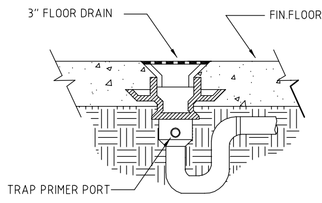
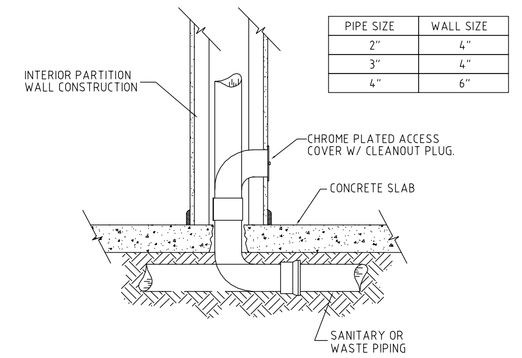
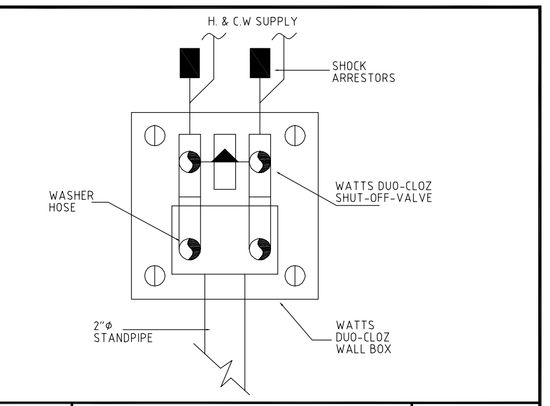


DETAIL NO. 1	FLOOR DRAIN	NOT TO SCALE

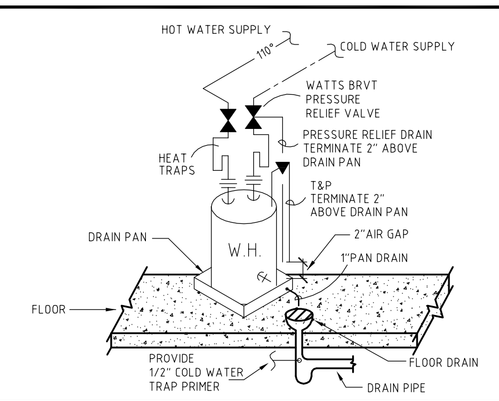


PIPE SIZE	WALL SIZE
2"	4"
3"	4"
4"	6"

DETAIL NO. 2	WALL CLEAN-OUT	NOT TO SCALE



DETAIL NO. 3	WATTS WASHING MACHINE BOX	NOT TO SCALE



DETAIL NO. 4	WATER HEATER	NOT TO SCALE

*	WATER CLOSET (HANDICAP)	ZURN MODEL #Z5660, VITREOUS CHINA, COLOR WHITE, SENSOR OPERATED BATTERY POWERED FLUSH VALVE, ZURN MODEL #ZR6800AV-DF-WS1.
*	URINAL (HANDICAP)	ZURN MODEL #Z5758, 205.00, VITREOUS CHINA, COLOR WHITE, SENSOR OPERATED BATTERY POWERED FLUSH VALVE, 1/8 GPF.
*	LAVATORY (HANDICAP)	LAVATORY - HANDICAPPED - UNDERCOUNTER KOHLER "CAXTON" K-2257 VITREOUS CHINA, COLOR WHITE. FAUCET: CHICAGO GOOSENECK FAUCET, 990479339 CG DC, DECK MOUNTED.
*	SHOWER	HANDICAP - SHOWER VALVE TO BE A KOHLER K-T6990-4A WITH A KOHLER K-8524 SLIDE BAR AND A KOHLER K-8501 HANDSHOWER.
*	WATER HEATER	ELECTRIC WATER HEATER: 80 GALLON, MANUFACTURER LOCHINVAR, MODEL #ETX080PD, 6.0/6.0 KW ELEMENTS, 12.0 KW TOTAL, 480V THREE PHASE WIRED FOR SIMULTANEOUS OPERATION, WITH ASME PRESSURE AND TEMPERATURE RELIEF VALVE, WITH COMPLETE CONTROLS, ADJUSTABLE THERMOSTATS, HIGH TEMPERATURE CUTOFF, UL LISTED, SET AT 110° F. 124 GPH RECOVERY AT 40°F RISE.
*		
*	HIGH-LOW WATER COOLER (HANDICAP)	ELECTRIC HI-LO WATER COOLER - HANDICAPPED HALSEY TAYLOR, MODEL #HAC8FSBL-Q CHILD SS
	LINT INTERCEPTOR	H-M COMPANY - ABOVE GROUND TROUGH LINT INTERCEPTOR. MODEL #HM-70. 31 x 16" W x 12" H. 30 GALLON CAPACITY. VERIFY INSTALLATION WITH EQUIPMENT MANUFACTURER.

NOTES:
* OR APPROVED EQUAL TO BE SELECTED BY OWNER
1. MOUNTING HEIGHT PER ADA STANDARD. INSULATE WATER AND DRAIN LINE.
2. PROVIDE CUT SHEETS FOR REVIEW PRIOR TO PURCHASE.
3. PLUMBING FIXTURES TO COMPLY WITH TABLE 604.4 F.B.C.
4. ALL WALL HUNG PLUMBING FIXTURES SHALL COMPLY WITH F.B.C. 2517.5.1.1, 2517.5.1.2 AND 2517.5.1.3
5. ALL EXPOSED PIPING AND SURFACES UNDER LAVATORIES SHALL COMPLY WITH FBC 404.6.4.
6. ALL PLUMBING FIXTURE SELECTIONS MUST BE COORDINATED WITH OWNER/ARCHITECT PRIOR TO PURCHASE.

PLUMBING FIXTURES

WATER HAMMER ARRESTOR SCHEDULE

P.D.I. DESIGNATION	MANUF. & MODEL	FIXTURE UNITS	CONNECTION	
A	SIOUX CHIEF 652-A	1-11	1/2"	
B	SIOUX CHIEF 653-B	12-32	3/4"	
C	SIOUX CHIEF 654-C	33-60	1"	

SIOUX CHIEF SHOCK ARRESTORS APPROVED FOR INSTALLATION WITH NO ACCESS DOOR REQUIRED. CONFORMS TO ANSI/ASSE 1010 STANDARDS.

PROJECT: COMMERCIAL - FLUSH VALVE

SANITARY SIZING

FIXTURE TYPE	NO.	F.U./EACH	TOTAL	MIN. TRAP SIZE
WATER CLOSET	4	4.0	16.0	3"
URINAL	2	4.0	8.0	2"
LAVATORY	6	1.0	6.0	1 1/4"
SHOWER	4	2.0	8.0	2"
SINK	1	2.0	2.0	1 1/2"
DRINKING FOUNTAIN	1	0.5	0.5	1 1/4"
FLOOR DRAIN	5	2.0	10.0	2"
TOTAL	23	-	50.5	-

TOTAL SANITARY FIXTURE UNITS= 50.5
MINIMUM SIZE SANITARY LINE @ 1/8" SLOPE 4"

HOT & COLD WATER SIZING PER TABLE E103.3(2) F.B.C. 2007 (PLUMBING)

FIXTURE TYPE	NO.	C.W.F.U./EA.	H.W.F.U./EA.	PER FIXTURE TOTAL	MULTIPLIED TOTAL
WATER CLOSET	4	10.0	-	10.0	40.0
URINAL	2	5.0	-	5.0	10.0
LAVATORY	6	1.5	1.5	2.0	12.0
SHOWER	4	1.5	1.5	2.0	8.0
SINK	1	1.5	1.5	2.0	2.0
DRINKING FOUNTAIN	1	0.25	-	0.25	0.25
TOTAL	18	-	-	-	72.25

TOTAL C.W.F.U. = 72.25
MINIMUM SIZE WATER SERVICE 1-1/2"
MINIMUM SIZE WATER METER 1-1/2"

PLUMBING SPECIFICATIONS

ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE FLORIDA BUILDING CODE 2007 EDITION PLUMBING SECTION, WITH 2009 AMENDMENTS, AND SHALL COMPLY WITH ALL LOCAL RULES AND ORDINANCES.

1. ALL WORKMANSHIP & MATERIALS SHALL BE IN STRICT ACCORDANCE WITH APPLICABLE NATIONAL,STATE, LOCAL CODES, RULES & ORDINANCES.
2. CONTRACTOR SHALL VISIT THE JOB SITE & THOROUGHLY FAMILIARIZE HIMSELF WITH ALL EXISTING CONDITIONS.
3. ALL MATERIALS SHALL BE NEW.
4. ALL WORK SHALL BE PERFORMED BY A LICENSED PLUMBING CONTRACTOR IN A FIRST-CLASS WORKMANLIKE MANNER. THE COMPLETE SYSTEM SHALL BE FULLY OPERATIVE.
5. ALL EXCAVATION & BACK FILL AS REQUIRED FOR THIS PHASE OF CONSTRUCTION SHALL BE A PART OF THIS CONTRACT.
6. REQUIRED INSURANCE SHALL BE PROVIDED BY THIS CONTRACTOR FOR PROTECTION AGAINST PUBLIC LIABILITY & PROPERTY DAMAGE FOR THE DURATION OF WORK.
7. CONTRACTOR SHALL PAY FOR ALL PERMITS, FEES, INSPECTIONS & TEST. SUBSTITUTIONS BY THE CONTRACTOR SHALL HAVE PRIOR APPROVAL. ANY CHANGES MADE WITHOUT APPROVAL WILL BE PAID BY THE CONTRACTOR TO RETURN TO THE ORIGINAL DESIGN.
8. ALL WORK SHALL BE COORDINATED WITH OTHER TRADES TO AVOID INTERFERENCE WITH THE PROCESS OF CONSTRUCTION.
9. THE CONTRACTORS AND SUBCONTRACTORS SHALL BE RESPONSIBLE FOR REVIEW OF THE GENERAL NOTES, SPECIFICATIONS, AND ALL OTHER DRAWINGS FOR ADDITIONAL REQUIREMENTS WHICH MAY NOT BE SPECIFICALLY CALLED OUT IN THIS PORTION OF THE CONSTRUCTION DOCUMENTS.
10. DRAWINGS FOR PLUMBING WORK ARE DIAGRAMMATIC, SHOWING THE GENERAL LOCATION, TYPE, LAYOUT, AND EQUIPMENT REQUIRED. THE DRAWINGS SHALL NOT BE SCALED FOR EXACT MEASUREMENT. FIELD VERIFY FINAL LOCATIONS FOR EQUIPMENT. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS AND EXACT LOCATION OF PLUMBING FIXTURES. REFER TO MANUFACTURER'S STANDARD INSTALLATION DRAWINGS FOR EQUIPMENT CONNECTIONS AND INSTALLATION REQUIREMENTS.
11. DRAWINGS AND SPECIFICATIONS GOVERN WHERE THEY EXCEED CODE REQUIREMENTS.
12. VERIFY LOCATION, SIZE, TRAPS, INVERTS OF ALL EXISTING UTILITIES PRIOR TO BEGINNING CONSTRUCTION. ADVISE ENGINEER OF ANY DISCREPANCIES. ANY COST RESULTING FROM DISCREPANCIES NOT REPORTED AT THIS TIME SHALL BE PAID BY THE CONTRACTOR.
13. INSTALL AIR CHAMBERS OR SHOCK ABSORBERS IN PIPING SYSTEM TO PREVENT NOISE AND DAMAGE DUE TO WATER HAMMER.
14. PROVIDE SHUT-OFF VALVES IN THE SUPPLY PIPING TO EVERY FIXTURE.
15. ALL FIXTURES MUST BE PROVIDED WITH READILY ACCESSIBLE STOPS.
16. IN AREAS WHERE AN EXISTING FIXTURE IS TO BE REMOVED AND THE SANITARY LINE IS TO BE CAPPED, THE LINE MUST BE CAPPED WITH-IN 2 FEET OF AN ACTIVE SANITARY LINE. NO DEAD ENDS PERMITTED.
17. CAP ALL PIPING OPENINGS DURING CONSTRUCTION UNTIL FINAL CONNECTIONS TO EQUIPMENT AND ACCESSORIES ARE MADE.
18. SANITARY PIPE 3" AND SMALLER SHALL BE SLOPED AT 1/4" PER FOOT. SANITARY PIPE 4" AND LARGER SHALL BE SLOPED AT 1/8" PER FOOT. CONDENSATE PIPING SHALL BE SLOPED AT A MINIMUM OF 1/4" PER FOOT.
19. ALL FLOOR PENETRATIONS MUST BE SLEEVED, FIRE STOPPED, GROUTED, SEALED AND MADE WATERPROOF IN ACCORDANCE WITH THE LANDLORDS REQUIREMENTS. SLEEVES MUST EXTEND A MINIMUM OF 4" A.F.F. COORDINATE ALL CONCRETE TRENCHING/CORING TO ENSURE THAT ANY UNDER SLAB UTILITIES, ETC. ARE NOT DAMAGED DURING FLOOR CUT. ANY DAMAGE TO BE REPAIRED AT CONTRACTOR EXPENSE. CUTTING AND PATCHING ACTIVITIES WHICH CREATE NOISE MUST BE PERFORMED AFTER-HOURS SO LONG AS ANY OTHER TENANTS ARE OCCUPYING THE BUILDING. PRIOR APPROVAL AND COORDINATION WITH PROPERTY MANAGEMENT IS REQUIRED FOR ALL CONCRETE CUTTING.
20. DO NOT ROUTE ANY WET PIPING OVER ELECTRICAL EQUIPMENT.
21. WATER PIPING TO BE TYPE "M" OR TYPE "L" COPPER ABOVE OR BELOW GRADE.
22. SOIL, WASTE & VENT PIPING TO BE CAST IRON.
23. HOT AND HOT WATER RETURN LINES SHALL BE INSULATED WITH 1/2" TO 1" THICK ARMAFLEX INSULATION FROM THE WATER HEATER TO THE FURTHEST FIXTURE PER FBC 2007 CHAPTER 13, (WITH 2009 SUPPLEMENTS) SECTION 13-412.AB.4(1) AND TABLE 13-411.AB.2.
24. WHERE DISSIMILAR METALS ARE TO BE JOINED, APPROVED INSULATING UNIONS SHALL BE USED.
25. ALL PLUMBING PIPES PENETRATING FIRE RATED WALLS, CEILINGS AND/ OR FLOORS SHALL BE PROVIDED WITH U.L. APPROVED FIRE RATED ASSEMBLY. (EQUAL TO WALL FIRE RATING - SEE ARCHITECTURAL DRAWINGS).
26. NO PVC PIPING TO BE USED IN COMMON PLENUM AREAS.
27. CONDENSATE LINES TO BE COPPER. INSULATE WITH 1/2" THICK PLENUM RATED ARMAFLEX INSULATION.
28. CONTRACTOR SHALL GUARANTEE ALL MATERIALS & WORKMANSHIP FREE FROM DEFECTS FOR A PERIOD OF NOT LESS THAN ONE (1) YEAR FROM DATE OF ACCEPTANCE. CORRECTION OF ANY DEFECTS SHALL BE COMPLETED WITHOUT ADDITIONAL CHARGE AND SHALL INCLUDE REPLACEMENT OR REPAIR OF ANY OTHER PHASE OF THE INSTALLATION WHICH MAY HAVE BEEN DAMAGED THEREBY.
29. CONTRACTOR TO VERIFY ALL EXISTING CONDITIONS PRIOR TO BID AND INSTALLATION. INFORM THE ENGINEER OF RECORD OF ANY DISCREPANCY BETWEEN THE DOCUMENTS AND THESE CONDITIONS AND HE SHALL INCLUDE IN HIS BID TO CORRECT THE SAME AS DIRECTED. THE ENGINEER AND THE ARCHITECT ARE NOT RESPONSIBLE FOR ANY ADDITIONAL COSTS RESULTING FROM VERIFIABLE EXISTING CONDITIONS DISCOVERED AFTER THE CONTRACT HAS BEEN AWARDED.
30. CONTRACTOR SHALL KEEP AS-ABUILTS AND SUBMIT TO THE ENGINEER OF RECORD FOR REVIEW. ALL CHANGES SHALL BE FORWARDED A MINIMUM OF (2) WEEKS PRIOR TO FINAL INSPECTION. ANY EXPENSES, SUCH AS REVISIONS OR AS-ABUILTS, NECESSARY FOR FINAL C.O. SHALL BE AT THE EXPENSE OF THE OWNER.

PRIOR TO SUBMITTING HIS BID, THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND INFORM THE ARCHITECT AND THE ENGINEER OF ANY DISCREPANCY BETWEEN THESE DOCUMENTS AND THE EXISTING CONDITIONS AND HE SHALL INCLUDE IN HIS BID TO CORRECT THE SAME AS DIRECTED. THE ENGINEER AND THE ARCHITECT, ARE NOT RESPONSIBLE FOR ANY ADDITIONAL COSTS RESULTING FROM VERIFIABLE EXISTING CONDITIONS DISCOVERED AFTER CONTRACT HAS BEEN AWARDED. NO CHANGES SHALL BE MADE TO THESE PLANS WITHOUT PRIOR APPROVAL FROM THE ENGINEER OF RECORD. ALL CHANGES SHALL BE SUBMITTED FOR REVIEW PRIOR TO INSTALLATION. NOT FOR BID UNTIL PERMIT HAS BEEN ISSUED.

REVISION SET: 03/02/12

PERMIT SET: 02/14/12

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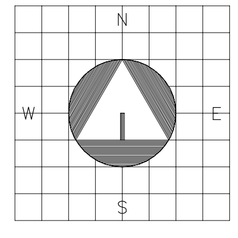
PLUMBING DETAILS AND SPECS.

SCALE: NOT TO SCALE

0 X' X' X' X'



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TENANT IMPROVEMENTS FOR: NORTHBIDGE CENTER GYM FACILITY

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