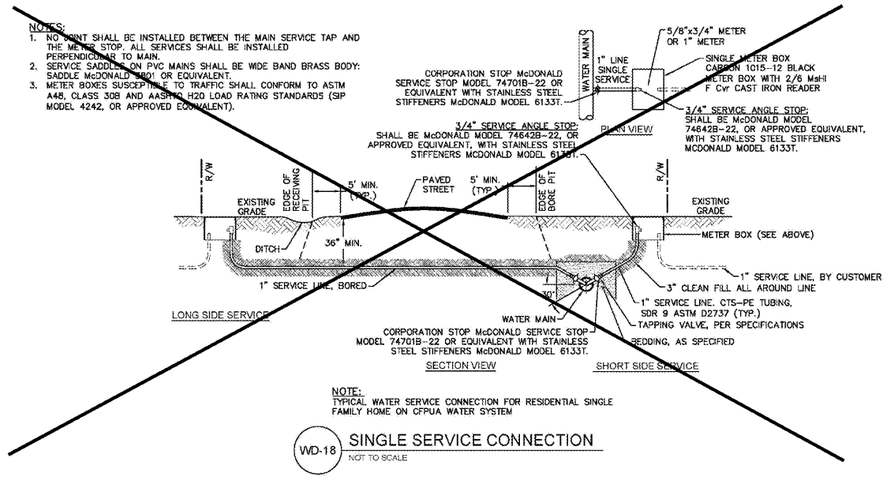
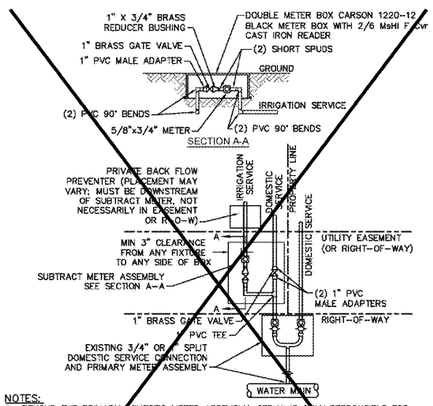
WWW.LDILLC.com
Order Plans @ WWW.LDILLC.com

NOTES:
1. NO JOINT SHALL BE INSTALLED BETWEEN THE MAIN SERVICE TAP AND THE METER STOP. ALL SERVICES SHALL BE INSTALLED PERPENDICULAR TO MAIN.
2. SERVICE SADDLES ON PVC MAINS SHALL BE WIDE BAND BRASS BODY: SADDLE McDONALD 3800 OR EQUIVALENT.
3. METER BOXES SUSCEPTIBLE TO TRAFFIC SHALL CONFORM TO ASTM A48, CLASS 30B AND AASHTO H20 LOAD RATING STANDARDS (SIP MODEL 4242, OR APPROVED EQUIVALENT).



NOTE:
TYPICAL WATER SERVICE CONNECTION FOR RESIDENTIAL SINGLE FAMILY HOME ON CFPUA WATER SYSTEM

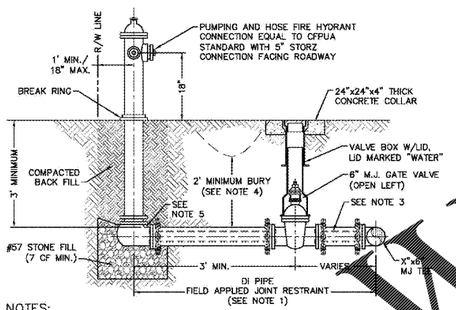
WD-18 SINGLE SERVICE CONNECTION
NOT TO SCALE



NOTES:
1. BEYOND THE PRIMARY DOMESTIC METER ASSEMBLY, CFPUA IS ONLY RESPONSIBLE FOR METER AND WASHERS OF SUBTRACT METER ASSEMBLY.
2. ALL PIPE AND FITTINGS UP TO FINAL SERVICE LINE TO BE 1" EXCLUDING METERS.

PLAN VIEW
(MULTIPLE DOMESTIC SERVICES PER TAP)

DOUBLE SERVICE CONNECTION USING SUBTRACT METER
WD-8 NOT TO SCALE

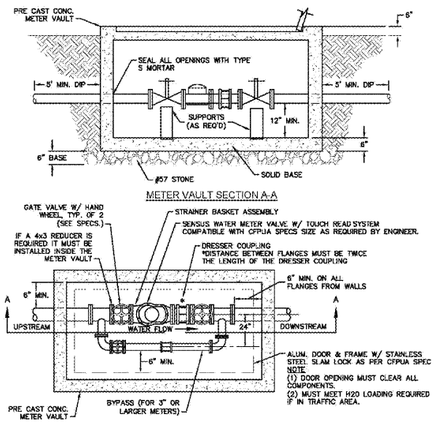


NOTES:
1. JOINT RESTRAINT SYSTEMS SHALL BE WEDGE ACTION STYLE FOR DI PIPE AS MANUFACTURED BY EBAA IRON, SIGMA, STAR PIPE PRODUCTS OR APPROVED EQUAL.
2. WHEN HYDRANT LEGS REQUIRE FULL LENGTH PIPE SECTIONS, OVER BELL RESTRAINT SYSTEM SHALL HAVE 316 STAINLESS STEEL HARNESS AND FASTENERS.
3. CONTINUOUS 316 STAINLESS STEEL RODS (TEE TO VALVE AND VALVE TO HYDRANT) MAY BE USED WITH COR-BLUE MJ T-BOLT AND GASKET KITS AS AN ALTERNATIVE.
4. HYDRANT AND VALVE SHALL BE PLACED OUTSIDE DITCH LIMITS.
5. WEEP HOLES OPEN AND UNBLOCKED TO DRAIN.

FIRE HYDRANT ASSEMBLY
WD-10 NOT TO SCALE

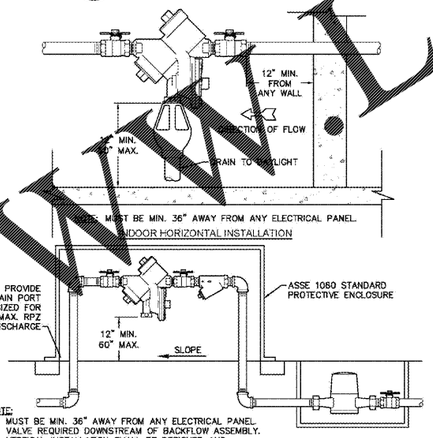
CAPE FEAR PUBLIC UTILITY AUTHORITY STANDARD NOTES:
1. SEWER GUARDS REQUIRED AT ALL MANHOLES. STAINLESS STEEL SEWER COVERS REQUIRED AT MANHOLES LOCATED IN TRAFFIC AREAS.
2. WATER AND SEWER SERVICES SHALL BE PERPENDICULAR TO MAIN AND TERMINATE AT RIGHT-OF-WAY LINE. SEWER SERVICES IN CUL-DE-SACS ARE REQUIRED TO BE PERPENDICULAR, OR MUST ORIGINATE IN END OF LINE MANHOLE AND TERMINATE AT RIGHT-OF-WAY LINE.
3. ALL SERVICES TYING INTO DUCTILE IRON MAINS SHALL BE CONSTRUCTED OF CLASS 50, DIP, WITH PROTECTO 401 CERAMIC EPOXY LINING.
4. MINIMUM 10' UTILITIES EASEMENT PROVIDED ALONG THE FRONTAGE OF ALL LOTS AND AS SHOWN FOR NEW DEVELOPMENTS.
5. NO FLEXIBLE COUPLINGS SHALL BE USED.
6. ALL STAINLESS STEEL FASTENERS SHALL BE 316.
7. CLEANOUTS SHALL BE LOCATED A MINIMUM OF 12 FEET FROM ALL PROPERTY CORNERS. WATER METER BOXES ARE TO BE A MINIMUM OF 5 FEET FROM THE PROPERTY CORNER.

STANDARD NOTES
WD-19 (REQUIRED ON ALL PLAN AND PROFILE SHEETS)



FOR WATER METERS LARGER THAN 2"

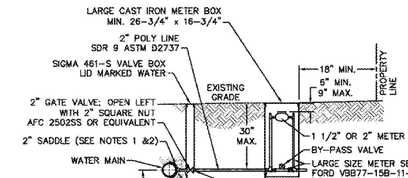
WD-1 WATER METER VAULT
NOT TO SCALE



NOTE:
1. MUST BE MIN. 36" AWAY FROM ANY ELECTRICAL PANEL.
2. VALVE REQUIRED DOWNSTREAM OF BACKFLOW ASSEMBLY.
3. VERTICAL INSTALLATION SHALL BE DESIGNED AND SUBMITTED TO CFPUA ESMD FOR APPROVAL.

OUTDOOR HORIZONTAL INSTALLATION

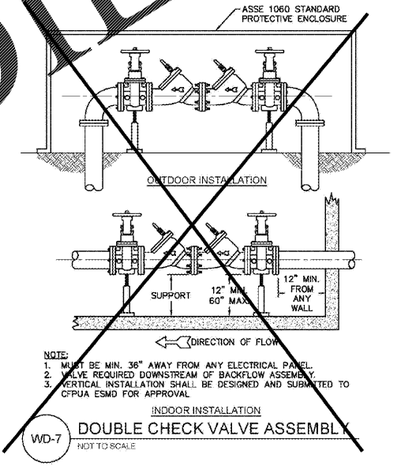
WD-12 REDUCED PRESSURE PRINCIPLE ASSEMBLY
NOT TO SCALE



NOTES:
1. ALL SERVICES SHALL BE INSTALLED PERPENDICULAR TO MAIN.
2. SERVICE SADDLES ON PVC MAINS SHALL BE WIDE BAND BRASS BODY: SADDLE McDONALD 3800, FORD S90 (DOUBLE STRAP) OR EQUIVALENT.
3. METER BOXES SUSCEPTIBLE TO TRAFFIC SHALL CONFORM TO ASTM A48, CLASS 30B AND AASHTO H20 LOAD RATING STANDARDS (OLDCASTLE PRECAST MODEL B1730 OR APPROVED EQUIVALENT).
4. METER BOXES SUSCEPTIBLE TO INCIDENTAL, NON-DELIBERATE TRAFFIC SHALL CONFORM TO ANSI/SCTE 77 TIER 15 LOAD RATING STANDARDS (CARSON MODEL 1730HD OR APPROVED EQUIVALENT).
5. NON-TRAFFIC METER BOXES SHALL BE SIGMA #461-S OR APPROVED EQUIVALENT.
6. 3" CLEAN FILL REQUIRED ALL AROUND 1" POLY SERVICE LINE.

FOR 1-1/2" - 2" WATER SERVICES

WD-11 LARGE METER
NOT TO SCALE



NOTE:
1. MUST BE MIN. 36" AWAY FROM ANY ELECTRICAL PANEL.
2. VALVE REQUIRED DOWNSTREAM OF BACKFLOW ASSEMBLY.
3. VERTICAL INSTALLATION SHALL BE DESIGNED AND SUBMITTED TO CFPUA ESMD FOR APPROVAL

INDOOR INSTALLATION

WD-7 DOUBLE CHECK VALVE ASSEMBLY
NOT TO SCALE

GENERAL NOTES:
1. NO EXCAVATED MATERIAL SHALL BE PLACED IN ANY STREAM, DITCH OR DRAINAGE-WAY.
2. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES BEFORE ANY CONSTRUCTION BEGINS.
3. THE CONTRACTOR IS RESPONSIBLE FOR TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES WHILE CONSTRUCTION IS IN PROGRESS.
4. THE CONTRACTOR IS RESPONSIBLE FOR STABILIZATION OF ALL DISTURBED AREAS.
5. THE CONTRACTOR IS RESPONSIBLE FOR LAY DOWN AND STOCKPILE AREAS (TO ARRANGE AND ENSURE COMPLIANCE WITH ALL LOCAL AND STATE REGULATIONS).

THE DETAILS SHOWN HEREON SUPERCEDE CFPUA WRITTEN TECHNICAL SPECIFICATIONS VERSIONS 1.00 - 1.04

REV:	DESCRIPTION:	DATE:
1	Single Service Connection, Double Service Connection, and Large Meter Revised	10/26/12
2	Single Service Connection and Fire Hydrant Details Revised	7/23/13
3	Fire Hydrant Detail Revised	01/03/14
4	Revised Fire Hydrant Assembly To Show 7' ST CRZ Connection	04/10/15
5	Revised Fire Hydrant Assembly To Show Full DIP Hydrant Leg	01/19/16
6	Revised Water Meter Vault and Large Meter Details, Added Standard Notes	02/15/16

CFPUA WATER DISTRIBUTION SYSTEM

STANDARD DETAILS

CAPE FEAR PUBLIC UTILITY AUTHORITY
235 GOVERNMENT CENTER DRIVE
WILMINGTON, NC 28403
OFFICE: (910)332-6560
Stewardship. Sustainability. Service.

DATE: 1/9/12
SCALE: N/A
DRAWN BY: CFPUA
CHECKED BY: CFPUA
PROJECT NO:

SHEET NO: WSD-1

CITY OF WILMINGTON NORTH CAROLINA
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN
Date:_____ Permit #_____
Signed:_____

APPROVED CONSTRUCTION PLAN

NAME	DATE
PLANNING	
TRAFFIC	
FIRE	

WILMINGTON, NC

HAYNES / LACEWELL POLICE AND FIRE TRAINING FACILITY

3100 HURST STREET, WILMINGTON, NC 28405

DESIGNER

CLARKNEXSEN
213 South Jefferson Street, Suite 1011
Roanoke, Virginia 24011
T: 540-982-0500 F: 540-982-1183
WWW.CLARKNEXSEN.COM
CLARK NEXSEN LICENSE NUMBER: C-1028

CONSULTANT

CLH DESIGN, P.A.
Regency Park
400 Regency Forest Drive
Suite 120
Cary, North Carolina 27518
Phone: (919) 319-6716
Fax: (919) 319-7516
LA: C-106, PE: C-1595

SEALS

NORTH CAROLINA PROFESSIONAL SEAL 23953 ENGINEER KENNETH A. LORING
05/04/18

SUBMITTAL
4 MAY 2018

CONSTRUCTION DOCUMENTS

SHEET

DETAILS
C706

DESIGN: ZRP
DRAWN: YA, DL
REVIEW: ZRP, KAL

CN 5938
CLH 16-161