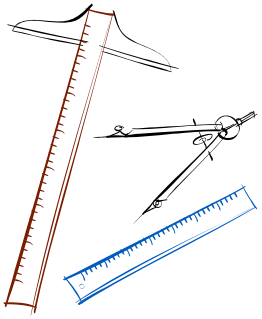
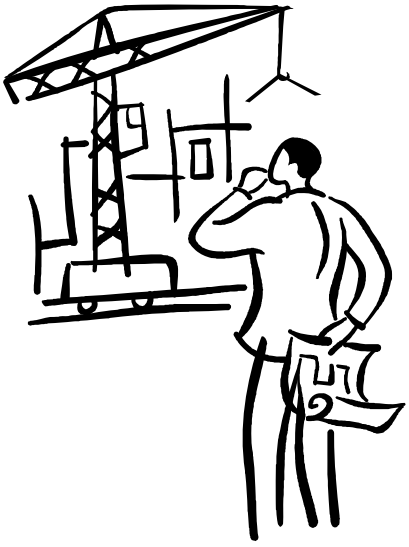
WESTERN MUNICIPAL WATER DISTRICT



COMMERCIAL PLAN CHECK PACKAGE



CONTACT INFORMATION

DEVELOPMENT SERVICES
(951) 571-7100
(951) 571-0572 FAX

Revised December 2019

Index

Commercial Project Requirements (No pipeline extension)

COMMERCIAL PLAN CHECK PROCESS

Thank you for your submittal.

Your process will begin with the WMWD Development Services Department to obtain to obtain a Customer Service Request and New Service Detail Information Sheet. In order to process your request in a timely manner, the following items will need to be submitted:

- Onsite Water/Sewer Plans. The plans should show all existing utilities, point of connections, cross streets used for measurements of connection locations, meter sizes, and water and/or sewer service sizes. (see attached Commercial Plan Check Checklist and Sample Drawing for all requirements)

- Existing WMWD as-builts must be requested and revised to reflect point(s) of connection to new project.

- Landscape plans

- All applicable fees and deposits – Initial plan check deposit minimum, $5,000.00

- The following completed WMWD Forms:
  - New Service Connection(s) Detail Information Sheet
  - Customer Paid Activity Request form
  - WMWD Industrial Waste Survey (If applicable)
  - WMWD Conditional Oil/Grease Interceptor Waiver Request (If applicable)

- Any required easements

In order to start construction, a Notice to Proceed will be required. A Notice to Proceed will be issued after:

- Plan check (onsite and for changes to WMWD as-builts) approval,
- All fees are paid
- All preconstruction line items are received and approved

Additional Information:

- You can find WMWD's standards for meter, service connections and fire flow devices on our website at www.wmwd.com under Development Services

Should you have any questions please contact Development Services at (951) 571-7100 or development@wmwd.com .

DESIGN CRITERIA

WATER:

For commercial projects with multiple buildings, Western requires a master meter to serve all onsite buildings that would be read by Western and would need to be located in the public right of way so that Western can easily read the meter. Western will not go onsite to read meters.

In addition to WMWD's standard drawings, the following meter configurations have been used, however they will be considered for use on a case by case basis.

- Manifold – See Exhibit A

  Manifold of multiple meters. Sometimes used to eliminate multiple hot taps on a large supply main

- Landscape meter off Fire Service - See Exhibit B

  Eliminates additional hot tap of main for landscape service by manifolding landscape meter off the fire connection.

- Redundant Meter: (typically used for school and churches) – See Exhibit C

  Used in applications where water service cannot be interrupted so that if one meter went down there is a backup.

WMWD STANDARD DRAWINGS TO REFERENCE:
(copy included at the end of this manual)

TITLE	DRAWING #
¾" Through 2" Outlet Saddle Steel Cylinder	W-0020
Domestic Water Service ¾" and 1"	W-0070
Domestic Water Service 1 ½" and 2"	W-0110
Domestic Water Service with Backflow Assembly	W-0110a
Standard Fire Service Connection	W-0300
Double Check Alternate Fire Dept. Connection	W-0530p1
Backflow Assy. w/ By-Pass Meter for Fire Dept. Connection	W-0530p2
Standard Fire Hydrant	W-0580
3" and 4" Compound Meter Installation	W-0860
3" Turbo Meter Installation	W-0870

DESIGN CRITERIA

SEWER:

Please include the following information when submitting an application for a new service connection:

- Capacity requirements
- Number of dwelling units
- Lot(s) size
- Hydraulic grade line
- Square footage of building(s)
- Pad elevation of building(s)
- Size of connection needed (calculations may be required)
- Site map including location of existing utilities

WMWD STANDARD DRAWINGS TO REFERENCE:

TITLE	DRAWING #
Precast Concrete Sampling Manhole	W-1071
Sampling Wye	W-1170

Commercial Plan Check Review Checklist (NO pipeline extension)

COMMERCIAL PLAN CHECK CHECKLIST FOR ONSITE PLANS

I. PROJECT NAME: _____

ID_____, T_____S, R_____W, SEC._____, LOT/PAD # _____WO # _____GRID# _____

☐ **WMWD** ☐ **MCWD Proj.WO # _____** **DATE PLANS APPROVED: _____**

	REQ'D	**RECEIVED**	
1.	☐	☐	Quantity Table reflecting correct meter sizes, service sizes, types and quantities; tables separated for potable, reclaimed and sewer services
2.	☐	☐	Overall site plan showing location of project and Township, Range and Section
3.	☐	☐	WMWD Standard drawing numbers listed where applicable
4.	☐	☐	Details of connection points to Westerns existing water pipelines
5.	☐	☐	Meter sizes and types clearly shown on plans (domestic, LS or Fire flow)
6.	☐	☐	Backflows (required for all commercial projects)
7.	☐	☐	Pad elevations listed on building
8.	☐	☐	Easements for ingress/egress access for any onsite meters or detector checks must be clearly shown
9.	☐	☐	Signed and notarized easements with plat map must be provided to WMWD
10.	☐	☐	Any Western existing facilities must be clearly shown and labeled
11.	☐	☐	Correct pressure zone listed on plan
12.	☐	☐	Include legend and symbols on plans
13.	☐	☐	Include North Arrow and scale on plans
14.	☐	☐	Title plans
15.	☐	☐	Provide CAD disc of site plans (per WMWD Stds. for commercial)
16.	☐	☐	Gross acres of Parcel(s)
17.	☐	☐	Square footage of each building
18.	☐	☐	Complete Industrial Waste Survey
19.	☐	☐	Complete Grease Interceptor Waiver Request
20.	☐	☐	Murrieta Division - provide evidence of paid sewer connection fees (EMWD)
21.	☐	☐	Revise WMWD Water/Sewer mylars adding new points of connection
22.	☐	☐	Fire Flow Calculations
23.	☐	☐	_____

STATUS	
IN #1	
OUT #1	
IN #2	
OUT #2	
IN #3	
OUT #3	
IN #4	

DIGITAL PLAN SUBMITTAL REQUIREMENTS – ONSITE COMMERCIAL:

Western requires the Developer's engineer preparing the improvement plans to submit **ONE** consolidated digital graphics file indicating the entire improvement area. THIS IS NOT AN OPTIONAL ITEM. The graphics file for the onsite plans must include the following layers to facilitate transferring the information into Western's mapping system. The digital drawing shall be at a 1:1 scale. If the engineer does not have the capability to provide such files, Western will input the improvement information into the mapping system and recover the costs from the Developer prior to final acceptance of the plans through the plan check process. Receipt and acceptance of the digital data is a plan check requirement prior to Western approving the plans.

1. Onsite Commercial plans Digital Layering Scheme

Note: Please submit the listed layers ONLY (if applicable).

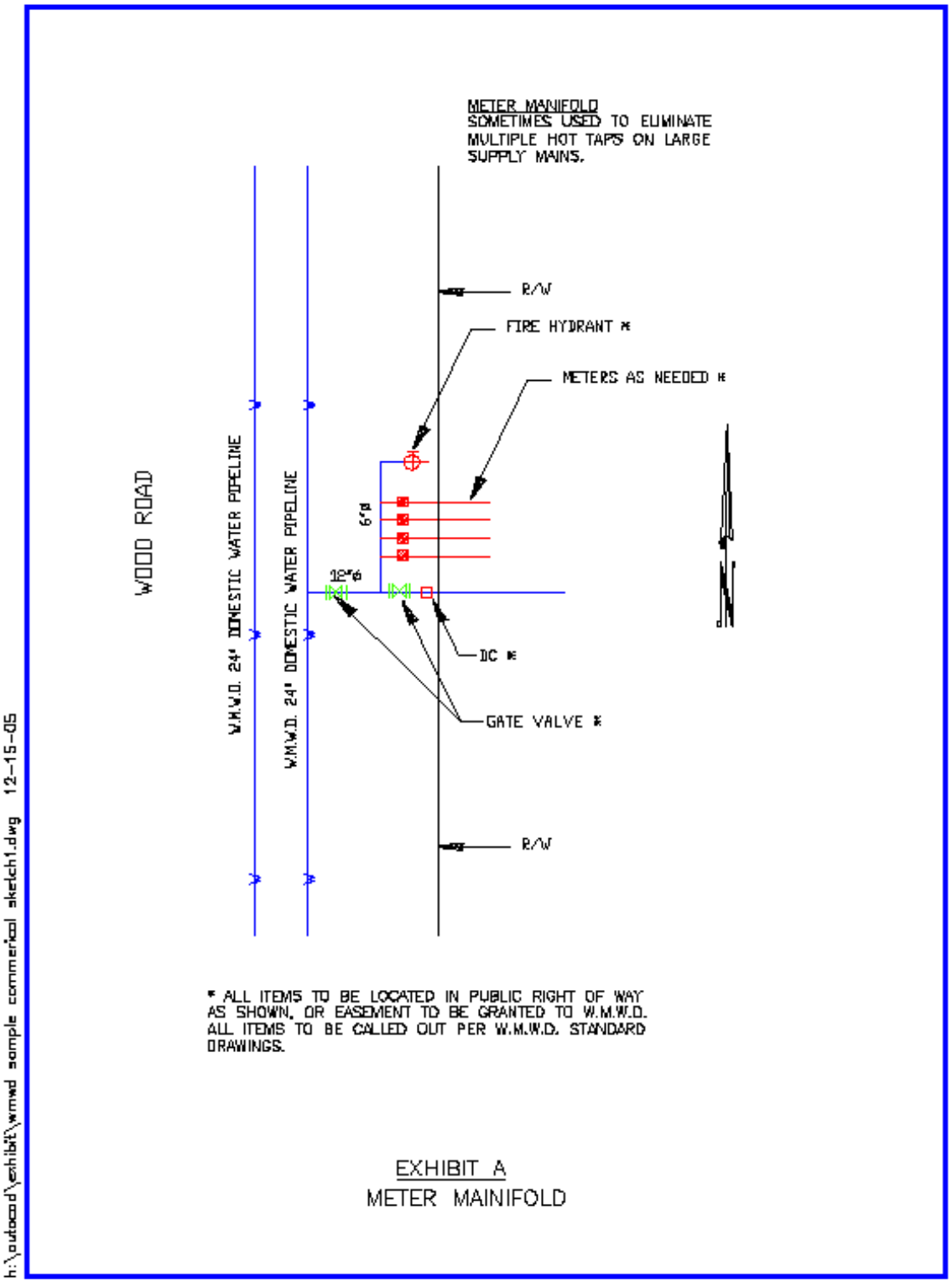
Description	Layer Name	Color	Line Type	Text Height
Easement (or Fee Title)	ESMNT	Magenta	Continuous	*8.0
Easement Right-of-Way	ESMTRW	Magenta	Dashed	-
Property line	PL	8	Continuous	-
Right-of-Way	RW	White	Continuous	-
Water Service Meter	METER	RED	Continuous	-
Fire Service Meter	METER	RED	Continuous	-
Sewer Lateral	SLAT	80	Continuous	-
Sewer Manhole	SMH	80	Continuous	-
Sewer pipeline	SEWER	90	Continuous	-
Sewer pipeline material	SPM	White	Continuous	*7.0
Sewer pipeline size	SPS	White	Continuous	*7.0
Street centerline	CTRL	Red	Dash-dot	-
Street name	STNAME	White	Continuous	*12.0
Symbols	SYM	8	Continuous	-
Water Lateral	LAT	Red	Continuous	-
Water pipeline	WATER	160	Continuous	-
Water pipeline material	PM	Blue	Continuous	*7.0
Water pipeline size	PS	Blue	Continuous	*7.0
Building Layout	BUILDING	White	Continuous	-
Pad Elevation	PAD-ELEV	White	Continuous	*12.0
Building sq ft	BUILDING_SQFT	White	Continuous	*12.0
Lot sq ft	LOT_SQFT	White	Continuous	*12.0

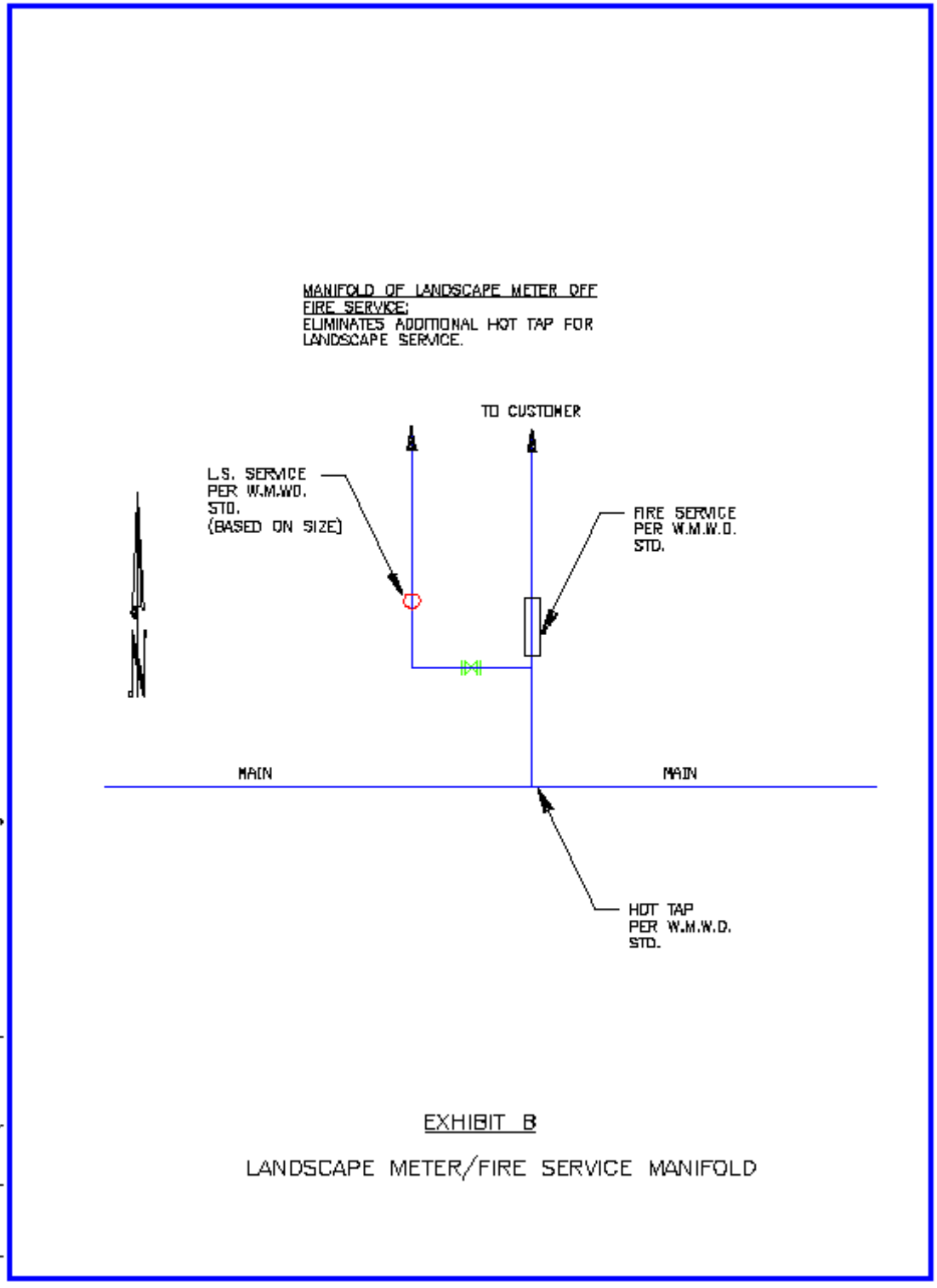
*Text style is to be "standard" font.

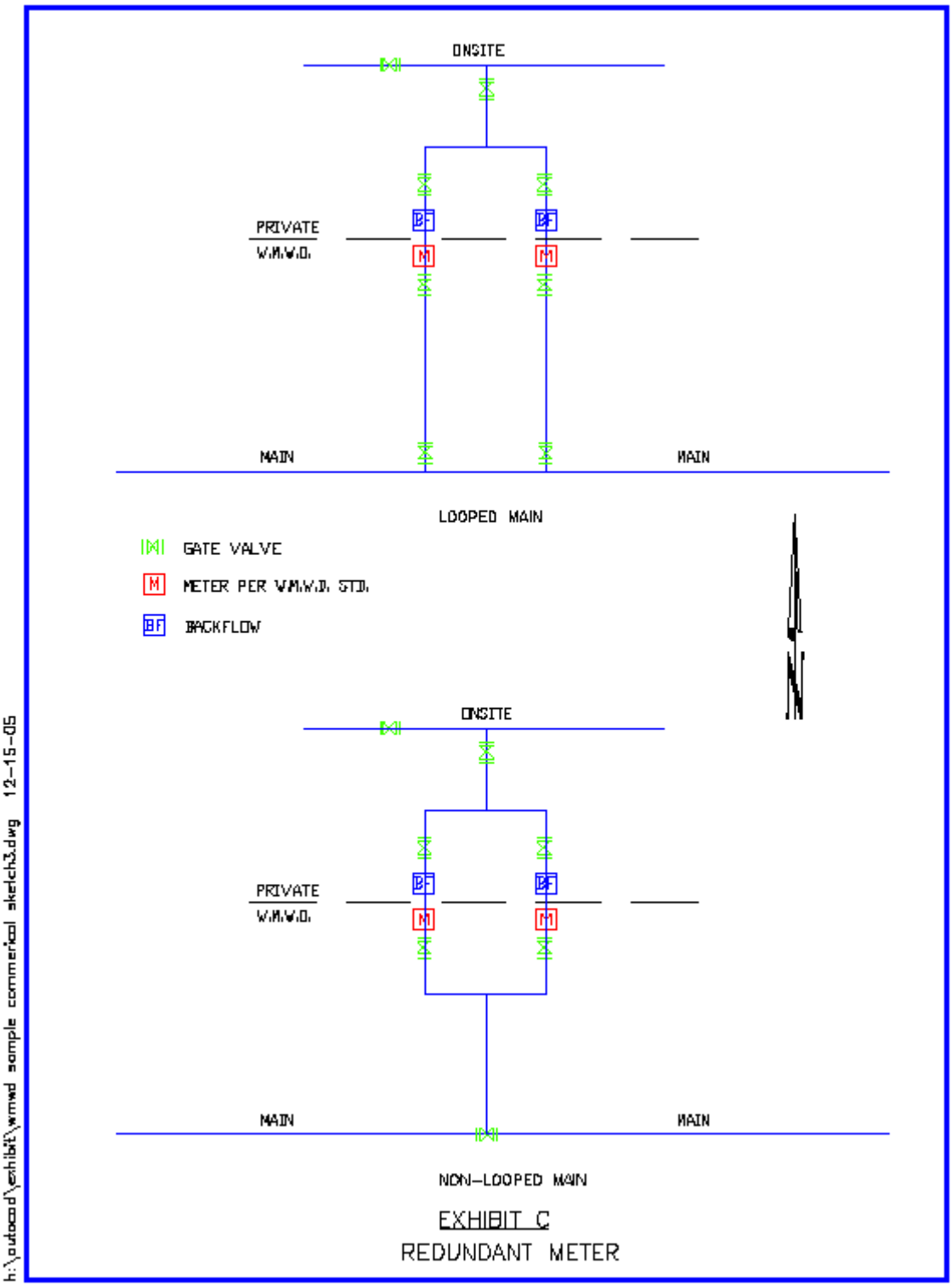
2. Software Format

The acceptable format for digital submissions shall be one of the following:

- AutoCAD's Release 2004 (.DWG) or an earlier version
- Drawing Exchange File (.DXF)
- Shape File (.SHP)


METER MANIFOLD
SOMETIMES USED TO ELIMINATE MULTIPLE HOT TAPS ON LARGE SUPPLY MAINS.
R/W
FIRE HYDRANT *
METERS AS NEEDED *
WOOD ROAD
W.M.W.D. 24" DOMESTIC WATER PIPELINE
W.M.W.D. 24" DOMESTIC WATER PIPELINE
6"ø
12"ø
DC *
GATE VALVE *
R/W
* ALL ITEMS TO BE LOCATED IN PUBLIC RIGHT OF WAY AS SHOWN, OR EASEMENT TO BE GRANTED TO W.M.W.D. ALL ITEMS TO BE CALLED OUT PER W.M.W.D. STANDARD DRAWINGS.
EXHIBIT A
METER MAINIFOLD
h:\autocad\exhibit\wmwd sample commerical sketch1.dwg 12-15-05


MANIFOLD OF LANDSCAPE METER OFF FIRE SERVICE:
ELIMINATES ADDITIONAL HOT TAP FOR LANDSCAPE SERVICE.
TO CUSTOMER
L.S. SERVICE PER W.M.W.D. STD. (BASED ON SIZE)
FIRE SERVICE PER W.M.W.D. STD.
MAIN
MAIN
HOT TAP PER W.M.W.D. STD.
EXHIBIT B
LANDSCAPE METER/FIRE SERVICE MANIFOLD
h:\autocad\exhibit\wmwd sample commerical sketch2.dwg 12-15-05


ONSITE
PRIVATE
W.M.W.D.
BF
M
MAIN
MAIN
LOOPED MAIN
GATE VALVE
METER PER W.M.W.D. STD.
BACKFLOW
N
ONSITE
PRIVATE
W.M.W.D.
MAIN
MAIN
NON-LOOPED MAIN
EXHIBIT C
REDUNDANT METER
h:\autocad\exhibit\wmwd sample commerical sketch3.dwg 12-15-05

WESTERN MUNICIPAL WATER DISTRICT
14205 Meridian Parkway, Riverside CA 92518
951-571-7100

DISTRICT USE	Date Received:_____ Received By:_____

NEW SERVICE CONNECTION(S) DETAIL INFORMATION SHEET

ANY QUESTIONS REGARDING THIS FORM PLEASE CONTACT DEVELOPMENT SERVICES DEPARTMENT AT 951-571-7100

REQUEST FOR: ☐ WATER ONLY ☐ SEWER ONLY** ☐ WATER AND SEWER**

PROJECT LOCATION: ☐ CITY ☐ COUNTY

PROJECT TYPE: ☐ MULTI-FAMILY DWELLING ☐ COMMERCIAL ☐ INDUSTRIAL ☐ SCHOOL

REQUIRED FOR ALL REQUESTS:

APPLICANT NAME		DATE
CONTACT NAME		CELL PHONE NO.
ADDRESS		WORK PHONE NO.
City	ZIP CODE	FAX NUMBER
E-MAIL ADDRESS OF APPLICANT		

OWNER/BILLING		CELL PHONE NO.
CONTACT NAME		WORK PHONE NO.
ADDRESS		FAX NUMBER
CITY	ZIP	
TAX ID		

PROJECT NAME	PM/TRACT/APN	
SERVICE ADDRESS	CITY	ZIP
PROJECT LOCATION		
PROJECT DESCPRIPTION		
PAD ELEVATIONS (HIGHEST & LOWEST) * REFERENCE THESE ELEVATIONS ON DRAWING	PARCEL GROSS ACRES:	
ESTIMATED DOMESTIC DAILY DEMAND (GPD)		

** ALL SEWER REQUESTS **MUST** COMPLETE AN INDUSTRIAL WASTE SURVEY AND GREASE INTERCEPTOR WAIVER REQUEST

If any of the following apply applicant must provide signed Industrial Waste Survey, Grease Interceptor Waiver Request and Onsite Plumbing Plans, electronically preferably. Should you have any questions pertaining to waste discharge please contact Western's Source Control at 951-571-7228.

	NO	YES
Are any sinks other than hand sinks or floor sinks?	☐	☐
Are floor drains installed in any area other than restrooms?	☐	☐
Is any water discharged to the sewer other than from restrooms?	☐	☐
Are any solvents or hazardous materials used or stored at your facility?	☐	☐
Is a water softener installed at your facility or do you plan to install one?	☐	☐

Landscape Meters: ☐ NO ☐ YES, TOTAL LANDSCAPE SQUARE FOOTAGE: _____ Sq Ft
Will fertilization system be installed? ☐ NO ☐ YES If YES, backflow device will be required.

Development Services
Western Municipal Water District
14205 Meridian Parkway, Riverside, CA 92518
Tel 951-571-7100 Fax 951-571-0592

REQUIRED FOR MULTI FAMILY, COMMERCIAL, INDUSTRIAL & SCHOOL:
ONSITE WATER/SEWER PROFILE MAPS MUST BE INCLUDED AND CONNECTIONS MUST BE MARKED.

PLEASE PROVIDE SERVICE CONNECTION ADRESS INFORMATION. BE AS SPECIFIC AS POSSIBLE.

Water Connection(s) Info

NUMBER OF HOT TAPS REQ:	CONNECTION LOCATION

REQUESTED METER(S) – PLEASE INCLUDE REQUIRED LANDSCAPE METERS

METER SIZE	METER USE	REQUESTED FLOW	CONNECTION SIZE	WATER SOURCE
	☐ Domestic ☐ Irrigation		☐ Existing Lateral ☐ Install	☐ Potable ☐ Non Potable
METER CONNECTION ADDRESS				
METER SIZE	METER USE ☐ Domestic ☐ Irrigation	REQUESTED FLOW	CONNECTION SIZE ☐ Existing Lateral ☐ Install	WATER SOURCE ☐ Potable ☐ Non Potable
METER CONNECTION ADDRESS				
METER SIZE	METER USE ☐ Domestic ☐ Irrigation	REQUESTED FLOW	CONNECTION SIZE ☐ Existing Lateral ☐ Install	WATER SOURCE ☐ Potable ☐ Non Potable
METER CONNECTION ADDRESS				
METER SIZE	METER USE ☐ Domestic ☐ Irrigation	REQUESTED FLOW	CONNECTION SIZE ☐ Existing Lateral ☐ Install	WATER SOURCE ☐ Potable ☐ Non Potable
METER CONNECTION ADDRESS				
METER SIZE	METER USE ☐ Domestic ☐ Irrigation	REQUESTED FLOW	CONNECTION SIZE ☐ Existing Lateral ☐ Install	WATER SOURCE ☐ Potable ☐ Non Potable
METER CONNECTION ADDRESS				

Fire Protection Info

Number of RPDA's:	RPDA SIZE	CONNECTION SIZE	CONNECTION LOCATION

RPDA SIZE	CONNECTION SIZE	CONNECTION LOCATION

Sewer connection(s) info

NUMBER OF SEWER LATERALS		
SEWER LATERAL CONNECTION ☐ EXISTING LATERAL ☐ NEW LATERAL INSTALLATION	SIZE:	
CONNECTION ADDRESS		
SEWER LATERAL CONNECTION ☐ EXISTING LATERAL ☐ NEW LATERAL INSTALLATION	SIZE:	
CONNECTION ADDRESS		

Please make copies of this page if additional connections are needed

FOR MULTIFAMILY/COMMERCIAL/INDUSTRIAL PROJECTS			
BLDG#	**BUILDING SQUARE FOOTAGE**	**PAD ELEVATION**	**PROPOSED USE OF BUILDING**

THE SEWER CONNECTION FEE AND RATE ARE BASED ON THE STATED BUILDING USE AT THE TIME FEES ARE QUOTED. IF USE CHANGES ADDITIONAL FEES MAY BE DUE. WESTERN WILL AUDIT THE BUILDING USE ANNUALLY AND ALL NEW TENANTS.

SIGNATURE	DATE
PRINT NAME	
TITLE	

Western Municipal Water District
14205 Meridian Pkwy., Riverside, CA 92518
Ph. 951-571-7100 Fax 951-571-0592

CUSTOMER PAID ACTIVITY REQUEST

ACTIVITY TYPE

Please Check All That Apply

- ☐ I=Inspection
- ☐ Annexation
- ☐ Engineering/Planning Deposit
- ☐ Other (Please Describe):_____
- ☐ PC=Plan Check
- ☐ WSA=Water Supply Assessment

CUSTOMER/DEVELOPER INFORMATION

Customer/Developer Name:
Primary Contact:
Contact Phone: Contact Cell Phone:
Contact E-Mail:
Mailing Address:
City, State, Zip;
Tract/PM/APN:
Project Location:
Deposit Amount $ ☐ New Activity ☐ Amendment to Existing Activity #
Tax ID #

AGREEMENT

_____(Customer) hereby deposits $_____ with Western Municipal Water District (WMWD) to initiate the development activity referenced above. The Customer acknowledges that fees are based on project size and type of development, and that this deposit is provided for actual costs incurred in reviewing, plan checking, and/or processing the referenced project. The Customer understands that periodically the account balance will be reviewed by WMWD personnel; if additional funds are required an invoice will be issued. All invoices are due upon receipt. The Customer further acknowledges that they will be responsible for any charges incurred beyond this initial deposit. Any amendments to this deposit will be documented by a separate agreement. At the conclusion of the project, any remaining unspent funds will be returned to the Customer. Interest will not be paid by WMWD on any deposit amount.

Signature: Date:
Print Name: Title:
Company Name:
WMWD Signature:
WMWD Representative (Print Name):
Receipt No.: Date:
Please Note: Prior to approval of Plan of Service and original plans, the Activity balance will be reviewed to insure that there are sufficient funds available for the balance of the project. Any additional money due must be paid at that time.

INDUSTRIAL WASTE SURVEY

A. GENERAL INFORMATION (all industries)

1. Name of Business: _____

Site Address _____ Phone: _____

_____

_____

Mailing Address: _____

_____

Lot & Build. # _____

Build. Sq. ft. _____

Max occupancy _____

2. Name of Contact Person: _____

Title: _____

Phone: _____

3. Name of Authorized Rep: _____

Title: _____

Phone: _____

B. PRODUCTS, SERVICES, WASTEWATER INFORMATION (all industries)

1. Provide a brief description of the commercial processes, manufacturing, or activities to be performed at the site:

_____

_____

_____

2. Number of employees at this location: Hours:

Full Time: _____ _____

Part Time: _____ _____

Shifts worked per day: _____ _____

3. Work or Production Schedule at this location:

Business hours: _____

Days per week: _____

4. What is the Standard Industrial Classification (SIC) Code(s) or North American Industry Classification System (NAICS) Code(s) for the business at this location (if known)? _____

5. Are there discharges to the sanitary sewer other than domestic wastewater (i.e. bathroom and kitchen waste?) □ YES □ NO

6. Are there floor drains installed in any area other than bathrooms? □ YES □ NO

7. Are any photographic processes (i.e. film, x-ray) processed on site? □ YES □ NO

8. Types of waste discharged to the sanitary sewer system. Check all that apply:

_____ Sanitary waste from bathrooms
_____ Cleanup waste from floor drains
_____ Kitchen Waste
_____ Wastes from manufacturing process(es)
_____ Wastes from laundry equipment or car wash
_____ Wastes from dry cleaning equipment
_____ Wastes from paint booth(s)
_____ Wastes from parts cleaning or preparation
_____ Cooling water discharge
_____ Other (describe):_____

9. Water use at this location:
_____ thousands of gallons per month or
_____ hundreds of cubic feet per month (from utility bill) or
_____ gallons per day.

10. List Agency that provides water: _____

11. Are there wastewater pretreatment systems installed at this location? □ YES □ NO
(Examples: Grease interceptor, Oil/Water separator, pH correction, Reverse osmosis, Ion exchange, silver recovery etc.)
If yes, please describe type of treatment(s) and capacity of treatment system. Please also provide a process flow diagram.

_____
_____
_____
_____
_____

C. CHEMICAL STORAGE (all industries)

1. Are bulk chemicals received and stored for use in this business? □ YES □ NO
If yes, please list chemicals used or stored and approximate quantity that will be kept on hand.

_____
_____
_____
(use additional pages if necessary)

2. What methods are in place to prevent toxic and/or hazardous chemicals from entering the sanitary sewer system?

_____

_____

3. Is there a spill containment and control plan in use at this location?

□ YES □ NO

Please describe how spilled chemicals would be contained and disposed of.

_____

_____

_____

_____

D. RESTAURANT (FOOD SERVICE) FACILITIES ONLY

1. Facility information:

Seating Capacity: _____
Meals at Peak Hour: _____
Single Service: _____ %
Carry Out: _____ %

2. Equipment Inventory:

			Quantity:
Hot Grill(s)	□ YES	□ NO	_____
Deep Fryers(s)	□ YES	□ NO	_____
Dishwasher(s)	□ YES	□ NO	_____
Garbage Grinder(s)	□ YES	□ NO	_____
3-Compartment Sink(s)	□ YES	□ NO	_____
2-Compartment Sink(s)	□ YES	□ NO	_____
1-Compartment Sink(s)	□ YES	□ NO	_____
Hand Sink(s)	□ YES	□ NO	_____
Mop Sink(s)	□ YES	□ NO	_____
Floor Drain(s)	□ YES	□ NO	_____

3. Grease Interceptor:

Is an interceptor on site or proposed? □ YES □ NO
If yes:
Size: _____
Location: _____
_____

Please provide a site diagram including location of the interceptor and plumbing plans.

4. Water Softener:

Is a water softener on site or proposed? □ YES □ NO
If yes:
□ Exchange Canisters or □ Self-Regenerating Unit

E. CERTIFICATION STATEMENT (all industries)

"I certify under penalty of law that this document and all attachments are prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations."

_____	_____
NAME – Authorized Representative	SIGNATURE
_____	_____
OFFICIAL TITLE	DATE

WESTERN MUNICIPAL WATER DISTRICT
PRETREATMENT PROGRAM DIVISION
14205 Meridian Parkway
RIVERSIDE, CA 92518
TEL: (951) 571-7228
FAX: (951) 571-0592

WESTERN MUNICIPAL WATER DISTRICT
CONDITIONAL OIL/GREASE INTERCEPTOR
WAIVER REQUEST

I,_____, representing
(Proprietor Name)

_____at _____
(Facility Name) (Facility Address)

do hereby confirm that at no time shall any grease, fats, oils, solids, or any wastewater or material be discharged to Western Municipal Water District's (WMWD) sewer collection system to impair the functional operations of same. If at any time non-compliance with the discharge limitations outlined in WMWD's Wastewater Ordinance are detected, I do hereby consent to install within ninety (90) days, an oil/grease interceptor of sufficient size to be acceptable to the District's Engineering Manager. The minimum size shall be no less than 750 gallons in capacity and shall be equipped with a monitoring station.

If deemed necessary by WMWD, I consent to install a monitoring station in lieu of an oil/grease interceptor for the purpose of sampling all non-domestic wastewater discharged from my facility (i.e. kitchen sinks, mop sink, floor sinks, industrial wastes, etc.).

WMWD's oil/grease waiver, if issued, is issued to the proprietor stated herein, and is not transferable.

SIGNED_____

DATE_____

APPROVED_____ DATE_____

DENIED_____ DATE_____

INTERCEPTOR REQUIREMENT:_____GALLONS

Western Landscape Specifications For Commercial Projects

All commercial project landscape plans must conform to the landscape ordinance that has jurisdiction over the project's location.

City of Riverside –

http://www.riversideca.gov/planning/PDF/WATERLS.pdf

City of Murrieta –

http://www.amlegal.com/nxt/gateway.dll/California/murrieta_ca/murrietacaliforniamunicipalcode?f+templates$fn=default.htm$3.0$vid=amlegal:murrieta_ca

County of Riverside –

http://www.rctlma.org/planning/content/devproc/landscpe/landscape.html

Western Municipal Water District
14205 Meridian Pkwy., Riverside, CA 92518
Phone (951) 571-7100 FAX (951) 571-0592

COMMERCIAL PRE-CONSTRUCTION REQUIREMENTS: ☐ **WMWD** ☐ **MARB** ☐ **MCWD #3_____**

DEVELOPER'S NAME: _____

PROJECT NAME: _____

CONTACT NAME: _____

CONTACT TELEPHONE/E-MAIL: _____

ID_____, T_____S, R_____W, SEC._____, GRID#_____, APN _____, LOT/PAD #_____

ITEMS REQUIRED PRIOR TO WESTERN ISSUING A NOTICE TO PROCEED

FEES AND DEPOSITS DUE:	**Check Box if Received**
☐ Water / Sewer Plan Check Deposit: (Min $5,000.00 or quote)	☐
☐ Onsite Irrigation Plan Check (Recycled Water): (Min. $1,500.00)	☐
☐ Connection and Meter Fees	☐
☐ Inspection Deposit	☐
☐ Mapping Fee	☐

CONTRACTOR/DEVELOPER:	**Check Box if Received**
☐ Contractor Name, Address, Phone No., Primary Contact _____	☐
☐ Superintendent's Name and Phone No. _____	☐
☐ Sub-Contractor Name, Address, Phone No., Primary Contact _____	☐
☐ Sub-Contractor Superintendent's Name and Phone No. _____	☐
☐ Copy of Contractor & Sub-Contractor Licenses (A or C-34) Approved by Western ☐ Yes ☐ No	☐
☐ Contractor & Sub-Contractor: **Certificate of Insurance** - General Liability - Min. $2 million per occurrence, $5 million aggregate - Auto Liability, Workers Comp – Min. $1 million each - Project Description & *naming Western as an additional insured* - Applicable Endorsements Approved by Western ☐ Yes ☐ No	☐
☐ New Service Connection Detail Information Form	☐
☐ Connection Services Agreement	☐
☐ Industrial Waste Survey	☐
☐ Oil/Grease Interceptor Waiver Request	☐
☐ Plumbing Plans (electronic file)	☐
☐ Materials Submittals	☐

_____ **DATE OF NOTICE TO PROCEED**

NOTE: Notice to Proceed will be issued approximately 5-7 business days after all items have been received.

Commercial - Water and Sewer Service and Inspection Cost Worksheet

Western Municipal Water District
14205 Meridian Parkway, Riverside, CA 92518
Tel: (951) 571-7100 Fax: (951) 571-0592

DATE:	**POWER ZONE:**	**PZ:**	**EXTENSION OR GRID #:**
DEVELOPER:			**TEL:**
CONTACT:			**FAX:**
ID #	**SEC:** **T** **S, R** **W**		**TRACT/PM:**
SCOPE OF WORK:			

1. PLAN CHECK FEE	$5,000.00 Minimum			$
2. WATER CONNECTION FEE				
# of Meters:	**Meter Size:**	**Type of Meter**	**Unit Charge**	
#			$	
#			$	
#			$	
			Total Water Connection Fees	$
3. COMMERCIAL & INDUSTRIAL FIRE SERVICE				
Fire Sprinkler System Required		# RPDAs:		
		RPDA Size:		
4. METER COST				
# of Meters:	**Meter Size:**	**Type of Meter**	**Unit Cost**	
#			$	
#			$	
#			$	
			Total Meter Cost	$
5. JUMPER FEE				
Flat Fee for Water Use	$70 per meter	#	**Total Jumper Fee**	$
6. SEWER CONNECTION FEE			**Total Sewer Fee**	$
7. MAPPING & RECORDED DOCUMENTS FEES			**Total Mapping**	$
8. RESOURCE MANAGEMENT FEE	$50.00 per meter	#	**Total Resource Fee**	$
9. BACKFLOW INSPECTION FEE	$40.00/$80.00 per meter	#	**Total Backflow Fee**	$
10. INSPECTION DEPOSIT			**Unit Cost**	
Water /Sewer - $5.00/LF+40% Minimum	Total LF:		$	
Fire Service	$3,500 each Minimum		$	
Hot Tap	Varies $2,500 Minimum		$	
Fire Hydrant (less than 200 ft)	$2,500 Minimum		$	
- GPS individual new fire hydrant	$300.00		$	
Water Connection	$2,500 Minimum		$	
Sewer Connection	$2,500 Minimum		$	
Administrative Services	$1,500.00 Minimum		$	
SCADA	$		$	
Other:	$		$	
Other:	$		$	
			Total Inspection Deposit	$
11. TOTAL FEES DUE				$

NOTE: FEES SUBJECT TO CHANGE WITHOUT NOTICE
Contact Development Services at (951) 571-7100 prior to making financial arrangements.

Western Municipal Water District Connection Fee Schedule

Water Connection Fees

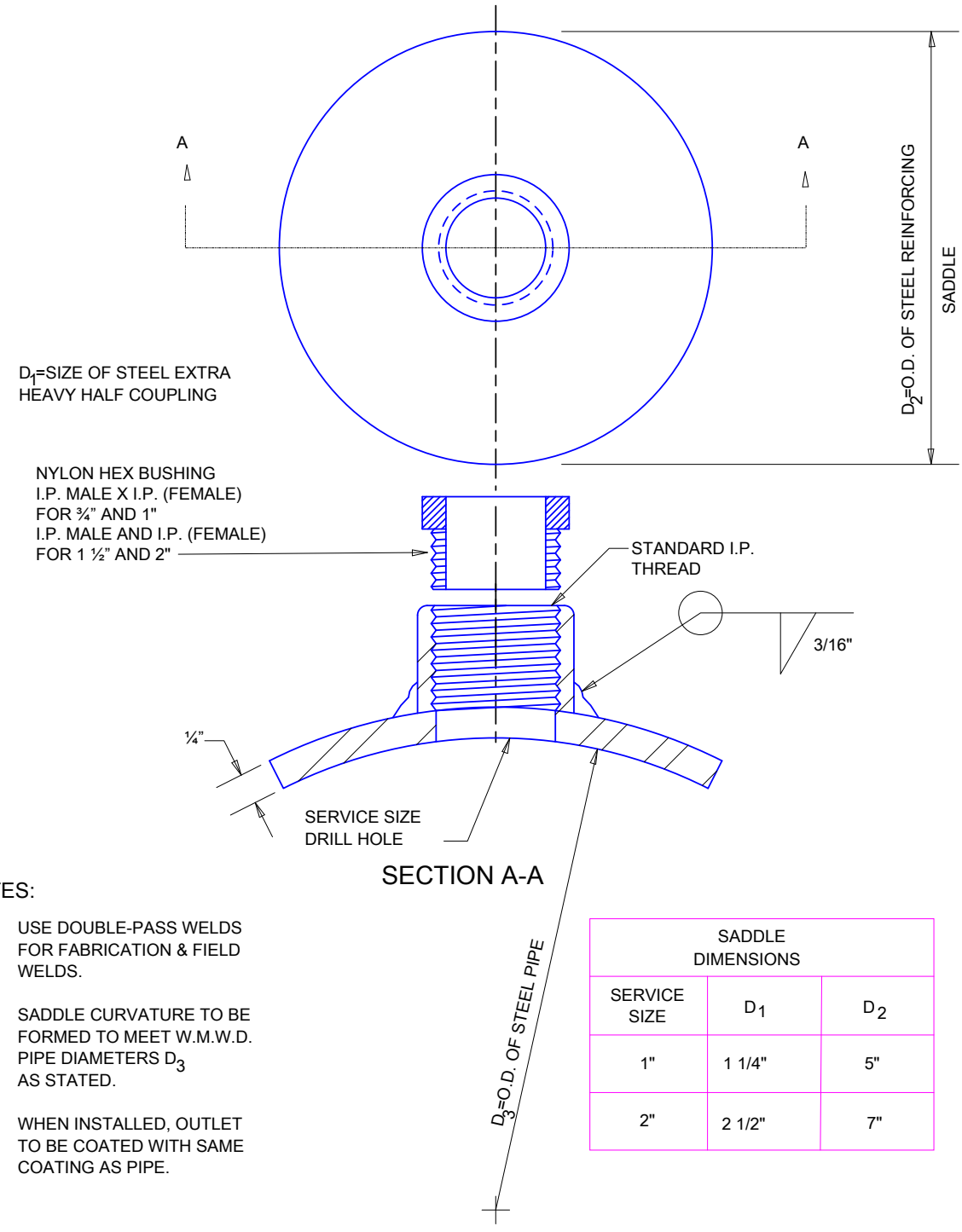
Riverside Service Area			
Meter Size	**1/1/2017**	**1/1/2018**	**1/1/2019**
¾″	$6,434	$7,057	$7,681
1″	$10,616	$11,645	$12,674
1.5″	$21,424	$23,501	$25,578
2″	$34,291	$37,615	$40,939
Murrieta Service Area			
Meter Size	**1/1/2017**	**1/1/2018**	**1/1/2019**
¾″	$6,271	$6,661	$7,050
1″	$10,348	$10,990	$11,632
1.5″	$20,883	$22,180	$23,476
2″	$33,426	$35,501	$37,575

Sewer Connection Fees – per EDU

La Sierra	1/1/2017	1/1/2018	1/1/2019
	$5,540	$6,580	$7,621
WWRF	**1/1/2017**	**1/1/2018**	**1/1/2019**
	$8,018	$10,778	$13,539
Murrieta	**1/1/2017**	**1/1/2018**	**1/1/2019**
			$9,568

Fees shall be adjusted on January 1 of each year using the Handy-Whitman inflation adjustment index.

Note: Meter sizes greater than shown here require a separate service agreement with the District. Such agreement will include costs for the impacts on distribution infrastructure and water supply.



SECTION A-A

NOTES:

1. USE DOUBLE-PASS WELDS FOR FABRICATION & FIELD WELDS.
2. SADDLE CURVATURE TO BE FORMED TO MEET W.M.W.D. PIPE DIAMETERS D_3 AS STATED.
3. WHEN INSTALLED, OUTLET TO BE COATED WITH SAME COATING AS PIPE.

SADDLE DIMENSIONS		
SERVICE SIZE	D_1	D_2
1"	1 1/4"	5"
2"	2 1/2"	7"

APPROVED DATE: January 1, 2011

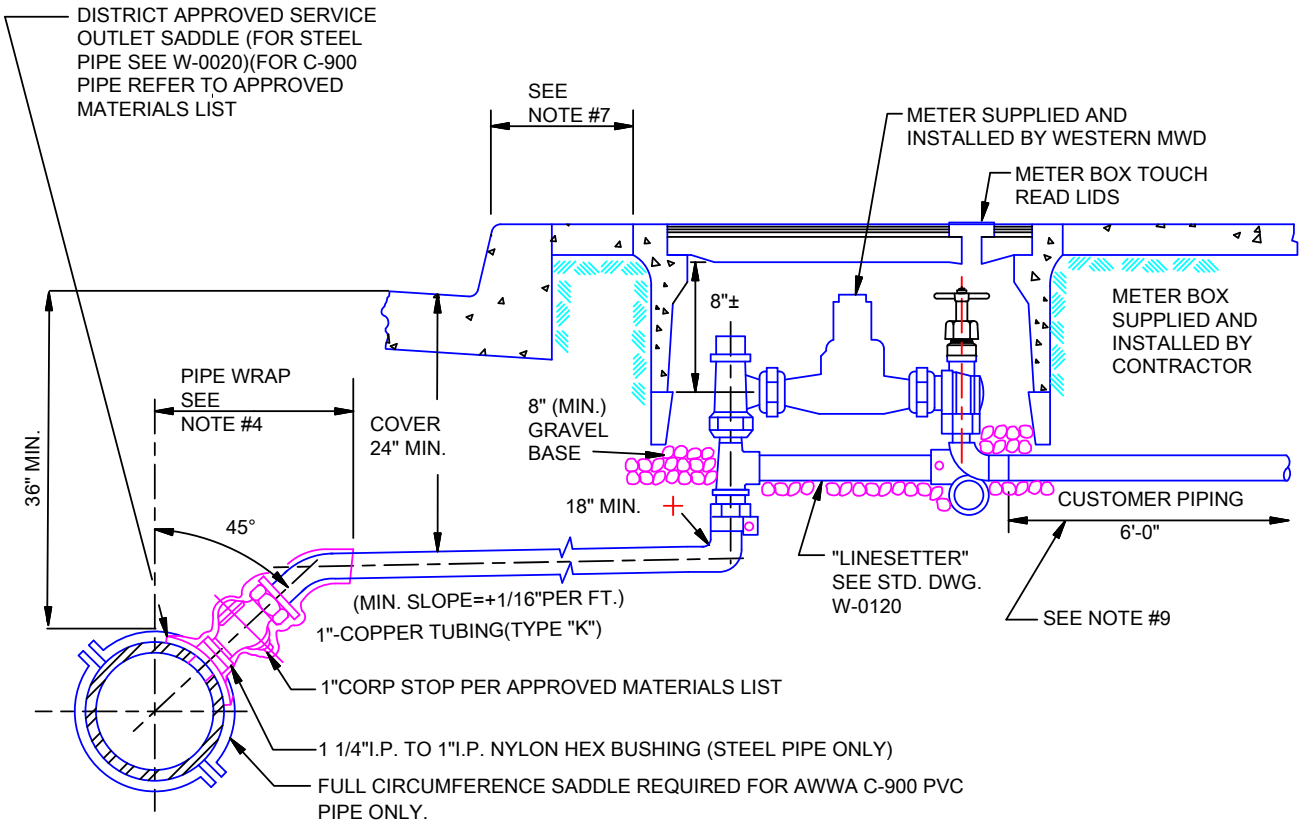
DIRECTOR OF ENGINEERING

STANDARD DRAWING

3/4" THROUGH 2" OUTLET SADDLE STEEL CYLINDER PIPE

STD. DWG. NO.

W-0020



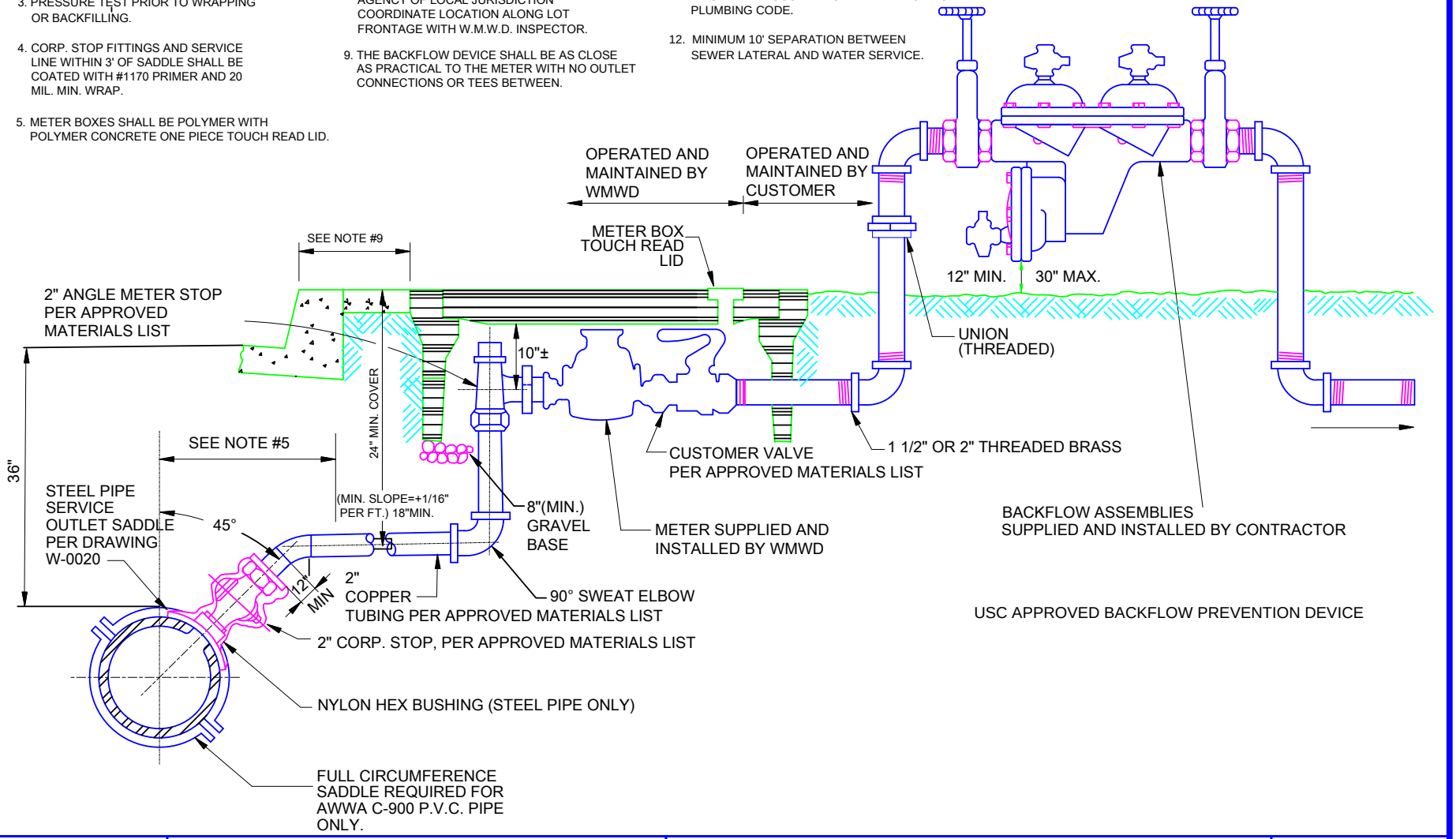
NOTES:

1. ALL PIPE & FITTINGS BETWEEN AND INCLUDING THE STOPS SHALL:
   A. BE MADE OF BRASS OR BRONZE.
   B. BE DESIGNED FOR MORE THAN 175 P.S.I. (COLD) WATER WORKING PRESSURE.
2. ALL BARE STEEL OR IRON SHALL BE COATED AND PROTECTED AS PER SPECS. PRIOR TO PLACING BACKFILL.
3. PRESSURE TEST PRIOR TO WRAPPING OR BACKFILLING.
4. CORP STOP, FITTINGS & SERVICE LINE WITHIN 3' OF SADDLE SHALL BE COATED WITH #1170 PRIMER & 20 MIL. MIN. PIPE WRAP PER APPROVED MATERIALS LIST.
5. ALL SERVICE PIPE & TUBING SHALL BE LAID ON A CONSTANT SLOPE UP FROM THE WATER MAIN TO METER. NO DIPS OR POCKETS IN LINE WILL BE PERMITTED.
6. THREAD NOTATION SHOWS THUS: IP=IRON PIPE THREAD
7. METER BOX IS TO BE LOCATED PER STANDARDS OF AGENCY OF LOCAL JURISDICTION. COORDINATE LOCATION ALONG LOT FRONTAGE WITH WESTERN INSPECTOR.
8. METER BOXES SHALL BE ONE-PIECE POLYMER CONCRETE WITH TOUCH READ LID PER APPROVED MATERIALS LIST.
9. CUSTOMER PIPING REQUIRED TO BE BRASS FOR 6' MINIMUM, THREAD PIPE TO FIT LINESETTER, NO JOINTS ALLOWED.
10. MINIMUM 5'-0" SEPARATION BETWEEN SEWER LATERAL AND WATER SERVICE.
11. ALL COPPER AND BRASS TUBING TO BE CONTINUOUS WITHOUT SPLICES.

	APPROVED DATE: January 1, 2011 Joseph Kennedy DIRECTOR OF ENGINEERING	STANDARD DRAWING DOMESTIC WATER SERVICE 3/4" AND 1" METER	STD. DWG. NO. W-0070

NOTES:

1. ALL PIPE & FITTINGS BETWEEN AND INCLUDING THE STOPS SHALL:
   A) BE MADE OF BRASS OR BRONZE
   B) BE DESIGNED FOR MORE THAN 175 PSI (COLD) WATER WORKING PRESSURE.
2. ALL BARE STEEL OR IRON SHALL BE COATED AND PROTECTED AS PER SPECS. PRIOR TO PLACING BACKFILL.
3. PRESSURE TEST PRIOR TO WRAPPING OR BACKFILLING.
4. CORP. STOP FITTINGS AND SERVICE LINE WITHIN 3' OF SADDLE SHALL BE COATED WITH #1170 PRIMER AND 20 MIL. MIN. WRAP.
5. METER BOXES SHALL BE POLYMER WITH POLYMER CONCRETE ONE PIECE TOUCH READ LID.
6. ALL SERVICE PIPE AND TUBING SHALL BE LAID ON A CONSTANT SLOPE UP FROM THE WATER MAIN TO METER. NO DIPS OR POCKETS IN LINE WILL BE PERMITTED.
7. THREAD NOTATION SHOWS THUS: I.P. - IRON PIPE THREAD.
8. METER BOX IS TO BE LOCATED PER AGENCY OF LOCAL JURISDICTION COORDINATE LOCATION ALONG LOT FRONTAGE WITH W.M.W.D. INSPECTOR.
9. THE BACKFLOW DEVICE SHALL BE AS CLOSE AS PRACTICAL TO THE METER WITH NO OUTLET CONNECTIONS OR TEES BETWEEN.
10. UPON INSTALLATION AND PRIOR TO WATER DELIVERY. THE BACKFLOW PREVENTION ASSEMBLY SHALL BE TESTED AND CERTIFIED BY A TESTER POSSESSING A CERTIFICATE OF COMPETENCY ISSUED BY COUNTY DEPT. OF HEALTH, AND APPROVED BY WMWD. COMPLETED TEST REPORTS SHALL BE FORWARDED TO WMWD BACKFLOW PREVENTION PROGRAM DEPARTMENT.
11. THE BACKFLOW PREVENTION ASSEMBLY SHALL BE SIZED IN ACCORDANCE WITH THE UNIFORM PLUMBING CODE.
12. MINIMUM 10' SEPARATION BETWEEN SEWER LATERAL AND WATER SERVICE.



APPROVED DATE: January 1, 2011

Joseph Kennedy

DIRECTOR OF ENGINEERING

STANDARD DRAWING

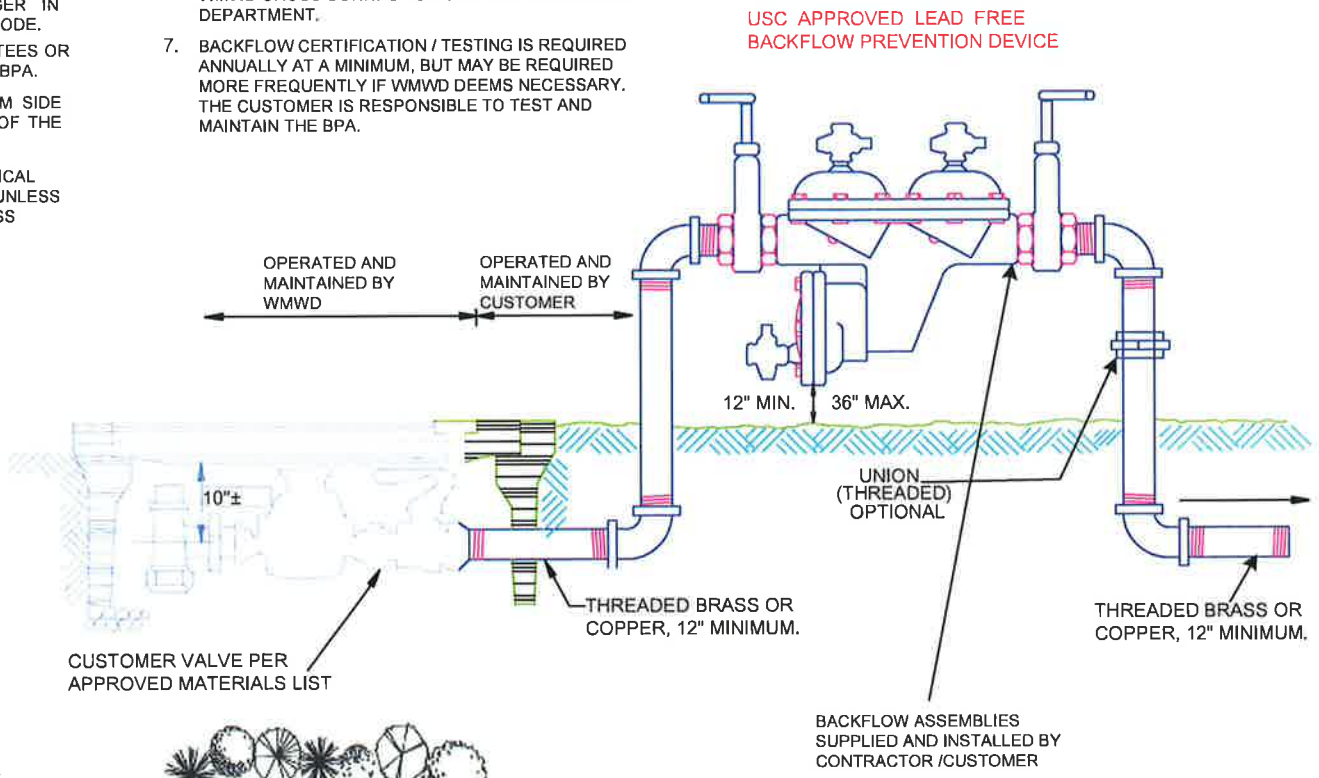
DOMESTIC WATER SERVICE 1 1/2" AND 2" METER

STD. DWG. NO.

W-0110

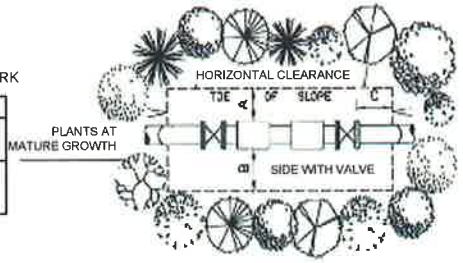
NOTES:

1. CUSTOMER SHALL SUPPLY AND INSTALL A USC APPROVED LEAD FREE BACKFLOW PREVENTION ASSEMBLY (BPA) TO STATE REGULATIONS,UNIFORM PLUMBING CODE AND SPECIFICATIONS OF WMWD APPROVED MATERIAL LIST.
2. BPA SHALL BE SIZED TO MATCH THE DIAMATER OF THE SUPPLY METER OR UP TO 1" LARGER IN ACCORDANCE WITH THE UNIFORM PLUMBING CODE.
3. BPA SHALL BE INSTALLED WITH NO OUTLETS, TEES OR CONNECTIONS BETWEEN THE METER AND THE BPA.
4. MAINLINE MATERIAL FROM THE DOWNSTREAM SIDE OF THE METER TO THE DOWNSTREAM SIDE OF THE BPA SHALL CONSIST OF BRASS OR COPPER.
5. BPA SHALL BE INSTALLED AS CLOSE AS PRACTICAL TO THE METER BUT NOT FURTHER THAN 3 FT. UNLESS A VARIANCE IS OBTAINED FROM A WMWD CROSS CONNECTION CONTROL SPECIALIST PRIOR TO INSTALLATION
6. UPON INSTALLATION AND PRIOR TO WATER DELIVERY, THE BPA SHALL BE INSPECTED , TESTED AND CERTIFIED BY A RIVERSIDE COUNTY CERTIFIED BACKFLOW TESTER THAT IS LISTED ON THE WMWD APPROVED BACKFLOW TESTER LIST. COMPLETED TEST REPORTS SHALL BE FORWARDED TO THE WMWD CROSS CONNECTION CONTROL / BACKFLOW DEPARTMENT.
7. BACKFLOW CERTIFICATION / TESTING IS REQUIRED ANNUALLY AT A MINIMUM, BUT MAY BE REQUIRED MORE FREQUENTLY IF WMWD DEEMS NECESSARY. THE CUSTOMER IS RESPONSIBLE TO TEST AND MAINTAIN THE BPA.



ADEQUATE AND SAFE CLEARANCE MUST BE PROVIDED TO PERMIT TESTING AND REPAIR WORK

MINIMUM CLEARANCE SCHEDULE			
SIZE	A	B	C
¾" Thru 2"	12"	24"	12"



OVERHEAD VIEW OF CLEARANCE REQUIREMENTS

APPROVED DATE: OCTOBER 31, 2013

DIRECTOR OF ENGINEERING

STANDARD DRAWING

REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTER FOR ¾" THROUGH 2" METERS

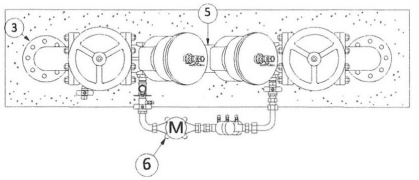
STD. DWG. NO.

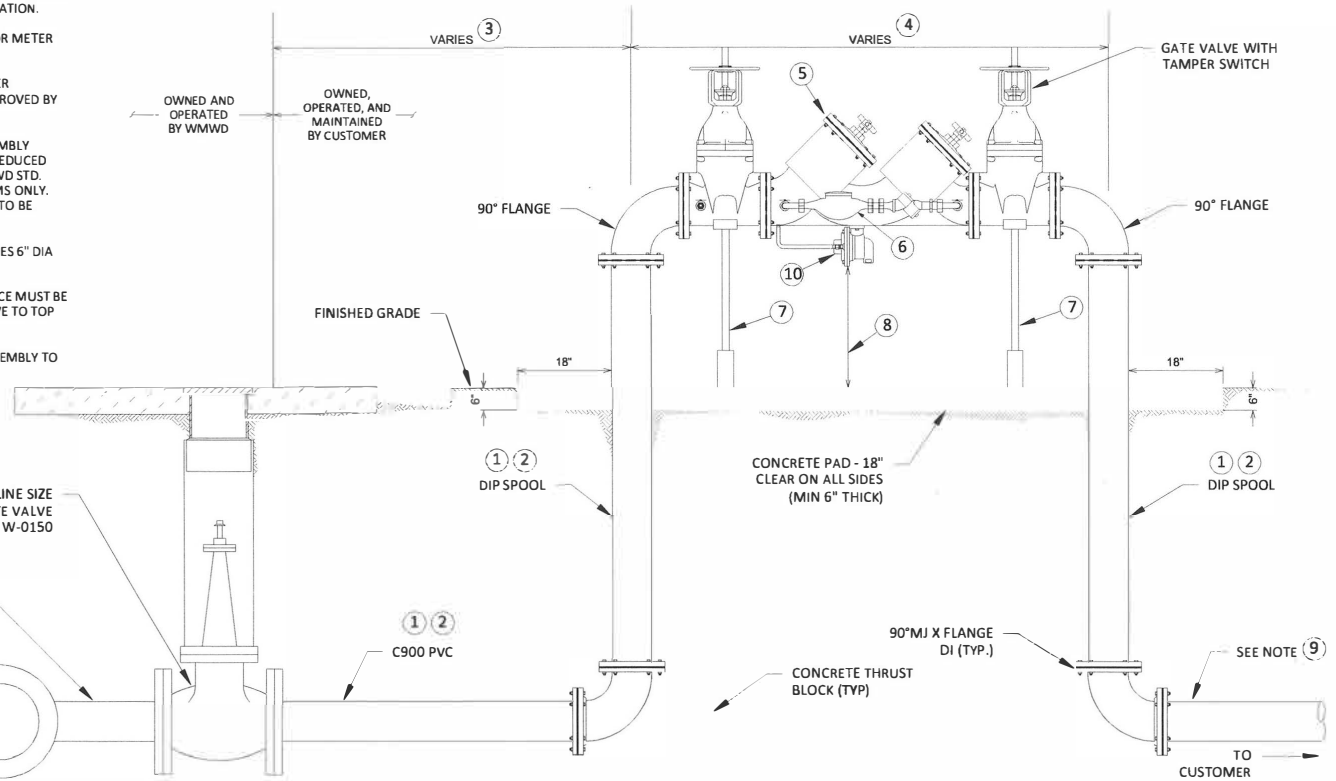
W-0110A

MATERIALS:

1. ALL PIPES AND FITTINGS SHALL BE DESIGNED FOR 175 P.S.I (WESTERN'S SYSTEM WORKING PRESSURE).
2. ALL BARE STEEL OR IRON SHALL BE COATED AND PROTECTED AS PER SPECS. PRIOR TO PLACING BACKFILL.
3. LOCATION OF BACKFLOW ASSEMBLY TO BE APPROVED BY LOCAL JURISDICTION PRIOR TO INSTALLATION.
4. EASEMENT TO BE GRANTED TO WMWD FOR METER READING PURPOSES.
5. REDUCED PRESSURE BACKFLOW PREVENTER ASSEMBLY WITH 3/4" BY-PASS METER APPROVED BY USC.
6. FACTORY INSTALLED BY-PASS METER ASSEMBLY COMPRISING OF APPROVED METER AND REDUCED PRESSURE PRINCIPAL ASSEMBLY PER WMWD STD. SPEC. METER TO BE USED FOR FIRE SYSTEMS ONLY. METER READS IN CUBIC FEET AND MODEL TO BE APPROVED BY WMWD.
7. ADJUSTABLE PIPE SUPPORT FOR ASSEMBLIES 6" DIA AND LARGER PER W-1568.
8. MIN. 12" TO MAX 36" VERTICAL CLEARANCE MUST BE PROVIDED FROM BOTTOM OF RELIEF VALVE TO TOP OF CONCRETE PAD.
9. PIPELINE MATERIAL AFTER BACKFLOW ASSEMBLY TO BE APPROVED BY LOCAL JURISDICTION.
10. RPDA RELIEF VALVE

PLAN VIEW





SIDE VIEW

NOTES:

1. SITE PLAN AND TYPE OF REDUCED PRESSURE DETECTOR ASSEMBLY TO BE APPROVED BY WMWD PRIOR TO INSTALLATION.
2. THE REDUCED PRESSURE DETECTOR ASSEMBLY SHOULD BE INSTALLED AS CLOSE AS PRACTICAL TO THE SERVICE CONNECTION WITH NO OUTLET CONNECTIONS OR TEES.
3. ALL WELDS TO BE FULL WELD, DOUBLE-PASS.
4. TRIPAK BLUE 2000 BOLTS REQUIRED. ALL FLANGES BOLTED IN FIELD.
5. ALL DUCTILE IRON (ID) JOINTS SHALL BE RESTRAINED.
6. RETAINING WALLS MAY BE REQUESTED DEPENDING ON SLOPE OR LOCATION FOR PROTECTION PURPOSES.
7. FIRE SYSTEM USING ONSITE PUMP IS REQUIRED TO INSTALL BY-PASS METERING LOOP AND INSERTION FLOW METER FOR EACH PUMP.

WESTERN MUNICIPAL WATER DISTRICT

REVISIONS

NO.	DATE	INITIAL	DESCRIPTION	APP'D	DATE
1	9/4/19	H&N CORP.	CONVERTED TO AUTOCAD. ADDED ADDITIONAL NOTES AND CONCRETE PAD.	DK	9/10/19

REFERENCES:

FILE I.D.:

SCALE: NONE

DRAWN BY: ZA&CM

WESTERN MUNICIPAL WATER DISTRICT
STANDARD DRAWING

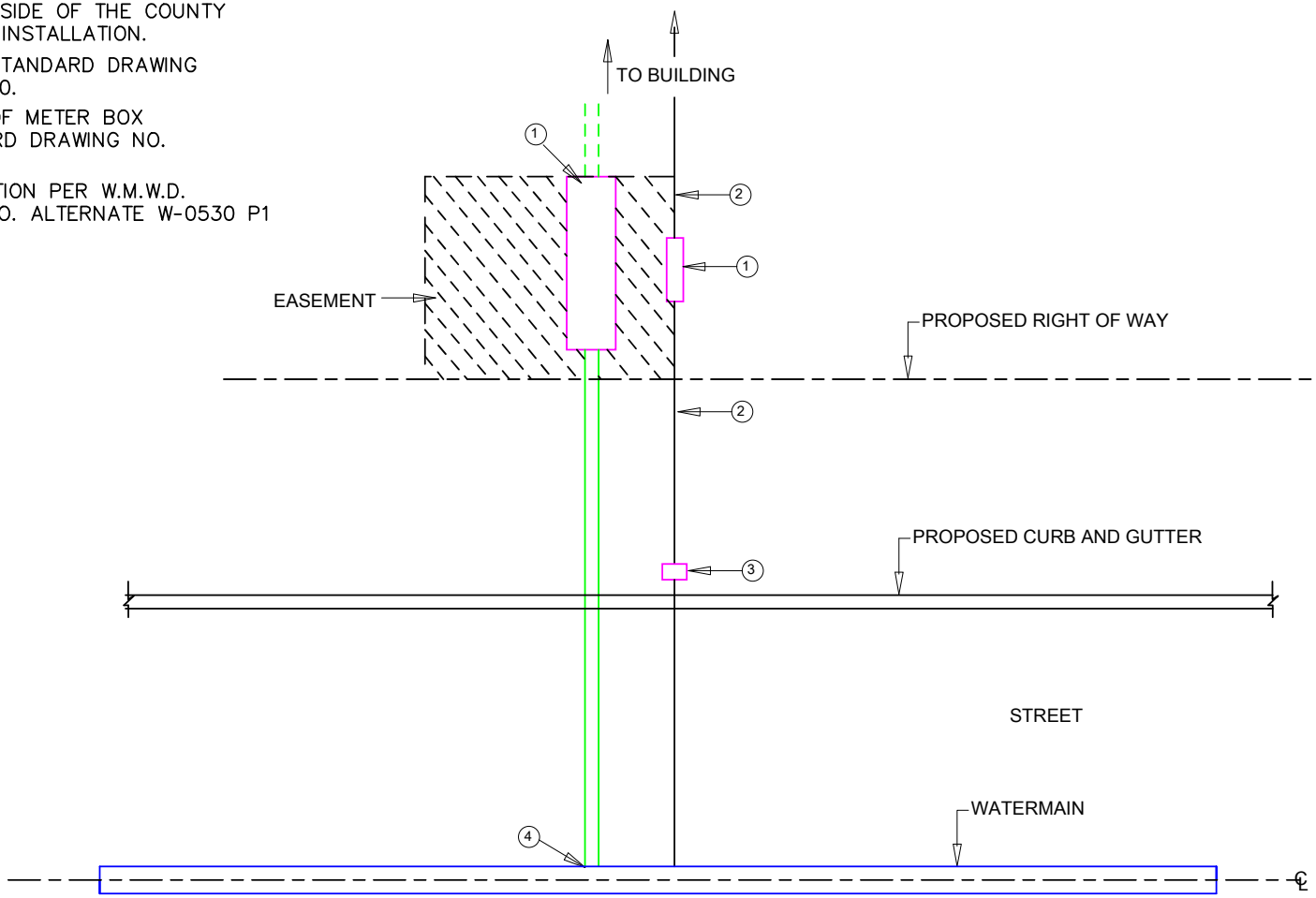
REDUCED PRESSURE BACKFLOW PREVENTOR 4", 6", 8", 10" OR 12" DETECTOR ASSEMBLY

APPROVED: David Kramer 9/10/2019
DIRECTOR OF ENGINEERING DATE

W- 0531

NOTES:

1. SIZE AND TYPE OF R.P. BACKFLOW DEVICE TO BE APPROVED BY W.M.W.D. BEFORE INSTALLATION. LOCATION TO BE APPROVED BY THE CITY OF RIVERSIDE OF THE COUNTY OF RIVERSIDE BEFORE INSTALLATION.
2. PIPING PER W.M.W.D. STANDARD DRAWING NO. W-0520 OR W-0110.
3. LOCATION AND TYPE OF METER BOX PER W.M.W.D. STANDARD DRAWING NO. W-0110.
4. FIRE SERVICE CONNECTION PER W.M.W.D. STANDARD DRAWING NO. ALTERNATE W-0530 P1



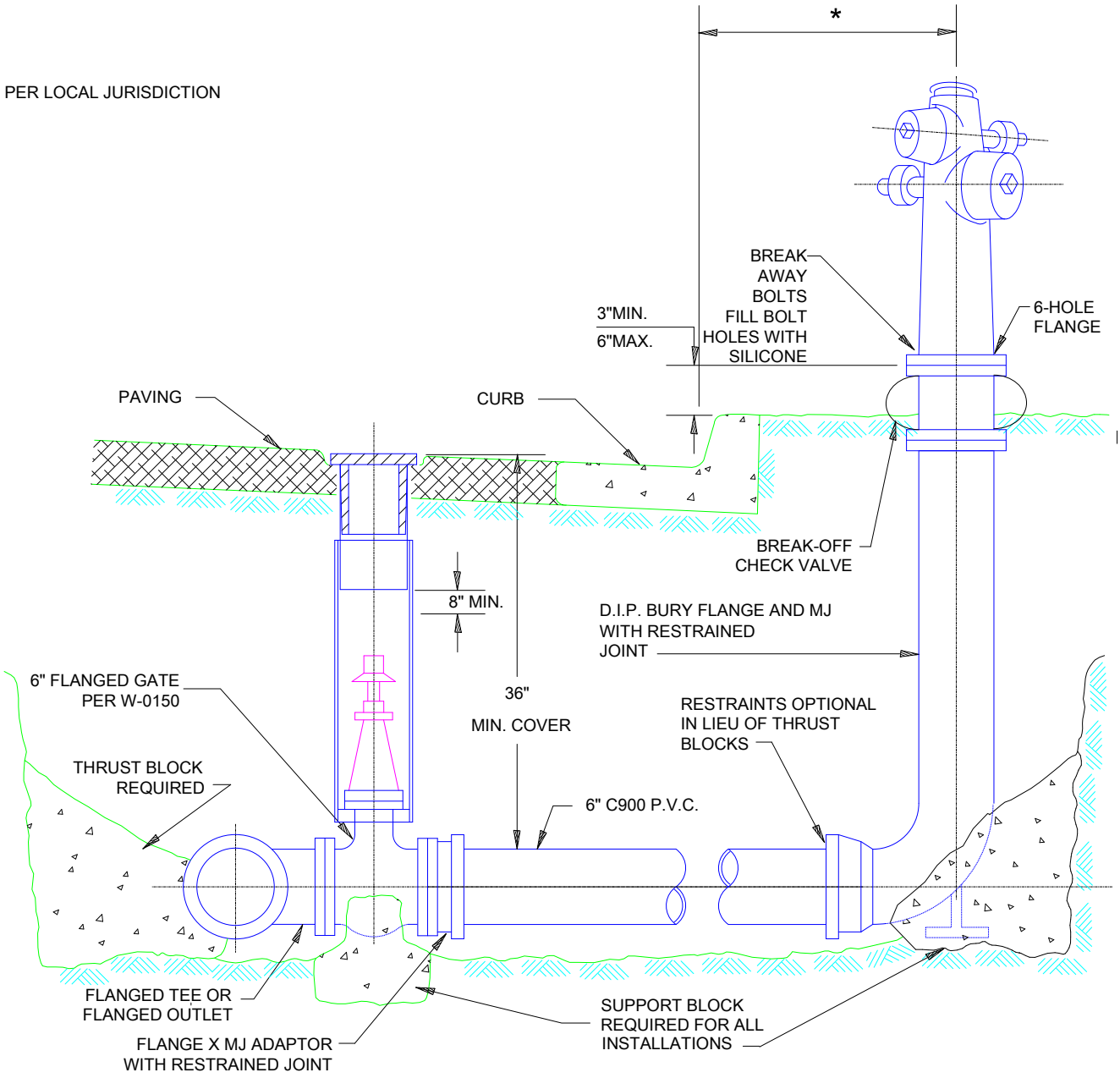
APPROVED DATE: January 1, 2011

DIRECTOR OF ENGINEERING

STANDARD DRAWING
BACKFLOW ASSY W/
BY-PASS METER FOR FIRE
DEPARTMENT CONNECTION

STD. DWG. NO.
W-0530p2

* PER LOCAL JURISDICTION



NOTES:

1. ALL MATLS SHALL BE CLASS 175 WWP (MIN).
2. COAT ALL BARE METAL WITH #1170 PRIMER & 20 MIL MIN. WRAP.
3. REPAIR PIPE COATING WITH APPROVED MATERIAL OF SIMILAR NATURE.
4. HOSE THREADS TO BE NATIONAL STANDARD.
5. ALL WELDS ON CML PIPE TO BE FULL WELD, DOUBLE-PASS.
6. SET HYDRANT WITH OUTLETS AT 45° TO CURB.
7. ALL THRUST BLOCKS TO BE POURED AGAINST UNDISTURBED EARTH. USE CLASS "C" CONCRETE.
8. PAINT ALL MATERIAL ABOVE GRADE WITH TWO COATS OF SAFETY YELLOW. HYDRANT CAPS TO BE PAINTED WITH COLOR AS PER CODE OF AGENCY (CITY/COUNTY) HAVING JURISDICTION.
9. BREAK OFF CHECK VALVE MODEL LB1400A BY CLOW

APPROVED DATE: January 1, 2011

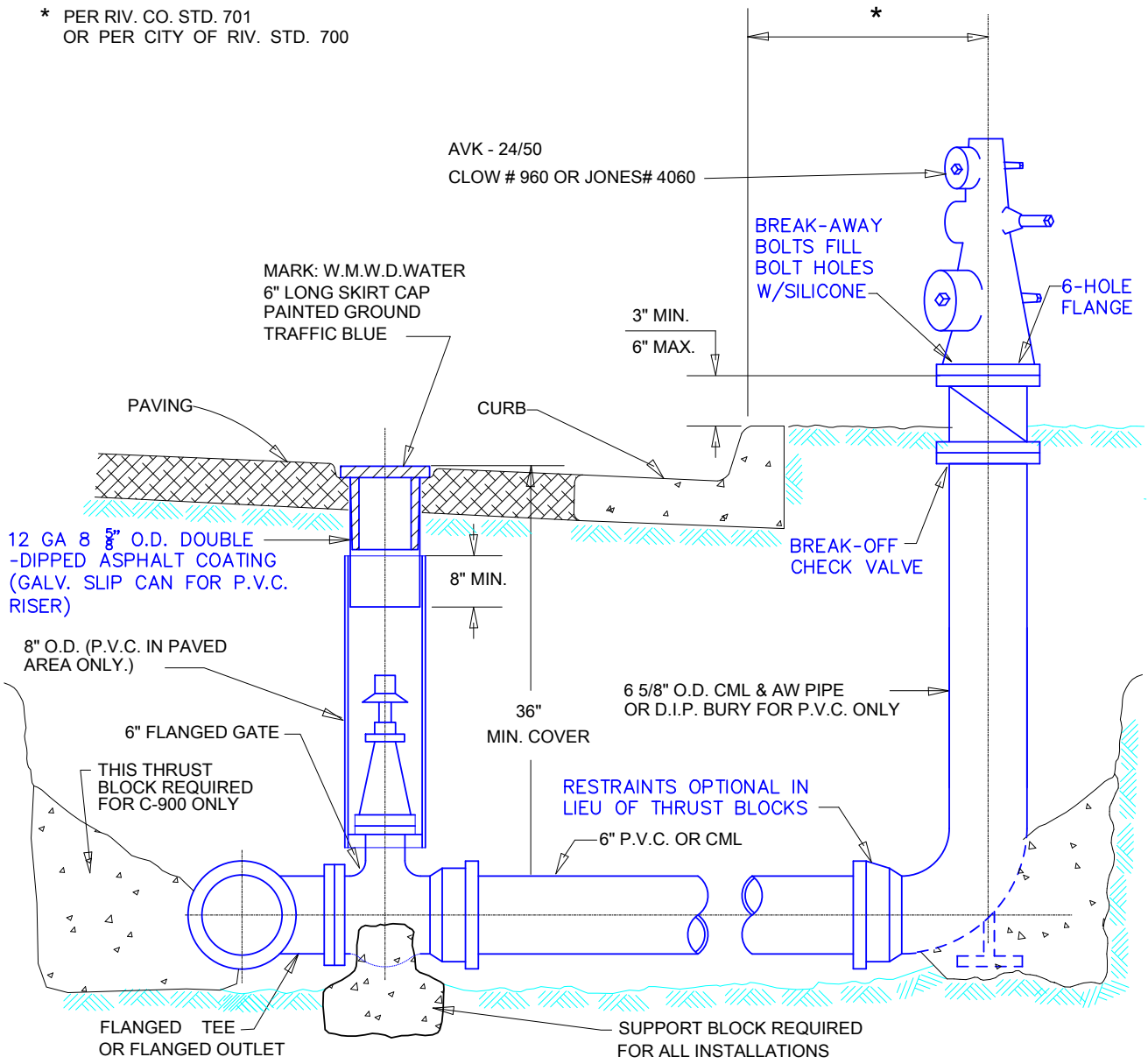
DIRECTOR OF ENGINEERING

STANDARD DRAWING
"STANDARD"
4" x 2 1/2" FIRE HYDRANT

STD. DWG. NO.

W-0580

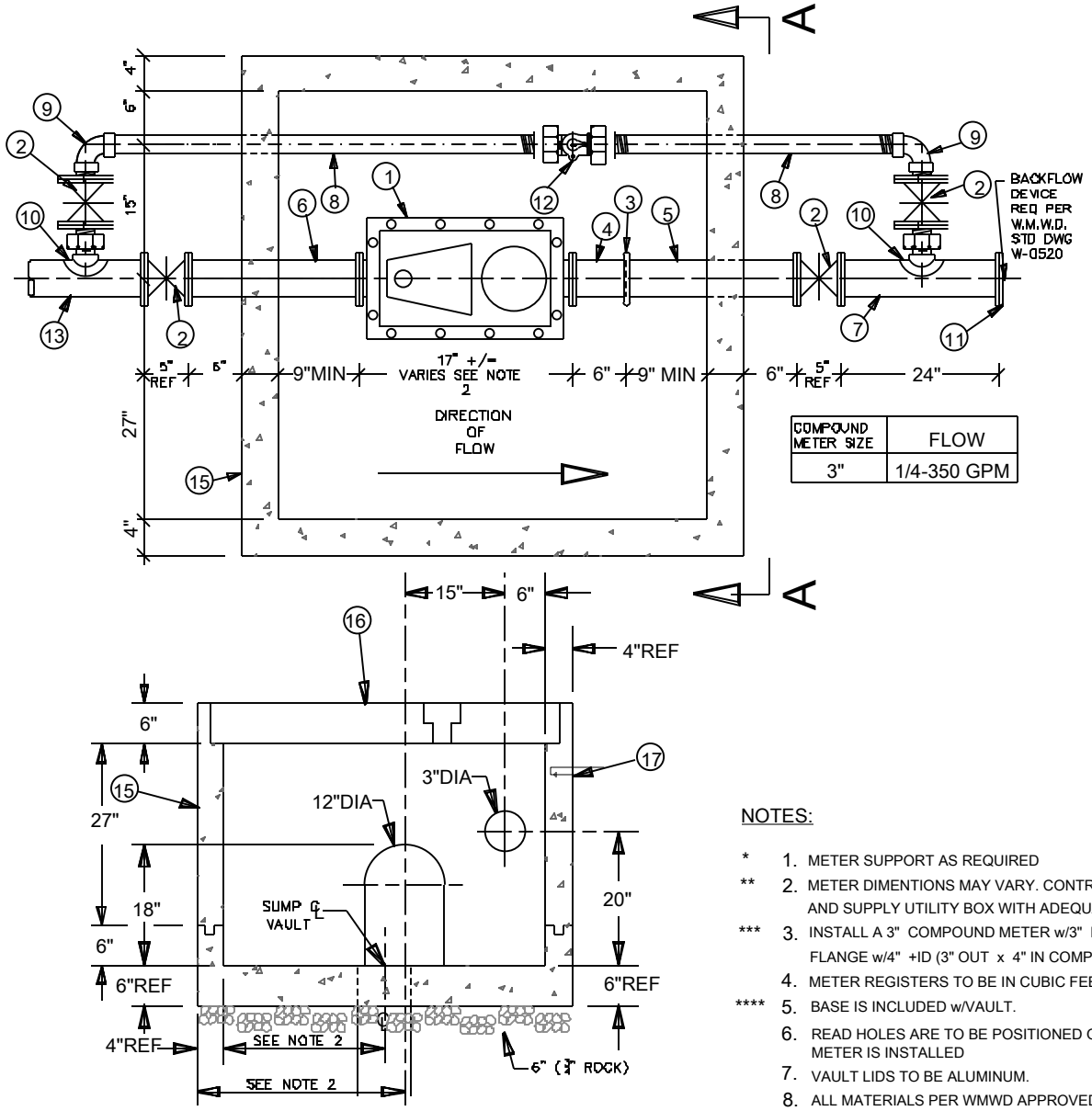
* PER RIV. CO. STD. 701
OR PER CITY OF RIV. STD. 700



NOTES:

1. ALL MATLS SHALL BE CLASS 175 WWP (MIN).
2. COAT ALL BARE METAL WITH #1170 PRIMER & 20 MIL MIN. WRAP.
3. REPAIR PIPE COATING WITH APPROVED MATERIAL OF SIMILAR NATURE.
4. IN UNPAVED AREAS, GATE VALVE RISER & CAP SHALL BE INSTALLED 6" BELOW GRADE.
5. HOSE THREADS TO BE NATIONAL STANDARD.
6. ALL WELDS ON CML PIPE TO BE FULL WELD, DOUBLE-PASS.
7. SET HYDRANT WITH OUTLETS AT 45° TO CURB.
8. ALL SUPPORT BLOCKS TO BE POURED AGAINST UNDISTURBED EARTH. USE CLASS "C" CONCRETE.
9. PAINT ALL MATERIAL ABOVE GRADE WITH TWO COATS OF SAFETY YELLOW. HYDRANT CAPS TO BE PAINTED WITH COLOR AS PER CODE OF AGENCY (CITY/COUNTY) HAVING JURISDICTION.

	APPROVED DATE: January 1, 2011 Joseph Beaudry DIRECTOR OF ENGINEERING	STANDARD DRAWING "SUPER" 4" X 2 1/2" X 2 1/2" FIRE HYDRANT	STD. DWG. NO. W-0610



VIEW A-A

MATERIALS LIST

ITEM	QTY	DESCRIPTION
1	1 ea	3" COMPOUND METER *
2	2 ea	4" GATE VALVES
3	1 ea	4" VICTAULIC COUPLING
4	1 ea	4"x 6" VICTTAULIC NIP. w/3" METER FLANGE ***
5	1 ea	4"x 23" FLANGED X VICTAULIC NIPPLE
6	1 ea	4"x 22" FLG. SPOOL w/3" METER FLANGE ***
7	1 ea	4" X 24" FLANGED SPOOL
8	12 ft ±	2" BRASS (RED)
9	2 ea	2" 90° BRASS THREADED
10	2 ea	4" X 2 ½" SERVICE SADDLE w/2" X 2 ½" REDUCING BRASS BUSHING
11	1 ea	4" BLIND FLANGE
12	1 ea	2" CURB STOP BRASS "Normally closed"
13	ft	4" C.M.L. & C. PIPE (Length to reach main line)
14	5 ea	4" FLANGE
15	1 ea	4'-0" x 4'-0' UTILITY BOX w/4" WALLS
16	1 ea **	TORSION SPRING ASSISTED TWO-PIECE STEEL PARKWAY COVER OR STEEL TRAFFIC COVER WITH MANUFACTURED TOUCH READ HOLE
17	1 ea	PRECAST CONCRETE BASE w/8" SUMP
18	5 ea	4" RING FLANGE GASKETS
19	56 ea	5/8" x 3" BOLTS w/NUTS
20	2 ea	VALVE RISER CAPS
21	8 ft ±	6" DOUBLE DIPPED PIPE (valve rise can) A-492
22	2 ea	3" METER GASKETS

NOTES:

* 1. METER SUPPORT AS REQUIRED

** 2. METER DIMENTIONS MAY VARY. CONTRACTOR SHALL VERIFY METER DIMS AND SUPPLY UTILITY BOX WITH ADEQUATE CLEARANCE.

*** 3. INSTALL A 3" COMPOUND METER w/3" METER FLANGE WHICH IS STD. 3" FLANGE w/4" +ID (3" OUT x 4" IN COMPANION FLANGE).

4. METER REGISTERS TO BE IN CUBIC FEET

**** 5. BASE IS INCLUDED w/VAULT.

6. READ HOLES ARE TO BE POSITIONED OVER METER REGISTERS AFTER METER IS INSTALLED

7. VAULT LIDS TO BE ALUMINUM.

8. ALL MATERIALS PER WMWD APPROVED MATERIAL LIST

WESTERN MUNICIPAL WATER DISTRICT

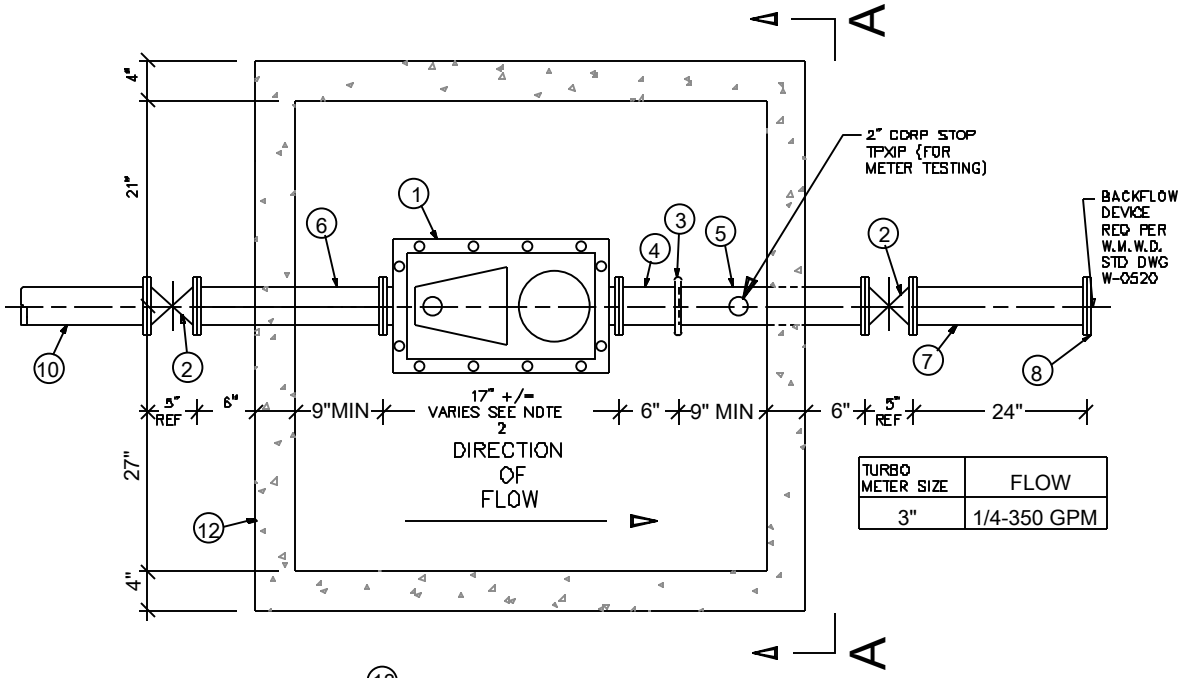
APPROVED DATE: January 01, 2011

DIRECTOR OF ENGINEERING

STANDARD DRAWING
3" & 4" COMPOUND METER INSTALLATION

STD. DWG. NO.

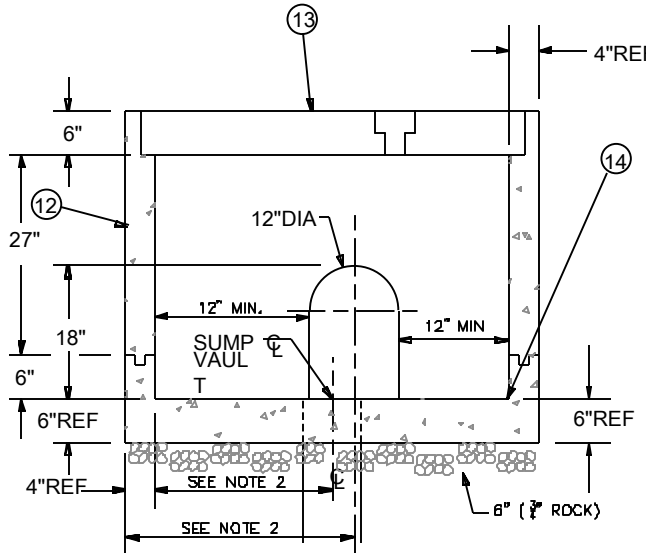
W-0860



TURBO METER SIZE	FLOW
3"	1/4-350 GPM

MATERIALS LIST

ITEM	QTY	DESCRIPTION
1	1 ea	3" TURBO METER PER WMWD APPROVED MATERIAL LIST *
2	2 ea	4" GATE VALVES
3	1 ea	4" VICTAULIC COUPLING
4	1 ea	4" x 6" VICTTAULIC NIP. w/3" METER FLANGE ***
5	1 ea	4"x 23" FLANGED X VICTAULIC NIPPLE
6	1 ea	4"x 22" FLG. SPOOL w/3" STEEL METER FLANGE ***
7	1 ea	4" x 24" FLANGED SPOOL
8	1 ea	4" BLIND FLANGE
9	1 ea	2" CURB STOP BRASS "Normally closed"
10	ft	4" C-900 WITH RESTRAINTJOINTS (Length to reach main line)
11		
12	1 ea	4'-0" x 4'-0" UTILITY BOX w/4" WALLS
13	1 ea **	TORSION SPRING ASSISTED TWO-PIECE ALUMINUM PARKWAY COVER OR STEEL TRAFFIC COVER WITH MANUFACTURED TOUCH READ HOLE
14	1 ea	PRECAST CONCRETE BASE w/8" SUMP
15	5 ea	4" RING FLANGE GASKETS
16	56 ea	5/8"x 3" BOLTS w/NUTS
17	2 ea	VALVE RISER CAPS
18	8 ft±	6" DOUBLE DIPPED PIPE (valve riser can) A-492
19	2 ea	3" METER GASKETS



VIEW A-A

NOTES:

* 1. METER SUPPORT AS REQUIRED

** 2. METER DIMENTIONS MAY VARY. CONTRACTOR SHALL VERIFY METER DIMS AND SUPPLY UTILITY BOX WITH ADEQUATE CLEARANCE.

*** 3. INSTALL A 3" TURBO METER w/3" METER FLANGE WHICH IS STD. 3"

4. FLANGE w/4" +ID (3" OUT x 4" IN COMPANION FLANGE). METER REGISTERS TO BE IN CUBIC FEET

**** 5. BASE IS INCLUDED w/VAULT.

6. READ HOLES ARE TO BE POSITIONED OVER METER REGISTERS AFTER METER IS INSTALLED

7. VAULT LIDS TO BE ALUMINUM.

8. ALL MATERIALS PER WMWD APPROVED MATERIAL LIST

WESTERN MUNICIPAL WATER DISTRICT

APPROVED DATE: January 01, 2011

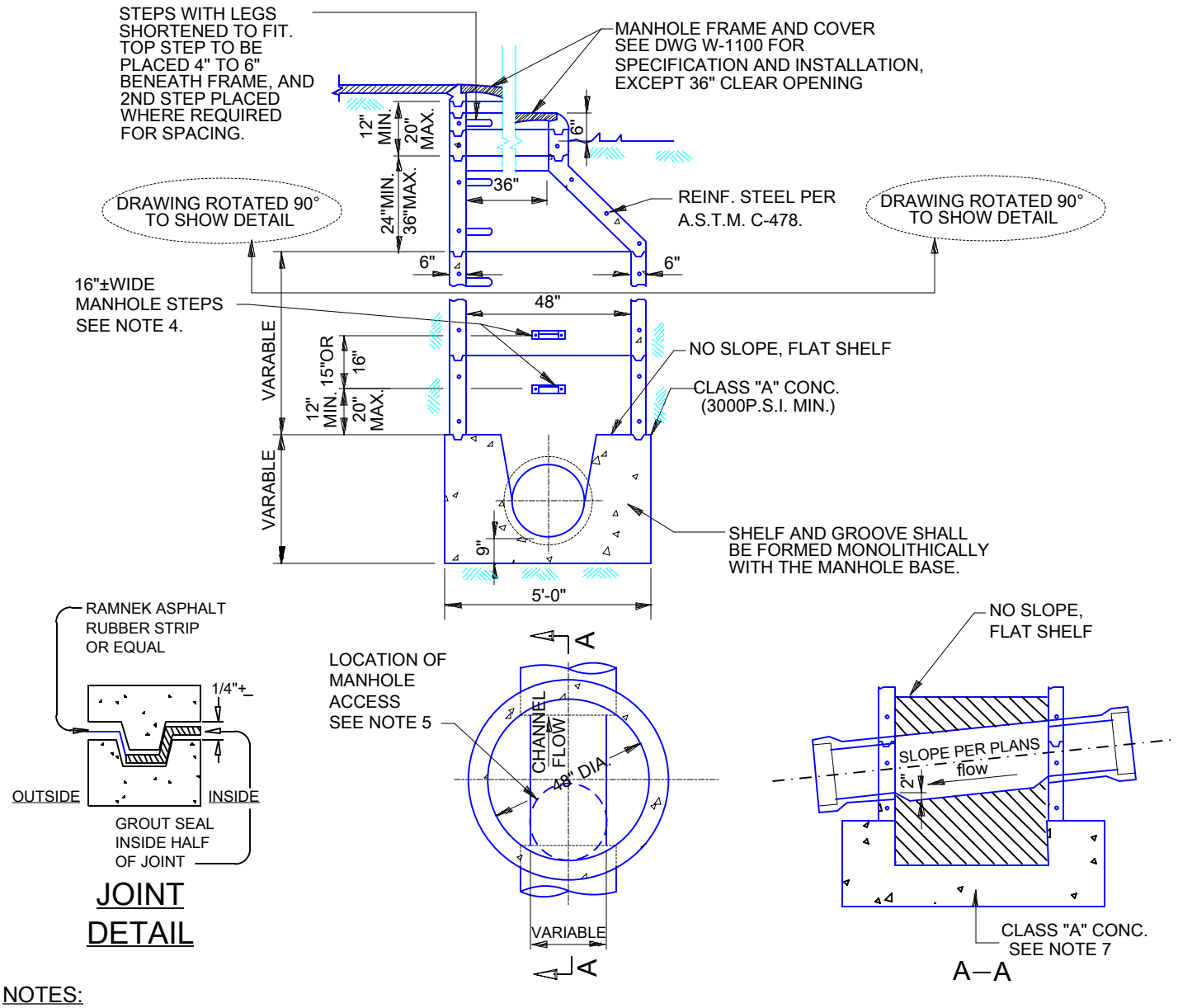
Joseph Beverly

DIRECTOR OF ENGINEERING

STANDARD DRAWING 3" TURBO METER INSTALLATION

STD. DWG. NO.

W-0870



NOTES:

1. ALL SECTIONS TO BE WASHED TO REMOVE ANY LOOSE MATERIAL, THEY ARE TO BE SET IN PRE-FORMED COLD-APPLIED READY-TO-USE PLASTIC JOINT SEALING COMPOUND AND PRIMER, RAM-NEK OR APPROVED EQUAL.
2. PROVIDE FLEXABLE JOINT IN ALL SEWER PIPES OUTSIDE OF MANHOLE BUT WITHIN 12" OF CONCRETE BASE.
3. CONCRETE RING AROUND FRAME SHALL BE CURED WITH A PIGMENTED CURING COMPOUND MEETING THE REQUIRMENTS OF SECTION 90-7 OF STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS.
4. MANHOLE STEPS SHALL BE: M.A. INDUSTRIES, INC., MANHOLE STEP #P52-PFS OR APPROVED EQUAL.
5. ALL MANHOLE TOPS SHALL BE INSTALLED WITH MANHOLE COVER OVER THE THE DOWNSTREAM INLET, EXCEPT AS OTHERWISE SPECIFIED.
6. PRECAST REINFORCED CONCRETE MANHOLES SHALL CONFORM TO THE REQUIRMENTS OF A.S.T.M. C478 AND: A. BE DESIGNED FOR A.A.S.H.O. H-20 LOADING;
   B. CONCRETE SHALL BE COMPACTLY VIBRATED, CENTRIFUGALLY SPUN, OR MECHANICALLY TAMPED.
7. CONCRETE BASE SHALL BE OF CLASS "A" CONCRETE AND PLACED AGAINST UNDISTURBED EARTH IN ONE OPERATION. CONCRETE INVERTS SHALL BE TRUE TO GRADE AND ALIGNMENT, AND FINISHED WITH A SMOOTH SURFACE. SPECIAL CARE SHALL BE USED IN FORMING ALL CHANNELS TO FACILITATE THE FLOW OF SEWAGE.
8. FOR SEWER GREATER THAN 12 FEET DEEP OR 18 INCHES IN DIAMETER OR GREATER USE W-1130 WITH A FLAT SHELF.

WESTERN MUNICIPAL WATER DISTRICT

APPROVED DATE: January 01, 2011

Joseph Beaudy

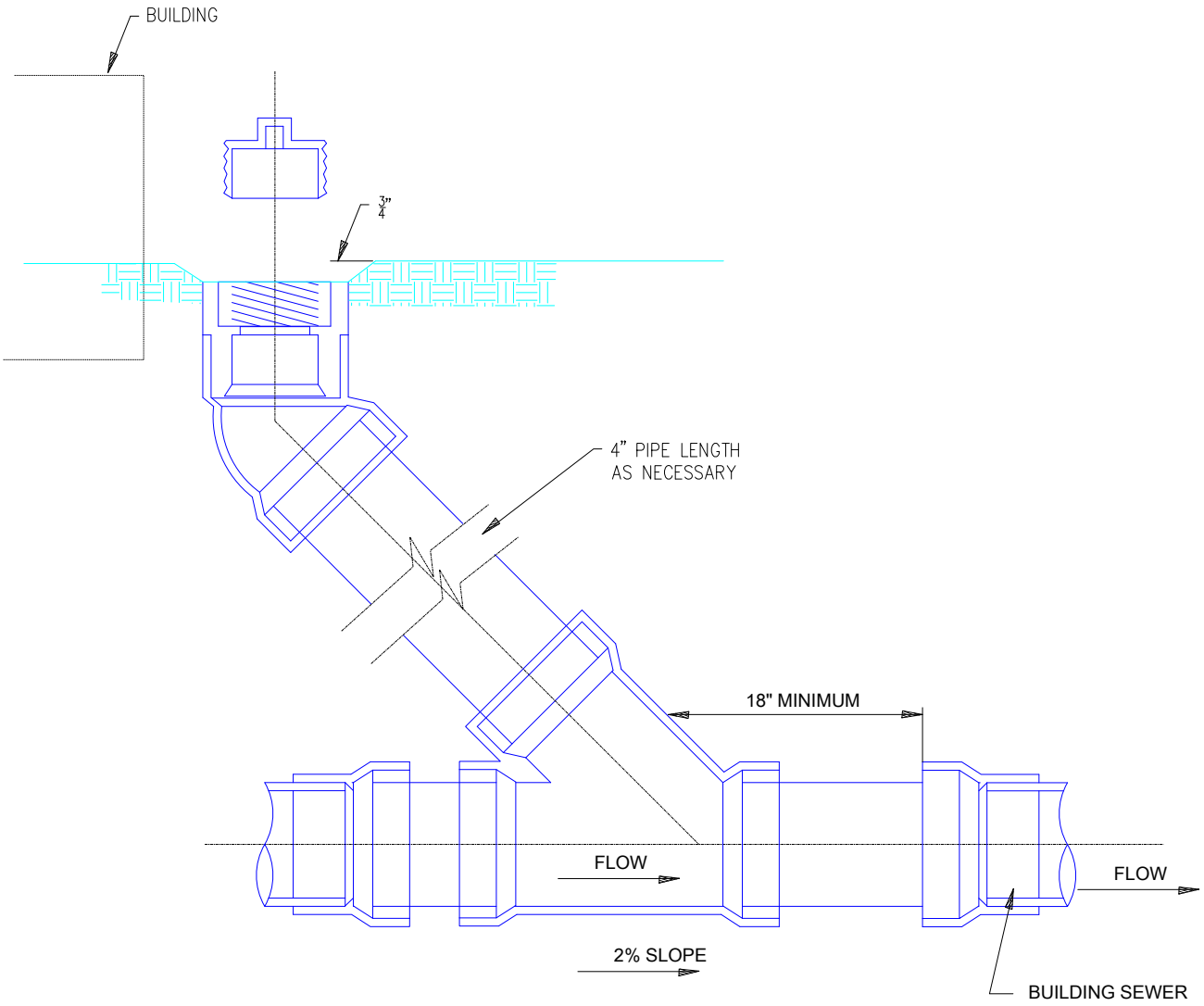
DIRECTOR OF ENGINEERING

STANDARD DRAWING

PRECAST CONCRETE SAMPLING MANHOLE

STD. DWG. NO.

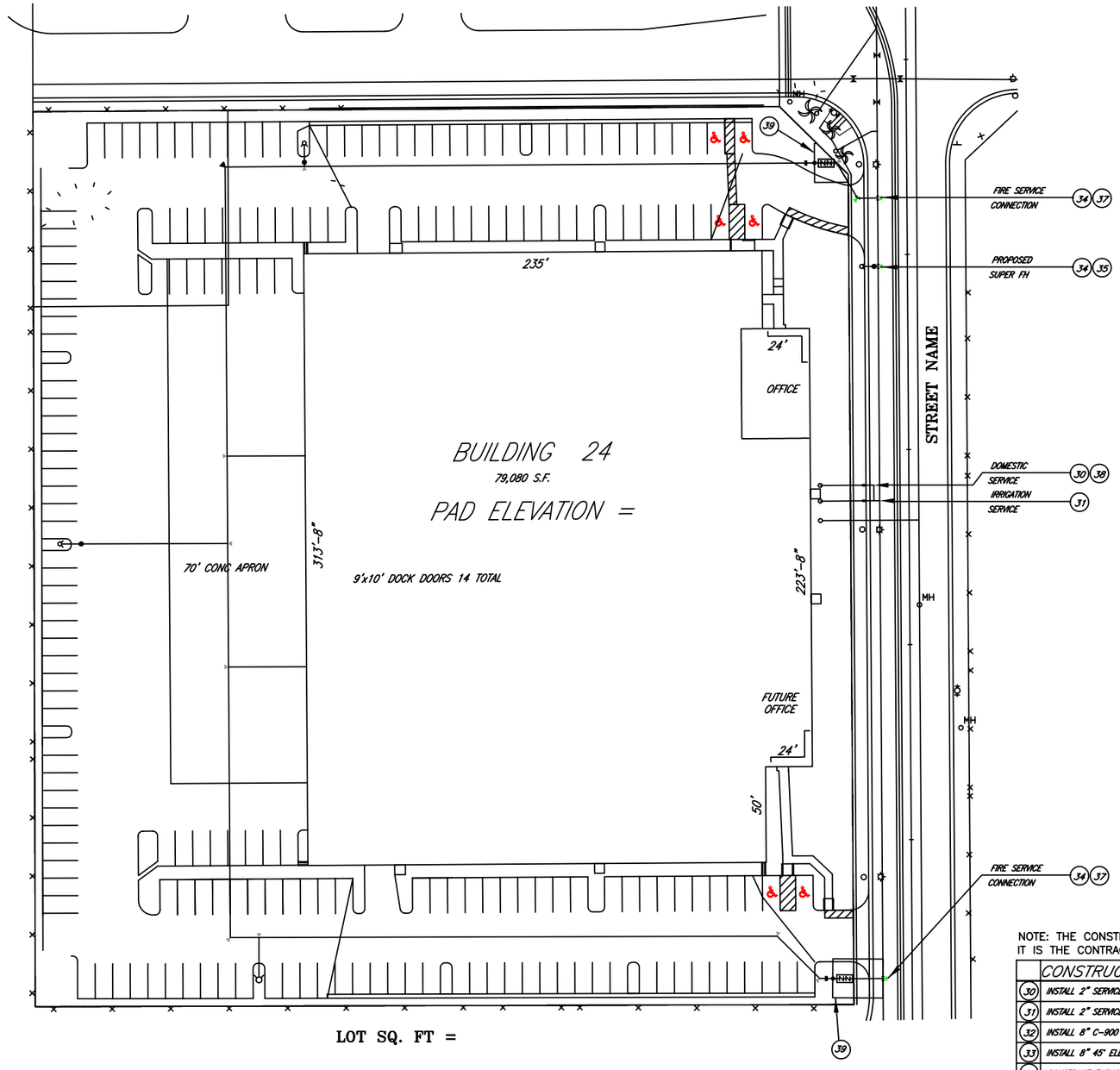
W-1071



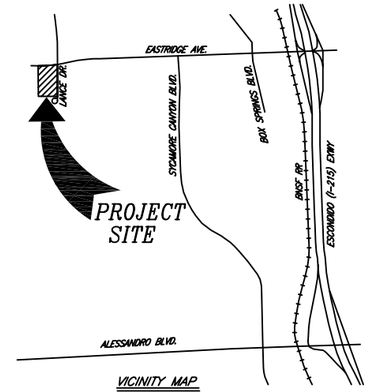
NOTES:

1. THE BARREL DIAMETER OF THE SAMPLING STATION SHALL BE A MINIMUM OF 2" LARGER THAN THE BUILDING DISCHARGE LINE.
2. THE DIAMETER OF THE RISER PIPE SHALL BE 4".
3. THE SAMPLE WYE SHALL BE ACCESSIBLE TO WMWD'S INDUSTRIAL PRETREATMENT PROGRAM REPRESENTATIVE DURING NORMAL WORKING HOURS.
4. THE SAMPLE WYE SHALL NOT BE INSTALLED IN TRAVEL WAYS, UNLESS AUTHORIZED BY WMWD.
5. A FLUSH CAP SHALL BE USED FOR ALL SAMPLE WYES INSTALLED IN FLOOR AREAS.

	APPROVED DATE: January 1, 2011 Joseph Beardsley DIRECTOR OF ENGINEERING	STANDARD DRAWING Sewer Sample Wye	STD. DWG. NO. W-1170



W.M.W.D. SAMPLE COMMERCIAL PLAN CHECK DRAWING



VICINITY MAP
NTS

THOMAS GUIDE MAP
SAN BERNARDINO COUNTY V. 1999
PG. 716, GRID H-4

SECTION 4, TOWNSHIP 3S, RANGE4W,
PRESSURE ZONE 1837'

OWNER/DEVELOPER

PROJECT NAME
OWNER/DEVELOPER NAME
ADDRESS
CITY, STATE, ZIP
ATTN:

ENGINEER

ENGINEER NAME
ADDRESS
CITY, STATE, ZIP
PH. (XXX) XXX-XXXX
FAX (XXX) XXX-XXXX

ASSESSOR'S PARCEL NO.

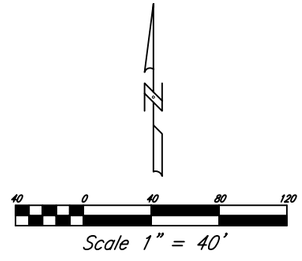
XXX-XXX-XXX

LEGEND

- PROPOSED WATER LINE
- W — EXISTING WATER LINE
- FIRE HYDRANT
- WATER METER
- WATER LINE WITH VALVE
- THRUST BLOCK
- TEE
- BLOW-OFF VALVE OR COMB. B.O. & A.V.
- FH FIRE HYDRANT

NOTE: THE CONSTRUCTION QUANTITIES SHOWN ON THESE PLANS ARE FOR CITY FEE PURPOSES ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PERFORM INDIVIDUAL TAKEOFFS FOR BIDDING PURPOSES.

	CONSTRUCTION NOTES	QUANTITY	UNIT
30	INSTALL 2" SERVICE CONNECTION PER W.M.W.D. STD. W-0110 (DOMESTIC)	1	EA
31	INSTALL 2" SERVICE CONNECTION PER W.M.W.D. STD. W-0110 (IRRIGATION)	1	EA
32	INSTALL 8" C-900 (CLASS 150) PVC WATER PIPELINE	50	LF
33	INSTALL 8" 45° ELBOW WITH RESTRAINED JOINTS	2	EA
34	CONSTRUCT THRUST BLOCK PER W.M.W.D. STD. DWG. NO W-1570	9	EA
35	INSTALL FIRE HYDRANT ASSEMBLY (SUPER) PER W.M.W.D. STD. DWG. NO. W-0610.	1	EA
36	INSTALL 10" DOUBLE DETECTOR CHECK ASSEMBLY WITHOUT ATTACHED F.D.C. PER WWMD. STD. DWG. STD. DWG. NO. W-0530P1	2	EA
37	8" HOT TAP EXISTING 16" C.M.L.&C. WTR. LINE PER W.M.W.D. SPECIFICATIONS	2	EA
38	2" HOT TAP EXISTING 16" C.M.L.&C. WTR. LINE PER W.M.W.D. SPECIFICATIONS	1	EA
39	W.M.W.D. EASMENT	2	EA



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Underground Service Alert
DIG IN BEFORE YOU DIG
Call: TOLL FREE
1-800
227-2600
TWO WORKING DAYS BEFORE YOU DIG

Seal

CONSULTANTS TITLE BLOCK

NOTE:
THE DESIGN AND CONSTRUCT ABILITY OF THE PROJECT AS WELL AS THE ACCURACY OF FIGURES ARE THE RESPONSIBILITY OF THE DESIGN ENGINEER. PLAN CHECK SERVICES BY W.M.W.D. WILL BE LIMITED TO THE ADHERENCE OF THE DISTRICT STANDARDS, MATERIALS, QUANTITIES AND SIZE OF FACILITIES, AS THEY RELATE TO THE SERVICE DEMANDS OR APPROVED MASTER PLAN. DELIVERY OF WATER TO THE IMPROVEMENTS SHOWN ON THESE PLANS IS DEPENDENT UPON COMPLETION OF THE PIPING PROPOSED AS PART OF OTHER PHASES OF THIS TRACT AND/OR OTHER ADJACENT TRACTS.

MARK	REVISIONS	APPR.	DATE

REVIEWED BY
WESTERN MUNICIPAL WATER DISTRICT

CIVIL ENGINEER R.C.E. 46812 DATE

VOID AFTER ONE YEAR FROM THIS DATE

BENCH MARK:

WESTERN MUNICIPAL WATER DISTRICT
P.O. BOX 5286
RIVERSIDE, CA. 92517-5286
450 ALESSANDRO BLVD
RIVERSIDE, CA. 92508
(951) 789-5000 (BUS) (951) 789-5012 (FAX)
Rev: 10/24/05

PROJECT TITLE
TYPE OF PLAN
SHEET DESC.-LINE 1
SHEET DESC.-LINE 2
SCALE: HORIZ: VERT:

DRAWING NO.

SHEET ____ OF ____ SHEETS

PLUMBING FIXTURE SCHEDULE

CODE	DESCRIPTION	SIZING CW	HW	W	V	GAS	REMARKS
FCO	FLOOR CLEAN OUT	-	-	-	-	-	ZURN ZN1400 WITH NICKEL BRONZE TOP
WCO	WALL CLEAN OUT	-	-	-	-	-	ZURN ZN-1468
FD	FLOOR DRAIN	-	-	3"	2"	-	CAST IRON 5" O.D. TYPE "B" STRAINER, ZURN ZN-415-BB-G-P, DURA-COATED GALV. C.I. BODY W/ 5" DIA POL. NICKLE BRONZE TYPE "B" STRAINER, 1/2" DOUBLE FLANGES & WEEP HOLES
FD-1	FLOOR DRAIN	-	-	3"	2"	-	CAST IRON 5" O.D. TYPE "B" STRAINER, ZURN ZN-415-BB-G-P, DURA-COATED GALV. C.I. BODY W/ 5" DIA POL. NICKLE BRONZE TYPE "B" STRAINER, 1/2" TRAP PRIMER, DOUBLE FLANGES & WEEP HOLES.
FS	FLOOR SINK	-	-	3"	2"	-	JONESPEC FS-2873-HH3, 12"X12"X8"H, ENAMELED CAST IRON, FURNISH WITH SPLIT HALF-GRATE, ALUMINUM ANTI-SPLASH DOME STRAINER, DOUBLE FLANGES, WEEP HOLES & SEDEMENT BUCKET.
HS	HAND SINK	1/2"	1/2"	1 1/2"	1 1/2"	-	WASTE PIPED DIRECT.
SK-2	2 COMP SINK	1/2"	1/2"	2"	-	-	WASTE PIPED INDIRECT TO FLOOR SINK. FURNISH WITH ADVANCE TABCO K-111-CA FAUCET
SK-3	3 COMP SINK	1/2"	1/2"	2"	-	-	WASTE PIPED INDIRECT TO FLOOR SINK. FURNISH WITH ADVANCE TABCO K-116-CA PRE-RINSE FAUCET AND K-117-CA ADD-A-FAUCET
HB	HOSE BIB (CW)	-	-	-	-	-	ACORN NEPTUNE 8121-CP, CHROME PLATE, FURNISH W/ NON-REMOVABLE VACUUM BREAKER, VANDAL-RESISTANT LOCK SHIELD BONNET 7 REMOVABLE WHEEL HANDLE
S3	JANITOR ROOM MOP SINK	1/2"	1/2"	1 1/2"	2"	-	ADVANCE TABCO 9-OP-20 FURNISH W/ STRAINER, HOSE, HOSE BRACKET, MOP HANGER, BUMPER GUARD & ADVANCE TABCO K-111-CA FAUCET, W/ INTEGRAL VACUUM BREAKER
TD	TRENCH DRAIN	-	-	3"	2"	-	ZURN 806-U3-G-HD, GALVANIZED CAST IRON & HEAVY DUTY FRAME, BOTTOM OUTLET
P1	ELEC. INSTANT. WATER HEATER	1/2"	1/2"	-	-	-	CHRONOMITE M4-20L, 57 DEG. F. TEMP. RISE AT 0.5 GPM, 4160 WATTS, 208V-1PH, 20 AMP BREAKER SIZE MICROPROCESSOR CONTROLLED TO INSURE MAX. TEMP. OF 104 DEG. F. PROVIDE WITH 0.5 GPM FLOW CONTROL
P1A	ELEC. WATER HEATER	1/2"	1/2"	-	-	-	A.O.SMITH DEL-30, 30 GAL., 208V-1PH, 4500 WATTS, 350 LBS OP. WT.
P2	GAS WATER HEATER	1 1/2"	1 1/2"	-	-	1/2"	A.O.SMITH MODEL BTH-250, 100 GAL. 250,000 BTUH INPUT, 254 GPH RECOVERY AT 90 DEG. TEMP. RISE, 354 GAL. FIRST HOUR DELIVERY. 28" DIA.
P3	WALL HUNG LAVY	1/2"	1/2"	1 1/2"	1 1/2"	-	AMERICAN STANDARD LUCERN 0355.012, WHITE CHINA. FURNISH W/ SLOAN ETF-880 ELECTRONIC FAUCET, DRAIN FITTING, TRAP, SUPPLIES W/ STOP S & WALL CARRIER.
P4	WATER CLOSET (HANDICAP DUAL FLUSH)	1/2"	-	3 1/2"	2"	-	TOTO CST464MF DUAL-FLUSH TOILET 17" HIGH ELONGATED.
P5	WATERLESS URINAL	-	-	2"	2"	-	SLOAN WES-4000
P11	GREASE INTERCEPTOR	-	-	4"	-	-	PRO-CAST MODEL PG1500, 1500 GALLON WITH SAMPLE BOX, H20 MANHOLE COVERS AND EXTENSIONS AS REQUIRED
P12	DRINKING FOUNTAIN	1/2"	-	1 1/2"	1 1/2"	-	HAWS 3030D, DOUBLE HI-LOW, STAINLESS STEEL, LOWER SPOUT +36" A.F., UPPER SPOUT +42" A.F.F.
MV-1	MIXING VALVE	1/2"	1/2"	-	-	-	WATTS LFMMV-M1
K3	COMBI OVEN (GAS)	1/2"	-	3"	2"	1/2"	RATIONAL 201G NATURAL GAS 181,000 BTUH INPUT.
K4	CHARBROILER	-	-	-	-	1/2"	WOLF ACB25, 72,000 BTUH
K5	4 BURNER RANGE	-	-	-	-	1/2"	SOUTHBEND 324E, 136,000 BTUH
K6	FRYER	-	-	-	-	1 1/2"	FRYMASTER, H55-2-SD, 40,000 BTUH
M18	ICE MACHINE	1/2"	-	1/2"	-	-	1/2" INDIRECT DRAIN TO FLOOR SINK
M18B	ICE MACHINE CONDENSER	-	-	1/2"	-	-	1/2" INDIRECT DRAIN TO FLOOR SINK
HD-1	WALL HYDRANT	1/2"					Z1330 ZURN ECOLOTROL WALL HYDRANT W/ ANTI SIPHON.
804	CHECK VALVE	1/2"	-	-	-	-	DOUBLE CHECK VALVE, WATTS SERIES 7 FOR EXPRESSO MACHINE.
16	HOT FOOD	1/2"	-	1 1/2"	-	-	WASTE PIPED INDIRECT TO FLOOR SINK
44D / EF13	PRODUCE MIST	1/2"	-	1/2"	-	-	WASTE PIPED INDIRECT TO FLOOR SINK
64	SOUP BAR	1/2"	-	1/2"	-	-	WASTE PIPED INDIRECT TO FLOOR SINK
74	WATER DISPENSER	1/2"	-	1/2"	-	-	WASTE PIPED INDIRECT TO FLOOR SINK
CJ1	COFFEE BREWER AND FILTER	1/2"	-	-	-	-	
CJ5	JUICE DISPENSER	1/2"	-	-	-	-	
CJ12	ESPRESSO MACHINE	1/2"	-	1 1/2"	-	-	WASTE PIPED INDIRECT TO FLOOR SINK
CJ12A	ESPRESSO FILTER	1/2"	-	-	-	-	CONECT TO ESPRESSO MASHINE
CJ17	ICE CUBER	1/2"	-	1/2"	-	-	WASTE PIPED INDIRECT TO FLOOR SINK
HV	HEAT PUMP	-	-	-	3"	1/2"	TBD
HV	MAKE-UP AIR	-	-	3"	3"	1/2"	WASTE PIPED INDIRECT TO FLOOR SINK
R1	COILS	-	-	1/2"	-	-	WASTE PIPED INDIRECT TO FLOOR SINK
R2	COILS	-	-	1/2"	-	-	WASTE PIPED INDIRECT TO FLOOR SINK

PLUMBING LEGEND

SYMBOL	ABBREV.	DESCRIPTION
——	S	SOIL OR WASTE PIPING ABOVE GRADE OR FLOOR
——	S	
—GW—	GW	GREASE WASTE PIPING BELOW GRADE
----	V	VENT PIPING
—RD—	RD	ROOF DRAIN PIPING
—OD—	OD	OVERFLOW DRAIN PIPING
——	CW	COLD WATER PIPING
——	HW	HOT WATER PIPING
----	HWR	HOT WATER RETURN PIPING
—G—	G	NATURAL GAS PIPING - LOW PRESSURE
—C/D—	C/D	CONDENSATE DRAIN PIPING
	SOV	SHUT OFF VALVE
	SOV	GAS COCK AND UNION
	PRV	PRESSURE REDUCING VALVE
	POC	POINT OF CONNECTION
		GAS PIPING OUTLET
		WATER OR GAS PIPING UP OR DOWN
	FCO	FLOOR CLEAN OUT
	WCO	WALL CLEAN OUT
	COTG	CLEAN OUT TO GRADE
	HB	HOSE BIBB
	B/G	BELOW GRADE
	B/F	BELOW FLOOR
	VTR	VENT THRU ROOF
	FF	FINISHED FLOOR
	IE	INVERT ELEVATION
	WHA	WATER HAMMER ARRESTOR

FIXTURE UNIT SUMMARY

FIXTURE	FIXTURE QUANTITIES PRIVATE	FIXTURE QUANTITIES PUBLIC	FIXTURE UNITS PRIVATE	FIXTURE UNITS PUBLIC	TOTAL FU
F4 - WATER CLOSET (FV-1.6 GPF)		2	--	2.5	5.0
F5 - UR (WATERLESS)		1	--	0.0	0.0
F3 LAVATORY		2	--	1.0	2.0
P12 - DRINKING FOUNTIAN		1	--	1.0	1.0
HS - HAND SINK		8	--	1.5	12.0
SK-2 - 2 COMP SINK		3	--	3.0	9.0
SK-3 - 3 COMP SINK		4	--	5.0	20.0
S3 - JANITOR SINK		1	--	3.0	3.0
K3 - COMBI OVEN		1	--	2.5	2.5
M18 - ICE MACHINE		1	--	1.0	1.0
16 - HOT FOOD		1	--	1.0	1.0
44D/EF13 - PRODUCE MIST		2	--	1.0	2.0
64 - SOUP BAR		1	--	1.0	1.0
74 - WATER DISPENSER		2	--	1.0	2.0
CJ1 - COFFEE BREWER		1	--	1.0	1.0
CJ5 - JUICE DISPENSER		1	--	1.0	1.0
CJ12 - ESPRESSO MACHINE		1	--	1.0	1.0
CJ12A - ESPRESSO FILTER		1	--	1.0	1.0
CJ17 - ICE CUBER		1	--	1.0	1.0
HB - HOSE BIBB (FIRST)		1	--	2.5	2.5
HB - HOSE BIBB (ADDITIONAL)		4	--	1.0	4.0
				TOTAL F.U. =	73.0

PLUMBING KITCHEN NOTES

- INSTALLATION OF SOIL OR DRAIN PIPING IN FOOD HANDLING ESTABLISHMENTS SHALL COMPLY WITH SECTION 318.0 C.P.C.
- PLUMBING CONTR. SHALL ROUGH-IN AND MAKE FINAL CONNECTIONS TO KITCHEN EQUIPMENT
- COORDINATE EXACT REQUIREMENTS WITH KIT. EQUIP. CONTR. PRIOR TO CONSTRUCTION
- COORDINATE AND VERIFY EXACT LOCATION OF ALL FLOOR DRAINS AND FLOOR SINKS WITH KITCHEN EQUIPMENT CONTRACTOR
- PROVIDE PRESS. REGULATING VALVE FOR DISHWASHER WATER CONNECTION PER MFG. REQUIREMENTS
- VERIFY THE TYPE OF GRATES FOR FLOOR SINKS WITH KIT. EQUIP. CONTR. GRATES SHALL BE REMOVABLE
- ALL DIRECT CONNECT APPLIANCES SHALL BE INDIVIDUALLY PROTECTED AGAINST BACKFLOW. CARBONATORS, FILLER HOSES, PRE-RINSE FAUCETS, AND COUNTERTOP EQUIPMENT WITH WATER CONNECTIONS SHALL BE PROTECTED BY REDUCED PRESSURE BACKFLOW PREVENTERS WITH DRAINS TO FLOOR SINKS. ALL OTHER KITCHEN APPLIANCES SUCH AS ICE MACHINES, COFFEE MAKERS, AND SIMILAR EQUIPMENT WITH DIRECT CONNECTIONS TO POTABLE WATER SHALL BE PROTECTED BY A DOUBLE CHECK VALVE TYPE BACKFLOW PREV.
- PROVIDE WATTS 1/2" 909 REDUCED PRESSURE BACKFLOW PREVENTER FOR POINT OF USE PROTECTION FOR WATER FILTER WITH DRAIN TO FLOOR SINK.
- PROVIDE ALL INDIRECT WASTE PIPING PER KITCHEN EQUIPMENT DRAWINGS
- SEE PLUMBING NOTES ON KITCHEN EQUIP. DRAWINGS
- HOT WATER TO KITCHEN EQUIPMENT SHALL BE 140 DEG.
- PROVIDE THERMOSTATIC MIXING VALVE TO REDUCE 140 DEG. WATER TO 110 DEG. TO TOILET ROOM LAVATORIES
- IF NOT ALREADY EXISTING, THE KITCHEN EQUIP. CONTR. SHALL PROVIDE AN AUTOMATIC SOLENOID VALVE IN THE GAS LINE TO THE KITCHEN EQUIPMENT UNDER THE KITCHEN HOOD WITH AN ACCESS PANEL IF NOT EXPOSED. IT SHALL BE INSTALLED BY THE PLUMBING CONTR.
- ALL DISH, PAN, AND GLASSWASHERS MUST DRAIN TO A 3" TRAPPED FLOOR SINK WITH A LEGAL AIR GAP. FLOOR SINK TO BE MIN. 12"x12"

WATER DATA

WATER DATA:

TOTAL FIXTURE UNITS	73
F.T. OR F.V. SYSTEM	F.T.
WATER DEMAND	37 G.P.M.
MAX. WATER PRESSURE	90 P.S.I.
MIN. WATER PRESSURE	65 P.S.I.

METER SIZE	1"
BLDG. MAIN SIZE	1 1/2"

PRESSURE ANALYSIS (STATIC):

MAX. STATIC PRESSURE AT STREET OR SITE:	90 PSI
SITE STATIC HEAD LOSS/GAIN (2 FT x .43):	-1 PSI
STATIC PRESSURE AT BLDG.:	89 PSI
REGULATOR REQUIRED: YES	

PIPE SIZING ANALYSIS - FLOW CONDITIONS:

MIN. STATIC PRESSURE AT STREET:	65 PSI
METER LOSS:	-5 PSI
BACKFLOW PREVENTER LOSS:	-13 PSI
PIPING FRICTION LOSS (METER TO BLDG.) 5 PSI PER 100 FT = 4 PSI AT 80 FT.	-4 PSI
AVAILABLE PRESS. AT BLDG.: (PRV INLET PRESSURE)	43 PSI
PRV OUTLET PRESS (10 PSI DIFFERENTIAL):	33 PSI
RESIDUAL PRESS. AT GOVERNING FIXTURE:	-25 PSI
BLDG. STATIC HEAD LOSS/GAIN (4 FT x .43):	-2 PSI
OTHER LOSS:	N/A
AVAILABLE PRESS. FOR FRICTION LOSS:	6 PSI

DEVELOPED LENGTH FROM PRV = 135 FT. + 10% = 150 FT.

AVAIL. PRESS. FOR FRICT. LOSS (PSI PER 100 FT): $\frac{6 \times 100}{150} = 4$

SIZING:

PIPE CAPACITY SCHEDULE - CW:

SIZE	GPM	F.T. FU	F.V. FU
1/2"	2	2	--
3/4"	6	7	--
1"	13	16	--
1 1/4"	20	30	--
1 1/2"	33	60	--
2"	50	225	50

PIPE CAPACITY SCHEDULE - HW:

SIZE	GPM	F.T. FU	F.V. FU
1/2"	3	4	-
3/4"	7	9	-
1"	13	18	-
1 1/4"	25	29	-
1 1/2"	36	42	-

NOTE: WATER PIPING IS SIZED PER THE 2007 C.P.C. APPENDIX "A" UTILIZING THE PRESSURE ANALYSIS METHOD. THE MAX. VELOCITY THRU CW PIPING SHALL BE 7 F.P.S AND THRU HW PIPING SHALL BE 5 F.P.S.

GENERAL NOTES

- ALL PLUMBING FIXTURES, PIPING, AND INSTALLATION SHALL CONFORM TO THE LATEST EDITION OF THE U.P.C. AND ALL LOCAL REGULATORY AGENCIES.
- REFER TO ARCHITECTURAL DRAWINGS FOR THE EXACT LOCATION OF ALL PLUMBING FIXTURES.
- VENTS THRU ROOF SHALL BE MIN. 10 FT. FROM FRESH AIR INTAKES AND MIN. 3 FT. FROM EDGE OF THE ROOF.
- SITE WATER PIPING OUTSIDE THE BLDG. INCLUDING WATER METER & BACKFLOW PREVENTER SHALL BE PROVIDED BY THE SITE UTILITIES CONTRACTOR.
- SITE SEWER PIPING OUTSIDE THE BLDG. INCLUDING BACK WATER VALVES (IF REQ'D) SHALL BE PROVIDED BY THE SITE UTILITIES CONTRACTOR.
- COORDINATE SITE UTILITIES WITH ARCHITECT AND CIVIL ENGINEER.
- SOIL, WASTE, AND VENT PIPING SHALL BE SCH. 40 DWV ABS OR SCH. 40 DWV PVC. RISERS OR LATERALS IN WALLS OR CEILINGS OF OCCUPIED SPACES SHALL BE NO-HUB CAST IRON.
- ROOF DRAIN & OVERFLOW DRAIN PIPING SHALL BE SCH. 40 DWV ABS OR SCH. 40 DWV PVC. RISERS OR LATERALS IN WALLS OR CEILINGS OF OCCUPIED SPACES SHALL BE NO-HUB CAST IRON.
- DOMESTIC WATER PIPING SHALL BE: ABOVE GRADE - TYPE "L" COPPER BELOW GRADE - TYPE "K" COPPER.
- CONDENSATE DRAIN PIPING SHALL BE SCH. 40 DWV PVC OR ABS
- NATURAL GAS PIPING SHALL BE SCHEDULE 40 BLACK STEEL.
- PLUMBING CONTRACTOR SHALL VERIFY ABOVE PIPING MATERIALS WITH LOCAL CODE PRIOR TO INSTALLATION.
- WHERE NON-METALIC PIPING PENETRATES AN AREA SEPARATION WALL SURFACE THE SECTION PASSING THROUGH THE WALL SURFACE AND THE FIXTURE CONNECTIONS ATTACHED THERETO SHALL BE ONLY OF METAL.

TITLE 24 & BLDG. DEPT. NOTES

- ALL WATER CLOSETS SHALL BE MAXIMUM 1.6 GPF
- ALL URINALS SHALL BE MAXIMUM 1.0 GPF
- ALL FAUCETS SHALL BE 2.2 GPM MAXIMUM
- ALL SHOWER HEADS SHALL HAVE A MIXING VALVE CONTROL & 2.5 GPM MAX.
- SERVICE WATER HEATING SYSTEMS & EQUIP. SHALL COMPLY WITH ENERGY EFFICIENCY STDS. SECTION 113
- IF A CIRCULATING HOT WATER SYSTEM IS INSTALLED, IT SHALL HAVE A CONTROL CAPABLE OF AUTOMATICALLY TURNING OFF THE CIRCULATING PUMPS WHEN HOT WATER IS NOT REQUIRED.
- PROVIDE EXPANSION TANK ON HOT WATER HEATERS PER C.P.C. SECTION 608.3
- CROSS CONNECTION PROTECTION SHALL BE PROVIDED AT ALL POTABLE WATER SUPPLIED APPLIANCES AND EQUIPMENT.
- LAVATORIES IN PUBLIC RESTROOMS MUST HAVE CONTROLS THAT LIMIT THE WATER SUPPLY TEMP. TO 110 DEG. F. WHERE THE WATER HEATER SUPPLIES ONLY RESTROOMS, THE HEATER THERMOSTAT MUST BE SET TO NO GREATER THAN 110 DEG. F. OTHERWISE AUTOMATIC MIXING VALVES MUST BE INSTALLED (1998 E.E.S. 123(b))
- BACKFLOW PREVENTION ASSEMBLIES SHALL BE TESTED BY A CERTIFIED BACKFLOW ASSEMBLY TESTER PRIOR TO USE OR OCCUPANCY. (CBC 603.2.3)
- CONCEALED DRAINAGE PIPING SHALL BE DWV RATED AND TESTED PRIOR TO COVER
- WHERE NON-METALLIC PIPING PENETRATES AREA SEPARATION, 1-HOUR, OR 2-HOUR WALLS, THE PIPE SECTION PASSING THROUGH THE WALLS AND EXTENDING A DISTANCE OF 5 FEET ON EITHER SIDE THERE-OF SHALL BE OF METAL ONLY.
- THE SANITARY VENT TOTAL CROSS-SECTIONAL AREA SHALL BE EQUAL TO OR GREATER THAN THE CROSS-SECTIONAL AREA OF THE LARGEST SEWER MAIN
- BLDG. DRAIN AND VENT PIPING MATERIALS SHALL COMPLY WITH SECTIONS 701.0 AND 903.0 OF THE C.P.C.
- ALL SANITARY SYSTEM MATERIALS SHALL BE LISTED BY AN APPROVED LISTING AGENCY
- WHEN AUTOMATIC TRAP PRIMING DEVICES ARE USED, THEY SHALL BE ACCESSIBLE FOR MAINTENANCE PER SECTION 1007.0
- FLOOR DRAINS OR SIMILAR TRAPS DIRECTLY CONNECTED TO THE DRAINAGE SYSTEM AND SUBJECT TO INFREQUENT USE SHALL BE PROVIDED WITH AN APPROVED AUTOMATIC MEANS OF MAINTAINING THEIR WATER SEALS
- LAVATORY FAUCETS IN RESTROOMS SHALL BE THE SELF CLOSING TYPE OR SENSOR OPERATED
- SEISMIC STRAPPING OF WATER HEATERS WH-1 SHALL COMPLY WITH SECTION 508.2 C.P.C.
- EXTERIOR HOSE BIBBS PROVIDED BY LANDSCAPE CONTRACTOR
- WATER HEATER WH-1 IS A LISTED NON-STORAGE INSTANTANEOUS HEATER HAVING AN INSIDE DIAMETER OF NOT MORE THAN 3 INCHES

TENANT IMPROVEMENT

PLUMBING SCHEDULES

Approved by Owner/Date

Issued For: FOR PRICING ONLY

Job:	
Drawn by:	TJH
Project Phase	FOR PRICING ONLY
Project Date	03-01-10
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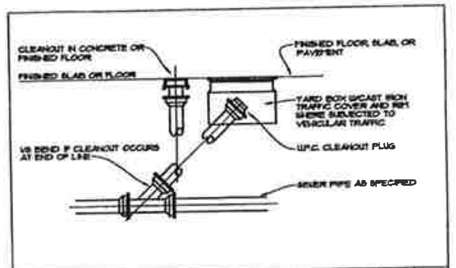
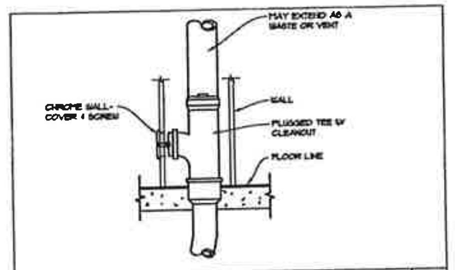
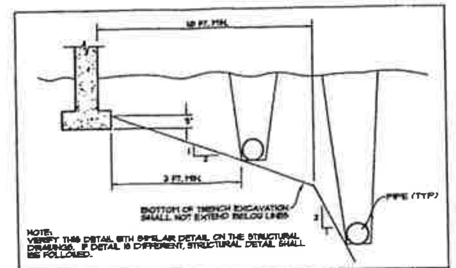
P1.1



FLOOR CLEANOUT PIPING DETAIL — A
NTS



WALL CLEANOUT DETAIL — B
NTS



PIPING NEAR FOOTINGS DETAIL — C
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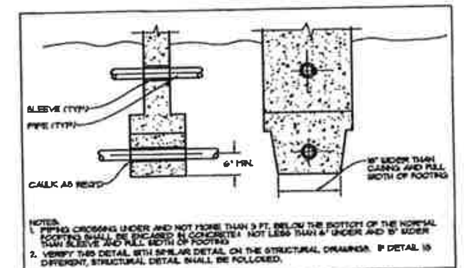
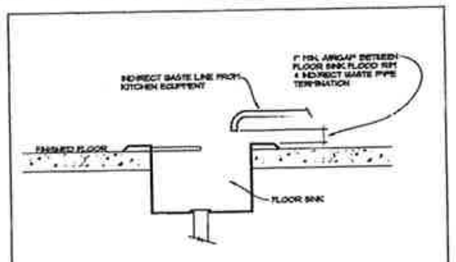
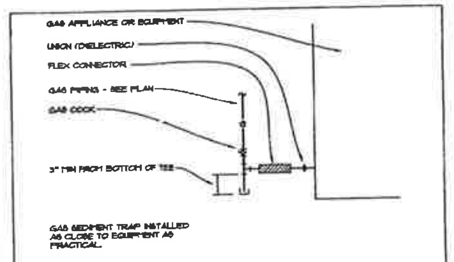


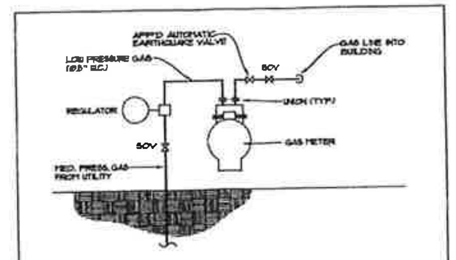
PIPING THRU OR UNDER FOOTINGS DETAIL — D
NTS



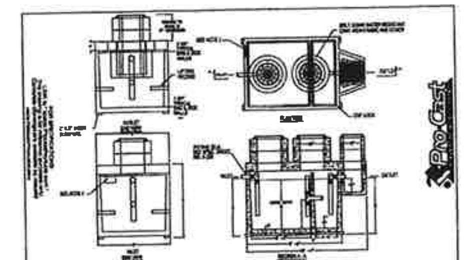
INDIRECT WASTE PIPING DETAIL — E
NTS



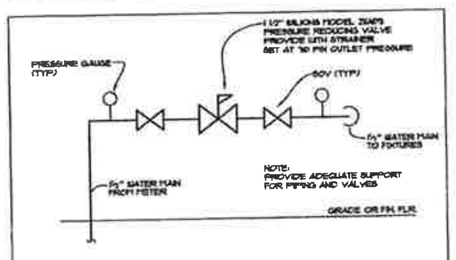
GAS CONNECTION DETAIL — F
NTS



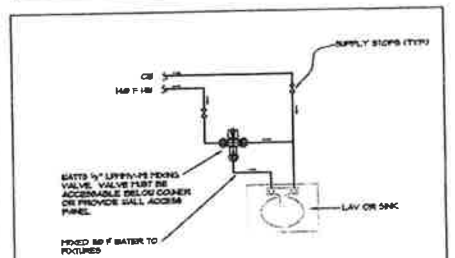
DETAIL AT GAS METER — G
NTS



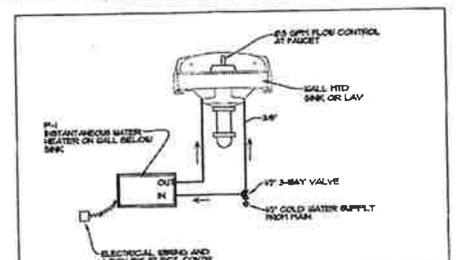
GREASE INTERCEPTOR PIPING — H
NTS



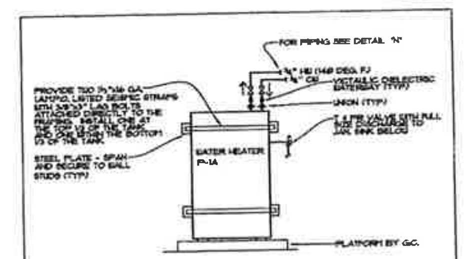
PRESSURE REGULATOR DETAIL — J



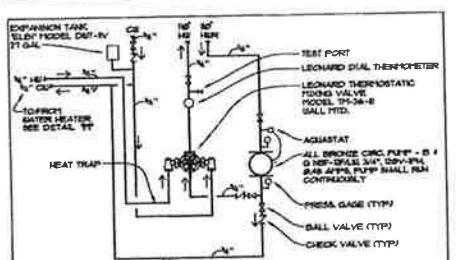
MIXING VALVE DETAIL — K
NTS



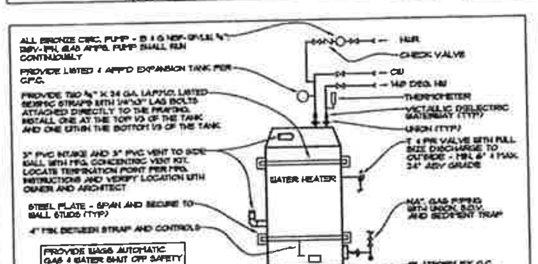
P-1 INSTANT WATER HEATER PIPING DETAIL — L
NTS



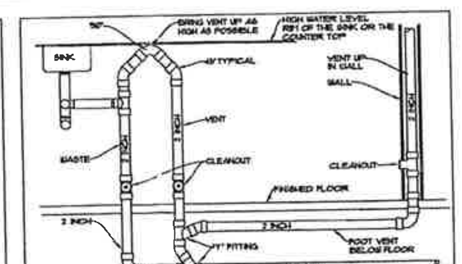
P-1A ELECTRIC WATER HEATER DETAIL — M
NTS



P-1A WATER HEATER PIPING DETAIL — N
NTS



GAS WATER HEATER PIPING DETAIL — P
NTS



VENTING FOR ISLAND FIXTURES — Q
NTS

A GOOD PLUMBING
35991 SALIDA DEL SOL
WILDOMAR, CA 92595
TEL 951-677-4469
FAX 951-677-4949
CA LIC. #934230

TENANT IMPROVEMENT

PLUMBING DETAILS

Approved by Owner/Date

LICENSED ARCHITECT — DAVID E. KIM — C-29413 — Renewal Date — STATE OF CALIFORNIA

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Job:	
Drawn by:	TJH
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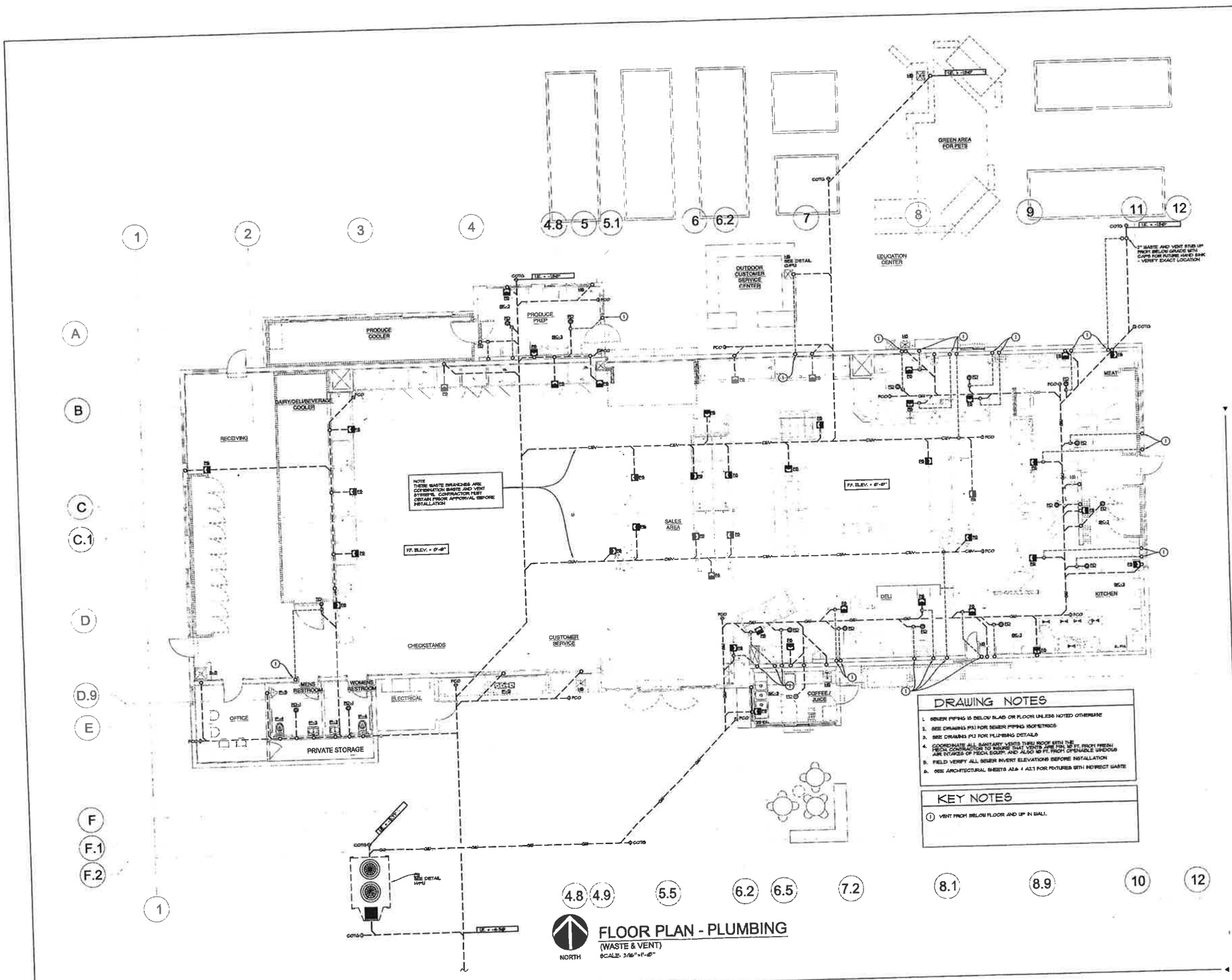

DRAWING NOTES

1. SEWER PIPING IS BELOW SLAB OR FLOOR UNLESS NOTED OTHERWISE
2. SEE DRAWING P3.1 FOR SEWER PIPING ISOMETRICS
3. SEE DRAWING P3.2 FOR PLUMBING DETAILS
4. COORDINATE ALL SANITARY VENTS THRU ROOF WITH THE MECH. CONTRACTOR TO ENSURE THAT VENTS ARE MIN. 10 FT. FROM FRESH AIR INTAKES OF MECH. EQUIP. AND ALSO 10 FT. FROM OPENABLE WINDOWS
5. FIELD VERIFY ALL SEWER INVERT ELEVATIONS BEFORE INSTALLATION
6. SEE ARCHITECTURAL SHEETS A2.6 & A2.7 FOR FIXTURES WITH INDIRECT WASTE

KEY NOTES

(1) VENT FROM BELOW FLOOR AND UP IN WALL.

NORTH

FLOOR PLAN - PLUMBING
(WASTE & VENT)
SCALE: 3/16"=1'-0"

TENANT IMPROVEMENT

FLOOR PLAN - PLUMBING (WASTE & VENT)

Approved by Owner/Date

LICENSED ARCHITECT — Renewal Date — STATE OF CALIFORNIA

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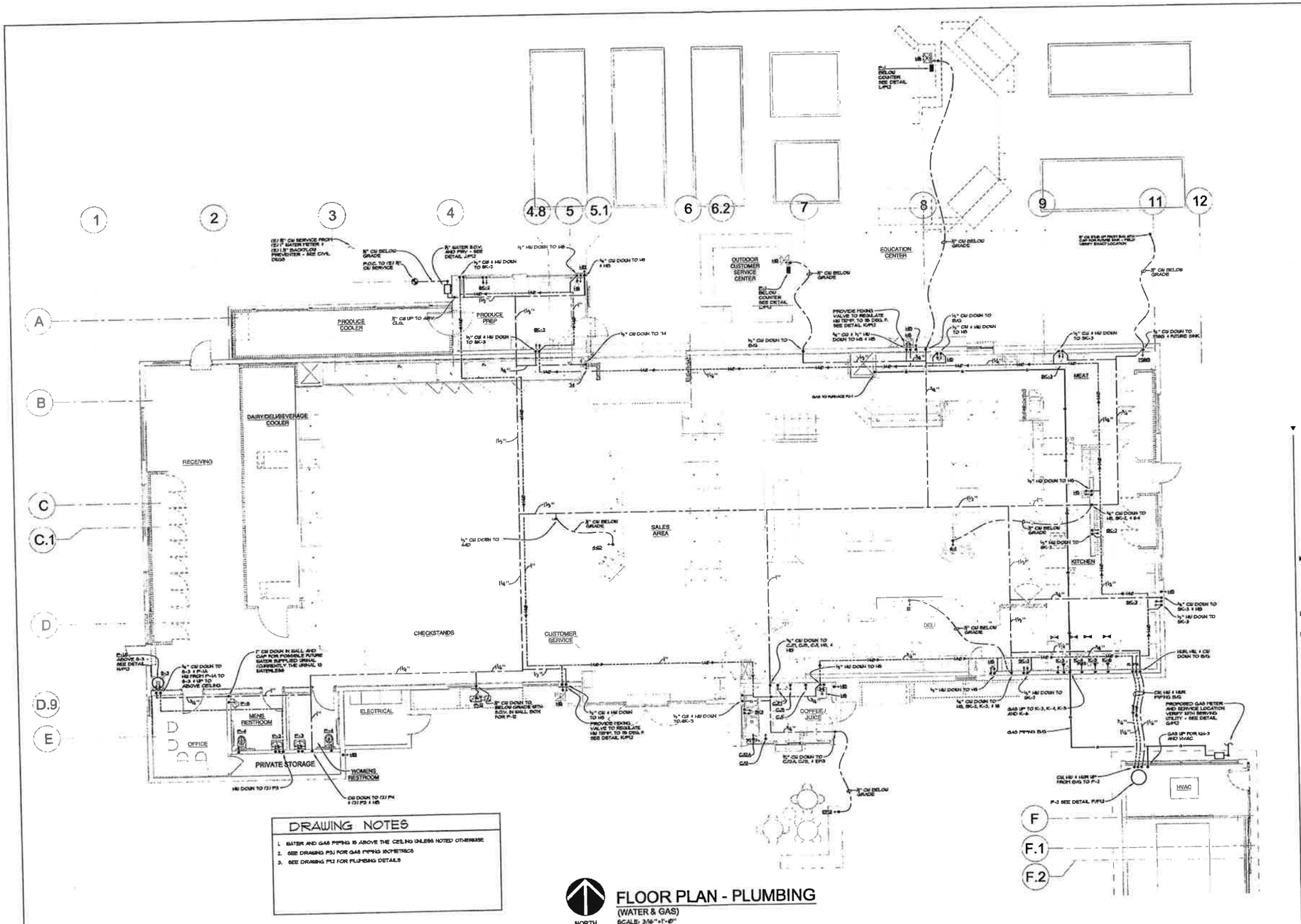

DRAWING NOTES

1. WATER AND GAS PIPING IS ABOVE THE CEILING UNLESS NOTED OTHERWISE
2. SEE DRAWING P3.1 FOR GAS PIPING ISOMETRICS
3. SEE DRAWING P1.2 FOR PLUMBING DETAILS

NORTH

FLOOR PLAN - PLUMBING

(WATER & GAS)

SCALE: 3/16"=1'-0"

TENANT IMPROVEMENT

FLOOR PLAN - PLUMBING (WATER & GAS)

Approved by Owner/Date

Renewal Date

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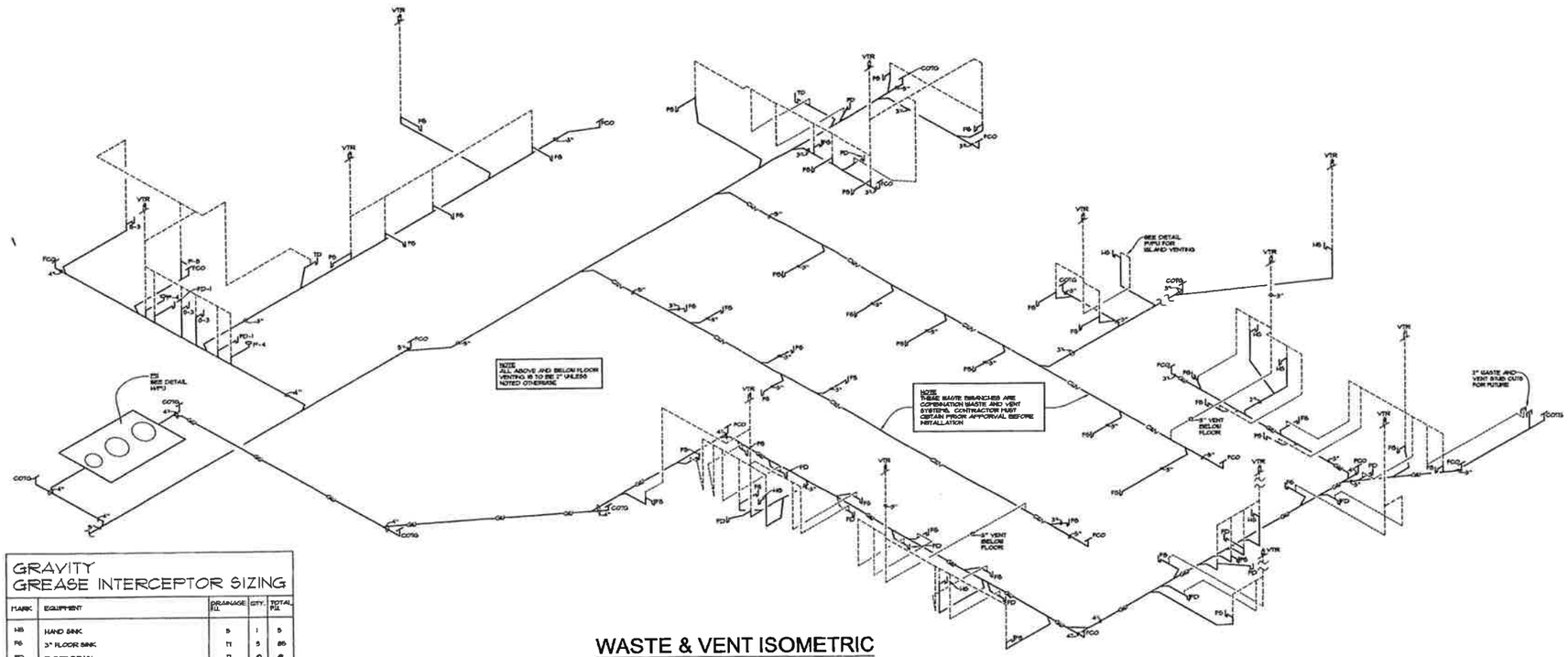


WASTE & VENT ISOMETRIC

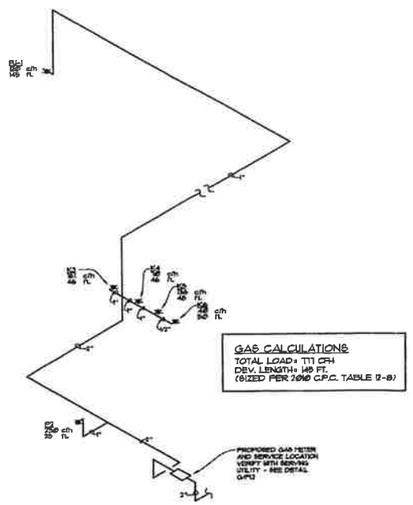
SCALE: N.T.S.

GRAVITY GREASE INTERCEPTOR SIZING

MARK	EQUIPMENT	DRAINAGE F.U.	QTY.	TOTAL F.U.
HS	HAND SINK	2	1	2
FS	3" FLOOR SINK	11	5	55
FD	FLOOR DRAIN	2	10	20
		TOTAL		312

① FOR LOCATIONS AND SPECIFICATIONS OF KITCHEN EQUIPMENT THAT DRAIN INTO GREASE SYSTEM BOTH DIRECT AND INDIRECT SEE ARCHITECTURAL SHEETS P1.0 & P2.1

② 1125 GREASE INTERCEPTOR VOLUME PER 2006 C.P.C. TABLE 14-2 = 1500 GPM VERIFY SIZE WITH THE ADMINISTRATIVE AUTHORITY HAVING JURISDICTION



GAS PIPING ISOMETRIC

SCALE: N.T.S.

TENANT IMPROVEMENT

PLUMBING ISOMETRICS

Approved by Owner/Date

LICENSED ARCHITECT STATE OF CALIFORNIA Renewal Date

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Drawn by: TJH

Project Phase: FOR PRICING ONLY

Project Date: 03-01-10

Issue Date: 09/21/2011

Revisions: Date:

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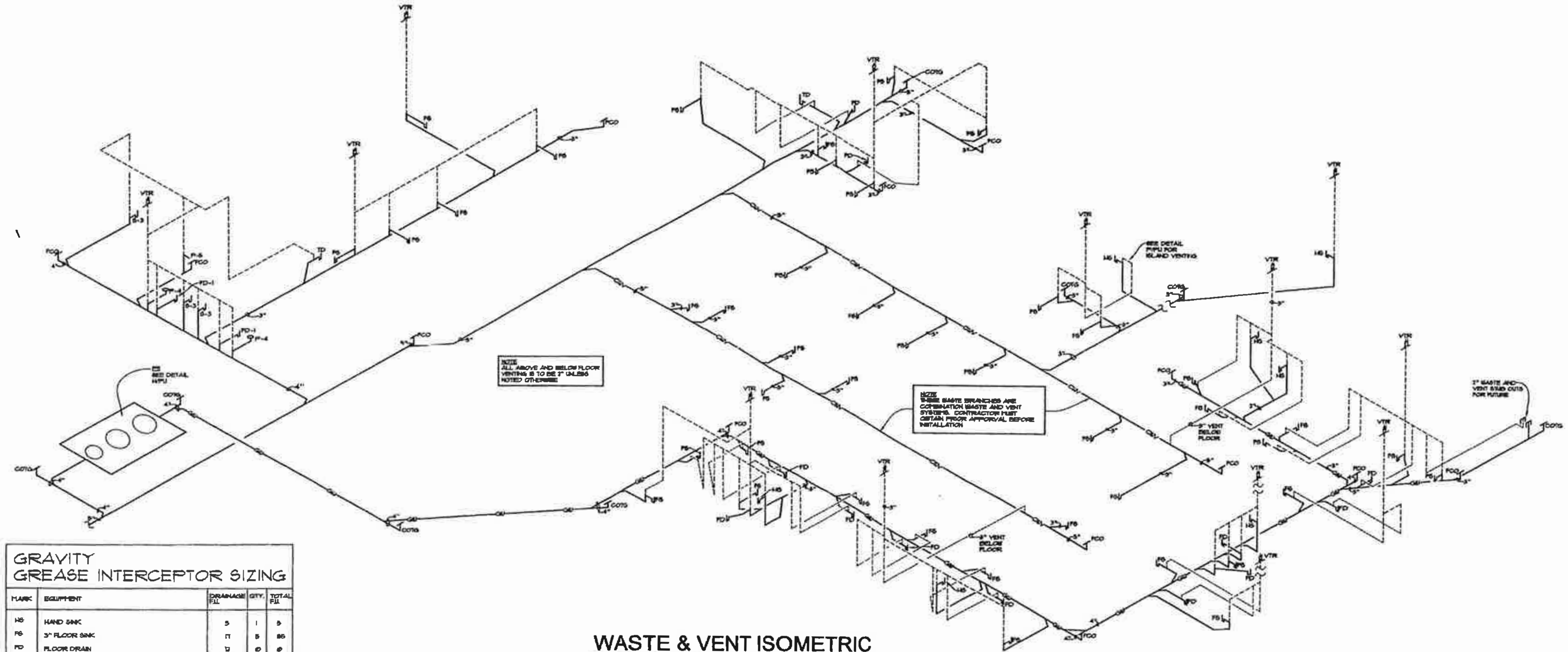


WASTE & VENT ISOMETRIC

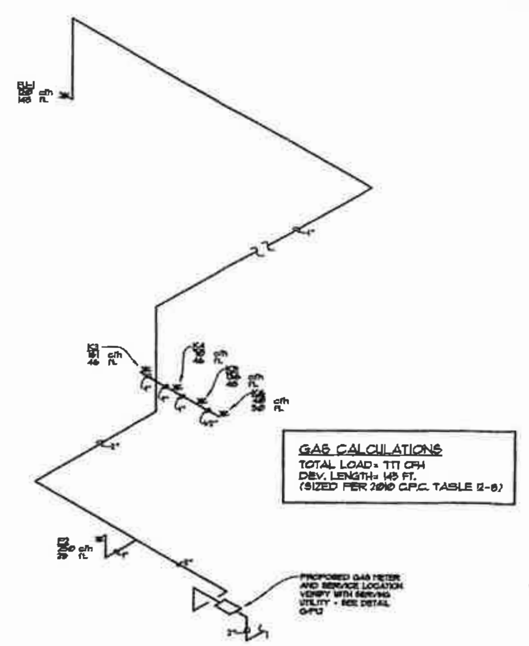
SCALE: N.T.S.

GRAVITY GREASE INTERCEPTOR SIZING

MARK	EQUIPMENT	DRAINAGE F.U.	QTY.	TOTAL F.U.
HS	HAND SINK	5	1	5
FS	3" FLOOR SINK	17	5	85
FD	FLOOR DRAIN	12	0	0
		TOTAL		90

* FOR LOCATIONS AND SPECIFICATIONS OF KITCHEN EQUIPMENT THAT DRAIN INTO GREASE SYSTEM BOTH DIRECT AND INDIRECT SEE ARCHITECTURAL SHEETS P2.6 & P2.7

* MIN. GREASE INTERCEPTOR VOLUME PER 2010 C.P.C. TABLE 10-2 = 1500 GPM VERIFY SIZE WITH THE ADMINISTRATIVE AUTHORITY HAVING JURISDICTION



GAS CALCULATIONS
TOTAL LOAD= 777 CFH
DEV. LENGTH= 145 FT.
(SIZED PER 2010 C.P.C. TABLE 12-8)

GAS PIPING ISOMETRIC

SCALE: N.T.S.

A GOOD PLUMBING
SALIDA DEL SOL
WILDOMAR, CA

TENANT IMPROVEMENT

PLUMBING ISOMETRICS

Approved by Owner/Date

LICENSED ARCHITECT
DAVID E. KIM
C-29417
Renewal Date
STATE OF CALIFORNIA

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