


## PLUMBING DRAWING INDEX

NOTE: Where possible and practical, all items that require access, such as for operating, cleaning, servicing, maintenance, and calibration, shall easily and safely be accessible by persons standing at floor level, or on a platform that is not higher than 18 inches above floor level. Examples of these items include, but are not limited to: all types of valves, filters and strainers, transmitters, control devices. Prior to commencing installation work, refer conflicts between this requirement and contractor drawings to the RE/COTR for resolution.

WASTE FIXTURE UNITS - NEW						
DESCRIPTION	QUANTITY PRIVATE #	QUANTITY PUBLIC #	DRAIN PRIVATE #	DRAIN PUBLIC #	TOTAL WASTE FIXTURE UNITS	TOTAL DRAIN FIXTURE UNITS
Floor Drain, emergency	33	11	9	9	0	0
Lavatory	0	0	0	0	0	0
Receptacle, indirect waste, 2" trap, up to 7.5 gpm (1)	0	3	1	1	3	3
Receptacle, indirect waste, 2" trap, up to 7.5 gpm (1)	0	0	0	0	0	0
Service Sink	0	0	0	0	3	3
Shower	33	0	2	2	3	3
Drinking Fountains	0	2	0.5	0.5	0	0
Breakroom or Workroom Sink	0	1	1	1	0	0
Coffee Machine	0	0	0	0	0	0
Urinal, Flush Valve	0	2	2	2	0	0
Water Closet, Flush Valve	23	0	2	2	4	4
			TOTAL DEMAND =			

(1) PU determined by future trap drains to receptor.


FIGURE UNITS OBTAINED FROM TABLE 7-3, OREGON PLUMBING SPECIALTY CODE, 2001 EDITION, AND DEPARTMENT OF VETERANS AFFAIRS PLUMBING DESIGN MANUAL FOR DOMICILIARY PROJECTS (MARCH 2011).

 MAI Project Number  
P-540  
P-541  
1120 E

(1) FIXTURE UNIT VALUES OBTAINED FROM DEPARTMENT OF VETERANS AFFAIRS PLUMBING DESIGN MANUAL FOR DOMICILIARY PROJECTS, MARCH 2011, AND OREGON PLUMBING SPECIALTY CODE, 2011 EDITION	
(2) FLUSHMETER VALVE FIXTURE UNITS FOR WATER CLOSETS AND URINALS	
OBTAINED FROM TABLE 6-7:	
MINIMUM DAILY SERVICE PRESSURE:	60 PSI
STATIC HEAD LOSS (4.24X PIPE FT) * 20"	8.6 PSI
PRESSURE REQUIRED AT FIXTURE:	35 PSI
PRESSURE AVAILABLE FOR FRICTION LOSS:	21.4 PSI
TOTAL EQUIVALENT PIPE LENGTH:	500'
MAXIMUM FRICTION LOSS:	4.3 PSI/100 FT
(PRESSURE AVAILABLE * 100/EQUIVALENT LENGTH)	
BUILDING SUPPLY SIZE:	3"

(1) PU determined by future trap drains to receptor.

FIGURE UNITS OBTAINED FROM TABLE 7-3, OREGON PLUMBING SPECIALTY CODE, 2001 EDITION, AND DEPARTMENT OF VETERANS AFFAIRS PLUMBING DESIGN MANUAL FOR DOMICILIARY PROJECTS (MARCH 2011).

 MAI Project Number  
P-540  
P-541  
1120 E



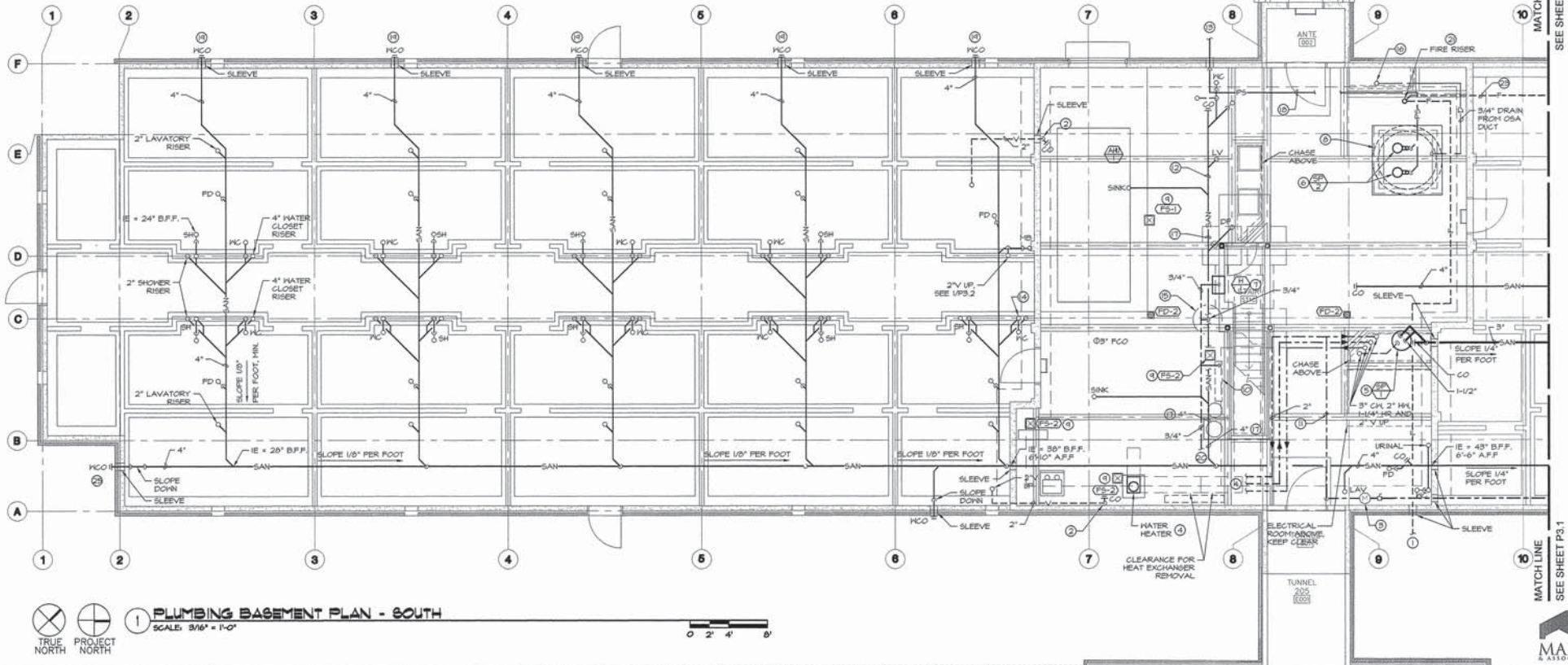
## GENERAL NOTES

- PLUMBING PLAN SHOWS GENERAL ROUTING AND ARRANGEMENT OF PIPING. SEE RISER DIAGRAMS ON SHEET P4.1 FOR PIPE SIZING, CHANGE IN SIZING LOCATION, INSTRUMENTATION AND SANITARY PIPING CLEANOUTS.
- ALL PIPING SHALL BE SLEEVED AND SEALED THROUGH ANY STRUCTURE OR CONCRETE.
- SLOPE ALL SANITARY PIPING 1/4" PER FOOT, MINIMUM, UNLESS NOTED OTHERWISE.
- THE FOLLOWING SANITARY PIPING SHALL BE CAST IRON:
  1. PIPING BELOW GRADE.
  2. WASTE RISERS.
  3. PIPE PENETRATIONS THROUGH CONCRETE/MENTAL DECK ASSEMBLY AT BASEMENT CEILING.
  4. PIPING WITH WASTE WATER THAT COULD EXCEED 140°F.
  5. PIPING DESIGNATED WITH HEAVY BOLD LINES.
- OTHER WASTE AND VENT PIPING MAY BE SCHEDULE 40 PVC, SEE SPECIFICATION SECTION 221000.
- DOMESTIC WATER PIPING SHALL BE TYPE 1" COPPER.
- SEE SPECIFICATION SECTION 230111 FOR PIPING INSULATION.
- PROVIDE AND INSTALL CLEANOUTS ON BELOW GRADE STORM PIPING AT ITS UPPER TERMINAL AND FOR EACH AGGREGATE HORIZONTAL CHANGE OF DIRECTION EXCEEDING 135°.
- SLOPE HORIZONTAL STORM DRAIN PIPING AT 1/8" PER FOOT, MIN.

- PIRE CAULK ALL PIPE PENETRATIONS THROUGH FIRE-RATED WALLS. SEE ARCHITECTURAL, 01050, AND SPECIFICATIONS SECTION 070400. IN ADDITION, THE FOLLOWING PIPE & DUCT PENETRATIONS SHALL BE FIRESTOPPED:
  - PIRE AND SMOKE BARRIERS (SEE ARCH)
  - FIRE PARTITIONS (SEE ARCH)
  - CORRIDOR WALLS (SEE ARCH)
  - FLOORS & CEILINGS
  - SHAFT WALLS & FLOORS
- CONTRACTOR MAY USE FIRE-ENGINEERED CAST-IN-PLACE LISTED SLEEVES FOR PIPE PENETRATIONS IN BASEMENT CEILING. HOLDRITE HYDRO FLAME, OR EQUAL.
- CONTRACTOR SHALL COORDINATE ROUTING AND SPACE REQUIREMENTS OF PIPING WITH STRUCTURAL MEMBERS AND ALL OTHER TRADES INCLUDING HVAC, FIRE PROTECTION, ELECTRICAL, AND COMMUNICATIONS/DATA.
- AHU CONDENSATE AND HUMIDIFIER DRAIN PIPING SHALL BE TYPE 1" COPPER.
- UNLESS ABATED AND APPROVED FOR ENTRY, THE CRAWLSPACE SHOULD BE CONSIDERED AN ASBESTOS CONTAMINATED AREA. ONLY PROPERLY TRAINED INDIVIDUALS SHOULD ENTER THE CRAWLSPACE OR BASEMENT. PROPER PERSONAL PROTECTIVE EQUIPMENT IS REQUIRED.
- REFER TO P4.3 FOR UNDER SLAB PIPING.

## KEYED NOTES

- SEE CIVIL FOR CONTINUATION.
- SEE SHEET P4.3 FOR CONTINUATION.
- P4.1 WATER METER ON MAIN DOMESTIC CH LINE. INTEGRATE WITH METASYS, SEE SPECIFICATION SECTION 25100.
- SEE 1/P4.2 & 2/M4.4 FOR WATER HEATER PIPING INSTALLATION.
- SEE 3/P4.2 FOR PUMP INSTALLATION.
- SEE 6/P4.2 FOR PUMP INSTALLATION.
- SEE 3/M4.3 FOR HUMIDIFIER INSTALLATION.
- STORM WATER SUMP, SEE STRUCTURAL. SEE 6/P4.2 FOR STORM WATER EJECTOR INSTALLATION.
- SEE 1/P4.1 FOR FLOOR SINK INSTALLATION.
- SEE 2/M4.1 FOR MAKE-UP WATER ASSEMBLY.
- 3" CH ROUTE TIGHT TO STRUCTURE.
- 4" SANITARY, ROUTE HIGH ABOVE DUCTWORK.
- ROUTE STORM WATER PUMP DISCHARGE TO STORM DRAIN. SEE CIVIL.
- 4" WATER CLOSET RISER.
- GLYCOL TANK, SEE M4.0.
- CONNECT 3/4" DRAIN TO BOTTOM OF OSA DUCT, SEE M4.0.
- ROUTE PIPING AS HIGH AS POSSIBLE.
- 4" PUMPED STORM, ROUTE TIGHT TO STRUCTURE. COORDINATE ROUTING WITH OSA DUCTWORK.
- USE SQUARE FRAME AND COVER, J.R. SMITH MODEL 4494-NB, OR EQUAL. USE NICKEL BRONZE FRAME AND COVER.
- CONNECT TO CH PIPING SERVING HEATING WATER SYSTEM, SEE M4.6.
- FIRE RISER - SEE DETAIL 3/P4.3.
- CORE THROUGH TUNNEL FOR STORM DRAIN LINE CROSSING.
- FIRE FEED TO SPRINKLER RISER FROM FIRE DEPARTMENT CONNECTION. SEE P3.3.



**PLUMBING BASEMENT PLAN - SOUTH**  
SCALE: 3/16" = 1'-0"

0' 2' 4' 8'



MARQUESS  
& ASSOCIATES

MM Project Number  
P-54  
F-54  
1100 E  
Medford

PROJECT TITLE  
REPLACE SEISMICALLY DEFICIENT DOM B206  
& DEMO PORTION B250

DRAWN BY: J.G.  
DATE: 24 JULY 2015

CHECK BY: Q.J.  
DATE: 092-344

DRAWING NO.:  
**P3.0**  
DWG. 2 OF 12

FULLY SPRINKLERED FACILITY

REVISIONS

DATE

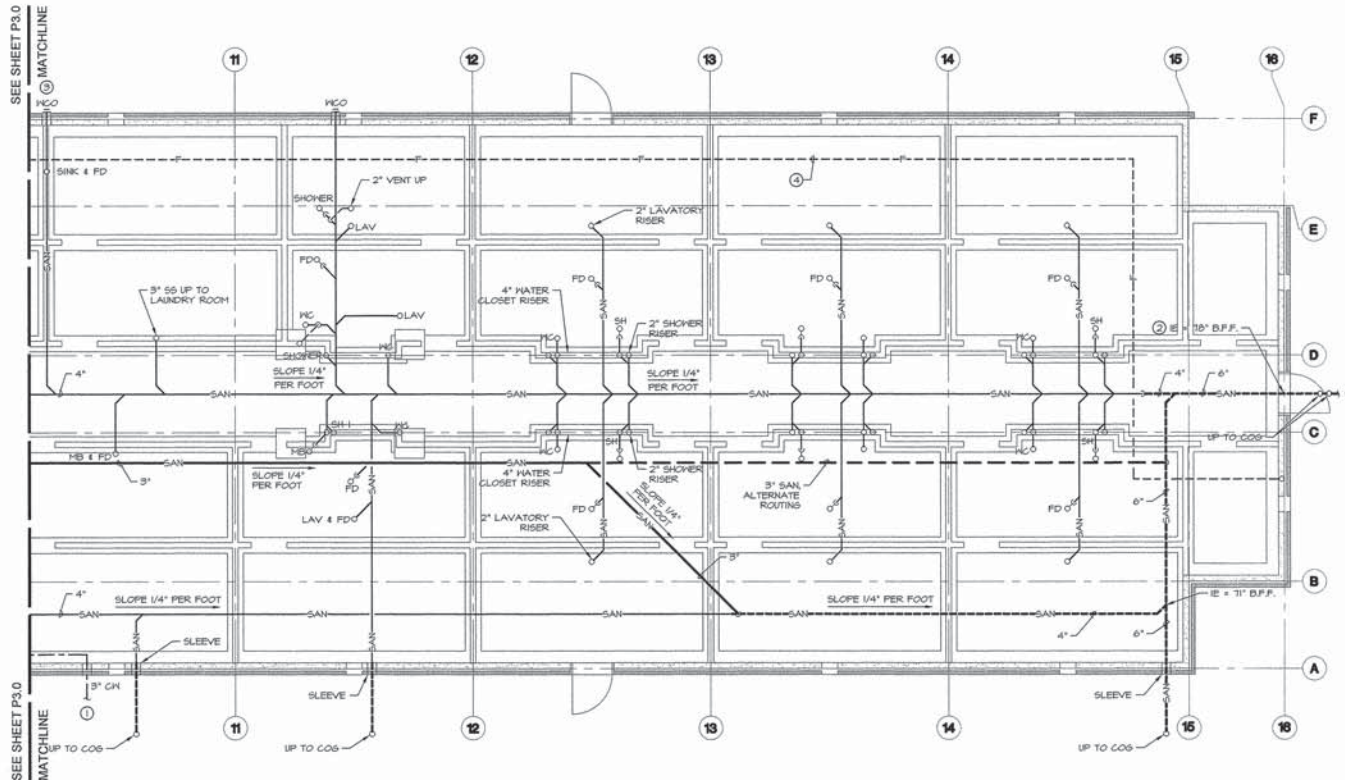
REGISTERED PROFESSIONAL  
18,570  
JULY 18, 1998  
OSCAR J. ZUNIGA  
RENEWED: JUNE 30, 2018

kistler + small + white  
ARCHITECTS

KISTLER SMALL WHITE, ARCHITECTS  
55 WATER STREET  
ASHLAND, OREGON 97520  
P: 541-486-6005  
F: 541-486-6612  
www.kistlersmallwhite.com

DEPARTMENT OF VETERANS AFFAIRS  
SOUTHERN OREGON  
REHABILITATION CENTER & CLINICS  
8495 CRATER LAKE HIGHWAY  
WHITE CITY, OREGON

DRAWING TITLE:  
**PLUMBING  
BASEMENT PLAN - SOUTH**



# GENERAL NOTES

- PLUMBING PLAN SHOWS GENERAL ROUTING AND ARRANGEMENT OF PIPING. SEE RISER DIAGRAMS ON SHEET P-1 FOR PIPE SIZES, CHANGE IN SIZING LOCATION, INSTRUMENTATION AND SANITARY PIPING CLEANOUTS.
- ALL PIPING SHALL BE SLEEVED AND SEALED THROUGH ANY STRUCTURE OR CONCRETE.
- SLOPE ALL SANITARY PIPING 1/4" PER FOOT, MINIMUM, UNLESS NOTED OTHERWISE.
- THE FOLLOWING SANITARY PIPING SHALL BE CAST IRON:
  - PIPES BELOW GRADE.
  - WASTE RISERS.
  - EXPOSED WASTE PIPING IN BASEMENT.
  - PIPES WITH WASTE WATER THAT COULD EXCEED 140°F.
  - PIPES DESIGNATED WITH HEAVY BOLD LINES.
 OTHER WASTE AND VENT PIPING MAY BE SCHEDULE 40 P.V.C. SEE SPECIFICATION SECTION 221800.
- FIRE CAULK ALL PIPE PENETRATIONS THROUGH FIRE-RATED WALLS. SEE ARCHITECTURAL, S740.3, AND SPECIFICATIONS SECTION 071400. IN ADDITION, THE FOLLOWING PIPE & DUCT PENETRATIONS SHALL BE FIRESTOPPED:
  - FIRE AND SMOKE BARRIERS (SEE ARCH)
  - FIRE PARTITIONS (SEE ARCH)
  - CORRIDOR WALLS (SEE ARCH)
  - FLOORS & CEILINGS
  - SHAFT WALLS & FLOORS
- CONTRACTOR SHALL COORDINATE ROUTING AND SPACE REQUIREMENTS OF PIPING WITH STRUCTURAL MEMBERS AND ALL OTHER TRADES INCLUDING HVAC, FIRE PROTECTION, ELECTRICAL, AND COMMUNICATIONS/DATA.
- CONDENSATE PIPING SHALL BE TYPE 1" COPPER.

# KEYED NOTES

- SEE CIVIL FOR CONTINUATION.
- ROUTE WASTE LINE UNDER FOOTING WITH TOP OF PIPE A MINIMUM 4" BELOW BOTTOM OF FOOTING.
- USE SQUARE FRAME AND COVER, J.R. SMITH MODEL 4424-45, OR EQUAL. USE NICKEL BRONZE FRAME AND COVER.
- FIRE FEED LINE TO SPRINKLER RISER FROM FIRE DEPARTMENT CONNECTION.



**1 PLUMBING CRAWLSPACE PLAN - NORTH**  
SCALE: 3/8" = 1'-0"



REVISIONS	DATE



KISTLER SMALL WHITE, ARCHITECTS  
506 WATER STREET  
ASHLAND, OREGON 97520  
P: 541-485-0005  
F: 541-485-8612  
www.kistlersmallwhite.com



DEPARTMENT OF VETERANS AFFAIRS  
**SOUTHERN OREGON  
REHABILITATION CENTER & CLINICS**  
8495 CRATER LAKE HIGHWAY  
WHITE CITY, OREGON

DRAWING TITLE:  
**PLUMBING  
BASEMENT PLAN - NORTH**

FULLY SPRINKLERED FACILITY

PROJECT TITLE REPLACE SEISMICALLY DEFICIENT DOM B206 & DEMO PORTION B250		DRAWING NO.: <b>P3.1</b>
DRAWN BY: J.D.G.	DATE: 24 JULY 2015	DWG. 3 OF 12
CHECK BY: O.J.Z.	VA PROJECT NO.: 692-344	



## GENERAL NOTES

A. PLUMBING PLAN SHOWS GENERAL ROUTING AND ARRANGEMENT OF PIPING. SEE RISER DIAGRAMS ON SHEET P4.1 FOR PIPE SIZES, CHANGE IN SIZING LOCATION, INSTRUMENTATION AND SANITARY PIPING CLEANOUTS.

B. TYPICAL PLUMBING AT SHEARWALLS: ALL PLUMBING PENETRATIONS SHALL BE DRILLED NO LARGER THAN ONE INCH GREATER IN DIAMETER THAN PIPE SIZE. DO NOT CUT HALL PLATES OR BLOCKING AT SHEARWALLS. SEE STRUCTURAL PLANS FOR LOCATIONS OF SHEARWALLS.

C. WASTE AND VENT PIPING SHALL BE SCHED 40 PVC OR NO-HUB CAST IRON, UNLESS OTHERWISE NOTED. WASTE RISERS SHALL BE NO-HUB CAST IRON.

D. DOMESTIC WATER PIPING SHALL BE TYPE 'L' COPPER OR PEX WHERE NOT SHOWN AS RIGID PIPE.

E. SEE SPECIFICATION SECTION 250711 FOR PIPING INSULATION.

F. ALL PIPING SHALL BE SLEEVED AND SEALED THROUGH ANY STRUCTURE OR CONCRETE.

G. COORDINATE PLUMBING VENT LOCATIONS WITH MECHANICAL. LOCATE PLUMBING VENTS 12"-0" FROM ANY BUILDING OPENINGS OR HVAC AIR INTAKE, MINIMUM.

H. CONDENSATE PIPING SHALL BE SCHED 40 PVC OR TYPE 'L' COPPER.

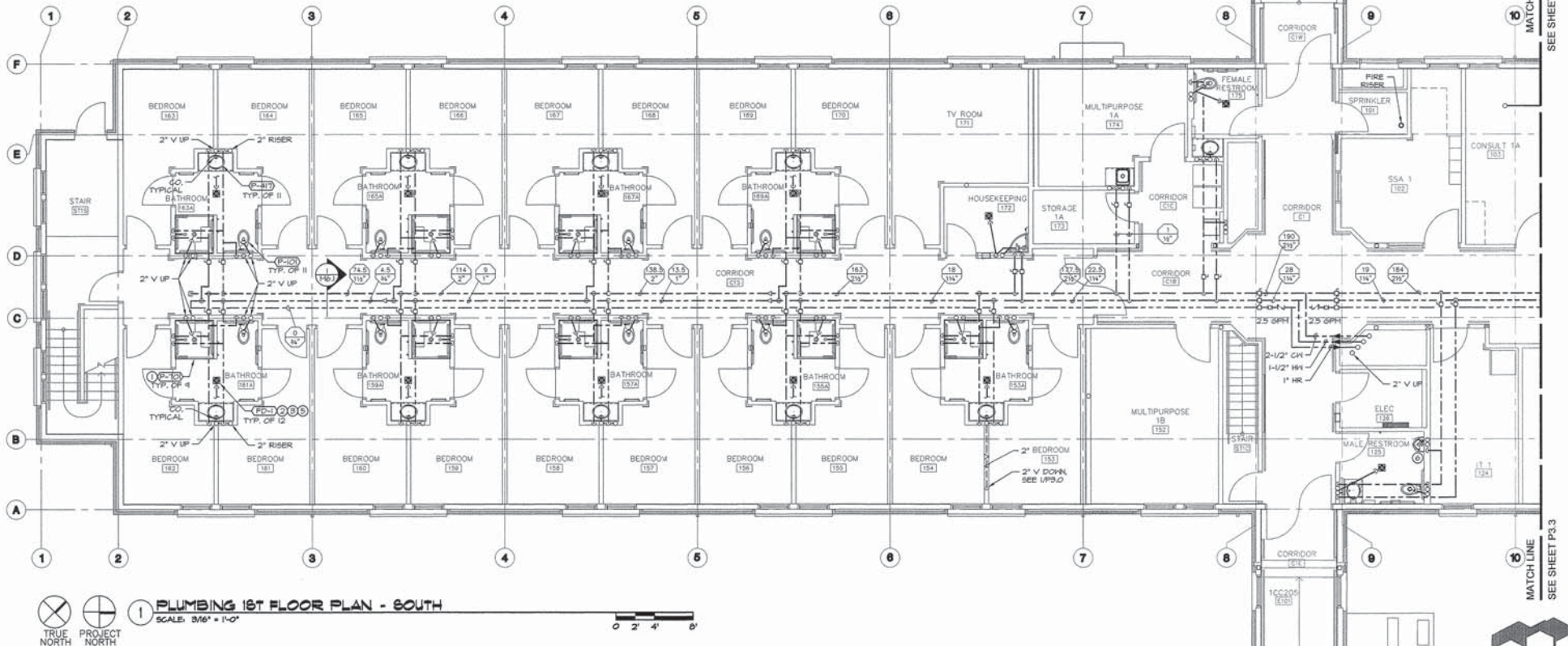
I. CONTRACTOR SHALL COORDINATE ROUTING AND SPACE REQUIREMENTS OF PIPING WITH STRUCTURAL MEMBERS AND ALL OTHER TRADES INCLUDING HVAC, FIRE PROTECTION, ELECTRICAL, AND COMMUNICATIONS/DATA. OFFSET PIPING AROUND DUCTWORK WHERE REQUIRED.

J. MAINTAIN 2" CLEARANCE BETWEEN TOP OF CABLE TRAY AND CROSSING PIPING.

K. FIRE CAULK ALL PIPE PENETRATIONS THROUGH FIRE-RATED WALLS. SEE ARCHITECTURAL, FINISHES, AND SPECIFICATIONS SECTION 070400. IN ADDITION, THE FOLLOWING PIPE & DUCT PENETRATIONS SHALL BE FIRESTOPPED:  
-FIRE AND SMOKE BARRIERS (SEE ARCH)  
-FIRE PARTITIONS (SEE ARCH)  
-CORRIDOR WALLS (SEE ARCH)  
-FLOORS & CEILINGS  
-SHAFT WALLS & FLOORS

## KEYED NOTES

- SEE ARCHITECTURAL FOR SHOWER INSTALLATION.
- TRAP PRIMER TO BE INTEGRATED WITH FLUSH VALVE. SEE PLUMBING FIXTURE SCHEDULE.
- FLOOR DRAIN SHALL BE CENTERED IN THE BATHROOM. IT IS SHOWN OFFSET FOR CLARITY.
- USE CAST IRON DRAIN BODY AND DRAIN PIPING AT LOCATIONS WITHIN 1-HOUR RATED FLOOR.
- IF FLOOR DRAIN POSITION INTERFERES WITH A STRUCTURAL MEMBER, LOCATE FLOOR DRAIN TOWARD THE WATER CLOSET SIDE OF THE STRUCTURAL MEMBER.
- PROVIDE WATER HAMMER ARRESTOR ON WATER SUPPLY TO URINAL. INSTALL IN ACCESSIBLE LOCATION FOR SERVICE.



1 PLUMBING 1ST FLOOR PLAN - SOUTH

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



MATCH LINE  
SEE SHEET P3.3

MATCH LINE  
SEE SHEET P3.3

MM Project Number

P-54

P-54

1120 E

Medford



DEPARTMENT OF VETERANS AFFAIRS  
**SOUTHERN OREGON  
REHABILITATION CENTER & CLINICS**  
8495 CRATER LAKE HIGHWAY  
WHITE CITY, OREGON



KISTLER SMALL WHITE, ARCHITECTS  
36 WATER STREET  
ASHLAND, OREGON 97520  
P: 541-485-0204  
F: 541-482-8612  
www.kistlersmallwhite.com



DRAWING TITLE:  
**PLUMBING  
1ST FLOOR PLAN - SOUTH**

PROJECT TITLE:  
**REPLACE SEISMICALLY DEFICIENT DOM B206  
& DEMO PORTION B250**

DRAWN BY: JDC  
DATE: 24 JULY 2015

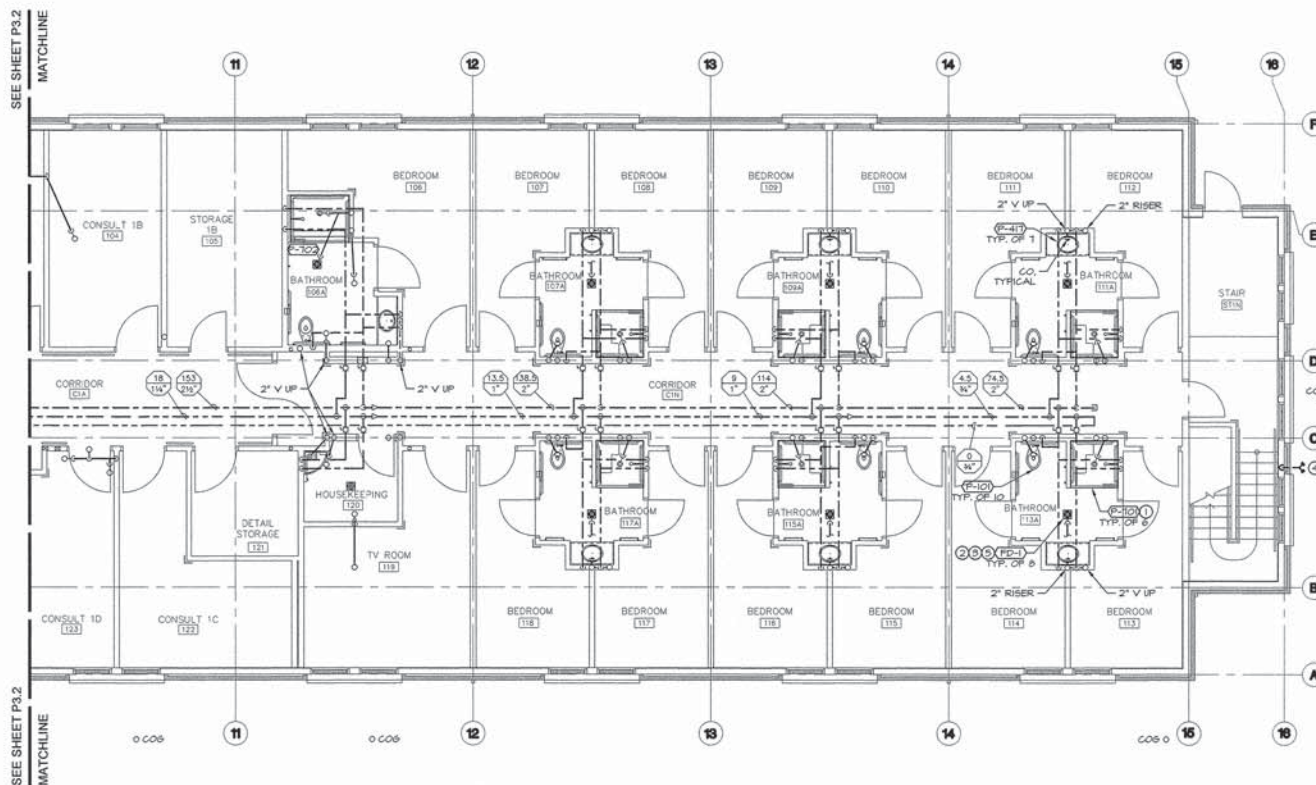
CHECK BY: OJZ  
DATE: 24 JULY 2015

PROJECT NO.: 692-344

DWG. 4 OF 12

**P3.2**

FULLY SPRINKLERED FACILITY



# GENERAL NOTES

- A. PLUMBING PLAN SHOWS GENERAL ROUTING AND ARRANGEMENT OF PIPING. SEE RISER DIAGRAMS ON SHEET P4.1 FOR PIPE SIZING, CHANGE IN SIZES LOCATION, INSTRUMENTATION AND SANITARY PIPING CLEANOUTS.
- B. TYPICAL PLUMBING AT SHEARWALLS. ALL PLUMBING PENETRATIONS SHALL BE DRILLED NO LARGER THAN ONE INCH GREATER IN DIAMETER THAN PIPE SIZE. DO NOT CUT WALL PLATES OR BLOCKING AT SHEARWALLS. SEE STRUCTURAL PLANS FOR LOCATIONS OF SHEARWALLS.
- C. WASTE AND VENT PIPING SHALL BE SCHED 40 PVC OR NO-HUB CAST IRON, UNLESS OTHERWISE NOTED. WASTE RISERS SHALL BE NO-HUB CAST IRON.
- D. DOMESTIC WATER PIPING SHALL BE TYPE 1" COPPER OR PEX WHERE NOT SHOWN AS RIGID PIPE.
- E. SEE SPECIFICATION SECTION 230711 FOR PIPING INSULATION.
- F. ALL PIPING SHALL BE SLEEVED AND SEALED THROUGH ANY STRUCTURE OR CONCRETE.
- G. COORDINATE PLUMBING VENT LOCATIONS WITH MECHANICAL. LOCATE PLUMBING VENTS 10'-0" FROM ANY BUILDING OPENINGS OR HVAC AIR INTAKE, MINIMUM.
- H. CONDENSATE PIPING SHALL BE SCHED 40 PVC OR TYPE 1" COPPER.
- I. CONTRACTOR SHALL COORDINATE ROUTING AND SPACE REQUIREMENTS OF PIPING WITH STRUCTURAL MEMBERS AND ALL OTHER TRADES INCLUDING HVAC, FIRE PROTECTION, ELECTRICAL, AND COMMUNICATIONS DATA. OFFSET PIPING AROUND DUCTWORK WHERE REQUIRED.
- J. MAINTAIN 2" CLEARANCE BETWEEN TOP OF CABLE TRAY AND CROSSING PIPING.
- K. FIRE CAULK ALL PIPE PENETRATIONS THROUGH FIRE-RATED WALLS. SEE ARCHITECTURAL S.M.S.3, AND SPECIFICATIONS SECTION 078400. IN ADDITION, THE FOLLOWINGS PIPE & DUCT PENETRATIONS SHALL BE FIRESTOPPED:  
-FIRE PARTITIONS (SEE ARCH)  
-CORRIDOR WALLS (SEE ARCH)  
-FLOORS & CEILINGS  
-SHAFT WALLS & FLOORS

# KEYED NOTES

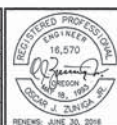
- ① SEE ARCHITECTURAL FOR SHOWER INSTALLATION.
- ② TRAP PRIMER TO BE INTEGRATED WITH FLUSH VALVE. SEE PLUMBING FIXTURE SCHEDULE.
- ③ FLOOR DRAIN SHALL BE CENTERED IN THE BATHROOM. IT IS SHOWN OFFSET FOR CLARITY.
- ④ FIRE DEPARTMENT CONNECTION AT 40" ABOVE GRADE. VERIFY EXACT LOCATION WITH OWNER.
- ⑤ IF FLOOR DRAIN POSITION INTERFERES WITH A STRUCTURAL MEMBER, LOCATE FLOOR DRAIN TOWARD THE WATER CLOSET SIDE OF THE STRUCTURAL MEMBER.
- ⑥ USE CAST IRON DRAIN BODY AND DRAIN PIPING AT LOCATIONS WITHIN 1-HOUR RATED FLOOR.



**1 PLUMBING 1ST FLOOR PLAN - NORTH**  
SCALE: 3/16" = 1'-0"



REVISIONS	DATE



KISTLER SMALL WHITE, ARCHITECTS  
16 WATER STREET  
ASHLAND, OREGON 97520  
P: 541-488-8209  
F: 541-488-8812  
www.kistlersmallwhite.com



DEPARTMENT OF VETERANS AFFAIRS  
**SOUTHERN OREGON  
REHABILITATION CENTER & CLINICS**  
8495 CRATER LAKE HIGHWAY  
WHITE CITY, OREGON

DRAWING TITLE:  
**PLUMBING  
1ST FLOOR PLAN - NORTH**

FULLY SPRINKLERED FACILITY

PROJECT TITLE <b>REPLACE SEISMICALLY DEFICIENT DOM B206 &amp; DEMO PORTION B250</b>		DRAWING NO.: <b>P3.3</b>
DRAWN BY: JDC	DATE: 24 JULY 2015	DRAWING NO.: <b>P3.3</b>
CHECK BY: OJZ	VA PROJECT NO.: 692-344	DWG. 5 OF 12

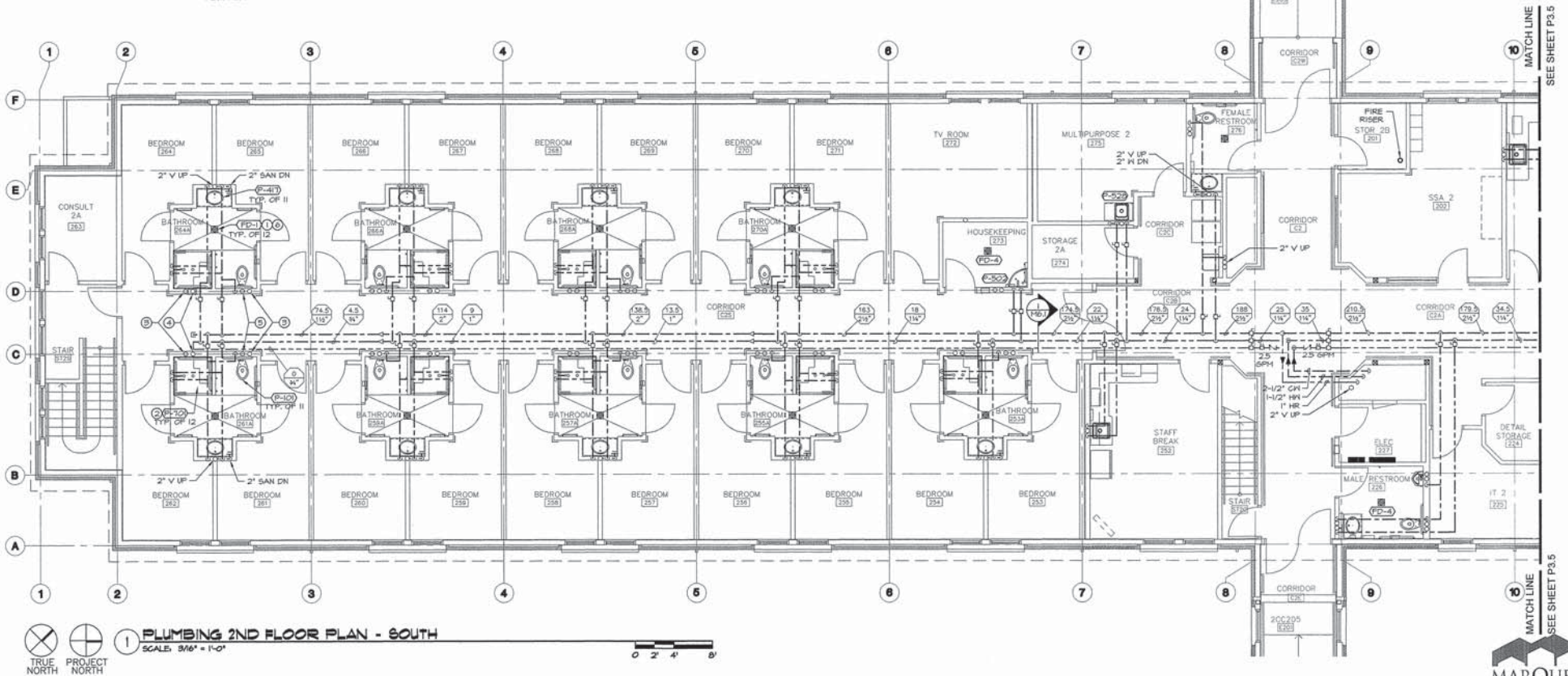


## GENERAL NOTES

- PLUMBING PLAN SHOWS GENERAL ROUTING AND ARRANGEMENT OF PIPING. SEE RISER DIAGRAMS ON SHEET P4.1 FOR PIPE SIZES, CHANGE IN SIZES LOCATION, INSTRUMENTATION AND SANITARY PIPING CLEANOUTS.
- TYPICAL PLUMBING AT SHEARWALLS: ALL PLUMBING PENETRATIONS SHALL BE DRILLED NO LARGER THAN ONE INCH GREATER IN DIAMETER THAN PIPE SIZE. DO NOT CUT WALL PLATES OR BLOCKING AT SHEARWALLS. SEE STRUCTURAL PLANS FOR LOCATIONS OF SHEARWALLS.
- WASTE AND VENT PIPING SHALL BE SCHED 40 PVC OR NO-HUB CAST IRON UNLESS OTHERWISE NOTED. WASTE RISERS SHALL BE NO-HUB CAST IRON.
- DOMESTIC WATER PIPING SHALL BE TYPE 1/2" COPPER OR PEX WHERE NOT SHOWN AS RIGID PIPE.
- SEE SPECIFICATION SECTION 230711 FOR PIPING INSULATION.
- ALL PIPING SHALL BE SLEEVED AND SEALED THROUGH ANY STRUCTURE OR CONCRETE.
- COORDINATE PLUMBING VENT LOCATIONS WITH MECHANICAL. LOCATE PLUMBING VENTS 10'-0" FROM ANY BUILDING OPENING OR HVAC AIR INTAKE, MINIMUM.
- CONDENSATE PIPING SHALL BE SCHED 40 PVC OR TYPE 1/2" COPPER.
- CONTRACTOR SHALL COORDINATE ROUTING AND SPACE REQUIREMENTS OF PIPING WITH STRUCTURAL MEMBERS AND ALL OTHER TRADES INCLUDING HVAC, FIRE PROTECTION, ELECTRICAL, AND COMMUNICATIONS/DATA. OFFSET PIPING AROUND DUCTWORK WHERE REQUIRED.
- MAINTAIN 2" CLEARANCE BETWEEN TOP OF CABLE TRAY AND CROSSING PIPING.
- FIRE CALC: ALL PIPE PENETRATIONS THROUGH FIRE-RATED WALLS, SEE ARCHITECTURAL, S/M/S, AND SPECIFICATIONS SECTION 070400. IN ADDITION, THE FOLLOWING PIPE & EXCT PENETRATIONS SHALL BE FIRESTOPPED:  
-FIRE AND SMOKE BARRIERS (SEE ARCH)  
-CORRIDOR WALLS (SEE ARCH)  
-FLOORS & CEILINGS  
-SHAFT WALLS & FLOORS

## KEYED NOTES

- TRAP PROBER TO BE INTEGRATED WITH FLUSH VALVE. SEE PLUMBING FIXTURE SCHEDULE.
- SEE ARCHITECTURAL FOR SHOWER INSTALLATION.
- 2" VENT UP.
- 2" SANITARY DOWN AND 2" VENT UP.
- 4" SANITARY DOWN AND 2" VENT UP.
- IF FLOOR DRAIN POSITION INTERFERES WITH A STRUCTURAL MEMBER, LOCATE FLOOR DRAIN TOWARD THE WATER CLOSET SIDE OF THE STRUCTURAL MEMBER.



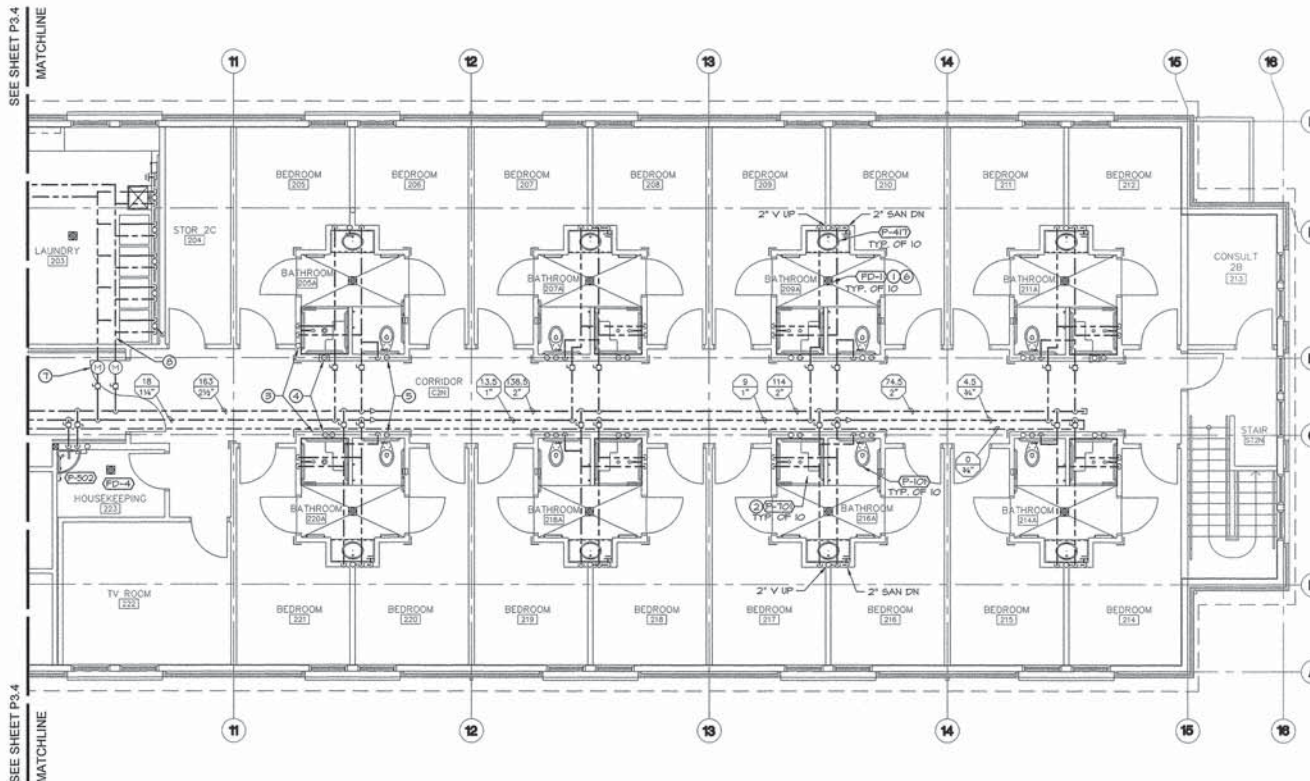
**PLUMBING 2ND FLOOR PLAN - SOUTH**

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



0' 2' 4' 8'





**PLUMBING 2ND FLOOR PLAN - NORTH**  
SCALE: 3/8" = 1'-0"

0' 2' 4' 8'

# **GENERAL NOTES**

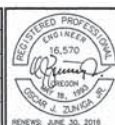
- PLUMBING PLAN SHOWS GENERAL ROUTING AND ARRANGEMENT OF PIPING. SEE RISER DIAGRAMS ON SHEET P4.1 FOR PIPE SIZING, CHANGE IN SIZING LOCATION, INSTRUMENTATION AND SANITARY PIPING CLEANOUTS.
- TYPICAL PLUMBING AT SHEARWALLS: ALL PLUMBING PENETRATIONS SHALL BE DRILLED NO LARGER THAN ONE INCH GREATER IN DIAMETER THAN PIPE SIZE. DO NOT CUT WALL PLATES OR BLOCKING AT SHEARWALLS. SEE STRUCTURAL PLANS FOR LOCATIONS OF SHEARWALLS.
- WASTE AND VENT PIPING SHALL BE SCHED 40 PVC OR NO-HUB CAST IRON, UNLESS OTHERWISE NOTED. WASTE RISERS SHALL BE NO-HUB CAST IRON.
- DOMESTIC WATER PIPING SHALL BE TYPE 'L' COPPER OR PEX WHERE NOT SHOWN AS RIGID PIPE.
- SEE SPECIFICATION SECTION 250711 FOR PIPING INSULATION.
- ALL PIPING SHALL BE SLEEVED AND SEALED THROUGH ANY STRUCTURE OR CONCRETE.
- COORDINATE PLUMBING VENT LOCATIONS WITH MECHANICAL. LOCATE PLUMBING VENTS 10'-0" FROM ANY BUILDING OPENINGS OR HVAC AIR INTAKE, MINIMUM.
- CONDENSATE PIPING SHALL BE SCHED 40 PVC OR TYPE 'L' COPPER.
- CONTRACTOR SHALL COORDINATE ROUTING AND SPACE REQUIREMENTS OF PIPING WITH STRUCTURAL MEMBERS AND ALL OTHER TRADES INCLUDING HVAC, FIRE PROTECTION, ELECTRICAL AND COMMUNICATIONS/DATA. OFFSET PIPING AROUND DUCTWORK WHERE REQUIRED.
- MAINTAIN 2" CLEARANCE BETWEEN TOP OF CABLE TRAY AND CROSSING PIPING.
- FIRE CAULK: ALL PIPE PENETRATIONS THROUGH FIRE-RATED WALLS. SEE ARCHITECTURAL, SMO-B, AND SPECIFICATIONS SECTION 076400. IN ADDITION, THE FOLLOWING PIPE & DUCT PENETRATIONS SHALL BE FIRESTOPPED:
  - FIRE AND SMOKE BARRIERS (SEE ARCH)
  - FIRE PARTITIONS (SEE ARCH)
  - CORRIDOR WALLS (SEE ARCH)
  - FLOORS & CEILING
  - SHAFT WALLS & FLOORS

## **KEYED NOTES**

- TRAP PRIMER TO BE INTEGRATED WITH FLUSH VALVE. SEE PLUMBING FIXTURE SCHEDULE.
- SEE ARCHITECTURAL FOR SHOWER INSTALLATION.
- 2" VENT UP.
- 2" SANITARY DOWN AND 2" VENT UP.
- 4" SANITARY DOWN AND 2" VENT UP.
- IF FLOOR DRAIN POSITION INTERFERES WITH A STRUCTURAL MEMBER, LOCATE FLOOR DRAIN TOWARD THE WATER CLOSET SIDE OF THE STRUCTURAL MEMBER.
- WATER METERS ON LAUNDRY DOMESTIC CH AND HW LINES. INTEGRATE WITH METADAYS. SEE SPECIFICATIONS SECTION 251010.
- PROVIDE WATER HAMMER ARRESTOR ON WATER SUPPLY TO CLOTHES WASHER. INSTALL IN ACCESSIBLE LOCATION FOR SERVICE.



REVISIONS	DATE



KISTLER SMALL WHITE, ARCHITECTS  
16 WEST STREET  
ASHLAND, OREGON 97520  
P: 541-488-8207  
F: 541-833-8612  
www.kistlersmallwhite.com



DEPARTMENT OF VETERANS AFFAIRS  
**SOUTHERN OREGON  
REHABILITATION CENTER & CLINICS**  
8495 CRATER LAKE HIGHWAY  
WHITE CITY, OREGON

DRAWING TITLE:  
**PLUMBING  
2ND FLOOR PLAN - NORTH**

FULLY SPRINKLERED FACILITY

PROJECT TITLE REPLACE SEISMICALLY DEFICIENT DOM B208 & DEMO PORTION B250		DRAWN BY: JDC	DATE: 24 JULY 2015	DRAWING NO.: <b>P3.5</b>
CHECK BY: OJZ	VA PROJECT NO.: 692-344	DWG. 7 OF 12		



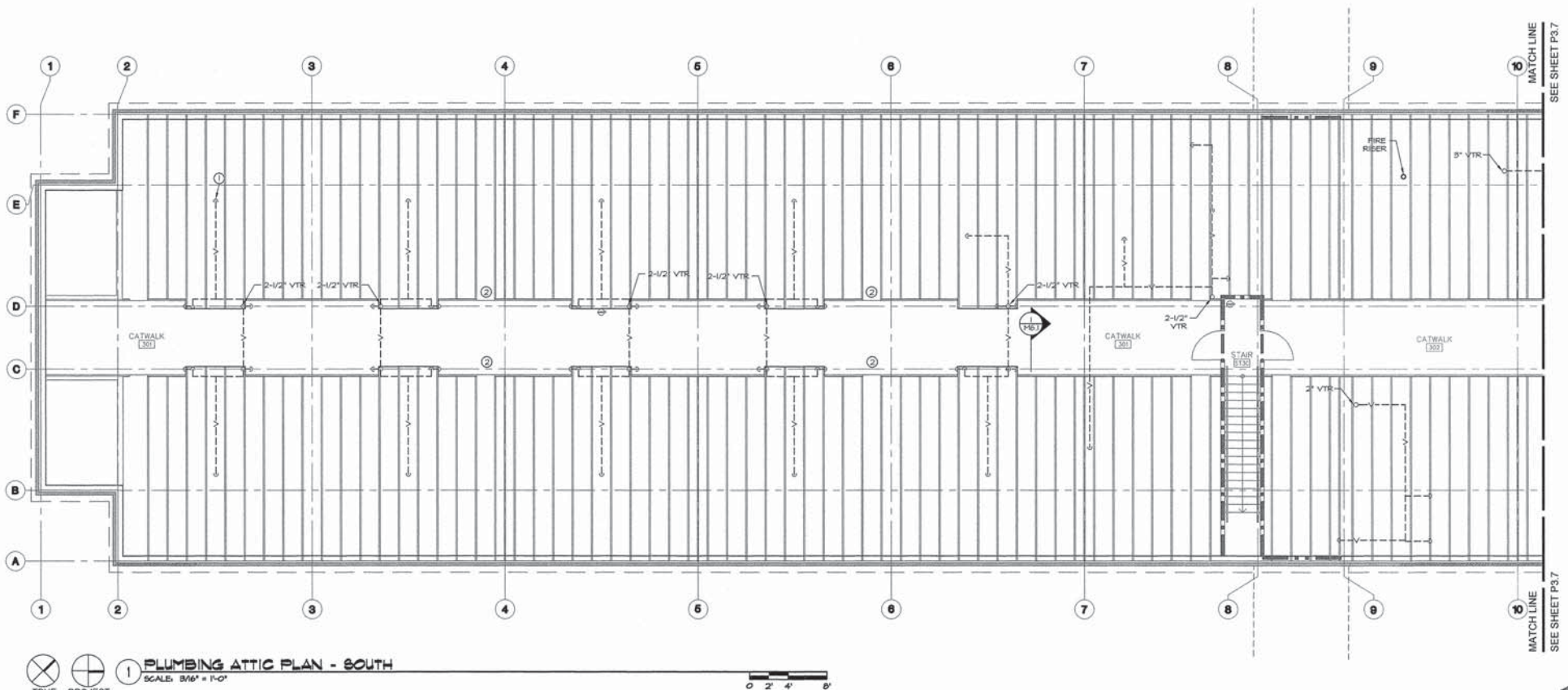
# GENERAL NOTES

- PLUMBING PLAN SHOWS GENERAL ROUTING AND ARRANGEMENT OF PIPING. SEE RISER DIAGRAMS ON SHEET P4.1 FOR PIPE SIZING, CHANGE IN SIZING LOCATION, INSTRUMENTATION AND SANITARY PIPING CLEANOUTS.
- TYPICAL PLUMBING AT SHEARWALLS: ALL PLUMBING PENETRATIONS SHALL BE DRILLED NO LARGER THAN ONE INCH GREATER IN DIAMETER THAN PIPE SIZE. DO NOT CUT WALL PLATES OR BLOCKING AT SHEARWALLS. SEE STRUCTURAL PLANS FOR LOCATIONS OF SHEARWALLS.
- ALL PIPING SHALL BE SLEEVED AND SEALED THROUGH ANY STRUCTURE OR CONCRETE.
- WASTE AND VENT PIPING SHALL BE SCHED 40 PVC OR NO-HUB CAST IRON UNLESS OTHERWISE NOTED. WASTE RISERS SHALL BE NO-HUB CAST IRON.
- DOMESTIC WATER PIPING SHALL BE TYPE 1" COPPER OR PEX WHERE NOT SHOWN AS RIGID PIPE.
- SEE SPECIFICATION SECTION 250711 FOR PIPING INSULATION.
- COORDINATE PLUMBING VENT LOCATIONS WITH MECHANICAL. LOCATE PLUMBING VENTS 10'-0" FROM ANY BUILDING OPENINGS OR HVAC AIR INTAKE, MINIMUM.
- CONTRACTOR SHALL COORDINATE ROUTINGS AND SPACE REQUIREMENTS OF PIPING WITH STRUCTURAL MEMBERS AND ALL OTHER TRADES INCLUDING HVAC, FIRE PROTECTION, ELECTRICAL, AND COMMUNICATIONS DATA.

- FIRE GULCH: ALL PIPE PENETRATIONS THROUGH FIRE-RATED WALLS, SEE ARCHITECTURAL, 2506.3, AND SPECIFICATIONS SECTION 070400. IN ADDITION, THE FOLLOWING PIPE & DUCT PENETRATIONS SHALL BE FIRESTOPPED:  
-FIRE AND SMOKE BARRIERS (SEE ARCH)  
-FIRE PARTITIONS (SEE ARCH)  
-CORRIDOR WALLS (SEE ARCH)  
-FLOORS & CEILING  
-SHAFT WALLS & FLOORS
- PVC OR ABS PIPING 3" OR LESS IN DIAMETER SHALL BE SUPPORTED EVERY 3' WHERE POLYETHYLENE INSULATION IS INSTALLED.
- PLUMBING VENTS THROUGH ROOF SHALL HAVE A 1/2" MIN. SPACE AROUND THE STACK WHERE POLYETHYLENE INSULATION IS INSTALLED.

# KEYED NOTES

- PIPE DOWN, SEE P3.4 FOR CONTINUATION, TYPICAL.
- ATTIC ACCESS LOCATION, KEEP CLEAR.



**1 PLUMBING ATTIC PLAN - SOUTH**  
SCALE: 3/16" = 1'-0"

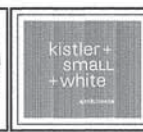
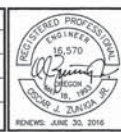
0' 2' 4' 6'

MATCH LINE  
SEE SHEET P3.7



MN Project Number  
P-54  
P-54  
1103 E  
Medford

REVISIONS	DATE



KISTLER SMALL WHITE, ARCHITECTS  
16 WATER STREET  
ASHLAND, OREGON 97520  
P: 541-488-8226  
F: 541-488-8512  
www.kistlersmallwhite.com



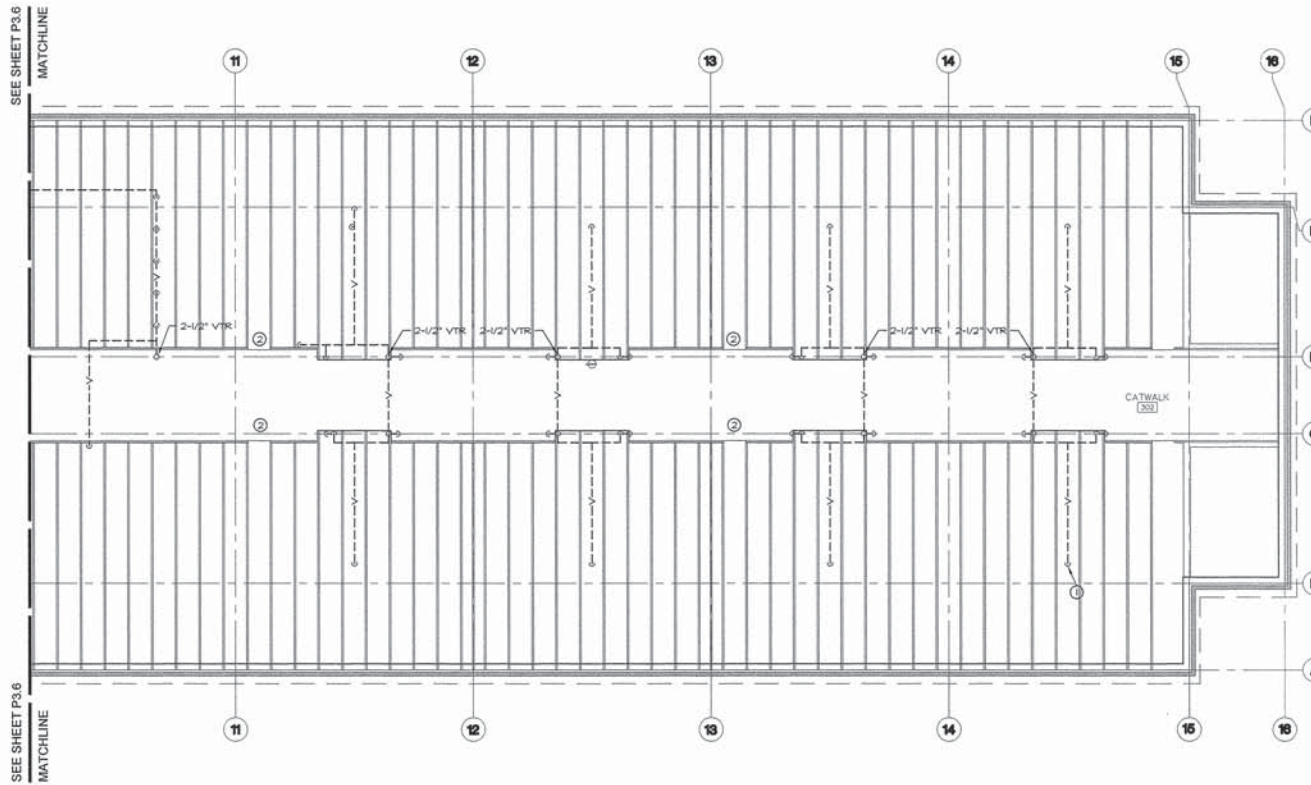
DEPARTMENT OF VETERANS AFFAIRS  
**SOUTHERN OREGON  
REHABILITATION CENTER & CLINICS**  
8495 CRATER LAKE HIGHWAY  
WHITE CITY, OREGON

DRAWING TITLE:  
**PLUMBING  
ATTIC PLAN - SOUTH**

FULLY SPRINKLERED FACILITY

PROJECT TITLE REPLACE SEISMICALLY DEFICIENT DOM B208 & DEMO PORTION B250		DRAWING NO.: <b>P3.6</b>	
DRAWN BY: JDC	DATE: 24 JULY 2015	DWG. 8 OF 12	
CHECK BY: OJZ	VA PROJECT NO.: 602-344		





# GENERAL NOTES

- PLUMBING PLAN SHOWS GENERAL ROUTING AND ARRANGEMENT OF PIPING. SEE RISER DIAGRAMS ON SHEET P4.1 FOR PIPE SIZING, CHANGE IN SIZES LOCATION, INSTRUMENTATION AND SANITARY PIPING CLEANOUTS.
- TYPICAL PLUMBING AT SHEARWALLS: ALL PLUMBING PENETRATIONS SHALL BE DRILLED NO LARGER THAN ONE INCH GREATER IN DIAMETER THAN PIPE SIZE. DO NOT CUT WALL PLATES OR BLOCKING AT SHEARWALLS. SEE STRUCTURAL PLANS FOR LOCATIONS OF SHEARWALLS.
- ALL PIPING SHALL BE SLEEVED AND SEALED THROUGH ANY STRUCTURE OR CONCRETE.
- WASTE AND VENT PIPING SHALL BE SCHED 40 PVC OR NO-HUB CAST IRON UNLESS OTHERWISE NOTED. WASTE RISERS SHALL BE NO-HUB CAST IRON.
- DOMESTIC WATER PIPING SHALL BE TYPE 'L' COPPER OR PEX WHERE NOT SHOWN AS RIGID PIPE.
- SEE SPECIFICATION SECTION 250711 FOR PIPING INSULATION.
- COORDINATE PLUMBING VENT LOCATIONS WITH MECHANICAL. LOCATE PLUMBING VENTS 10'-0" FROM ANY BUILDING OPENINGS OR HVAC AIR INTAKE, MINIMUM.
- CONTRACTOR SHALL COORDINATE ROUTING AND SPACE REQUIREMENTS OF PIPING WITH STRUCTURAL MEMBERS AND ALL OTHER TRADES INCLUDING HVAC, FIRE PROTECTION, ELECTRICAL, AND COMMUNICATIONS DATA.
- FIRE CAULK ALL PIPE PENETRATIONS THROUGH FIRE-RATED WALLS. SEE ARCHITECTURAL, SMD-3, AND SPECIFICATIONS SECTION 071540. IN ADDITION, THE FOLLOWING PIPE & DUCT PENETRATIONS SHALL BE FIRESTOPPED:  
-FIRE AND SMOKE BARRIERS (SEE ARCH)  
-CORRIDOR WALLS (SEE ARCH)  
-FLOORS & CEILINGS  
-SHAFT WALLS & FLOORS
- PVC OR ABS PIPING 3" OR LESS IN DIAMETER SHALL BE SUPPORTED EVERY 3' WHERE POLYETHYLENE INSULATION IS INSTALLED.
- PLUMBING VENTS THROUGH ROOF SHALL HAVE A 1/2" MIN. SPACE AROUND THE STACK WHERE POLYETHYLENE INSULATION IS INSTALLED.

# KEYED NOTES

- PIPE DOWN: SEE P3.5 FOR CONTINUATION, TYPICAL.
- ATTIC ACCESS LOCATION, KEEP CLEAR.



1 PLUMBING ATTIC PLAN - NORTH  
SCALE: 3/8" = 1'-0"



REVISIONS	DATE



KISTLER SMALL WHITE, ARCHITECTS  
88 WATER STREET  
ASHLAND, OREGON 97525  
P: 541-488-4800  
F: 541-482-8512  
www.kistlersmallwhite.com

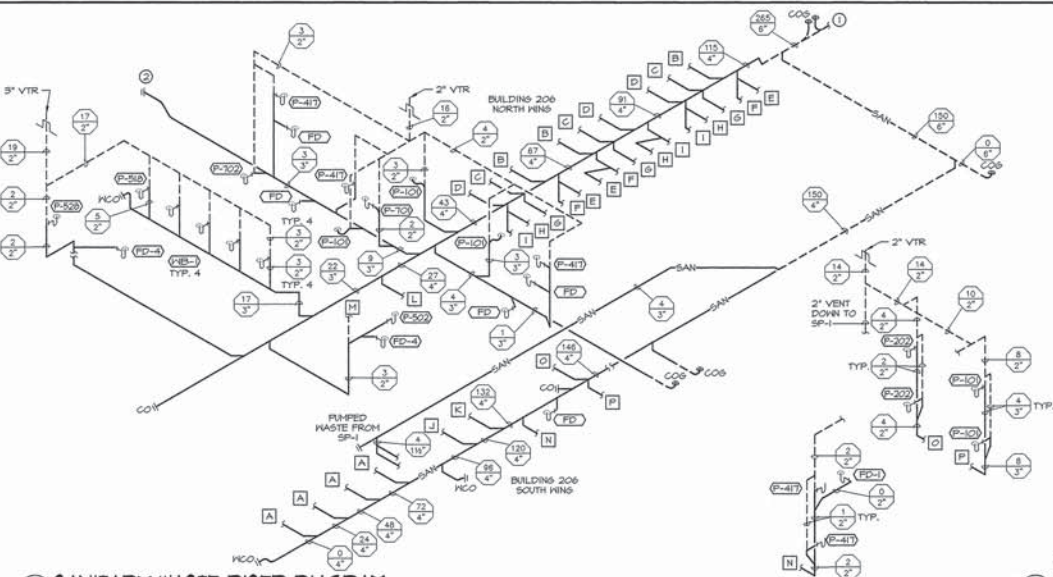


DEPARTMENT OF VETERANS AFFAIRS  
**SOUTHERN OREGON  
REHABILITATION CENTER & CLINICS**  
8495 CRATER LAKE HIGHWAY  
WHITE CITY, OREGON

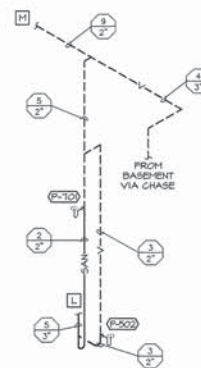
DRAWING TITLE:  
**PLUMBING  
ATTIC PLAN - NORTH**

FULLY SPRINKLERED FACILITY

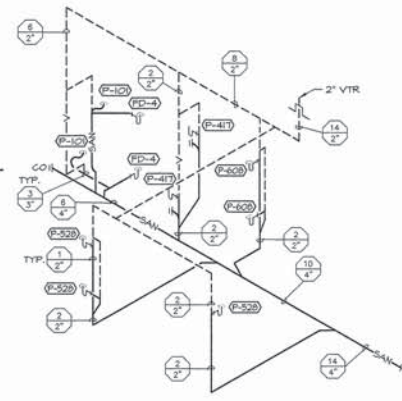
PROJECT TITLE: REPLACE SEISMICALLY DEFICIENT DOM B206 & DEMO PORTION B250	DRAWN BY: JDC DATE: 24 JULY 2015	DRAWING NO.: <b>P3.7</b>
CHECK BY: OJZ	VA PROJECT NO.: 602-344	DWG. 9 OF 12



1 SANITARY WASTE RISER DIAGRAM  
SCALE: NONE

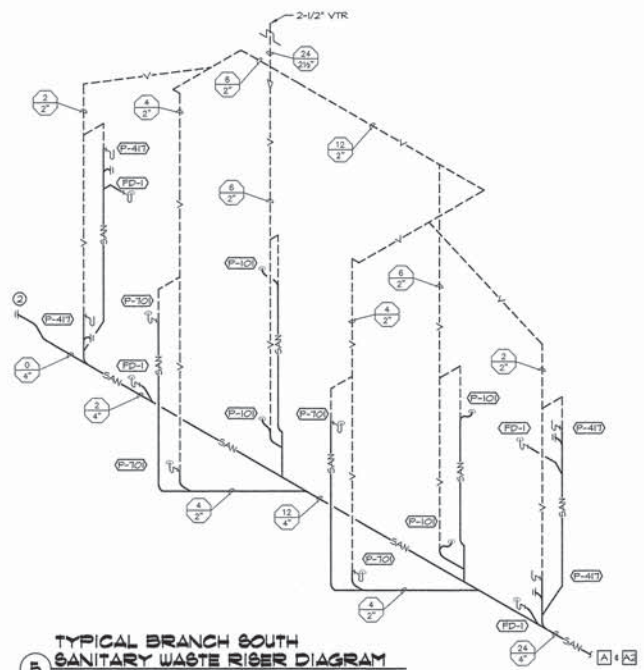


3 TYPICAL ROOM DOMESTIC WATER RISER DIAGRAM  
SCALE: NONE

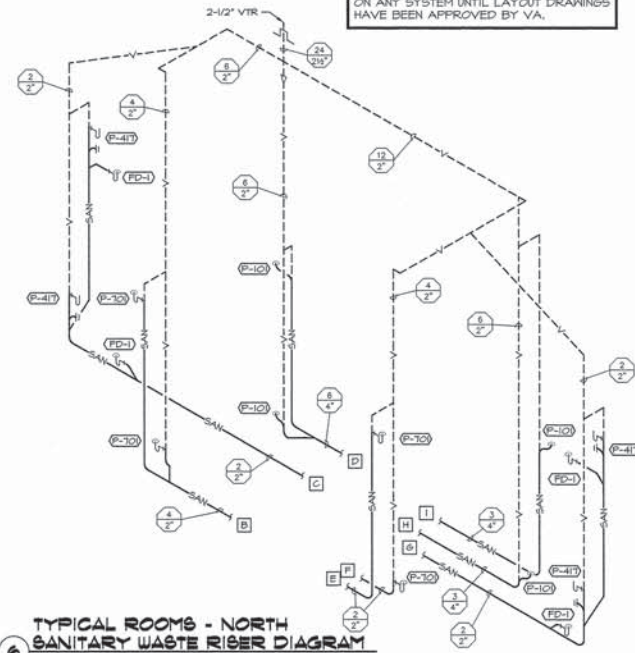


4 TYPICAL BRANCH SOUTH SANITARY WASTE RISER DIAGRAM  
SCALE: NONE

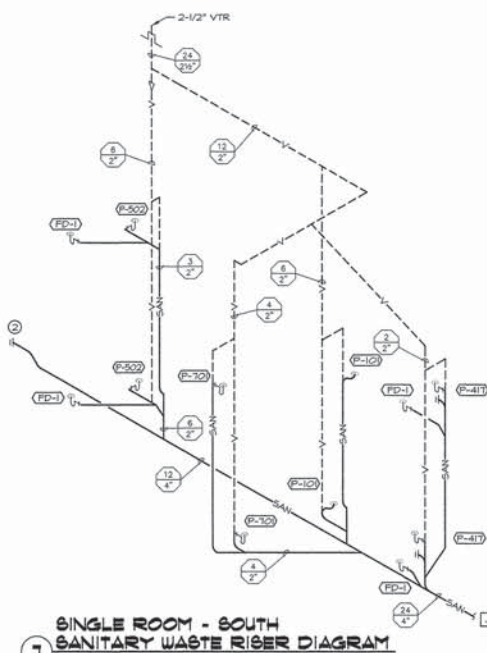
2 MOP BASIN - NORTH SANITARY WASTE RISER DIAGRAM  
SCALE: NONE



5 TYPICAL BRANCH SOUTH SANITARY WASTE RISER DIAGRAM  
SCALE: NONE



6 TYPICAL ROOMS - NORTH SANITARY WASTE RISER DIAGRAM  
SCALE: NONE



7 SINGLE ROOM - SOUTH SANITARY WASTE RISER DIAGRAM  
SCALE: NONE

CONSTRUCTION WORK SHALL NOT START ON ANY SYSTEM UNTIL LAYOUT DRAWINGS HAVE BEEN APPROVED BY VA.

### GENERAL NOTES

- RISER DIAGRAMS ARE SCHEMATIC. SCALE OF PIPING IS EXAGGERATED TO SHOW FITTURE UNITS, SIZES, AND INSTRUMENTATION. ADDITIONAL PIPE FITTINGS MAY BE REQUIRED. SEE FLOOR PLANS FOR FITTURE LOCATIONS AND PIPE ROUTINGS.
- SEE ARCHITECTURAL FOR FITTURE MOUNTING HEIGHTS.
- SEE PLUMBING FIXTURE SCHEDULE FOR PIPE SIZING OF BRANCH CLOSEST TO FITTURE. TRAP ARMS MAY BE SIZED THE SAME AS FITTURE OUTLET.
- TRAP PRIMER PIPING NOT SHOWN FOR CLARITY. SEE FLOOR PLANS FOR WATER AND DRAIN LOCATIONS, AND PLUMBING FIXTURE SCHEDULE FOR PRIMER REQUIREMENTS.
- INSTALL WATER HAMMER ARRESTORS IN CONFORMANCE WITH MANUFACTURER'S INSTRUCTIONS AND GUIDELINES.
- PROVIDE ACCESS DOOR TO ALL CONCEALED VALVES AND WATER HAMMER ARRESTORS.

### KEYED NOTES

- SEE CIVIL PLAN FOR CONTINUATION.
- INSTALL HALL CLEANOUT ON BUILDING EXTERIOR.

REVISIONS	DATE



KISTLER SMALL WHITE, ARCHITECTS  
56 WATER STREET  
ASHLAND, OREGON 97520  
P: 541-484-0003  
F: 541-482-8612  
www.kistlersmallwhite.com



DEPARTMENT OF VETERANS AFFAIRS  
SOUTHERN OREGON  
REHABILITATION CENTER & CLINICS  
8495 CRATER LAKE HIGHWAY  
WHITE CITY, OREGON

DRAWING TITLE:  
PLUMBING RISERS

FULLY SPRINKLERED FACILITY

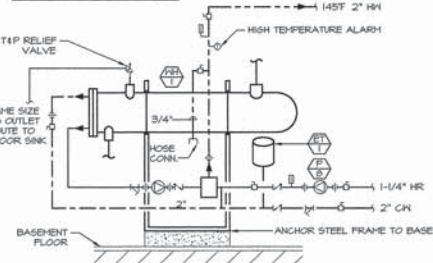
PROJECT TITLE REPLACE SEISMICALLY DEFICIENT DOM B206 & DEMO PORTION B250		DRAWING NO.: <b>P4.1</b> DWG.10 OF 12
DRAWN BY: JOG	DATE: 24 JULY 2015	
CHECK BY: OJZ	VA PROJECT NO.: 692-344	



MM Project Number: 14  
P: 541-772  
F: 541-779  
1100 East J  
PO Box  
Medford, OR

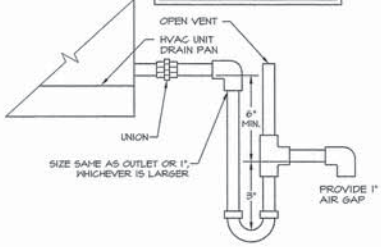


NOTE: SEE 5146.1 FOR STEAM & CONDENSATE PIPING.  
VERIFY PAD HEIGHT WITH WATER HEATER MFR AND CONDENSATE PUMP INLET ELEV.

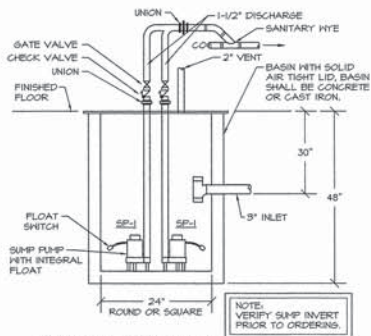


**1 WATER HEATER PIPING INSTALLATION**  
SCALE: NONE

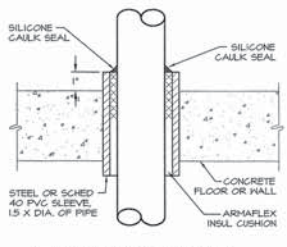
NOTE: LOCATE LOWER PART OF P-TRAP WITHIN FLOOR SINK IF NECESSARY. CONDENSATE DRAIN MATERIALS SHALL BE TYPE L COPPER.



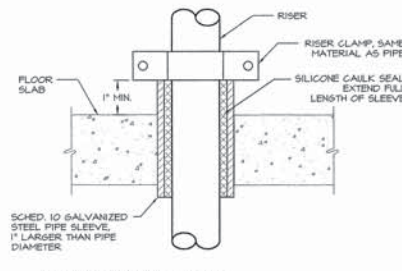
**2 CONDENSATE TRAP & DRAIN**  
SCALE: NONE



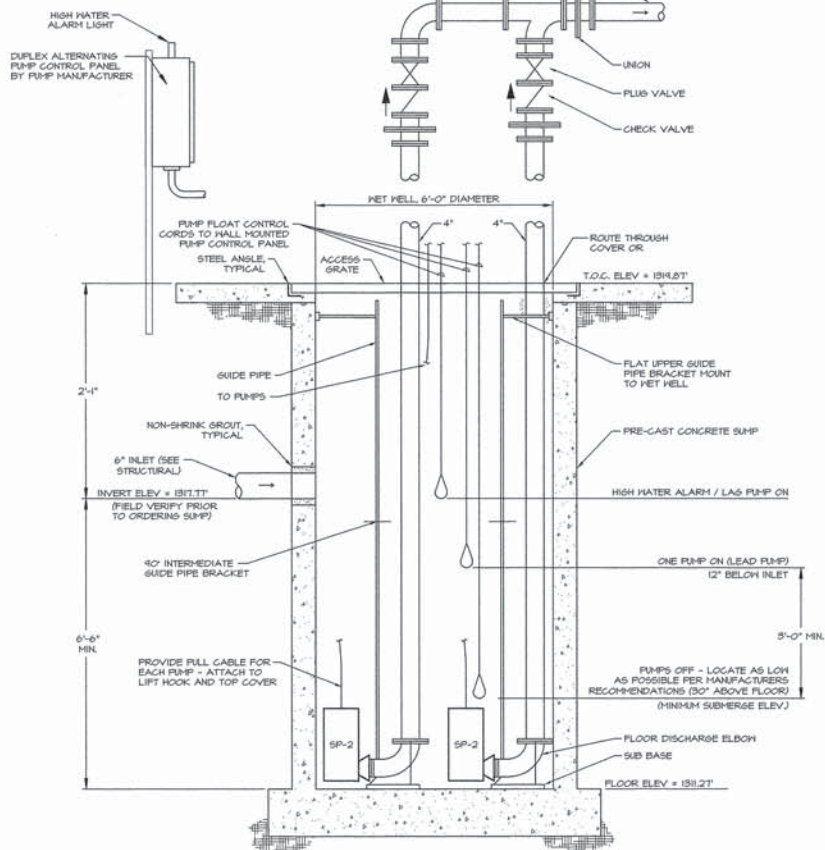
**3 SANITARY SEWER SUMP PUMP INSTALLATION**  
SCALE: NONE



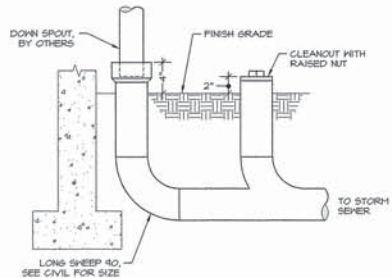
**4 PIPE PENETRATION THROUGH CONCRETE**  
SCALE: NONE



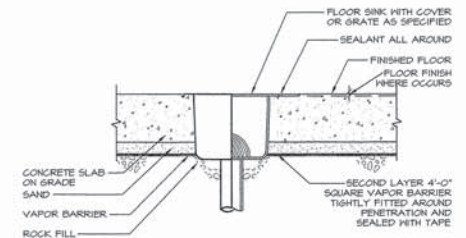
**5 PIPE PENETRATION THROUGH FLOOR SLAB**  
SCALE: NONE



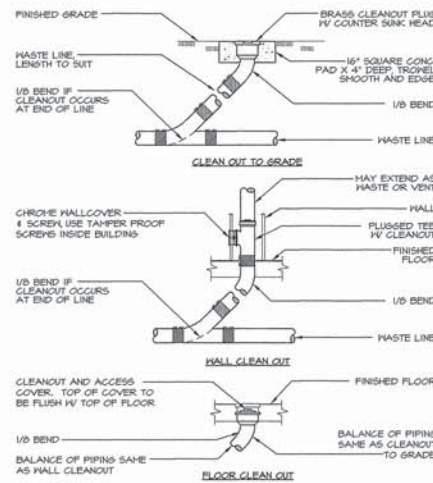
**6 DUPLEX STORM WATER SUMP PUMP**  
SCALE: NONE



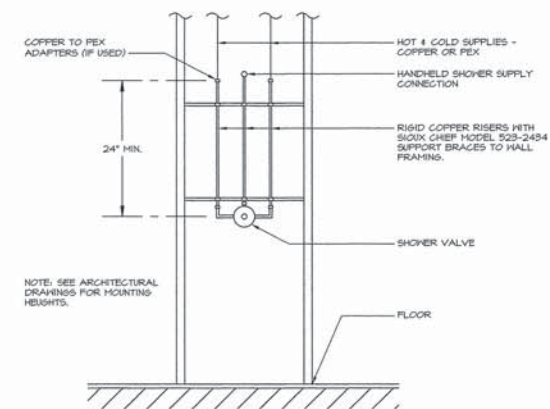
**7 STORM DRAIN CONNECTION**  
SCALE: NONE



**8 FLOOR SINK**  
SCALE: NONE



**9 CLEANOUT DETAILS**  
SCALE: NONE



**10 SHOWER VALVE SUPPORT**  
SCALE: NONE

REVISIONS	DATE



KISTLER SMALL WHITE, ARCHITECTS  
61 WATER STREET  
ASLAND, OREGON 97133  
P: 541-488-8833  
F: 541-552-8812  
www.kistlersmallwhite.com



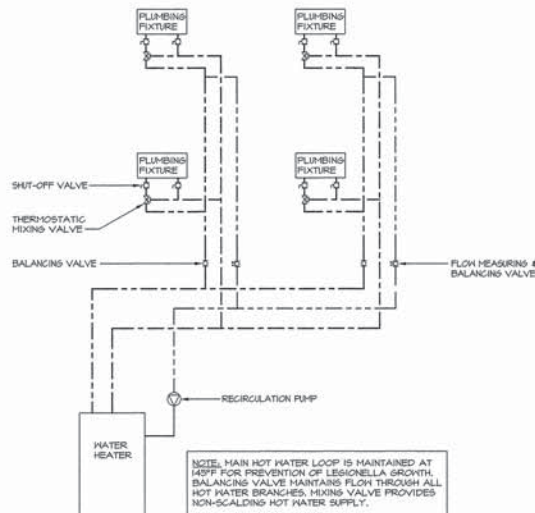
DEPARTMENT OF VETERANS AFFAIRS  
**SOUTHERN OREGON  
REHABILITATION CENTER & CLINICS**  
8495 CRATER LAKE HIGHWAY  
WHITE CITY, OREGON

DRAWING TITLE:  
**PLUMBING DETAILS**

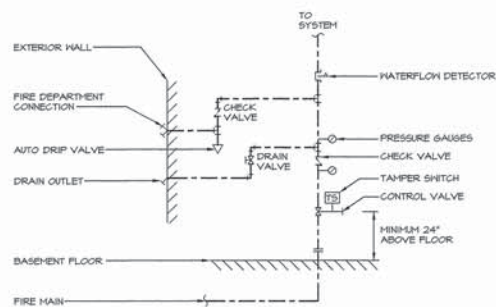
PROJECT TITLE:  
**REPLACE SEISMICALLY DEFICIENT DOM B206  
& DEMO PORTION B250**  
DRAWN BY: JDC  
DATE: 24 JULY 2015  
CHECK BY: OJZ  
VA PROJECT NO.: 692-344

DRAWING NO.: **P4.2**  
DWG. 11 OF 12  
FULLY SPRINKLERED FACILITY

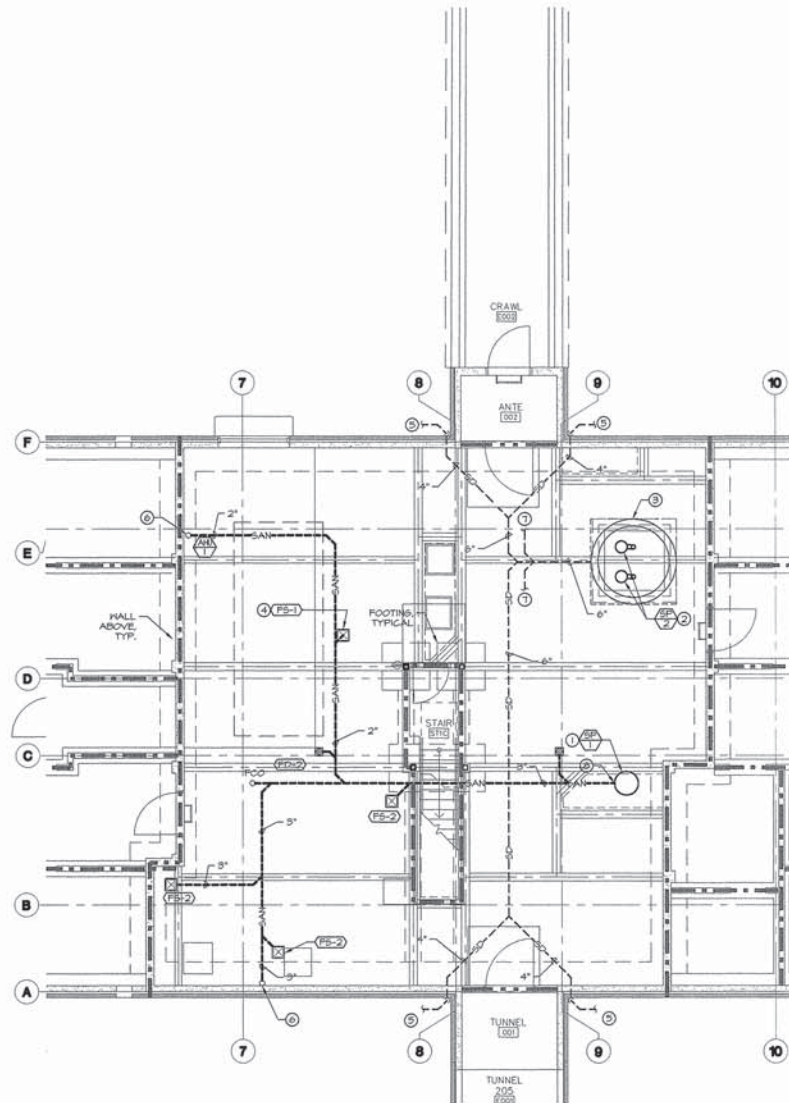




**2 BALANCED RECIRCULATION SYSTEM**  
SCALE: NONE



**3 WET-PIPE SPRINKLER RISER DIAGRAM**  
SCALE: NONE



**1 PLUMBING UNDER SLAB PLAN**  
SCALE: 3/16" = 1'-0"  
TRUE NORTH PROJECT NORTH

# **GENERAL NOTES**

- ALL PIPING SHALL BE SLEEVED AND SEALED THROUGH ANY STRUCTURE OR CONCRETE.
- SLOPE ALL SANITARY PIPING 1/4" PER FOOT, MINIMUM, UNLESS NOTED OTHERWISE.
- THE FOLLOWING SANITARY PIPINGS SHALL BE CAST IRON:
  - PIPES BELOW GRADE.
  - WASTE RISERS.
  - EXPOSED WASTE PIPING IN BASEMENT.
  - PIPES WITH WASTE WATER THAT COULD EXCEED 100°.
  - PIPES DESIGNATED WITH HEAVY BOLD LINES.
- PROVIDE AND INSTALL CLEANOUTS ON BELOW GRADE STORM PIPING AT ITS UPPER TERMINAL AND FOR EACH AGGREGATE HORIZONTAL CHANGE OF DIRECTION EXCEEDING 135°.
- SLOPE HORIZONTAL STORM DRAIN PIPING AT 1/8" PER FOOT, MIN.

## **KEYED NOTES**

- SEE 3/P4.2 FOR PUMP INSTALLATION.
- SEE 6/P4.2 FOR PUMP INSTALLATION.
- PROVIDE SQUARE PRE-CAST SUMP FOR STORMWATER PUMPS, OLDCASTLE OR EQUAL, WITH FITTED COVER FOR DUPLEX SUMP PUMPS. SUMP SHALL BE 5' SQUARE INSIDE DIMENSION, 4' DEEP. PLACE VAULT IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATION. REFER TO STRUCTURAL FOR SUMP BASE, BACKFILL, AND TIE-IN TO BASEMENT FLOOR SLAB. EQUIVALENT PRECAST ROUND SECTIONS ARE ACCEPTABLE.
- SEE 1/P4.2 FOR TYPICAL FLOOR SINK INSTALLATION.
- CONNECT 4" SD FROM PERIMETER DRAIN. SEE STRUCTURAL AND CIVIL. PERIMETER DRAIN LOCATED AT FOOTING LEVEL. STORM DRAIN PIPING (GRAVITY DRAIN) MAY BE SCHEDULE 40 PVC.
- SEE 1/P5.0 FOR CONTINUATION.
- CONNECT FROM UNDERSLAB DRAIN PIPING, SEE STRUCTURAL.
- ROUTE 3" SANITARY TO INLET OF SP-1.



REVISIONS	DATE



KISTLER SMALL WHITE, ARCHITECTS  
55 WATER STREET  
ASHLAND, OREGON 97133  
P: 541-488-8200  
F: 541-488-8912  
www.kistlersmallwhite.com



DEPARTMENT OF VETERANS AFFAIRS  
**SOUTHERN OREGON  
REHABILITATION CENTER & CLINICS**  
8495 CRATER LAKE HIGHWAY  
WHITE CITY, OREGON

DRAWING TITLE:  
**PLUMBING UNDER SLAB PLAN**

FULLY SPRINKLERED FACILITY

PROJECT TITLE REPLACE SEISMICALLY DEFICIENT DM B206 & DEMO PORTION B250		DRAWING NO.: <b>P4.3</b>
DRAWN BY: JDC	DATE: 24 JULY 2016	DWG. 12 OF 12
CHECK BY: OJZ	VA PROJECT NO.: 692-344	