

**GREASE INTERCEPTOR CALCULATION**

GREASE INTERCEPTOR SIZING PROCEDURE FOR KITCHEN FIXTURES					
FIXTURE TYPE	QUANTITY	PIPE DIAMETER	GPM/FIXTURE	FIXTURE RATING	GPM
Pot sink	1	2"	33	1.00	33
Meat & Vegetable prep sink	1	1 1/2"	15	0.10	1.5
Pre-rinse sink					0
Wok					0
Other			4		0
Dishwasher					0
Can wash / Mop sink					7
<b>Total</b>					<b>45.5</b>
Grease Interceptor Size = flow rate x 30 minutes =					<b>1365</b>

**Sizing Procedure for Food Service Establishments (FSE's)**  
Minimum of 1,000 Gallons

Volume of Grease Interceptor (gallons) = [(A x B) + C + D] x F

**A. GPM/fixture** These values are derived from the Manning Formula. The Manning Formula takes into the slope, roughness of the pipe, and pipe diameter size. Listed below are the drainage rates of various pipe diameters using the Manning Formula:

- 0.5 inch pipe diameter = 0.8 GPM/fixture
- 1.0 inch pipe diameter = 5.0 GPM/fixture
- 1.5 inch pipe diameter = 15 GPM/fixture
- 2.0 inch pipe diameter = 33 GPM/fixture
- 2.5 inch pipe diameter = 59 GPM/fixture
- 3.0 inch pipe diameter = 93 GPM/fixture

**B. Fixture Ratings of Greasy Waste Streams** Fixtures that have more grease in their waste stream receive higher values while less grease corresponds to a lower rating. The table is shown below.

Table of Common Commercial Kitchen Fixtures and their Corresponding Rating:

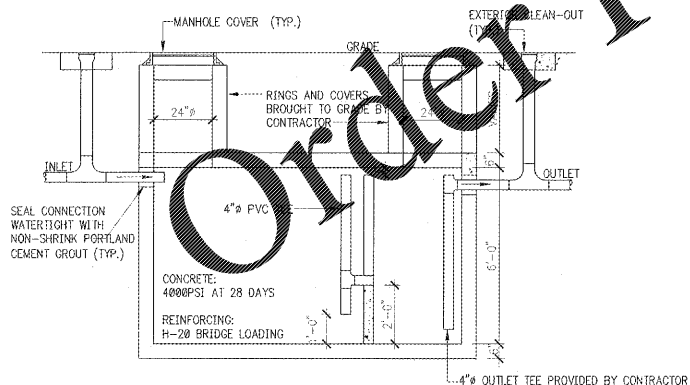
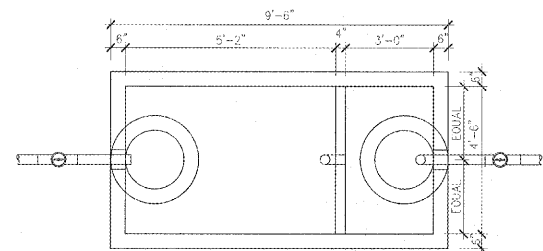
- Pot sink = 1.0
- eat and vegetable prep sink = 0.10
- Pre-rinse sink = 0.75
- Wok = 1.0
- Tilt kettle = 0.00
- Floor drain = 0.00

**C. Direct Flow from Dishwashers, Sanitizers, Garbage Disposal, Food Waste Grinders or Glass Washers** These flows must be added directly to the GPM flow. The manufacturer's peak discharge rate for flow in GPM must be used.

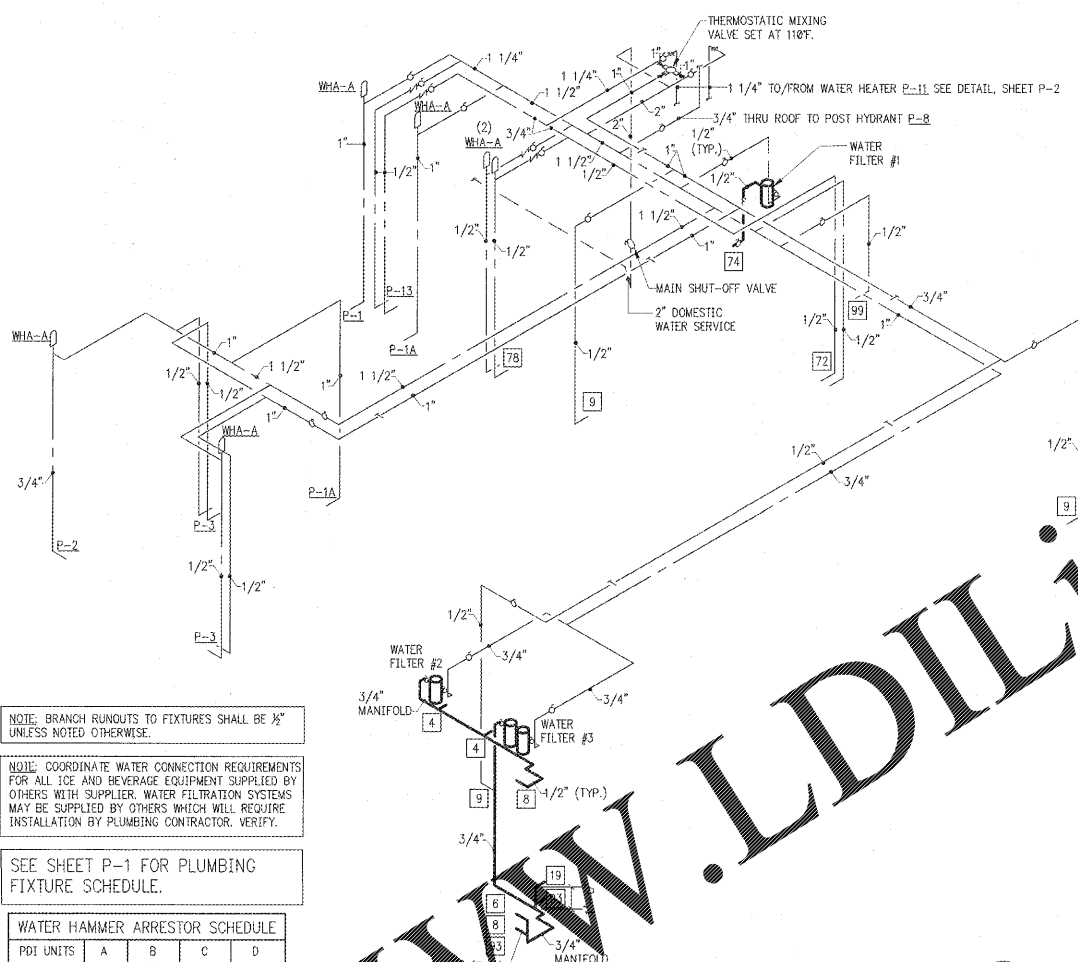
**D. Flow From Can Washes or Mop Sinks** Can washes and mop sinks are typically used intermittently. For the purpose of sizing, 7 GPM will be used for can washes and mop sinks.

**NOTES**

- GREASE TRAP SHALL BE ENGINEER DESIGNED BY MANUFACTURER TO RESIST ALL LOADS.
- IF PRE-FAB SEPTIC TANK IS USED, THEN TANK SHALL BE MODIFIED TO MEET ALL DETAILS & NOTES.
- SHOP DRAWINGS SHALL SHOW EXACT DIMENSIONS, WALL THICKNESSES, CONC. STRENGTH, ETC.
- GREASE TRAP INSIDE DIMENSIONS ARE APPROXIMATE & ANY CHANGES IN LENGTH x WIDTH x DEPTH SHALL BE ADJUSTED IN PROPORTIONS SHOWN.
- O.C. SHALL BE RESPONSIBLE TO VERIFY CAPACITY REQMT'S WITH ALL CODE OFFICIALS PRIOR TO BIDDING AND INCLUDE PROPER SIZE IN BID.



**1500 GALLON GREASE INTERCEPTOR DETAIL**  
NO SCALE \*TRAFFIC RATED (IF IN PARKING LOT) 3



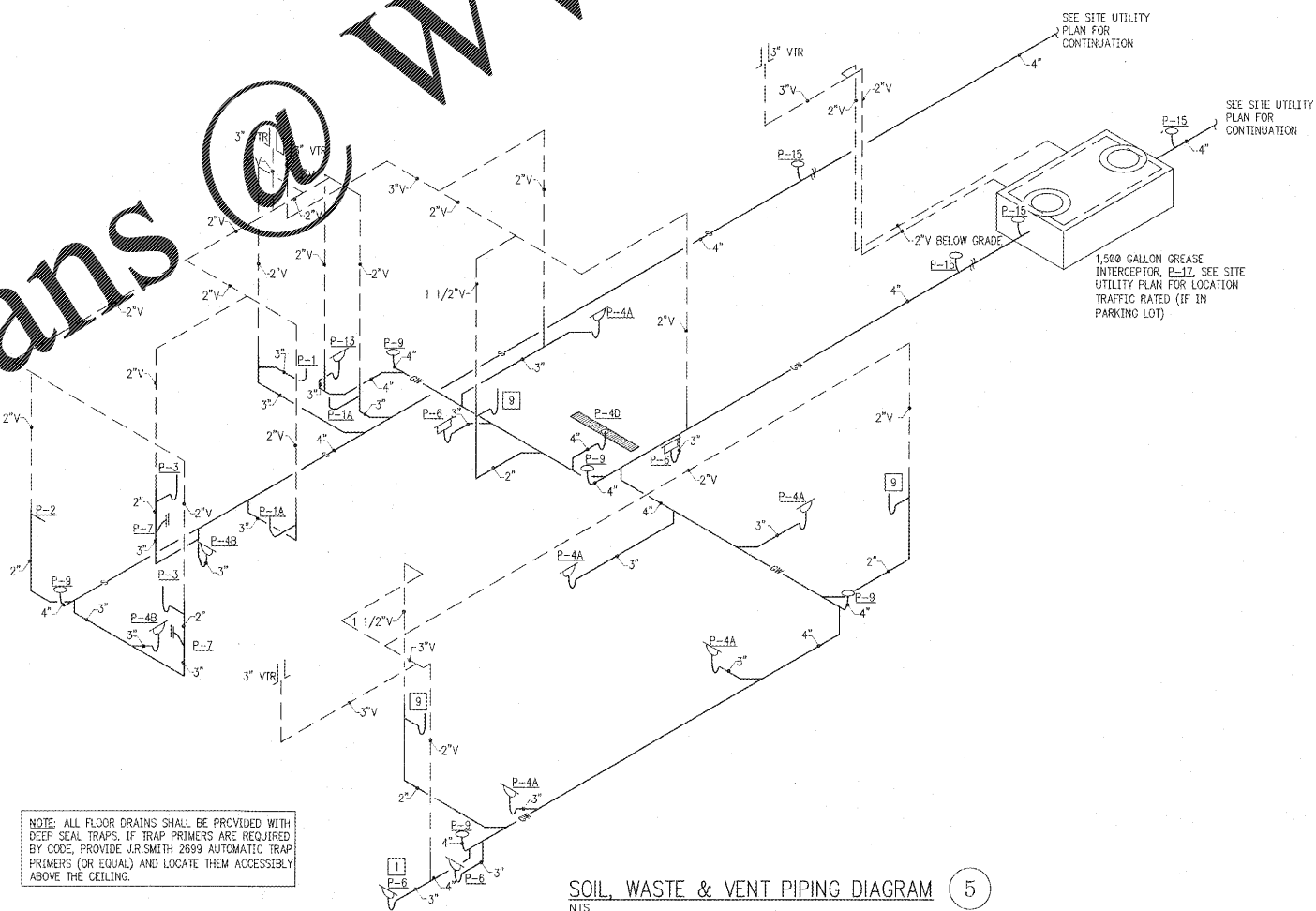
NOTE: BRANCH RUNOUTS TO FIXTURES SHALL BE 1/2" UNLESS NOTED OTHERWISE.

NOTE: COORDINATE WATER CONNECTION REQUIREMENTS FOR ALL ICE AND BEVERAGE EQUIPMENT SUPPLIED BY OTHERS WITH SUPPLIER. WATER FILTRATION SYSTEMS MAY BE SUPPLIED BY OTHERS WHICH WILL REQUIRE INSTALLATION BY PLUMBING CONTRACTOR. VERIFY.

SEE SHEET P-1 FOR PLUMBING FIXTURE SCHEDULE.

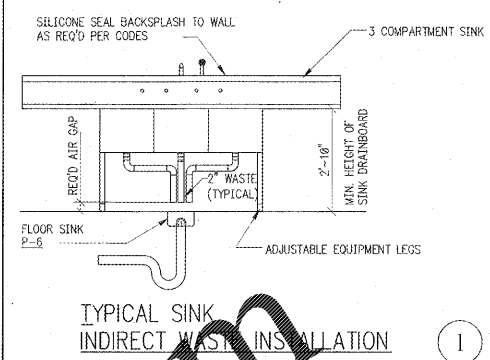
WATER HAMMER ARRESTOR SCHEDULE				
PDI UNITS	A	B	C	D
FIXTURE UNITS	1-11	12-32	33-60	61-113

**DOMESTIC WATER PIPING DIAGRAM** 4

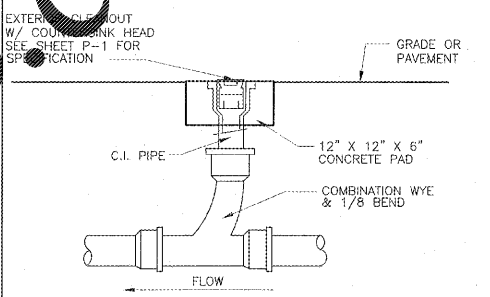


NOTE: ALL FLOOR DRAINS SHALL BE PROVIDED WITH DEEP SEAL TRAPS. IF TRAP PRIMERS ARE REQUIRED BY CODE, PROVIDE J.R. SMITH 2899 AUTOMATIC TRAP PRIMERS (OR EQUAL) AND LOCATE THEM ACCESSIBLY ABOVE THE CEILING.

**SOIL, WASTE & VENT PIPING DIAGRAM** 5



**TYPICAL SINK INDIRECT WASTE INSTALLATION** 1



**CLEANOUT TO FINISHED GRADE** 2

NRD Project # 18228

**NRD** National Residential Architects & Engineers

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STATE OF VIRGINIA

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DE # 002021

**Star Hardwood**

ONE WOOD PROTOTYPE REVERSE  
LARGE DINING ROOM - BNZ16-LD-R  
DISPATCH, VA 28642

**OWNER: BN**

BODDE-NOELL ENTERPRISES, INC.  
P.O. BOX 1808  
ROCKY MOUNT, NC 27802-9008  
(252) 967-2800

NO.	DATE	DESCRIPTION

DRAWN BY:      CHECKED BY:      DATE: 9-4-2019

**PLUMBING ISOMETRICS AND DETAILS**

DATE: 9-4-2019

SHEET NUMBER: **P3**