

CHAPTER 13 APPROVED MANUFACTURERS**13.1 General****A. Adapter**

1. HDPE to Thread 2" ONLY
 - a) Ford C-87-??-
2. HDPE to spigot end on DIPS diameter
 - a) 4" to 10" fused on MJ adapter ONLY
 - b) 12" and larger fused on flange
3. DIP and/or PVC Plain End to Flange: 2 Gaskets only (Flange & MJ)
 - a) Ebaa Iron Works Megaflange Series 2100
 - b) Smith Blair #912
 - c) Romac

B. Bore Materials

1. Casing Plugs
 - a) Cascade
2. Casing Spacers (SS W/ nylon runners)
 - a) Cascade
 - b) Smith-Blair
 - c) BWM
 - i) BWM SS-8
 - ii) KP Ductile Size through KP-9.05

C. Box, Valve

Extensions may be made with addition of valve box bottom and 6" C900 PVC pipe sandwiched between the two valve box bottoms

1. Not in Pavement
 - a) East Jordan Iron Works
 - b) US Pipe
 - c) Tyler Union
 - d) Ford
2. In Pavement
 - a) Mueller – MVB Composite Valve box

D. Concrete Collar

1. RNM LLC Model R2
2. Hosch Concrete Products
3. CCP

E. Extensions (shop drawing approval required on all proposed extensions)

1. Valve stem
 - a) Custom Fab

13.1 General

- F. Flowmeters
 - 1. Flowtube Sensors
 - a) Rosemount 8700 Series
 - 2. Transmitter
 - a) Rosemount 8712
- G. Hatches
 - 1. Aluminum w/ recessed pad-lockable provision & hinged safety grate
 - a) Bilco
 - b) USF Fabrication Inc.
 - c) Halliday
- H. Manhole
 - 1. Gravity- w/Granite Stone, 5,000 PSI
 - a) Knight Precast
 - b) Tindall Concrete
 - c) Hanson Pipe Products
 - d) Parker Precast
 - 2. Manhole Steps
 - a) M.A. Industries Inc. PSI-PF
 - b) American Step Company, Inc. ML-10
 - 3. Frame & Lid with BJWSA Logo
 - a) East Jordan Iron Works V1327
 - b) US Foundry USF-195-E-ORS
 - 4. Seal, Exterior (12")
 - a) Mar-Mac Manufacturing
 - b) ConSeal
 - c) Cretex
 - 5. Vent
 - a) Hanson Pipe Products
- I. Markers
 - 1. Urban 4" x 54"
 - a) RNM LLC
 - b) Hosch Concrete Products
 - 2. Rural 6" x 10' in Concrete footing
- J. Restraint (Mechanical)
 - 1. Restraint, Gland
 - a) DIP
 - i) Ebaa Iron Works 1100 Series Megalug
 - ii) Ford Series 1400
 - iii) Romac RomaGrip

13.1 General

- iv) Mueller Series 2361
- b) PVC
 - i) Ford Series 1350, 1390, 1500
 - ii) Ebaa Iron Works Series 2000PV
 - iii) Romac Industries, Inc. RomaGrip for PVC
 - iv) Mueller Series 2361
- 2. Restraint, Bell
 - a) Both DIP & PVC
 - i) Romac - Series 600
 - ii) Ebaa Iron Works – Series 1500TD
 - b) DIP
 - i) US Pipe - FIELD LOK 350
 - ii) Ford - Series 1450
 - iii) Smith-Blair Series 982
 - iv) Ford Uniflange Series 1450
 - v) Ebaa Iron Works 1700 Series
 - vi) Sigma - One Lok SLD
 - c) PVC
 - i) Ford - Series 1350, 1390
 - ii) Ebaa Iron Works - Series 6500
 - iii) Sigma - PVLoK PVP
- K. Tape
 - 1. Width - 2” Minimum.
 - a) Harris Harris DU Series
- L. Tapping
 - 1. Tapping Sleeves (All Stainless Steel, full wrap a round, removable bolts)
 - a) Smith Blair 665
 - b) Mueller Co. H304 SS
 - c) Romac Industries, Inc. SST III 304SS
 - d) Cascade CST-EX
 - e) JCM 432
 - f) Ford FTSS-*with SS Flange
 - 2. Tapping Gate Valves 250 PSI (4”-12”)
 - a) American Flow Control Series 2500
 - b) AVK
 - c) Clow 6100 Series
 - d) Kennedy
 - e) M&H
 - f) Mueller A-2360-23

13.1 General

M. Valves – See Water and Sewer for use specific valves

1. Resilient Seat

a) Gate (2”) w/ IPT

i) AVK

ii) Clow Model 2369

iii) Mueller A-2360

N. Wire

1. Splice: Direct Bury

a) 3M DBR-6

2. Tracer

a) Bore (#8)

b) General (#12)

i) Kris-Tech Wire Co.

13.2 Pump Stations

- A. Alternator
 - 1. Automatic electrical
 - a) Diversified ARA120ABA
- B. Box, Junction
 - 1. NEMA 4X, Hinged & Lockable (6"x 8"x 4" min.)
 - a) Stahlin Enclosures J-HPL
 - b) Scepter
 - c) Rob-Roy Industries
- C. Breaker
 - 1. Circuit
 - a) General Electric
- D. Coating
 - 1. Paint
 - a) Exposed piping
 - i) Tnemec Company Series 66 Hi-Build Epoxoline w/Series 73 Endura Shield
 - ii) Sherwin Williams - Macropoxy 646 w/Acrolon 218HS
 - iii) Sauereisen
 - b) Concrete Structure – Internal – *See Sewer*
 - i) HDPE
 - 1. Hanson – Agru – Sure Grip
 - c) High build Epoxy – Piping also
 - i) Raven
 - ii) Tnemec
 - iii) Sherwin-Williams – on trial
- E. Communications
 - 1. Remote Monitoring – Local PS (All Duplex non-residential pump stations)
 - a) Cellular - Misson
 - 2. Partial Control – as assigned, and Master PS
 - a) Cellular - Misson
 - 3. Full SCADA – as assigned and Regional PS
 - a) Radio – MR System
- F. Compressor
 - 1. Bubbler Compressor
 - a) Ingram Products HR10WB3
- G. Controller, Liquid Level
 - 1. 120V 4 Relay 4-20MA
 - a) Time Mark Corporation 4042
- H. Coupling, Quick Disconnect

13.2 Pump Stations

1. Pressure Gauge
 - a) Universal Coupling (1") male NPT, ½" female NPT, and Blank end
 - i) Granger NPT ½" male (3LX91), NPT (1") female (3LX90), Blank (3LX85), and Nylon Lanyard (3LX84).
2. By-Pass
 - a) Bauer 4"
 - i) Bauer # 105-0511 - Male NPT threaded end by socket
- I. Disconnect – Electrical: NEMA 4x stainless steel enclosure. GE Main breaker shall have a lockable externally mounted control lever
 1. Enclosure
 - a) Hoffman
 2. Breaker
 - a) GE
- J. Float
 1. Weighted
 - a) RotoFloat
- K. Flowmeter
 1. Air – 5 SCFH
 - a) Dwyer Visi-Float VFA-3-BV
 2. Liquid
 - a) Rosemount
 - i) Meter/Transmitter 8712D
 - ii) Flow Tube 8705 PTFE Teflon
- L. Gauge (NOT generally required)
 1. Stainless Steel, glycerin filled, with 4.5" dial in phenolic case
 - a) Ashcroft
- M. Hanger
 1. Float
 - a) Electric Specialty DORS -3
- N. Horn
 1. Alarm, external
 - a) Federal Signal 350, 115 VAC
- O. Pressure Transducer
 1. 24VDC0-15PSI go
 - a) Time Mark Corporation 450
- P. Pumps
 1. System
 - a) Self-priming
 - i) Solids Handling
 1. Gorman Rupp Co. Super T series

13.2 Pump Stations

- b) Submersible
 - i) Grinder
 - 1. ABS Piranha
 - ii) Solids Handling
 - 1. ABS
- 2. Emergency Bypass
 - a) Gorman Rupp
 - b) Godwin
- Q. Receptacle
 - 1. Generator, (100 amp)(4) w/ Spring Door
 - a) Crouse-HindsAR 1041
 - b) Appleton ADR1044
 - 2. Generator, (200 amp)(4); door to have locking studs at 180 degrees at 3 & 9 o'clock
 - a) Crouse-HindsAR 2041
 - b) Appleton AR20044
- R. Relay
 - 1. Control, 3-pole blade w/
 - a) Allen Bradley
 - 2. Phase
 - a) Sycom 102A
 - 3. Phase Failure
 - a) Diversified SLA***ASA
- S. Starter
 - 1. Motor
 - a) General Electric
- T. Surge Protection
 - 1. Lightning surge
 - a) Innovative Technology PTX160
 - b) Joslyn
- U. Surge Suppressor
 - 1. Low voltage
 - a) Innovative Technology HS-120-10A
- V. Valve
 - 1. Ball
 - a) 1", Stainless Steel Body
 - i) Matco-Norca Model 760
 - ii) FNW 200X
 - iii) Merit Brass 800 WOG
 - b) 2", Iron body

13.2 Pump Stations

- i) Crane
 - ii) Hammond 8433
 - iii) Inline 302F
 2. Check Valve (Vault or above Ground)
 - a) Swing (2" only)
 - i) Matco-Norca 115S
 - ii) Legend Valve (Brass) T-451/S-451
 - b) Swing 4" and larger
 - i) Golden Anderson
 - ii) Flomatic Model 90LS
 - iii) Clow F-5381 style 106SL
- W. Wetwell
1. Structure Granite Stone, 5,000 PSI
 - a) Knight Precast
 - b) Tindall Concrete
 - c) Hanson Pipe Products
 - d) Parker Precast
 2. Vent (4.75 square SS or Aluminum Frame w/1/4x1x1 covered w/1x1x1 6" square grate)
 - a) Hanson Pipe Products

13.3 Sewer

- A. Clean Out
1. Traffic or 6"
 - a) US Foundry USF 7621
 2. Non Traffic 4"
 - a) Valve Box Tap w/ Sewer Lid
- B. Coatings Structure Interior
1. HDPE
 - a) Hanson Agru Sure-Grip
 - b) C.I.M. Industry Inc. CIM-2000
 - c) GSE Studliner
 2. High build Epoxy
 - a) Raven 405
 - b) Tnemec
 - c) Sherwin-Williams – *on trial*
 - d) Sauereisen
- C. Fittings
1. PVC: SDR 26 Heavy wall
 - a) Multi Fittings

13.3 Sewer

- b) Harco
- 2. DIP (w/ exterior FBE Coating & Class 350)
 - a) 401 interior coating
 - i) Custom Fab
 - 3. Adapter (w/ exterior FBE Coating & Class 350 and 401 interior coating)
 - a) MJ to Flange
 - i) Romac Industries, Inc. RFCA
- D. Pipe
 - 1. Pressure Pipe
 - a) Ductile Iron Pressure (See DIP Manufactures)
 - i) 401 interior lining
 - 1. Custom Fab
 - b) HDPE 200 PSI (DR) 2" stripped color to match use.
 - i) Charter Plastic
 - ii) Endot Industries
 - c) HDPE 160 PSI (SDR 11 min.) ASTM D-3035 (OD controlled) stripped color to match use for pipe with diameters 4" and larger
 - i) Plexco
 - d) PVC (C909) Pressure Main
 - i) PWEagle
 - e) PVC (Fusible) Pressure Main
 - i) Underground Solutions
 - 2. Gravity (PVC)
 - a) Bell and Spigot joints SDR 26
 - i) Hawk
 - ii) Diamond
 - iii) Certainteed
 - iv) PWEagle
 - v) National
 - vi) North American
 - vii) JM
 - viii) Harco
 - b) Fusion joints – Fusible C900 or C905 - Certified video required
 - i) Underground Solutions
- E. Saddles, Tapping - Gravity
 - a) Romac Industries Inc. "CB" Sewer Saddle
- F. Trap, Grease/Sand Oil Separator – Failure stops discharge to sewer system
 - a) See Precast structure Manufactures in General, Manholes
 - b) Proceptor
- G. Valves

13.3 Sewer

1. Air Release
 - a) 2"
 - i) ARI D-025 SAAR with vacuum check (Nylon below - SS above)
 - ii) Golden Anderson Model 929
 - iii) Val-matic # 48A
2. Check
 - a) Direct Bury 2" only/flapper
 - i) Crispin RF Series
 - ii) Val-matic Swing-Flex (VM-502A)
 - iii) Mueller Flexible Disc
 - b) In pit or Manhole outside PS Swing flapper - No external moving parts
 - i) Mueller Flexible Disc
 - ii) Val-matic Swing-Flex (VM-502A) - Resilient Lining
 - iii) Crispin RF Series
 - iv) Clow Valve Company Style 306AS
3. Plug
 - a) 4" and greater with actuator
 - i) Clow
 - ii) Dezurik Series 100
 - iii) Mueller

13.4 Water

- A. Blowoff, Post (White, open left, 3' bury depth)
 - a) Mueller A-411, 3" MJ shoe
 - b) Kupferle Foundry Eclipse No. 2 w/ 4" MJ shoe
- B. Box Valve - Lockable
 1. Insert
 - a) SWServices Debris Cap
 2. Lid
 - a) East Jordan Iron Works 4904L
 - b) Tyler Pipe 145462
 - c) American Flow Control
- C. Corporation Stops
 1. (1" taps)(AWWA/CC)
 - a) Mueller H15005 or H15009
 - b) Ford F1000-G
- D. Fittings
 1. DIP (w/exterior FBE Coating)
 - a) MJ Compact

13.4 Water

- i) Griffin
 - ii) US Pipe
 - iii) ACIPCO
 - iv) Sigma
 - v) Tyler
 - vi) Union Foundry
- 2. Tapping Sleeve
 - a) Fabricated (Weld on)
 - i) Romac FT
- E. Flushing Devices
 - 1. Automatic, 2"
 - a) Hydro-Guard
 - b) Kupferle Foundry Eclipse # 9600
- F. Hydrants
 - 1. Yard Hydrant (1" Inlet and 3' bury depth)
 - a) Woodford Y1
 - 2. Fire Hydrant
 - a) Mueller Super Centurion 250 A423
 - i) Open Left/Silver Red/3' bury 523-1-036-623-1085-00-40560-27-533
 - ii) Open Right/Yellow/3' bury 523-2-036-623-1085-00-40560-M7-533
 - b) AVK
 - i) Open Left/Silver Red/3' bury 27AJ-AC905-0010B-V
 - ii) Open Right/Yellow/3' bury 27AH-AC905-0010B-AN
 - c) Clow Medallion
 - i) Open Left/Silver Red/3' bury 3953DJJ14AG031
 - ii) Open Right/Yellow/3' bury 3953DJJ54AG002
- G. Meters
 - 1. Badger
 - 2. Hersey
- H. Pipe
 - 1. Ductile Iron, Pressure
 - a) US Pipe
 - b) Griffin
 - c) American
 - 2. HDPE 200 PSI (DR) 2" stripped color to match use.
 - i) Charter Plastic
 - ii) Endot Industries
 - 3. HDPE (SDR 11 160 PSI) 4" and larger w/stripe to match use
 - a) Plexco

13.4 Water

- b) Charter
- 4. PVC Potable Water (C900 DR18)
 - a) Certainteed
 - b) Napco
 - c) PWEagle
 - d) JM
 - e) Diamond
 - f) Sanderson Pipe
- I. Saddles, Service (<8" 2 bolts otherwise 4 bolts)
 - 1. (1" CC thread Outlet)
 - a) Romac
 - b) Ford FC 101 & FC 202
 - c) Mueller DE1S
 - d) Smith Blair 315
 - 2. (2" IPT thread Outlet)
 - a) Smith Blair 317
 - b) Ford FC 202 & FC 101
 - c) Romac 101N
- J. Sampling Station
 - 1. Insulated w/ 3' bury depth
 - a) Kupferle Foundry Eclipse 88WC
- K. Tubing, Service
 - 1. Service, 1" 200 PSI SIDR 7 ASTM D2239 (blue & w/ blue strip)
 - a) Endot Industries
 - b) Charter Plastics
 - c) Silver-Line Plastics
 - 2. Service, 2" 200 PSI SDR rated (IPS-OD) ASTM D3035 (w/ blue strips or blue)
 - a) Endot Industries
 - b) Charter Plastics
 - c) Silver-Line Plastics
- L. Valve
 - 1. Air Release
 - a) 2"
 - i) ARI D-040 with vacuum check
 - ii) Val-matic # 38S
 - 2. Ball
 - a) Ford
 - b) Mueller B-20200
 - 3. Butterfly

13.4 Water

- a) 14" and larger
 - i) Pratt
 - ii) Clow Series 4500
 - iii) Mueller Lineseal III 3211
 - iv) Dezurik AWWA C504
- 4. Check
 - a) Rubber disk facing
 - i) Golden Anderson (HDL ASA 125)
 - ii) Flomatic
 - iii) Val-matic
 - iv) Mueller A-2602-6-02 (Flange)
- 5. Gate 250 PSI (4" - 12")
 - i) American Flow Control Series 500
 - ii) AVK
 - iii) Clow 6100 Series
 - iv) Kennedy
 - v) M&H 4067
 - vi) Mueller A-2360-23

END OF SECTION