



**LEGEND**

	DIRECTION OF FLOW
	BURIED GATE VALVE
	MANHOLE
	FRAME AND GRATE
	EFW HYDRANT
	CAST IRON PIPE
	PVC
	REINFORCED CONCRETE PIPE
	GALVANIZED STEEL PIPE

- NOTES:**
- ALL PIPE EXCEPT THE BLENDED SLUDGE LINES (BSL) AND THE LIME SLURRY LINES (LS) SHALL SLOPE UNIFORMLY BETWEEN ELEVATIONS SHOWN ON THE MECHANICAL DRAWINGS (N-1 THRU M-30). NO SAGS OF CRESTS WILL BE PERMITTED.
  - JOINTS SHALL BE PROVIDED AT THE WALL OF STRUCTURES ON ALL PIPE LINES, EXCEPT WHERE SLEEVES ARE INDICATED.
  - ALL C.I. WALL CASTING SHALL HAVE WATER STOPS.
  - ALL WATER MAINS SHALL HAVE 4'-6" MINIMUM COVER. THIS INCLUDES CW, SWS AND EFW.
  - ALL ELEVATIONS SHOWN REFER TO USGS MEAN SEA LEVEL DATUM.
  - THE LOCATIONS SHOWN FOR THE PROPOSED PIPING ARE APPROXIMATE. EXACT LOCATIONS WILL BE DETERMINED IN THE FIELD BASED UPON LAYING LENGTHS OF PIPE AND SITE CONDITIONS.
  - ALL PIPE SHALL BE BEDDED IN SCREENED GRAVEL AS INDICATED BY DETAILS IN VOLUME 2 OF THE SPECIFICATIONS. ANY MATERIAL BENEATH A PIPE THAT IS IN THE OPINION OF THE ENGINEER UNSUITABLE SHALL BE REMOVED AND BACKFILLED WITH SCREENED GRAVEL AND PAID FOR UNDER THE APPROPRIATE ADJUSTMENT ITEM. ALL OTHER EXCAVATION FOR UTILITIES AND PIPE LINES SHALL BE DONE UNDER ITEM 1A.
  - ALL PIPES TO BE PLACED IN FILL SHALL BE PLACED IN A TRENCH EXCAVATED IN THE FILL MATERIAL AFTER SUCH MATERIAL IS BROUGHT TO AN ELEVATION AT LEAST TWO FEET ABOVE THE INVERT OF THE PIPE.
  - ALL FORCE MAIN BENDS SHALL BE BACKED UP WITH A CONCRETE THRUST BLOCK BETWEEN THE PIPE AND UNDISTURBED MATERIAL. BEARING AREA REQUIRED ON VERTICAL PLANE 90° TO RADIUS PLANE PASSING THROUGH MIDPOINT OF BEND.
  - MANHOLE #1 SHALL HAVE A 5' DIAMETER CAST-IN-PLACE BASE AND BE CONSTRUCTED AS SHOWN IN THE DETAIL ON SHEET C-8.
  - MANHOLE #2 SHALL BE A 4' DIAMETER PRECAST CONCRETE MANHOLE. A DETAIL CAN BE FOUND IN VOLUME 2 OF THE SPECIFICATIONS. A DETAIL FOR THE CONNECTION OF THE 8" FIL TO THE 8" DW IS SHOWN ON SHEET C-8.
  - MANHOLE #3 SHALL BE A 5' PRECAST BASE WITH A FLAT SLAB TOP. DETAILS FOR THE BASE AND FLAT SLAB TOP ARE INCLUDED IN VOLUME 2 OF THE SPECIFICATIONS.
  - ABBREVIATIONS CIW AND SIW ARE BOTH DESIGNATED AS IW ON OTHER SHEETS.

**OUTSIDE PIPING SCHEDULE**

ABBREVIATION	TITLE	MATERIAL
A	PROCESS AIR	STEEL
AGE	AERATED CRIT CHAMBER EFFLUENT	CI
ALS	ALUM SOLUTION	PVC
ATE	AERATION TANK EFFLUENT	CI
BSL	BLENDED SLUDGE	CI
CIW	CHLORINE INJECTION WATER	GSP
CLS	CHLORINE SOLUTION	PVC
CW	CITY WATER	COPPER
DW	DEWATERING	CI
D	DRAIN	RC
EFW	EFFLUENT FLUSHING WATER	CI
FIL	FILTRATE	CI
FTE	FINAL SETTLING TANK EFFLUENT	CI
FSW	FOAM SPRAY WATER	CI
FM(& BYPASS)	FORCE MAIN	CI
LS	LIME SLURRY	RUBBER HOSE ENCASED IN PVC
PSL	PRIMARY SCUM	CI
RFE	RECLAIMED FINAL EFFLUENT	CI
RL	ROOF LEADER	CI
SIW	SO <sub>2</sub> INJECTION WATER	GSP
SDS	SULFUR DIOXIDE SOLUTION	PVC
SSC	SECONDARY SCUM	CI
SWS	SERVICE WATER	COPPER
OUTFALL	OUTFALL	RC

**RECORD DRAWING**

DRAWN BY: <i>A. Postana</i> DEPT. CHECK: <i>R.J. Marshall</i> PROJ. CHECK: <i>R.J. Marshall</i>				METCALF & EDDY, INC. / ENGINEERS BOSTON / NEW YORK / PALO ALTO / CHICAGO 		SCALE: 1" = 20' DATE: 6/27/77 DATE: 6-22-77		TOWN OF BURLINGTON, RHODE ISLAND BOARD OF SEWER COMMISSIONERS WASTEWATER TREATMENT FACILITIES OUTSIDE PIPING		JOB: 4368 FILE NO.: H-1012-1 CONTRACT: 70-1 SHEET: C-4	
REVISIONS: 12/13/77 <i>R. Postana</i> <i>R.J. Marshall</i> RELOCATED "CW" LINE - RESIDED 1/8" TO 3".				REGISTERED PROFESSIONAL ENGINEER REG. PROF. ENGR. No. 1, No. 3620		UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION		CIVIL		MAKEPEACE P-1457	