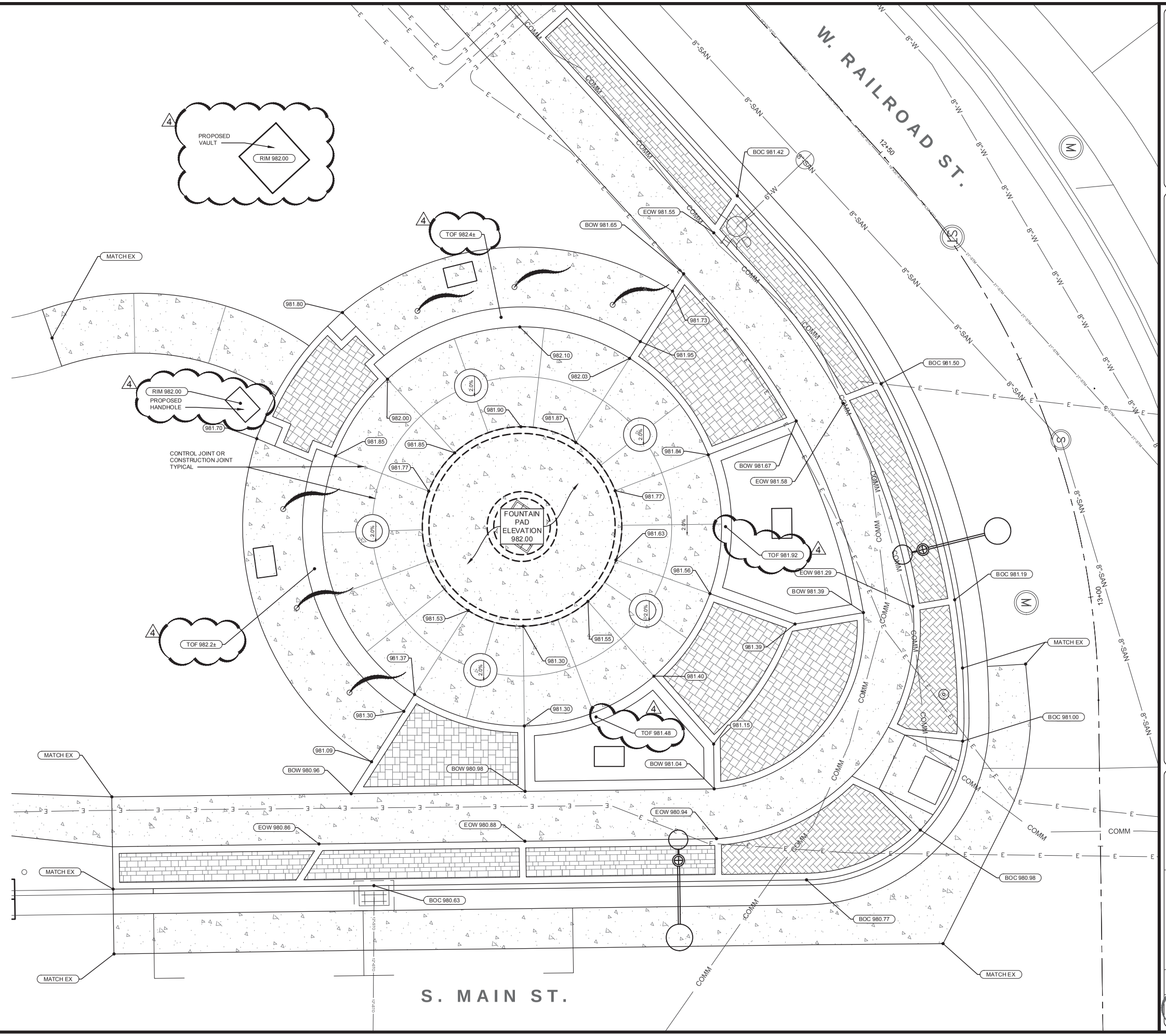
File: U:\User\1401101\DWG\Phase 1 Grading.dwg 11 Plotted: Aug 16, 2016 - 10:30am

SPOT ELEVATION LEGEND

- 968.20 — FINISHED SURFACE ELEVATION
- BOC 970.35 — BACK OF CURB ELEVATION
- BOW 970.35 — BACK OF WALK ELEVATION
- EOW 970.35 — EDGE OF WALK ELEVATION
- TOF 970.35 — TOP OF FOUNDATION ELEVATION
- MATCH EX — MATCH EXISTING SURACE ELEVATION

PAVEMENT LEGEND

- 4" HOT MIX ASPHALT
- CONCRETE PAVEMENT
- UNILOCK 'ARTLINE' PAVERS & UNILOCK 'IL CAMPO' SOLDIER COURSE BORDER
- UNILOCK 'SMOOTH PREMIER' PAVERS & UNILOCK 'IL CAMPO' SOLDIER COURSE BORDER
- UNILOCK 'RICHCLIFF' PAVERS UNILOCK 'COPTHORNE' SOLDIER COURSE BORDER



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DOWNTOWN STREETSCAPE - PHASE 1

--

GRADING PLAN

CITY OF VERONA, DANE COUNTY, WISCONSIN

0 5'

BIDDING DOCUMENTS

DATE: AUGUST 4, 2016

REVISED:

08-12-2016 ADDENDUM 2 2

08-16-2016 ADDENDUM 4 4

DRAWN BY: MS

FN: 14-01-101

Sheet Number: 12 2

File: U:\User\1401101\DWG\Phase 1 Grading.dwg 12 Plotted: Aug 16, 2016 - 10:30am

AVANTI'S
119 S. MAIN ST.

THE SOW'S EAR
125 S. MAIN ST.

EXISTING
PARKING LOT

MEMORIAL BAPTIST
CHURCH
201 S. MAIN ST.

E. PARK LN.

S. MAIN ST.

MATCH EX
BOW 972.42
BOW 972.10
BOW 972.05
BOC 972.35
BOW 971.80
BOW 971.59
BOW 971.64
BOW 971.69
BOW 970.55
EOW 970.40
BOW 970.35
EOW 970.20
BOW 969.85
MATCH EX
MATCH EX
SET HANDHOLE RIM 0.10' ABOVE ADJACENT PARKING LOT CURB

21+50
21+00
20+50
20+00
10+00
11+00
12+00

SPOT ELEVATION LEGEND

- 968.20 — FINISHED SURFACE ELEVATION
- BOC 970.35 — BACK OF CURB ELEVATION
- BOW 970.35 — BACK OF WALK ELEVATION
- EOW 970.35 — EDGE OF WALK ELEVATION
- TOF 970.35 — TOP OF FOUNDATION ELEVATION
- MATCH EX — MATCH EXISTING SURACE ELEVATION

PAVEMENT LEGEND

- 4" HOT MIX ASPHALT
- CONCRETE PAVEMENT
- UNILOCK 'ARTLINE' PAVERS & UNILOCK 'IL CAMPO' SOLDIER COURSE BORDER
- UNILOCK 'SMOOTH PREMIER' PAVERS & UNILOCK 'IL CAMPO' SOLDIER COURSE BORDER
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DOWNTOWN STREETSCAPE - PHASE 1

GRADING PLAN

CITY OF VERONA, DANE COUNTY, WISCONSIN

0 10'

BIDDING DOCUMENTS

DATE: AUGUST 4, 2016
REVISED:
08-12-2016 ADDENDUM 2 2

DRAWN BY: MS

FN: 14-01-101

Sheet Number:
13 2

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SPOT ELEVATION LEGEND

- 968.20 — FINISHED SURFACE ELEVATION
- BOC 970.35 — BACK OF CURB ELEVATION
- BOW 970.35 — BACK OF WALK ELEVATION
- EOW 970.35 — EDGE OF WALK ELEVATION
- TOF 970.35 — TOP OF FOUNDATION ELEVATION
- MATCH EX — MATCH EXISTING SURACE ELEVATION

PAVEMENT LEGEND

- 4" HOT MIX ASPHALT
- CONCRETE PAVEMENT
- UNILOCK 'ARTLINE' PAVERS & UNILOCK 'IL CAMPO' SOLDIER COURSE BORDER
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- UNILOCK 'RICHCLIFF' PAVERS UNILOCK 'COPTHORNE' SOLDIER COURSE BORDER

AVANTI'S
119 S. MAIN ST.

THE SOW'S EAR
125 S. MAIN ST.

EXISTING
PUBLIC
PARKING LOT

SET HANDHOLE RIM 0.10'
ABOVE ADJACENT PARKING
LOT CURB

BOW 970.55
EOW 970.40
BOW 970.35
EOW 970.20
BOW 969.85
MATCH EX
MATCH EX
MATCH EX
MATCH EX
MATCH EX
968.20
968.27
BOW 968.50

11+00
12+00
13+00

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GRADING PLAN

DOWNTOWN STREETSCAPE - PHASE 1

--

CITY OF VERONA, DANE COUNTY, WISCONSIN

0 10'

BIDDING DOCUMENTS

DATE: AUGUST 4, 2016

REVISED:

08-12-2016 ADDENDUM 2 (2)

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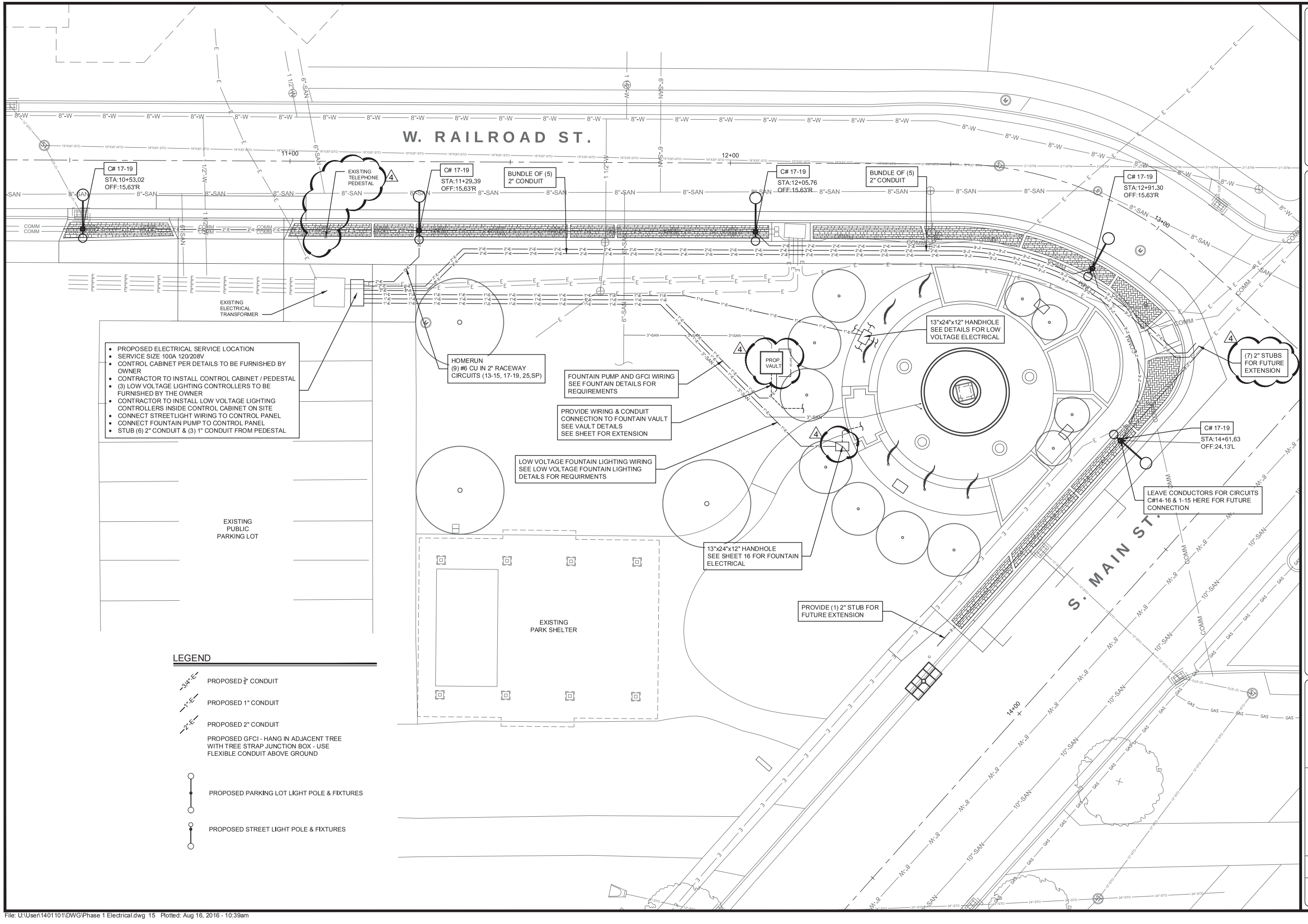

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DOWNTOWN STREETSCAPE - PHASE 1

--

ELECTRICAL PLAN

CITY OF VERONA, DANE COUNTY, WISCONSIN

0 10'

BIDDING DOCUMENTS

DATE: AUGUST 4, 2016

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08-16-2016 ADDENDUM 4 4

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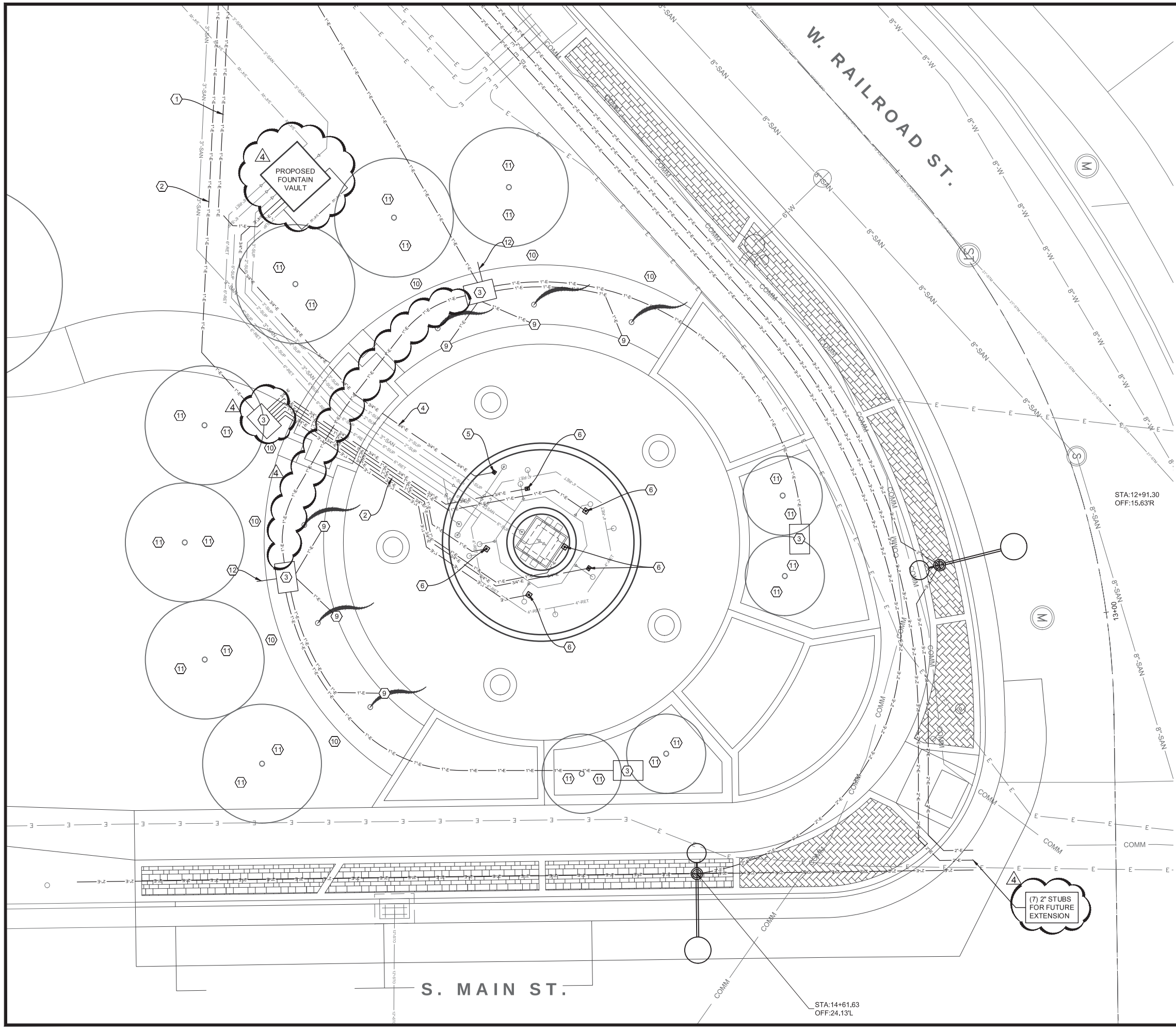

LEGEND

- PROPOSED ¾" CONDUIT
- PROPOSED 1" CONDUIT
- PROPOSED 2" CONDUIT
- PROPOSED GFCI - HANG IN ADJACENT TREE WITH TREE STRAP JUNCTION BOX - USE FLEXIBLE CONDUIT ABOVE GROUND
- PROPOSED PARKING LOT LIGHT POLE & FIXTURES
- PROPOSED STREET LIGHT POLE & FIXTURES

KEYNOTES

1. FOUNTAIN PUMP AND GFCI WIRING SEE FOUNTAIN DETAILS FOR REQUIREMENTS
2. LOW VOLTAGE FOUNTAIN LIGHTING WIRING SEE LOW VOLTAGE FOUNTAIN LIGHTING DETAILS FOR REQUIRMENTS
3. 13"x24"x12" HANDHOLE
4. WATER LEVEL CONTROLLER WIRING SEE FOUNTAIN DETAILS
5. WATER LEVEL CONTROLLER
6. SUBMERSIBLE JUNCTION BOX SEE FOUNTAIN DETAILS FOR LIGHT LOCATIONS
7. 13"x24"x12" HANDHOLE
8. WATER LEVEL CONTROLLER
9. WALL MOUNTED FLAGPOLE UPLIGHT
10. GROUND MOUNTED FLAGPOLE UPLIGHT
11. GROUND MOUNTED COLOR UPLIGHT
12. PROVIDE 1" STUB FOR CONNECTION TO LOW VOLTAGE LIGHTING IN LANDSCAPE AREAS

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ELECTRICAL PLAN

DOWNTOWN STREETSCAPE - PHASE 1

--

CITY OF VERONA, DANE COUNTY, WISCONSIN

0 5'

BIDDING DOCUMENTS

DATE: AUGUST 4, 2016

REVISED: REV # DR #

08-16-2016 ADDENDUM 4 ⚠4

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16

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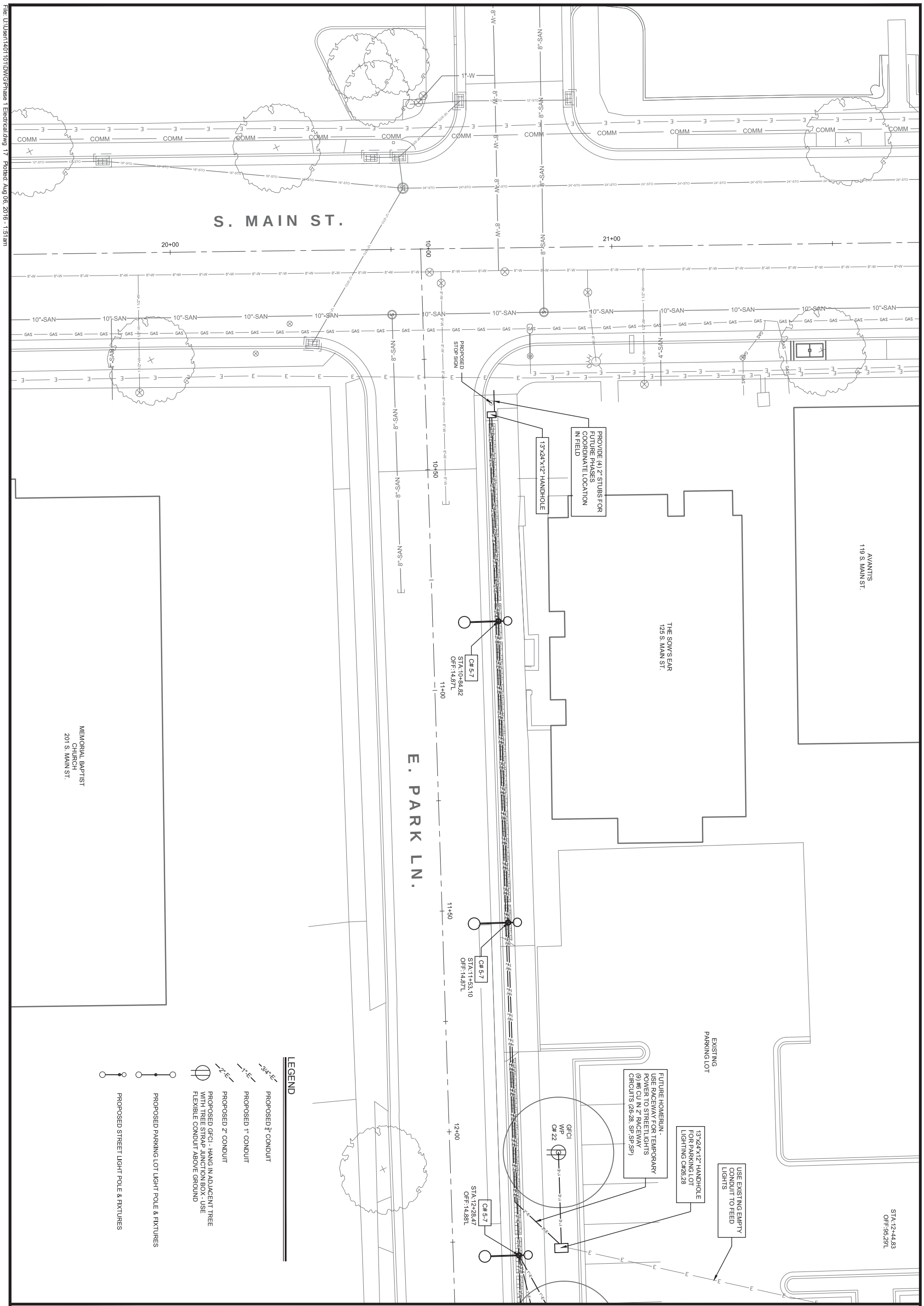

LEGEND

- PROPOSED ¾" CONDUIT
- PROPOSED 1" CONDUIT
- PROPOSED 2" CONDUIT
- PROPOSED GFCI - HANG IN ADJACENT TREE WITH TREE STRAP. JUNCTION BOX - USE FLEXIBLE CONDUIT ABOVE GROUND
- PROPOSED PARKING LOT LIGHT POLE & FIXTURES
- PROPOSED STREET LIGHT POLE & FIXTURES

0 10'

ELECTRICAL PLAN

DOWNTOWN STREETSCAPE - PHASE 1

--

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Sheet Number:
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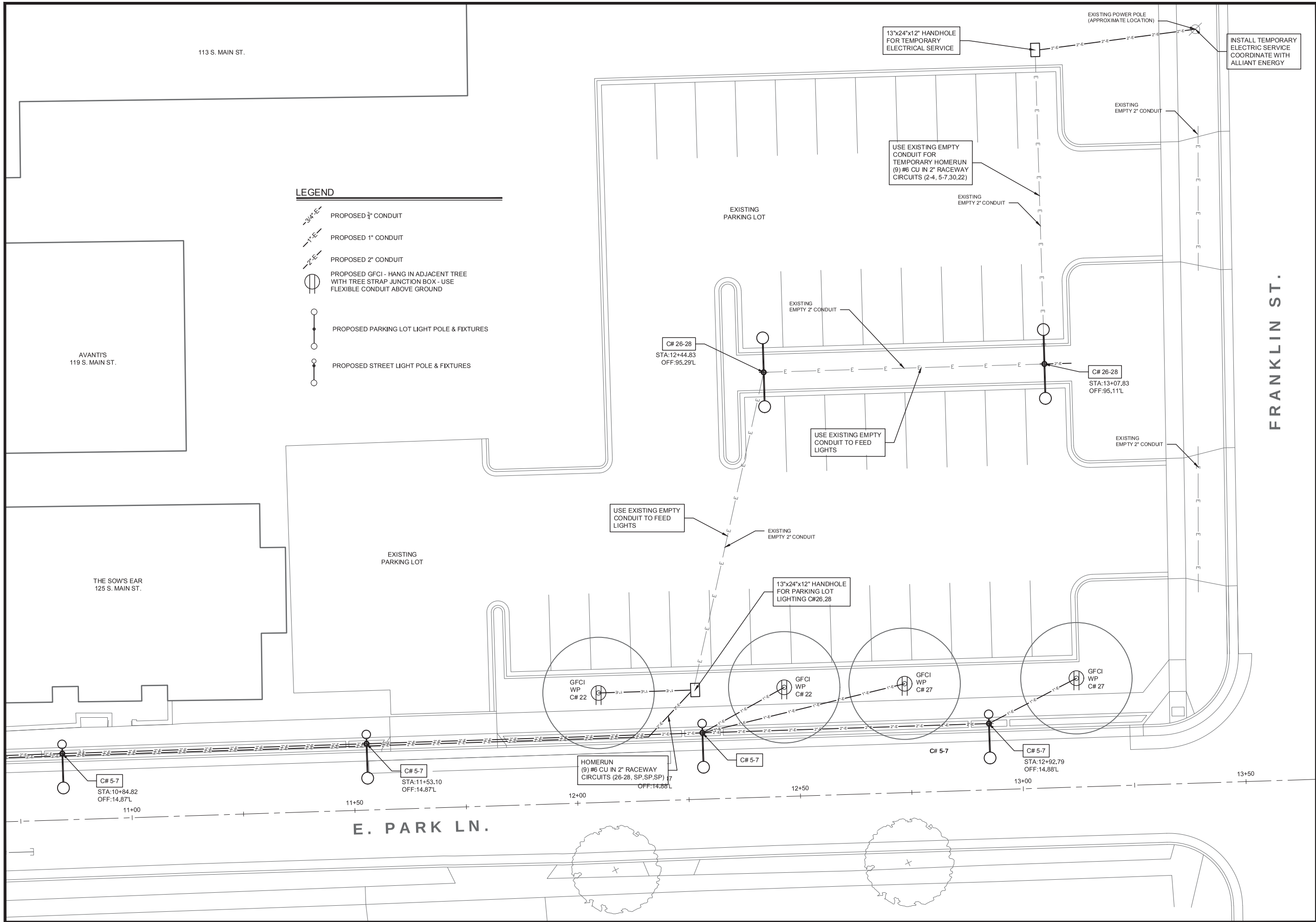

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ELECTRICAL PLAN

DOWNTOWN STREETSCAPE - PHASE 1

CITY OF VERONA, DANE COUNTY, WISCONSIN

0 10'

BIDDING DOCUMENTS

DATE: AUGUST 4, 2016
REVISED: REV # DR #

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Sheet Number:
18

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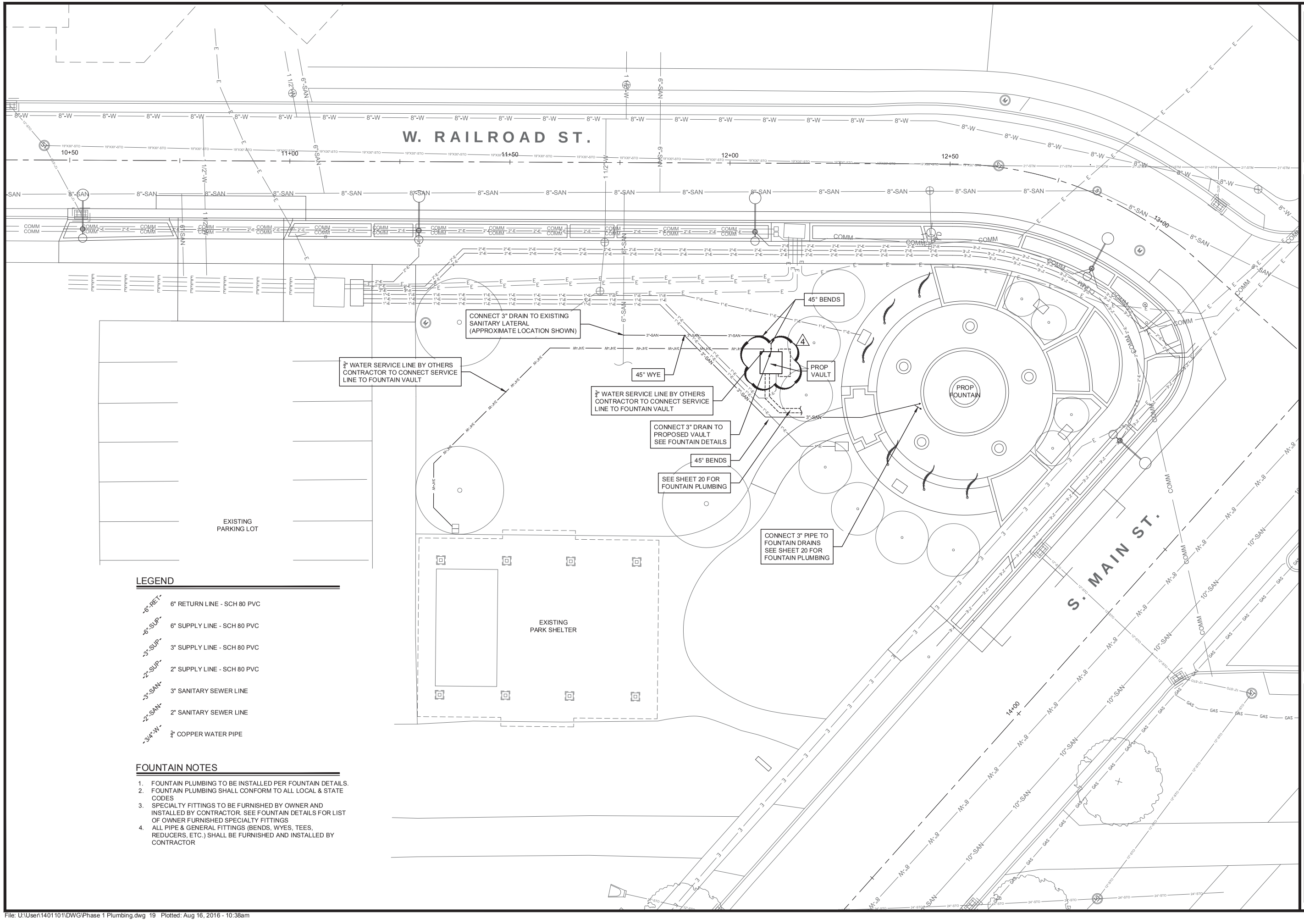

LEGEND

-6"-RET-	6" RETURN LINE - SCH 80 PVC
-6"-SUP-	6" SUPPLY LINE - SCH 80 PVC
-3"-SUP-	3" SUPPLY LINE - SCH 80 PVC
-2"-SUP-	2" SUPPLY LINE - SCH 80 PVC
-3"-SAN-	3" SANITARY SEWER LINE
-2"-SAN-	2" SANITARY SEWER LINE
-3/4"-W-	¾" COPPER WATER PIPE

FOUNTAIN NOTES

1. FOUNTAIN PLUMBING TO BE INSTALLED PER FOUNTAIN DETAILS.
2. FOUNTAIN PLUMBING SHALL CONFORM TO ALL LOCAL & STATE CODES
3. SPECIALTY FITTINGS TO BE FURNISHED BY OWNER AND INSTALLED BY CONTRACTOR. SEE FOUNTAIN DETAILS FOR LIST OF OWNER FURNISHED SPECIALTY FITTINGS
4. ALL PIPE & GENERAL FITTINGS (BENDS, WYES, TEES, REDUCERS, ETC.) SHALL BE FURNISHED AND INSTALLED BY CONTRACTOR

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DOWNTOWN STREETSCAPE - PHASE 1

--

PLUMBING PLAN

CITY OF VERONA, DANE COUNTY, WISCONSIN

0 10'

BIDDING DOCUMENTS

DATE: AUGUST 4, 2016

REVISED: REV # DR #

08-16-2016 ADDENDUM 4 ⚠4

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Sheet Number:

19

LEGEND

-6"-RET-	6" RETURN LINE - SCH 80 PVC
-6"-SUP-	6" SUPPLY LINE - SCH 80 PVC
-3"-SUP-	3" SUPPLY LINE - SCH 80 PVC
-2"-SUP-	2" SUPPLY LINE - SCH 80 PVC
-3"-SAN-	3" SANITARY SEWER LINE
-2"-SAN-	2" SANITARY SEWER LINE
-3/4"-W-	¾" COPPER WATER PIPE

FOUNTAIN NOTES

1. FOUNTAIN PLUMBING TO BE INSTALLED PER FOUNTAIN DETAILS.
2. FOUNTAIN PLUMBING SHALL CONFORM TO ALL LOCAL & STATE CODES
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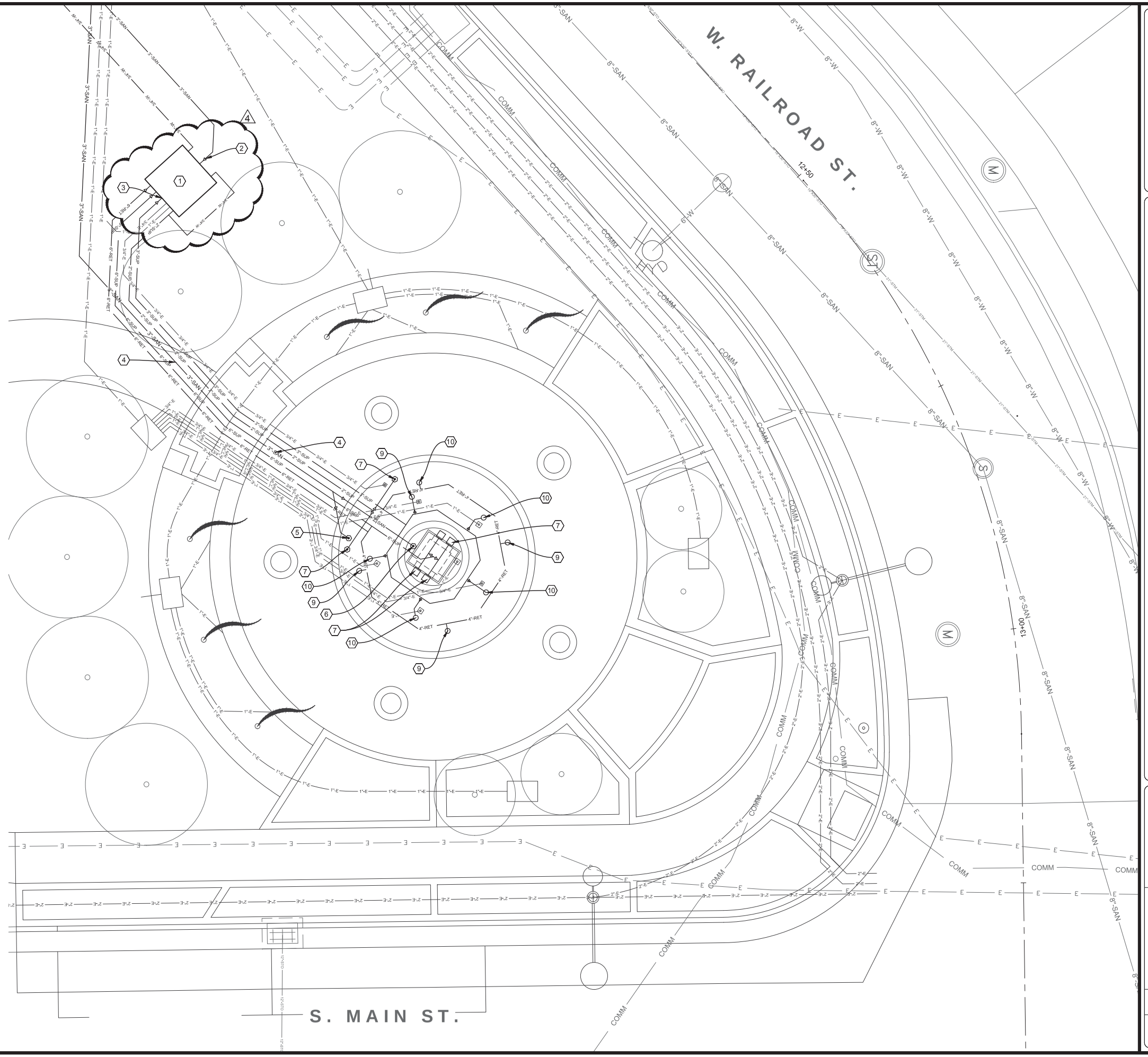
4. ALL PIPE & GENERAL FITTINGS (BENDS, WYES, TEES, REDUCERS, ETC.) SHALL BE FURNISHED AND INSTALLED BY CONTRACTOR

KEYNOTES

1. PROPOSED VAULT - FUNISHED BY OWNER INSTALLED BY CONTRACTOR
2. ¾" WATER SERVICE BY OTHERS CONTRACTOR TO CONNECT WATER SERVICE LINE TO FOUNTAIN VAULT - SEE FOUNTAIN DETAILS
3. CONNECT FOUNTAIN PLUMBING TO VAULT
4. FOUNTAIN PLUMBING PIPING - SEE FOUNTAIN DETAILS
5. OVERFLOW STAND PIPE - SPECIALTY FITTING
6. FLOOR DRAIN - SPECIALTY FITTING
7. SWEEP INLET FITTING - SPECIALTY FITTING
8. BALLAST & DIVERTER PLATE ASSEMBLY - SPECIALTY FITTING
9. SUMP ASSEMBLIES
10. CASCADE NOZZLE ASSEMBLIES



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PLUMBING PLAN

DOWNTOWN STREETSCAPE - PHASE 1

--

CITY OF VERONA, DANE COUNTY, WISCONSIN

0 5'

BIDDING DOCUMENTS

DATE: AUGUST 4, 2016

REVISED: REV # DR #

08-16-2016 ADDENDUM 4 1

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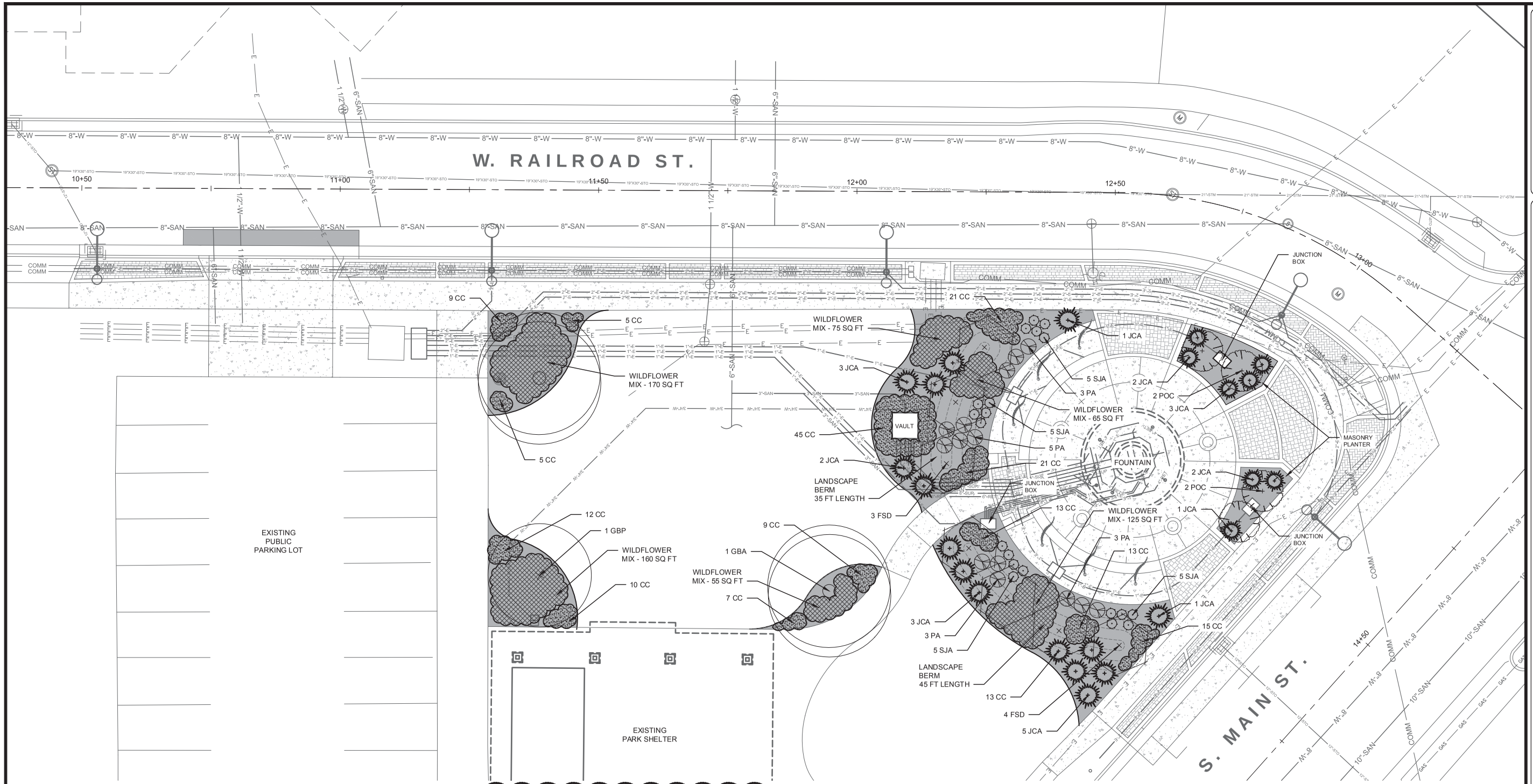
FN: 14-01-101

Sheet Number:

20



LANDSCAPE PLAN - GENERAL NOTES

4

1. ALL LANDSCAPE BEDS SHALL CONTAIN A 3" DEPTH OF SHREDDED HARDWOOD MULCH CONTAINED BY LANDSCAPE EDGING UNLESS OTHERWISE NOTED
2. LANDSCAPE BEDS SHALL HAVE A 6" MINIMUM COMPACTED DEPTH OF TOPSOIL
3. LANDSCAPE EDGING SHALL BE 3/16" x 4" ALUMINUM EDGING
4. ALL TREES IN TURF AREAS SHALL HAVE A 5' DIAMETER CIRCLE OF 3" DEPTH SHREDDED HARDWOOD BARK MULCH CONTAINED BY LANDSCAPE EDGING
5. ~~ALL GENERAL LANDSCAPE AREAS SHALL HAVE A MINIMUM 6" COMPACTED DEPTH OF TOPSOIL~~
6. ~~GENERAL LANDSCAPE AREAS SHALL BE SEEDED WITH *MADISON PARKS* SEED MIX AS MANUFACTURED BY LA CROSSE SEED, LLC. OR APPROVED EQUAL~~
7. MASONRY PLANTER SOIL MIX SHALL CONSIST OF 50% SANDY LOAM & 50% COMPOST AS MEASURED BY VOLUME AND SHALL BE LIGHTLY COMPACTED SO AS TO PREVENT SETTLING BUT STILL ALLOW SUFFICIENT WATER AND AIR PERMEABILITY TO PROMOTE PLANT GROWTH
8. WILDFLOWER MIX SHALL CONFORM WITH THE SPECIFICATIONS OF THE *'EXCLUSIVELY FLOWERS'* PRE-PLANNED GARDEN AS MANUFACTURED BY **PRAIRIE NURSERY - www.prairienursery.com**
9. WILDFLOWER MIX PLANTS SHALL BE PLANTED IN MASSES TO CREATE DRIFTS OF LIKE SPECIES - PLANTS SHALL BE LAID OUT BY PROJECT LANDSCAPE ARCHITECT PRIOR TO INSTALLATION
10. LANDSCAPE FABRIC SHALL BE MIRAFI 140N OR APPROVED EQUAL
11. ALL LANDSCAPING SHALL BE IN ACCORDANCE WITH THE CITY OF VERONA ZONING ORDINANCE.

LANDSCAPE LEGEND

- WILDFLOWER MIX - 600 SQ FT TOTAL 2" PLUGS - 12" OC
- BLUE JOINT GRASS (*Calamogrostis canadensis*)
- 3" DEPTH SHREDDED HARDWOOD BARK MULCH

PLANT SCHEDULE

CODE	SCIENTIFIC NAME	COMMON NAME	QTY	SIZE	ROOT COND	NOTES
DECIDUOUS TREES						
AFA	Acer x freemanii 'Armstrong'	Armstrong Maple	2	2"	B&B	
FSD	Fagus sylvatica 'Dawyck Purple'	Dawyck Purple Beech	7	2"	B&B	
GBA	Ginkgo biloba 'Autumn Gold'	Autumn Gold Ginkgo	2	2"	B&B	
GBP	Ginkgo biloba 'Princeton Sentry'	Princeton Sentry Ginkgo	3	2"	B&B	
ORNAMENTAL TREE						
POC	Physocarpus opulifolius 'Coppertina'	Coppertina Ninebark on Standard	3	5' TALL	POT	3' Standard
EVERGREEN SHRUB						
JCA	Juniperus conferta 'All Gold'	All Gold Juniper	23	3 GAL	POT	
HERBACEOUS PERENNIALS						
CAK	Calamagrostis canadensis	Blue Joint Grass	185	2"	POT	18" OC
PA	Perovskia atrilicifolia	Russian Sage	14	1 GAL	POT	
SJA	Sedum 'Autumn Joy'	Autumn Joy Sedum	20	1 GAL	POT	

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DOWNTOWN STREETSCAPE - PHASE 1

LANDSCAPE PLAN

CITY OF VERONA, DANE COUNTY, WISCONSIN

0 10'

BIDDING DOCUMENTS

DATE: AUGUST 4, 2016

REVISED:

08-15-2016 ADDENDUM 3 (3)

08-16-2016 ADDENDUM 4 (4)

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Sheet Number: 21 (3)

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LANDSCAPE PLAN - GENERAL NOTES

4

1. ALL LANDSCAPE BEDS SHALL CONTAIN A 3" DEPTH OF SHREDDED HARDWOOD MULCH CONTAINED BY LANDSCAPE EDGING UNLESS OTHERWISE NOTED
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7. MASONRY PLANTER SOIL MIX SHALL CONSIST OF 50% SANDY LOAM & 50% COMPOST AS MEASURED BY VOLUME AND SHALL BE LIGHTLY COMPACTED SO AS TO PREVENT SETTLING BUT STILL ALLOW SUFFICIENT WATER AND AIR PERMEABILITY TO PROMOTE PLANT GROWTH
8. WILDFLOWER MIX SHALL CONFORM WITH THE SPECIFICATIONS OF THE '*EXCLUSIVELY FLOWERS*' PRE-PLANNED GARDEN AS MANUFACTURED BY **PRAIRIE NURSERY - www.prairienursery.com**
9. WILDFLOWER MIX PLANTS SHALL BE PLANTED IN MASSES TO CREATE DRIFTS OF LIKE SPECIES - PLANTS SHALL BE LAID OUT BY PROJECT LANDSCAPE ARCHITECT PRIOR TO INSTALLATION
10. LANDSCAPE FABRIC SHALL BE MIRAFI 140N OR APPROVED EQUAL
11. ALL LANDSCAPING SHALL BE IN ACCORDANCE WITH THE CITY OF VERONA ZONING ORDINANCE.

LANDSCAPE LEGEND

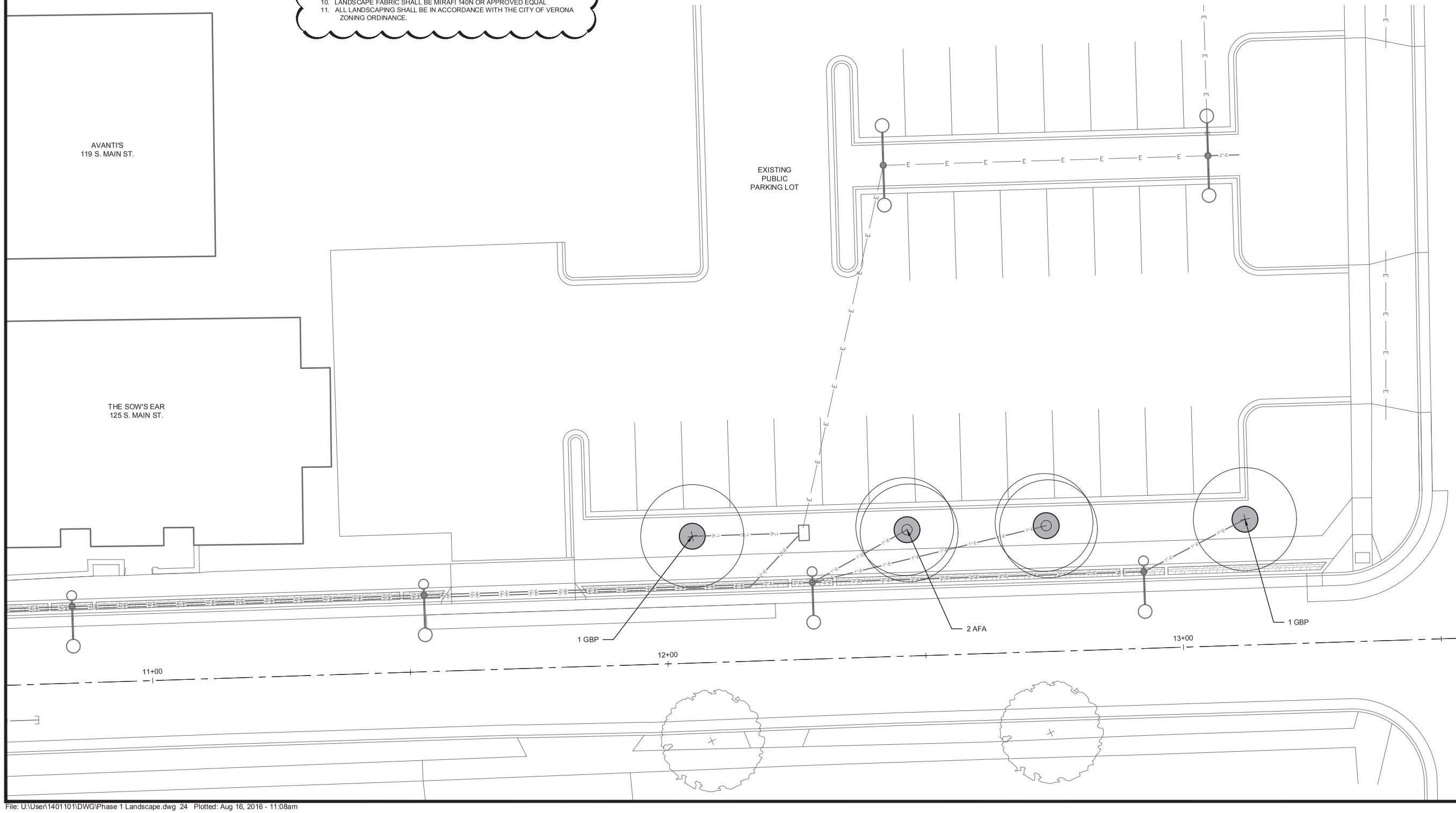
WILDFLOWER MIX - 600 SQ FT TOTAL
2" PLUGS - 12" OC

BLUE JOINT GRASS
(*Calamogrostis canadensis)*

3" DEPTH SHREDDED HARDWOOD BARK MULCH

PLANT SCHEDULE

CODE	SCIENTIFIC NAME	COMMON NAME	QTY	SIZE	ROOT COND	NOTES
DECIDUOUS TREES						
AFA	Acer x freemanii 'Armstrong'	Armstrong Maple	2	2"	B&B	
FSD	Fagus sylvatica 'Dawyck Purple'	Dawyck Purple Beech	7	2"	B&B	
GBA	Ginkgo biloba 'Autumn Gold'	Autumn Gold Ginkgo	2	2"	B&B	
GBP	Ginkgo biloba 'Princeton Sentry'	Princeton Sentry Ginkgo	3	2"	B&B	
ORNAMENTAL TREE						
POC	Physocarpus opulifolius 'Coppertina'	Coppertina Ninebark on Standard	3	5' TALL	POT	3' Standard
EVERGREEN SHRUB						
JCA	Juniperus conferta 'All Gold'	All Gold Juniper	23	3 GAL	POT	
HERBACEOUS PERENNIALS						
CAK	Calamagrostis canadensis	Blue Joint Grass	185	2"	POT	18" OC
PA	Perovskia atrilicifolia	Russian Sage	14	1 GAL	POT	
SJA	Sedum 'Autumn Joy'	Autumn Joy Sedum	20	1 GAL	POT	



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LANDSCAPE PLAN

DOWNTOWN STREETSCAPE - PHASE 1

--

CITY OF VERONA, DANE COUNTY, WISCONSIN

0 10'

BIDDING DOCUMENTS

DATE: AUGUST 4, 2016

REVISED:

08-15-2016 ADDENDUM 3 (3)

08-16-2016 ADDENDUM 4 (4)

DRAWN BY: MS

FN: 14-01-101

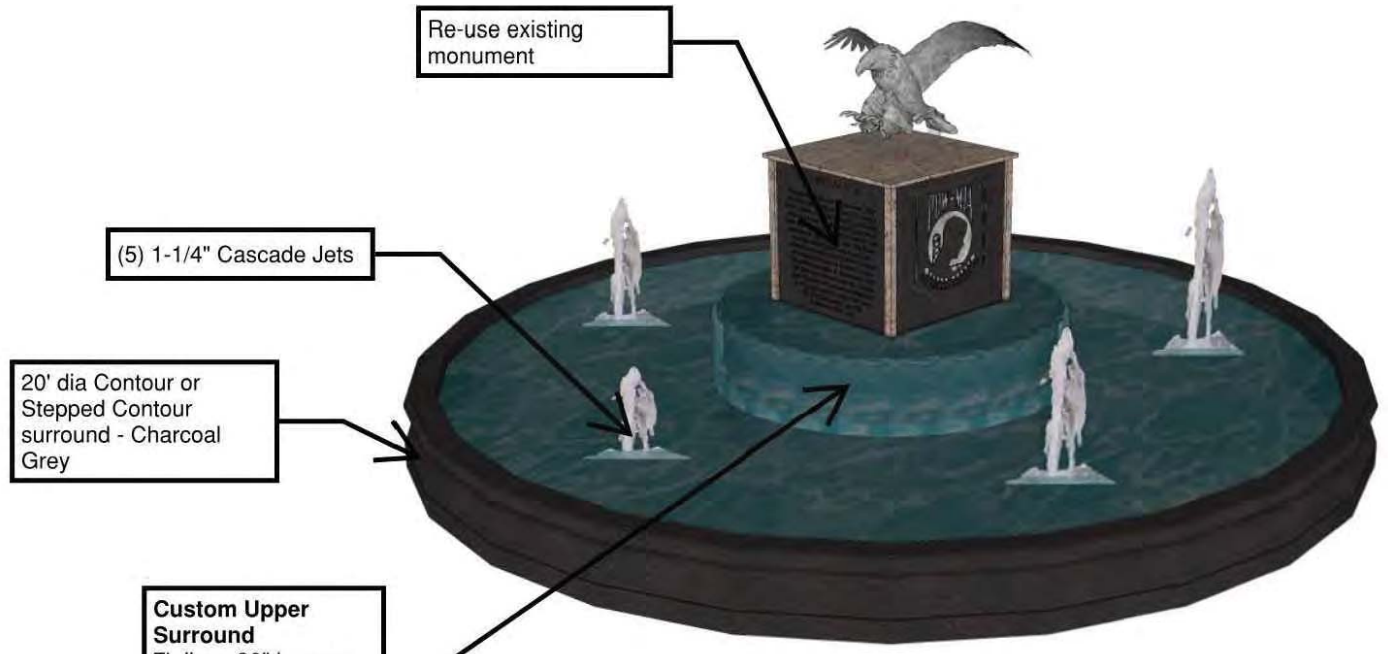
Sheet Number:

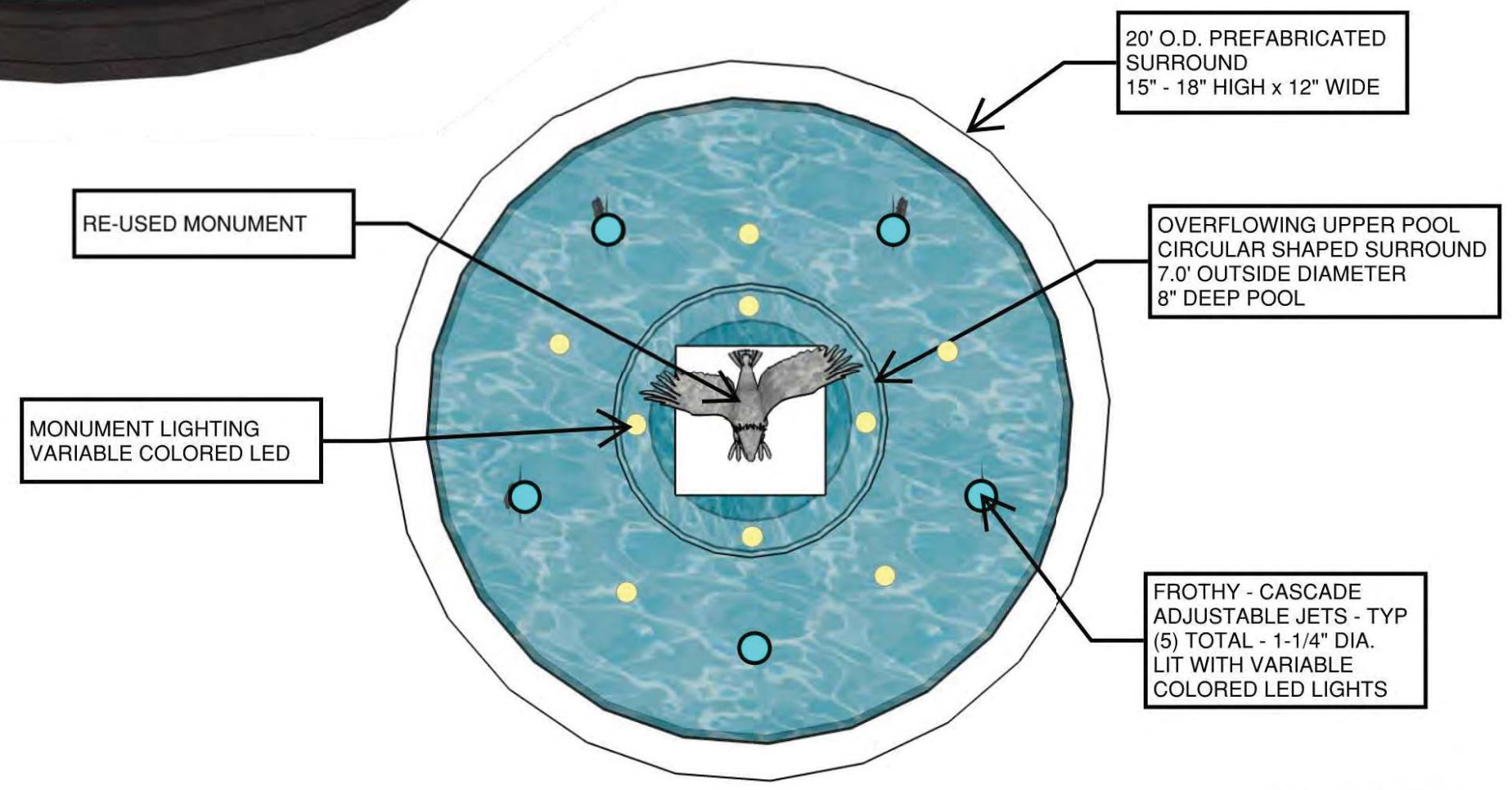
24 (3)

File: U:\User\1401101\DWG\Phase 1 Landscape.dwg 24 Plotted: Aug 16, 2016 - 11:08am

Veterans Memorial Fountain

Conceptual Design
City of Verona, WI





FOUNTAIN CONCEPT PLAN

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FOUNTAIN DETAILS

DOWNTOWN STREETSCAPE - PHASE 1

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CITY OF VERONA, DANE COUNTY, WISCONSIN

BIDDING DOCUMENTS

DATE: AUGUST 4, 2016

REVISED: REV # DR #

DRAWN BY: MS

FN: 14-01-101

Sheet Number:

25

File: U:\User\1401101\DWG\Phase 1 Fountain.dwg 25 Plotted: Aug 06, 2016 - 1:44am

"Green Building Benefits" of Specifying and Constructing Decorative Architectural Fountains and Water Features By Roman Fountains

* Fountains use re-circulated water, minimizing water waste and run-off, providing for site water use reduction and water efficient landscaping.
* Fountains serve as sound masks and barriers to lessen urban environmental noise pollution.
* Fountains serve as air filters, removing dust, dirt, allergens and other pollutants, thereby improving air quality.
* Fountains serve as nature's air conditioners, reducing ambient temperatures surrounding the water feature, and providing thermal comfort at the fountain site.
* Fountains use less water on a per square foot basis than the same planted area requiring sprinkler and drip irrigation, providing for water efficient landscaping.
* Fountains reduce the 'heat island effect' generated by paved or concreted landscape and hardscape surfaces.
* Fountains enhance the 'urban livability' of the building environment and convey a positive quality of life to occupants and visitors.
* Fountains offer opportunities to optimize energy performance, efficiency and sustainability using energy efficient motors and LED lighting products.
* PVC pipe saves energy, reduces CO2 emissions and takes less energy to produce than many competing products. PVC pipe saves fossil fuels; the principal raw material (nearly 60%) is chlorine derived from common salt, one of the most plentiful natural resources on earth. PVC is 100% recyclable.

NOTICE OF STATED AND INTENDED USE FOR DECORATIVE ARCHITECTURAL VIEWING PURPOSES ONLY UNLESS SPECIFICALLY REPRESENTED, IDENTIFIED, OR OTHERWISE SPECIFIED AND DESIGNED AS A "WATERPLAY" FOUNTAIN

It is hereby acknowledged, agreed and understood by specifier / purchaser / owner/ operator of this equipment and/or system that its stated and intended use is for decorative viewing purposes only, and not for public bathing, swimming, public entry or public recreational use. As such Roman Fountains Corporation assumes no responsibility or liability whatsoever for personal injury, sickness, illness, disease, or other accidents which may occur as a result of the equipment/system being used, operated or otherwise maintained in a manner inconsistent with its stated and intended purpose. Specifier/Purchaser/Owner/Operator is solely responsible for determining whether any specific codes, rules, regulations or guidelines for fountains apply to this project prior to construction, installation and operation and for notifying the public of the stated and intended use and operation of this decorative architectural fountain and for lawful enforcement thereof, including posting any and all signs, notices, warnings, instructions and barriers and providing personnel as necessary to enforce compliance with its intended use.

NOTICE

ANY ALTERATIONS, ADDITIONS, DELETIONS, CHANGES, MARKINGS, OR MODIFICATIONS TO ROMAN FOUNTAINS NOTES, NOTICES, INSTRUCTIONS, WARNINGS, CAUTIONS, LISTED INSTALLER RESPONSIBILITIES, TERMS, CONDITIONS, ETC. ARE 'NULL & VOID' AND SHALL NOT BE CONSIDERED, ACCEPTED OR RECOGNIZED BY ROMAN FOUNTAINS AS PART OF THE REVIEW OR APPROVAL PROCESS.

U.S. GREEN BUILDING COUNCIL MEMBER

AMERICAN SOCIETY OF LANDSCAPE ARCHITECTS CORPORATE MEMBER

AIA Allied Member

APSP The Association of Pool & Spa Professionals®

ROMAN FOUNTAINS

IMPORTANT SCHEDULING NOTICE TO CLIENT

In accordance with Roman Fountains standard quotation and published terms and conditions of sale, orders for components and/or systems are not released for fabrication and shipment until one (1) set of submittals/shop drawings clearly marked "REVIEWED" by customer is received at our offices in Albuquerque, New Mexico.

Delivery times quoted in written proposals commence from the date one (1) complete set of reviewed submittal/shop drawings is received with no changes or revisions required.

This is a company policy requirement, to insure accurate client/manufacturer communication pertaining to scope of work & responsibility. Thank You.

DRAWING "REVIEWED" FOR SCOPE BY: _____
SIGNATURE OF AUTHORIZED INDIVIDUAL/COMPANY NAME

DATE:

PREPARED FOR: Reinders, Inc. / Sussex, WI

PROJECT NAME: VETERAN'S MEMORIAL / Verona, WI

REVISION #2 DATE: February 22, 2016 REV#1: February 08, 2016 ORIGINAL RELEASE: January 08. 2016

PROJECT LEAD: Bryan Had - Atlanta Office

DESCRIPTION	DWG. #
GENERAL INSTALLATION NOTES	WFN-1
FOUNTAIN EQUIPMENT LIST & PERFORMANCE CRITERIA	WFN-2
FOUNTAIN EQUIPMENT DETAILS SHEET 1	WFD-1
FOUNTAIN EQUIPMENT DETAILS SHEET 2	WFD-2
FOUNTAIN DIMENSION PLAN	WFM-1
FOUNTAIN SUCTION, DRAIN, & VENT PIPING PLAN	WFM-2
FOUNTAIN DISCHARGE & FILL PIPING PLAN	WFM-3
RDP-2H, DIRECT BURIAL PUMP VAULT INSTALLATION DETAILS SHEET 1	WFM-4
RDP-2H, DIRECT BURIAL PUMP VAULT INSTALLATION DETAILS SHEET 2	WFM-5
FOUNTAIN ELECTRICAL PLAN	WFE-1
FOUNTAIN ELECTRICAL SCHEMATIC	WFE-2
TYPICAL ELECTRICAL DETAILS & ARTICLE 680 NEC REQUIREMENTS	WFI-1
TYPICAL PIPING AND PENETRATION DETAILS	WFI-2

NOTICE: Any alterations to this design document in whole or in part made without the express written consent and permission of Roman Fountains Corporation shall be at sole risk of the individual or company making such unauthorized alterations, and Roman Fountains Corporation shall not have or accept any liability or legal exposure arising from said alterations.

NOTE: The proper design, operation, and performance of this system is based on the selection and use of equipment manufactured and/or selected by Roman Fountains Corporation, Albuquerque, New Mexico, USA, (505) 343-8082. Substitution of equipment, other than that selected and furnished by Roman Fountains, voids the system warranty and performance guaranty and installer assumes full responsibility for system installation, operation and performance.

ATTENTION: In accordance with Roman Fountains standard quotation and terms and conditions of sale, components and systems are not released for fabrication and shipment until approved submittals and shop drawings are received at factory.

NOTICE: This design document and items incorporated herein as an instrument of professional services is the proprietary property of Roman Fountains Corporation and is not to be used or reproduced, in whole or in part, for any extension to this project or for any other project without the express written consent of an officer of Roman Fountains Corporation, Albuquerque, New Mexico. Copyright® 2015.

IMPORTANT NOTICE TO CONTRACTOR AND OWNER: Certain events beyond the reasonable and foreseeable control of Roman Fountains Corporation can cause certain fountain system equipment damage or failure.

Control and removal of foreign objects entering the fountain such as coins, plastic and paper products, wrappers lint, dust, dirt, container lids and caps, pull tabs, glass, metal, surrounding landscape coverings such as leaves, twigs, soil, seeds, bark, wood chips, gravel cover, wood products, insects, vermin, animal wastes, vegetation, plant matter, algae, chemicals, detergents, fertilizers, or other objects either as a result of natural, willful or forced occurrence is the responsibility of the contractor and owner, and Roman Fountains shall not be held responsible or liable for any incidental or consequential equipment, component, structural or any other direct or indirect damage as a result of foreign objects or debris entering the fountain system by any means, including water quality and sanitation issues.

Contractor and owner shall take any and all precautions necessary in order to prevent damage to equipment and components, including providing adequate screening/grating devices and performing periodic inspection and cleaning of fountain pool, without impairing proper equipment operation, regardless of whether such devices are required per specification, or shown in manufacturers shop/installation drawings and details.

NOTICE: Roman Fountains Standard Warranty terms & conditions apply to all product/system sales. Contact factory for complete warranty form. Any and all terms to the contrary are "NULL & VOID".

CORPORATE OFFICE, MANUFACTURING & DISTRIBUTION FACILITY
Phone #: (800) 794-1801 Fax #: (505) 343-8086
P.O. Drawer 10190, Albuquerque, N.M. 87184
http://www.romanfountains.com

EASTERN ENGINEERING & SALES OFFICE
Phone #: (877) 794-1802 Fax #: (770) 300-0074
9875 Medlock Bridge Parkway
Suite 250
Johns Creek, GA. 30022

IMPORTANT NOTICE TO FOUNTAIN CONTRACTOR/INSTALLER (MECHANICAL AND ELECTRICAL):
NOTWITHSTANDING THE CONTRACT DOCUMENTS, INCLUDING ARCHITECT'S FINAL "FOR CONSTRUCTION" PLANS AND SPECIFICATION DATA, THE FOUNTAIN SYSTEM MUST BE INSTALLED IN ACCORDANCE WITH ROMAN FOUNTAINS FINAL AND APPROVED SET OF SHOP/INSTALLATION DRAWINGS, DETAILS AND INSTRUCTIONS, AND MAINTAINED IN STRICT ACCORDANCE WITH ROMAN FOUNTAINS OPERATION & MAINTENANCE MANUALS AND INSTRUCTIONS, OR ROMAN FOUNTAINS PRODUCT WARRANTY AND SYSTEM PERFORMANCE GUARANTEE IS VOID.

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FOUNTAIN DETAILS

DOWNTOWN STREETSCAPE - PHASE 1

--

CITY OF VERONA, DANE COUNTY, WISCONSIN

BIDDING DOCUMENTS

DATE: AUGUST 4, 2016
REVISED: REV # DR #

DRAWN BY: MS

FN: 14-01-101

Sheet Number:
26

ELECTRICAL NOTES (RESPONSIBILITY OF INSTALLER) AS APPLICABLE TO THE SYSTEM

1. The installation of electrical equipment and wiring in water can produce extreme hazards. It is the responsibility of the installing contractor to consult and comply with all electrical codes and safety regulations prior to installation of electrical equipment. Local codes take precedence over the general notes where discrepancies or conflicts exist.

2. It is the responsibility of the installing contractor to verify all field dimensions critical to fountain equipment installation and performance and report any discrepancies, in writing, to Roman Fountains and the Architect/Engineer.

3. It is the responsibility of the installing contractor to insure that all electrical equipment is installed and wired by a QUALIFIED, LICENSED ELECTRICIAN experienced in fountain system wiring. Roman Fountains assumes no responsibility or liability whatsoever for installations not carried out by a qualified, licensed electrician in accordance with the approved shop drawings, and all provisions of the latest edition of NEC in general, Article 680 specifically, and local safety codes and regulations.

4. A Class 'A' ground fault circuit interrupter (GFCI) must be installed in each branch circuit supplying fountain equipment. Equipment operating at 15 volts or less must be protected by suitable transformer U.L. Listed and marked for the application.

5. Submersible lighting fixtures must be installed for operation at 150 volts or less between conductors. Submersible pumps must operate at 300 volts or less between conductors.

6. Submersible lighting fixtures must be installed with the top of the fixture lens a minimum of 2" below the normal operating water level and must have the lens adequately guarded to prevent contact by any person.

7. All electrical equipment which depends on submersion for safe operation must be protected against overheating by an independent low water cutoff device if the water level drops below normal operating level.

8. Per code, maximum length of exposed cord in the fountain is limited to 9 feet. Cords extending beyond fountain perimeter must be enclosed in approved wiring enclosures. Customer is responsible for any and all inspection issues resulting from requests or requirements for additional cord lengths.

9. All submersible niche lights must have sufficient cord length to allow removal from the water for relamping and normal maintenance. Fixtures cannot be permanently embedded in the fountain structure so that the water level must be reduced or the fountain drained for relamping, maintenance, or inspection.

10. Submersible equipment must be inherently stable or be securely fastened in place with non-corrosive fasteners suitable for the purpose (by installer).

11. Underwater junction boxes must be filled with an APPROVED RE-ENTERABLE ELECTRICAL POTTING COMPOUND (wax or paraffin is not acceptable) prior to filling pool and after all circuits have been checked to prevent the entry of moisture and be firmly attached to supports or directly to the fountain surface and bonded as required. All conduit stubbed up through pool floor must be red brass pipe, "Everdur", stainless steel or hard copper. PVC is not acceptable as a conduit support stub for submersible junction boxes. All conduit entries must be completely sealed prior to potting to prevent compound from entering conduit system.

12. All electrical conduit and conduit fittings between submersible light fixture niches, junction boxes and control panels shall be U.L. Listed rigid, nonmetallic, PVC NEMA TC-2 max. 90°C, sunlight resistant for above and below ground use. All conduits shall be protected at all times from possible water ingress. Use only approved primer and PVC glue suitable for joining all PVC conduits and fittings per manufacturers instructions.

13. All underwater junction boxes must be equipped with threaded conduit entries and compression type cord connectors for cord entry. Strain relief connectors serving niche-mounted underwater lights shall be capable of sealing both the fixture cord and an AWG #8 insulated bonding wire which may be required by some local codes.

14. All electrical equipment must be properly bonded and grounded for safety, per the latest code requirements.

15. Use good quality thread sealant or PVC glue as required for conduit connections to eliminate all leaks. All conduit shall be sealed to prevent entry of moisture and to prevent water from draining into the fountain control panel.

16. All conduit connections between dissimilar metals must be made with dielectric fittings, and sealed with dielectric thread compound to prevent galvanic degradation.

17. Pull correct quantity and size conductors, wired with separate ground, through conduit into junction box. Make all splices and connections tight and well insulated. Connect ground wire to ground lug in junction box, or other suitable grounding location.

18. Insert each submersible cord through the brass cord seals provided on the junction box and tighten completely.

19. Do not operate submersible lights or pumps more than ten seconds unless completely submerged or damage will result and warranty will be void.

20. All starting and control equipment such as load centers, motor starters, GFCI's, conduit, fittings, brackets, pull boxes/condulets, etc. will be furnished by the installing contractor unless specifically quoted for and clearly labeled on blueprints as being furnished by Roman Fountains.

NOTE: Any & all costs associated in complying with the above are the responsibility of installer.

NOTE
CONDUITS ENTERING FOUNTAIN SYSTEM CONTROL PANELS SHALL BE INSTALLED INTO BOTTOM OF ENCLOSURE IN THE EVENT WATER ENTERS CONDUIT AND FLOWS INTO PANEL THROUGH CONDUIT OPENINGS. DO NOT INSTALL ANY WATER LINES ABOVE THE CONTROL PANEL. A DRAIN OPENING MUST BE MADE IN BOTTOM OF ENCLOSURE PAN TO ALLOW DRAINAGE OF WATER FROM ENCLOSURE IN THE EVENT OF WATER INGRESS.

NOTE: WHERE CONFLICTS EXIST, WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALED MEASUREMENTS.

NOTE
DUE TO OUR CONTINUING PRODUCT IMPROVEMENT, ROMAN FOUNTAINS RESERVES THE RIGHT TO CHANGE PRODUCT AND SYSTEM SPECIFICATIONS WITHOUT NOTICE.

NOTICE TO CLIENT:
ROMAN FOUNTAINS SHALL NOT BE RESPONSIBLE FOR WATER QUALITY AND WATER CHEMISTRY ISSUES WHICH MAY RESULT IN HARDWATER SCALING, HIGH IRON CONTENT, STAINING OR ANY OTHER CHEMICAL ACTION OR REACTION TO EQUIPMENT OR STRUCTURES THAT MAY OCCUR AS A RESULT OF WATER CHEMISTRY ISSUES.

CLIENT SHALL BE SOLELY RESPONSIBLE FOR PERFORMING ANY AND ALL TESTING DEEMED NECESSARY TO ASCERTAIN FOUNTAIN WATER QUALITY AND CHEMISTRY ISSUES PRIOR TO CONSTRUCTING THE FOUNTAIN, AND FOR SELECTING AND PROVIDING ALL WATER TREATMENT EQUIPMENT AND/OR CHEMICAL ADDITIVES WHICH MAY BE REQUIRED TO RENDER THE WATER SUITABLE FOR THE FOUNTAIN APPLICATION, INCLUDING HEALTH, WATER QUALITY AND SANITATION ISSUES.

WATER CHEMISTRY FOR ALL CHEMICALLY TREATED WATER FEATURES SHALL BE MAINTAINED AS FOLLOWS

Free Chlorine: 1.0-3.0 ppm
Combined Chlorine: None
Bromine: 2.0-4.0 ppm (If used in lieu of Chlorine)
pH: 7.4-7.6
Total Alkalinity: 80-100 ppm
TDS: 1000-2000 ppm
Calcium Hardness: 200-400 ppm
Cyanuric Acid: 20 ppm MAX (0 ppm in Spas and Indoor Features)

ROMAN FOUNTAINS SHALL NOT BE RESPONSIBLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES, DETERIORATION OR ANY OTHER ADVERSE EFFECTS TO SURROUNDING LANDSCAPE OR HARDSCAPE, FOUNTAIN STRUCTURE, PIPING OR ANY EQUIPMENT AS A RESULT OF WATER QUALITY AND CHEMISTRY ISSUES AND ASSUMES THAT PROPER WATER ANALYSIS AND APPROPRIATE TREATMENT HAS BEEN IMPLEMENTED PRIOR TO OBTAINING AND INSTALLING FOUNTAIN EQUIPMENT.

PIPING NOTES (RESPONSIBILITY OF INSTALLER) AS APPLICABLE TO THE SYSTEM

1. It is the installing contractor's responsibility to verify all field dimensions critical to fountain equipment installation and performance and report any discrepancies, in writing, to Roman Fountains and the Architect/Engineer.

2. It is the responsibility of the installing contractor to check and comply with all plumbing and building codes prior to installation of equipment. Local codes take precedence over general notes where discrepancies or conflicts exist.

3. All piping penetrations through any concrete wall or floor must be made with red brass, copper or Sch. 80 PVC pipe as specified for the installation, and must be flashed or fitted with waterstop flanges to prevent leakage.

4. Interconnecting piping between the pool and pump room must be PVC, copper or brass as suitable for the working pressure of the system specification requirements and local codes.

5. All pipe connections between dissimilar metals must be made with dielectric fittings, and dielectric thread sealing compound to prevent galvanic degradation.

6. Suction center line of pump must be located at or below lower pool floor elevation if flooded-end-suction type, and no more than 4 ft. above pool floor elevation if self-priming type. All reducing fittings must be concentric type on discharge line and eccentric type on suction line.

7. Suction line must be installed as a straight run into the pump suction connection of a least eight pipe diameters with no loops, high points or traps.

8. Use long radius elbows on all directional changes on suction and discharge lines where indicated on installation drawings. In some instances, piping diagrams are exaggerated for purposes of clarity. Make all suction and discharge pipe runs using the most direct routes possible and using the minimum number of fittings possible. Slope all lines down to pump, in all cases, with no loops, traps, or high points.

9. On suction lines use only butterfly, full-port or gate type valves. Never regulate or adjust flow from suction side of pump. Use suction valves for equipment isolation purposes only.

10. On discharge lines use only butterfly, globe, ball, plug or other low loss infinitely adjustable valves, for isolation and flow regulation (by installer unless otherwise specified).

11. An in-line basket strainer is recommended on the suction side of pumps, with basket perforations properly sized to protect the pump impeller, and fountain nozzle/jet orifices (by installer unless otherwise specified).

12. Provide adequate overflow drain and fill line capacity for the fountain system.

13. The piping system shall be water pressure tested for 4 hours prior to backfilling and shall then be buried and/or supported as required to protect the integrity of mechanical system. (Refer to PVC Installation Notes.)

14. Installer shall provide adequate access, lighting, drainage and ventilation in pump room to prevent flooding, condensation or overheating of equipment, and comply with all OSHA confined space regulations and requirements, before, during and after system installation.

15. Any pressurized city water lines supplying the fountain system shall be of Type K copper and shall be protected by an approved backflow prevention device and pressure reducing valve (by installer) set at 50 PSI maximum pressure and minimum of 30 PSI.

16. "P" traps and vents shall be installed on any drain line connected to a sanitary sewer system, where and when required by plumbing code, regardless of whether shown on installation drawings (by installer).

17. When installing suction piping for self priming pump systems, the piping shall be installed in such a manner as to maintain a flooded suction pipe condition at all times until piping connects to the pump.

18. All piping is assumed to be buried below ground in all cases, and not installed on or above grade where an air trap, loop or high point could be created.

NOTE: Any & all costs associated in complying with above are responsibility of installer.

NOTICE TO CLIENT: ELECTRONIC FILE TRANSFER POLICY

As a courtesy, drawing files and other documents may be furnished to client, at clients request, in electronic format. Electronic file drawings and documents shall be used for general reference purposes only. The transfer and receipt of an electronic file from Roman Fountains does not constitute delivery of our work product. Only a printed/plotted hard copy issued from our office, as prepared by our staff for the specific project, and identified as such constitutes our work product, and shall be the operative document for all design, product detailing, product specification, layout and installation information and warranty and performance guaranty obligations.

Roman Fountains Corporation shall not be liable or responsible in any manner whatsoever for any modifications, revisions, alterations or other changes to electronic files not specifically originating from our company and our employees, or for any products, components, systems, equipment or services obtained through use of electronic files for which a printed hard copy has not been delivered, reviewed, formally approved under clients signature and on file at Roman Fountains Corporation, Albuquerque, New Mexico, prior to delivering any products, systems or services.

The recipient of any electronic file or document issued by Roman Fountains Corporation unconditionally agrees to and accepts this policy and further agrees to indemnify and hold harmless Roman Fountains Corporation for any and all irregularities, incomplete or illegible transfers, transcription defects, incidental or consequential damages or costs incurred in the use, misuse, revision, alteration or other manipulation of electronic files issued from Roman Fountains Corporation.

DEFINITIONS OF TERMINOLOGY APPEARING IN DOCUMENTS

The term "furnish" shall mean "to obtain and deliver to the jobsite". The term "install" shall mean "to fix in position and connect for use". The term "provide" shall mean "to furnish and install".

Where language indicates that one trade is to "install" and another trade is to "connect", the term "install" shall mean "to fix in position", and "connect" shall mean "to make plumbing, mechanical and electrical connections" as indicated on the construction plans.

Roman Fountains Corporation shall by definition "furnish" equipment, components, materials and documents to the job site.

DANGER

FATAL ELECTRICAL SHOCK CAN OCCUR IF FOUNTAIN ELECTRICAL EQUIPMENT IS NOT INSTALLED PROPERLY. THIS EQUIPMENT SHOULD ONLY BE INSTALLED BY QUALIFIED ELECTRICIANS WITH PROPER GROUNDING AND GROUND FAULT INTERRUPTION CIRCUIT BREAKERS IN ACCORDANCE WITH NATIONAL ELECTRICAL CODE, SECTION 680, AND ALL OTHER APPLICABLE SECTIONS OF THE CODE.

DANGER

FATAL SUCTION ENTRAPMENT CAN OCCUR IF FOUNTAIN MECHANICAL EQUIPMENT & PIPING IS NOT INSTALLED CORRECTLY AS SHOWN. ANTI-VORTEX PLATES MUST BE SECURELY FASTENED TO SUMPS AND/OR POOL FLOOR USING SUITABLE VANDAL RESISTANT SAFETY FASTENERS AND ANCHORS AT ALL TIMES DURING OPERATION OF FOUNTAIN SYSTEM.

NOTE: CONTRACTOR/INSTALLER IS RESPONSIBLE FOR CONFIRMING AND CORRELATING ALL DIMENSIONS AT JOBSITE. ROMAN FOUNTAINS IS NOT RESPONSIBLE FOR CONSTRUCTION/INSTALLATION MEANS, METHODS, TECHNIQUES, SEQUENCES, STEPS OR PROCEDURES, OR FOR ANY SAFETY REQUIREMENTS, CODES, PRECAUTIONS, RULES, REGULATIONS OR PROGRAMS PERTAINING TO THE CONSTRUCTION PROJECT, INCLUDING BUT NOT LIMITED TO OSHA CONFINED SPACE REQUIREMENTS FOR PUMP ROOMS, VAULTS OR PITS.

SYSTEM PERFORMANCE (RESPONSIBILITY OF INSTALLER) AS APPLICABLE TO THE SYSTEM

TESTING

1. Perform tests in the presence of the owner, architect, or authorized representative for designated duration with no pressure loss or noticeable leaks.

2. Do not include equipment in tests which could be damaged by high pressure.

3. Flush out all pipes with clean water prior to performing leak tests.

4. Perform tests as follows:

System	Test Pressure	Medium
Water	75 psi	Water
Drainage	10 ft.	Water

5. Automatic make-up water systems shall be thoroughly tested and operative at the time of final observation. Do not exceed 50 PSI line pressure.

6. After the system has operated for one week, contractor and owner's representative shall inspect water make-up rates and agree that water usage is appropriate for system of this type, are within local ordinances or codes, and that such rates are not indicative of excessive leakage from system. A water meter shall be placed on the fill line for this purpose, if necessary to document precise water usage.

PVC INSTALLATION NOTES

1. Unless architects or fountain designers specifications, or building codes indicate otherwise, the suggested minimum piping and fitting standard recommended for this installation is Type 1 Schedule 80 PVC to ASTM #D-1784, D-2464 and D-3467. Schedule 40 PVC pipe may be substituted if it is acceptable to mechanical/civil engineer and does not conflict with any specifications or building codes. Installer is responsible for any/all interconnecting piping, fittings and connections between equipment.

2. Use only clear PVC cleaner meeting NSF, UPC, and ASTM standards for cleaning and repairing PVC pipe and fitting surfaces for solvent cementing (IPS Corporation "Weld-On" Type C-65 or equivalent). Follow all directions and instructions appearing on product label.

3. Use only purple PVC primer meeting NSF, UPC, and ASTM #F-656 standards for softening and preparing pipe and fitting surfaces for solvent cementing (IPS Corporation "Weld-On" Type P-70 or equivalent). Follow all directions and instructions appearing on product label.

4. Use only gray, heavy bodied, medium setting PVC cement meeting NSF, UPC and ASTM #D-2564, standards for solvent cementing PVC plastic pipe and fittings (IPS Corporation "Weld-On" Type 711 or equivalent). Follow all directions and instructions on product label.

5. Pressure test all water piping prior to commencing backfill operations. (See #4 above) Hydrostatic (water) testing shall be the only approved method. DO NOT PRESSURE TEST WITH COMPRESSED AIR as severe pipe damage and bodily injury can occur. Do not exceed the rated operational pressure of the piping and/or fittings carrying the lowest pressure rating. Locate and repair any leaks and retest (per #4 above) prior to completion of backfill operations.

6. Concrete "thrust" blocking is recommended at all directional changes (tee's, elbows, etc.), reducer fittings and line terminations (bushings, end caps, plugs, etc.).

7. Perform adequate trenching and backfill operations when installing PVC piping below grade. Trench width should be minimum of "pipe O.D. plus 12 inches" and deep enough to allow piping to be buried minimum 12" below the maximum expected frost penetration line to avoid freeze damage. Lay piping in horizontal, parallel and perpendicular manner and allow for expansion and contraction. Avoid vertical stacking of pipes. Space minimum of 3" apart on all parallel runs.

8. Use only clean, free-flowing, non-expansive backfill material (naturally rounded 1/4" pea gravel or sand) and backfill in 8"-12" lifts with adequate and complete compaction between lifts to 90% of maximum density per ASTM 1557-70. Compaction to excessive loads shall not be permitted. A second pressure test on the piping system must be made at this time to insure that piping has not been damaged during backfill operations (see #4 above).

NOTE: Any & all costs associated in complying with above are responsibility of installer.

LIABILITY DISCLAIMER NOTICE

Roman Fountains shall not be responsible or liable for any civil or structural design drawings, details, notations or any other aspects of the project regarding fountain layout, structure or construction/building practices, including, but not limited to, concrete design, specifications and slab pour methods, concrete reinforcements such as rebar type, size and locations, or concrete structural waterproofing specifications, materials and methods, etc.

Any structure depicted or appearing on our plans shall be shown solely for dimensional reference and general structural orientation in order to adequately identify, coordinate, orient, locate and install our equipment package, and shall not be relied on for any other purposes.

Client is advised to enlist the services of a licensed professional engineer familiar and experienced with such work when designing/constructing any fountain pool or pump room structure, who shall accept complete responsibility and liability for all structural and civil engineering details pertaining to the project.

REQUEST TO PHOTOGRAPH, RECORD AND PUBLISH

ROMAN FOUNTAINS RESERVES THE RIGHT TO TAKE (OR CAUSE TO HAVE TAKEN) PHOTO AND/OR VIDEO IMAGES OF ITS FOUNTAIN SYSTEM EQUIPMENT AND/OR FOUNTAIN OPERATING EFFECTS (PRINT FILM, DIGITAL IMAGES, VIDEOTAPE OR OTHERWISE) AND TO PUBLISH SAID IMAGES IN ANY OF ITS SALES AND MARKETING BROCHURES, ADVERTISEMENTS, PRESENTATION AND SEMINAR HAND-OUTS, NEWSLETTERS, TRADESHOW EXHIBITS, WEBSITES, OR USE FOR LEGAL DOCUMENTATION PURPOSES. THIS RIGHT INCLUDES PRE-INSTALLATION IMAGES, INSTALLATION SEQUENCE IMAGES, START-UP AND COMMISSIONING IMAGES AND POST INSTALLATION IMAGES. ROMAN FOUNTAINS MAY, BUT SHALL NOT BE OBLIGATED TO IDENTIFY THE PROJECT, OR ANY OF THE PARTICIPANTS IN THE PROJECT, INCLUDING BUT NOT LIMITED TO OWNERS, PARTNERS, CORPORATIONS, ARCHITECTS, ENGINEERS, LANDSCAPE ARCHITECTS, CONSULTANTS, SPECIFIERS, DEVELOPERS, ETC. ALL IMAGES AND RECORDINGS SHALL REMAIN THE PROPERTY OF ROMAN FOUNTAINS CORPORATION, ITS SUCCESSORS OR ASSIGNS.

08/07/03

WATERPROOFING NOTICE OF RESPONSIBILITY

ROMAN FOUNTAINS RECOMMENDS ALL FOUNTAINS BE PROPERLY WATERPROOFED AND ALL FOUNTAIN COMPONENTS BE PROPERLY SEALED WITH A SUITABLE WATERPROOF CAULKING COMPOUND TO INSURE A WATERTIGHT FOUNTAIN INSTALLATION.

ANY WATERPROOFING DETAILS OR SPECIFICATIONS THAT MAY APPEAR ON ROMAN FOUNTAINS PLANS OR EQUIPMENT DETAILS ARE FOR GENERAL REFERENCE ONLY AND SHALL NOT BE INTERPRETED OR RELIED UPON AS A FORMAL SPECIFICATION OR RECOMMENDATION. CONVERSELY, THE ABSENCE OF WATERPROOFING DETAILS OR SPECIFICATION ON ROMAN FOUNTAINS PLANS, DETAILS OR PRODUCT SHEETS DOES NOT IMPLY THAT WATERPROOFING IS NOT A PROJECT REQUIREMENT.

IT IS THE RESPONSIBILITY OF THE PROJECT ARCHITECT/ENGINEER TO SPECIFY ANY AND ALL WATERPROOFING REQUIREMENTS, PRODUCTS, INSTALLATION/APPLICATION METHODS, PROCEDURES AND OTHER DETAILS AS MAY BE NECESSARY AND REQUIRED FOR THE FOUNTAIN STRUCTURE AND FOUNTAIN COMPONENTS.

IT IS THE RESPONSIBILITY OF THE WATERPROOFING CONTRACTOR TO REVIEW THE PROJECT SPECIFICATIONS FOR WATERPROOFING REQUIREMENTS FOR THE FOUNTAIN AND RELATED COMPONENTS AND PROVIDE THE SPECIFIED WATERPROOFING PRODUCTS AND SYSTEMS TO INSURE WATERPROOF INTEGRITY OF THE FOUNTAIN SYSTEM.

IT IS THE RESPONSIBILITY OF THE FOUNTAIN EQUIPMENT INSTALLER TO COORDINATE ALL WATERPROOFING MATERIALS, SYSTEMS, APPLICATIONS, PROCEDURES AND METHODS WITH THE WATERPROOFING CONTRACTOR, IN STRICT ACCORDANCE WITH THE PROJECT SPECIFICATIONS.

ROMAN FOUNTAINS ASSUMES NO RESPONSIBILITY OR LIABILITY WHATSOEVER FOR ANY WATERPROOFING ISSUES RELATED TO ITS DESIGN PACKAGE, SCOPE OF WORK OR EQUIPMENT SUPPLY UNDER ANY CIRCUMSTANCES. IF THE FOUNTAINS CONTRACTOR/INSTALLER/WATERPROOFER HAS QUESTIONS PERTAINING TO WATERPROOFING, THE SHALL BE DIRECTED TO THE PROJECT ARCHITECT/ENGINEER WHO IS SOLELY RESPONSIBLE FOR SUCH MATTERS.

INTELLECTUAL PROPERTY AND COPYRIGHT NOTICE
All Rights Reserved

THIS IS AN ORIGINAL DESIGN CREATED BY ROMAN FOUNTAIN CORPORATION.

THE CONCEPTS, IDEAS, PLANS, NOTES AND DETAILS ARE THE INTELLECTUAL PROPERTY OF ROMAN FOUNTAINS CORPORATION.

NONE OF THE CONCEPTS, IDEAS, PLANS NOTES OR DETAILS SHALL BE USED OR DISCLOSED BY ANY INDIVIDUAL, ORGANIZATION OR CORPORATION FOR ANY PURPOSE WITHOUT THE PRIOR WRITTEN CONSENT AND PERMISSION OF ROMAN FOUNTAINS CORPORATION, ALBUQUERQUE, NEW MEXICO.

NOTE: DRAWINGS, NOTES, DETAILS, EQUIPMENT LISTS, SPECIFICATIONS, INSTALLER REQUIREMENTS AND CALL-OUTS ARE "COMPLIMENTARY". WHAT IS INDICATED/REFERRED TO ON ANY DRAWING IN THE SET SHALL BE BINDING AS IF INDICATED/REFERRED TO ON ALL DRAWINGS IN THE SET, AS APPLICABLE.

NOTICE OF STATED AND INTENDED USE FOR DECORATIVE ARCHITECTURAL VIEWING PURPOSES ONLY UNLESS SPECIFICALLY REPRESENTED, IDENTIFIED, OR OTHERWISE SPECIFIED AND DESIGNED AS A "WATERPLAY" FOUNTAIN

It is hereby acknowledged, agreed and understood by specifier / purchaser / owner/ operator of this equipment and/or system that its stated and intended use is for decorative viewing purposes only, and not for public bathing, public entry or public recreational use. As such Roman Fountains Corporation assumes no responsibility or liability whatsoever for personal injury, sickness, illness, disease, or death which may occur as a result of the equipment/system being used, operated or otherwise maintained in a manner inconsistent with its stated and intended purpose. Specifier/Purchaser/Owner/Operator is solely responsible for notifying the public of the stated and intended use and operation of this decorative architectural fountain and for lawful enforcement thereof, including posting any and all signs, notices, warnings, instructions and barriers and providing personnel as necessary to enforce compliance with its intended use.

PURCHASER/OWNER INSTALLATION, MAINTENANCE & SERVICE RESPONSIBILITY

THIS FOUNTAIN SYSTEM IS DESIGNED, SPECIFIED, OFFERED AND SOLD UNDER THE ASSUMPTION AND UNDERSTANDING THAT THE PURCHASER/OWNER HAS REVIEWED, AND IS FAMILIAR WITH, THE FOUNTAIN PROJECT AND UNDERSTANDS THE COMPLEXITIES OF THE EQUIPMENT AND HAS, OR WILL CONTRACT WITH, COMPETENT AND EXPERIENCED INSTALLERS, AND THE PURCHASER/OWNER HAS, OR WILL CONTRACT WITH, COMPETENT AND EXPERIENCED OPERATION, MAINTENANCE AND SERVICE PERSONNEL FAMILIAR WITH SUCH EQUIPMENT TO PROPERLY CARE FOR THE EQUIPMENT. ROMAN FOUNTAINS SHALL IN NO WAY BE HELD RESPONSIBLE FOR DETERMINING WHETHER OR NOT PURCHASER/END USER HAS ADEQUATE KNOWLEDGE, RESOURCES, ABILITIES OR EXPERIENCED TRADES AND PERSONNEL TO INSTALL, MAINTAIN AND OPERATE THIS FOUNTAIN SYSTEM AND ITS ASSOCIATED EQUIPMENT PRIOR TO OFFER/PURCHASE AND AFTER SALE & INSTALLATION.

NOTICE TO INSTALLER

ALL FOUNTAIN SYSTEM EQUIPMENT & COMPONENTS FURNISHED BY ROMAN FOUNTAINS IS DESIGNED AND MANUFACTURED FOR USE IN FRESH WATER APPLICATIONS ONLY. DO NOT INSTALL OR OPERATE ANY EQUIPMENT IN SALT, BRINE OR BRACKISH WATER OR WARRANTY IS VOID.

RESPONSIBILITY FOR SPECIAL LABELING OR CERTIFICATION REQUIREMENTS

ALL COMPONENT ITEMS USED IN THE PRODUCTION OF OUR PRODUCTS ARE U.L. LISTED WHENEVER SUCH LABELING IS AVAILABLE FROM THE SOURCE EQUIPMENT OR MATERIAL.

SHOULD ANY PRODUCT REQUIRE A 'THIRD PARTY' LABEL OR CERTIFICATION AS AN ASSEMBLY (E.G. N.E.C., U.L. OR E.T.L. LISTING) SUCH REQUIREMENTS SHALL BE DETERMINED, CONTRACTED FOR, AND PAID BY OTHERS.

ROMAN FOUNTAINS SHALL NOT BE RESPONSIBLE OR LIABLE IN ANY MANNER WHATSOEVER FOR SPECIAL LABELING OR CERTIFICATION REQUIREMENTS, INCLUDING THIRD PARTY PRODUCT TESTING UNLESS SPECIFICALLY INCLUDED IN IT PROPOSALS, QUOTATIONS, DRAWING DESCRIPTIONS AND DETAILS, REGARDLESS OF PROJECT SPECIFICATION OR CODE REQUIREMENTS.

ELECTRONIC MEDIA USER ACCEPTANCE AGREEMENT

No warranties express or implied are made with respect to the electronic form of these drawings, including any implied warranties of merchantability or fitness for a particular purpose. It is understood the USER makes use of the electronic form of these drawings at USER's sole risk and that the drawings in electronic form are provided "as is" and "as received" without warranties of any kind. Roman Fountains shall have no obligation to or through the USER for use of the electronic form of these drawings, including any obligation or liability for the accuracy of the information furnished through the electronic form. In addition to and not withstanding the foregoing, in no event shall Roman Fountains be liable for any incidental, consequential or special damages or for any loss of profit sustained by user in connection with or arising out of the use of the electronic form of these drawings. January 1, 2003

OWNERS MAINTENANCE RESPONSIBILITY

For purposes of issuing this proposal and/or drawing package, Roman Fountains Corporation assumes client will commit the necessary manpower, equipment & financial resources necessary to properly, adequately & routinely maintain the fountain system in accordance with the Operation & Maintenance Manuals furnished by equipment supplier/manufacturer. Fountain system maintenance is the sole responsibility of the owner, not the fountain designer or system/equipment manufacturer/supplier.

NOTICE TO DRAWING RECIPIENT

Due diligence, good faith and care has been exercised in the preparation and production of these drawings, with reasonable and customary precautions, document quality control and redundant checking procedures having been taken to insure production of an accurate, informative, high quality drawing package.

However, in spite of these precautions and procedures, the possibility of errors and/or omissions always exists, as can be reasonably expected in the preparation of any complex technical drawing or document, regardless of circumstances. Therefore, the recipient is cautioned, and otherwise assumed to have carefully, completely and thoroughly examined all such drawings, including all details and notations incorporated herein, and shall immediately notify Roman Fountains Corporation in the event any errors or omissions are discovered or otherwise presumed.

All drawings are produced, prepared and submitted under the express condition and understanding that our contractual liability and responsibility is strictly limited to the correction and/or incorporation of information that has been determined or otherwise presumed to have been omitted, in error or otherwise excluded.

No liability or responsibility is assumed or otherwise accepted whatsoever by the company or its employees for any incidental or consequential damages or losses that occur as a result of possible, presumed or actual errors or omissions, whether we are notified or not.

NATURAL DISCOLORATION OF METALS

Discoloration of brass or copper fittings and components in fountains is a natural occurrence and is not considered by the company to be a product defect or warranty item. Water chemistry may turn the metal green or brown in appearance. Removal of the discoloration can be accomplished using a soft wire wheel brush and brass or copper cleaner if so desired. To minimize this natural occurrence, the material can be treated by owner with a clear epoxy spray coating or sealant.('Plasti-Kote' Clear Lacquer by Valspar or similar) prior to being installed into the fountain basin.

HUMIDITY, MOLD AND MILDEW

Roman Fountains is not responsible for any humidity, mold or mildew that may occur as a result of operating the fountain. Requirements for air dryers, de-humidifiers, and HVAC issues are the sole responsibility of others.

NOTICE REGARDING LINERS AND MEMBRANES

Equipment manufactured, supplied and otherwise furnished by Roman Fountains is primarily designed for embedment or casting directly into concrete or gunite structural material. It is not designed for natural or synthetic liner or membrane installation including fiberglass or metal liners, shells, covers or cladding. Any such requirement for liner or membrane installation or adaptation is the responsibility of the specifier, purchaser and installer, including but not limited to flanges, clamping devices, gaskets, fastening devices, coatings, adhesives or bonding agents.

CODE COMPLIANCE ISSUES ARE "BY OTHERS"

Sole responsibility and cost for ascertaining whether the fountain system design incorporated in this drawing package meets any/all building, civil, structural, mechanical, electrical or health/sanitation codes is "by others".

QUALIFICATIONS FOR BIDDERS/INSTALLERS

It is presumed that any/all entities bidding on this project are fully qualified and experienced to perform such work. It is not Roman Fountains responsibility to qualify bidders, or furnish installation instructions beyond what is furnished in these drawings. Architect/Owner is responsible for all contractor/installer qualifications and determinations as to suitability of bidders to perform the required work.

RESPONSIBILITY FOR OBTAINING PERMISSION AND PAYING ROYALTIES TO USE COPYRIGHTED MATERIALS IN MUSICAL FOUNTAIN SYSTEMS IS 'BY OTHERS'

Responsibility for obtaining any and all legal music licensing agreements, copyright permissions, royalty payments, playback or performance rights, etc. for the selection and use of any musical or other sound track recordings for use in musical fountain systems as may be required by BMI, ACSCAP, SESAC, by the artist or composer directly, or by any other permission or license granting body or organization is the sole responsibility of customer/client/owner of the fountain system. Roman Fountains does not quote, buy or sell music titles or licenses and bears no responsibility whatsoever, legally or financially, for their use by owner. Roman Fountains accepts all music selections sent to us for programming into the musical fountain system with the sole understanding they are legally acquired, purchased, obtained and/or licensed by owner prior to sending them to Roman Fountains for incorporation into the fountain system. Roman Fountains accepts such material as "owners property".

LIMITED WARRANTY

THIS WARRANTY IS NOT IN FORCE UNTIL PAYMENT IS RECEIVED IN FULL FOR ALL MATERIALS ORDERED PER THE PURCHASE ORDER, INCLUDING CHANGE ORDERS AND/OR ADDENDUMS, AND FINAL APPROVED SHOP DRAWINGS.

Roman Fountains Corporation warrants its complete systems orders (systems designed and specified by Roman Fountains) to be free from defects in materials and workmanship, when properly installed and maintained, under normal use and service, for a period of one year from date of installation or eighteen (18) months from date of shipment, whichever occurs first. Component only (non-system) orders are warranted for a period of one year from date of sale. Equipment, components and items used by Roman Fountains, but manufactured by others, shall be warranted to the extent of the original manufacturer's warranty.

If any equipment furnished by Roman Fountains is found defective under this warranty, the Buyer must notify Roman Fountains, in writing, within the warranty period. After receipt of shipping advice and Return Materials authorization (RMA) number, the Buyer may return the product directly to Roman Fountains Corporation, Customer Service Dept., 8600 Paseo Alameda Dr. N.E., Albuquerque, New Mexico, U.S.A., 87113.

All equipment returned to Roman Fountains must be carefully and properly packed and freight and insurance charges must be prepaid. Replacements or repaired equipment will be returned to the sender freight prepaid, F.O.B. Factory. This Warranty does not cover, and Roman Fountains is not responsible for, the removal or replacement of equipment on the job site and will not honor charges for such work. This Warranty does not cover, and Roman Fountains is not responsible for, any loss of use, time, incidental, or consequential damages should any of the equipment fail during the warranty period, but agrees only to put into proper operating condition or at Roman Fountains' option replace such equipment, free of all charges except transportation. The correction of any defects by repairs or, at Roman Fountains' option, replacement by Roman Fountains shall constitute fulfillment of all obligations and liability of Roman Fountains to the buyer under this Warranty and the contract of sale. Warranty on replaced or repaired equipment shall be 90 days from date of return shipment or expiration of the original warranty period, whichever comes last.

Roman Fountains is not responsible for damage to its equipment through improper installation, maintenance, use, or attempts to operate equipment above its rated capacity or voltage, intentionally or otherwise, or for unauthorized repairs, or damage due to flooding due to mechanical, electrical, or structural failure.

Failure to notify Roman Fountains of unsatisfactory operation or any improper installation, unauthorized installation, maintenance, use, repairs, or adjustments shall terminate this Warranty and shall relieve Roman Fountains from any further responsibility or obligation.

Buyer's exclusive and sole remedy under this Warranty is limited to repair or replacement of defective equipment returned "freight pre-paid" to Roman Fountains. Roman Fountains shall not be liable for special, consequential, incidental or other damages in any claim, action, suit or proceeding arising under this Warranty or the contract of sale, nor shall there be any liability thereunder for claims for labor, loss of profits or goodwill, repairs or other expenses incidental to replacement. This Warranty does not cover lenses, lamps, ballasts, batteries, or other equipment that may be supplied or warranted directly to the user by their manufacturers.

EXCEPT AS SPECIFICALLY PROVIDED ABOVE, ROMAN FOUNTAINS MAKES NO OTHER WARRANTY OF ANY KIND WHATSOEVER, EXPRESS OR IMPLIED, AND NO IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARE MADE, AND THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE FACE OF THIS DOCUMENT. NO REPRESENTATIVE OR EMPLOYEE OF ROMAN FOUNTAINS IS AUTHORIZED TO EXTEND, EXPAND, OR AMEND THIS WARRANTY IN ANY MANNER WHATSOEVER.

NOTICE

All shipments, unless otherwise noted, are sold F.O.B. factory, Albuquerque, New Mexico, U.S.A., freight collect.

The Buyer is advised to immediately inspect for shipping damage, apparent and /or hidden. If detected, notify the transportation company immediately and file your claim. The freight company is responsible for paying claims.

Buyer agrees that installation of all equipment shall be performed in strict accordance with Article 680 of the latest version of the NEC and in accordance with all national, state and local codes, by a licensed and experienced contractor / electrician qualified to perform such work.

01-01-13
(SUPERSEDES ANY AND ALL PRIOR WARRANTIES.)

SCOPE OF RESPONSIBILITY AND PERFORMANCE GUARANTEE

Roman Fountains will guarantee the decorative fountain system to perform to the specified operating heights, spray patterns, and water volumes, and to create the designed lighting effects, provided the entire equipment package as listed on our final submittal documents is supplied by Roman Fountains, and the installation, operation and maintenance of the equipment is in strict accordance with Roman Fountains installation and operating instructions, submittals, shop drawings and installation blueprints.

Roman Fountains will provide consultation and design services as they pertain to the fountain equipment package supplied, including the fountain display system, filtration system, water treatment system, overflow and drain system, water makeup and low level protection system, pump and lighting control system, lighting fixture and electrical junction box system, pump selection and pump room layout, electrical conduit and conductor sizing as it pertains to our equipment package, and suction and discharge sump design, as applicable.

The consultation and design information will be detailed on schematic, installation and submittal blueprints showing correct orientation and installation of Roman Fountains equipment as coordinated with the contract drawings. Upon receipt and acceptance of a bona-fide written purchase order with all terms and conditions satisfied, final installation drawings will be furnished to the owner/architect/engineer/contractor, as required by Roman Fountains as an integral part of its fountain equipment package. Any drawings or documents marked "preliminary" shall not be used for installation purposes.

Roman Fountains will not install, or accept responsibility for (1) the actual installation of the system equipment, (2) the design of the power distribution system, or (3) any other portion of the project not specifically enumerated, such as pool structure, hardscape design and construction and equipment room structural design and construction, or health code requirements.

Equipment not included in this scope of work: interconnecting piping, misc. plumbing and electrical fittings, filter media, water treatment chemicals, conduit, wiring, electrical load centers, electrical transformers, pipe hangers, pump and strainer supports or housekeeping pads, companion flanges, gaskets, fasteners, reducers, increasers and other equipment required to complete the installation unless specifically enumerated and identified as being furnished by Roman Fountains. This scope further does not include provisions for specially designed or fabricated waterstop equipment or penetrating sleeves, clamping or flashing rings, special sumps or other similar items unless specifically included in Roman Fountains system equipment lists and/or shop/installation drawings.

Engineer stamped or sealed drawings are not included in this scope and it shall be the responsibility of the client to obtain and pay the cost of such engineering certifications if so required.

ROMAN FOUNTAINS

VETERAN'S MEMORIAL
Verona, WI
For Reinders, Inc.
Sussex, WI

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Scale:	None
Drawn By:	J. Dennison
Checked By:	W. Pierce
Date:	01-08-16

Revisions:

No.	Date	By	Comments
01	02-08-16	JD	LIGHTS & SURROUND
02	02-22-16	WP	RWS-150-S. EDIT

GENERAL INSTALLATION NOTES

Drawing Number:
WFN-1

FOUNTAIN DETAILS

DOWNTOWN STREETSCAPE - PHASE 1
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CITY OF VERONA, DANE COUNTY, WISCONSIN

D'ONOFRIO KOTTKE AND ASSOCIATES, INC.
7530 Westward Way, Madison, WI 53717
Phone: 608.833.7530 • Fax: 608.833.1089
YOUR NATURAL RESOURCE FOR LAND DEVELOPMENT

BIDDING DOCUMENTS
DATE: AUGUST 4, 2016
REVISED: REV # DR #

DRAWN BY: MS
FN: 14-01-101
Sheet Number:
27

FOUNTAIN PERFORMANCE CRITERIA

The Veteran's Memorial water feature system consists of a circular water feature with a 7'-0" diameter upper basin and 20'-0" diameter lower basin. The upper basin contains a central monument (*provided by others*). Water fills the upper basin to flow around its perimeter, down the face of the wall, and into the lower basin. The lower basin contains five cascade jets, each producing a highly aerated conical mound of water at a maximum spray height of 36". Junction boxes are provided. There are 19 LED light fixtures (LL-ZDC-3LED-BS) and a separate lighting control (L2D-300-M) which are provided by others. A below grade pump equipment vault contains the fountain pump, valves, cartridge filter, chemical feeder, sump pump, fill manifold, and a UL electrical control panel.

The mechanical equipment is supplied to jobsite, preassembled and factory tested in a RDP-2H direct burial pump vault. This vault is pre-wired and pressure-tested with a 7.5 HP pump with basket strainer, a 75 sq. ft. cartridge filter, a chemical feeder (brominator) and UL listed control panel for pump control.

(All calculations shown below are approximate. Actual field conditions and final feature dimensions may differ.)

Fountain Information

Area of Basin 1 (Less the Center):	13 Square Feet
Depth of Basin 1:	30" (2.5 feet)
Volume of Basin 1:	32 Cubic Feet (243 Gallons)
Area of Basin 2 (Less the Center):	235 Square Feet
Depth of Basin 2:	14" (1.2 feet)
Volume of Basin 2:	282 Cubic Feet (2109 Gallons)
Total Volume of Basins:	314 Cubic Feet (2,349 Gallons)
Display Requirements:	21 GPM @ 18 Feet of Head (3'-0" Spray Height, Typ. 5) 22'-0" Weir length @ 10 GPM / Ft
Total Display Pump Requirements:	325 GPM @ 48 Feet of Head
Pump Delivers:	400 GPM @ 48 Feet of Head
Filtration Requirement:	10 GPM @ 50 Feet of Head (4 hour turnover rate)
Filtration Type:	75 Square Foot Cartridge Filter
Actual Filtration Rate:	30 GPM @ 50 Feet of Head
Filtration Turnover Rate:	1 Hour and 18 minutes
Shutdown Gain:	negligible

CLIENT NOTE

PLEASE READ THIS CRITERIA CAREFULLY. IF THIS IS NOT YOUR UNDERSTANDING AND EXPECTATION OF THE AESTHETICS, OPERATION AND PERFORMANCE OF THIS FOUNTAIN FEATURE, PLEASE NOTIFY US IN WRITING IMMEDIATELY, OTHERWISE THIS DESCRIPTION WILL BE THE BASIS FOR THE DESIGN, MANUFACTURE AND SUPPLY OF THIS SYSTEM.

PANEL ID: Veterans Memorial — LOCATION: RDP-2H — MOUNT: NEMA 4
VOLTAGE: 120/208V 3-PH — AMPS: 50 — TYPE: Bolt-On, Wall

LOAD DESCRIPTION:	BKR Size	CKT No.	VA/Phase A	B	C	Duty Factor		LOAD
Veterans Memorial								
Control Circuit #1: (Panel, WLC, etc)	15	CB1	150			1.25	=	188 VA
Display Pump (7.5HP) (208V/60/3):	50	MP1	3,067	3,067	3,066	1.25	=	11,500 VA
Vault Receptacle & Vent Fan (1/3 HP, 120V)	20	*CB2		1,200		1.25	=	1,500 VA
Vault Sump Pump (1/3 HP, 120V)	20	*CB3			1,200	1.25	=	1,500 VA
Load (Continuous Duty):						1.25	=	0 VA
Load (Non-Continuous Duty):						1.00	=	0 VA
VA/Phase TOTAL:			3,217	4,267	4,266			14,688 VA

NOTE: * GFI Breaker 5mA

TOTAL LOAD: 14,688 VA / 208 V / 1.73 = 40.8 AMPS
REQ'D. FEED: 50 AMPS
FEEDER CONDUIT: 1 inch

SYSTEM POWER REQUIREMENT:
120/208V, THREE PHASE, 4-WIRE FEEDER + GND. @ 50 AMPS
CONTACT FACTORY IMMEDIATELY IF NOT AVAILABLE.
(NOTE: SEE SHEET WFI-1 FOR POWER DIAGRAM)

NOTE:
POWER SHALL BE VERIFIED & CONFIRMED BY CONTRACTOR WITH APPROVED DRAWINGS. IF THERE ARE NO CHANGES, THE POWER REQUIREMENT LISTED ABOVE WILL APPLY.

PARTS LISTED BELOW SHALL BE FURNISHED BY OWNER & INSTALLED BY CONTRACTOR

VETERAN'S MEMORIAL (2/22/16)
Equipment List– By Roman Fountains

Item No.	Qty.	Component Number	Description
01	5	RCN-125	Cascade Nozzle, one-piece machined cast bronze construction with 1-1/4" (F) N.P.T. connection.
*02	5	By Others	RWS-150-S Slab Penetration, cast bronze with integral waterstop flange, brass bonding screw and 1 1/2" (F) N.P.T. connections. (PROVIDED BY CLIENT)
03	5	RBB-150-T	Ball Valve, cast bronze body, brass full port ball, S.S. handle and securing nut; 1-1/2" (F) N.P.T. conn.
*04	4	RA/DF-884	Ballast/Diverter Plate Assembly consisting of a single piece channel plate of 1/8" brass, measuring 8" L x 8" W x 4" H, with brushed natural finish and 7/16" clearance holes for 3/8" stainless steel anchoring hardware; schedule 80 PVC slab penetration with solvent welded waterstop flange and 3/8" S.S. anchor studs and hardware sets. 3" PVC (s4p) bottom connection.
*05	4	RAVS 850-VGB	8.5" Diameter Sump Assembly, molded PVC black body with 3" slip connection. Sump includes VGB compliant drain cover and meets ANSI/APSP-16 2011 requirements.
*06	1	RFD-200	Cast Bronze Floor Drain, integral waterstop flange, bonding screw, threaded closure plug with recessed head and 2" (F) N.P.T. outlet connection
*07	1	ROV-200-S	Standpipe Overflow Drain, cast bronze waterstop drain coupling with bonding screw, copper standpipe and bronze dome cap w/ S.S. set screws and 2" (F) N.P.T. outlet connection. Fabricated for a 18" water level.
08	1	RCON-CNA	Adjustable, Combination Water Level/Low Level Cutoff Control, consists of a conduit-mount, height adjustable sensor housing constructed of brass with stainless steel fasteners and 3/4" (F) N.P.T. conduit connection. Unit features multi-level float-type sensor of brass and Buna-N construction with a 8" adjustability range and includes 100 ft. of pre-attached, 4-conductor, color-coded sensor cable.
09	2	RJB-2-075-C	Submersible Junction Box, conduit mount, ETL Listed, cast bronze construction with neoprene gasket, brass fasteners, (1) 3/4" (F) N.P.T. bottom power conduit connection, and two (2) 1/2" N.P.T. side connection with brass cord seal fitting (shipped loose, installed in field). Junction box has a volume of 20.0 cubic inches and includes an internal grounding lug
10	1	RJB-3-100-C	Submersible Junction Box, conduit mount, cast bronze construction with neoprene gasket, brass fasteners, (1) 1" (F) N.P.T. bottom power conduit connection and three (3) 1/2" N.P.T. side connections with brass cord seal fittings (shipped loose, installed in field). Junction box is U.L. Listed, has a volume of 40.0 cubic inches and includes internal grounding lug
11	3	RJB-4-100-C	Conduit Mount Submersible Junction Box, cast bronze construction with neoprene gasket, brass fasteners, (1) 1" (F) N.P.T. bottom power conduit connection, and four (4) 1/2" N.P.T. side connections with brass cord seal fittings (shipped loose, installed in field). Junction box is U.L. Listed, has a minimum volume of 40.0 cubic inches and includes internal grounding lug.
*12	3	RWS-075-L	Slab Penetration, Sch. 40 red brass pipe body to ASTM-B-16 brass waterstop, brass bonding screw, and 3/4" (M) N.P.T. connections.
*13	4	RWS-100-L	Slab Penetration, Sch. 40 red brass pipe body to ASTM-B-16 brass waterstop, brass bonding screw, and 1" (M) N.P.T. connections.
14	6	RPC-2114-D	Potting Compound, re-enterable electrical insulating, designed for use in RJB-Series junction boxes (required by NEC 680). 21.2 oz. size.
15	19	By Others	LL-ZDC-3LED-BS LED underwater light as provided by others.
16	1	By Others	LZD-300-M, FX Luminaire Luxor LED lighting controller as provided by others.
17	-	-	OMITTED
*18	2	REF-150-SW	Fixed Angle Floor-Mounted Sweep Inlet Fitting, machined cast brass construction with slotted brass 45 degree "sweep" fitting, retaining ring, integral waterstop flange, bonding screw and 1-1/2" (F) N.P.T. connection.

PARTS LISTED BELOW SHALL BE FURNISHED BY OWNER & INSTALLED BY CONTRACTOR

VETERAN'S MEMORIAL (02/22/16)
Equipment List– By Roman Fountains

Item No.	Qty.	Component Number	Description
19	1	RDP-2H-7.50-RBU -Special	Series 2H Direct Burial Pump Vault, consisting of a 4'-0" x 4'-6" x 4'-2" deep heavy duty FRP vault with white gel-coat interior and brown gel-coat exterior; furnished with fiberglass reinforced plastic lid with stainless steel piano hinge attachment, lock hardware (lock by installer). The vault contains a RSPP-750 7.5 HP self-priming display pump with integral suction strainer; RCCF-075 75 sq ft. cartridge filter unit; RBU-Series chemical feeder; RMS-075-NS 3/4" fill manifold assembly; 6" vent connections with 510 CFM vent fan; 1/3 HP sump pump assembly; RPCP U.L. 508 listed control panel in a NEMA 4 enclosure, containing, main disconnect, moto starter with motor protection, 24/7 time clock for pump, H.O.A. switches, G.F.C.I. breaker, and water level/low level cutoff control circuit. Unit is pre-wired, pre-plumbed (Schedule 80 PVC) and factory tested, prior to shipment. (Light power and controller to be fed directly from above ground landscape lighting controller, by others.) Power requirement: 120/208V, 3-phase, 4-wire feeder + GND.
20	2	RPVC-600	6" PVC Vent Cap, Schedule 40 PVC construction and 1/4" stainless steel fasteners. Low profile corrosion resistant design. Standard brown color.

ROMAN FOUNTAINS

VETERAN'S MEMORIAL
Verona, WI
For Reinders, Inc.
Sussex, WI

ROMAN FOUNTAINS CORP.
P.O. Drawer 10190
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Phone #: (800) 794-1801
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ROMAN FOUNTAINS CORP.
Eastern Engineering & Sales Office
9875 Medlock Bridge Parkway
Suite 250
Johns Creek, GA. 30022
Phone #: (877) 794-1802
Fax #: (770) 300-0074

Scale: None
Drawn By: J. Dennison
Checked By: W. Pierce
Date: 01-08-2016

Revisions:

No.	Date	By	Comments
01	02-08-16	JD	LIGHTS & SURROUND
02	02-22-16	WP	RWS-150-S, EDIT

FOUNTAIN EQUIPMENT LIST & PERFORMANCE CRITERIA

Drawing Number: WFN-2

D'ONOFRIO KOTTKE AND ASSOCIATES, INC.
7530 Westward Way, Madison, WI 53717
Phone: 608.833.7530 • Fax: 608.833.1089
YOUR NATURAL RESOURCE FOR LAND DEVELOPMENT

FOUNTAIN DETAILS
DOWNTOWN STREETSCAPE - PHASE 1
--
CITY OF VERONA, DANE COUNTY, WISCONSIN

BIDDING DOCUMENTS
DATE: AUGUST 4, 2016
REVISED: REV # DR #
08-10-2016 ADDENDUM 1 1

DRAWN BY: MS
FN: 14-01-101
Sheet Number: 28

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7530 Westward Way, Madison, WI 53717
Phone: 608.833.7530 • Fax: 608.833.1089
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FOUNTAIN DETAILS

DOWNTOWN STREETSCAPE - PHASE 1

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CITY OF VERONA, DANE COUNTY, WISCONSIN

BIDDING DOCUMENTS
DATE: AUGUST 4, 2016
REVISED: REV # DR #
08-10-2016 ADDENDUM 1 △

DRAWN BY: MS
FN: 14-01-101
Sheet Number: 29

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Scale:	None
Drawn By:	J. Dennison
Checked By:	W. Pierce
Date:	01-08-16

Revisions:

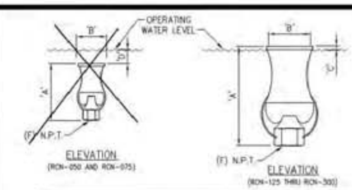
No.	Date	By	Comments
01	02-08-16	JD	LIGHTS & SURROUND
02	02-22-16	WP	RWS-150-S, EDIT

FOUNTAIN EQUIPMENT DETAILS SHEET 1 OF 2

Drawing Number: WFD-1

RCN SERIES
Cascade Nozzles
Scale: None

MAX. SPRAY HGT. 3 FT.



TECHNICAL AND HYDRAULIC DATA

MODEL No.	(F)N.P.T.	A	B	C	D		2'	3'	4'	5'	6'	8'	10'	12'	15'	20'	25'	30'
RCN-050	1/2"	4"	2"	-	1-1/4"	GPM	7	9	10	11								
						HEAD	16'	25'	35'	39'								
RCN-075	3/4"	5-1/2"	2-1/2"	-	1"	GPM	12	15	16	18	20	23						
						HEAD	21'	23'	32'	44'	51'	69'						
RCN-125	1-1/4"	8"	3-1/2"	1/2"	-	GPM	16	21	23	26	29	34	38	40				
						HEAD	12'	18'	23'	28'	37'	50'	58'	65'				
RCN-150	1-1/2"	9"	3-3/4"	1/2"	-	GPM	23	29	32	36	42	45	49	53	58			
						HEAD	11'	14'	18'	23'	32'	37'	45'	50'	62'			
RCN-200	2"	10-3/4"	4-1/2"	1/2"	-	GPM			42	47	50	61	67	71	75	92		
						HEAD			14'	19'	24'	33'	40'	43'	49'	71'		
RCN-300	3"	14-1/4"	6-1/2"	3/4"	-	GPM				88	90	93	112	116	144	166	187	205
						HEAD				24'	26'	35'	42'	49'	63'	79'	104'	116'

NOTE: Fine screening at pump to minimize nozzle clogging is recommended.
NOTE: This is a water level dependent nozzle.
NOTE: Shaded area indicates optimum performance.

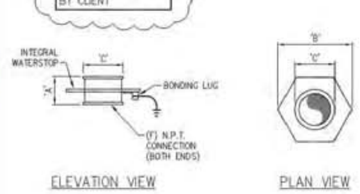
SPECIFICATION DATA: Cascade Nozzle; one-piece cast bronze construction, female threaded connection. (Optional alignment swivel available; consult factory.)

TYP. (5) ITEM # 01

RWS-S SERIES
Cast Bronze Fitting W/Integral Waterstop Flange
Scale: None

NOTE: SEE ITEM #01 FOR THIS ITEM'S APPLICATION.

NOTE: ITEM PROVIDED BY CLIENT



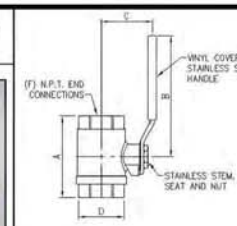
TECHNICAL DATA

MODEL	N.P.T.	LENGTH 'A'	FLANGE SIZE 'B'	EXPOSED 'C'
RWS-150-S	1 1/2"	2 1/4"	5"	2 7/16"
RWS-200-S	2"	2 3/8"	5 1/2"	3"
RWS-300-S	3"	3"	6 1/2"	4 5/16"
RWS-400-S	4"	3 5/8"	7"	5 3/8"

SPECIFICATION DATA: Slab Penetration Fitting (Short Style); machined cast bronze, one-piece construction, with integral waterstop flange, bonding lug, and (F) N.P.T. connection at both ends. (PROVIDED BY CLIENT)

△2 TYP. (5) ITEM # 02

RBB-T Series
Threaded Brass Ball Valve
Scale: None



NOTE: FOR SUBMERSIBLE APPLICATIONS, REMOVE VALVE HANDLE ONCE ADJUSTED.

TECHNICAL DATA

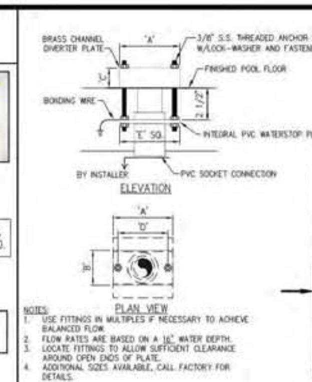
MODEL	SIZE	A	B	C	D
RBB-050-T	1/2"	2 3/16"	3 1/16"	1 3/8"	5/8"
RBB-075-T	3/4"	2 1/2"	3 13/16"	1 3/4"	7/8"
RBB-100-T	1"	3"	3 13/16"	2"	1 3/16"
RBB-125-T	1 1/4"	3 7/8"	3 13/16"	2 1/16"	1 7/16"
RBB-150-T	1 1/2"	3 3/4"	4 13/16"	2 3/8"	1 11/16"
RBB-200-T	2"	4 3/8"	4 13/16"	2 11/16"	2 3/16"
RBB-250-T	2 1/2"	5 1/2"	4 13/16"	3 1/4"	2 13/16"
RBB-300-T	3"	6 5/16"	4 13/16"	3 5/8"	3 1/4"

NOTE: SEE ITEM #01 & #03 FOR THIS ITEM'S APPLICATION.

SPECIFICATION DATA: Threaded Brass Ball Valve; Cast bronze machined body, brass full port ball, silicone bronze stem, Teflon seat, stainless steel handle nut, vinyl covered stainless steel handle, 400 PSI maximum operating pressure at 150°, and (F) N.P.T. threaded end connections.

TYP. (5) ITEM # 03

RA/DP-Series
Anti-Vortex/Diverter Plate/Waterstop Assembly
Scale: None



TECHNICAL DATA

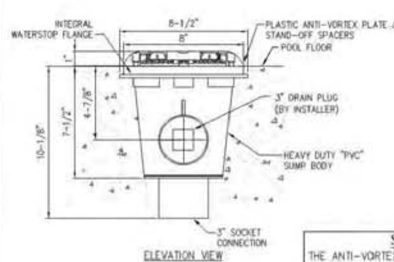
MODEL #	'A' DIM	'B' DIM	'C' DIM	'D' DIM	MAX PIPE SIZE	MAXIMUM FLOW RATE @ 16" W.D.
RA/DP-632	6"	3"	2"	4 1/2"	1 1/2"	20 GPM
RA/DP-642	6"	4"	2"	4 1/2"	2"	30 GPM
RA/DP-662	6"	6"	2"	4 1/2"	2"	40 GPM
RA/DP-862	8"	6"	2"	6 1/2"	2 1/2"	50 GPM
RA/DP-882	8"	8"	2"	6 1/2"	2 1/2"	60 GPM
RA/DP-884	8"	8"	4"	6 1/2"	3"	90 GPM
RA/DP-984	9"	8"	4"	7 1/2"	4"	120 GPM
RA/DP-1084	10"	8"	4"	8 1/2"	6"	150 GPM
RA/DP-10104	10"	10"	4"	8 1/2"	6"	200 GPM
RA/DP-12124	12"	12"	4"	10 1/2"	6"	225 GPM
RA/DP-12184	18"	12"	4"	16 1/2"	6"	250 GPM
RA/DP-24244	24"	24"	4"	22 1/2"	6"	275 GPM

NOTES:
1. USE FITTINGS IN MULTIPLES IF NECESSARY TO ACHIEVE BALANCED FLOW.
2. FLOW RATES ARE BASED ON A 16" WATER DEPTH.
3. LOCATE FITTINGS TO ALLOW SUFFICIENT CLEARANCE AROUND OPEN ENDS OF PLATE.
4. ADDITIONAL SIZES AVAILABLE, CALL FACTORY FOR DETAILS.

SPECIFICATION DATA: Anti-Vortex/Diverter Plate/Waterstop Assembly, channel plate of single piece 1/8" thick brass plate, brushed natural finish, with 7/16" clearance holes for 3/8" stainless steel anchoring hardware, PVC waterstop slab penetration fitting fabricated from schedule 80 PVC with solvent welded waterstop flange, PVC (socket) bottom connection with 3/8" S.S. anchor studs and hardware sets.

TYP. (4) ITEM # 04

RAVS-850-VGB
8-1/2" Dia. Anti-Vortex Plate & Sump Assembly
Scale: None



* IMAGE SHOWS OPTIONAL COLOR

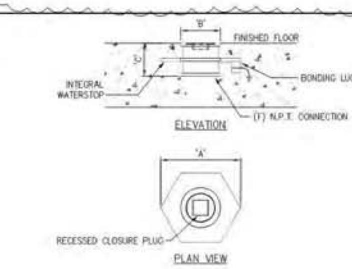
SAFETY NOTICE
THE ANTI-VORTEX PLATE MUST BE FIRMLY IN PLACE AND SECURELY FASTENED TO SUMP BODY AT ALL TIMES TO GUARD AGAINST THE POSSIBILITY OF SUCTION ENTRAPMENT. NEVER REMOVE PLATE UNLESS FOUNTAIN IS SHUT OFF AND COMPLETELY DRAINED.

SPECIFICATION DATA: 8.5"Diameter Sump Assembly, molded black PVC body with 3" socket side and bottom connections. Sump includes VGB compliant drain cover and is IAPMO listed. (model CMP 25513-404-000)

RECOMMENDED MAXIMUM FLOW RATE: 100 GPM @ 16" WATER DEPTH

TYP. (4) ITEM # 05

RFD-Series
Cast Bronze Floor Drain
Scale: None



NOTE: INSTALLER MUST CONSULT LOCAL CODES FOR TERMINATION OF DRAIN LINES

TECHNICAL DATA

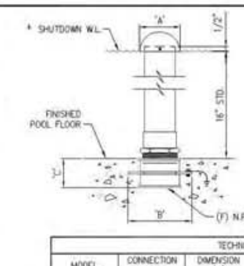
MODEL	CONNECTION SIZE	DIMENSION 'A'	DIMENSION 'B'	DIMENSION 'C'	SLAB THICKNESS
RFD-150	1 1/2"	4 7/8"	2 1/2"	2 3/16"	4" MIN.
RFD-200	2"	5 5/8"	3"	2 5/16"	6" MIN.
RFD-300	3"	6 1/2"	4 3/8"	3 1/8"	6" MIN.
RFD-400	4"	8 1/8"	5 1/2"	3 3/4"	6" MIN.

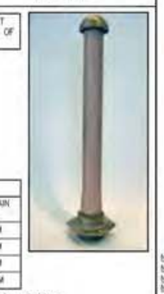
NOTE: A "P"-TRAP MAY BE REQUIRED PER CODE. BY INSTALLER

SPECIFICATION DATA: Cast Bronze Floor Drain Fitting; with integral waterstop flange, bonding screw, threaded closure plug with recessed head and (F) N.P.T. outlet connection.

TYP. (1) ITEM # 06

ROV-S Series
Overflow Standpipe Drain
Scale: None





NOTE: INSTALLER MUST CONSULT LOCAL CODES FOR TERMINATION OF DRAIN LINES

TECHNICAL DATA

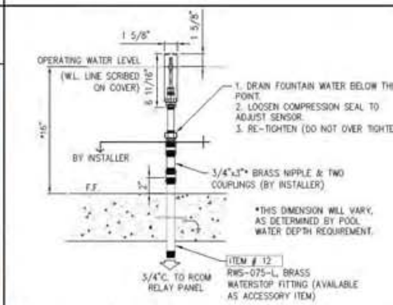
MODEL	CONNECTION SIZE	DIMENSION 'A'	DIMENSION 'B'	DIMENSION 'C'	MAX. DRAIN RATE
ROV-150-S	1 1/2"	3 3/16"	4 7/8"	2 3/16"	25 GPM
ROV-200-S	2"	3 3/16"	5 5/8"	2 5/16"	50 GPM
ROV-300-S	3"	4 3/8"	6 1/2"	3 1/8"	75 GPM
ROV-400-S	4"	5 3/4"	7 1/2"	4 1/2"	100 GPM

NOTE: In multi-level fountains the lowest pool may experience a rise in water level on system shutdown. Note this when determining the standpipe height requirements.
NOTE: Special lengths available on special order, consult factory.

SPECIFICATION DATA: Standpipe Overflow Drain, with cast bronze waterstop drain coupling with bonding screw, copper standpipe and bronze dome cap w/stainless steel set screws and (F) N.P.T. connection. Finish shall be brushed copper and natural bronze. Standpipe fabricated for a 16" static water level, standard.

TYP. (1) ITEM # 07

RCOM-CNA
Adjustable, Combination Water Level/Low Level Cut-Off Sensor
Scale: None



*NOTE: 3/4" x 3" lg. (or as required for modified water depth) brass pipe nipple and coupling (by installer).

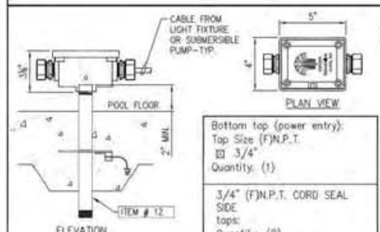
**NOTE: Unit may be adjusted a maximum of 3" up or down from this position. (Installer must provide sufficient sensor cable slack in conduit).

NOTE: A normally closed, electrically actuated, 120V solenoid valve is required to operate water makeup function; specify RSV-S Series valve.
NOTE: A lighting and/or motor contactor is required to operate the low water cutoff function; consult factory.
NOTE: The -CNA sensor is designed for water depths of 12" or greater.
NOTE: Do not run sensor wire in conduit with any other conductors.

SPECIFICATION DATA: Adjustable, Combination Water Level/Low Level Cutoff Sensor, consists of a conduit-mounted sensor housing constructed of brass, with stainless steel fasteners and 3/4" (F) N.P.T. conduit connection. Unit features multi-level float-type sensor of brass and Buna-N construction with a 6" adjustability range and includes 100 feet of pre-attached, 4-conductor, color coded sensor cable. When purchased as a system, the package includes a RCOM-Series dual function, solid state dual relay controller in a NEMA 3R enclosure (for indoor or outdoor use), rated for 120VAC with internally transformed 24VAC sensor output circuit.

TYP. (1) ITEM # 08

RJB-2-075-C
Conduit-Mount Submersible Junction Box
Scale: None



Bottom top (power entry):
Top Size (F)N.P.T.
☒ 3/4"
Quantity: (1)

3/4" (F)N.P.T. CORD SEAL SIDE
tops:
Quantity: (2)

NOTE: NOT TO BE USED IN SWIMMING POOL OR SPA APPLICATIONS.

NOTE: CORD COMPRESSION SEALS FURNISHED BY ROMAN FOUNTAINS, INSTALLED INTO BOX BY ELECTRICIAN.

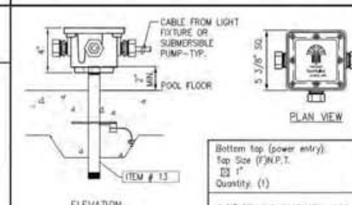
NOTE: ONCE WIRING IS COMPLETED, FLASH LIGHTING CIRCUITS MOMENTARILY (10 SECONDS) TO VERIFY PROPER OPERATION. THEN CAULK OR PUTTY ALL CONDUIT CONNECTIONS IN J-BOX WITH RPC-2114-C ITEM #14 POTTING COMPOUND.

SPECIFICATION DATA: ETL Listed Conduit-Mount Submersible Junction Box, cast bronze construction, with neoprene gasket, stainless steel fasteners, one 3/4" (F) N.P.T. bottom power conduit connection, and (2) 3/4" N.P.T. side connection with brass cord seal fitting (shipped loose and installed in field). Junction box (j-box) has a minimum volume of 20.0 cubic inches and includes an internal grounding lug.

INSTALLATION: Roman Fountains recommends the following procedures be followed when installing underwater junction boxes.
1. Check local electrical code before installing. Must comply with NEC article 680.
2. Use only 'Everdur' or brass pipe for conduit where exposed to pool water.
3. After making and verifying all connections, use putty provided to seal all conduit entries into j-box.
4. Once conduits are sealed, pot junction box with #RPC-2114-C potting compound (Item #14).
5. Use good quality thread sealant on junction boxes.
6. Test conduit system to eliminate all leaks.

△ TYP. (2) ITEM # 09

RJB-3-100-C
Conduit-Mount Submersible Junction Box
Scale: None



Bottom top (power entry):
Top Size (F)N.P.T.
☒ 1"
Quantity: (1)

3/4" (F)N.P.T. CORD SEAL SIDE
tops:
Quantity: (3)

NOTE: CORD COMPRESSION SEALS FURNISHED BY ROMAN FOUNTAINS, INSTALLED INTO BOX BY ELECTRICIAN.

NOTE: NOT TO BE USED IN SWIMMING POOL OR SPA APPLICATIONS.

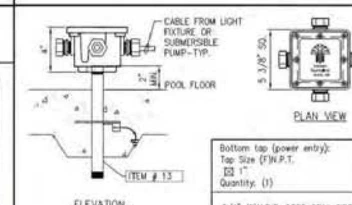
NOTE: ONCE WIRING IS COMPLETED, FLASH LIGHTING CIRCUITS MOMENTARILY (10 SECONDS) TO VERIFY PROPER OPERATION. THEN CAULK OR PUTTY ALL CONDUIT CONNECTIONS IN J-BOX WITH (2) RPC-2114-C. ITEM #14 POTTING COMPOUND.

SPECIFICATION DATA: ETL Listed Conduit-Mount Submersible Junction Box, cast bronze construction, with neoprene gasket, stainless steel fasteners, one 1" (F) N.P.T. bottom power conduit connection, and (3) 3/4" N.P.T. side connections with brass cord seal fittings (shipped loose and installed in field). Junction box (j-box) has a minimum volume of 40.0 cubic inches and includes an internal grounding lug.

INSTALLATION: Roman Fountains recommends the following procedures be followed when installing underwater junction boxes.
1. Check local electrical code before installing. Must comply with NEC article 680.
2. Use only 'Everdur' or brass pipe for conduit where exposed to pool water.
3. After making and verifying all connections, use putty provided to seal all conduit entries into j-box.
4. Once conduits are sealed, pot junction box with #RPC-2114-C potting compound (Item #14).
5. Use good quality thread sealant on junction boxes.
6. Test conduit system to eliminate all leaks.

TYP. (1) ITEM # 10

RJB-4-100-C
Conduit-Mount Submersible Junction Box
Scale: None



Bottom top (power entry):
Top Size (F)N.P.T.
☒ 1"
Quantity: (1)

3/4" (F)N.P.T. CORD SEAL SIDE
tops:
Quantity: (4)

NOTE: CORD COMPRESSION SEALS FURNISHED BY ROMAN FOUNTAINS, INSTALLED INTO BOX BY ELECTRICIAN.

NOTE: NOT TO BE USED IN SWIMMING POOL OR SPA APPLICATIONS.

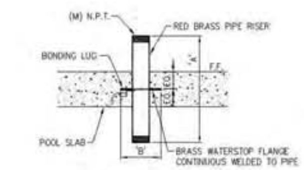
NOTE: ONCE WIRING IS COMPLETED, FLASH LIGHTING CIRCUITS MOMENTARILY (10 SECONDS) TO VERIFY PROPER OPERATION. THEN CAULK OR PUTTY ALL CONDUIT CONNECTIONS IN J-BOX WITH (2) RPC-2114-C. ITEM #14 POTTING COMPOUND.

SPECIFICATION DATA: ETL Listed Conduit-Mount Submersible Junction Box, cast bronze construction, with neoprene gasket, stainless steel fasteners, one 1" (F) N.P.T. bottom power conduit connection, and (4) 3/4" N.P.T. side connections with brass cord seal fittings (shipped loose and installed in field). Junction box (j-box) has a minimum volume of 40.0 cubic inches and includes an internal grounding lug.

INSTALLATION: Roman Fountains recommends the following procedures be followed when installing underwater junction boxes.
1. Check local electrical code before installing. Must comply with NEC article 680.
2. Use only 'Everdur' or brass pipe for conduit where exposed to pool water.
3. After making and verifying all connections, use putty provided to seal all conduit entries into j-box.
4. Once conduits are sealed, pot junction box with #RPC-2114-C potting compound (Item #14).
5. Use good quality thread sealant on junction boxes.
6. Test conduit system to eliminate all leaks.

△ TYP. (3) ITEM # 11

RWS-L SERIES
Slab Penetration Fitting (Long Series)
Scale: None



TECHNICAL DATA

MODEL	N.P.T.	LENGTH 'A'	FLANGE SIZE 'B'
RWS-050-L	1/2"	10"	4" Sq.
RWS-075-L	3/4"	10"	4" Sq.
RWS-100-L	1"	10"	4" Sq.
RWS-125-L	1 1/4"	12"	4" Sq.
RWS-150-L	1 1/2"	12"	4" Sq.
RWS-200-L	2"	18"	6" Sq.
RWS-300-L	3"	24"	6" Sq.

ITEM # 12 → RWS-050-L
ITEM # 13 → RWS-075-L

SPECIFICATION DATA: Slab Penetration Fitting (Long Style); Sch. 40 Red Brass pipe body to ASTM-B-16, brass waterstop flange/concrete key, continuous welded to pipe at the midpoint, brass threaded bond screw, N.P.T. male threads at each end.

△ TYP. (3) ITEM # 12
TYP. (4) ITEM # 13

RPC-2114 SERIES
Potting Compound
Scale: None

INSTALLER NOTE
DO NOT OPEN AND MIX CONTENTS UNTIL READY TO POUR!!! PLUG ALL CONDUITS BEFOR POURING COMPOUND.

NOTE: SEE ITEMS #09, #10 & #11 FOR THIS ITEM'S APPLICATION.

RPC-2114-A, 2.9-oz. size	☐	ONE PACK EQUALS 5.24 CU. IN.
RPC-2114-C, 12.3-oz. size	☒	ONE PACK EQUALS 22.19 CU. IN.
RPC-2114-D, 21.2-oz. size	☐	ONE PACK EQUALS 38.24 CU. IN.

NOTE: ARTICLE 680-52(b) OF THE NATIONAL ELECTRICAL CODE (N.E.C.) REQUIRES THAT ALL UNDERWATER JUNCTION BOXES AND ALL UNDERWATER ENCLOSURES BE FILLED WITH AN APPROVED POTTING COMPOUND TO PREVENT THE ENTRY OF MOISTURE.

SPECIFICATION DATA: Potting Compound, re-enterable, electrical insulating and potting compound, designed for use in RJB-Series junction boxes (required by NEC 680).

△ TYP. (6) ITEM # 14

LED LIGHT FIXTURES PROVIDED BY OTHERS

△ ITEM # 15

SEE ALSO SHEET WFD-2

△1 ALL PARTS LISTED ON THIS SHEET SHALL BE FURNISHED BY OWNER & INSTALLED BY CONTRACTOR

File: U:\User\14011101\DWG\Phase 1 Fountain.dwg 29 Plotted: Aug 10, 2016 - 2:56pm

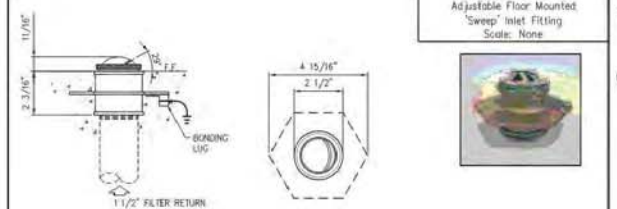
LED LIGHT CONTROLLER
PROVIDED BY OTHERS

ITEM # 16

OMITTED

ITEM # 17

REF-150-SW
Adjustable Floor Mounted
"Sweep" Inlet Fitting
Scale: None

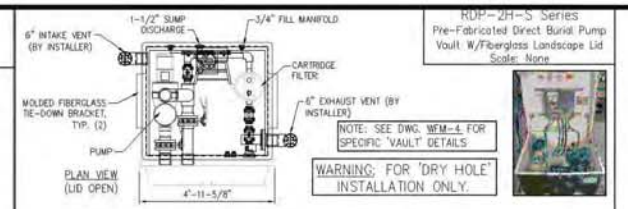


TECHNICAL AND HYDRAULIC DATA		
MODEL	CONNECTION SIZE	MAXIMUM FLOW RATE
REF-150-SW	1 1/2"	30 GPM

SPECIFICATION DATA: Adjustable Floor Mounted "Sweep" Inlet Fitting, consisting of a machined brass body with integral waterstop flange, bonding screw, slotted brass "sweep" eyeball with retaining ring and 1 1/2" female threaded connection, standard natural brass finish.

TYP. (2) ITEM # 18

RDP-2H-S Series
Pre-Fabricated Direct Burial Pump
Vault W/Fiberglass Landscape Lid
Scale: None



TECHNICAL AND HYDRAULIC DATA				
MODEL No.	HP	Suct./Disch. (F) Socket	Maximum Flow Rate	Power Req.
RDP-2H-300-S	3	3"x4"	150	208-230, 1#
RDP-2H-500-S	5	*4"/ (2)4"	300	208-230/460, 3#
RDP-2H-750-S	7.5	*4"/(2)4"	400	208-230/460, 3#

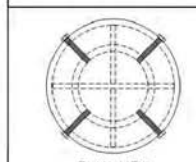
*MUST BE INCREASED TO 6" IMMEDIATELY OUTSIDE VAULT.

NOTES:
1. Hatch opening must be located in flood-safe area.
2. Slope finished grade away from pump module.
3. Protect pump module gravity drain from back flow and gas.
4. Top of pump module must be at, or below lowest pool water level.

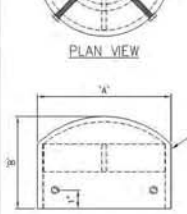
SPECIFICATION DATA: Series 2H Direct Burial Pump Vault, consisting of a 4'-0" x 4'-6" x 4'-2" deep heavy duty FRP vault with white gel-coat interior and brown gel-coat exterior, furnished with fiberglass reinforced plastic lid with stainless steel piano hinge attachment, lock hardware (lock by installer). The vault contains a RSPP-750 7.5 HP self-priming display pump with integral suction strainer, RCOF-075 75 sq. ft. cartridge filter unit, RBU-Series chemical feeder, RMS-075-NS 3/4" fill manifold assembly, 6" vent connections with 510 CFM vent fan; 1/3 HP sump pump assembly, RPCP U.L. 508 listed control panel in a NEMA 4 enclosure, containing; main disconnect; motor starter with motor protection, 24/7 time clock for pump, H.O.A. switches, G.F.C.I. breaker, and water level/low level cutoff control circuit. Unit is pre-wired, pre-plumbed (Schedule 80 PVC) and factory tested, prior to shipment. (Light power and controller to be fed directly from above ground landscape lighting controller, by others.)
Power requirement: 120/208V, 3-phase, 4-wire feeder + GND.

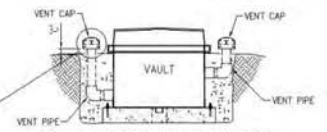
TYP. (1) ITEM # 19

RPVC Series
PVC Vent Cap
Scale: NONE



NOTE: SEE ITEM #19 OF THIS ITEM'S APPLICATION.





TYPICALLY ATTACHED TO THE ENDS OF THE TWO VAULT VENTILATION PIPES AS SHOWN IN THIS ELEVATION VIEW

DIMENSIONAL INFORMATION				
MODEL	PIPE SIZE	OVERALL DIAMETER "A"	CAP HEIGHT "B"	MIN. CLEARANCE ABOVE GRADE "C"
RPVC-300	3"	6-5/32"	4-1/2"	2"
RPVC-400	4"	7-1/4"	5"	3"
RPVC-600	6"	9-5/16"	6-3/8"	6"
RPVC-800	8"	11-13/16"	5-1/4"	6"

SPECIFICATION DATA: PVC Vent Cap, Constructed of Schedule 40 PVC, and 1/4" stainless steel fasteners and internal safety stop. Low profile corrosion resistant design. Standard brown color.

TYP. (2) ITEM # 20

1 ALL PARTS LISTED ON THIS SHEET SHALL BE FURNISHED BY OWNER & INSTALLED BY CONTRACTOR

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For Reinders, Inc.
Sussex, WI

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Fax #: (770) 300-0074

Scale:	None
Drawn By:	J. Dennison
Checked By:	W. Pierce
Date:	01-08-2016

Revisions:

No.	Date	By	Comments
01	02-08-16	JD	LIGHTS & SURROUND
02	02-22-16	WP	RWS-150-S, EDIT

FOUNTAIN EQUIPMENT DETAILS SHEET
2 OF 2

Drawing Number:
WFD-2

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FOUNTAIN DETAILS

DOWNTOWN STREETSCAPE - PHASE 1

--

CITY OF VERONA, DANE COUNTY, WISCONSIN

BIDDING DOCUMENTS

DATE: AUGUST 4, 2016

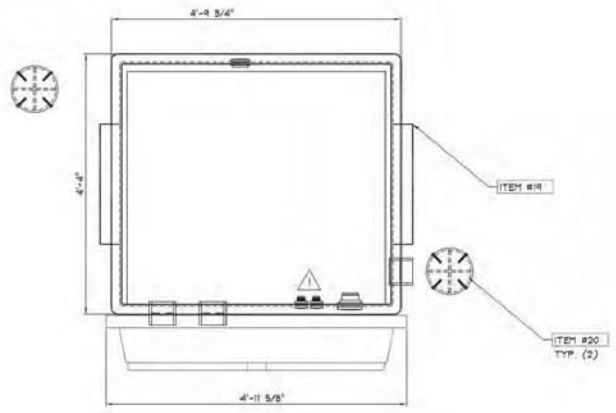
REVISED: REV # DR #

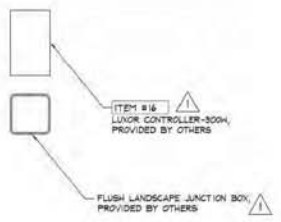
08-10-2016 ADDENDUM 1 1

DRAWN BY: MS

FN: 14-01-101

Sheet Number:
30





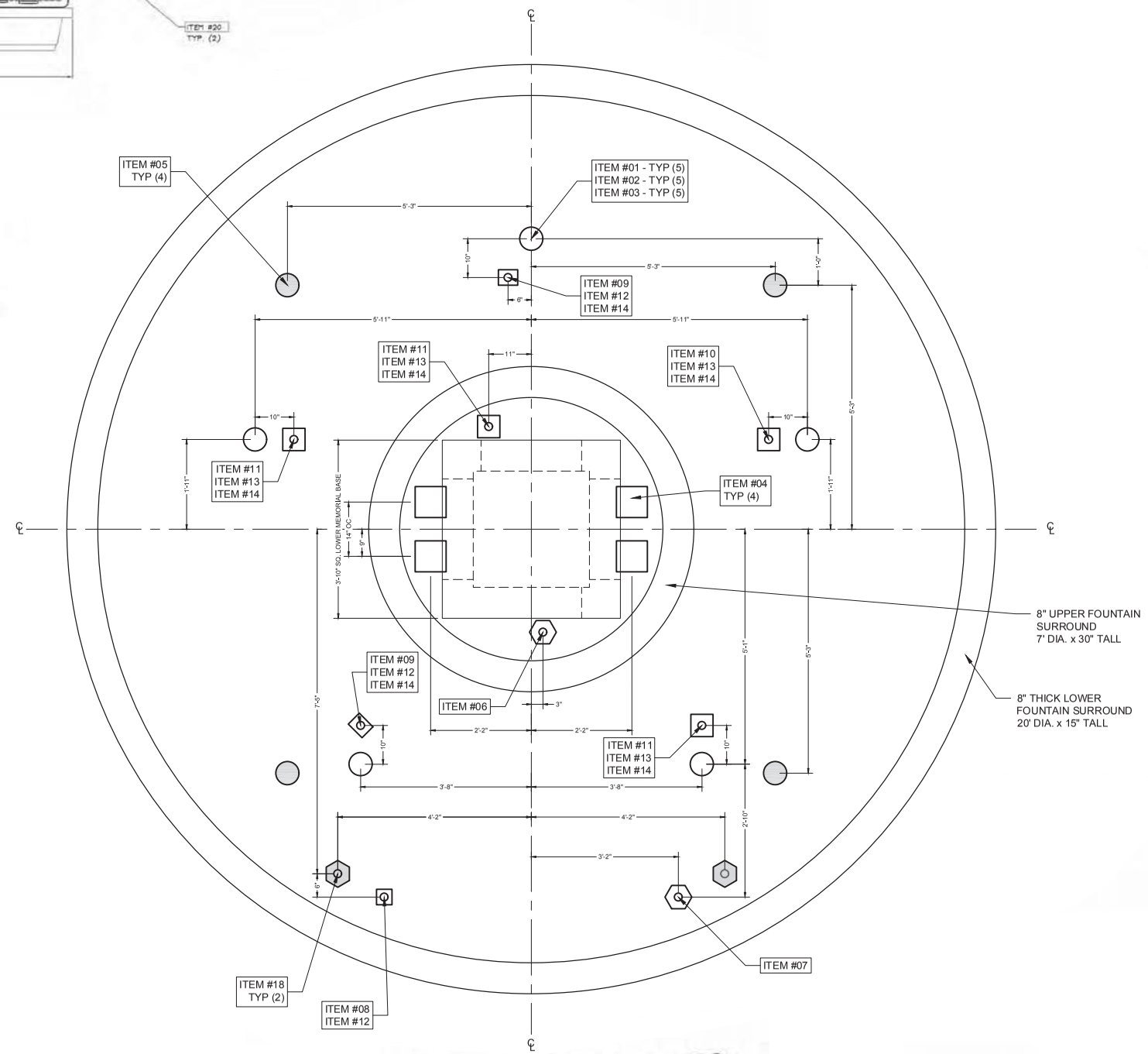
IMPORTANT NOTE:
PUMP VAULT LOCATED ADJACENT TO FOUNTAIN. FINAL LOCATION TO BE COORDINATED WITH ARCHITECT, BY INSTALLER.

VETERAN'S MEMORIAL (02/22/16)

Equipment List – Roman Fountains

	Item No.	Qty.	Component Number	Description
2	01	5	RCN-125	1-1/4" Cascade Nozzle
	*02	5	By Others	RWS-150-S; 1-1/2" Slab Penetration
	03	5	RBB-150-T	1-1/2" Ball Valve
	*04	4	RADP-864	Ballast Divester Plate Assembly
	*05	4	RAVS-850-VGB	8.5" Diameter Sump Assembly
	*06	1	RFD-200	2" Floor Drain Fitting
	*07	1	ROV-200-S	2" Overflow-Standpipe, 2" (F)N.P.T. Conn
	08	1	RCOM-ONA	Adj. Conduit Overflow-Water Level Controller
1	09	2	RJB-2-575-C	Conduit Mounted Submersible Junction Box
1	10	1	RJB-3-169-C	Conduit Mounted Submersible Junction Box
1	11	3	RJB-4-169-C	Conduit Mounted Submersible Junction Box
1	*12	3	RWS-0.75-L	3/4" Long Slab Penetration
1	*13	4	RWS-1.00-L	1" Long Slab Penetration
	14	6	RPC-2114-C	Potting Compound, 21.2 oz. size
	15	19	By Others	LL-ZDC-3LED-BSI LED light, by others
1	16	1	By Others	LZD-300-M, Lunor LED lighting controller, by others
1	17	-	-	Omitted
	*18	2	REF-150-SW	Fixed Angle Floor Mounted Sweep Inlet Fitting
1	19	1	RDP-2H-750-RBU (Special)	Series 2H Direct Burial Pump Vault 120/208V, 3-phase
	20	2	RPVC-600	6" PVC Vent Cap

NOTE: FOR COMPLETE ITEM SPECIFICATIONS, SEE SHEET WFN-2.
***NOTE: CONCRETE EMBED ITEM, REQUIRED FOR POUR.**



⚠2 FOUNTAIN DIMENSION PLAN

SCALE: 3/4"=1'-0"

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VETERAN'S MEMORIAL

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Scale:	As Shown
Drawn By:	J. Dennison
Checked By:	W. Pierce
Date:	01-08-16

Revisions:

No.	Date	By	Comments
01	02-08-16	JD	LIGHTS & SURROUND
02	02-22-16	WP	RWS-150-S, EDIT

FOUNTAIN DIMENSION PLAN

Drawing Number:

WFM-1

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FOUNTAIN DETAILS

DOWNTOWN STREETSCAPE - PHASE 1

--

CITY OF VERONA, DANE COUNTY, WISCONSIN

BIDDING DOCUMENTS

DATE: AUGUST 4, 2016

REVISED: REV # DR #

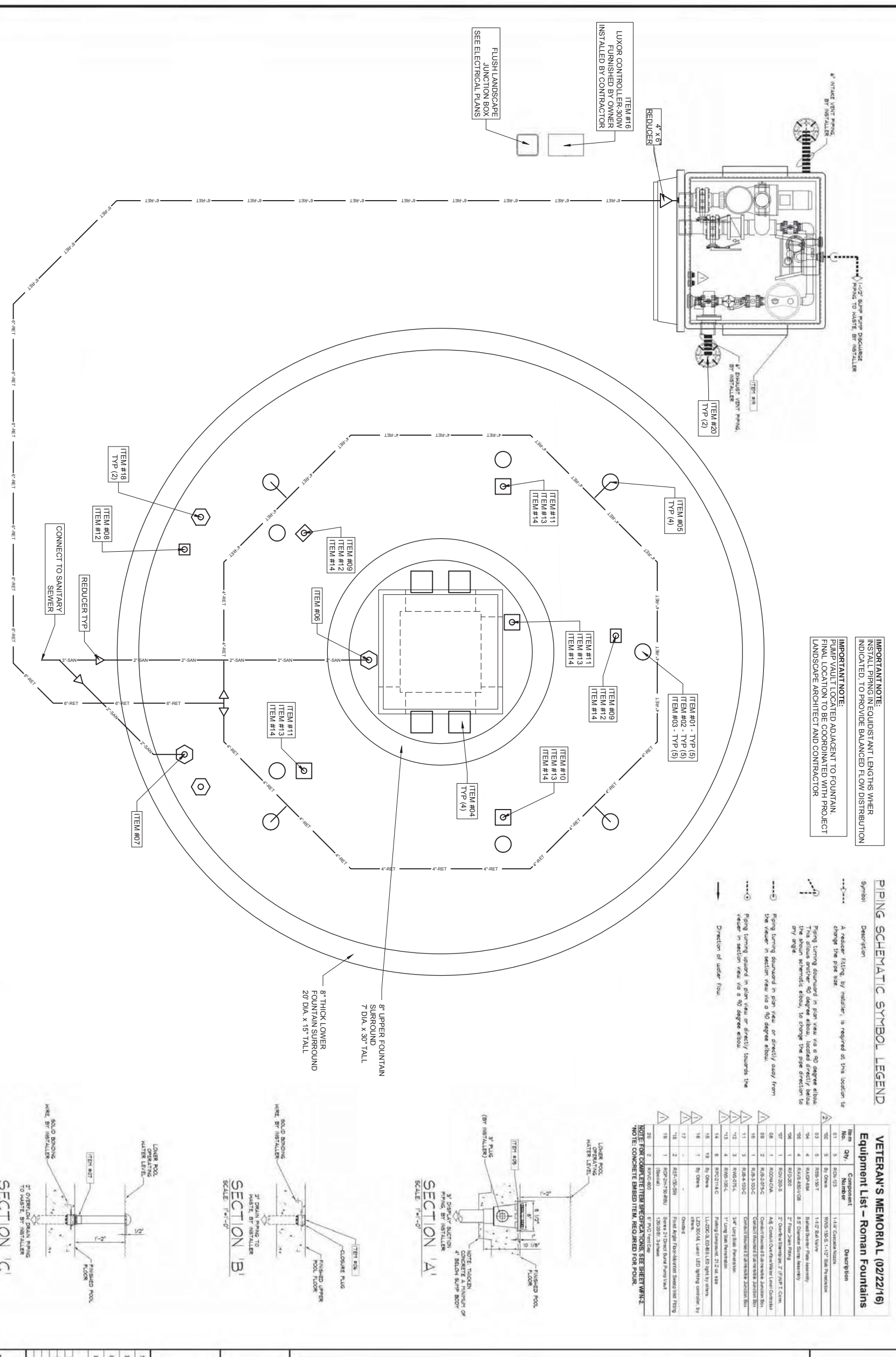
08-16-2016 ADDENDUM 4 ⚠4

DRAWN BY: MS

FN: 14-01-101

Sheet Number:

31 ⚠4



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DOWNTOWN STREETSCAPE - PHASE 1

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CITY OF VERONA, DANE COUNTY, WISCONSIN

BIDDING DOCUMENTS

DATE: AUGUST 4, 2016

REVISED: REV # DR #

08-16-2016 ADDENDUM 4 4

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FN: 14-01-101

Sheet Number: 32

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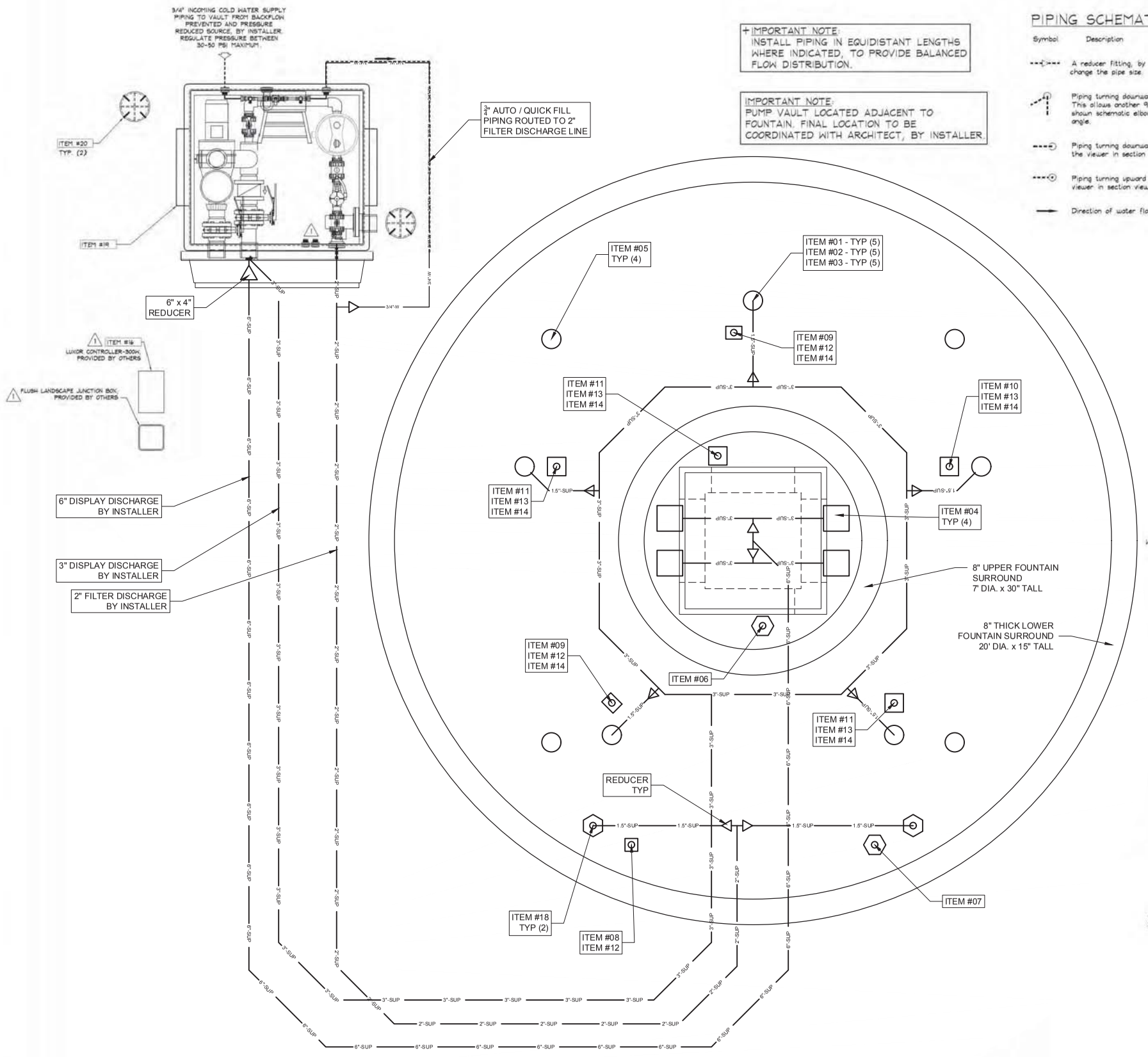


FOUNTAIN DISCHARGE & FILL PIPING PLAN
SCALE: 1/2"=1'-0"

+ IMPORTANT NOTE:
INSTALL PIPING IN EQUIDISTANT LENGTHS WHERE INDICATED, TO PROVIDE BALANCED FLOW DISTRIBUTION.

IMPORTANT NOTE:
PUMP VAULT LOCATED ADJACENT TO FOUNTAIN. FINAL LOCATION TO BE COORDINATED WITH ARCHITECT, BY INSTALLER.

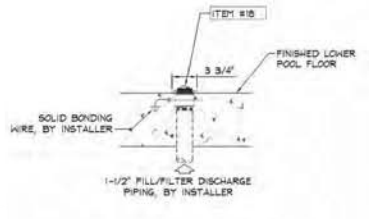
PIPING SCHEMATIC SYMBOL LEGEND

Symbol	Description
	A reducer fitting, by installer, is required at this location to change the pipe size.
	Piping turning downward in plan view via a 90 degree elbow. This allows another 90 degree elbow, located directly below the shown schematic elbow, to change the pipe direction to any angle.
	Piping turning downward in plan view or directly away from the viewer in section view via a 90 degree elbow.
	Piping turning upward in plan view or directly towards the viewer in section view via a 90 degree elbow.
	Direction of water flow.

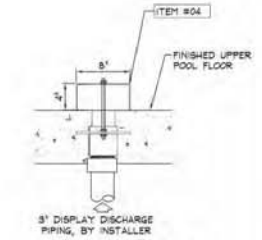
VETERAN'S MEMORIAL (02/22/16)
Equipment List – Roman Fountains

Item No.	Qty.	Component Number	Description
	01	5	RCN-125	1-1/4" Cascade Nozzle
2	*02	5	By Others	RWS-150-S, 1-1/2" Slab Penetration
	03	5	RSB-150-T	1-1/2" Ball Valve
	*04	4	RAOP-684	Ballast Diverter Plate Assembly
	*05	4	RAVS-650-VGB	6.5" Diameter Sump Assembly
	*06	1	RFD-200	2" Floor Drain Fitting
	*07	1	ROV-200-S	2" Overflow Standpipe, 2" (F)N.P.T. Conn.
	08	1	RCO14-CNA	Adj. Conduit Overflow/Water Level Controller
1	09	2	RJB-2-075-C	Conduit Mounted Submersible Junction Box
	10	1	RJB-3-100-C	Conduit Mounted Submersible Junction Box
1	11	3	RJB-4-100-C	Conduit Mounted Submersible Junction Box
1	*12	3	RWS-075-L	3/4" Long Slab Penetration
1	*13	4	RWS-100-L	1" Long Slab Penetration
	14	8	RPC-2 114-C	Patting Compound, 21.2 oz. kit
	15	19	By Others	LL-2DC-3LED-IBS LED light, by others.
1	16	1	By Others	LZD-300-M, Luxor LED lighting controller, by others.
1	17	--	--	Omitted
	*18	2	REF-150-SW	Fixed Angle Floor-Mounted Sweep Inlet Fitting
1	19	1	RDF-2H-750-RBU (Special)	Series 2+ Direct Burial Pump Vault 120/208/1, 3-phase
	20	3	RPVC-600	6" PVC Vent Cap

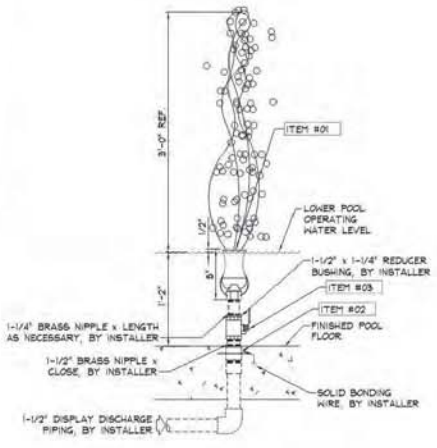
NOTE: FOR COMPLETE ITEM SPECIFICATIONS, SEE SHEET WFN-2.
*NOTE: CONCRETE EMBED ITEM, REQUIRED FOR POUR.



SECTION 'A'
SCALE: 1"=1'-0"



SECTION 'B'
SCALE: 1"=1'-0"



SECTION 'C'
SCALE: 1"=1'-0"

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FOUNTAIN DETAILS

DOWNTOWN STREETSCAPE - PHASE 1

--

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Scale:	As Shown
Drawn By:	J. Dennison
Checked By:	W. Pierce
Date:	01-08-16

Revisions:

No.	Date	By	Comments
01	02-08-16	JD	LIGHTS & SURROUND
02	02-22-16	MP	RWS-150-S, EDIT

FOUNTAIN DISCHARGE & FILL PIPING PLAN

Drawing Number:
WFM-3

BIDDING DOCUMENTS

DATE: AUGUST 4, 2016
REVISED: REV # DR #
08-16-2016 ADDENDUM 4 ⚠

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33 4

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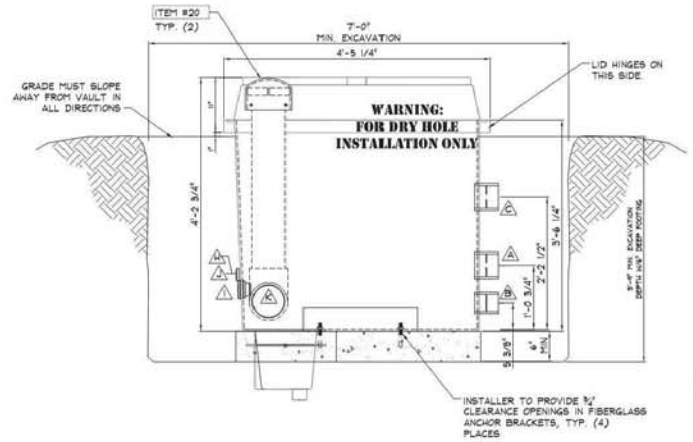
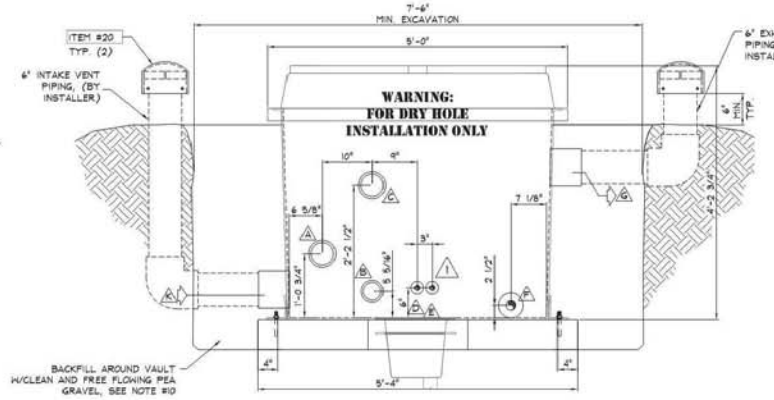
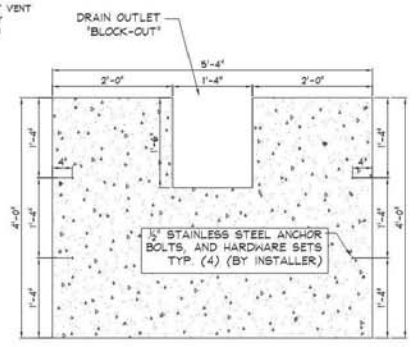


VAULT: SIDE DETAIL
SCALE: 3/4"=1'-0"



VAULT: END VIEW
SCALE: 3/4"=1'-0"



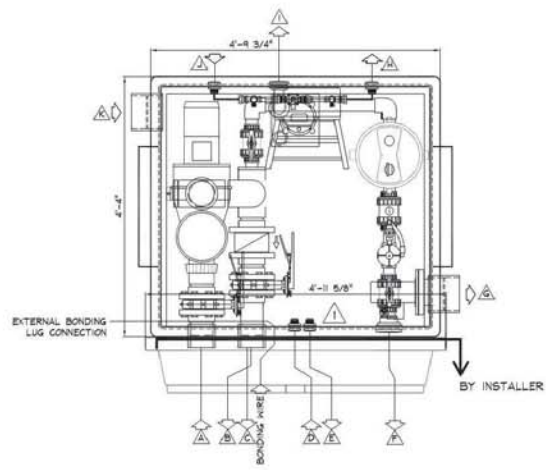
ANCHOR PAD: PLAN VIEW
SCALE: 3/4"=1'-0"

NOTE: TOP OF VAULT TO BE AT OR BELOW FOUNTAIN OPERATING WATER LEVEL FOR OPTIMUM OPERATION.

*ALL INTERCONNECTING PIPE, FITTINGS, CONDUIT, ETC. ARE BY INSTALLER

SYSTEM POWER REQUIREMENT:
120/208V., THREE-PHASE, 4-WIRE FEEDER + GND. @ 50 AMPS
CONTACT FACTORY IMMEDIATELY IF NOT AVAILABLE.
(NOTE: SEE SHEET WFI-1 FOR POWER DIAGRAM)

NOTE: THIS PUMP VAULT IS P.E. REVIEWED AND STAMPED FOR STRUCTURAL INTEGRITY AND FOR DIRECT BURIAL APPLICATIONS.



THIS SIDE FACES
TOWARD FOUNTAIN
VAULT: PLAN VIEW
SCALE: 3/4"=1'-0"

⚠ SPECIFICATION DATA: Series 2H Direct Burial Pump Vault, consisting of a 4'-0"± 4'-6"± 4'-2" deep heavy duty FRP vault with white gel-coat, interior and brown gel-coat exterior, furnished with fiberglass reinforced plastic lid with stainless steel piano hinge attachment, lock hardware ("lock by installer"). The vault contains a RSPP-750 7.5 HP self-priming display pump with integral suction strainer; RCCF-075 75 sq. ft. cartridge filter unit; RBU-Series chemical feeder; R"IS-075-NS 3/4" fill manifold assembly; 6" vent connections with 90 CPVI vent fan; 1/3 HP sump pump assembly; RPCP U.L. 508 listed control panel in a NEMA 4 enclosure, containing: main disconnect; motor starter with motor protection, 24/7 time clock for pump, H.O.A. switches, G.F.C.I. breaker, and water level/low level cutoff control circuit. Unit is pre-wired, pre-plumbed (Schedule 80 PVC) and factory tested, prior to shipment. (Light power and controller to be fed directly from above ground landscape lighting controller, by others.)
Power requirement: 120/208V, 3-phase, 4-wire feeder + GND.

PIPING & CONDUIT LEGEND

SYM.	SIZE	DESCRIPTION
A	4"	DISPLAY PUMP SUCTION (INSTALLER TO INCREASE TO 6" AS SHOWN ON SHEET WFM-2)
B	3"	DISPLAY DISCHARGE TO NOZZLES
C	4"	DISPLAY DISCHARGE TO UPPER POOL (INSTALLER TO INCREASE TO 6" AS SHOWN ON SHEET WFM-3)
⚠ D	1"C	120/208V., THREE PHASE, 4-WIRE FEEDER + GND. @ 50 AMPS
E	3/4"C	CONDUIT TO WATER LEVEL CONTROL SENSOR (100'-0" OF 22/4 CABLE INCLUDED)
F	2"	FILTER DISCHARGE TO REF-150-SH, ITEM #18
G	6"	PVC (SLIP) VENT EXHAUST
H	3/4"	FOUNTAIN FILL PIPING CONNECTION
I	1-1/2"	VAULT SUMP PUMP DISCHARGE PIPING CONNECTION TO WASTE
J	3/4"	INCOMING COLD WATER SUPPLY PIPING FROM BACKFLOW PROTECTED SOURCE WITH LESS THAN 50 PSI PRESSURE
K	6"	PVC (SLIP) VENT INTAKE

RDP-2 SERIES PUMP VAULT INSTALLATION NOTES
PLEASE READ CAREFULLY

1. The gravity floor drain (located inside the Series 2 vault) must be immediately connected to storm drain, sanitary sewer, or "day-lighted. If drain is not able to be connected DO NOT install vault until it can be connected.
2. Do not install pump vault into any location below sea level, or where a high water table exists, or in any area subject to periodic or repeated flooding, or groundwater saturation, as the unit is not designed to be surrounded by ground water; damage and/or leakage may occur. If periodic ground water flooding is possible, an adequately sized drainage system (French drain or sump pump well type) must be designed (by project engineer) and provided (by installer) around the vault to move surrounding ground water away from the unit to a lower elevation.
3. In all cases finished grade around the pump vault must be sloped away from the access hatchway in all directions so no water flows into the pump vault (see installation details this sheet). Do not allow water to "pool" around vault under any circumstances.
4. Prior to pump vault installation, a level smooth, steel reinforced concrete pad, measuring 4'-0"x5'-4"x6" minimum thickness, must be poured, and must include the four (4) installer provided 1/2" stainless steel "L"-bolts (see installation drawing). Concrete shall have a minimum compression strength at 28 days of 3000 PSI and have a reinforcing steel conforming to ASTM A 615-40. Reinforced concrete pad, anchoring "L"-bolts are provided and installed by the installing contractor.
5. The pump vault must be lifted using a properly weighted and balanced fork lift with extended forks or a boom crane and girdle straps. The weight of the vault for transportation and lifting purposes is 2,000 pounds unless otherwise indicated on the installation drawings, submittal data, or freight bill of lading.
6. Lower the pump vault into the excavation using a two part lifting sling with padded straps to ensure a true vertical lift. DO NOT LIFT FROM TOP AND DO NOT USE CHAINS FOR LIFTING AS THEY MAY DAMAGE FIBERGLASS. All off-loading and lifting equipment and labor is the responsibility of the installing contractor.
7. Lower the vault into the excavation slowly and center it on the concrete pad. Insure the concrete pad is level and thoroughly cleaned of debris that could damage the vault floor prior to placing the unit on the pad.
8. Securely anchor the vault to the stainless steel anchor bolts previously installed into the concrete pad (cable, straps and bolts furnished by the installing contractor). Vault must be plumb and level prior to hook-up and backfill. Pressure test all piping to be connected prior to backfill operations. HYDROSTATIC (WATER) TESTING SHALL BE THE ONLY APPROVED METHOD, DO NOT USE COMPRESSED AIR TO PERFORM ANY PRESSURE TESTS ON PVC PIPING.
9. After the vault is securely in position, outside piping and conduits must be aligned and connected to ensure a true fit without excessive lateral force applied to piping, conduits or fittings.
10. CAUTION any and all voids, pockets and 'dead air space' beneath a direct burial pump vault unit 'MUST' be completely filled in and adequately compacted prior to final backfilling around vault unit. Use a [rp[er;y formulated, low cementitious content 'flowable fill' mixture or other free flowing material to completely fill all voids, as specified and approved by the project engineer.
11. Backfill around the pump vault using an approved granular material free of trash, debris, roots, rocks, vegetation, or other deleterious material. Under no circumstances shall construction waste, large rocks, concrete waste, clay based soil or any other unsuitable backfill be used. A naturally rounded aggregate of 1/4" nominal size ranging from 1/8" to 3/4" diameter, or 1/8" to 1/2" diameter stone crushings, clean and free flowing, may be used. ensure that backfill fills all voids, especially beneath all vault piping and fittings.
12. Spread backfill material in 6" to 8" lifts, and compact to at least 95% of maximum density as determined by ASTM 1557-70.
13. Use manual compaction equipment being careful not to damage pump vault, piping or conduit due to excessive compaction. A single lift of backfill material around pump vault with a final compaction to excessive loads shall not be permitted.
14. A second pressure test of piping should be made after backfilling to ensure that piping has not been damaged during backfill operations.
15. It is the responsibility of the installing contractor to ensure the all electrical equipment is installed and wired by a QUALIFIED, LICENSED ELECTRICIAN, experienced in industrial wiring. All electrical equipment must be installed in accordance with the NATIONAL ELECTRICAL CODE, and any local codes and regulations.
16. OSHA confined space requirements and safety procedures are the sole responsibility of the installer. (See insert below) This product IS NOT U.L. listed as an assembly.

OSHA DEFINED "CONFINED SPACE" INFORMATION

Certain sites contain spaces that are considered to be "confined" because their configurations hinder the activities of any individual who must enter into, work in, and exit from them. In many instances, individuals who work in confined spaces also face increased risk of exposure to serious physical injury from hazards such as entrapment, engulfment, and hazardous atmospheric conditions. Confinement itself may pose entrapment hazards, and work in confined spaces may keep an individual closer to hazards, such as machinery components, than they would otherwise. For example, confinement, limited access, and restricted airflow can result in hazardous conditions that would not normally arise in an open workplace.

The term "PERMIT-REQUIRED CONFINED SPACE" (i.e. permit space) refers to those spaces that meet the definition of a "confined space" and contain health or safety hazards, thereby requiring a permit for entry.

A confined space has limited or restricted means of entry or exit, is large enough for an individual to enter and perform assigned work, and is not designed for continuous occupancy by the individual. These spaces may include, but are not limited to underground vaults, tanks, pits and containment vessels.

A "PERMIT-REQUIRED CONFINED SPACE" is one that meets the definition of a confined space and has one or more of these characteristics: (1) contains or has the potential to contain a hazardous atmosphere, (2) contains a material that has the potential for engulfing an entrant, (3) has an internal configuration that might cause and entrant to be trapped or asphyxiated by inwardly converging walls or by a floor that slopes downward and tapers to a smaller cross section, and/or (4) contains any other recognized serious safety or health hazards.

Owner assumes all responsibility & liability for ascertaining whether direct-burial pump stations meet the definition of "PERMIT-REQUIRED CONFINED SPACE" and implementing any/all 'OSHA' requirements for identification, notification, entry and, safety, including any additional safety equipment that may be required for such entry.

WARNING:

DIRECT-BURIAL PUMP VAULTS ARE DESIGNED AND CONSTRUCTED FOR 'DRY-HOLE' INSTALLATIONS ONLY AND ARE NOT DESIGNED, CONSTRUCTED, OR SOLD AS WATERTIGHT OR WATERPROOF CONTAINERS AND ARE NOT TO BE INCORPORATED INTO ANY PROJECT WHERE POTENTIAL GROUND WATER SATURATION (WHETHER TEMPORARY OR PERMANENT OR DUE TO RAIN, FLOODS OR IRRIGATION) OR NATURAL GEOLOGICAL HIGH WATER TABLE CONDITIONS MAY EXIST.

AS SUCH, ROMAN FOUNTAINS IS NOT RESPONSIBLE FOR ANY GROUNDWATER INTRUSION INTO ANY FIBERGLASS EQUIPMENT VAULT UNDER ANY CIRCUMSTANCES WHATSOEVER.

THE SPECIFIER/PURCHASER/INSTALLER/OWNER OF ANY VAULT PRODUCT SHALL MAKE ANY AND ALL DETERMINATIONS AS TO THE SUITABILITY OF SAID PRODUCT FOR THE APPLICATION, INCLUDING GROUND WATER CONDITIONS.

NOTICE

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UL CAN BE CONTACTED AT UL CUSTOMER SERVICE (877) 854-3577 OR VIA E-MAIL AT ULFieldinspections@UL.com TO REQUEST/SCHEDULE AN ON-SITE FIELD INSPECTION.

ANY AND ALL COSTS AND POSSIBLE CONSTRUCTION DELAYS ASSOCIATED WITH SAID FIELD INSPECTION SHALL BE THE RESPONSIBILITY OF THE CUSTOMER AND NOT ROMAN FOUNTAINS.

CAUTION

"ALL VAULT DIMENSIONS, PENETRATIONS AND SLEEVE LOCATIONS ARE APPROXIMATE.

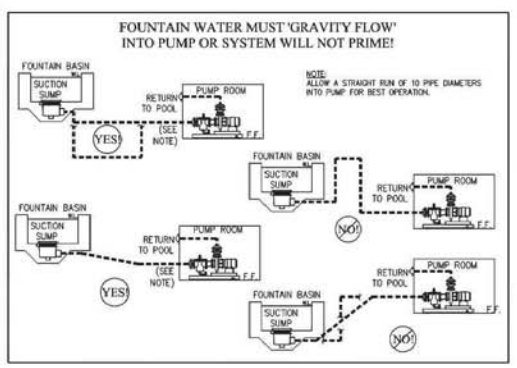
IF FINAL INSTALLATION TOLERANCES/ELEVATIONS/LOCATIONS/POSITIONS ARE CRITICAL INSTALLER SHALL CONTACT ROMAN FOUNTAINS PRIOR TO FINALIZING TRENCHING DEPTHS, EXCAVATION AND ANCHOR SLAB POUR FOR CERTIFICATION OF ACTUAL FINISHED VAULT DIMENSIONS."

CAUTION

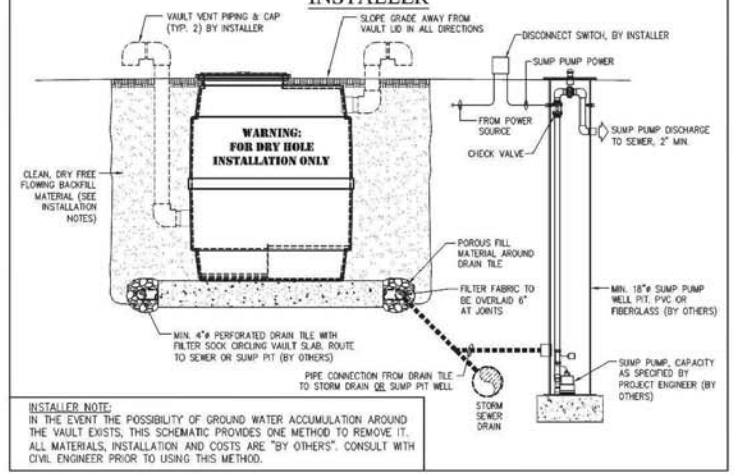
ANY AND ALL VOIDS, POCKETS AND 'DEAD AIR SPACE' BENEATH A DIRECT BURIAL PUMP VAULT UNIT 'MUST' BE COMPLETELY FILLED IN AND ADEQUATELY COMPACTED PRIOR TO FINAL BACKFILLING AROUND VAULT UNIT, USE A PROPERLY FORMULATED, LOW CEMENTITIOUS CONTENT 'FLOWABLE FILL' MIXTURE OR OTHER FREE FLOWING MATERIAL TO COMPLETELY FILL ALL VOIDS, AS SPECIFIED AND APPROVED BY THE PROJECT ENGINEER.

NEC ARTICLE 680.11 NOTICE

EQUIPMENT ROOMS, VAULTS AND PITS MUST HAVE ADEQUATE DRAINAGE TO PREVENT WATER ACCUMULATION DURING NORMAL OPERATION OR FILTER USE. INSTALLER SHALL CONNECT A DRAIN LINE TO DRAIN FITTING FURNISHED ON VAULT AND TERMINATE IT IN ACCORDANCE WITH LOCAL CODES.



DIRECT BURIAL VAULT DEWATERING SYSTEM, IF REQUIRED, BY INSTALLER



INSTALLER NOTE:
IN THE EVENT THE POSSIBILITY OF GROUND WATER ACCUMULATION AROUND THE VAULT EXISTS, THIS SCHEMATIC PROVIDES ONE METHOD TO REMOVE IT. ALL MATERIALS, INSTALLATION AND COSTS ARE "BY OTHERS". CONSULT WITH CIVIL ENGINEER PRIOR TO USING THIS METHOD.

ROMAN FOUNTAINS

VETERAN'S MEMORIAL
Verona, WI
For Reinders, Inc.
Sussex, WI

ROMAN FOUNTAINS CORP.
P.O. Drawer 10190
Albuquerque, N.M. 87184
Phone #: (800) 794-1801
Fax #: (505) 343-8086
http://www.romanfountains.com

ROMAN FOUNTAINS CORP.
Eastern Engineering & Sales Office
9875 Medlock Bridge Parkway
Suite 250
Johns Creek, GA. 30022
Phone #: (877) 794-1802
Fax #: (770) 300-0074

Scale:	As Shown
Drawn By:	J. Dennison
Checked By:	W. Pierce
Date:	01-06-2016

Revisions:

No.	Date	By	Comments
01	02-08-16	JD	LIGHTS & SURROUND
02	02-22-16	WP	RWS-150-S, EDIT

RDP-2H, DIRECT BURIAL PUMP VAULT INSTALLATION DETAILS SHEET 1

Drawing Number:

WFM-4

D'ONOFRIO KOTTKE AND ASSOCIATES, INC.
7530 Westward Way, Madison, WI 53717
Phone: 608.833.7530 • Fax: 608.833.1089
YOUR NATURAL RESOURCE FOR LAND DEVELOPMENT

FOUNTAIN DETAILS

DOWNTOWN STREETSCAPE - PHASE 1
--
CITY OF VERONA, DANE COUNTY, WISCONSIN

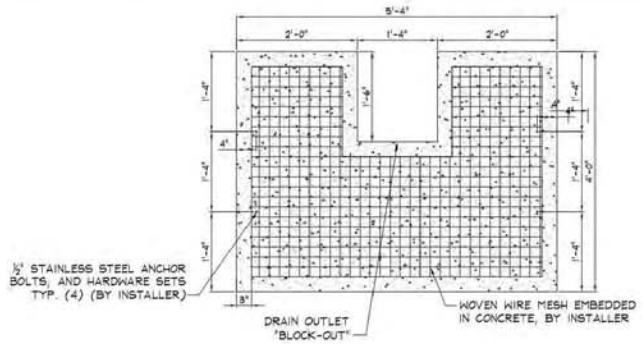
BIDDING DOCUMENTS

DATE: AUGUST 4, 2016
REVISED: REV # DR #

DRAWN BY: MS

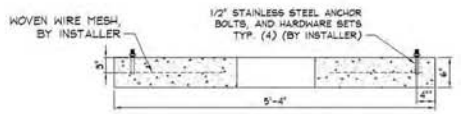
FN: 14-01-101

Sheet Number:
34



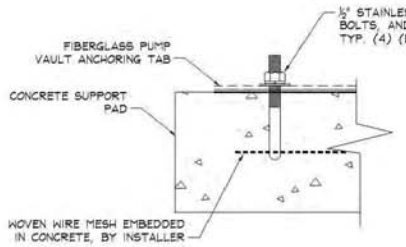
SERIES 2/2H VAULT PAD PLAN (W/SUMP)

SCALE: 3/4"=1'-0"



SERIES 2/2H VAULT PAD SECTION (W/SUMP)

SCALE: 3/4"=1'-0"



SUPPORT PAD ANCHOR DETAIL

SCALE: 3"=1'-0"

RDP-1, 2 & 2H, PUMP VAULT REQUIRED 'ANCHOR' HARDWARE, BY INSTALLER:

(4) 1/2"-13 X 5-1/2" LONG, TYPE 316 S.S. STUD (WEDGE) ANCHOR
(4) 1/2"-13 HEX NUT, TYPE 316 S.S.
(4) 1/2" TYPE 316 S.S. FLAT WASHER (1-1/4" O.D. x .05"-.08" THICK)
(4) 1/2" TYPE 316 S.S. SPLIT LOCK WASHER

NOTE: HEX NUT AND SPLIT LOCK WASHER MAY BE SUBSTITUTED FOR 1/2 " TYPE 316 S.S. NYLON-INSERT HEX LOCKNUT, IF AVAILABLE.

COMMON NOTES FOR SERIES 2/2H WITH & W/O SUMP:

RECOMMENDED MINIMUM SLAB REINFORCEMENT REQUIREMENTS:
- INSTALLER TO USE #6 X 6-4 WOVEN WIRE MESH. INSTALL WITH MINIMUM 3" CLEARANCE ON ALL SIDES.

THIS INFORMATION INDICATES SUGGESTED MINIMUMS ONLY. INSTALLER TO CONSULT AND ADHERE TO STATE AND LOCAL CODES FOR CONCRETE SPECIFICATION REQUIREMENTS, SLAB DIMENSIONS & THICKNESS AND REINFORCING STRUCTURES.

INSTALLER TO POSITION VAULT ON SUPPORT PAD. DRILL ANCHORING TABS AND SET ANCHOR AS INDICATED.

NOTICE

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CAUTION

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WARNING:

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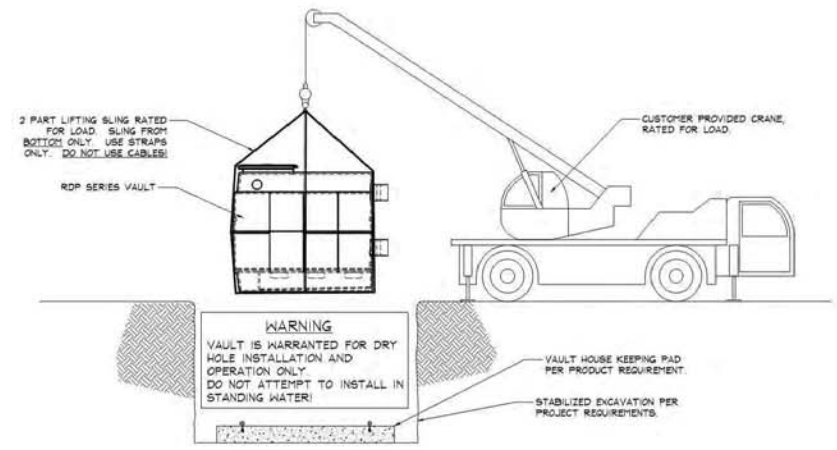
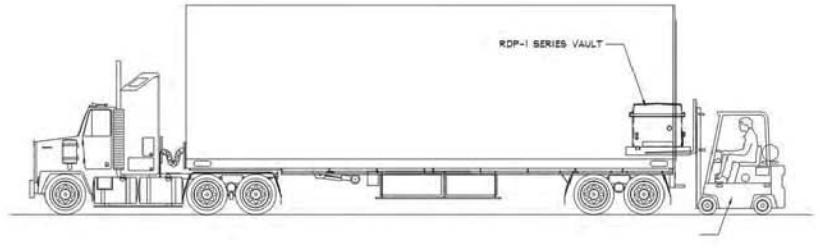
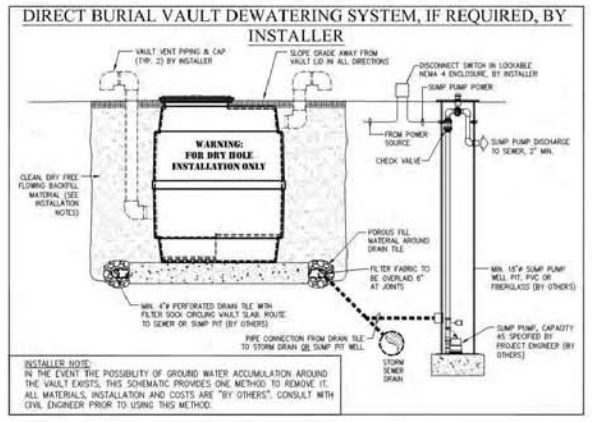


VAULT BEING REMOVED FROM TRUCK

VAULT OFF-LOADED FROM TRUCK



DIRECT BURIAL VAULT DEWATERING SYSTEM, IF REQUIRED, BY INSTALLER



GROSS WEIGHT OF VAULT

☐ RDP-1 Series	500 LBS
☒ RDP-2 Series	1,000 LBS
☐ RDP-250 Series	2,000 LBS
☐ RDP-3 Series	3,000 LBS
☐ RDP-4 Series	5,000 LBS
☐ RDP-5 Series	10,000 LBS

VAULT IN POSITION PROTECTED BY 'CAVE-IN' BARRIER

LIFTING FORK CRANE WITH DOUBLE STRAP SLING

NOTES:
1. HATCHWAY OPENING MUST BE LOCATED IN A AREA SAFE FROM FLOODING. SLOPE GRADE AWAY FROM VAULT.
2. PROTECT THE FURNISHED DRAIN LINE FROM POSSIBLE BACKFLOW AND SEWER GAS, AS REQUIRED.
3. VAULT SUCTION INTAKE MUST BE MIN. 1'-0" BELOW THE LOWEST POOL OPERATING WATER LEVEL.
4. ALL VAULT AND PENETRATIONS ARE APPROXIMATE.

*ALL INTERCONNECTING PIPE, FITTINGS, CONDUIT, ETC. ARE BY INSTALLER

NOTE: INSURE FILL MATERIAL FILLS ALL VOIDS BENEATH VAULT. HAND FEED FILL MATERIAL AS NECESSARY TO FILL ALL POTENTIAL VOIDS. DO NOT USE SHARP ROCKS AS FILL BENEATH VAULT.

CAUTION: INSTALLER TO VERIFY THAT ELEVATIONS AND OTHER DIMENSIONAL INFORMATION PROVIDED HEREIN, AGREE WITH ACTUAL SITE CONDITIONS. PLEASE REPORT ANY DEVIATIONS, OR POTENTIAL INSTALLATION CHANGES IMMEDIATELY TO ROMAN FOUNTAINS. PHONE: (505) 343-8082.

NOTE: THE PROPER DESIGN, OPERATION AND PERFORMANCE OF THIS SYSTEM IS BASED ON THE SELECTION AND USE OF EQUIPMENT MANUFACTURED AND/OR SELECTED BY ROMAN FOUNTAINS CORPORATION, ALBUQUERQUE, NEW MEXICO, U.S.A.; PHONE: (505) 343-8082. SUBSTITUTION OF EQUIPMENT OTHER THAN THAT SELECTED AND FURNISHED, VOIDS THE SYSTEM WARRANTY AND PERFORMANCE GUARANTEE, AND INSTALLER ASSUMES FULL RESPONSIBILITY FOR ITS OPERATION AND PERFORMANCE.

⚡ DANGER ⚡

FATAL ELECTRICAL SHOCK CAN OCCUR IF FOUNTAIN ELECTRICAL EQUIPMENT IS NOT INSTALLED PROPERLY. THIS EQUIPMENT SHOULD ONLY BE INSTALLED BY QUALIFIED ELECTRICIANS WITH PROPER GROUNDING AND GROUND FAULT INTERRUPTION CIRCUIT BREAKERS IN ACCORDANCE WITH NATIONAL ELECTRICAL CODE, SECTION 680, AND ALL OTHER APPLICABLE SECTIONS OF THE CODE.

OSHA DEFINED "CONFINED SPACE" INFORMATION

Certain sites contain spaces that are considered to be "confined" because their configurations hinder the activities of any individual who must enter into, work in, and exit from them. In many instances, individuals who work in confined spaces also face increased risk of exposure to serious physical injury from hazards such as entrapment, engulfment, and hazardous atmospheric conditions. Confinement itself may pose entrapment hazards, and work in confined spaces may keep an individual closer to hazards, such as machinery components, than they would otherwise. For example, confinement, limited access, and restricted airflow can result in hazardous conditions that would not normally arise in an open workplace.

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Owner assumes all responsibility & liability for ascertaining whether direct-burial pump stations meet the definition of "PERMIT-REQUIRED CONFINED SPACE" and implementing any/all 'OSHA' requirements for identification, notification, entry and, safety, including any additional safety equipment that may be required for such entry.

WARNING:

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ROMAN FOUNTAINS

VETERAN'S MEMORIAL
Verona, WI
For Reinders, Inc.
Sussex, WI

ROMAN FOUNTAINS CORP.
P.O. Drawer 10190
Albuquerque, N.M. 87184
Phone #: (800) 794-1801
Fax #: (505) 343-8086
http://www.romanfountains.com

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Fax #: (770) 300-0074

Scale:	As Shown
Drawn By:	J. Dennison
Checked By:	W.Pierce
Date:	01-08-2016

Revisions:

No.	Date	By	Comments
01	02-08-16	JD	LIGHTS & SURROUND
02	02-22-16	WP	RWS-150-S, EDIT

RDP-2H, DIRECT BURIAL PUMP VAULT INSTALLATION DETAILS SHEET 2

Drawing Number:

WFM-5

D'ONOFRIO KOTTKE AND ASSOCIATES, INC.
7530 Westward Way, Madison, WI 53717
Phone: 608.833.7530 • Fax: 608.833.1089
YOUR NATURAL RESOURCE FOR LAND DEVELOPMENT

FOUNTAIN DETAILS

DOWNTOWN STREETSCAPE - PHASE 1

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CITY OF VERONA, DANE COUNTY, WISCONSIN

BIDDING DOCUMENTS

DATE: AUGUST 4, 2016
REVISED: REV # DR #

DRAWN BY: MS

FN: 14-01-101

Sheet Number:

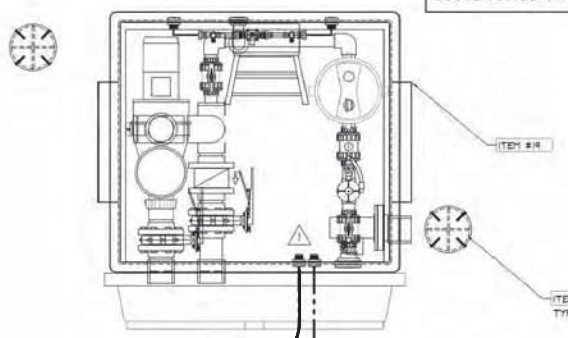
35

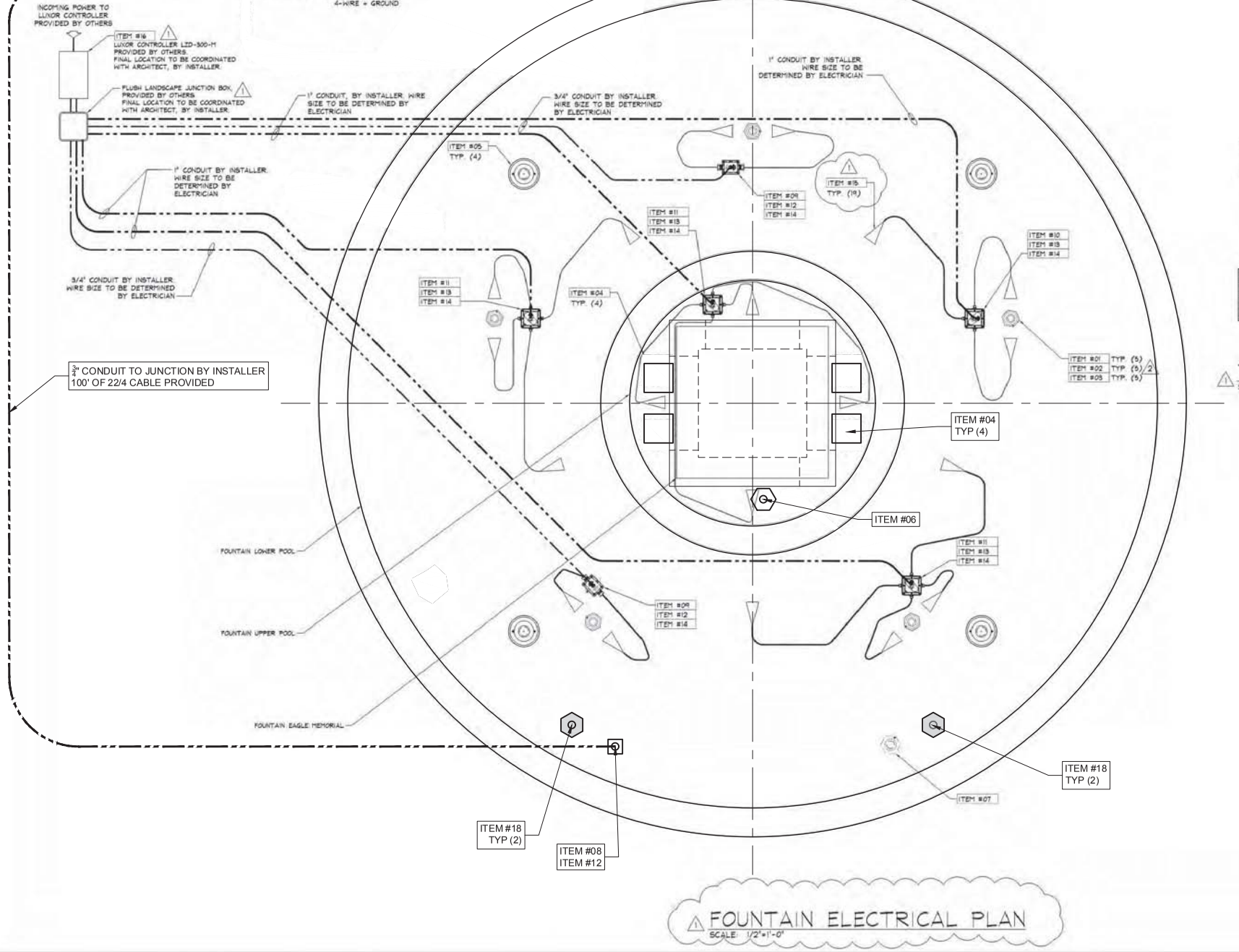
IMPORTANT NOTE:
PUMP VAULT LOCATED ADJACENT TO FOUNTAIN. FINAL LOCATION TO BE COORDINATED WITH ARCHITECT, BY INSTALLER.

NOTE:
INSTALLATION MUST BE PERFORMED BY A LICENSED ELECTRICIAN EXPERIENCED IN POOL WIRING, AND IN STRICT CONFORMANCE WITH NEC SECTION 680, AND ALL LOCAL CODE REQUIREMENTS.

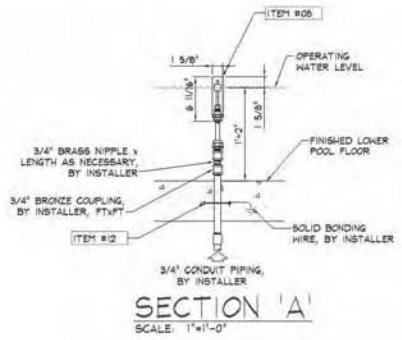
DANGER

FATAL ELECTRICAL SHOCK CAN OCCUR IF FOUNTAIN ELECTRICAL EQUIPMENT IS NOT INSTALLED PROPERLY. THIS EQUIPMENT SHOULD ONLY BE INSTALLED BY QUALIFIED ELECTRICIANS WITH PROPER GROUNDING AND GROUND FAULT INTERRUPTION CIRCUIT BREAKERS IN ACCORDANCE WITH NATIONAL ELECTRICAL CODE, SECTION 680, AND ALL OTHER APPLICABLE SECTIONS OF THE CODE.





FOUNTAIN ELECTRICAL PLAN
SCALE: 1/2"=1'-0"



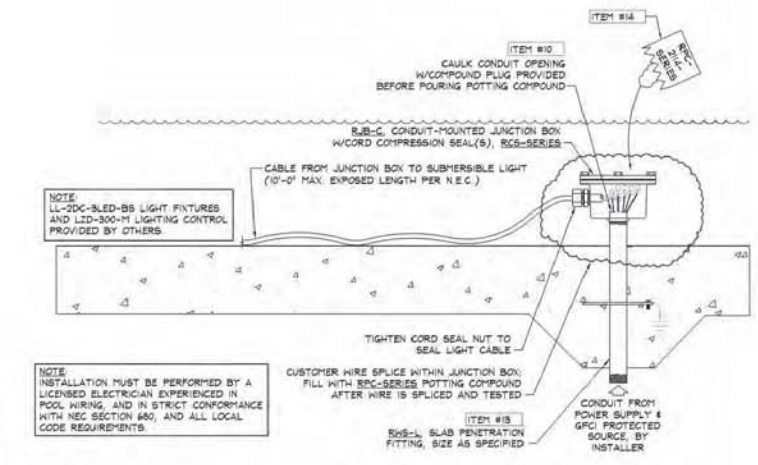
SECTION 'A'
SCALE: 1"=1'-0"

VETERAN'S MEMORIAL (02/22/16)

Equipment List – Roman Fountains

Item No.	Qty.	Component Number	Description
	01	5	RCN-125	1-1/4" Cascade Nozzle.
2	*02	5	By Others	RWS-150-S, 1-1/2" Slab Penetration
	03	5	RBB-150-T	1-1/2" Ball Valve
	*04	4	RA/DP-634	Ballast/Diverter Plate Assembly
	*05	4	RAVS-830-VGB	8.5" Diameter Sump Assembly
	*06	1	RFD-200	2" Floor Drain Fitting
	*07	1	ROV-200-S	2" Overflow/Standpipe, 2" (F)N.P.T. Conn.
	08	1	ROOM-CNA	Adj. Conduit-Overflow/Water Level Controller
1	09	2	RJB-3-075-C	Conduit Mounted Submersible Junction Box
	10	1	RJB-3-100-C	Conduit Mounted Submersible Junction Box
1	11	3	RJB-4-100-C	Conduit Mounted Submersible Junction Box
1	*12	3	RWS-075-L	3/4" Long Slab Penetration
1	*13	4	RWS-100-L	1" Long Slab Penetration
	14	8	RPC-2114-C	Potting Compound, 21.2 oz. size
	15	19	By Others	LL-ZDC-3LED-BS LED light, by others.
1	16	1	By Others	LZD-30CM, Lunor LED lighting controller, by others.
1	17	-	-	Omitted
	*18	2	REF-150-SW	Fixed Angle Floor-Mounted Sweep Inlet Fitting
1	19	1	RDP-2H-750-RBU (Special)	Series 2-H Direct Burial Pump Vault 120/208?, 3-phase.
	20	2	RPVC-600	6" PVC Vent Cap

NOTE: FOR COMPLETE ITEM SPECIFICATIONS, SEE SHEET WFN-2.
*NOTE: CONCRETE EMBED ITEM, REQUIRED FOR POUR.



NOTE:
INSTALLATION MUST BE PERFORMED BY A LICENSED ELECTRICIAN EXPERIENCED IN POOL WIRING, AND IN STRICT CONFORMANCE WITH NEC SECTION 680, AND ALL LOCAL CODE REQUIREMENTS.

TYPICAL RJB-C DETAIL
SCALE: NONE (REF. ITEM #'S 10, 13, & 14)

ROMAN FOUNTAINS

VETERAN'S MEMORIAL
Verona, WI
For Reinders, Inc.
Sussex, WI

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ROMAN FOUNTAINS CORP.
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9875 Medlock Bridge Parkway
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Phone #: (877) 794-1802
Fax #: (770) 300-0074

Scale:	As Shown
Drawn By:	J. Dennison
Checked By:	W. Pierce
Date:	01-08-2016

Revisions:

No.	Date	By	Comments
01	02-08-16	JD	LIGHTS & SURROUND
02	02-22-16	WP	RWS-150-S, EDIT

FOUNTAIN ELECTRICAL PLAN

Drawing Number:

WFE-1

D'ONOFRIO KOTTKE AND ASSOCIATES, INC.
7530 Westward Way, Madison, WI 53717
Phone: 608.833.7530 • Fax: 608.833.1089
YOUR NATURAL RESOURCE FOR LAND DEVELOPMENT

FOUNTAIN DETAILS

DOWNTOWN STREETSCAPE - PHASE 1

--

CITY OF VERONA, DANE COUNTY, WISCONSIN

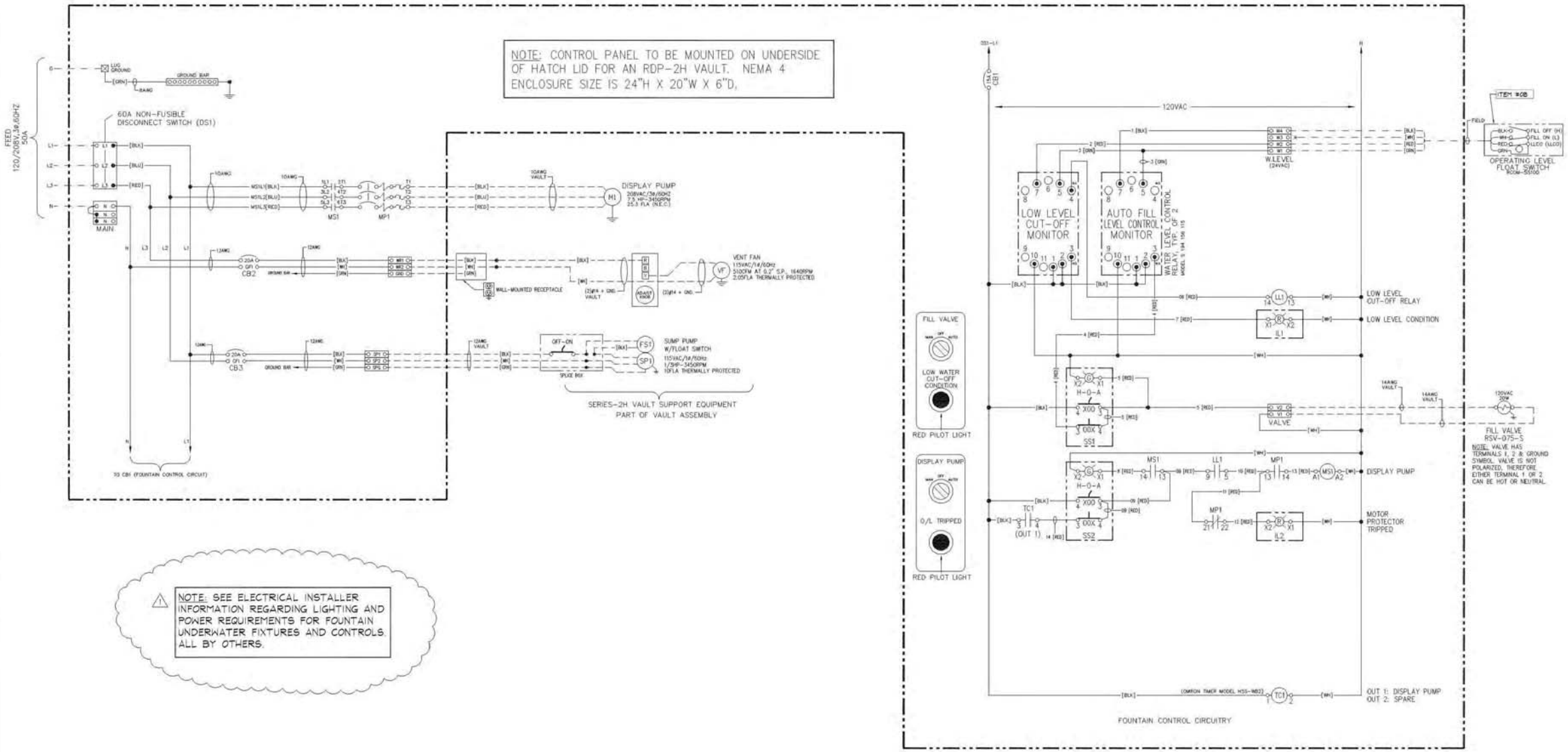
BIDDING DOCUMENTS

DATE: AUGUST 4, 2016
REVISED: REV # DR #
08-16-2016 ADDENDUM 4 4

DRAWN BY: MS

FN: 14-01-101

Sheet Number:
36 4



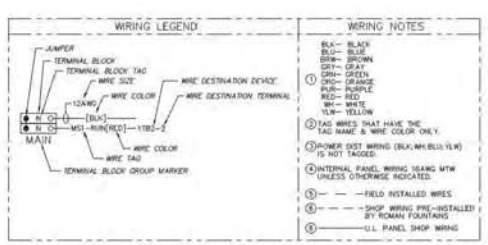
⚠ NOTE: SEE ELECTRICAL INSTALLER INFORMATION REGARDING LIGHTING AND POWER REQUIREMENTS FOR FOUNTAIN UNDERWATER FIXTURES AND CONTROLS. ALL BY OTHERS.

⚠

PANEL ID: Veterans Memorial	LOCATION: RDP-2H				MOUNT: NEMA 4			
	VOLTAGE: 120/208V 3-PH	AMPS: 50			TYPE: Bolt-On, Wall			
LOAD DESCRIPTION:	BKR Size	CKT No.	VA/Phase A	B	C	Duty Factor		LOAD
Veterans Memorial								
Control Circuit #1: (Panel, WLC, etc)	15	CB1	150			1.25	=	188 VA
Display Pump (7.5HP) (208V/60/3):	50	MP1	3,067	3,067	3,066	1.25	=	11,500 VA
Vault Receptacle & Vent Fan (1/3 HP, 120V)	20	*CB2		1,200		1.25	=	1,500 VA
Vault Sump Pump (1/3 HP, 120V)	20	*CB3			1,200	1.25	=	1,500 VA
Load (Continuous Duty):						1.25	=	0 VA
Load (Non-Continuous Duty):						1.00	=	0 VA
VA/Phase TOTAL:			3,217	4,267	4,266			14,688 VA
NOTE: * GFI Breaker 5mA								
TOTAL LOAD:	14,688 VA	/	208 V	/	1.73	=	40.8 AMPS	
REQ'D. FEED:							50 AMPS	
FEEDER CONDUIT:							1 inch	

⚠ FOUNTAIN ELECTRICAL SCHEMATIC
SCALE: NONE

WARNING
ARC FLASH AND SHOCK HAZARD
APPROPRIATE PPE REQUIRED AND TOOLS REQUIRED WHEN WORKING WITH THIS EQUIPMENT. FAILURE TO COMPLY CAN RESULT IN IGAURY OR DEATH. REFER TO NFPA 70 E.



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Scale:	None
Drawn By:	W. Pierce
Checked By:	R. Hinkle
Date:	01-08-2016

Revisions:

No.	Date	By	Comments
01	02-08-16	JD	LIGHTS & SURROUND
02	02-22-16	WP	RWS-150-S, EDIT

FOUNTAIN ELECTRICAL SCHEMATIC

Drawing Number:
WFE-2

D'ONOFRIO KOTTKE AND ASSOCIATES, INC.
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FOUNTAIN DETAILS

DOWNTOWN STREETSCAPE - PHASE 1
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CITY OF VERONA, DANE COUNTY, WISCONSIN

BIDDING DOCUMENTS

DATE: AUGUST 4, 2016
REVISED: REV # DR #

DRAWN BY: MS

FN: 14-01-101

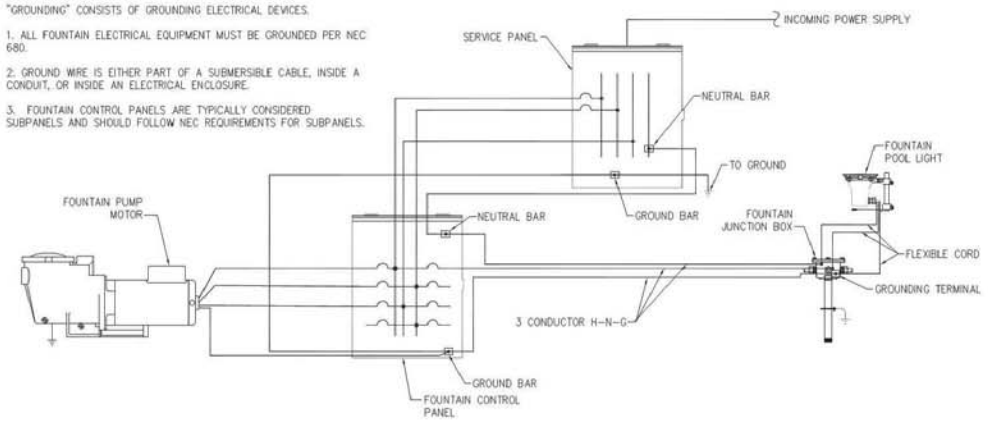
Sheet Number:
37

"GROUNDING" CONSISTS OF GROUNDING ELECTRICAL DEVICES.

1. ALL FOUNTAIN ELECTRICAL EQUIPMENT MUST BE GROUNDED PER NEC 680.

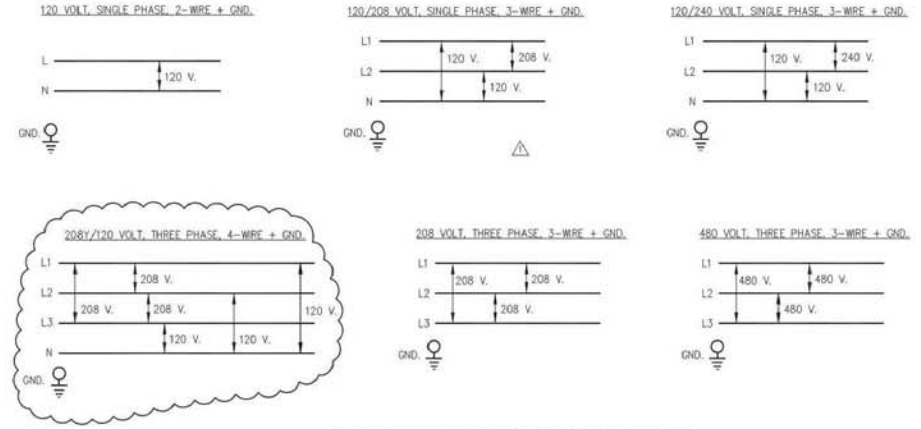
2. GROUND WIRE IS EITHER PART OF A SUBMERSIBLE CABLE, INSIDE A CONDUIT, OR INSIDE AN ELECTRICAL ENCLOSURE.

3. FOUNTAIN CONTROL PANELS ARE TYPICALLY CONSIDERED SUBPANELS AND SHOULD FOLLOW NEC REQUIREMENTS FOR SUBPANELS.



TYPICAL FOUNTAIN "GROUNDING" SCHEMATIC

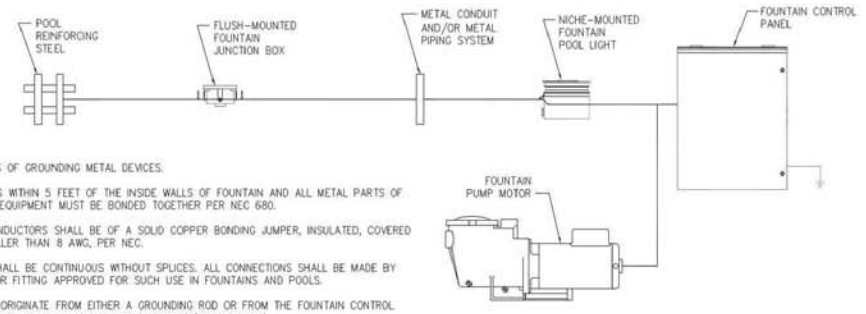
SCALE: NONE



INSTALLER NOTE: POWER REQUIRED FOR THIS PROJECT IS "CLOUDED"

ELECTRICAL POWER SUPPLY OPTIONS

SCALE: NONE



"BONDING" CONSISTS OF GROUNDING METAL DEVICES.

1. ALL METAL PARTS WITHIN 5 FEET OF THE INSIDE WALLS OF FOUNTAIN AND ALL METAL PARTS OF ASSOCIATED METAL EQUIPMENT MUST BE BONDED TOGETHER PER NEC 680.

2. ALL BONDING CONDUCTORS SHALL BE OF A SOLID COPPER BONDING JUMPER, INSULATED, COVERED OR BARE, NOT SMALLER THAN 8 AWG, PER NEC.

3. ALL BONDING SHALL BE CONTINUOUS WITHOUT SPLICES. ALL CONNECTIONS SHALL BE MADE BY EXOTHERMIC WELD OR FITTING APPROVED FOR SUCH USE IN FOUNTAINS AND POOLS.

4. BONDING WIRES ORIGINATE FROM EITHER A GROUNDING ROD OR FROM THE FOUNTAIN CONTROL PANEL (IF PANEL FEED IS WITH A MINIMUM #8 AWG BOND/GROUND WIRE).

5. BONDING WIRES ARE TYPICALLY EXTERNAL FROM CONDUITS BUT COULD ORIGINATE FROM THE FOUNTAIN CONTROL PANEL TO A SUBMERSIBLE JUNCTION BOX, THROUGH A CONDUIT, TO AN INTERNAL BONDING LUG. BUT THEN THE REST OF THE BONDING WIRES SHOULD RUN EXTERNAL BY USE OF JUNCTION BOX EXTERNAL BONDING LUG TO THE POOL REINFORCING STEEL (REBAR) AND TO OTHER POOL METAL DEVICES SUCH AS NICHE LIGHTS.

6. FOUNTAIN CONTROL PANELS ARE TYPICALLY CONSIDERED SUBPANELS AND SHOULD FOLLOW NEC REQUIREMENTS FOR SUBPANELS.

TYPICAL FOUNTAIN "BONDING" SCHEMATIC

SCALE: NONE

RECOMMENDED WIRE COLOR CODE

Color code for conductors for general wiring:
1. Color code conductors insulation as follows:

CONDUCTOR	208-240/120	440-480/277	12-24/AC-DC
Phase A	BLACK (BL)	BROWN (BR)	GRAY (GY), BROWN (BR)
Phase B	RED (RD)	ORANGE (OR)	
Phase C	BLUE (BU)	YELLOW (YL)	
NEUTRAL (COM)	WHITE (WH)		PURPLE (PU), BLUE (BU)
GROUND	GREEN (GRN)	GREEN (GRN)	GREEN (GRN)

2. For conductors #6 AWG or larger, permanent plastic - colored tape may be used to mark conductor insulation. Tape shall cover not less than 2 inches of conductor insulation within enclosure.

CONDUCTOR	DEVICES	LIGHT FIXTURES	SOLENOIDS	PLC-INPUTS	PLC-OUTPUTS
Phase	RED (RD)	BLACK (BL)	BLACK (BL)	YELLOW (YL)	ORANGE (OR), RED (RD)
NEUTRAL (COM)	WHITE (WH)	WHITE (WH)	WHITE (WH)	WHITE (WH)	WHITE (WH)
GROUND	GREEN (GRN)	GREEN (GRN)	GREEN (GRN)	GREEN (GRN)	GREEN (GRN)

EXCERPT FROM 2011 EDITION OF NEC ARTICLE 680 PERTAINING TO DECORATIVE FOUNTAINS

V. Fountains

680.50 General. The provisions of Part I and Part V of this article shall apply to all permanently installed fountains as defined in 680.2. Fountains that have water common to a pool shall additionally comply with the requirements in Part II of this article. Part V does not cover self-contained, portable fountains. Portable fountains shall comply with Parts II and III of Article 422.

680.51 Luminaires, Submersible Pumps, and Other Submersible Equipment.
(A) Ground-Fault Circuit Interrupter. Luminaires, submersible pumps, and other submersible equipment, unless listed for operation at low voltage contact limit or less and supplied by a transformer or power supply that complies with 680.23(A)(2), shall be protected by a ground-fault circuit interrupter.
(B) Operating Voltage. No luminaires shall be installed for operation on supply circuits over 150 volts between conductors. Submersible pumps and other submersible equipment shall operate at 300 volts or less between conductors.
(C) Luminaire Lenses. Luminaires shall be installed with the top of the luminaire lens below the normal water level of the fountain unless listed for above-water locations. A luminaire facing upward shall comply with either (1) or (2):
(1) Have the lens adequately guarded to prevent contact by any person
(2) Be listed for use without a guard
(D) Overheating Protection. Electrical equipment that depends on submersion for safe operation shall be protected against overheating by a low-water cutoff or other approved means when not submerged.
(E) Wiring. Equipment shall be equipped with provisions for threaded conduit entries or be provided with a suitable flexible cord. The maximum length of each exposed cord in the fountain shall be limited to 3.0 m (10 ft). Cords extending beyond the fountain perimeter shall be enclosed in approved wiring enclosures. Metal parts of equipment in contact with water shall be of brass or other approved corrosion-resistant metal.
(F) Servicing. All equipment shall be removable from the water for relamping or normal maintenance. Luminaires shall not be permanently embedded into the fountain structure such that the water level must be reduced or the fountain drained for relamping, maintenance, or inspection.
(G) Stability. Equipment shall be inherently stable or be securely fastened in place.

680.52 Junction Boxes and Other Enclosures.
(A) General. Junction boxes and other enclosures used for other than underwater installation shall comply with 680.24.
(B) Underwater Junction Boxes and Other Underwater Enclosures. Junction boxes and other underwater enclosures shal meet the requirements of 680.52(B)(1) and (B)(2).
(1) Construction.
(a) Underwater enclosures shal be equipped with provisions for threaded conduit entries or compression glands or seals for cord entry.
(b) Underwater enclosures shal be submersible and made of copper, brass, or other approved corrosion-resistant material.
(2) Installation. Underwater enclosure installations shall comply with (a) and (b).
(a) Underwater enclosures shal be filled with an approved potting compound to prevent the entry of moisture.
(b) Underwater enclosures shal be firmly attached to the supports or directly to the fountain surface and bonded as required. Where the junction box is supported only by conduits in accordance with 314.23(E) and (F), the conduits shall be of copper, brass, stainless steel, or other approved corrosion-resistant metal. Where the box is fed by nonmetallic conduit, it shall have additional supports and fasteners of copper, brass, or other approved corrosion-resistant material.

V. Fountains (Cont.)

680.53 Bonding.
All metal piping systems associated with the fountain shall be bonded to the equipment grounding conductor of the branch circuit supplying the fountain.
Informational Note: See 250.122 for sizing of these conductors.

680.54 Grounding.
The following equipment shall be grounded:
(1) Other than listed low-voltage luminaires not requiring grounding, all electrical equipment located within the fountain or within 1.5 m (5 ft) of the inside wall of the fountain
(2) All electrical equipment associated with the recirculating system of the fountain
(3) Panelboards that are not part of the service equipment and that supply any electrical equipment associated with the fountain

680.55 Methods of Grounding.
(A) Applied Provisions. The provisions of 680.21(A), 680.23(B)(3), 680.23(F)(1) and (F)(2), 680.24(F), and 680.25 shall apply.
(B) Supplied by a Flexible Cord. Electrical equipment that is supplied by a flexible cord shall have all exposed non-current-carrying metal parts grounded by an insulated copper equipment grounding conductor that is an integral part of this cord. The equipment grounding conductor shall be connected to an equipment grounding terminal in the supply junction box, transformer enclosure, power supply enclosure, or other enclosure.

680.56 Cord-and-Plug-Connected Equipment.
(A) Ground-Fault Circuit Interrupter. All electrical equipment, including power-supply cords, shall be protected by ground-fault circuit interrupters.
(B) Cord Type. Flexible cord immersed in or exposed to water shall be of a type for extra-hard usage, as designated in Table 400.4, and shall be a listed type with a "W" suffix.
(C) Sealing. The end of the flexible cord jacket and the flexible cord conductor termination within equipment shall be covered with, or encapsulated in, a suitable potting compound to prevent the entry of water into the equipment through the cord or its conductors. In addition, the ground connection within equipment shall be similarly treated to protect such connections from the deteriorating effect of water that may enter into the equipment.
(D) Terminations. Connections with flexible cord shall be permanent, except that grounding-type attachment plugs and receptacles shall be permitted to facilitate removal or disconnection for maintenance, repair, or storage of fixed or stationary equipment not located in any water-containing part of a fountain.

NOTE: For a complete copy of 2011 edition of NEC Article 680 (680.1 through 680.74) please contact:
NFPA
1 Batterymarch Park
Quincy, MA 02169-7471

READ THIS FIRST

"GOOD FAITH INFORMATION" DISCLAIMER NOTICE

ALL DETAILS DEPICTED ON THIS SHEET ARE FURNISHED AS A GENERAL REFERENCE GUIDE ONLY, AS A COURTESY AND IN GOOD FAITH, TO ASSIST THE INSTALLER WITH TYPICAL INSTALLATION METHODS FOR A FOUNTAIN SYSTEM.

ROMAN FOUNTAINS CORPORATION DOES NOT FURNISH ANY COMPONENT ITEM DEPICTED IN ANY DETAIL ON THIS SHEET UNLESS SPECIFICALLY IDENTIFIED WITH A ROMAN FOUNTAINS CORPORATION MODEL NUMBER AND SPECIFICALLY ITEMIZED IN THE FOUNTAIN SYSTEM EQUIPMENT LIST FOUND ON SHEET WFN-2 OF THIS DRAWING SET.

FURTHER, ROMAN FOUNTAINS CORPORATION ASSUMES NO RESPONSIBILITY OR LIABILITY WHATSOEVER FOR THE USE OF THESE DETAILS AND PRODUCTS AND THE INSTALLER IS ADVISED TO REFER TO ARCHITECTS PROJECT SPECIFICATIONS AND PROJECT ENGINEERING DETAILS AND REQUIREMENTS WHICH SHALL TAKE PRECEDENCE OVER ANY DEVICES, INSTALLATION DETAILS, METHODS, OR REQUIREMENTS DEPICTED IN THESE GENERAL GUIDELINES.

INSTALLER IS RESPONSIBLE FOR ANY AND ALL "CODE AND STANDARD" REQUIREMENTS PERTAINING TO THE INSTALLATION OF ANY AND ALL EQUIPMENT REQUIRED FOR A COMPLETE AND ACCEPTABLE INSTALLATION, WHETHER INDICATED IN THESE GENERAL GUIDELINES OR NOT.

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Scale:	None
Drawn By:	J. Dennison
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Date:	01-08-2016

Revisions:

No.	Date	By	Comments
01	02-08-16	JD	LIGHTS & SURROUND
02	02-22-16	MP	RWS-150-S, EDIT

TYPICAL ELECTRICAL DETAILS & ARTICLE 680 NEC REQUIREMENTS

Drawing Number:

WFI-1

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FOUNTAIN DETAILS

DOWNTOWN STREETSCAPE - PHASE 1

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CITY OF VERONA, DANE COUNTY, WISCONSIN

BIDDING DOCUMENTS

DATE: AUGUST 4, 2016
REVISED: REV # DR #

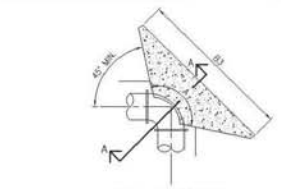
DRAWN BY: MS

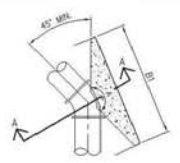
FN: 14-01-101

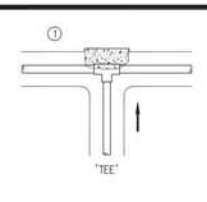
Sheet Number:

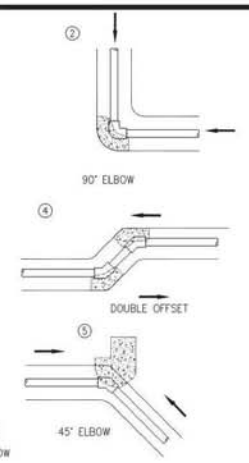
38

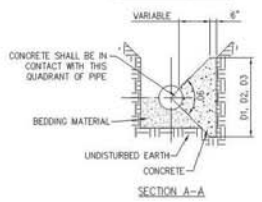
File: U:\User\1401101\DWG\Phase 1 Fountain.dwg 38 Plotted: Aug 06, 2016 - 1:49am

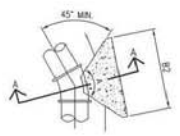












NOTE:
1. SHAPE OF BACK OF BUTTRESS MAY VARY AS LONG AS POUR IS AGAINST FIRM UNDISTURBED EARTH.
2. DIMENSION "A" SHOULD BE AS LARGE AS POSSIBLE.
3. PLAN FOR 45°-90° BENDS & SECTION A–A SHALL APPLY TO TEES.

BUTTRESS DIMENSIONS						
PIPE SIZE	22 1/2° BEND		45° BEND		90° BEND	
	B1	D1	B2	D2	B3	D3
4"	1'-5"	1'-5"	1'-5"	1'-5"	2'-1"	1'-6"
6"	1'-5"	1'-5"	1'-5"	1'-5"	2'-1"	1'-6"
8"	1'-5"	1'-5"	2'-1"	1'-6"	2'-8"	2'-0"
10"	1'-8"	1'-8"	2'-11"	1'-10"	4'-0"	2'-4"
12"	1'-10"	1'-10"	3'-4"	2'-0"	4'-9"	2'-6"
16"	3'-0"	2'-0"	3'-10"	3'-0"	5'-2"	3'-6"
18"	3'-3"	2'-4"	4'-6"	3'-4"	6'-7"	4'-0"
20"	3'-6"	2'-8"	5'-6"	3'-4"	8'-4"	4'-0"
24"	4'-4"	3'-0"	6'-10"	3'-10"	9'-8"	5'-0"

PROVIDE AT BURIED WATER SERVICE PIPING BENDS

WATER HAMMER:
FOUNTAIN PIPING SYSTEMS SHOULD BE DESIGNED AND CONSTRUCTED TO AVOID EXCESSIVE WATER HAMMER. WATER HAMMER CAN CAUSE DAMAGE AND FAILURE TO PIPES, VALVES AND FITTINGS WITHIN THE PIPING SYSTEM.

THIS IS A GENERAL GUIDELINE ONLY. CONTACT PROJECT ENGINEER FOR ACTUAL THRUST BLOCKING SPECIFICATIONS AND INSTRUCTIONS FOR THIS PROJECT.

1. THRU LINE CONNECTION, TEE
2. DIRECTION CHANGE, 90° ELBOW
3. CROSS AND REDUCER
4. DIRECTION CHANGE–OFFSET
5. DIRECTION CHANGE–45° ELBOW

INDICATES FLOW DIRECTION

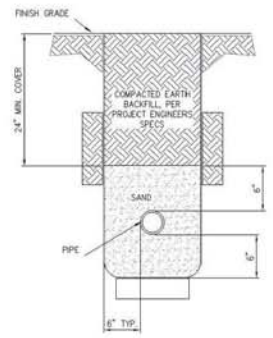
THRUST BLOCKING:
WATER UNDER PRESSURE EXERTS THRUST FORCES IN PIPING SYSTEMS. THRUST BLOCKING SHOULD BE PROVIDED, AS NECESSARY AND REQUIRED BY PROJECT ENGINEER, TO PREVENT MOVEMENT OF PIPE OR APPURTENANCES IN RESPONSE TO THRUST. THRUST BLOCKING IS RECOMMENDED WHEREVER THE PIPELINE:

* CHANGES DIRECTION (E.G., TEES, BENDS, ELBOWS, AND CROSSES)
* CHANGES SIZE AT REDUCERS/INCREASERS/BUSHINGS
* STOPS AS IT DEAD ENDS

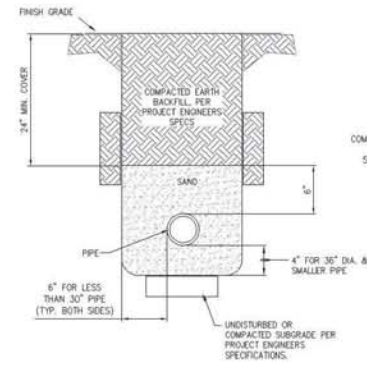
SIZE AND TYPE OF THRUST BLOCKING DEPENDS ON:

* MAXIMUM SYSTEM PRESSURE
* PIPE SIZE & PIPE MATERIAL (PVC, COPPER, STEEL, ETC.)
* APPURTENANCE SIZE
* TYPE OF FITTINGS OR METHODS USED TO CONNECT/JOIN PIPING
* LINE PROFILE (HORIZONTAL OR VERTICAL BENDS)
* SOIL TYPE

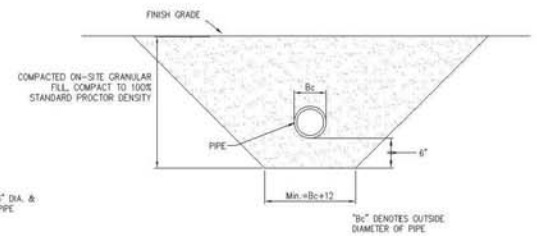
TYPICAL "THRUST BLOCKING" FOR FOUNTAIN SYSTEM PIPING
SCALE: NONE



3" & SMALLER PIPE-TRENCH DETAIL
SCALE: NONE



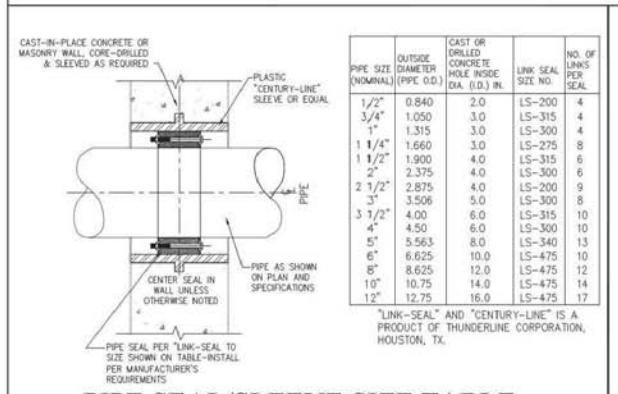
4" & LARGER PIPE-TRENCH DETAIL
SCALE: NONE



ALTERNATE PIPE TRENCH DETAIL
SCALE: NONE

PIPING INSTALLATION NOTE:
ALL PIPING RELATED TO THE INSTALLATION OF THE FOUNTAIN SYSTEM(S) SHALL BE INSTALLED IN PARALLEL RUNS WITH ADEQUATE SPACE AND PROPER SUPPORT AND BACKFILL OVER, UNDER AND BETWEEN PIPE RUNS. PIPING SHALL NOT CRISS-CROSS AND SHALL NOT BE BUNDLED OR STACKED TOGETHER, OR MAKE CONTACT WITH ADJACENT PIPING. ELECTRICAL CONDUITS SHALL NOT BE RUN IN SAME TRENCH AS FOUNTAIN PIPING. PROJECT CIVIL ENGINEER IS RESPONSIBLE FOR, AND SHALL HAVE FINAL AUTHORITY OVER ALL PIPE INSTALLATION MEANS METHODS AND PRACTICES, INCLUDING PROPER BURIAL DEPTHS FOR THE PROJECT LOCATION.

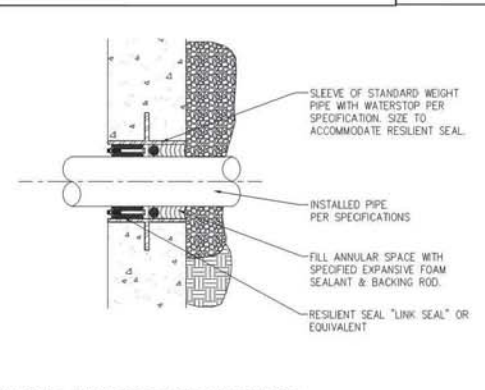
TYPICAL "TRENCH & BACKFILL" DETAILS FOR FOUNTAIN SYSTEM PIPING
SCALE: NONE



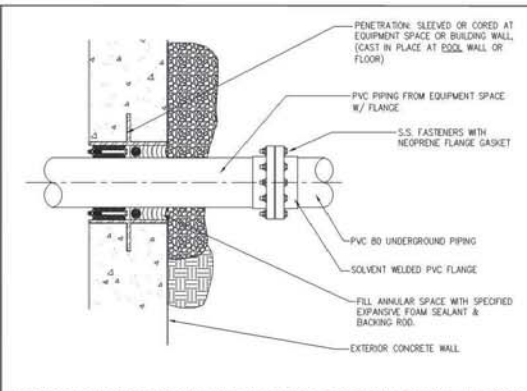
PIPE SIZE (NOMINAL)	OUTSIDE DIAMETER (PIPE O.D.)	CAST OR DRILLED CONCRETE HOLE INSIDE DIA. (I.D.) IN.	LINK SEAL SIZE NO.	NO. OF LINKS PER SEAL
1/2"	0.840	2.0	LS–200	4
3/4"	1.050	3.0	LS–315	4
1"	1.315	3.0	LS–300	4
1 1/4"	1.660	3.0	LS–275	8
1 1/2"	1.900	4.0	LS–315	6
2"	2.375	4.0	LS–300	6
2 1/2"	2.875	4.0	LS–200	9
3"	3.506	5.0	LS–300	8
3 1/2"	4.00	6.0	LS–315	10
4"	4.50	6.0	LS–300	10
5"	5.563	8.0	LS–340	13
6"	6.625	10.0	LS–475	10
8"	8.625	12.0	LS–475	12
10"	10.75	14.0	LS–475	14
12"	12.75	16.0	LS–475	17

"LINK-SEAL" AND "CENTURY-LINE" IS A PRODUCT OF THUNDERLINE CORPORATION, HOUSTON, TX.

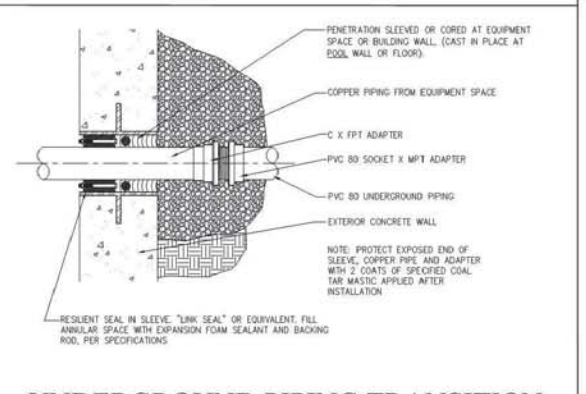
PIPE SEAL/SLEEVE SIZE TABLE
SCALE: NONE INSTALLATION DETAIL (TYP.)



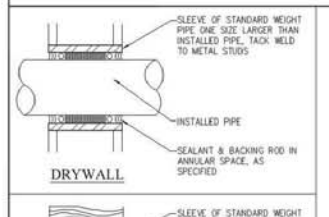
PENETRATION, SLEEVED (EXTERIOR WALL)
SCALE: NONE INSTALLATION DETAIL (TYP.)



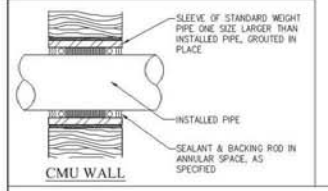
UNDERGROUND PVC PIPING TRANSITION
SCALE: NONE INSTALLATION DETAIL (TYP.) (EXTERIOR WALL)



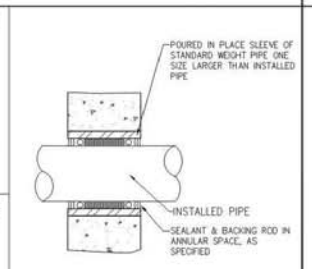
UNDERGROUND PIPING TRANSITION
SCALE: NONE INSTALLATION DETAIL (TYP.)(THREADED)



DRYWALL

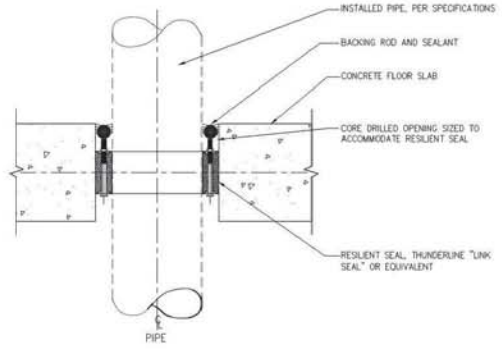


CMU WALL

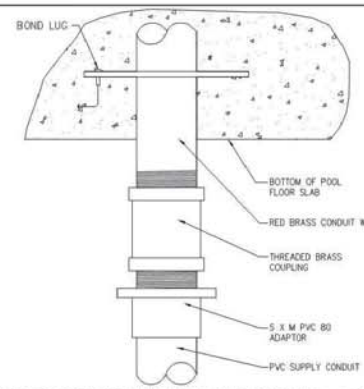


CONCRETE WALL

PENETRATION, SLEEVED (INTERIOR WALL OR FLOOR)
SCALE: NONE INSTALLATION DETAIL (TYP.)



PENETRATION, CORE DRILLED
SCALE: NONE INSTALLATION DETAIL (TYP.)



CONDUIT WATER STOP TRANSITION
SCALE: NONE INSTALLATION DETAIL (TYP.)

READ THIS FIRST

"GOOD FAITH INFORMATION" DISCLAIMER NOTICE

ALL DETAILS DEPICTED ON THIS SHEET ARE FURNISHED AS A GENERAL REFERENCE GUIDE ONLY, AS A COURTESY AND IN GOOD FAITH, TO ASSIST THE INSTALLER WITH TYPICAL INSTALLATION METHODS FOR A FOUNTAIN SYSTEM.

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FURTHER, ROMAN FOUNTAINS CORPORATION ASSUMES NO RESPONSIBILITY OR LIABILITY WHATSOEVER FOR THE USE OF THESE DETAILS AND PRODUCTS AND THE INSTALLER IS ADVISED TO REFER TO ARCHITECTS PROJECT SPECIFICATIONS AND PROJECT ENGINEERING DETAILS AND REQUIREMENTS WHICH SHALL TAKE PRECEDENCE OVER ANY DEVICES, INSTALLATION DETAILS, METHODS, OR REQUIREMENTS DEPICTED IN THESE GENERAL GUIDELINES.

INSTALLER IS RESPONSIBLE FOR ANY AND ALL "CODE AND STANDARD" REQUIREMENTS PERTAINING TO THE INSTALLATION OF ANY AND ALL EQUIPMENT REQUIRED FOR A COMPLETE AND ACCEPTABLE INSTALLATION, WHETHER INDICATED IN THESE GENERAL GUIDELINES OR NOT.

ROMAN FOUNTAINS

VETERAN'S MEMORIAL
Verona, WI
For Reinders, Inc.
Sussex, WI

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Scale:	None
Drawn By:	J. Dennison
Checked By:	W. Pierce
Date:	01-08-2016

Revisions:

No.	Date	By	Comments
01	02-08-16	JD	LIGHTS & SURROUND
02	02-22-16	WP	RWS-150-S, EDIT

TYPICAL PIPING AND PENETRATION DETAILS

Drawing Number:
WFI-2

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7530 Westward Way, Madison, WI 53717
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YOUR NATURAL RESOURCE FOR LAND DEVELOPMENT

FOUNTAIN DETAILS

DOWNTOWN STREETSCAPE - PHASE 1

CITY OF VERONA, DANE COUNTY, WISCONSIN

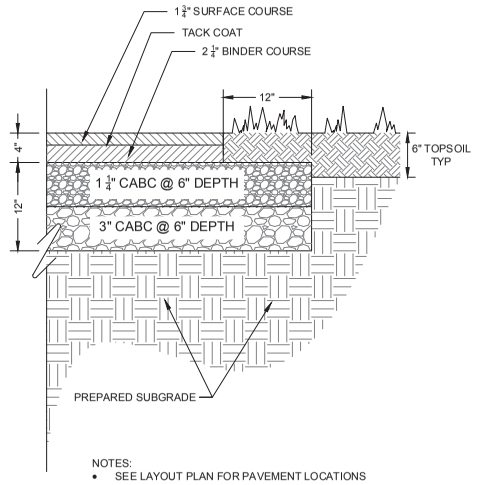
BIDDING DOCUMENTS

DATE: AUGUST 4, 2016
REVISED: REV # DR #

DRAWN BY: MS

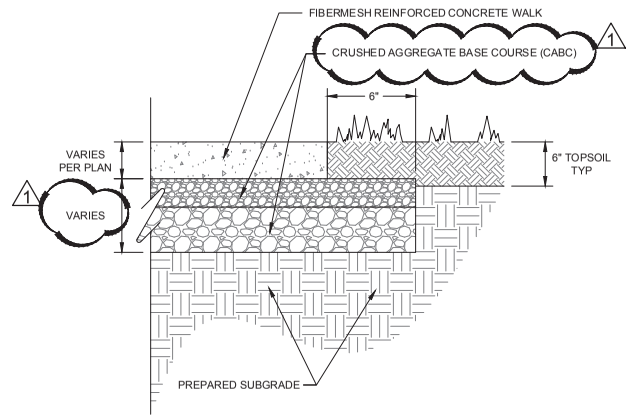
FN: 14-01-101

Sheet Number:
39



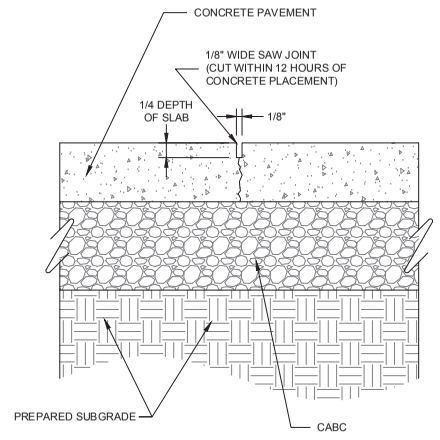
NOTES:
- SEE LAYOUT PLAN FOR PAVEMENT LOCATIONS

4" HOT MIX ASPHALT



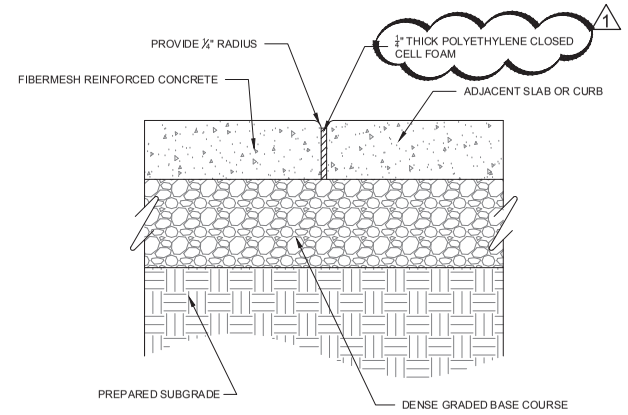
NOTES:
- CONTRACTION JOINTS SHALL BE SPACED NO MORE THAN 10'-0" to 15'-0" O.C.
- CONCRETE PANEL LENGTHS SHALL NOT EXCEED 1.5 TIMES THE CONCRETE PANEL WIDTH

REINFORCED CONCRETE PAVEMENT



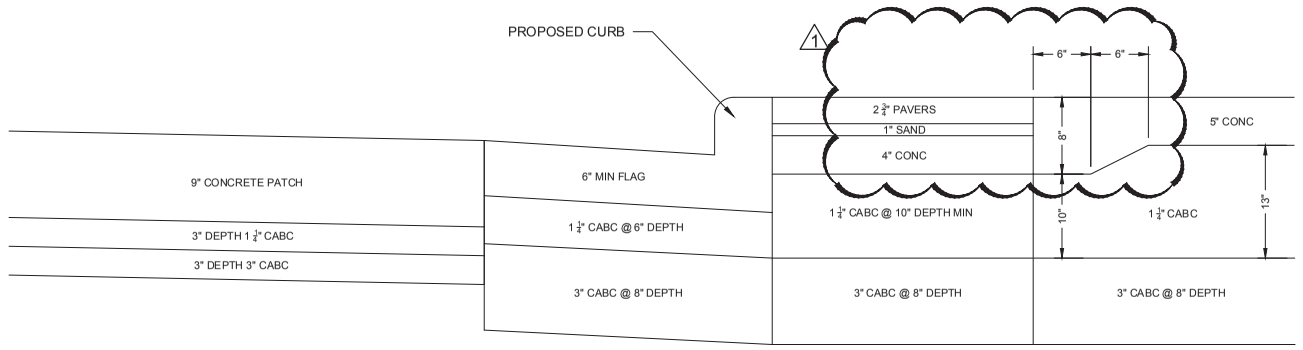
NOTE: CONCRETE JOINTS SHALL BE LOCATED AS INDICATED ON PLANS

CONCRETE CONTRACTION JOINT

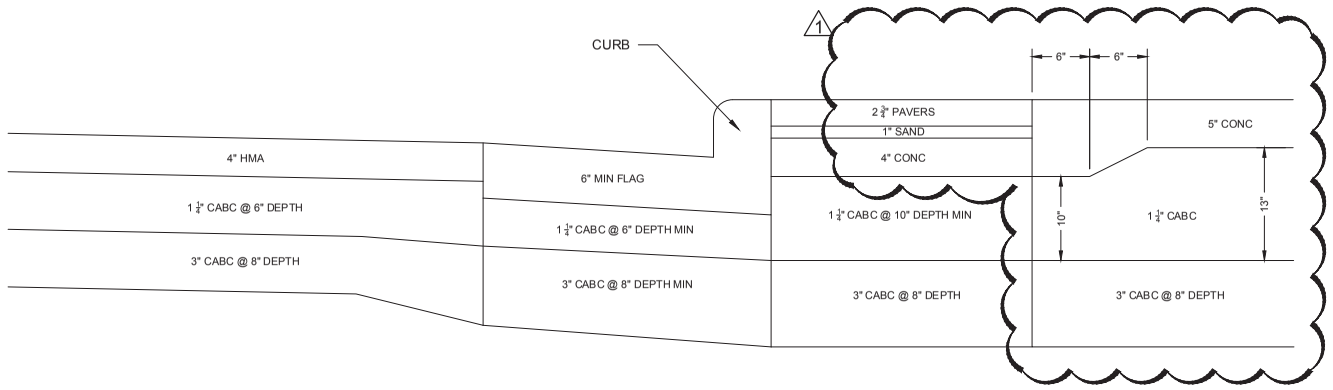


NOTE: CONCRTE JOINTS SHALL BE LOCATED AS INDICATED ON PLANS

CONCRETE ISOLATION JOINT



PAVER TERRACE



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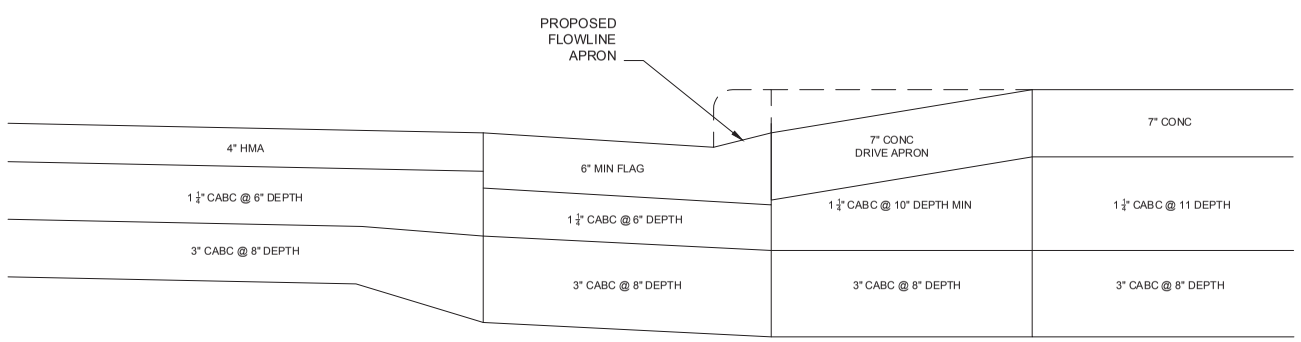
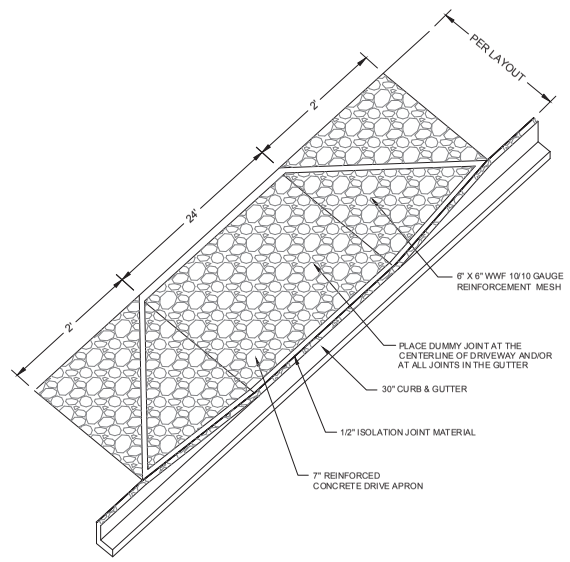
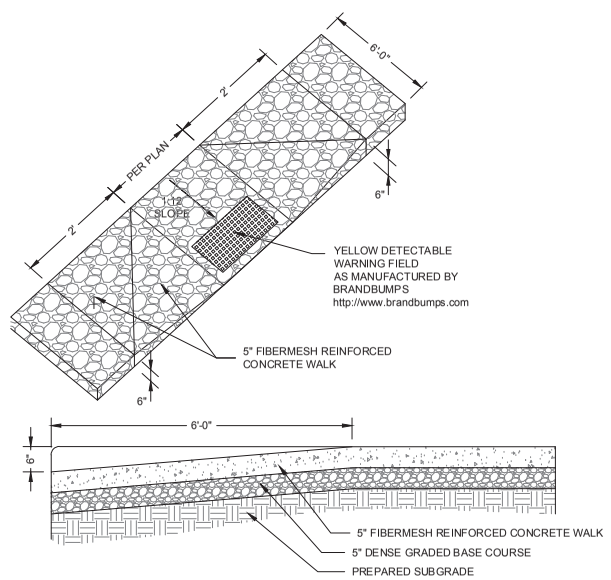


7" DRIVEWAY APRON



CONCRETE DRIVE APRON



HANDICAP ACCESS RAMP

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YOUR NATURAL RESOURCE FOR LAND DEVELOPMENT

DETAILS

DOWNTOWN STREETSCAPE - PHASE 1

--

CITY OF VERONA, DANE COUNTY, WISCONSIN

BIDDING DOCUMENTS

DATE: AUGUST 4, 2016

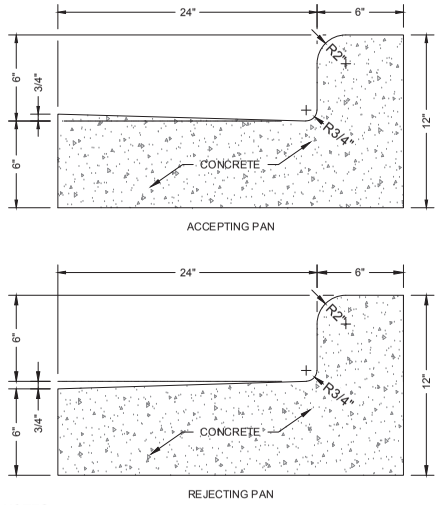
REVISED:

08-10-2016 ADDENDUM 1 ⚠1

DRAWN BY: MS

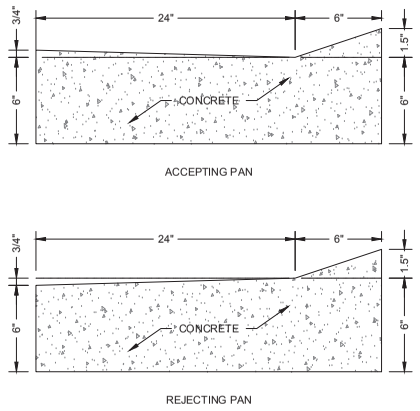
FN: 14-01-101

Sheet Number: 40



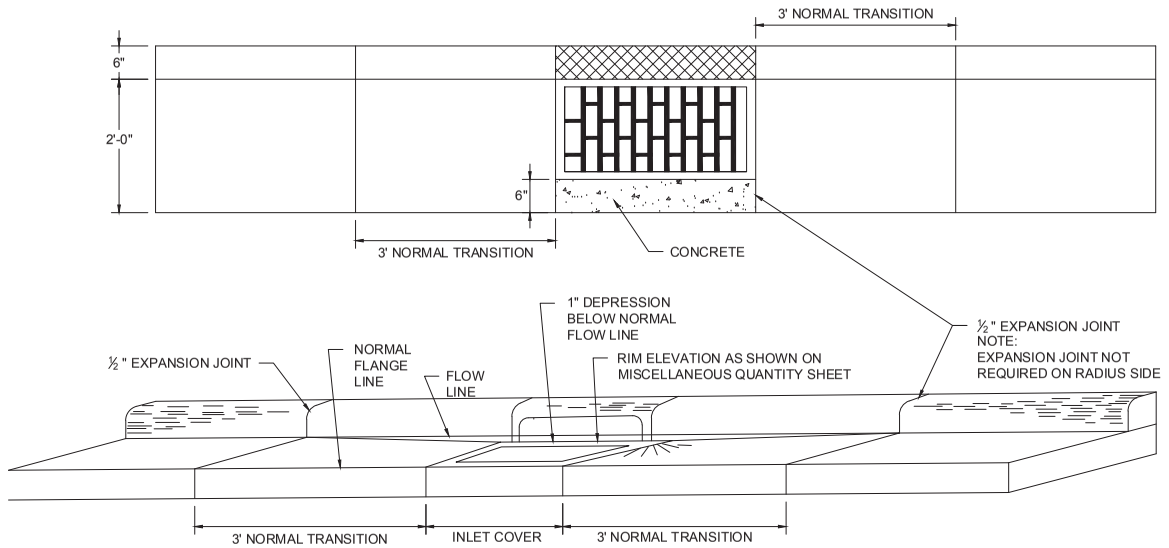
NOTES
- SEE GRADING PLAN FOR USE OF REJECTING VS. ACCEPTING PAN
- FOR CURB & GUTTER IN PUBLIC RIGHT OF WAY ONLY

30" CURB AND GUTTER

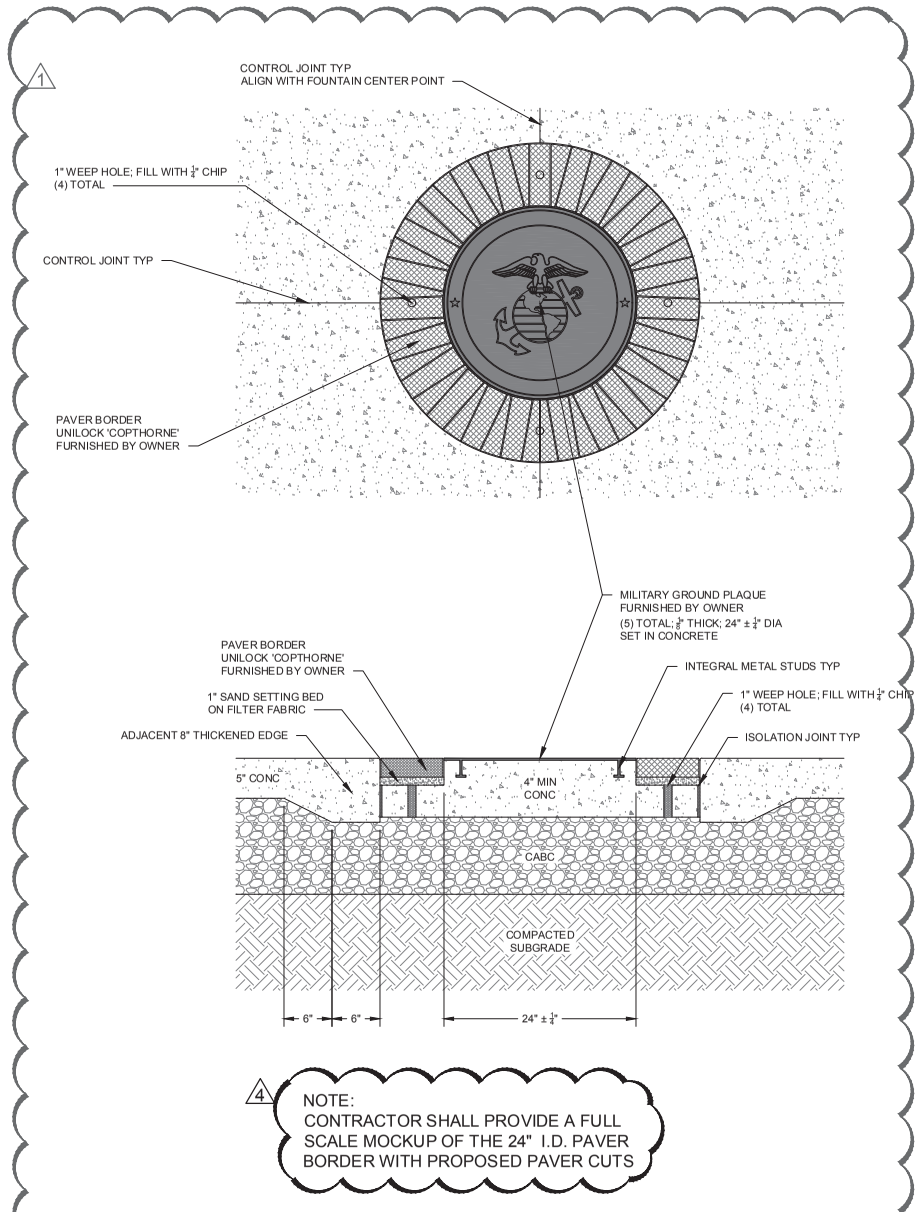


NOTES
- SEE GRADING PLAN FOR USE OF REJECTING VS. ACCEPTING PAN
- FOR CURB & GUTTER IN PUBLIC RIGHT OF WAY ONLY

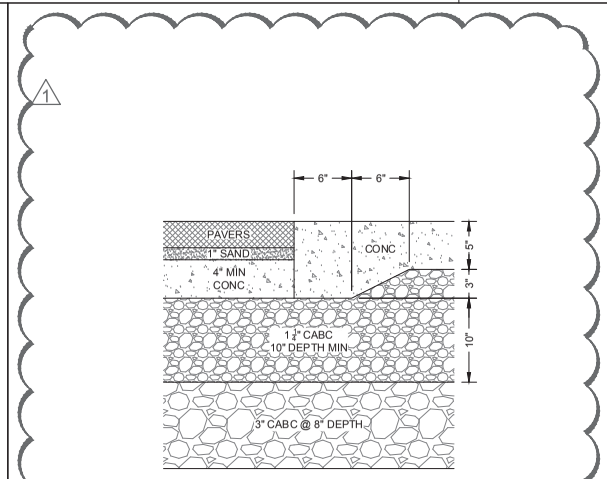
30" FLOWLINE APRON



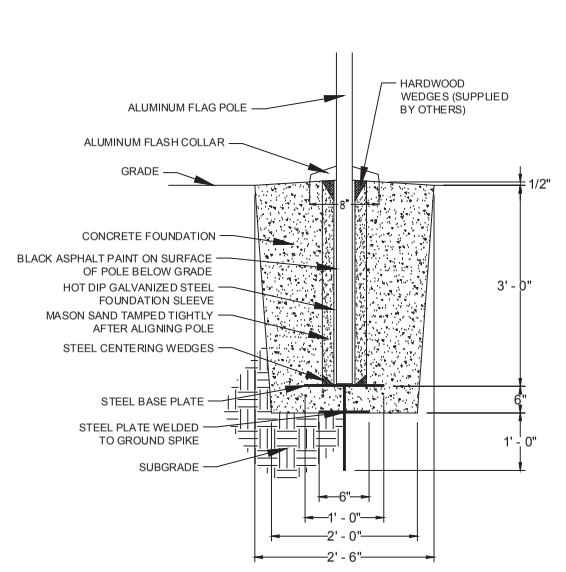
CURB & GUTTER AT CURB INLET



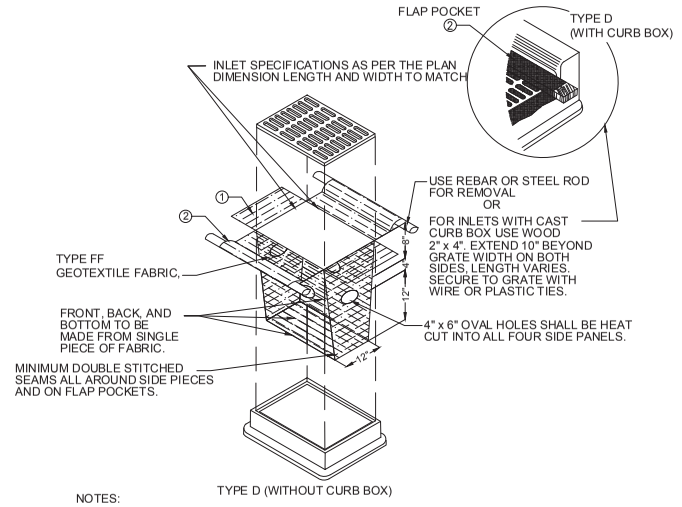
MILITARY GROUND PLAQUE



PAVER TO CONCRETE TRANSITION

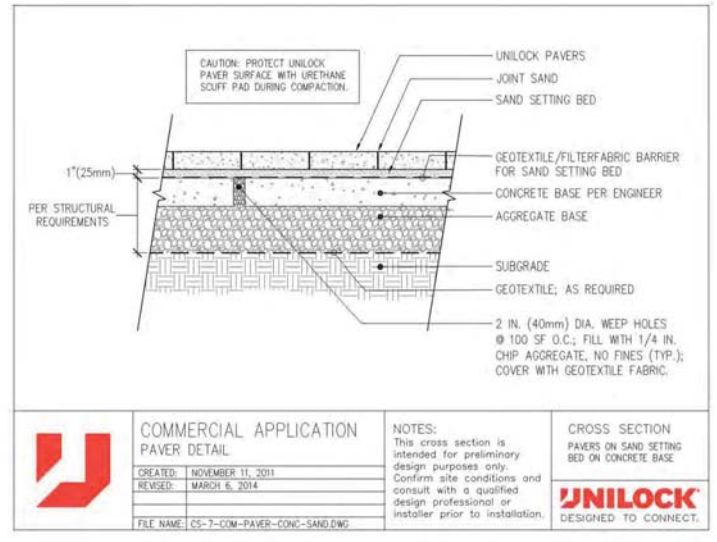


FLAGPOLE FOUNDATION



NOTES:
1. IF DEPTH IS LESS THAN 30" FROM INLET RIM TO CROWN OF PIPE, USE EITHER TYPE B OR TYPE C INLET PROTECTION.
2. FABRIC SIZE SHALL BE 8" (MIN) GREATER ON ALL SIDES OF THE INLET COVER TO PROVIDE A HAND HOLD WHEN MAINTENANCE OR REMOVAL IS REQUIRED.
3. FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.

INLET PROTECTION



PAVERS ON CONCRETE BASE

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DETAILS

DOWNTOWN STREETSCAPE - PHASE 1

CITY OF VERONA, DANE COUNTY, WISCONSIN

BIDDING DOCUMENTS

DATE: AUGUST 4, 2016

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08-10-2016 ADDENDUM 1 1
08-16-2016 ADDENDUM 4 4

DRAWN BY: MS

FN: 14-01-101

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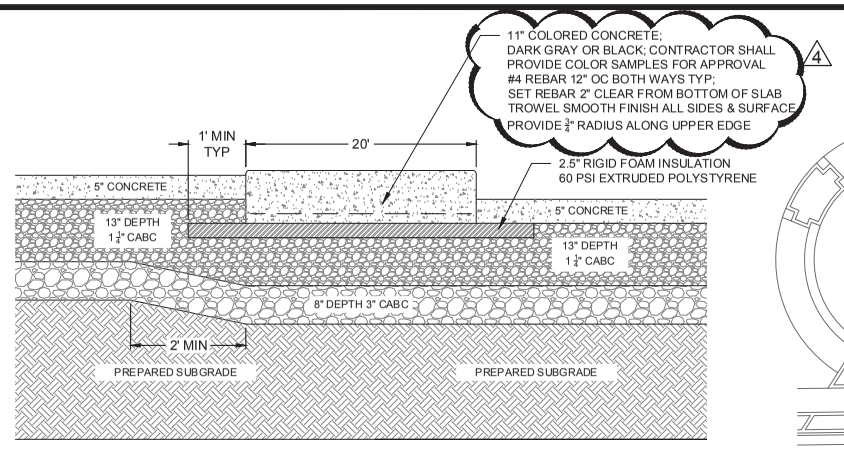
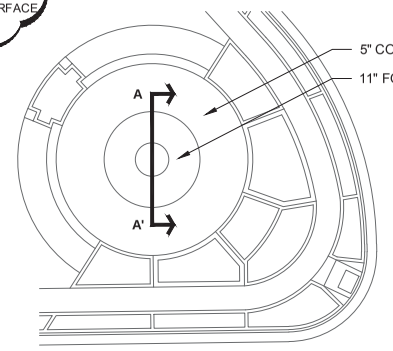
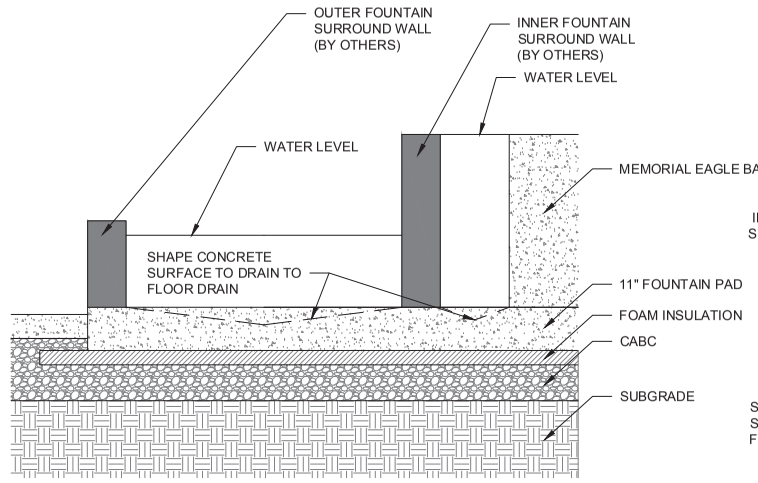


SECTION A-A'

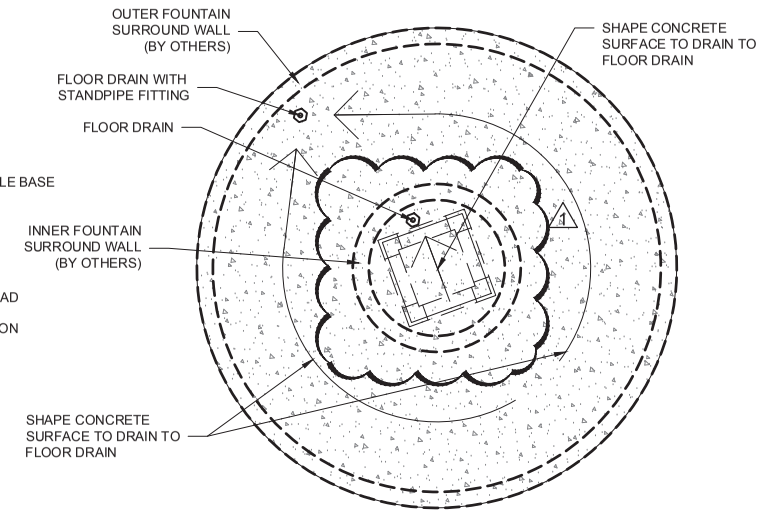


FOUNTAIN AREA PLANVIEW

NOTES:
1. PROVIDE COLORED CONCRETE SUBMITTAL TO PROJECT LANDSCAPE ARCHITECT PRIOR TO CONSTRUCTION



11" CONCRETE FOUNTAIN PAD



FOUNTAIN AREA PLANVIEW

Carved Stone Creations

REFERENCE INFORMATION TAKEN FROM:
http://carvedstonecreations.com/carvedstonecreations.com/blog/how-to-prepare-a-concrete-slab-for-a-fountain-installation.html

HOW TO PREPARE A CONCRETE SLAB FOR A FOUNTAIN INSTALLATION

June 22, 2015 | In Landscaping, Technical, Popular articles | 0 Comments

Thinking about adding a fountain to your garden or yard and wondering what kind of preparation is needed to have one installed?

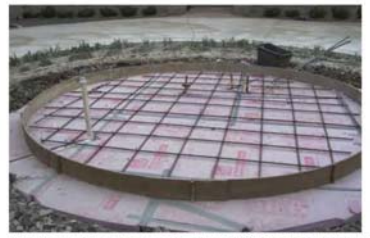
This article shows the process of pouring a concrete slab for a fountain and how to set up access points for water lines and electrical power for the fountain pump and accessories such as lights. It's important that the builder or contractor pouring the concrete for your fountain slab follows these guidelines to insure that the concrete pad is poured properly and up to spec to support the weight of your fountain and that the access points for water lines and electrical power to run your fountain pump and additional lighting are included.

Let's look at preparation for pouring concrete first. Compact the soil and then add a 6" base of compacted gravel as your base. The compacted gravel is important because it drains water quickly and can have a greater load bearing capacity then soil. The Gravel base will have a lesser potential for frost heave then regular soil.

Next apply a 2" barrier of Rigid foam insulation over the gravel. We recommend Owens Corning Foamular 250 Insulation Foam Sheets in 48" x 96" or 108" sizes. The insulation helps to retain heat in the sub-grade soil and protect the slab from moisture beneath it. This helps to prevent frost heave in freezing climates. We recommend that you extend the insulation at least 12" past the edge of the slab. In addition to the insulation benefits, it also creates a convenient means for locating pipes etc. and holding them in place before the concrete is poured.

Finally layout a grid of ½" Rebar with a 12" on center pattern 2" above the foam surface. The rebar adds structural support to the concrete and minimizes the potential for separation and damage from cracking. Here's an example of a typical fountain slab installation before the cement has been poured:

1



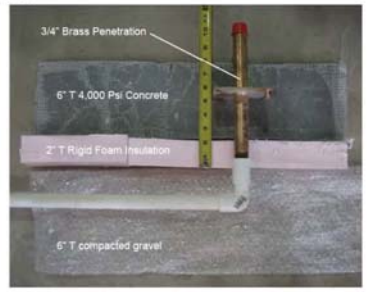
Before the cement is poured you need to add your PVC drain pipe and penetration pipes for running your water lines and electrical power sources for the fountain.

We recommend a 3/4" Brass Penetration like you see in the picture below:

Threaded ends on both sides allow the pvc tubing to be attached to the base and for threaded and glued fittings to connect and seal the wiring at the top. Make sure the penetration is grounded to rebar as well. You can do this by sliding the wire through the brass lock down clamp indicated with the arrow in the picture above, or by bolting the wire with the stainless steel bolt provided.

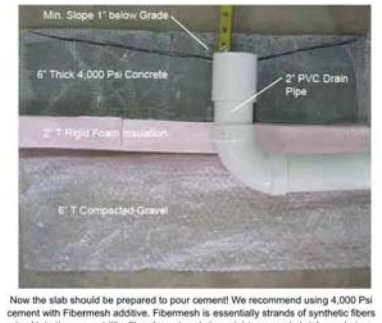
2

In the image below we created a simple diagram of how the penetrations should be installed:



As you can see in the picture, we recommend setting the penetration base plate 2" below the top surface of the concrete. Here's a diagram of how the PVC Drain should be installed:

3



Now the slab should be prepared to pour cement! We recommend using 4,000 Psi cement with Fibermesh additive. Fibermesh is essentially strands of synthetic fibers mixed into the cement (like fiberglass strands in resin) to prevent shrinkage during curing and cracking. Pour the fountain slab to a 6" thickness (more if the diameter is 20' or greater).

Another important design feature to consider is creating a concave depression in the concrete to allow for water to drain properly. We recommend that a horseshoe shaped depression is formed that is at least 1" below grade to allow for drainage like you see in the picture below of a finished fountain slab. This will insure that your fountain drains properly and will not retain stagnant water when it is not in use, or ice over winter.

4

This can be created by attaining a flat surface on the wet cement and then removing cement by shovel until the depression is created and troweling it smooth again.

Once you have the concrete poured and thoroughly set for at least 7 days (concrete takes an average or 21 days to fully cure), seal the edges of the penetrations and the drain with DECK-O-SEAL Sealant.

After we set the curb surround with epoxy we seal the joints with the same DECK-O-SEAL sealant.

5

And there you have it, should your contractor follow these steps you should have a properly prepared concrete slab to install your fountain on. Here's a picture of our crew installing a fountain on the slab you saw above.

We typically include 3 penetrations in the fountain slab to accommodate waterlines from the home or sprinkler system to run an autofill system, a standard high voltage wire to power the fountain pump, and an additional low voltage wire to power fountain lights.

6

Even if you don't desire to add an autofill system or lighting initially, we highly recommend that you have the penetrations included when the slab is poured. It will be much less expensive to have them included at this stage rather than coring out the concrete and adding them at a later date! Here you can see the fountain with the pump and lighting features installed.

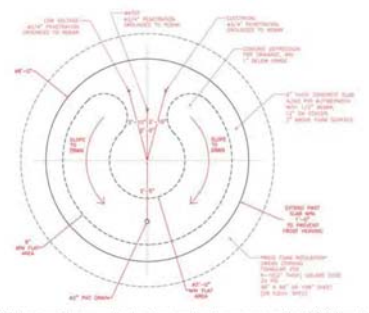
The Autofill system is fed water from the home or a sprinkler system water line and it constantly monitors water levels and automatically ads water as needed. This keeps the water level at an appropriate level and helps to prevent the pump from burning out due to water starvation. The pump itself is run from a standard high voltage wire. We cap the penetration with a threaded and glued fitting and use a power disconnect coupling to supply power to the pump. This way you can simply lift the disconnect out of the water and shut down the pump without having to drain the surround pool to turn it off. For low voltage LED lighting we typically install a junction box on top of the penetration and feed wire from it to the lighting. For Halogen lights a high voltage wire will be needed instead.

Note: Please DO NOT attempt to pour the concrete slab on your own! This should only be done by an experienced builder or contractor. Consult with appropriate trades to make water and electrical connections to the home. If there are potential concerns with the stability of the soil due to water table, etc. then consult with a civil engineer beforehand.

We often work directly with architects and builders on our projects and we supply them with detailed drawings for slab construction like the example you see below. These drawings are also available for the fountains that we have in inventory on our online store as well.

Home Search Request A Quote or Sample My Account Cart (0)

7



Still have questions regarding how to properly set up your concrete slab? Call us at 866-759-1920 or email us for further instruction.

Looking for someone to design and install a fountain for you? Carved Stone Creations is located in Kaukauna, WI and we are a reasonable drive away from many Midwest metro areas including Milwaukee, Madison, Chicago, Indianapolis, Fort Wayne, Minneapolis, St. Paul, Grand Rapids, Ann Arbor, Traverse City, Davenport, Des Moines, St. Louis, Kansas City, Cincinnati, and Columbus.

Visit our showroom to see first hand what we can design for you. Our convenient centralized location also means we can bring all of the tools and heavy equipment we need to tackle any installation job. We understand the affect our harsh Midwest winters can have on exterior stone work and we design and install architectural stonework like fountains, statues, exterior stone veneer, etc with those factors in mind. We'll make sure the stone work we install for you stands up to the weather and the test of time! Outside of the Midwest? We can install there too. We have done work from New York to Florida to California as well.

Follow me on Pinterest

Tags: Design, Installation, fountain

Like 0 Tweet 0 G+0 0

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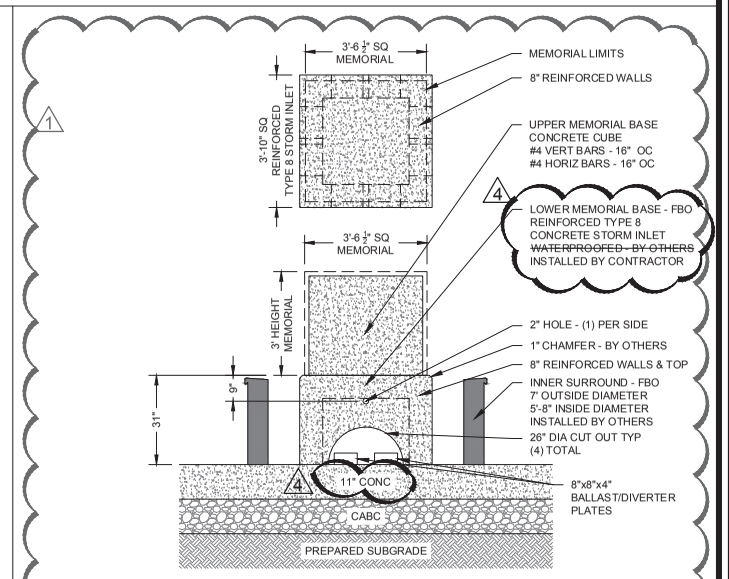
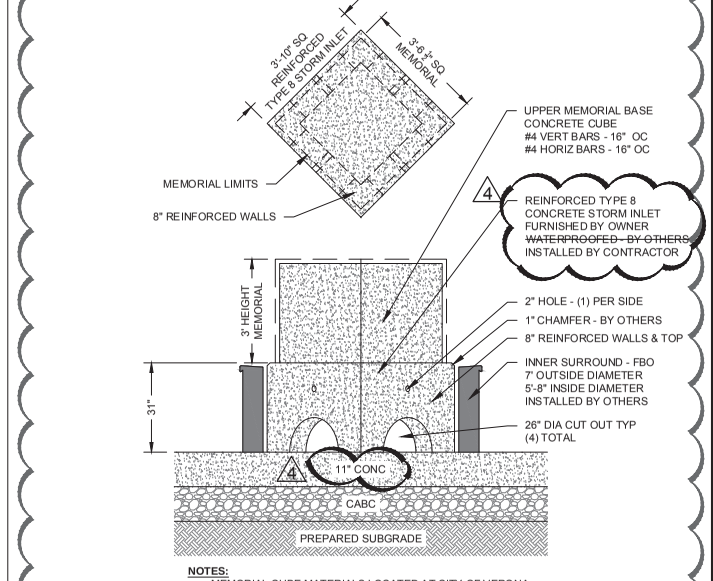
8

CONCRETE FOUNTAIN PAD INFORMATION (FOR REFERENCE ONLY)



NOTES:
- MEMORIAL CUBE MATERIALS LOCATED AT CITY OF VERONA PUBLIC WORKS DEPARTMENT - VERIFY MEMORIAL CUBE DIMENSIONS
- GRIND STORM INLET CONCRETE TO A SMOOTH FINISH PRIOR TO WATER PROOFING APPLICATION

MEMORIAL EAGLE BASE



NOTES:
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MEMORIAL EAGLE BASE

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7530 Westward Way, Madison, WI 53717
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DETAILS

DOWNTOWN STREETSCAPE - PHASE 1

CITY OF VERONA, DANE COUNTY, WISCONSIN

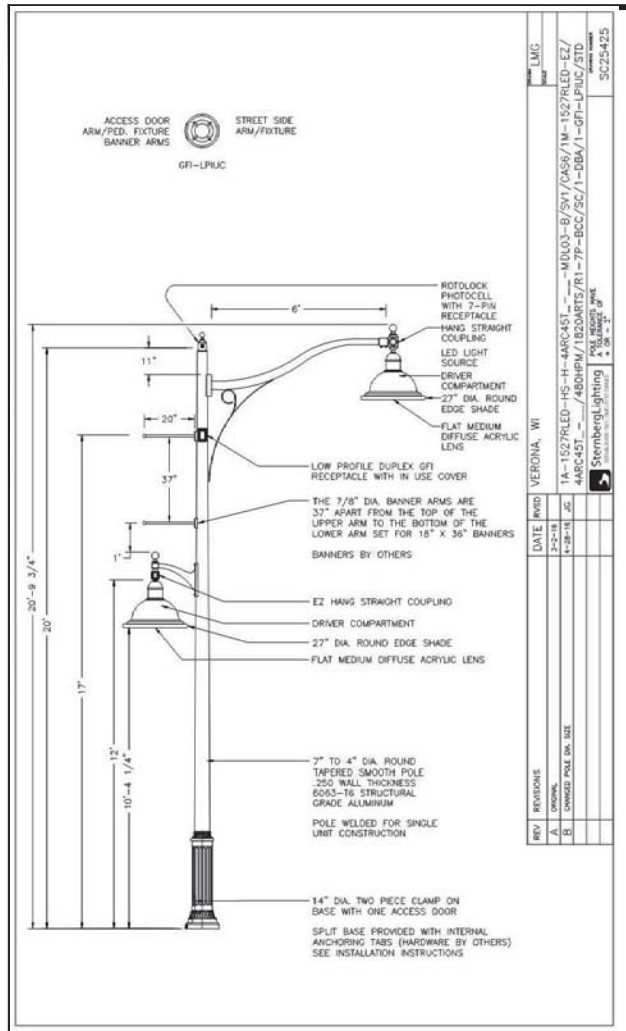
BIDDING DOCUMENTS

DATE: AUGUST 4, 2016
REVISED:
08-10-2016 ADDENDUM 1 1
08-16-2016 ADDENDUM 4 4

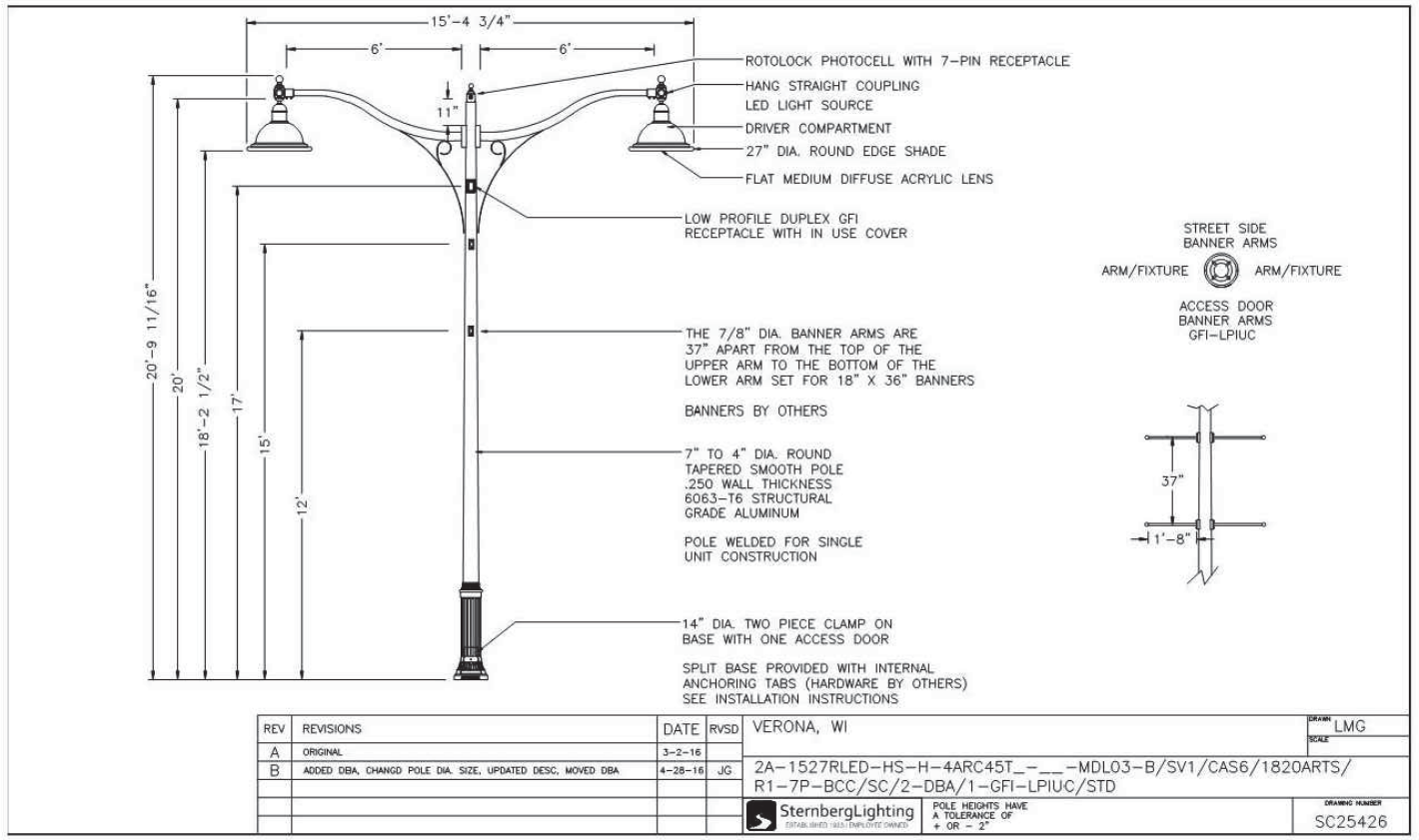
DRAWN BY: MS

FN: 14-01-101

Sheet Number:
42



STREETLIGHTS



REV	REVISIONS	DATE	RVSD
A	ORIGINAL	3–2–16	
B	ADDED DBA, CHANGD POLE DIA. SIZE, UPDATED DESC, MOVED DBA	4–28–16	JG

VERONA, WI — DRAWN: LMG — SCALE:

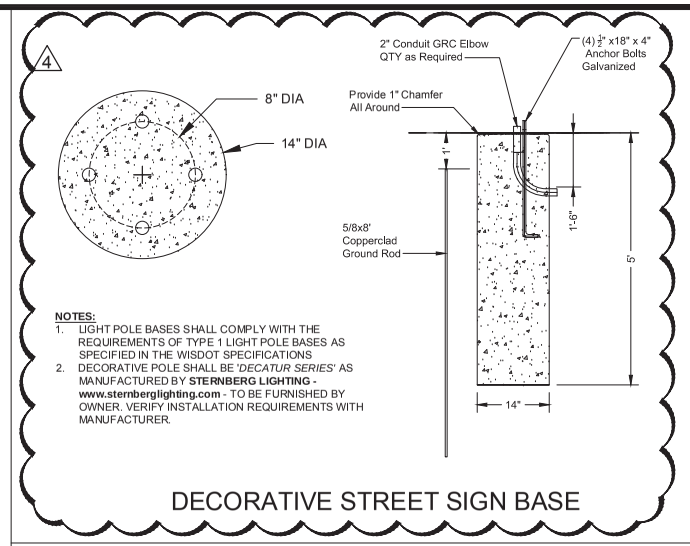
2A–1527RLED–HS–H–4ARC45T_–_–_–MDL03–B/SV1/CAS6/1820ARTS/ R1–7P–BCC/SC/2–DBA/1–GFI–LPIUC/STD

SternbergLighting — ESTABLISHED 1853 / EMPLOYEE OWNED

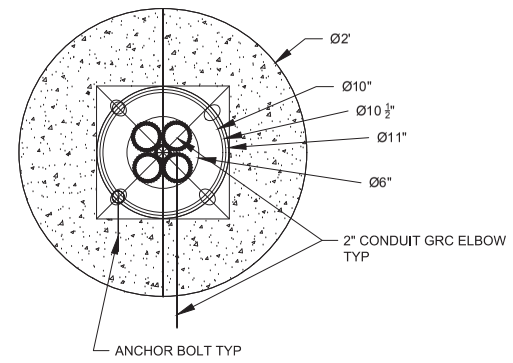
POLE HEIGHTS HAVE A TOLERANCE OF + OR – 2"

DRAWING NUMBER SC25426

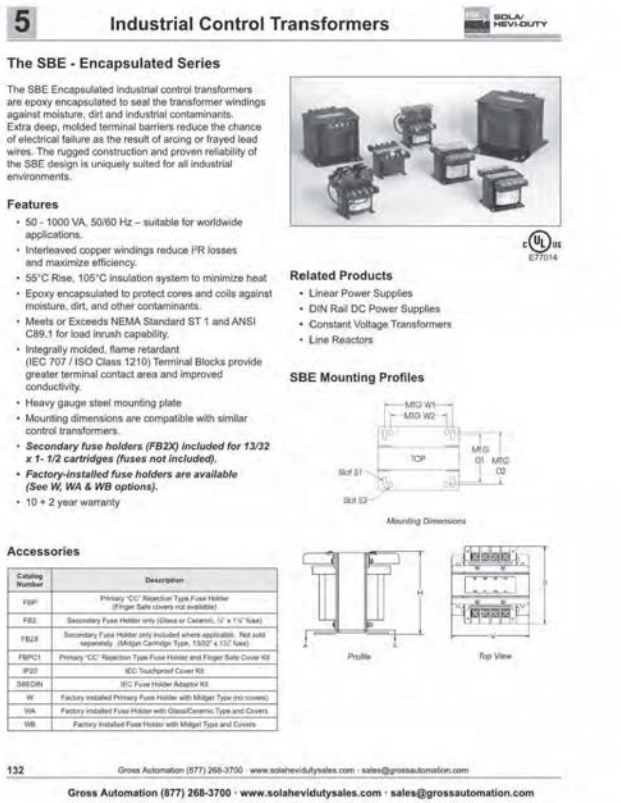
PARKING LOT LIGHTS

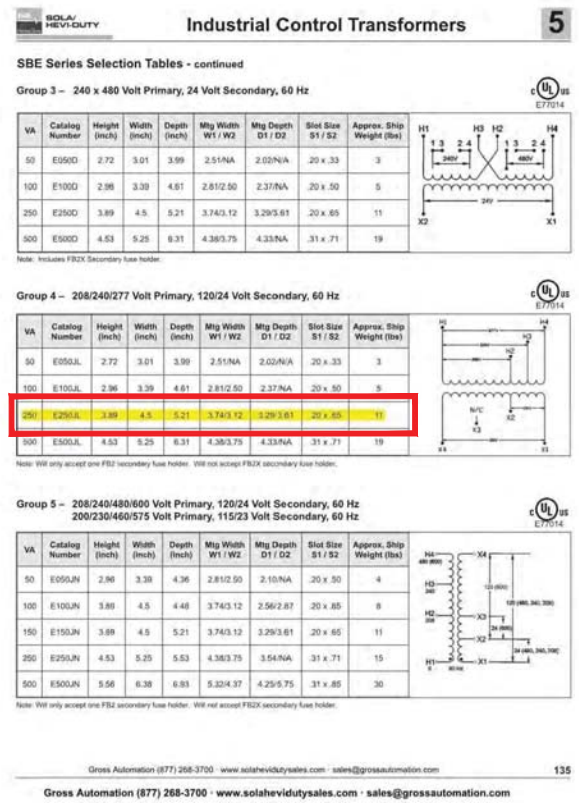


DECORATIVE STREET SIGN BASE

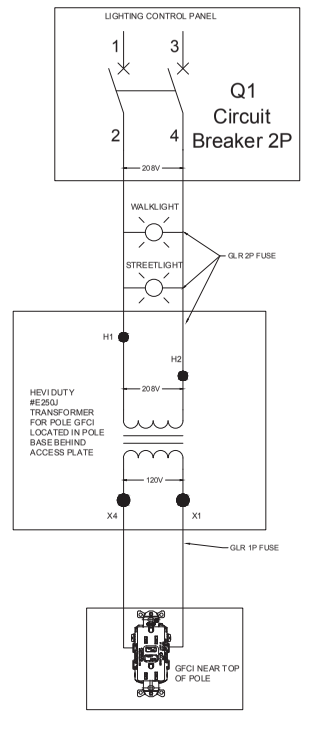


POLE BASE

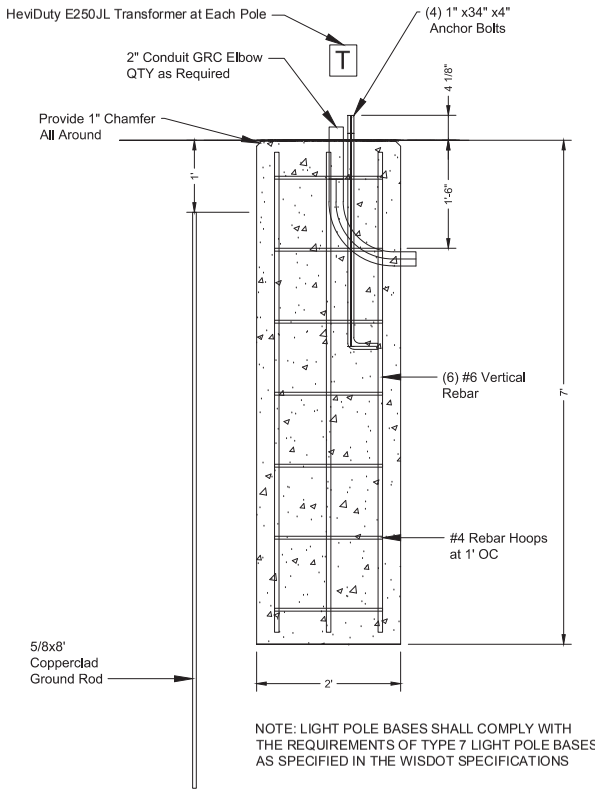




POLE BASE TRANSFORMER



POLE BASE TRANSFORMER



POLE BASE

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REVISED:

08-10-2016 ADDENDUM 1

08-16-2016 ADDENDUM 4

DRAWN BY: MS

FN: 14-01-101

Sheet Number: 43

Quazite

SPECIFICATIONS/DATA

13" x 24" PG Style (Stackable) Assembly

SPECIFICATIONS/DATA

13" x 24" PG Style (Stackable) Assembly

Covers (Blank unless logo is specified)

DESCRIPTION	PART NO.	WEIGHT #	DESIGN/TEST LOAD #	ANSI TIER*
Gasketed Heavy Duty w/2 Bolts	PG1324H300	51 (23 kg)	15,000 / 22,500	15

- Covers with meter lids available upon request. See page 12 or page 56 for meter lid cover load rating explanation.
- Gasketed covers and bolt grommets must be used with a gasketed box. Gaskets reduce the inflow of fluids but do not make the enclosure water tight.

PG Boxes (Stackable with self-aligning, replaceable EZ Nut)

DESCRIPTION	PART NO.	WEIGHT #	DIMENSION A	DIMENSION B	DIMENSION C	DESIGN/TEST LOAD #	ANSI TIER*
Open Bottom	PG1324BA18	72 (33 kg)	18" (457 mm)	16" (406 mm)	1 1/4" (32 mm)	22,500 / 33,750	22

Extensions (For use under box only, one per box.)

DESCRIPTION	PART NO.	WEIGHT #	DIMENSION F	DIMENSION G	DESIGN/TEST LOAD #	ANSI TIER*
Open Bottom	PG1324EA08	25 (11.3 kg)	8 3/4" (222 mm)	1" (25 mm)	22,500 / 33,750	22

ELECTRICAL HAND HOLE / JUNCTION BOX

SPECIFICATIONS

B-K LIGHTING

SUBMITTAL DATE 11-24-14 | DRAWING NUMBER SUB-2137-00

TREE STRAP JUNCTION BOX

Ground Fault Products
Commercial Tamper-Resistant and Weather Resistant GFCI Receptacles

HUBBELL

Features
- Audible SNAP, indicates solid connection
- Patented shutter design for tamper-resistant protection
- Meets NEC requirements for TR (517-18c) and WR (406.9), UV and corrosion resistance for harsh and damp applications
- Patented AUTOGUARD® self test technology
- Protects against line and load reversal, no power to the face or downstream if device is miswired

Ordering Information

Description	Color	UPC	Catalog Number
15A, 125V, Style Line®, hospital grade, SNAPConnect®, AUTOGUARD® self test GFCI receptacle, tamper-resistant and weather resistant, flush face, back and side wired, multiple drive screws	Black	883778600074	GFTWRST15SNAP-BK

Listings
UL Listed - Canadian and U.S.
Meets ADA Standards
Meets all NEC® requirements
CSA Certified
NEMA® WD-6 Compliant

Specifications

Face	Nylon
Base	Nylon
Power Contacts	Brass
Ground Contacts	Brass
Mounting Strap	Zinc plated steel
Mounting Screws	Zinc plated steel

Complementary Products
Wallplates for duplex openings — Solid Right Angle Pigtailed Terminal
SNAP1RA — Stranded Right Angle Pigtailed Terminal

Online Resources
Customer Use Drawing
eCatalog
Installation Instructions

GROUND FAULT CIRCUT INTERRUPTER (GFCI)

1. CONTROL CABINET SIZE: 72" W x 24" D x 72" H
2. CONTROL CABINET SHALL BE PREFBRICATED OFF-SITE & FURNISHED BY OWNER
3. CONTRACTOR TO INSTALL PREFABRICATED CONTROL CABINET ON SITE PER THE ABOVE DETAILS

PREFABRICATED CONTROL CABINET

4

Project : Verona Streetscape — Date : 8/12/2016
Panel : Lighting & Fountain
Location : Outdoor Service Enclosure

Description	OCP AMPS	Poles	#	A		B		C		#	Poles	OCP Amps	Description
Street Lights (6) 1200'	20	2	1	510	510					2	2	20	(5) 1200' Street Lights
	Common Trip		3			510	510			4	Common Trip		
Street Lights (6) 1200'	20	2	5					510	510	6	2	20	(6) 1200' Street Lights
	Common Trip		7	510	510					8	Common Trip		
Street Lights (6) 800'	20	2	9			510	510			10	2	20	(6) 600' Street Lights
	Common Trip		11					510	510	12	Common Trip		
Street Lights (6)	20	2	13	510	510					14	2	20	(6) Street Lights
	Common Trip		15			510	510			16	Common Trip		
Street Lights (7)	20	2	17					510	900	18	1	20	5 - Outlet
	Common Trip		19	510	900					20	1	20	5 - Outlet
Outlet - 4	20	1	21			720	900			22	1	20	5 - Outlet
Outlet - 3	20	1	23					540	1080	24	1	20	6 - Outlet
Outlet - 4	20	1	25	720	510					26	2	20	4 - Lot Light
Outlet - 5	20	1	27				510			28	Common Trip		
Outlet - 5	20	1	29					900	1080	30	1	20	6 - Outlet
Outlet - 5	20	1	31	900	200					32	1	20	Time Clock / Photocell
Fountain Lights	20	1	33			300				34			Space
Flag Pole Lights	20	1	35					600		36			Space
	20	1	37		3217					0	3	50	Fountain Vault
			39				4267			40	Common Trip		
			41						4266	42	Common Trip		
				10017		9757		11916					

Total Panel KVA	31.69
Phase to Phase Voltage	208
Panel Full Load Amperes	87.96522473

PANEL SCHEDULE

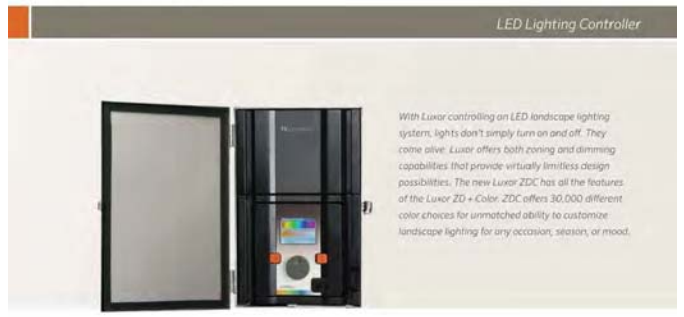
VERONA VETERANS PARK LIGHTING CONTROLLERS

TWO SETS OF 10/2 CABLES TO FEED LANDSCAPE LIGHTING. 11 FIXTURES PER CABLE (22 TOTAL). DISTANCE FROM CONTROLLER TO LAST FIXTURE NOT TO EXCEED 200'.

TWO SETS OF 10/2 CABLES TO FEED SUBMERSIBLE FOUNTAIN LIGHTS. NINE & TEN FIXTURES PER CABLE (19 TOTAL). DISTANCE FROM CONTROLLER TO LAST FIXTURE NOT TO EXCEED 200'.

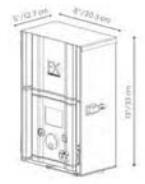
TWO SETS OF 10/2 CABLES TO FEED FLAGPOLE LIGHTING. SIX FIXTURES PER CABLE (12 TOTAL). DISTANCE FROM CONTROLLER TO LAST FIXTURE NOT TO EXCEED 200'.

LOW VOLTAGE LIGHTING CONTROLLER LAYOUT



LUXOR: Lighting Controller

MODELS:	LZD or LZDC
WATTS:	150 or 300 Watt
FINISHES:	Stainless Steel or Matte Gray Powder Coat
DEPTH:	5" / 12.7 cm
WIDTH:	8" / 20.3c m
HEIGHT:	13" / 33 cm



1. LANDSCAPE & FOUNTAIN LIGHTING CONTROLLERS FURNISHED BY OWNER
2. CONTRACTOR TO INSTALL LANDSCAPE & LIGHTING CONTROLLERS INSIDE PREFABRICATED CONTROL CABINET ON SITE

Learn more about FX Luminaire Lighting Controllers. Visit: fxl.com/product-line/power-and-control

LANDSCAPE & FOUNTAIN LIGHTING CONTROLLER

LX: Transformer

MODELS:	150 or 300 Watt
FINISHES:	Stainless Steel or Matte Gray Powder Coat
ACCESSORY:	26' Remote Mount Photocell
DEPTH:	5.04" / 128.02 cm
WIDTH:	7.14" / 181.41 cm
HEIGHT:	11.4" / 289.43 cm

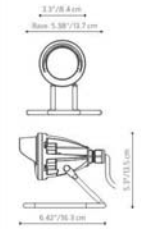
1. FLAGPOLE LIGHTING CONTROLLER FURNISHED BY OWNER
2. CONTRACTOR TO INSTALL FLAGPOLE LIGHTING CONTROLLER INSIDE PREFABRICATED CONTROL CABINET ON SITE

Learn more about FX Luminaire lighting control. Visit: fxl.com 760.744.5240

FLAGPOLE LIGHTING CONTROLLER

LL: Underwater Light

NUMBER OF LEDS:	1	3	6	9
HALOGEN LUMEN OUTPUT EQUIVALENT:	10 Watt	20 Watt	35 Watt	50 Watt
USEFUL LED LIFE (L70):	50,000 hrs avg	50,000 hrs avg	50,000 hrs avg	50,000 hrs avg
INPUT VOLTAGE:	10 to 15V	10 to 15V	10 to 15V	10 to 15V
VA TOTAL: (Use to size the lighting controller)	2.4	4.5	13.5	13.5
WATTS USED:	2.0	4.2	10.1	11.2
LUMENS PER WATT (EFFICACY):	25.4	31	31.8	31.1
MAX LUMENS:	-	133	282	378
CRI (Ra):	68.5	67.9	80.2	67.5



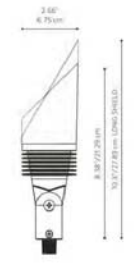
1. UNDERWATER FOUTAIN LIGHT FURNISHED BY OWNER
2. PROJECT LIGHTING DESIGNER TO LAYOUT LIGHT LOCATIONS
3. CONTRACTOR TO INSTALL LIGHTS

Learn more about FX Luminaire underwater lights. Visit: fxl.com 760.744.5240

UNDERWATER FOUNTAIN LIGHTS

NP: Up Light

NUMBER OF LEDS:	1	3	6	9
HALOGEN LUMEN OUTPUT EQUIVALENT:	10 Watt	20 Watt	35 Watt	50 Watt
USEFUL LED LIFE (L70):	50,000 hrs avg	50,000 hrs avg	50,000 hrs avg	50,000 hrs avg
INPUT VOLTAGE:	10 to 15V	10 to 15V	10 to 15V	10 to 15V
VA TOTAL: (Use this number to size the transformer)	2.4	4.5	13.5	13.5
WATTS USED:	2.0	4.2	10.1	11.2
LUMENS PER WATT (EFFICACY):	25.4	31	31.8	31.1
MAX LUMENS:	52	135	279	357
CCT (Ra):	68.5	67.9	80.2	67.5



1. GROUND MOUNTED LANDSCAPE LIGHT WITH GROUND MOUNTING HARDWARE FURNISHED BY OWNER
2. PROJECT LIGHTING DESIGNER TO LAYOUT LIGHT LOCATIONS
3. CONTRACTOR TO INSTALL LIGHTS

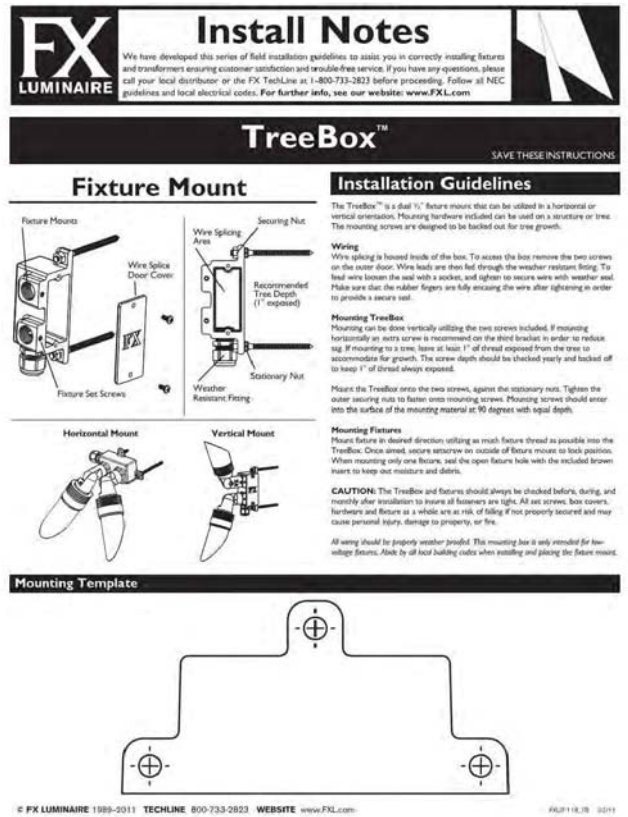
Learn more about FX Luminaire up lights. Visit: fxl.com 760.744.5240

GROUND MOUNTED COLOR LANDSCAPE LIGHTS

1. FLAGEPOLE UPLIGHTS WITH GROUND MOUNTING STAKES & WALL MOUNTED JUNCTION BOXES FURNISHED BY OWNER
2. PROJECT LIGHTING DESIGNER TO LAYOUT LIGHT LOCATIONS
3. CONTRACTOR TO INSTALL LIGHTS

FLAGPOLE UPLIGHTS

1. WALL MOUNTED UPLIGHT JUNCTION BOXES FURNISHED BY OWNER
2. CONTRACTOR TO SUPPLY STAINLESS STEEL WALL ANCHORS



WALL MOUNTED UPLIGHT JUNCTION BOX

1. LOW VOLTAGE WIRE CONNECTORS FURNISHED BY OWNER

LOW VOLTAGE WIRE CONNECTORS

D'ONOFRIO KOTTKE AND ASSOCIATES, INC.
7530 Westward Way, Madison, WI 53717
Phone: 608.833.7530 • Fax: 608.833.1089
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DATE:AUGUST 4, 2016

REVISED:

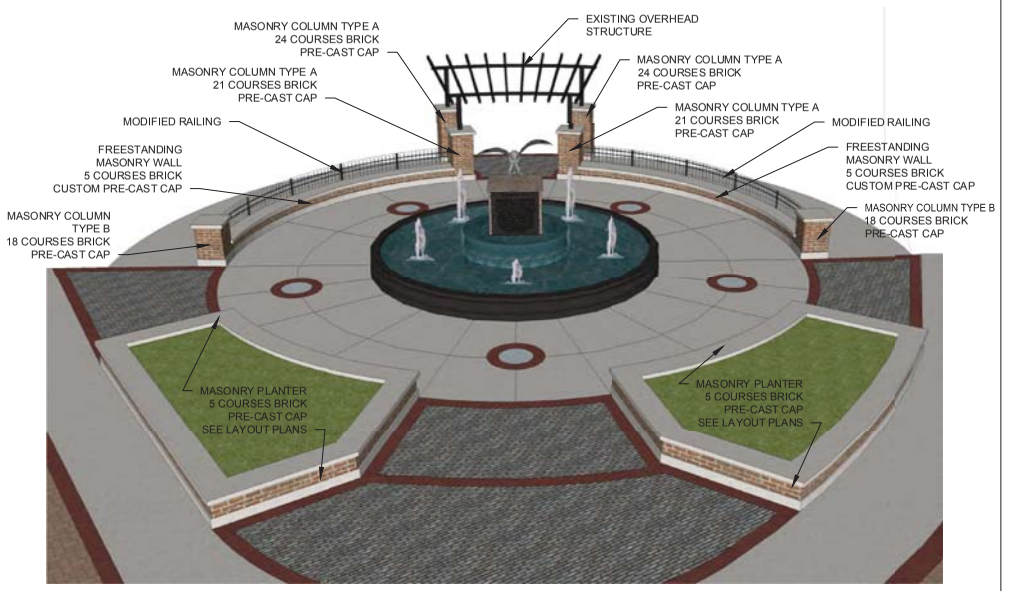
08-10-2016 ADDENDUM 1

DRAWN BY: MS

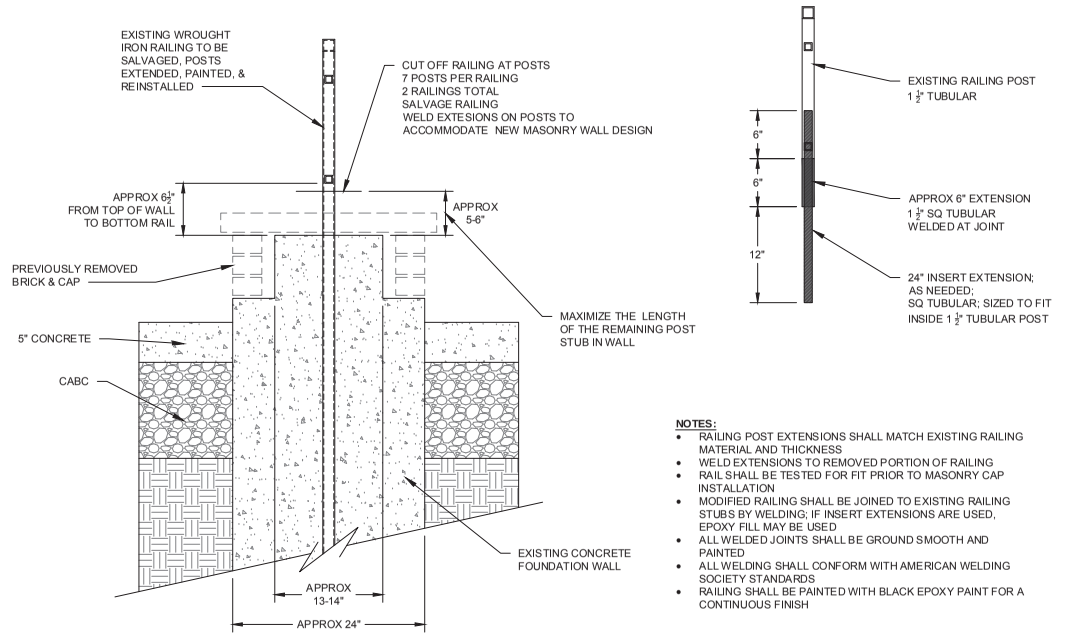
FN: 14-01-101

Sheet Number: 45

File: U:\User\1401101\DWG\Phase 1 Details.dwg 45 Plotted: Aug 10, 2016 - 2:46pm



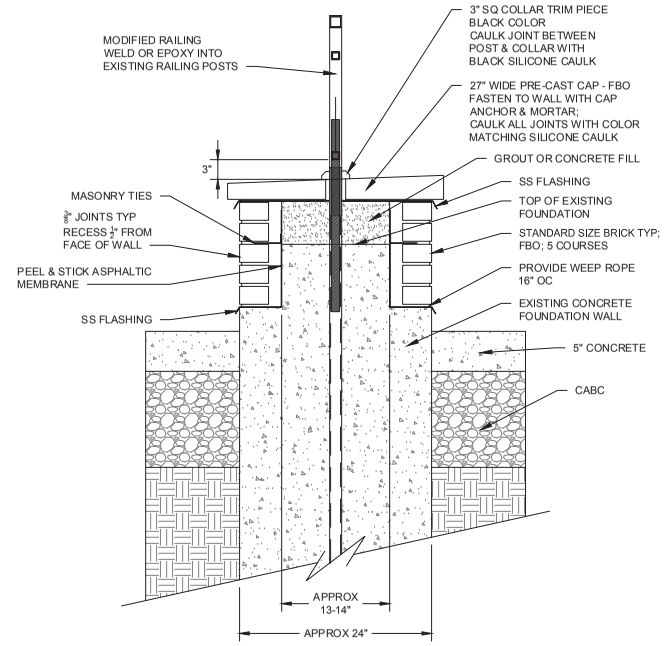
FOUNTAIN AREA MASONRY WALLS & COLUMNS



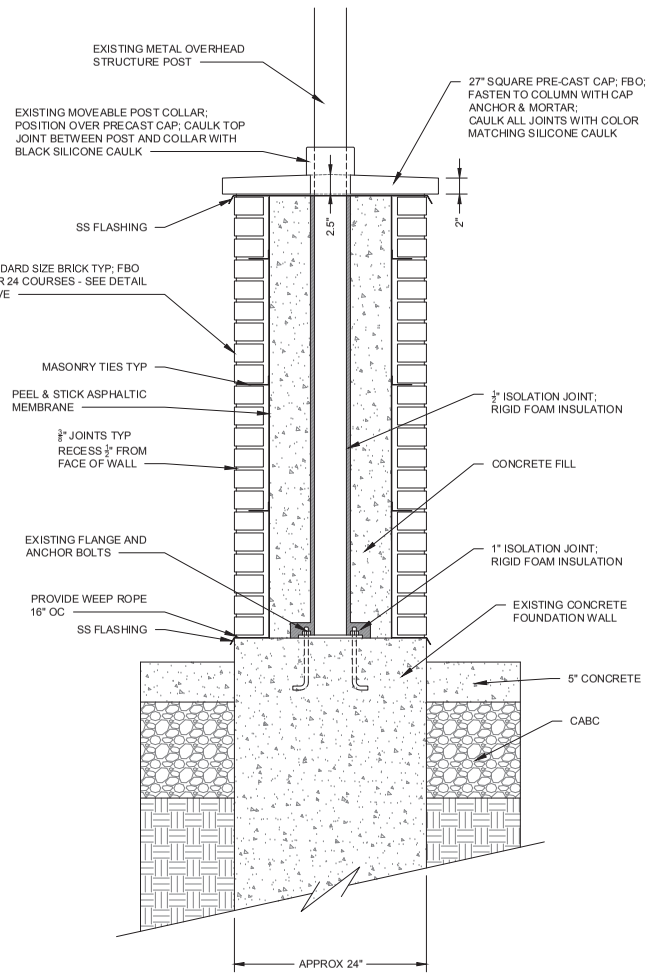
NOTES:

- RAILING POST EXTENSIONS SHALL MATCH EXISTING RAILING MATERIAL AND THICKNESS
- WELD EXTENSIONS TO REMOVED PORTION OF RAILING
- RAIL SHALL BE TESTED FOR FIT PRIOR TO MASONRY CAP INSTALLATION
- MODIFIED RAILING SHALL BE JOINED TO EXISTING RAILING STUBS BY WELDING; IF INSERT EXTENSIONS ARE USED, EPOXY FILL MAY BE USED
- ALL WELDED JOINTS SHALL BE GROUND SMOOTH AND PAINTED
- ALL WELDING SHALL CONFORM WITH AMERICAN WELDING SOCIETY STANDARDS
- RAILING SHALL BE PAINTED WITH BLACK EPOXY PAINT FOR A CONTINUOUS FINISH

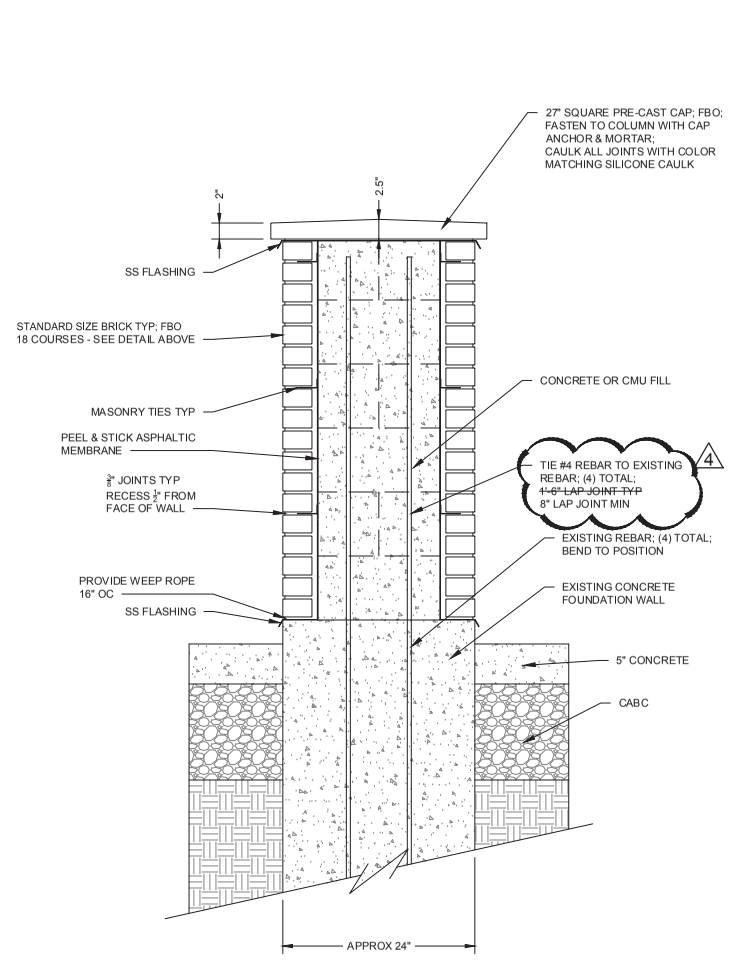
RAILING REMOVAL & MODIFICATIONS



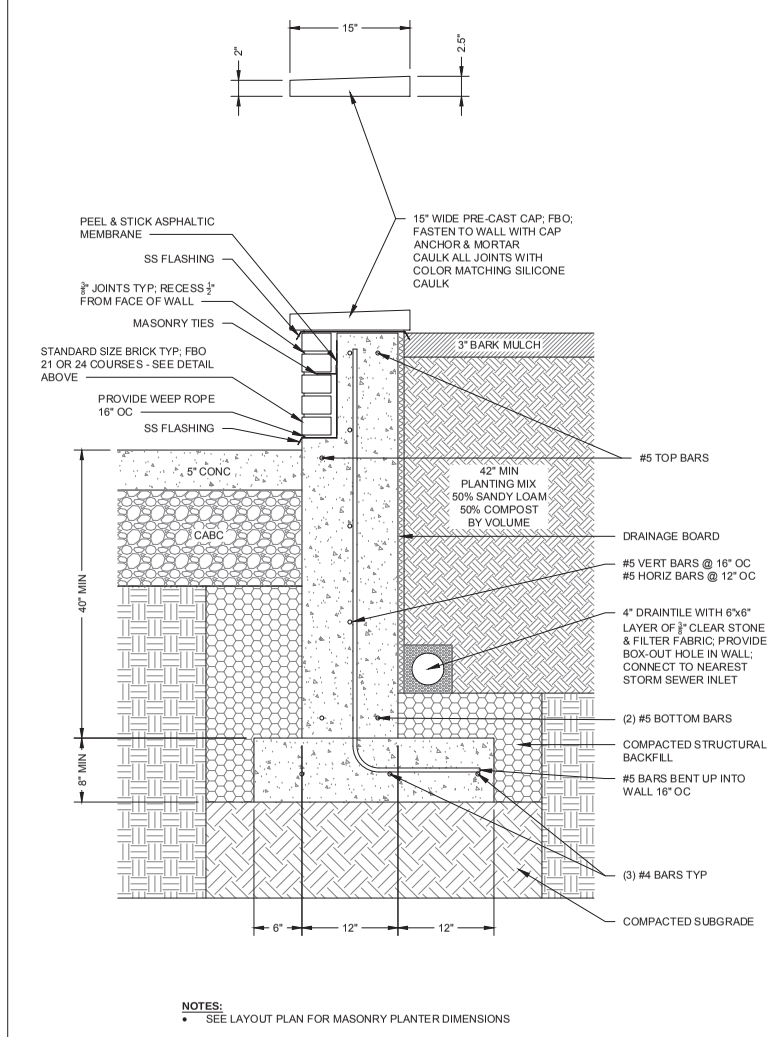
FREESTANDING MASONRY WALL



MASONRY COLUMN TYPE A



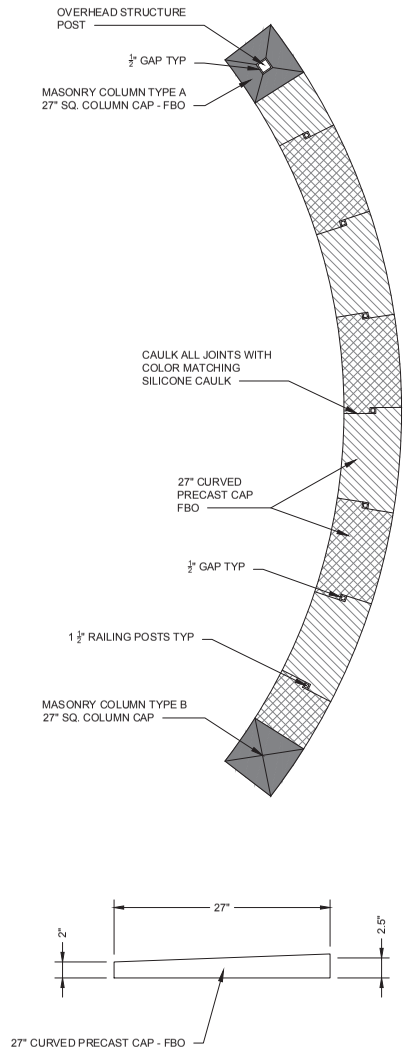
MASONRY COLUMN TYPE B



NOTES:

- SEE LAYOUT PLAN FOR MASONRY PLANTER DIMENSIONS

MASONRY PLANTER WALL



FREESTANDING MASONRY WALL CAP

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7530 Westward Way, Madison, WI 53717
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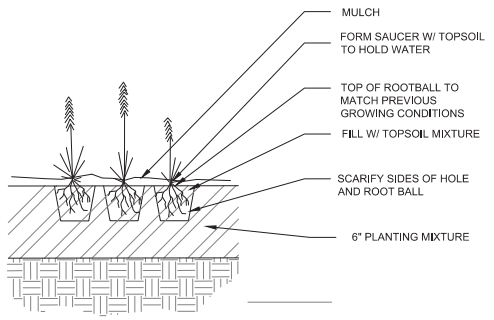
08-10-2016 ADDENDUM 1 (1)

08-16-2016 ADDENDUM 4 (4)

DRAWN BY: MS

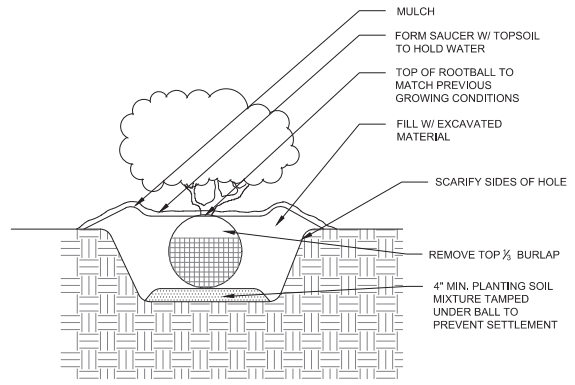
FN: 14-01-101

Sheet Number: 46



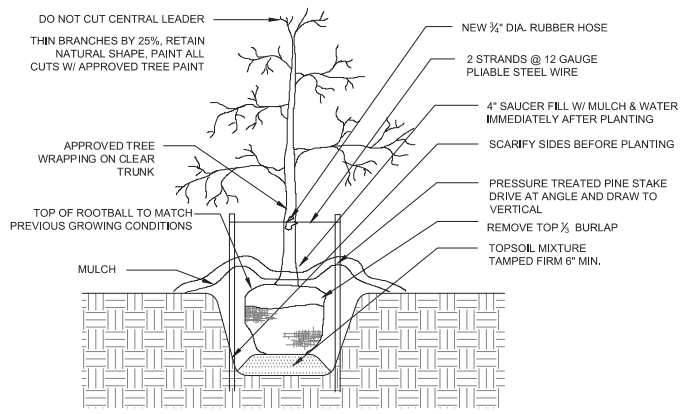
* PERENNIALS OF SAME SPECIES TO BE MATCHED IN GROWTH AND UNIFORMITY
* DO NO PRUNE BEFORE ACCEPTANCE

PERENNIAL PLANTING DETAIL



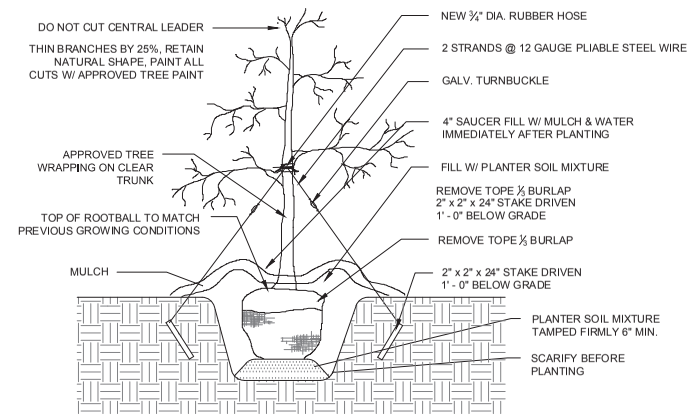
* SHRUBS OF SAMES SPECIES TO BE MATCHED IN GROWTH AND UNIFORMITY.
* DO NOT PRUNE BEFORE ACCEPTANCE.

SHRUB PLANTING DETAIL



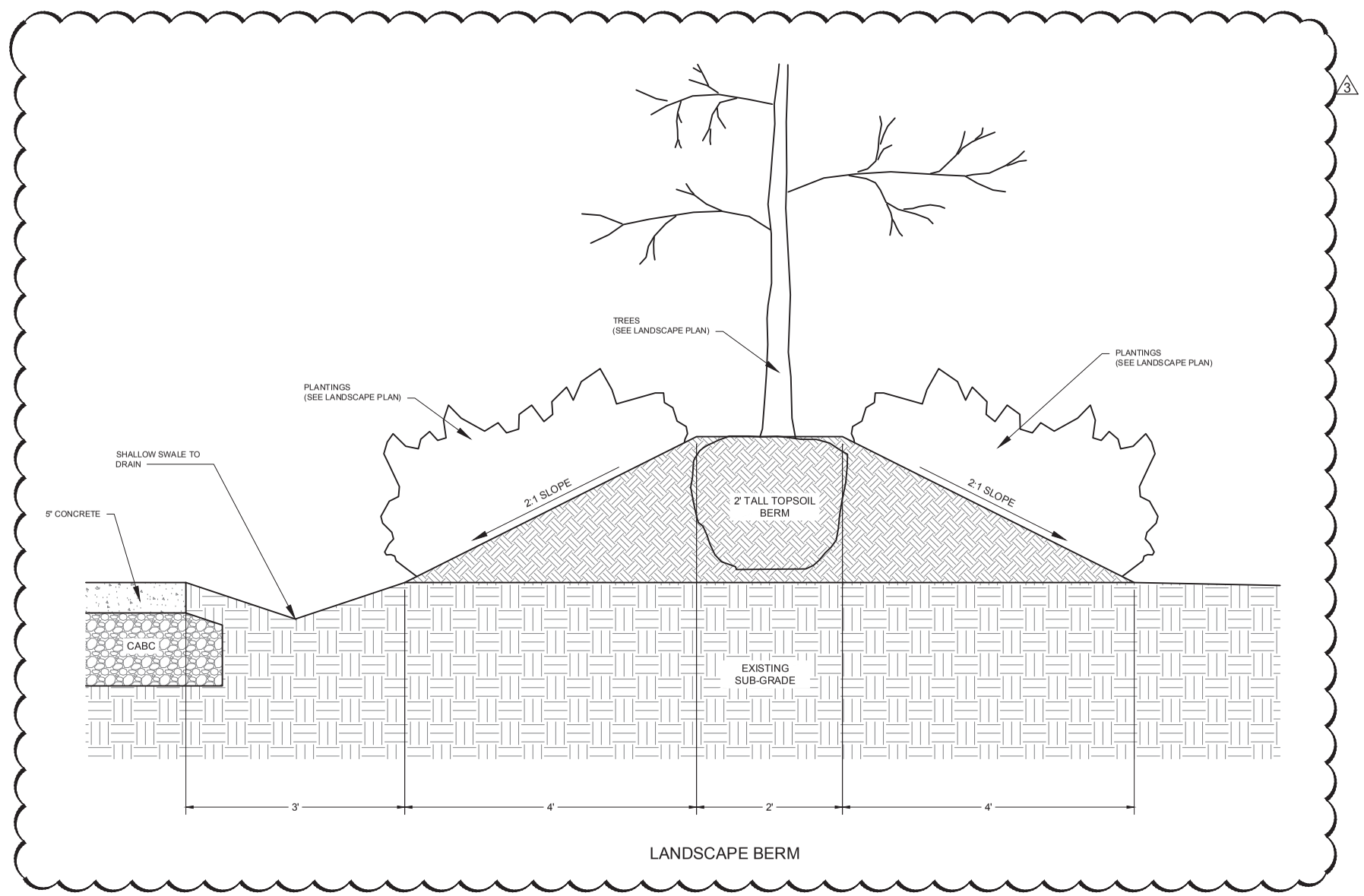
* PLANTING HOLE WIDTH SHALL BE THREE TIMES THE SIZE OF ROOTBALL.
* ONLY PRUNE BROKEN OR INJURED BRANCHES.
* TREES OR SAME SPECIES TO BE MATCHED IN GROWTH AND UNIFORMITY.

TREES OVER 2" CALIPER



* TREES OF SAME SPECIES TO BE MATCHED IN GROWTH AND UNIFORMITY.
* PLANTING HOLE WIDTH SHALL BE THREE TIMES THE SIZE OF ROOTBALL.

TREES UNDER 2" CALIPER



LANDSCAPE BERM

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DETAILS

DOWNTOWN STREETSCAPE - PHASE 1

CITY OF VERONA, DANE COUNTY, WISCONSIN

BIDDING DOCUMENTS

DATE:AUGUST 4, 2016

REVISED:

08-10-2016 ADDENDUM 1 (1)

08-15-2016 ADDENDUM 3 (3)

DRAWN BY: MS

FN: 14-01-101

Sheet Number: 47 (1)

File: U:\User\1401101\DWG\Phase 1 Details.dwg 47 Plotted: Aug 15, 2016 - 1:18pm