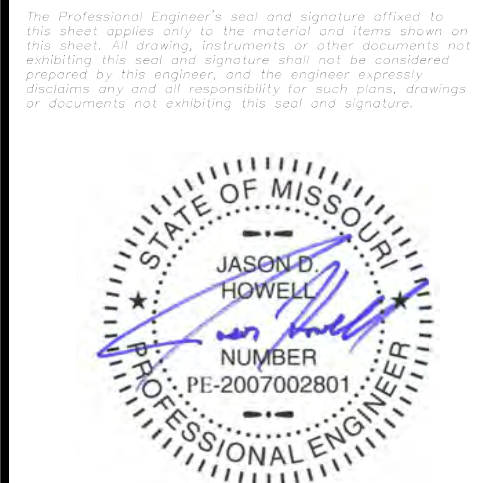


ISSUE	REMARKS/DATE
1	INITIAL SUBMITTAL
2	9-23-20 Rev Duckett Creek Cmmnt
3	20201001 Rev per City/Duckett/PWSD#2
4	20201014 Rev per Duckett
5	20201020 Rev per City Comments
6	20201102 Rev per DCSD Comments
7	20201106 Rev per City Comments

PROJECT TITLE

AMBERLEIGH
OF FALLON, MISSOURI

THE STERLING CO.
ENGINEERS & SURVEYORS
5055 New Baumgartner Road
St. Louis, Missouri 63129
Ph 314-487-0440 Fax 314-487-8944
www.sterling-eng-sur.com
Corporate Certificate of Authority #001548



Date: 5-18-2021
Jason D Howell
License No. PE 2007002801
Professional Engineer

LOMBARDO HOMES OF ST. LOUIS, LLC
2299 TECHNOLOGY DRIVE, SUITE 150
OF FALLON, MISSOURI 63368
Ph 636-265-2710
Fax 636-695-3195

DUCKETT CREEK SANITARY SEWER DETAILS

P+Z No. 20-000028
City No. 20-003192
Date: May 18, 2021
Job No. 14-04-136
Page No.

7.10

IMP

INSERTA TEE

THE USE OF AN INSERTA TEE REQUIRES DISTRICT APPROVAL.

INSTALLATION PROCEDURE:

- CORE THE PROPER SIZE HOLE.
- INSERT THE RUBBER SLEEVE (1) IN THE CORED HOLE WITH THE GOLD VERTICAL LINE ON THE RUBBER SLEEVE (2) FACING TO THE SIDE OF THE MAIN LINE. THE UPPER SEGMENT SHOULD BE ON TOP OF THE WALL OR RIB AND THE LOWER SEGMENT (PVC, PROFILE WALL, AND POLYETHYLENE PIPE ONLY) SHOULD BE ON THE INSIDE OF THE PIPE.
- APPLY THE INSERTA TEE SOLUTION SUPPLIED TO THE INSIDE OF THE RUBBER SLEEVE AND TO THE OUTSIDE OF THE PVC HUB ADAPTER. **CAUTION - DO NOT USE AN OIL BASED LUBRICANT.**
- PLACE THE PVC HUB ADAPTER (3) INTO THE RUBBER SLEEVE. MAKE SURE THAT THE RED VERTICAL LINE (4) ON THE PVC HUB ADAPTER IS IN LINE WITH THE GOLD VERTICAL LINE (2) ON THE RUBBER SLEEVE.
- PLACE THE 2x4 BOARD ONTO THE TOP OF THE PVC HUB ADAPTER.
- THE RED HORIZONTAL LINE (5) AT THE TOP OF THE HUB ADAPTER IS A DEPTH MARK. THIS TELLS THE INSTALLER HOW FAR TO DRIVE THE ADAPTER INTO THE RUBBER SLEEVE. DRIVE THE PVC HUB ADAPTER INTO THE RUBBER SLEEVE TO WHERE THE HORIZONTAL RED LINE (5) ON THE PVC HUB ADAPTER (3) MEETS THE TOP OF THE RUBBER SLEEVE (2).
- PLACE THE STAINLESS STEEL BAND (7) AROUND THE TOP OF THE RUBBER SLEEVE AND TIGHTEN DOWN.
- INSTALL PIPE IN NORMAL MANNER.

TEE SIZE:	4"	6"	8"	10"	12"	15"
BIT SIZE:	4 1/8"	6 1/8"	8 1/8"	10 1/8"	12 1/8"	15 1/8"

Duckett Creek Sanitary District
INSERTE TEE DETAILS AND SPECIFICATIONS
Dwn By: BSM App By: KA Detail No. 20B
Ckd By: MDOB Date: DEC. 2015

PLASTIC SADDLE TEE OR WYE FITTING (SOLVENT WELD)

WHEN CONNECTION TO A PLASTIC PIPE IS ALLOWED AND A CONNECTION IS LARGER THAN 6" IN DIAMETER, A SOLVENT WELD WYE OR TEE FITTING OF A SIMILAR MATERIAL MUST BE USED. (EXAMPLE: 10" x 8")

THIS IS ACCOMPLISHED BY CAREFULLY CUTTING A HOLE WITH A SAW IN THE MAIN AT THE REQUIRED LOCATION AFTER CUTTING AND SHAPING THE HOLE TO THE SIZE OF THE FITTING. THE FOLLOWING STEPS SHOULD BE TAKEN:

- CLEAN AND DRY BOTH INSIDE THE SADDLE WYE SURFACE AND PIPE SURFACE TO BE SOLVENT CEMENTED.
- IMPORTANT:** APPLY A LIBERAL, HEAVY COAT OF ONE-STEP SOLVENT CEMENT TO THE INSIDE SURFACE OF THE SADDLE WYE AND TO THE EXTERIOR WELDING SURFACE TO THE PIPE.
- WITHOUT DELAY, MATE THE SURFACES AND STRAP DOWN TIGHTLY. A BEAD OF SOLVENT SHOULD APPEAR AFTER THE SADDLE HAS BEEN STRAPPED DOWN TIGHTLY.
- USING A RAG OR PAPER TOWEL, WIPE BEAD AND ANY EXCESS SOLVENT CEMENT OFF PIPE AND SADDLE.
- ALLOW 30-60 MINUTES FOR SET-UP TIME BEFORE BACKFILLING. CURE TIME DEPENDS ON SIZE FIT OF MATERIALS BEING INSTALLED AND VARIOUS COLD DAMP CONDITIONS.
- DISCARD OLD SOLVENT IF IT BECOMES JELLED OR LUMPY.
- A CLEAN, DRY BEDDING MATERIAL IS REQUIRED AROUND THE COMPLETED CONNECTION BEFORE BACKFILLING. THE BEDDING MATERIAL SHOULD BE ONE OF THE FOLLOWING:
 - 1 TO 3 CEMENT TO SAND MIX
 - "PRE-MIX" CONCRETE.
 - DCSD APPROVED BEDDING FOR SANITARY SEWERS.

Duckett Creek Sanitary District
8" AND LARGER CONNECTION TO PLASTIC MAIN
Dwn By: BSM App By: KA Detail No. 20A
Ckd By: MDOB Date: DEC. 2015

SDR-35 x C900 BELL x BELL ADAPTERS

SIZE	CATALOG NO.	OD C900 SEWER	OD C900 SEWER	ID C900 SEWER	ID C900 SEWER	L	CTN QTY	CTN WT
4x4	337-040	4.80	4.215	4.86	4.25	10.0	1	4
6x6	337-060	6.90	6.275	6.96	6.32	11.13	1	8
8x8	337-080	9.05	8.400	9.13	8.45	12.50	1	15

Duckett Creek Sanitary District
SDR-35 x C900 BELL AND BELL 4", 6" & 8" ADAPTORS
Dwn By: BSM App By: KA Detail No. 19C
Ckd By: MDOB Date: DEC. 2015

SDR-35 x C900 BELL x SPIGOT ADAPTERS

SIZE	CATALOG NO.	A	L	STYLE
4"	335-040	3.2	10.0	FABRICATED
6"	335-060	2.9	3.5	HARCO
8"	335-080	4.0	12.5	FABRICATED

Duckett Creek Sanitary District
SDR-35 x C900 BELL AND SPIGOT SPECIAL 4", 6" & 8" ADAPTORS
Dwn By: BSM App By: KA Detail No. 19B
Ckd By: MDOB Date: DEC. 2015

TYPICAL CREEK CROSSING

NOTES:

- RIP-RAP IS REQUIRED AT ALL CREEK CROSSINGS WHERE THE EMBANKMENTS CROSSED ARE STEEPER THAN 1 VERTICAL TO 2 HORIZONTAL RATIO SLOPE; AND ALSO WHERE THERE IS 3 FEET OR LESS COVER OVER THE TOP OF THE SEWER MAIN.
- PLACE RIP-RAP ON LOWER 3/4 OF SLOPE. GRADE UPPER 1/4 OF SLOPE AT 1 VERTICAL TO 2 HORIZONTAL SLOPE FOR SEED AND STRAW.
- RIP-RAP TO BE "MSD 5" GRADATION, MINIMUM 12" THICK.
- INCORPORATE A 3 FEET DEEP TOE WALL ON EMBANKMENT'S UPPER EDGE OF RIP-RAP.
- TOP SURFACE OF RIP-RAP SHOULD NOT BE HIGHER THAN ADJACENT GROUND SURFACE.
- IF PIPE HAS LESS THAN 12" COVER, A PAVED CHANNEL MAY BE REQUIRED.
- DUCTILE IRON PIPE IS REQUIRED WITHIN THE CREEK LIMITS.
- EXPOSED AREAS SHALL NOT REMAIN UNPROTECTED FOR MORE THAN SEVEN (7) DAYS FOR PROTECTION OF THE STREAM.

Duckett Creek Sanitary District
Dwn By: BSM App By: KA Detail No. 24
Ckd By: MDOB Date: OCT. 2016

BORING DETAIL

NOTES:

- INSIDE DIAMETER OF CASING PIPE TO BE MINIMUM OF 4" GREATER THAN COUPLING DIAMETER OF CARRIER PIPE.
- ENCASUREMENTS TO BE INSTALLED UNDER THE ROAD BY MEANS OF JACKING IT THROUGH, OR BY DRY BORING A HOLE THAT WILL RECEIVE THE CASING WITH A SNUG FIT.
- THE OUTSIDE DIAMETER OF THE CASING SHALL NOT BE LESS THAN, NOR MORE THAN ONE INCH GREATER THAN THE BORED HOLE.
- CASING PIPE SLOPE TO MATCH CARRIER PIPE. CARRIER PIPE TO LAY IN THE BOTTOM OF THE STEEL CASING PIPE.

SUPPORT OF CARRIER PIPE OR FORCE MAIN IN CASING

Duckett Creek Sanitary District
ROADWAY BORING DETAIL
Dwn By: MSM App By: KA Detail No. 23
Ckd By: MDOB Date: DEC. 2015

1800' MAXIMUM SPACING

WILL REQUIRE SMOOTH TRANSITION REDUCER AT EACH END IF LINE SIZE IS LESS THAN 6"

ALL PIPE TO BE DUCTILE IRON PIPE

Duckett Creek Sanitary District
FORCE MAIN CLEANOUT 6" DIAMETER & SMALLER
Dwn By: BSM App By: KA Detail No. 22
Ckd By: MDOB Date: DEC. 2015

ROLL-IN (FOR EXISTING CLAY OR CONCRETE PIPE)

NOTES:

- WHEN A CONNECTION IS ALLOWED LARGER THAN 6" DIAMETER A SADDLE MAY BE USED IF THE I.D. OF THE CONNECTION PIPE IS NOT GREATER THAN ONE HALF (1/2) OF THE I.D. OF THE MAIN SEWER. (EXAMPLE: 24" x 10")
- IF THE I.D. OF THE CONNECTION PIPE IS GREATER THAN ONE HALF (1/2) THE I.D. OF THE MAIN SEWER THE WYE OR TEE MUST BE "ROLLED IN". (EXAMPLE: 15" x 8")
- THIS IS ACCOMPLISHED BY BREAKING AWAY AND REMOVING ONE SECTION OF PIPE. THE TOP HALF OF THE BELL ON THE PIPE LYING ADJACENT TO THE GAP IS CAREFULLY BROKEN OFF. THE TOP HALF OF THE BELL ON THE MAIN REPLACEMENT SECTION (WITH A "WYE" FITTING) IS ALSO BROKEN OFF. THE REPLACEMENT PIPE IS THEN PLACED IN THE LINE GAP WITH THE STUB POINTED IN THE WRONG DIRECTION. THE BROKEN BELLS ON THE REPLACEMENT AND ADJOINING PIPE MAKE IT POSSIBLE FOR THE REPLACEMENT SECTION TO FIT INTO THE SEWER LINE WITHOUT DISTURBING THE ADJOINING PIPE SECTIONS. THE REPLACEMENT SECTION IS THEN ROTATED TO THE DESIRED POSITION AND THE BROKEN BELLS ARE ENCASED WITH A 6" CLASS "A" CONCRETE ENCASUREMENT.
- ID OF MAIN SEWER SHALL NOT BE DECREASED BY A ROLL-IN CONNECTION.

Duckett Creek Sanitary District
Dwn By: BSM App By: KA Detail No. 21
Ckd By: MDOB Date: DEC. 2015