

QTY	SP/BID	MARK	DESCRIPTION
2	CL-ASP	Y1001	24"X24"X12"X12" FRBELL FR FR C10 CROSS, CENTER TO FRBELL SOCKET 15', CENTER TO FRBELL SOCKET 15', CENTER TO FR SOCKET 19', CENTER TO FR SOCKET 19', 2-2-2-2
3	CL-ASP	Y1002	12" FR PIPE CL-50 0.31" 50'-1/4", 2-2-2-2
1	CL-ASP	Y1003	12" FR PIPE CL-50 0.31" 50'-1/4", 2-2-2-2
1	CL-ASP	Y1004	24" FRBELL FR PIPE CL-50 0.38" 10'-8" 3/4", 2-2-2-2
1	CL-ASP	Y1005	24" FRBELL FR PIPE CL-50 0.38" 10'-8" 3/4", 2-2-2-2
2	CL-ASP	Y1006	24"X16" FRBELL (110-CC REDUCER 20", 350 PSI 4-2-2-2
21	CL-ASP	Y1007	24" FRBELL FR PIPE CL-50 0.38" 19'-9", 2-2-2-2
1	CL-ASP	Y1008	24" FRBELL FR PIPE CL-50 0.38" 19'-9", 2-2-2-2
1	CL-ASP	Y1009	16" FLG FR PIPE CL-53 0.43" 3'-6" 3/4", 2-2-2-2
1	CL-ASP	Y1010	16" FLG FR PIPE CL-53 0.43" 3'-6" 3/4", 2-2-2-2
1	RESTRAINED	Y1011	24" FRBELL C153 45 BEND, ALL CENTERS 9', 350 PSI 4-2-2-2
1	RESTRAINED	Y1012	24" FRBELL FR C10 45 BEND, CENTER TO FRBELL SOCKET 11', CENTER TO FRBELL SOCKET 11', 350 PSI 4-2-2-2
1	CL-ASP	Y1013	24" FRBELL C153 90 BEND, ALL CENTERS 17', 350 PSI 4-2-2-2
1	CL-ASP	Y1014	24" FRBELL FR PIPE CL-50 0.38" 4'-9" 5/8", 2-2-2-2
1	RESTRAINED	Y1015	24" FRBELL C110 30 BEND, ALL CENTERS 11', 350 PSI 4-2-2-2
1	CL-ASP	Y1016	24" FRBELL FR PIPE CL-50 0.38" 6'-9" 3/4", 2-2-2-2
1	CL-ASP	Y1017	24" FRBELL FR PIPE CL-50 0.38" 5'-6" 13/16", 2-2-2-2
1	ASP-ASP	Y1018	24" FRBELL PLUG, 350 PSI 1-2-2-2

** - Indicates the item has been placed on order.

SPECIFICATION BOUNDARY DEFINITIONS

Boundary ID: CL-ASP Service type: PROCESS
 Boundary name: CL-ASP Service temp: 50
 Boundary unit: 1 Environment: EXT/BURIED

Pipe lining: Single Thick C/L with Seal Coat, Black, 1-Coat, AMMA C104
 Pipe coating: Asphaltic Coated, Black, 1-Coat, 3-Avg, 1-Min
 Filling lining: Double Thick C/L with Seal Coat, Black, 1-Coat, AMMA C104
 Filling coating: Asphaltic Coated, Black, 1-Coat, 3-Avg, 1-Min

Gasket types
 FASTITE - Fastite Gasket, Plain Rubber Styrene-Butadiene
 FLEX-RING 4-12 - Fastite Gasket, Plain Rubber Styrene-Butadiene
 FLG LESS ACCESSORIES - none
 FRBELL FLEX-RING - Fastite Gasket, Plain Rubber Styrene-Butadiene
 MJ - Mechanical Joint Gasket, Plain Rubber Styrene-Butadiene
 RIGID GROOV LESS ACC - none

Boundary ID: RESTRAINED Service type: PROCESS
 Boundary name: RESTRAINED Service temp: 50
 Boundary unit: 1 Environment: EXT/BURIED

Pipe lining: Single Thick C/L with Seal Coat, Black, 1-Coat, AMMA C104
 Pipe coating: Asphaltic Coated, Black, 1-Coat, 3-Avg, 1-Min
 Filling lining: Double Thick C/L with Seal Coat, Black, 1-Coat, AMMA C104
 Filling coating: Asphaltic Coated, Black, 1-Coat, 3-Avg, 1-Min

Gasket types
 FAST GRIP 350 PSI - Fastigrip Gasket 350 PSI, Plain Rubber Styrene-Butadiene
 FLD FRBELL FLEX-RING - Fastite Gasket, Plain Rubber Styrene-Butadiene
 FLEX-RING 4-12 - Fastite Gasket, Plain Rubber Styrene-Butadiene
 FLG LESS ACCESSORIES - none
 MJ - Mechanical Joint Gasket, Plain Rubber Styrene-Butadiene
 RIGID GROOV LESS ACC - none

Boundary ID: CL-ASP Service type: PROCESS
 Boundary name: CL-ASP Service temp: 50
 Boundary unit: 1 Environment: EXT/BURIED

Pipe lining: Single Thick C/L with Seal Coat, Black, 1-Coat, AMMA C104
 Pipe coating: Asphaltic Coated, Black, 1-Coat, 3-Avg, 1-Min
 Filling lining: Double Thick C/L with Seal Coat, Black, 1-Coat, AMMA C104
 Filling coating: Asphaltic Coated, Black, 1-Coat, 3-Avg, 1-Min

Gasket types
 FASTITE - Fastite Gasket, Plain Rubber Styrene-Butadiene
 FLEX-RING 4-12 - Fastite Gasket, Plain Rubber Styrene-Butadiene
 FLG LESS ACCESSORIES - none
 FRBELL FLEX-RING - Fastite Gasket, Plain Rubber Styrene-Butadiene
 MJ - Mechanical Joint Gasket, Plain Rubber Styrene-Butadiene
 RIGID GROOV LESS ACC - none

Boundary ID: ASP-ASP Service type: PROCESS
 Boundary name: ASP-ASP Service temp: 50
 Boundary unit: 1 Environment: EXT/BURIED

Pipe lining: Asphaltic Lined, Black, 1-Coat, 3-Avg, 1-Min
 Pipe coating: Asphaltic Coated, Black, 1-Coat, 3-Avg, 1-Min
 Filling lining: Asphaltic Lined, Black, 1-Coat, 3-Avg, 1-Min
 Filling coating: Asphaltic Coated, Black, 1-Coat, 3-Avg, 1-Min

Gasket types
 FASTITE - Fastite Gasket, Plain Rubber Styrene-Butadiene
 FLEX-RING 4-12 - Fastite Gasket, Plain Rubber Styrene-Butadiene
 FLG LESS ACCESSORIES - none
 FRBELL FLEX-RING - Fastite Gasket, Plain Rubber Styrene-Butadiene
 MJ - Mechanical Joint Gasket, Plain Rubber Styrene-Butadiene
 RIGID GROOV LESS ACC - none

NOTE:

- ALL SECTIONS ARE SHOWN ON DRAWING Y11.
- ALL PIPE LOCATIONS AND DIMENSIONS HAVE BEEN ESTIMATED FROM CONTRACT DRAWINGS. PLEASE VERIFY.

NO EXCEPTIONS NOTED
 EXCEPTIONS NOTED
 RETURNED FOR CORRECTION
 RECORD COPY NOT ACCEPTABLE
 RETURNED WITHOUT REVIEW

AUG 01 2002

REVIEW DOES NOT RELIEVE CONTRACTOR FROM RESPONSIBILITY FOR ERRORS, OMISSIONS, OR DEFICIENCIES FROM CONTRACT REQUIREMENTS.
 BLACK & VEATCH

RESTRAINED JOINT PIPING (NE)
 (Nominal Extension)

Flex-Ring and Lok-Ring joint pipe, designated "NE", have been detailed on this drawing with a nominal joint extension or creep allowance at each joint of 1/4". This joint extension or creep is anticipated due to normal installation practice and tolerance in the joint itself.

AMERICAN DUCTILE IRON PIPE
 A DIVISION OF AMERICAN CAST IRON PIPE COMPANY

PHONE: 1-800-442-2347 FAX: 1-800-442-2348

P O BOX 2727 2916 16th STREET NORTH
 BIRMINGHAM, ALABAMA 35202 BIRMINGHAM, ALABAMA 35207

4'-6" Diameter Ductile Iron Pipe - Fastite Joint, Mechanical Joint, Flanged Joint
 Flex-Ring Restrained Joint, Lok-Ring Restrained Joint, Flex-Lok Restrained Joint
 ANSI A21.10, A21.53, & AMERICAN Standard Fittings
 ANSI A21.4 Cement Lining, POLYBOND Lining, plus Special Coatings & Linings
 American Flow Control - Valves And Hydrants

This drawing is a service to the customer as an aid in developing a detailed bill of material. The purchaser must verify correctness of design and dimensions. It is the responsibility of the purchaser to verify all details on receipt of prints. Changes desired shall be noted on a print and returned to American. Drawings will be revised per these changes. Drawings returned to American without signature or initial will be considered to have been reviewed by the customer with any required change noted.

REVISED BY:	DATE:	REV #

CONDRAIRE, INCORPORATED

WATER TREATMENT FACILITIES
 O'FALLON, MO
 PLATE SETTLER INFLUENT
 12" & 24" PSI LINE
 REF. DWGS. B2 & B7

DRAWN BY: Angella Neelley PROJECT NUMBER: KM001998
 DATE DRAWN: 22May2002 SCALE: NTS

