

IF ANY TERTIARY TREATED RECLAIMED WATER OR NEW RAW WATER LINES ARE TO BE CONSTRUCTED WITHIN ANY OF THE INDICATED ZONES AS SHOWN, SPECIAL CONSTRUCTION SHALL BE REQUIRED AS DESCRIBED BELOW.

ZONE TERTIARY TREATED RECLAIMED WATER OR RAW WATER

PARALLEL PIPES:

- A. DO NOT LOCATE ANY PARALLEL NEW TERTIARY TREATED RECLAIMED WATER OR NEW RAW WATER LINES IN THIS AREA WITHOUT STATE AND LOCAL HEALTH DEPARTMENT APPROVAL.

CROSSING PIPES:

C&D. IF THE EXISTING POTABLE WATER LINE CROSSING THE NEW TERTIARY TREATED RECLAIMED WATER OR NEW RAW WATER LINE IS NOT CONSTRUCTED OF ANY OF THE FOLLOWING:

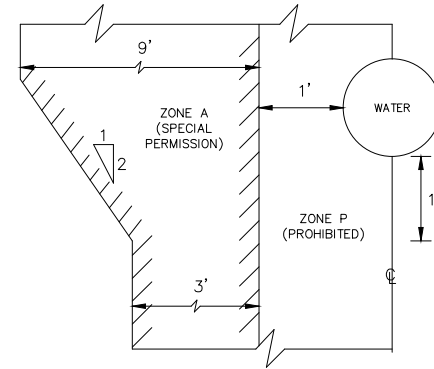
1. HDPE WITH FUSION-WELDED JOINTS (PER AWWA C906-15);
2. DUCTILE IRON PIPE WITH COMPRESSION JOINTS AND HOT DIP BITUMINOUS COATING;
3. DIPPED AND WRAPPED ¼-INCH THICK WELDED STEEL PIPE;
4. CLASS 200 PRESSURE RATED PVC WATER PIPE (DR 14 PER AWWA C900-07 & C905-10 OR EQUIVALENT); OR
5. REINFORCED CONCRETE PRESSURE PIPE, STEEL CYLINDER TYPE, PER AWWA (C300-11 OR C302-11 OR C303-17).

THEN CONSTRUCT THE NEW TERTIARY TREATED RECLAIMED WATER OR NEW RAW WATER LINE USING ONE OF THE FOLLOWING:

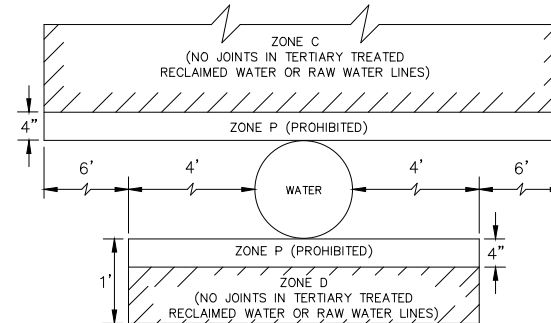
1. HDPE WITH FUSION-WELDED JOINTS (PER AWWA C906-15); OR
2. DUCTILE IRON PIPE WITH COMPRESSION JOINTS AND HOT DIP BITUMINOUS COATING CENTERED OVER OR UNDER THE PIPE BEING CROSSED.

- P. PROHIBITED ZONE PER SECTION 64572, CALIFORNIA CODE OF REGULATIONS, TITLE 22, DIVISION 4, CHAPTER 16.

LOCATION OF NEW TERTIARY TREATED RECLAIMED WATER AND NEW RAW WATER LINES TO EXISTING POTABLE WATER LINES



PARALLEL CONSTRUCTION



PERPENDICULAR CROSSING

NOT TO SCALE

REVISION			APPROVED:		DATE	CITY OF CORONA
NO.	APPROVED	DATE	<i>Tom Koper</i>	1/7/2019	DATE	
1	VRW	12/28/18	TOM G. KOPER, PE. CITY ENGINEER	1/7/2019	DATE	SHEET 1 OF 7
			<i>Vernon R. Weisman</i>		DATE	
			VERNON R. WEISMAN, PE. DISTRICT ENGINEER			

SEE BASIC SEPARATION STANDARDS AND GENERAL NOTES ON SHEET 7.

IF ANY STORM DRAIN LINES ARE TO BE CONSTRUCTED WITHIN ANY OF THE INDICATED ZONES AS SHOWN, SPECIAL CONSTRUCTION SHALL BE REQUIRED AS DESCRIBED BELOW.

ZONE STORM DRAIN

PARALLEL PIPES:

- A. DO NOT LOCATE ANY PARALLEL NEW STORM DRAIN LINES IN THIS AREA WITHOUT STATE AND LOCAL HEALTH DEPARTMENT APPROVAL.
- B. IF THE EXISTING POTABLE WATER LINE PARALLELING THE NEW STORM DRAIN LINE IS NOT CONSTRUCTED OF ANY OF THE FOLLOWING:
 1. HDPE WITH FUSION-WELDED JOINTS (PER AWWA C906-15);
 2. DUCTILE IRON PIPE WITH COMPRESSION JOINTS AND HOT DIP BITUMINOUS COATING;
 3. DIPPED AND WRAPPED 1/4-INCH THICK WELDED STEEL PIPE;
 4. CLASS 200, TYPE II, ASBESTOS-CEMENT PRESSURE PIPE;
 5. CLASS 200 PRESSURE RATED PVC WATER PIPE (DR 14 PER AWWA C900-07 & C905-10 OR EQUIVALENT); OR
 6. REINFORCED CONCRETE PRESSURE PIPE, STEEL CYLINDER TYPE, PER AWWA (C300-11 OR C302-11 OR C303-17).

THEN CONSTRUCT THE NEW STORM DRAIN LINE USING ONE OF THE FOLLOWING:

1. HDPE WITH FUSION-WELDED JOINTS (PER AWWA C906-15);OR
2. DUCTILE IRON PIPE WITH COMPRESSION JOINTS AND HOT DIP BITUMINOUS COATING;
3. RUBBER GASKETED REINFORCED CONCRETE PIPE; OR
4. REINFORCED CONCRETE PRESSURE PIPE, STEEL CYLINDER TYPE, PER AWWA (C300-11 OR C302-11 OR C303-17).

CROSSING PIPES:

IF THE EXISTING POTABLE WATER LINE CROSSING THE NEW STORM DRAIN LINE IS NOT CONSTRUCTED OF ANY OF THE FOLLOWING:

1. HDPE WITH FUSION-WELDED JOINTS (PER AWWA C906-15);
2. DUCTILE IRON PIPE WITH COMPRESSION JOINTS AND HOT DIP BITUMINOUS COATING;
3. DIPPED AND WRAPPED 1/4-INCH THICK WELDED STEEL PIPE;
4. CLASS 200 PRESSURE RATED PVC WATER PIPE (DR 14 PER AWWA C900-07 & C905-10 OR EQUIVALENT); OR
5. REINFORCED CONCRETE PRESSURE PIPE, STEEL CYLINDER TYPE, PER AWWA (C300-11 OR C302-11 OR C303-17).

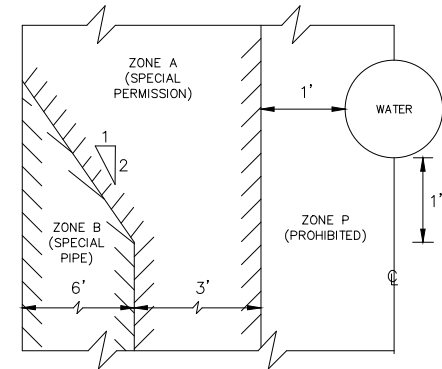
C. THEN CONSTRUCT THE NEW STORM DRAIN LINE USING ONE OF THE FOLLOWING:

1. HDPE WITH FUSION-WELDED JOINTS (PER AWWA C906-15);
2. DUCTILE IRON PIPE WITH COMPRESSION JOINTS AND HOT DIP BITUMINOUS COATING CENTERED OVER THE PIPE BEING CROSSED; OR
3. REINFORCED CONCRETE PRESSURE PIPE, STEEL CYLINDER TYPE, PER AWWA (C300-11 OR C302-11 OR C303-17).

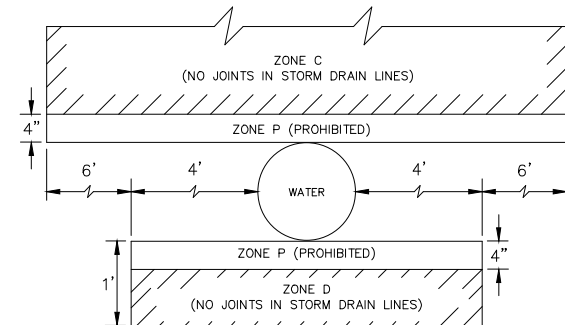
D. THEN CONSTRUCT THE NEW STORM DRAIN LINE USING ONE OF THE FOLLOWING:

1. HDPE WITH FUSION-WELDED JOINTS (PER AWWA C906-15);
2. DUCTILE IRON PIPE WITH COMPRESSION JOINTS AND HOT DIP BITUMINOUS COATING CENTERED UNDER THE PIPE BEING CROSSED;
3. RUBBER GASKETED REINFORCED CONCRETE PIPE CENTERED UNDER THE PIPE BEING CROSSED; OR
4. REINFORCED CONCRETE PRESSURE PIPE, STEEL CYLINDER TYPE, PER AWWA (C300-11 OR C302-11 OR C303-17).

P. PROHIBITED ZONE PER SECTION 64572, CALIFORNIA CODE OF REGULATIONS, TITLE 22, DIVISION 4, CHAPTER 16.



PARALLEL CONSTRUCTION




PERPENDICULAR CROSSING

NOT TO SCALE

LOCATION OF NEW STORM DRAIN LINES TO EXISTING POTABLE WATER LINES

SEE BASIC SEPARATION STANDARDS AND GENERAL NOTES ON SHEET 7.

REVISION				APPROVED:		CITY OF CORONA
NO.	APPROVED	DATE		DATE		
				<i>Tom Eger</i>	1/7/2019	 CITY OF CORONA STD 419
				<i>Vernon R. Weisman</i>	1/7/2019	
				TOM G. KÖPER, PE, CITY ENGINEER		
				VERNON R. WEISMAN, PE, DISTRICT ENGINEER		SHEET 2 OF 7

IF ANY SEWER FORCE MAIN LINES ARE TO BE CONSTRUCTED WITHIN ANY OF THE INDICATED ZONES AS SHOWN, SPECIAL CONSTRUCTION SHALL BE REQUIRED AS DESCRIBED BELOW.

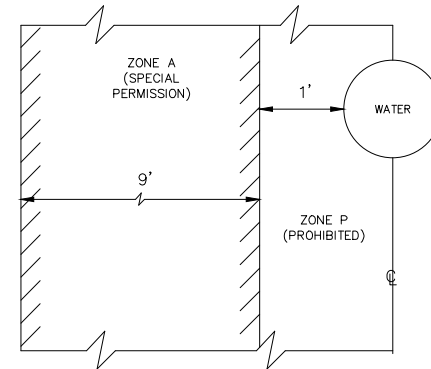
ZONE SEWER FORCE MAIN

PARALLEL PIPES:

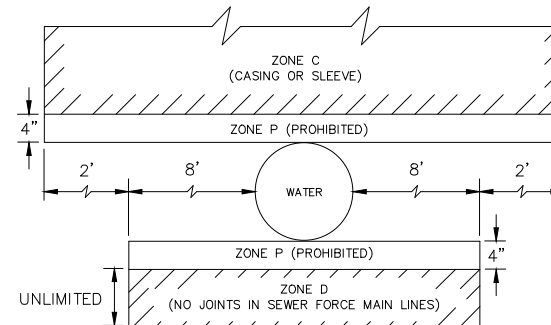
- A. DO NOT LOCATE ANY PARALLEL NEW SEWER FORCE MAIN LINES IN THIS AREA WITHOUT STATE AND LOCAL HEALTH DEPARTMENT APPROVAL.

CROSSING PIPES:

- C. USE ONE OF THE FOLLOWING:
 1. HDPE WITH FUSION-WELDED JOINTS (PER AWWA C906-15) INSTALLED INSIDE HDPE SLEEVE (CASING) WITH FUSION-WELDED JOINTS (PER AWWA C906-15) EXTENDING TO NOT LESS THAN 10 FEET FROM PIPE BEING CROSSED; OR
 2. CONTINUOUS SECTION OF DUCTILE IRON PIPE WITH COMPRESSION JOINTS AND HOT DIP BITUMINOUS COATING INSTALLED INSIDE HDPE SLEEVE (CASING) WITH FUSION-WELDED JOINTS (PER AWWA C906-15) OR STEEL CASING EXTENDED TO NOT LESS THAN 10 FEET FROM PIPE BEING CROSSED.
- D. USE ONE OF THE FOLLOWING:
 1. HDPE WITH FUSION-WELDED JOINTS (PER AWWA C906-15); OR
 2. CONTINUOUS SECTION OF DUCTILE IRON PIPE WITH COMPRESSION JOINTS AND HOT DIP BITUMINOUS COATING CENTERED UNDER AND NO JOINTS WITHIN 8 FEET OF THE PIPE BEING CROSSED.
- P. PROHIBITED ZONE PER SECTION 64572, CALIFORNIA CODE OF REGULATIONS, TITLE 22, DIVISION 4, CHAPTER 16.



PARALLEL CONSTRUCTION





PERPENDICULAR CROSSING

NOT TO SCALE

LOCATION OF NEW SEWER FORCE MAIN LINES TO EXISTING POTABLE WATER AND TERTIARY TREATED RECLAIMED WATER LINES

SEE BASIC SEPARATION STANDARDS AND GENERAL NOTES ON SHEET 7.

REVISION			APPROVED:		CITY OF CORONA
NO.	APPROVED	DATE		DATE	
			<i>Tom Koper</i>	1/7/2019	 CITY OF CORONA STD 419
			TOM G. KOPER, PE, CITY ENGINEER	1/7/2019	
			<i>Vernon R. Weisman</i>		 CITY OF CORONA SHEET 3 OF 7
			VERNON R. WEISMAN, PE, DISTRICT ENGINEER		

IF ANY SANITARY SEWER LINES ARE TO BE CONSTRUCTED WITHIN ANY OF THE INDICATED ZONES AS SHOWN, SPECIAL CONSTRUCTION SHALL BE REQUIRED AS DESCRIBED BELOW.

ZONE SANITARY SEWER

PARALLEL PIPES:

- A. DO NOT LOCATE ANY PARALLEL NEW SANITARY SEWER LINES IN THIS AREA WITHOUT STATE AND LOCAL HEALTH DEPARTMENT APPROVAL.
- B. IF THE EXISTING POTABLE WATER LINE PARALLELING THE NEW SANITARY SEWER LINE IS NOT CONSTRUCTED OF ANY OF THE FOLLOWING:
 1. HDPE WITH FUSION-WELDED JOINTS (PER AWWA C906-15);
 2. DUCTILE IRON PIPE WITH COMPRESSION JOINTS AND HOT DIP BITUMINOUS COATING;
 3. DIPPED AND WRAPPED 3/4-INCH THICK WELDED STEEL PIPE;
 4. CLASS 200, TYPE II, ASBESTOS-CEMENT PRESSURE PIPE;
 5. CLASS 200 PRESSURE RATED PVC WATER PIPE (DR 14 PER AWWA C900-07 & C905-10 OR EQUIVALENT); OR
 6. REINFORCED CONCRETE PRESSURE PIPE, STEEL CYLINDER TYPE, PER AWWA (C300-11 OR C302-11 OR C303-17).

THEN CONSTRUCT THE NEW SANITARY SEWER LINE USING ONE OF THE FOLLOWING:

1. HDPE WITH FUSION-WELDED JOINTS (PER AWWA C906-15);
2. EXTRA STRENGTH VITRIFIED CLAY PIPE WITH COMPRESSION JOINTS;
3. PVC SEWER PIPE WITH RUBBER RING JOINTS (PER ASTM D3034) OR EQUIVALENT; OR
4. DUCTILE IRON PIPE WITH COMPRESSION JOINTS AND HOT DIP BITUMINOUS COATING.

CROSSING PIPES:

IF THE EXISTING POTABLE WATER LINE CROSSING THE NEW SANITARY SEWER LINE IS NOT CONSTRUCTED OF ANY OF THE FOLLOWING:

1. HDPE WITH FUSION-WELDED JOINTS (PER AWWA C906-15);
2. DUCTILE IRON PIPE WITH COMPRESSION JOINTS AND HOT DIP BITUMINOUS COATING;
3. DIPPED AND WRAPPED 3/4-INCH THICK WELDED STEEL PIPE;
4. CLASS 200 PRESSURE RATED PVC WATER PIPE (DR 14 PER AWWA C900-07 & C905-10 OR EQUIVALENT); OR
5. REINFORCED CONCRETE PRESSURE PIPE, STEEL CYLINDER TYPE, PER AWWA (C300-11 OR C302-11 OR C303-17).

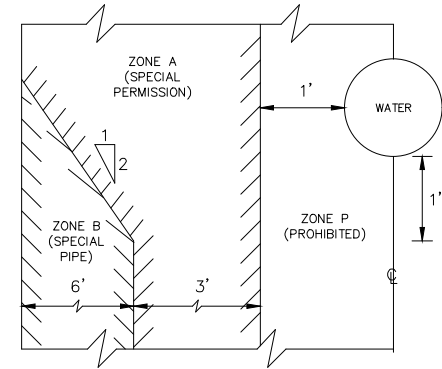
C. THEN CONSTRUCT THE NEW SANITARY SEWER LINE USING ONE OF THE FOLLOWING:

1. CONTINUOUS SECTION OF DUCTILE IRON PIPE WITH HOT BITUMINOUS COATING CENTERED OVER THE PIPE BEING CROSSED;
2. HDPE WITH FUSION-WELDED JOINTS (PER AWWA C906-15);
3. CONTINUOUS SECTION OF CLASS 200 (DR 14 PER AWWA C900-07) PVC PIPE OR EQUIVALENT, CENTERED OVER THE PIPE BEING CROSSED; OR
4. ANY SANITARY SEWER LINE WITHIN A CONTINUOUS SLEEVE.

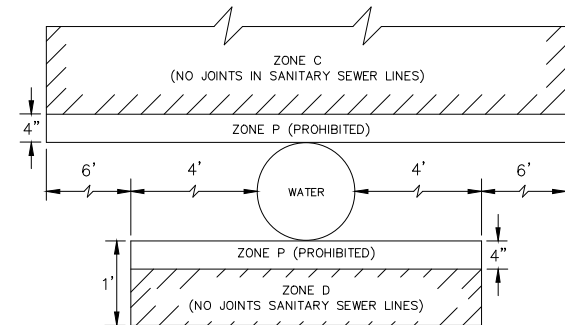
D. THEN CONSTRUCT THE NEW SANITARY SEWER LINE USING ONE OF THE FOLLOWING WITH NO JOINTS WITHIN 4 FEET FROM EITHER SIDE OF THE POTABLE WATER LINE:

1. HDPE WITH FUSION-WELDED JOINTS (PER AWWA C906-15);
2. DUCTILE IRON PIPE WITH HOT DIP BITUMINOUS COATING AND MECHANICAL JOINTS (GASKETED, BOLTED JOINTS) CENTERED UNDER THE PIPE BEING CROSSED;
3. CONTINUOUS SECTION OF CLASS 200 (DR 14 PER AWWA C900-07) PVC PIPE OR EQUIVALENT, CENTERED UNDER THE PIPE BEING CROSSED; OR
4. ANY SANITARY SEWER LINE WITHIN A CONTINUOUS SLEEVE.

P. PROHIBITED ZONE PER SECTION 64572, CALIFORNIA CODE OF REGULATIONS, TITLE 22, DIVISION 4, CHAPTER 16.



PARALLEL CONSTRUCTION



PERPENDICULAR CROSSING

NOT TO SCALE

LOCATION OF NEW SANITARY SEWER LINES TO EXISTING POTABLE WATER LINES

SEE BASIC SEPARATION STANDARDS AND GENERAL NOTES ON SHEET 7.

PIPELINE SEPARATION REQUIREMENTS			
NEW SANITARY SEWER			
REVISION		APPROVED:	DATE
NO.	APPROVED		
		<i>Tom Koper</i>	1/7/2019
		TOM G. KOPER, PE. CITY ENGINEER	DATE
		<i>Vernon R. Weisman</i>	1/7/2019
		VERNON R. WEISMAN, PE. DISTRICT ENGINEER	DATE
			CITY OF CORONA
			STD 419
			SHEET 4 OF 7



IF ANY POTABLE WATER, RAW WATER, OR TERTIARY TREATED RECLAIMED WATER LINES ARE TO BE CONSTRUCTED WITHIN ANY OF THE INDICATED ZONES AS SHOWN, SPECIAL CONSTRUCTION SHALL BE REQUIRED AS DESCRIBED BELOW.

ZONE POTABLE WATER, RAW WATER, OR TERTIARY TREATED RECLAIMED WATER

PARALLEL PIPES:

- A. DO NOT LOCATE ANY PARALLEL NEW POTABLE WATER, NEW RAW WATER, OR NEW TERTIARY TREATED RECLAIMED WATER LINES IN THIS AREA WITHOUT STATE AND LOCAL HEALTH DEPARTMENT APPROVAL.
- B. IF THE EXISTING SANITARY SEWER LINE PARALLELING THE NEW POTABLE WATER, NEW RAW WATER, OR NEW TERTIARY TREATED RECLAIMED WATER LINE IS NOT CONSTRUCTED OF ANY OF THE FOLLOWING:
 - 1. HDPE WITH FUSION-WELDED JOINTS (PER AWWA C906-15);
 - 2. EXTRA STRENGTH VITRIFIED CLAY PIPE WITH COMPRESSION JOINTS;
 - 3. PVC SEWER PIPE WITH RUBBER RING JOINTS (PER ASTM D3034) OR EQUIVALENT.

THEN CONSTRUCT THE NEW POTABLE WATER, NEW RAW WATER, OR NEW TERTIARY TREATED RECLAIMED WATER LINE USING ONE OF THE FOLLOWING:

- 1. HDPE WITH FUSION-WELDED JOINTS (PER AWWA C906-15);
- 2. DUCTILE IRON PIPE WITH COMPRESSION JOINTS AND HOT DIP BITUMINOUS COATING;
- 3. DIPPED AND WRAPPED ¼-INCH THICK WELDED STEEL PIPE;
- 4. CLASS 200 PRESSURE RATED PVC WATER PIPE (DR 14 PER AWWA C900-07 & C905-10 OR EQUIVALENT); OR
- 5. REINFORCED CONCRETE PRESSURE PIPE, STEEL CYLINDER TYPE, PER AWWA (C300-11 OR C302-11 OR C303-17).

CROSSING PIPES:

IF THE EXISTING SANITARY SEWER LINE CROSSING THE NEW POTABLE WATER, NEW RAW WATER, OR NEW TERTIARY TREATED RECLAIMED WATER LINE IS NOT CONSTRUCTED OF ANY OF THE FOLLOWING:

- 1. CONTINUOUS SECTION OF DUCTILE IRON PIPE WITH HOT BITUMINOUS COATING CENTERED OVER OR UNDER THE PIPE BEING CROSSED;
- 2. HDPE WITH FUSION-WELDED JOINTS (PER AWWA C906-15);
- 3. CONTINUOUS SECTION OF CLASS 200 (DR 14 PER AWWA C900-07) PVC PIPE OR EQUIVALENT, CENTERED OVER THE PIPE BEING CROSSED; OR
- 4. ANY SANITARY SEWER LINE WITHIN A CONTINUOUS SLEEVE.

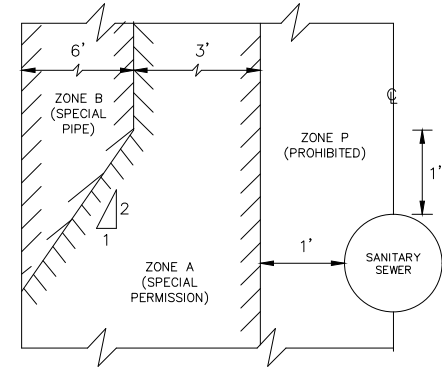
C. THEN CONSTRUCT THE NEW POTABLE WATER, NEW RAW WATER, OR NEW TERTIARY TREATED RECLAIMED WATER LINE USING ONE OF THE FOLLOWING:

- 1. HDPE WITH FUSION-WELDED JOINTS (PER AWWA C906-15);
- 2. DUCTILE IRON PIPE WITH COMPRESSION JOINTS AND HOT DIP BITUMINOUS COATING;
- 3. DIPPED AND WRAPPED ¼-INCH THICK WELDED STEEL PIPE;
- 4. CLASS 200 PRESSURE RATED PVC WATER PIPE (DR 14 PER AWWA C900-07 & C905-10 OR EQUIVALENT); OR
- 5. REINFORCED CONCRETE PRESSURE PIPE, STEEL CYLINDER TYPE, PER AWWA (C300-11 OR C302-11 OR C303-17).

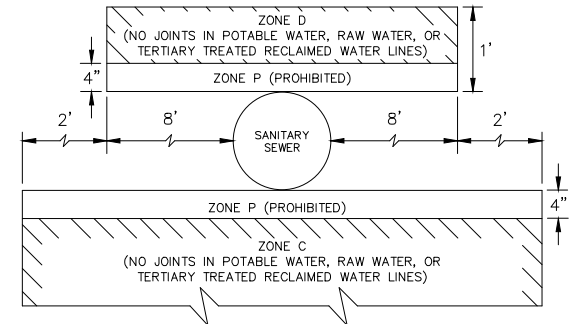
D. THEN CONSTRUCT THE NEW POTABLE WATER, NEW RAW WATER, OR NEW TERTIARY TREATED RECLAIMED WATER LINE USING ONE OF THE FOLLOWING:

- 1. HDPE WITH FUSION-WELDED JOINTS (PER AWWA C906-15);
- 2. DUCTILE IRON PIPE WITH COMPRESSION JOINTS AND HOT DIP BITUMINOUS COATING;
- 3. DIPPED AND WRAPPED ¼-INCH THICK WELDED STEEL PIPE;
- 4. CLASS 200 PRESSURE RATED PVC WATER PIPE (DR 14 PER AWWA C900-07 & C905-10 OR EQUIVALENT); OR
- 5. REINFORCED CONCRETE PRESSURE PIPE, STEEL CYLINDER TYPE, PER AWWA (C300-11 OR C302-11 OR C303-17).

P. PROHIBITED ZONE PER SECTION 64572, CALIFORNIA CODE OF REGULATIONS, TITLE 22, DIVISION 4, CHAPTER 16.



PARALLEL CONSTRUCTION



NOTE: INSTALLATION OF NEW WATER LINES INSIDE HDPE SLEEVES OR STEEL CASINGS WILL MEET THE INTENT OF TITLE 22 REQUIREMENTS.

PERPENDICULAR CROSSING

NOT TO SCALE

LOCATION OF NEW POTABLE WATER, NEW RAW WATER, OR NEW TERTIARY TREATED RECLAIMED WATER LINES TO EXISTING SANITARY SEWER LINES

SEE BASIC SEPARATION STANDARDS AND GENERAL NOTES ON SHEET 7.

PIPELINE SEPARATION REQUIREMENTS – NEW POTABLE WATER, NEW RAW WATER, OR NEW TERTIARY TREATED RECLAIMED WATER

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NO.	APPROVED	DATE				
			<i>Tom Koper</i>		1/7/2019	
			TOM G. KOPER, PE. CITY ENGINEER		1/7/2019	
			<i>Vernon R. Weisman</i>			
			VERNON R. WEISMAN, PE. DISTRICT ENGINEER			



CITY OF CORONA
STD 419
SHEET 5 OF 7

IF ANY POTABLE WATER, RAW WATER, OR TERTIARY TREATED RECLAIMED WATER LINES ARE TO BE CONSTRUCTED WITHIN ANY OF THE INDICATED ZONES AS SHOWN, SPECIAL CONSTRUCTION SHALL BE REQUIRED AS DESCRIBED BELOW.

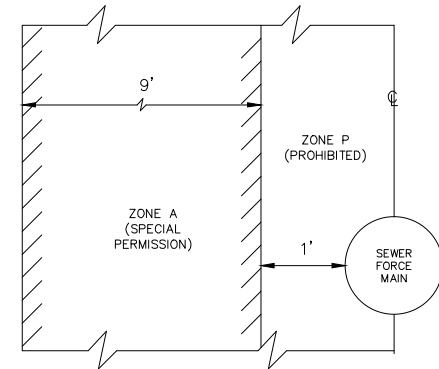
ZONE POTABLE WATER, RAW WATER, OR TERTIARY TREATED RECLAIMED WATER

PARALLEL PIPES:

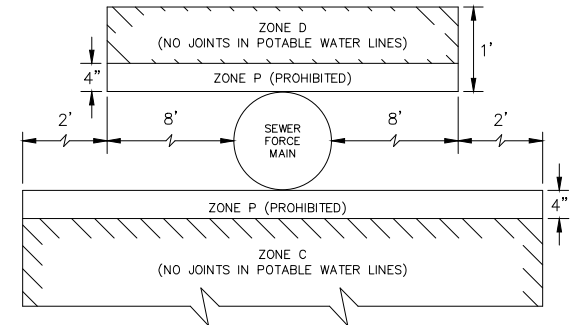
- A. DO NOT LOCATE ANY PARALLEL NEW POTABLE WATER, NEW RAW WATER, OR NEW TERTIARY TREATED RECLAIMED WATER LINES IN THIS AREA WITHOUT STATE AND LOCAL HEALTH DEPARTMENT APPROVAL.

CROSSING PIPES:

- C. CONSTRUCT THE NEW POTABLE WATER, NEW RAW WATER, OR NEW TERTIARY TREATED RECLAIMED WATER LINE USING ONE OF THE FOLLOWING:
 1. HDPE WITH FUSION-WELDED JOINTS (PER AWWA C906-15);
 2. DUCTILE IRON PIPE WITH COMPRESSION JOINTS AND HOT DIP BITUMINOUS COATING;
 3. DIPPED AND WRAPPED ¼-INCH THICK WELDED STEEL PIPE;
 4. CLASS 200 PRESSURE RATED PVC WATER PIPE (DR 14 PER AWWA C900-07 & C905-10 OR EQUIVALENT); OR
 5. REINFORCED CONCRETE PRESSURE PIPE, STEEL CYLINDER TYPE, PER AWWA (C300-11 OR C302-11 OR C303-17).
- D. CONSTRUCT THE NEW POTABLE WATER, NEW RAW WATER, OR NEW TERTIARY TREATED RECLAIMED WATER LINE USING ONE OF THE FOLLOWING:
 1. HDPE WITH FUSION-WELDED JOINTS (PER AWWA C906-15);
 2. DUCTILE IRON PIPE WITH COMPRESSION JOINTS AND HOT DIP BITUMINOUS COATING;
 3. DIPPED AND WRAPPED ¼-INCH THICK WELDED STEEL PIPE;
 4. CLASS 200 PRESSURE RATED PVC WATER PIPE (DR 14 PER AWWA C900-07 & C905-10 OR EQUIVALENT); OR
 5. REINFORCED CONCRETE PRESSURE PIPE, STEEL CYLINDER TYPE, PER AWWA (C300-11 OR C302-11 OR C303-17).
- P. PROHIBITED ZONE PER SECTION 64572, CALIFORNIA CODE OF REGULATIONS, TITLE 22, DIVISION 4, CHAPTER 16.



PARALLEL CONSTRUCTION




NOTE: INSTALLATION OF NEW WATER LINES INSIDE HDPE SLEEVES OR STEEL CASINGS WILL MEET THE INTENT OF TITLE 22 REQUIREMENTS.

PERPENDICULAR CROSSING

NOT TO SCALE

LOCATION OF NEW POTABLE WATER, NEW RAW WATER, OR NEW TERTIARY TREATED RECLAIMED WATER LINES TO EXISTING SEWER FORCE MAIN LINES

REVISION			APPROVED:		DATE	CITY OF CORONA
NO.	APPROVED	DATE			DATE	
			Tom Koper		1/7/2019	 CITY OF CORONA STD 419
			TOM G. KOPER, PE, CITY ENGINEER		1/7/2019	
			Vernon R. Weisman			SHEET 6 OF 7
			VERNON R. WEISMAN, PE, DISTRICT ENGINEER			

SEE BASIC SEPARATION STANDARDS AND GENERAL NOTES ON SHEET 7.

IF ANY STORM DRAIN LINES ARE TO BE CONSTRUCTED WITHIN ANY OF THE INDICATED ZONES AS SHOWN, SPECIAL CONSTRUCTION SHALL BE REQUIRED AS DESCRIBED BELOW.

ZONE STORM DRAIN

PARALLEL PIPES:

- A. DO NOT LOCATE ANY PARALLEL NEW STORM DRAIN LINES IN THIS AREA WITHOUT STATE AND LOCAL HEALTH DEPARTMENT APPROVAL.
- B. IF THE EXISTING SANITARY SEWER LINE PARALLELING THE NEW STORM DRAIN LINE IS NOT CONSTRUCTED OF ANY OF THE FOLLOWING:
 1. HDPE WITH FUSION-WELDED JOINTS (PER AWWA C906-15);
 2. EXTRA STRENGTH VITRIFIED CLAY PIPE WITH COMPRESSION JOINTS;
 3. PVC SEWER PIPE WITH RUBBER RING JOINTS (PER ASTM D3034) OR EQUIVALENT.

THEN CONSTRUCT THE NEW STORM DRAIN LINE OF ONE OF THE FOLLOWING:

1. HDPE WITH FUSION-WELDED JOINTS (PER AWWA C906-15);
2. DUCTILE IRON PIPE WITH COMPRESSION JOINTS AND HOT DIP BITUMINOUS COATING;
3. RUBBER GASKETED REINFORCED CONCRETE PIPE; OR
4. REINFORCED CONCRETE PRESSURE PIPE, STEEL CYLINDER TYPE, PER AWWA (C300-11 OR C302-11 OR C303-17).

CROSSING PIPES:

IF THE EXISTING SANITARY SEWER LINE CROSSING THE NEW STORM DRAIN LINE IS NOT CONSTRUCTED OF ANY OF THE FOLLOWING:

1. CONTINUOUS SECTION OF DUCTILE IRON PIPE WITH HOT BITUMINOUS COATING CENTERED OVER OR UNDER THE PIPE BEING CROSSED;
2. HDPE WITH FUSION-WELDED JOINTS (PER AWWA C906-15);
3. CONTINUOUS SECTION OF CLASS 200 (DR 14 PER AWWA C900-07) PVC PIPE OR EQUIVALENT, CENTERED OVER THE PIPE BEING CROSSED; OR
4. ANY SANITARY SEWER LINE WITHIN A CONTINUOUS SLEEVE.

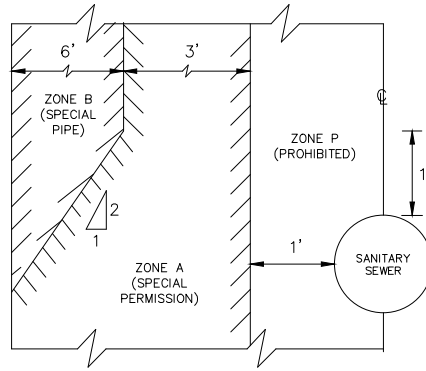
C. THEN CONSTRUCT THE NEW STORM DRAIN LINE USING ONE OF THE FOLLOWING:

1. HDPE WITH FUSION-WELDED JOINTS (PER AWWA C906-15);
2. DUCTILE IRON PIPE WITH COMPRESSION JOINTS AND HOT DIP BITUMINOUS COATING CENTERED UNDER THE PIPE BEING CROSSED; OR
3. REINFORCED CONCRETE PRESSURE PIPE, STEEL CYLINDER TYPE, PER AWWA (C300-11 OR C302-11 OR C303-17).

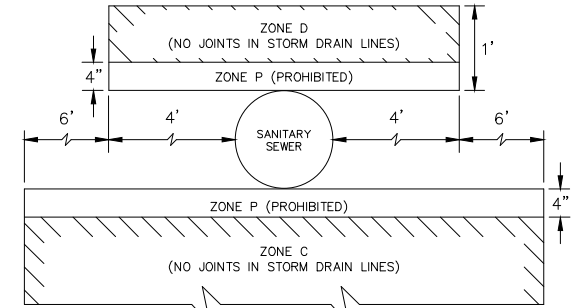
D. THEN CONSTRUCT THE NEW STORM DRAIN LINE USING ONE OF THE FOLLOWING:

1. HDPE WITH FUSION-WELDED JOINTS (PER AWWA C906-15);
2. DUCTILE IRON PIPE WITH COMPRESSION JOINTS AND HOT DIP BITUMINOUS COATING;
3. RUBBER GASKETED REINFORCED CONCRETE PIPE; OR
4. REINFORCED CONCRETE PRESSURE PIPE, STEEL CYLINDER TYPE, PER AWWA (C300-11 OR C302-11 OR C303-17).

P. PROHIBITED ZONE PER SECTION 64572, CALIFORNIA CODE OF REGULATIONS, TITLE 22, DIVISION 4, CHAPTER 16.



PARALLEL CONSTRUCTION



NOTE: CONCRETE ENCASEMENT WITHIN ZONE C WILL MEET THE INTENT OF TITLE 22 REQUIREMENTS.

PERPENDICULAR CROSSING

BASIC SEPARATION STANDARDS

1. PARALLEL CONSTRUCTION: THE HORIZONTAL DISTANCE BETWEEN POTABLE WATER, RAW WATER, TERTIARY TREATED RECLAIMED WATER LINES, STORM DRAIN LINES, AND SANITARY SEWER LINES SHALL BE AT LEAST 10 FEET, OUTSIDE OF PIPE TO OUTSIDE OF PIPE, UNLESS BASIC SEPARATION STANDARDS CANNOT BE ATTAINED AND ALTERNATIVE CONSTRUCTION CRITERIA ARE MET.
2. PERPENDICULAR CONSTRUCTION (CROSSING): WATER LINES SHALL BE AT LEAST ONE FOOT ABOVE SANITARY SEWER LINES, RAW WATER, TERTIARY TREATED RECLAIMED WATER LINES, AND STORM DRAIN LINES WHERE THESE LINES MUST CROSS.
3. SPECIAL PROVISIONS: WHERE THE BASIC SEPARATION STANDARDS CANNOT BE ATTAINED ALTERNATIVE CONSTRUCTION CRITERIA ARE MET.


GENERAL NOTES:

1. SEPARATION REQUIREMENTS SHALL BE IN ACCORDANCE WITH LATEST UPDATE FROM STATE OF CALIFORNIA, DEPT. OF HEALTH SERVICES, SAN DIEGO OFFICE.
2. PVC PRESSURE PIPE NOT ALLOWED IN CITY OF CORONA FOR CONSTRUCTION OF DOMESTIC WATER AND RECLAIMED WATER MAINS WITHOUT PRIOR APPROVAL BY THE DWP GENERAL MANAGER.

NOT TO SCALE

LOCATION OF NEW STORM DRAIN LINES TO EXISTING SANITARY SEWER LINES

PIPELINE SEPARATION REQUIREMENTS – NEW STORM DRAIN,
BASIC SEPARATION STANDARDS AND GENERAL NOTES

REVISION			APPROVED:		CITY OF CORONA
NO.	APPROVED	DATE		DATE	
			<i>Tom Koper</i>	1/7/2019	 CITY OF CORONA STD 419 SHEET 7 OF 7
			<i>Vernon R. Weisman</i>	1/7/2019	
			TOM G. KOPER, PE. CITY ENGINEER		
			VERNON R. WEISMAN, PE. DISTRICT ENGINEER		