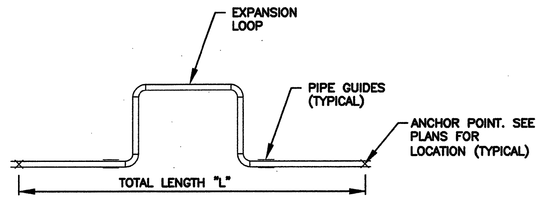
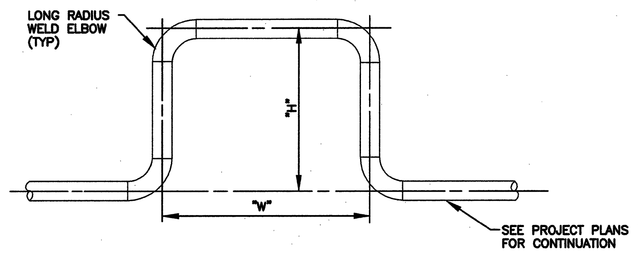
1/16"=1' 5 0 10 20 30 40ft 1/8"=1' 5 0 5 10 15 20ft 1/4"=1' 2 0 2 4 6 8 10ft 1/2"=1' 1 0 1 2 3 4 5ft 3/4"=1' 1 0 1 2 3ft 1"=1' 1 0 1 2ft 1 1/2"=1' 0 1 2ft 3"=1' 0 1ft

If this sheet is less than 30"x42" in size, it has been reduced. Graphic scales must be adjusted accordingly.





EXPANSION LOOP DETAIL
NOT TO SCALE

SCHEDULE OF EXPANSION LOOP DIMENSIONS					
EXPANSION LOOP NO.	"L" (FEET)	TOTAL EXPANSION (INCHES)	"W" (FEET)	"H" (FEET)	REMARKS
EL-1	170	1.55	5	7	4" GAS TO SNOW MELTER (STEEL)
EL-2	144	1.3	2.5	5	2 1/2" CW (STEEL)
EL-3	90	1.55	2	4	3/4" CW (STEEL)

PIPE GUIDES:
LOCATE FIRST PIPE GUIDE A MAXIMUM OF 4 PIPE DIAMETERS FROM THE EXPANSION JOINT. SECOND GUIDE MAXIMUM 14 PIPE DIAMETERS FROM FIRST GUIDE.
BALANCE OF GUIDES AS FOLLOWS:
3/4" PIPE – 27 FEET
2-1/2" PIPE – 27 FEET
4" PIPE – 52 FEET

PLUMBING FIXTURE SPECIFICATIONS

DD-A DECK DRAIN: ZURN Z-536-C-VP 15"ø PARKING DECK DRAIN WITH SUPPORT FLANGE, DURA-COATED CAST IRON BODY, 6" BOTTOM OUTLET, HEAVY DUTY SLOTTED GRATE, SEEPAGE PAN & COMBINATION MEMBRANE FLASHING CLAMP AND HEAVY DUTY SUPPORT FLANGE, UNDER DECK CLAMP AND VANDAL PROOF SECURED TOP.

FCO-1 FLOOR CLEANOUT: ZURN "LEVEL-TROL" MODEL ZN-1400-BP. DURA-COATED CAST IRON BODY, GAS AND WATER TIGHT TAPERED THREAD BRONZE PLUG, ROUND SCORIATED SECURED TOP, NICKEL BRONZE FINISH, ADJUSTABLE TO FINISHED FLOOR.

FCO-2 FLOOR CLEANOUT (PARKING GARAGE): ZURN "LEVEL-TROL" MODEL ZB-1400-HD. DURA-COATED CAST IRON BODY, GAS AND WATER TIGHT ABS TAPERED THREAD PLUG, HEAVY DUTY ROUND SCORIATED SECURED TOP, POLISHED BRONZE FINISH, ADJUSTABLE TO FINISHED FLOOR.

HB-1 HOSE BIBB: WOODFORD MODEL 24 C – 3/4 INCH, OR EQUAL. ALL BRASS WITH VACUUM BREAKER-BACKFLOW PREVENTER, 3/4" THREADED HOSE OUTLET.

HV-1 HOSE VALVE (PARKING GARAGE): POTTER-ROEMER ANGLE HOSE VALVE, MODEL 4065, 2 1/2" CAST BRASS VALVE WITH RED HANDWHEEL. FEMALE NPT INLET x MALE HOSE THREAD OUTLET. PROVIDE WITH MODEL 2830 2 1/2"x1 1/2" HOSE ADAPTER AND MODEL 4615 CAST BRASS CAP, PIN LUGS AND CHAIN. VERIFY THREAD TYPE WITH OWNER.

RD-1 ROOF DRAIN: ZURN MODEL Z-100 ROOF DRAIN, 15"ø, DURA-COATED CAST IRON BODY, COMBINATION MEMBRANE FLASHING CLAMP/GRAVEL GUARD AND LOW SILHOUETTE POLY-DOME, 3" OUTLET.

WCO WALL CLEANOUT: ZURN MODEL Z-1441, CAST BRONZE GAS AND WATER TIGHT ABS TAPERED THREAD PLUG WITH STAINLESS STEEL COVER AND SCREW.

TD-1 TRENCH DRAINS: TRENCH DRAINS SHALL BE THE POLYDRAIN SYSTEM AS MANUFACTURED BY POLYDRAIN INC. PRECAST INTERLOCKING CHANNEL UNITS WITH A TOP WIDTH OF 6.1 INCHES. UNIFORM BUILT-IN SLOPE IN EACH UNIT OF 0.6%. RADIUSED BOTTOMS. HEAVY DUTY SLOTTED DUCTILE IRON GRATE MODEL 502 WITH REMOVABLE LOCKING GRATE LOCKS. 900 SERIES CATCH BASIN WITH GALVANIZED STEEL TRASH/SEDIMENT BUCKET. INSTALL SYTEM IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTION AND DETAIL

NOTES:
1. PROVIDE PIPE SLEEVES FOR DOMESTIC WATER PIPING AND STORM DRAINAGE PIPING IN GARAGE PENETRATING PRECAST CONCRETE DECK. SEAL SPACE BETWEEN PIPE AND SLEEVE WITH ELASTOMERIC SEALANT. TAPER SEALANT UP PIPE ABOVE GARAGE DECK TO SHED WATER.

PIPE AND FITTING SCHEDULE							
			TEST	PIPE	FITTINGS		
SERVICE	SIZE	PSI	TYPE	SCHEDULE	TYPE	SCHEDULE	REMARKS
WASTE & VENT BELOW GRADE	ALL	CODE	CI	SW	CI	SW	
WASTE & VENT ABOVE GRADE	ALL	CODE	CINH	SW	CINH	SW	
DOMESTIC HW & CW ABOVE GRADE – CRF & APCOA	ALL	200	CUL	STD	CUS	STD	SEE SPECIFICATIONS FOR HEAT TRACING
DOMESTIC CW BELOW GRADE – SERVICE ENTRANCE	ALL	200	CUK	STD	CUS	STD	SEE SPECIFICATIONS FOR HEAT TRACING
STORM DRAINS ABOVE GRADE	ALL	CODE	CINH	SW	CINH	SW	SEE SPECIFICATIONS FOR HEAT TRACING
STORM DRAINS BELOW GRADE	ALL	CODE	CI	SW	CI	SW	
GARAGE WASHDOWN SYSTEM	ALL	CODE	S2	40	RG	40	GALV.
SNOWMELT WATER SYSTEM	ALL	CODE	S2	40	RG	40	GALV. SEE SPECS FOR HEAT TRACING

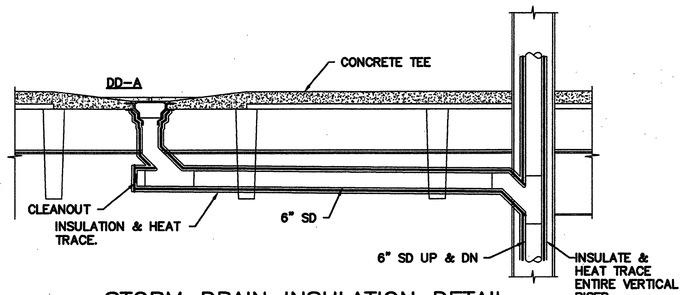
VALVE SCHEDULE							
		TYPE					
SERVICE	SIZE	GATE	GLOBE	CHECK	BALL	PLUG	REMARKS
GARAGE WASH DOWN SYSTEM	ALL	---	---	CVT	BVT	---	
SNOWMELT WATER SYSTEM	ALL	---	---	CVT	BVT	---	

INSULATION SCHEDULE				
SERVICE	SIZE	TYPE	THICKNESS	REMARKS
DOMESTIC HW & CW	ALL	H11	1"	
VENTS	ALL	H11	1"	WITHIN 6 LINEAR FEET OF ROOF OUTLET
RAIN LEADERS	ALL	H11	1"	HORIZONTAL RAIN LEADERS ABOVE GRADE, INCLUDING ROOF SUMP, HORIZONTAL BRANCH & VERTICAL RISERS.
HEAT TRACED PIPING	ALL	H31	2"	

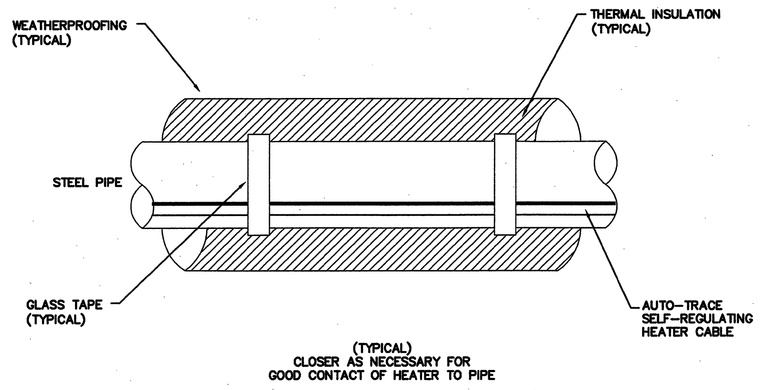
NOTES:
1. SEE SPECIFICATIONS FOR PIPE, FITTINGS, VALVES & INSULATION TYPES.

ABBREVIATIONS	
ALL ABBREVIATIONS SHOWN MAY NOT APPLY	
AFF	ABOVE FINISHED FLOOR
AP	ACCESS PANEL
CO	CLEANOUT
CW	COLD WATER
DN	DOWN
FCO	FLOOR CLEANOUT
FD	FLOOR DRAIN
FPHB	FROST PROOF HOSEBIBB
FPWH	FROST PROOF WALL HYDRANT
GM	GAS METER
HB	HOSE BIBB
NH	NO-HUB
PRV	PRESSURE REDUCING VALVE
RD	ROOF DRAIN
RL	ROOF LEADER
S	SOIL
SD	STORM DRAIN
SW	SERVICE WEIGHT
V	VENT
VTR	VENT THROUGH ROOF
W	WASTE
WCO	WALL CLEANOUT

PLUMBING LEGEND	
SYMBOLS	
	SOIL AND WASTE
	VENT
	COLD WATER
	HEAT TRACED PIPING
	PIPE RISE
	PIPE DROP
	BOTTOM TAKE-OFF
FCO	FLOOR CLEANOUT
CO	CLEANOUT
WCO	WALL CLEANOUT
	P-TRAP
	DECK DRAIN
	FLOOR DRAIN
	ROOF DRAIN
	WATER HAMMER ARRESTER
	DIRECTION OF FLOW
	REDUCER
	CAP OR PLUG
	UNION (SCREWED)
	GATE VALVE
	BALL VALVE
	GLOBE VALVE
	CHECK VALVE
	BUTTERFLY VALVE
PRS	PRESSURE REDUCING VALVE
T&P	TEMPERATURE/PRESSURE RELIEF VALVE
	BALANCING VALVE
	STRAINER
PS	PRESSURE SWITCH
FS	FLOW SWITCH
	CONNECTION TO EXISTING

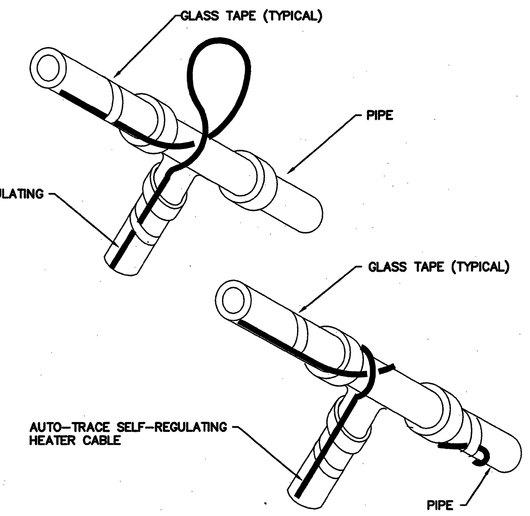


STORM DRAIN INSULATION DETAIL
NOT TO SCALE

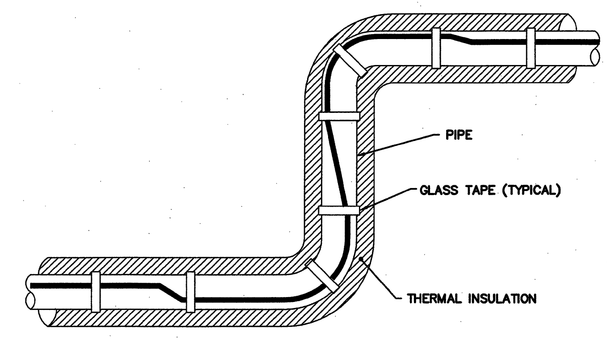


HEAT TRACE DETAIL – LONGINTUDINAL SECTION
NOT TO SCALE

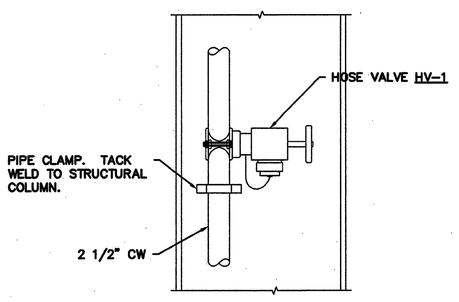
TYPICAL FOR DETAILS 1 THROUGH 5



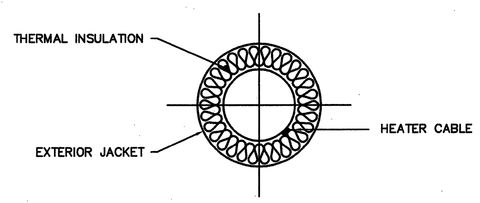
HEAT TRACE DETAIL – PIPE TEE
NOT TO SCALE



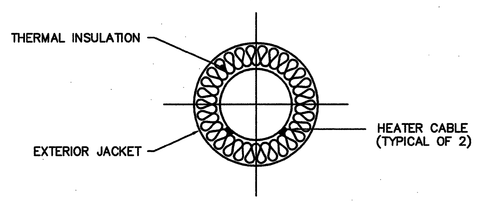
HEAT TRACE DETAIL – PIPE ELBOWS
NOT TO SCALE



HOSE VALVE DETAIL – HV-1
NOT TO SCALE



HEAT TRACE DETAIL #1
NOT TO SCALE



HEAT TRACE DETAIL #2
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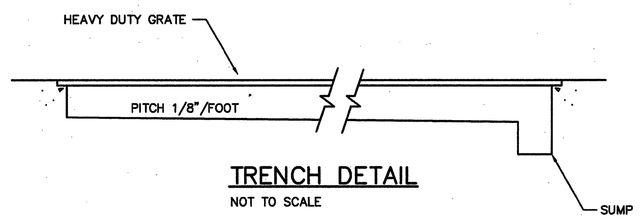

TRENCH DETAIL
NOT TO SCALE

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PORTLAND, MAINE

DEPARTMENT OF WATERFRONT AND TRANSPORTATION

PWM

PORTLAND INTERNATIONAL JETPORT

PHASE II
PARKING GARAGE

1001 WESTBROOK ST.,
PORTLAND, MAINE

No.	Date	Revision

Title
PLUMBING LEGEND, SCHEDULES & DETAILS

Scale: AS SHOWN
File Name:
Drawn By: EJD
Checked By: KES
Job No.: 195210126
Date: 02/25/08

STATE OF MAINE WILLIAM J. SCHNEIDER No. 6246 REGISTERED PROFESSIONAL ENGINEER

Drawing No.
P0-0