

AD	ACCESS DOOR
AF	ABOVE FINISH FLOOR
CO	CLEAN OUT
DIA OR Ø	DIAMETER
DN	DOWN
FPS	FEET PER SECOND
FS	FLOW SWITCH
FT	FEET
GA	GAUGE
GPM	GALLONS PER MINUTE
HD	HEAD
HT	HEIGHT
ID	INSIDE DIAMETER
IN	INCHES
L	LENGTH
LB	POUNDS
MAX	MAXIMUM
MIN	MINIMUM
MTS	MINUTES
NO	NUMBER
NTS	NOT TO SCALE
PSIA	POUNDS PER SQUARE INCH ATMOSPHERE
PSIG	POUNDS PER SQUARE INCH GAUGE
RPM	REVOLUTIONS PER MINUTE
SENS	SENSOR
TEMP	TEMPERATURE
TS	TYPE
V	VENT STACK
VLV	VALVE
W-C	WALL TO COLUMN ENCLOSURE
WI	WIDTH
WT	WEIGHT

- ① SECONDARY STORM SCUPPER. REFER TO ARCHITECTURAL DRAWINGS FOR DETAILS AND EXACT LOCATION.
- ② PRIMARY STORM SCUPPER WITH LEADER TO 18" ABOVE FINISHED GRADE. PROVIDE SPLASH BLOCK AT GRADE. REFER TO ARCHITECTURAL DRAWINGS FOR DETAILS AND EXACT LOCATION.
- ③ REMOVE FLASHING AROUND VENT PENETRATION, REPLACE WITH NEW FLASHING COORDINATED WITH ROOFING AND FLASHING ARCHITECTURAL DETAILS. VENTS PIPES TO BE EXTENDED TO A MINIMUM OF 18" ABOVE FINISHED ROOF.
- ④ REMOVE EXISTING ROOF DRAIN ASSEMBLY AND PROVIDE REPLACEMENT ROOF DRAIN ASSEMBLY WITH INTEGRAL SECONDARY STORM PIPING (R/D) AND INSULATE. ROUTE NEW SECONDARY STORM PIPING PERMANENTLY DOWN THE SIDE AND CONNECT ON THE VERTICAL (A MINIMUM OF 20" OF PIPING IS ASSUMED PER DETAIL). REFER TO DETAIL 3P101 FOR SECONDARY FLOW SENSOR WIRING.
- ⑤ REMOVE EXISTING ROOF DRAIN ASSEMBLY AND PROVIDE REPLACEMENT PRIMARY ROOF DRAIN ASSEMBLY (R-D2). MODIFY PIPING AS NECESSARY FOR R-D2.
- ⑥ PROVIDE NEW PRIMARY ROOF DRAIN ASSEMBLY (R-D1) AND INSULATE. ROUTE PIPING TO NEAREST EXISTING STORM LEADER (A MINIMUM OF 20" OF PIPING IS TO BE ASSUMED PER DETAIL).
- ⑦ PROVIDE NEW SECONDARY ROOF DRAIN ASSEMBLY (R-D3) AND INSULATE. ROUTE PIPING TO NEAREST R/D DOWN SPOUT. REFER TO PLANS FOR ROUTING.
- ⑧ PROVIDE NEW ROOF DRAIN ASSEMBLY WITH INTEGRAL SECONDARY STORM PIPING (R/D) AND INSULATE. ROUTE NEW SECONDARY STORM PIPING PERMANENTLY DOWN THE SIDE AND CONNECT ON THE VERTICAL (A MINIMUM OF 20" OF PIPING IS TO BE ASSUMED PER DETAIL). ROUTE NEW PRIMARY STORM PIPING TO NEAREST LEAD (A MINIMUM OF 20" OF PIPING IS TO BE ASSUMED PER DETAIL). REFER TO DETAIL 3P101 FOR SECONDARY FLOW SENSOR WIRING.








1.	THE CONTRACTOR SHALL BECOME THOROUGHLY FAMILIAR WITH THE PROJECT DOCUMENTS OF ALL TRADES. THE DRAWINGS ARE DIAGRAMMATIC AND SHOW THE GENERAL ARRANGEMENT OF EQUIPMENT AND PIPING. THE CONTRACTOR SHALL COORDINATE THE EXACT LOCATION OF EQUIPMENT AND PIPING INSTALLATION WITH ALL TRADES BEFORE COMMENCING WORK.	12.	ALL WORK TO BE PERFORMED IN A CLEAN AND WORKMANLIKE MANNER. CARE SHALL BE EXERCISED TO MINIMIZE ANY INCONVENIENCE OR DISTURBANCE TO OTHER AREAS OF THE BUILDING WHICH ARE TO REMAIN IN OPERATION. ISOLATE CONSTRUCTION AREAS BY MEANS OF TEMPORARY PARTITIONS AND/OR TARPS TO KEEP DUST AND TRAFFIC WITHIN WORK AREA.
2.	THIS CONTRACT SHALL INCLUDE ALL THE NECESSARY PIPING, FITTINGS, TRANSITIONS, ETC., AS NECESSARY TO INSTALL THE PLUMBING SYSTEM, AND TO AVOID ANY CONFLICTS WITH OTHER TRADES AND THE BUILDING STRUCTURE.	13.	EXISTING SYSTEM MAINS MAY SERVE AREAS NOT UNDER SCOPE OF THIS CONTRACT. COORDINATE NEW CONNECTIONS TO MINIMIZE DOWN TIME AND SUBMIT SCHEDULE OF WORK TO OWNER FOR APPROVAL.
3.	IT IS NOT THE INTENT OF THE DRAWINGS TO SHOW ALL PIPING TO ROOF DRAINS AND VENTS. THE ENTIRE PLUMBING SYSTEM SHALL BE FULLY OPERATIONAL AND READY FOR BENEFICIAL USE BEFORE THE JOB IS CONSIDERED COMPLETE.	14.	NO PIPING, EQUIPMENT, ETC. SHALL BE REMOVED, DISCONNECTED OR SHUT DOWN WITHOUT PRIOR REVIEW WITH THE OWNER AND/OR ENGINEER TO CONFIRM THAT AREAS TO REMAIN IN OPERATION WILL NOT BE AFFECTED. IF ANY AREAS NOT WITHIN THE SCOPE OF WORK ARE AFFECTED BY ANY SHUTDOWN, REMOVAL, OR DISCONNECTION SUFFICIENT ADVANCE NOTICE MUST BE GIVEN TO THE OWNER INDICATING WHICH AREAS WILL BE AFFECTED, WHEN THE PROPOSED SHUTDOWN WILL OCCUR AND FOR HOW LONG A PERIOD OF TIME.
4.	REFER TO LATEST ARCHITECTURAL PLANS FOR ELEVATIONS, SECTIONS, DETAILS, MOUNTING HEIGHTS, AND LOCATION OF PLUMBING FIXTURES. ALL HAND-DRAWN DESIGNATED FIXTURES SHALL BE INSTALLED IN ACCORDANCE WITH ANSI AND ADA STANDARDS.	15.	ALL ITEMS REMOVED SHALL BECOME PROPERTY OF THE OWNER AND SHALL BE DISPOSED OF AS PER OWNER'S INSTRUCTION, UNLESS INDICATED OTHERWISE. ALL ITEMS WHICH ARE NOT TO BE STORED ON SITE SHALL BE REMOVED FROM THE BUILDING IMMEDIATELY.
5.	DO NOT SCALE DRAWINGS. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD AND SHALL NOTIFY THE ENGINEER IMMEDIATELY OF ANY VARIATION AND ALL DISCREPANCIES.	16.	EXISTING MATERIALS THAT ARE NOT REMOVED SHALL BE REUSED IN NEW SYSTEMS, EXCEPT WHERE INDICATED AS BEING RELOCATED.
6.	IT IS NOT INTENDED THAT THE DRAWINGS SHOW EVERY PIPE, FITTING, RISE/DROP OR DETAIL. SYSTEM AND COMPONENTS SHALL BE INSTALLED ACCORDING TO THE INTENT AND MEANING OF CONTRACT DOCUMENTS AND IN ACCORDANCE WITH GOOD PRACTICE.	17.	CONTRACTOR IS RESPONSIBLE TO PROPERLY SECURE AREAS OF CONSTRUCTION AT THE END OF EACH WORKING DAY.
7.	CONTRACTOR IS RESPONSIBLE TO PROVIDE COMPLETE AND OPERATIONAL SYSTEMS WITH FACILITIES AND SERVICES TO MEET REQUIREMENTS INDICATED AND IN ACCORDANCE WITH APPLICABLE CODES AND ORDINANCES.	18.	EQUIPMENT AND PIPING TO BE INSTALLED IN ACCORDANCE WITH SEISMIC REQUIREMENTS OF THE INTERNATIONAL BUILDING CODE.
8.	EQUIPMENT AND COMPONENTS HAVING EQUAL PERFORMANCE CHARACTERISTICS BY OTHER MANUFACTURERS MAY BE CONSIDERED. PROVIDED DEVIATIONS IN DIMENSIONS, OPERATION AND OTHER CHARACTERISTICS DO NOT CHANGE DESIGN CONCEPT OR INTENDED PERFORMANCE AS JUDGED BY THE ENGINEER. BURDEN OF PROOF OF EQUALITY OF PRODUCTS IS ON THE CONTRACTOR.	19.	CONTRACTOR IS RESPONSIBLE TO COORDINATE WITH ALL OTHER TRADES.
9.	CONTRACTOR IS RESPONSIBLE FOR THE SAFEGUARDING OF HIS OWN PROPERTY ON THE JOB SITE. OWNER HAS NO RESPONSIBILITY FOR THE PROTECTION OF PROPERTIES AGAINST FIRE, THEFT AND ENVIRONMENTAL CONDITIONS.	20.	ALL EQUIPMENT SUPPORTS AND PIPE HANGERS TO BE CONNECTED FROM THE BUILDING STRUCTURE.
10.	CONTRACTOR IS RESPONSIBLE TO PROPERLY PROTECT OWNER'S PROPERTY AND EQUIPMENT FROM INJURY, AND DAMAGE TO SAME SHALL BE REPLACED BY CONTRACTOR.	21.	ALL NEW PENETRATIONS THRU RATED WALLS, FLOORS AND CEILINGS SHALL BE FIRESTOPPED AND SEALED TO MAINTAIN RATING. REFER TO SPECIFICATION SECTION 07801.
11.	CONTRACTOR IS TO CLEAN JOB SITE DAILY AND REMOVE FROM THE PREMISES ANY DIRT AND DEBRIS CAUSED BY THE PERFORMANCE OF THE WORK INCLUDED IN THIS CONTRACT.	22.	WHERE AN INACCESSIBLE CEILING IS INSTALLED (GY BOARD OR EQUIVALENT) THE CONTRACTOR SHALL COORDINATE THE LOCATIONS OF ACCESS PANELS FOR ALL VALVES, CLEANOUTS, ETC., REQUIRING ACCESS, WITH THE ARCHITECT, PRIOR TO INSTALLATION OF SUCH DEVICES AND OTHER APPURTENANCES.
		23.	NO PIPING SHALL BE INSTALLED WITHIN STAIRS, STAIR WELLS, ELEVATOR MACHINE ROOMS, TRANSFORMER WALLS, ELECTRICAL ROOMS OR OVER ELECTRICAL PANELS/EQUIPMENT, UNLESS INDICATED PLUMBING WITHIN REACH OF THE SPACE ABOVE THE PANELS. CONTRACTOR MUST COORDINATE THE LOCATION OF ALL PIPING WITH ALL OTHER TRADES, AND ADJUST AS NECESSARY.
		24.	NO PIPING IS TO BE RUN CONCEALED IN CEILINGS OR WALLS. PIPING IS TO BE EXPOSED ONLY WHERE NOTED ON DRAWINGS. IF CONTRACTOR CANNOT RUN PIPING CONCEALED, NOTIFY ENGINEER IMMEDIATELY TO RESOLVE CONFLICT.
		25.	COORDINATE ALL PLUMBING EQUIPMENT REQUIRING POWER, FOR EXACT LOCATION AND POWER REQUIREMENTS WITH THE ELECTRICAL CONTRACTOR.
		26.	CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ELBOWS, TEES, DROPS, AND MISCELLANEOUS PIPING DUE TO ELEVATION CHANGES, OBSTRUCTIONS, COORDINATION WITH OTHER TRADES, ETC. TO INSTALL A COMPLETE, FUNCTIONING, PLUMBING SYSTEM.

1. FOR ALL VENTS, REPLACE DAMAGED PIPING BACK TO FIRST FITTING BELOW ROOF.
2. FOR SECONDARY STORM PIPING DETAIL REFER TO DETAIL 2/P-101.
3. FOR ROOF DRAIN SENSOR DETAIL REFER TO DETAIL 3/P-101
4. REFER TO ARCHITECTURAL DRAWINGS FOR ROOF AND FLASHING DETAILS
5. CONTRACTOR TO PROVIDE UNIT PRICE FOR LINEAR FOOT OF STORM PIPING AS WELL AS UNIT DEDUCT FOR LINEAR FOOT OF STORM PIPING.

- 1 BI-LEVEL ROOF DRAIN (TYP.): PROVIDE POWER TO FLOW SENSOR TRANSFORMER FROM NEAREST 120V CONVENIENCE CIRCUIT.
- 2 REROUTE EXISTING CONDUIT ON WALL TO RUN ABOVE THE EXISTING DUNNAGE TO ALLOW FOR ROOF REPLACEMENT.

FLOW SENSOR SCHEDULE							
MARK	MANUFACTURER	MODEL	ELECTRICAL			MATERIAL	REMARKS
			VOLTS	PHASE	Hz		
FS	FROET	7000	12	1Ø	60	PVC	120 TO 12 VOLT TRANSFORMER INCLUDED IN PACKAGE. ALSO INCLUDE BACK-UP BATTERY

ROOF DRAIN SCHEDULE					
MARK	MANUFACTURER	MODEL	TYPE	SIZE	REMARKS
RD-1	FROET	100C4	BI-FUNCTIONAL	4"	INCLUDE OVERFLOW STRAINER
RD-2	FROET	200C4	PRIMARY	4"	INCLUDE STRAINER
RD-3	FROET	200C4-W2	SECONDARY	4"	INCLUDE OVERFLOW STRAINER

PLUMBING LEGEND	
SYMBOL	DESCRIPTION
 ST	STORM
 SST	SECONDARY STORM
	PIPING IN CEILING BELOW ROOF
	PIPING DIRECTION OF FLOW
	PIPING RISER DOWN
	ROOF DRAIN
	POINT OF CONNECTION



1 ROOF PLAN
SCALE: 1"=20'-0"