

### SOR-35 x C900 BELL & BELL ADAPTERS

| SIZE | CATALOG NO. | OD   | ID    | ID   | 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**  
 SOR-35 x C900 BELL & BELL 4", 6" & 8" ADAPTERS  
 BSM MOOB KLA 1-3-01 19C

### 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 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.
- 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 DRAFT CONDITIONS.
- DISCARD OLD SOLVENT IF IT BECOMES GELLED 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
  - "BEE" MIX CONCRETE
  - DOTD APPROVED BEDDING FOR SANITARY SEWERS

**Duckett Creek Sanitary District**  
 3" LARGER CONNECTION TO PLASTIC MAIN  
 BSM MOOB KLA 1-4-01 20A

### INSERTA TEE

THE USE OF AN INSERTA TEE REQUIRES DISTRICT APPROVAL.

INSTALLATION PROCEDURE:

- CORE THE PROPER SIZE HOLE. HOLE SIZE: 4" 6" 8" 10" 12" 15" (EXAMPLE: 24" x 10")
- INSERT THE RUBBER SLEEVE (1) IN THE CORED HOLE WITH THE COLD VERTICAL LINE ON THE RUBBER SLEEVE (2) FACING TO THE SIDE OF THE MAIN LINE. THE UPPER SEGMENT SHOULD BE ON TOP OF THE MAIN LINE AND THE LOWER SEGMENT (PVC, PROFILE WALL, AND POLYURETHANE PIPE ONLY) SHOULD BE ON THE INSIDE OF THE PIPE.
- APPLY THE INSERTA TEE SOLUTION (APPLIED TO THE INSIDE OF THE RUBBER SLEEVE AND TO THE INSIDE 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 ON THE PVC HUB ADAPTER IS IN LINE WITH THE COLD VERTICAL LINE (2) ON THE RUBBER SLEEVE.
- PLACE THE 2x4 BOARD OVER THE TOP OF THE PVC HUB ADAPTER.
- THE RED HORIZONTAL LINE (4) 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 (4) ON THE PVC HUB ADAPTER (3) MEETS THE TOP OF THE RUBBER SLEEVE (2).
- PLACE THE STAINLESS STEEL BAND (5) AROUND THE TOP OF THE RUBBER SLEEVE AND TIGHTEN DOWN.
- INSTALL PIPE IN NORMAL MANNER.

**Duckett Creek Sanitary District**  
 INSERTA TEE DETAILS AND SPECIFICATIONS  
 BSM MOOB KLA 1-4-01 20B

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) OF THE I.D. OF THE MAIN SEWER THE WYE OR TEE MUST BE "ROLLED IN". (EXAMPLE: 15" x 8")
- THIS IS ACCOMPLISHED BY BRIDGING 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 ADJACING PIPE MAKE IT POSSIBLE FOR THE REPLACEMENT SECTION TO FIT INTO THE SEWER LINE WITHOUT DISTURBING THE ADJACING PIPE SECTIONS. THE REPLACEMENT SECTION IS THEN INSTALLED TO THE DESIRED POSITION AND THE BROKEN BELLS ARE ENCASED WITH A 6" CLASS "A" CONCRETE ENCASEMENT.
- I.D. OF MAIN SEWER SHALL NOT BE DECREASED BY A ROLL-IN CONNECTION.

**Duckett Creek Sanitary District**  
 "ROLL-IN" (FOR EXISTING CLAY OR CONCRETE PIPE)  
 BSM MOOB KLA 1-5-01 21

1800' MAXIMUM SPACING

**Duckett Creek Sanitary District**  
 FORCE MAIN CLEANOUT (6" DIA. & SMALLER)  
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**Duckett Creek Sanitary District**  
 SANITARY SEWER LATERAL RISER DETAIL  
 BSM MOOB KLA 1-8-01 27

### BORING DETAIL

NOTES:

- INSIDE DIAMETER OF CASING PIPE TO BE MINIMUM OF 4" GREATER THAN COUPLING DIAMETER OF CARRIER PIPE.
- ENCASEMENTS 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 SHAG FIT.
- THE OUTSIDE DIAMETER OF THE CASING SHALL NOT BE LESS THAN, NOR MORE THAN ONE INCH GREATER THAN THE BORED HOLE.
- THE ANNULAR SPACE BETWEEN THE CASING PIPE AND THE BORED HOLE SHALL BE FILLED WITH GROUT.

**Duckett Creek Sanitary District**  
 ROADWAY BORING DETAIL  
 BSM MOOB KLA 1-5-01 23

### TYPICAL CREEK CROSSING

NOTES:

- GROUTED RIP-RAP IS REQUIRED AT ALL CREEK CROSSINGS WHERE THE EMBANKMENTS CROSSED ARE STEEPER THAN 1 VERTICAL TO 2 HORIZONTAL (BAVED 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 SOO OR 1 VERTICAL TO 2.5 HORIZONTAL SLOPE FOR SETD AND STRAM.
- RIP-RAP TO BE "MSD 5" GRADATION MINIMUM 12" THICK, GROUTED WITH 8 SACK MIX SAND-CEMENT SLURRY, BROOM FINISH.
- INCORPORATE A 3 FEET DEEP TIE 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.

**Duckett Creek Sanitary District**  
 TYPICAL CREEK CROSSING  
 BSM MOOB KLA 1-8-01 24

### METAL FRAME AND COVER TYPE CLEANOUT

**Duckett Creek Sanitary District**  
 TYPICAL SEWER LATERAL CLEANOUT DETAILS  
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### ADJUSTABLE HEAD TYPE CLEANOUT

**Duckett Creek Sanitary District**  
 TYPICAL SEWER LATERAL CLEANOUT DETAILS  
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### TYPICAL SANITARY SEWER LATERAL PROFILE

NOTE: DIFFERENCE IN DEPTH INCREASES WITH PIPE SIZE.

**Duckett Creek Sanitary District**  
 TYPICAL SANITARY SEWER LATERAL PROFILE  
 BSM MOOB KLA 1-8-01 26

### LOW PRESSURE SEWER MAIN CONNECTION AT MANHOLE

NOTE: INVERT-BOTTOM SHALL BE WORKED TO PROVIDE POSITIVE DRAINAGE THROUGH MANHOLE.

**Duckett Creek Sanitary District**  
 LOW PRESSURE SEWER MAIN CONNECTION AT MANHOLE  
 BSM MOOB KLA 1-9-01 28

### THRUST BLOCK DETAIL AND SIZE SCHEDULE

| MAIN SIZE | A x B   | A x B     | A x B     | A x B     |
|-----------|---------|-----------|-----------|-----------|
| 2"        | 5' x 1' | 5' x 1'   | 1' x 1'   | 1' x 1'   |
| 4"        | 1' x 1' | 1' x 1'   | 1.5' x 1' | 1' x 1'   |
| 6"        | 1' x 1' | 1.5' x 1' | 2' x 1'   | 1.5' x 1' |
| 8"        | 1' x 1' | 2' x 1'   | 2' x 1'   | 2' x 1'   |

**Duckett Creek Sanitary District**  
 THRUST BLOCK DETAIL AND SIZE SCHEDULE  
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### AERIAL CROSSING DETAIL

**Duckett Creek Sanitary District**  
 AERIAL CROSSING DETAIL  
 BSM MOOB KLA 1-13-01 30A

### CONCRETE PIER DETAIL

**Duckett Creek Sanitary District**  
 CONCRETE PIER DETAIL  
 BSM MOOB KLA 1-9-01 30B

### AERIAL CROSSING BARRIER DETAIL

| NO. | QTY | STK. NO. | SIZE     | DESCRIPTION         |
|-----|-----|----------|----------|---------------------|
| 1   | 1   | 32000    | 12" x 6" | PIPE, 12" DIA. ONLY |
| 2   | 1   | 32000    | 12" x 6" | PIPE, 12" DIA. ONLY |
| 3   | 1   | 32000    | 12" x 6" | PIPE, 12" DIA. ONLY |
| 4   | 1   | 32000    | 12" x 6" | PIPE, 12" DIA. ONLY |
| 5   | 1   | 32000    | 12" x 6" | PIPE, 12" DIA. ONLY |
| 6   | 1   | 32000    | 12" x 6" | PIPE, 12" DIA. ONLY |
| 7   | 1   | 32000    | 12" x 6" | PIPE, 12" DIA. ONLY |

NOTES:

- "BILL OF MATERIALS" PROVIDES SUFFICIENT MATERIAL FOR TWO BARRICADES.
- LOCATION OF BARRICADES ON PIPING SYSTEM TO BE AS SPECIFIED ON APPROVED CONSTRUCTION DRAWINGS.
- TWO BARRICADES WILL BE REQUIRED, ONE AT EACH END OF THE CROSSING AS A DETERMINANT AGAINST FOOT TRAFFIC. IN SOME INSTANCES ADDITIONAL BARRICADES MAY BE REQUIRED.
- COAT ANY EXPOSED PIPE WITH MASTIC, STOCK #51857.

**Duckett Creek Sanitary District**  
 AERIAL CROSSING BARRIER DETAIL  
 BSM MOOB KLA 1-9-01 30C

### AERIAL CROSSING CONCRETE COLLAR DETAIL

**Duckett Creek Sanitary District**  
 AERIAL CROSSING CONCRETE COLLAR DETAIL  
 BSM MOOB KLA 1-9-01 30D