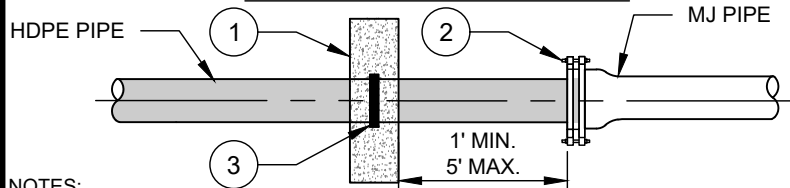


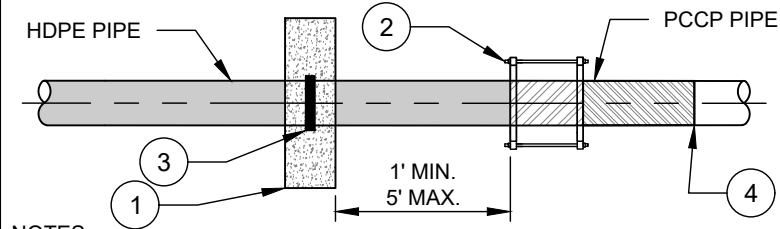
A HDPE TO DUCTILE IRON (4" TO 32" ONLY) TRANSITION ASSEMBLY



- NOTES:**
- A. HIGH DENSITY POLYETHYLENE (HDPE) FITTINGS SHALL MEET THE REQUIREMENTS OF AWWA C906.
 - B. MECHANICAL FITTINGS SHALL BE SPECIFICALLY DESIGNED FOR USE WITH HDPE PIPE.
 - C. INSTALL STAINLESS STEEL INTERNAL STIFFENER IN THE END OF THE HDPE PIPE WHEN HDPE PIPE IS INSERTED INTO THE BELL END OF NON-HDPE PIPE, VALVE, FITTING, OR INTO THE HUB OF A MECHANICAL COUPLING.
 - D. INTERNAL STIFFENER CAN BE WEDGE TYPE OR SOLID BODY. STIFFENER WILL BE RATED FOR DR AND ID OF PIPE. FOR WATER, 304 OR 316 STAINLESS STEEL IS ALLOWED. FOR WASTEWATER, 316 SS IS REQUIRED.
 - E. MECHANICAL JOINT ADAPTERS SHALL BE PE4710 AND CAN BE MADE TO ASTM D 3261. IF MACHINED, ADAPTERS MUST MEET THE REQUIREMENTS OF ASTM F 2206. ADAPTERS SHALL HAVE A PRESSURE RATING EQUAL TO THE PIPE.
 - F. FIGURE ABOVE SHOWS TRANSITION TO BELL END OF DIP. FOR TRANSITION TO PLAIN END OF DIP, SEE PVC FIGURE.
 - G. EXTERNAL RESTRAINT DEVICES ARE NOT ALLOWED.

- NO. DESCRIPTION:**
- 1. WALL BLOCKING, REFER TO APPROPRIATE DETAILS.
 - 2. IPS X DIPS RESTRAINED MJ ADAPTER WITH STEEL PIPE STIFFENER AND KIT.
 - 3. WALL ANCHOR OR FLEX RESTRAINT, REFER TO APPROPRIATE DETAILS.

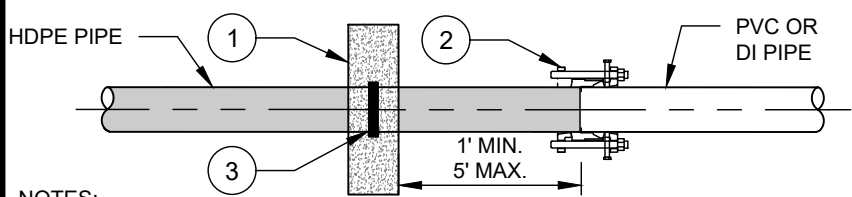
D HDPE TO PCCP (16" TO 32" ONLY) TRANSITION ASSEMBLY



- NOTES:**
- A. FITTINGS SHALL MEET THE REQUIREMENTS OF AWWA C906.
 - B. MECHANICAL FITTINGS SHALL BE SPECIFICALLY DESIGNED FOR USE WITH HDPE PIPE.
 - C. STAINLESS STEEL INTERNAL STIFFENERS SHALL BE INSTALLED IN THE END OF THE HDPE PIPE WHEN HDPE PIPE IS INSERTED INTO THE BELL END OF NON-HDPE PIPE, VALVE, FITTING, OR INTO THE HUB OF A BOLTED COUPLING.
 - D. INTERNAL STIFFENER CAN BE WEDGE TYPE OR SOLID BODY. STIFFENER WILL BE RATED FOR DR AND ID OF PIPE. FOR WATER, 304 OR 316 STAINLESS STEEL IS ALLOWED. FOR WASTEWATER 316 SS IS REQUIRED.
 - E. RESTRAINT COUPLER SLEEVE SHALL BE ASTM A513 WITH FUSION BONDED EPOXY. LOW ALLOY STEEL BOLTS CONFORM TO AWWA C111.4.

- NO. DESCRIPTION:**
- 1. WALL BLOCKING, REFER TO APPROPRIATE DETAILS.
 - 2. RESTRAINT COUPLER WITH STEEL PIPE STIFFENER.
 - 3. WALL ANCHOR OR FLEX RESTRAINT, REFER TO APPROPRIATE DETAIL.
 - 4. PCCP DEEP JOINT ADAPTER. INSTALL AT EXISTING JOINT. FIELD WELD PER MANUFACTURERS INSTRUCTIONS, IF PCCP IS RESTRAINED JOINT.

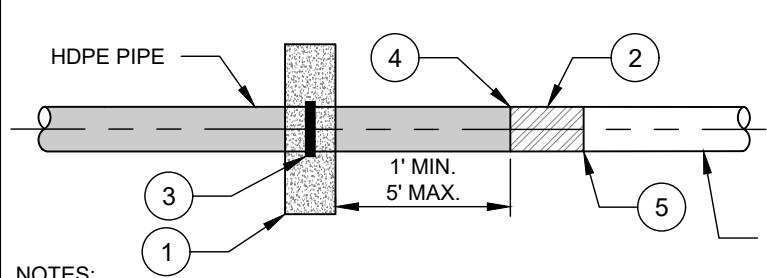
B HDPE TO PVC OR DI (4" TO 32" ONLY) TRANSITION ASSEMBLY



- NOTES:**
- A. FITTINGS SHALL MEET THE REQUIREMENTS OF AWWA C906.
 - B. MECHANICAL FITTINGS USED SHALL BE SPECIFICALLY DESIGNED FOR USE WITH HDPE PIPE.
 - C. STAINLESS STEEL INTERNAL STIFFENERS SHALL BE INSTALLED IN THE END OF THE HDPE PIPE WHEN HDPE PIPE IS INSERTED INTO THE BELL END OF NON-HDPE PIPE, VALVE, FITTING, OR INTO THE HUB OF A BOLTED COUPLING
 - D. RESTRAINT COUPLER SLEEVE SHALL BE ASTM A513 WITH FUSION BONDED EPOXY. LOW ALLOY STEEL BOLTS CONFORM TO AWWA C111.4.
 - E. WHEN PVC BELL END IS ENCOUNTERED, FIELD CUT PVC TO FORM PLAIN END PER MANUFACTURER'S INSTRUCTIONS. WHEN DI BELL END IS ENCOUNTERED, USE DETAIL A ON THIS SHEET.

- NO. DESCRIPTION:**
- 1. WALL BLOCKING, REFER TO APPROPRIATE DETAILS.
 - 2. BELL MJ ADAPTER WITH MECHANICAL RESTRAINT KIT.
 - 3. WALL ANCHOR OR FLEX RESTRAINT, REFER TO APPROPRIATE DETAILS.

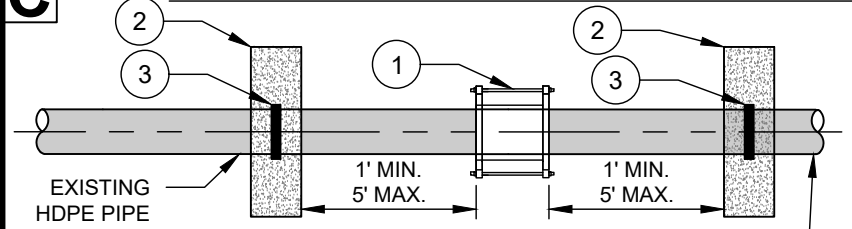
E HDPE TO STEEL (4" TO 32" ONLY) TRANSITION ASSEMBLY



- NOTES:**
- A. FITTINGS SHALL MEET THE REQUIREMENTS OF AWWA C906.
 - B. TRANSITION SHALL BE MANUFACTURED TO ASTM D2513 CATEGORY 1.
 - C. COAT INTERIOR AND EXTERIOR OF WELD PER MANUFACTURER'S INSTRUCTIONS.

- NO. DESCRIPTION:**
- 1. THRUST BLOCK, REFER TO APPROPRIATE DETAILS.
 - 2. HDPE PLAIN END X STEEL PLAIN END WELD-ON TRANSITION FOR WATER.
 - 3. WALL ANCHOR OR FLEX RESTRAINT, REFER TO APPROPRIATE DETAIL.
 - 4. BUTT FUSION OR ELECTROFUSION JOINT.
 - 5. STEEL WELD.

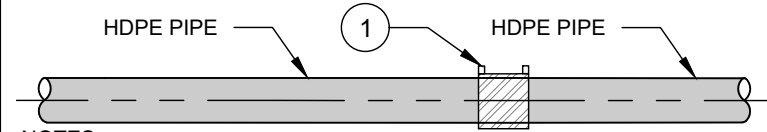
C HDPE TO HDPE MECHANICAL TRANSITION ASSEMBLY



- NOTES:**
- A. ONLY ALLOWED WHEN BUTT FUSION IS NOT POSSIBLE.
 - B. FITTINGS SHALL MEET THE REQUIREMENTS OF AWWA C906.
 - C. MECHANICAL FITTINGS SHALL BE SPECIFICALLY DESIGNED FOR USE WITH HDPE PIPE.
 - D. INTERNAL STIFFENER CAN BE WEDGE TYPE OR SOLID BODY. STIFFENER WILL BE RATED FOR DR AND ID OF PIPE. FOR WATER, 304 OR 316 STAINLESS STEEL IS ALLOWED. FOR WASTEWATER 316 SS IS REQUIRED.

- NO. DESCRIPTION:**
- 1. MECHANICAL HDPE COUPLING.
 - 2. WALL BLOCKING, REFER TO APPROPRIATE DETAILS.
 - 3. WALL ANCHOR OR FLEX RESTRAINT, REFER TO APPROPRIATE DETAIL.

F HDPE TO HDPE ELECTROFUSION TRANSITION ASSEMBLY (4" TO 24" ONLY)



- NOTES:**
- A. ONLY ALLOWED WHEN BUTT FUSION IS NOT POSSIBLE.
 - B. FITTINGS SHALL MEET THE REQUIREMENTS OF AWWA C906.
 - C. PROVIDE ELECTROFUSION RECORD TO CLTW INSPECTOR WITHIN ONE HOUR OF FUSION PER STANDARD SPECIFICATION.

- NO. DESCRIPTION:**
- 1. ELECTROFUSION COUPLING.

- NOTES TO DESIGNER**
- A. CLTW PREFERS JOINING HDPE USING BUTT FUSION. IF BUTT FUSION IS NOT POSSIBLE THEN ELECTROFUSION FITTINGS ARE ALLOWED. IF ELECTROFUSION FITTINGS ARE NOT POSSIBLE, THEN MECHANICAL FITTINGS ARE ALLOWED. CLTW DOES NOT ALLOW BURIED FLANGED JOINTS.