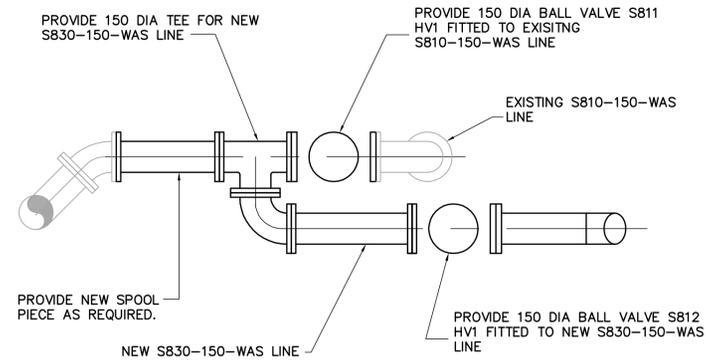
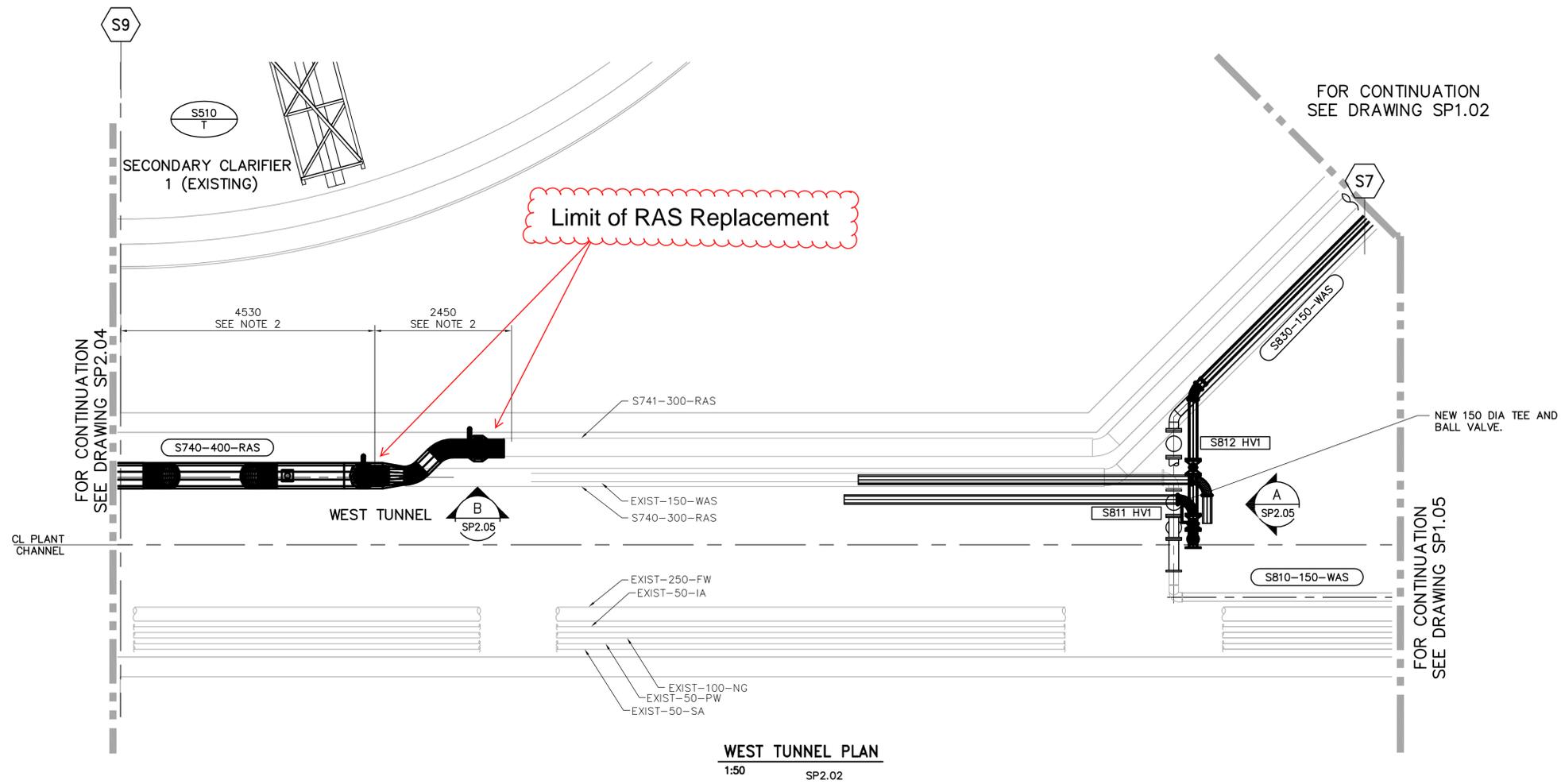
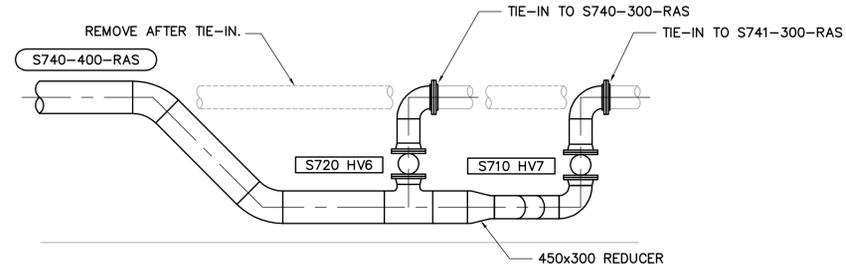


APPENDIX A – DRAWINGS

ITEM NO.	DRAWING NO.	DRAWING TITLE
1	1-0103S-P0014-001-04	Process Area S – Secondary Clarifiers West Tunnel Plan and Details
2	WEP-146	Headworks and Sludge Storage Lower Level Process Plan
3	WEP-147	Grit Chambers and Sludge Storage Lower Level Process Plan
4	WEP-187	Primary Pumphouse Lower Level Process Plan
5	WEP-188	Primary Pump Room Lower Level Detailed Process Plan
6	WEP-227	Aeration Basin No.1 Process Plan
7	WEP-228	Aeration Tunnels Process Plans and Sections
8	WEP-230	Process Details
9	WEP-231	Process Sections
10	WEP-259	Secondary Pump Room Lower Level – Process Plan
11	WEP-260	Secondary Pumphouse Lower Level Detailed Process Plan



A ELEVATION
1:10



B ELEVATION
1:10

AECOM

As of January 3, 2009, EarthTech became AECOM Canada Ltd.

AECOM AS-CONSTRUCTED

SIG. DATE



NO.	REVISIONS	DATE	BY	DATE	2005/10/06	DATE	2006/04/26
04	AS CONSTRUCTED	08/09/24	AS				
03	ISSUED FOR CCN 15	07/03/02	LAE				
02	ISSUED FOR CCN 10_R1	07/02/27	LAE				
01	ISSUED FOR CONSTRUCTION	06/09/22	LAE				
00	ISSUED FOR TENDER	06/04/26	SRP				

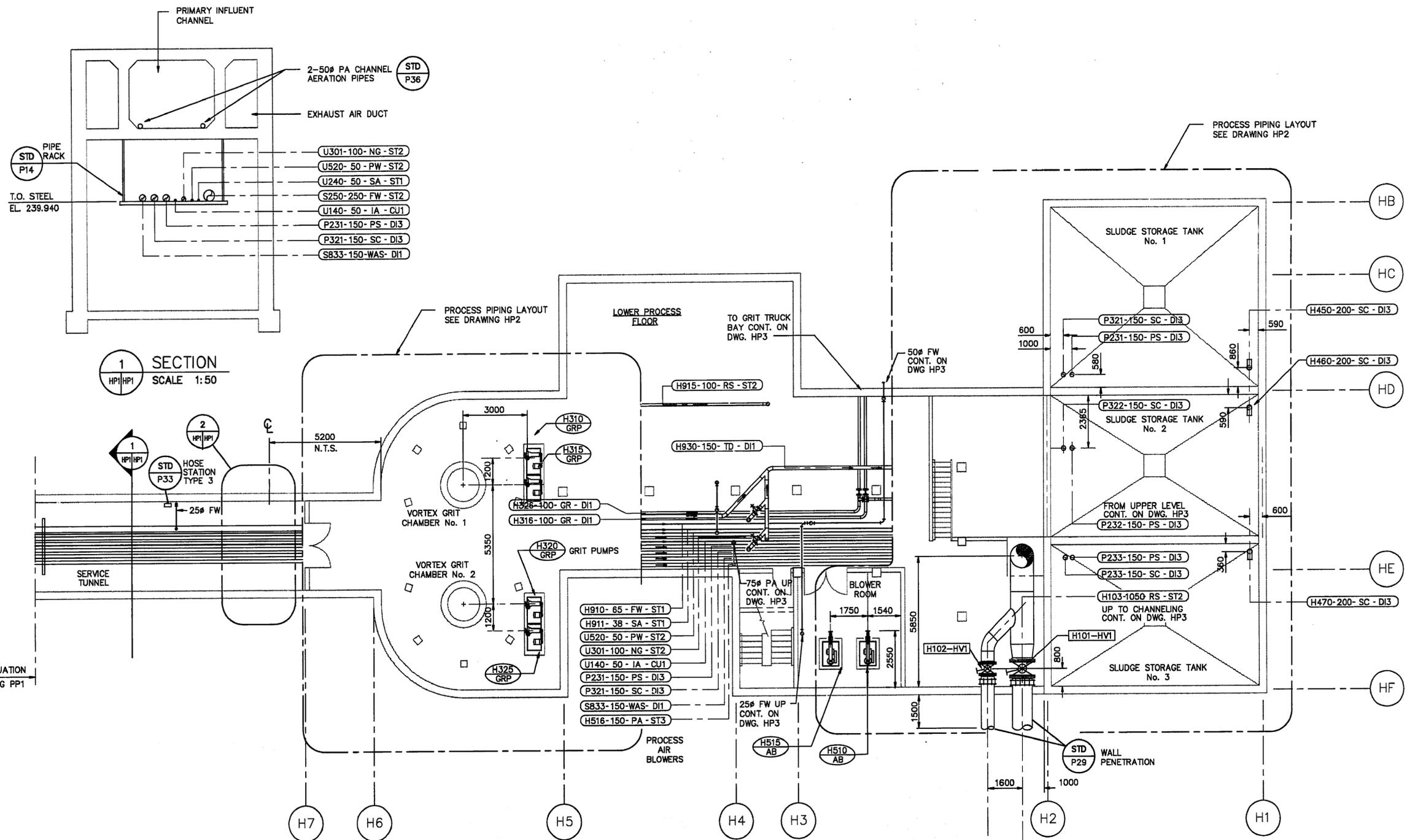


DESIGNED BY: KS	CHECKED BY: KM
DRAWN BY: PJY	APPROVED BY: JEH
HOR. SCALE: 1:50	RELEASED FOR CONSTRUCTION BY: J. VEILLEUX
VERTICAL SCALE:	

ENGINEER'S SEAL
ORIGINAL SIGNED BY: J.E. HUTCHISON
2006/04/26
CONSULTANT DRAWING NO. SP2.05

THE CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT
ENGINEERING DIVISION

WEWPCB BIOLOGICAL NUTRIENT REMOVAL UPGRADE CONTRACT 3
PROCESS AREA S - SECONDARY CLARIFIERS WEST TUNNEL PLAN AND DETAILS
CITY FILE NUMBER
SHEET OF
CITY DRAWING NUMBER
1-01038-P0014-001-04



1 SECTION
SCALE 1:50

2 HOSE STATION
TYPE 3

2 PARTIAL TUNNEL PLAN
SCALE 1:50

FOR CONTINUATION
SEE DRAWING PP1

WEWPC-1
PPP-HL1
94-11-12

detail symbol
A detail number
B drawing where detail shown
C cross reference to drawing where detail taken

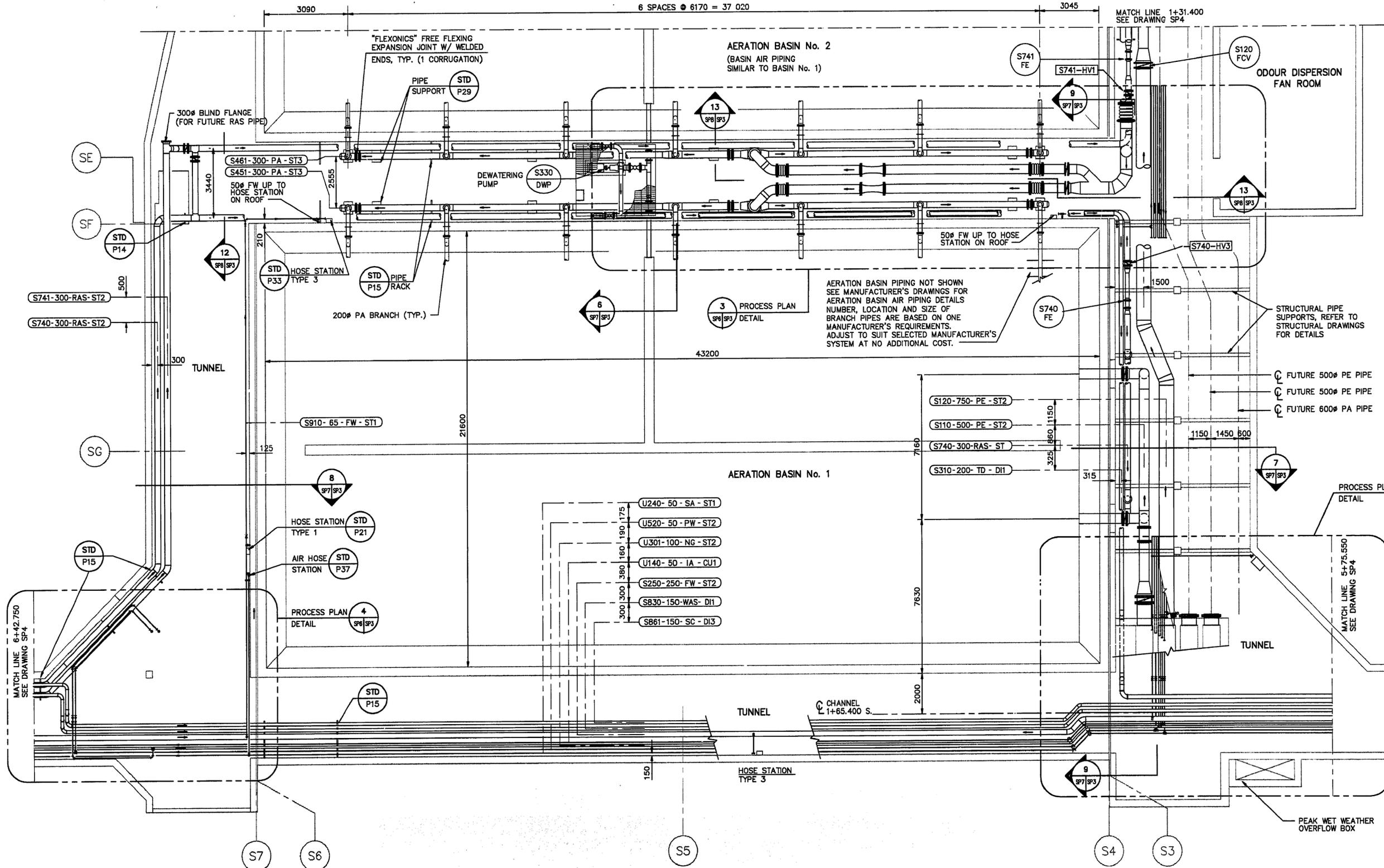


THE ENGINEER THAT SEALED THIS DRAWING IS RESPONSIBLE FOR ONLY THE AS-CONSTRUCTED CHANGES ON THIS DRAWING.
THE ORIGINAL DESIGN WAS THE RESPONSIBILITY OF THE DESIGN ENGINEER WHO SEALED THE ISSUED FOR TENDER DRAWINGS IN 1991.

REID, CROWTHER & PARTNERS LIMITED
WINNIPEG
AS CONSTRUCTED
SIG. *[Signature]* DATE Nov. 29, 94

B.M. 69-006 ELEV. 237.636 m		Reid Crowther		ENGINEER'S SEAL Y.C. LEONG		THE CITY OF WINNIPEG WORKS AND OPERATIONS DIVISION WATERWORKS WASTE AND DISPOSAL DEPT.	
DESIGNED BY	CHECKED BY	DRAWN BY	PAL/GGB	APPROVED BY		WEST END WATER POLLUTION CONTROL CENTRE AREA H - HEADWORKS	
1 AS CONSTRUCTED	94.08.26	DJT	HOR. SCALE: 1:100	RELEASED FOR CONSTRUCTION:		HEADWORKS AND SLUDGE STORAGE LOWER LEVEL PROCESS PLAN	
0 ISSUED FOR TENDER	91.06.17	PAL	VERTICAL:	DATE	94-08-26	CONSULTANT DRAWING NO. 60910 - HP1	CITY DRAWING NUMBER WEP-146
NO. REVISIONS	DATE	BY	DATE	DATE		SHEET OF	

File # WS 10197



AERATION BASIN PIPING NOT SHOWN
SEE MANUFACTURER'S DRAWINGS FOR
AERATION BASIN AIR PIPING DETAILS
NUMBER, LOCATION AND SIZE OF
BRANCH PIPES ARE BASED ON ONE
MANUFACTURER'S REQUIREMENTS.
ADJUST TO SUIT SELECTED MANUFACTURER'S
SYSTEM AT NO ADDITIONAL COST.

THE ENGINEER THAT SEALED THIS DRAWING IS RESPONSIBLE FOR ONLY THE
AS-CONSTRUCTED CHANGES ON THIS DRAWING.
THE ORIGINAL DESIGN WAS THE RESPONSIBILITY OF THE DESIGN ENGINEER
WHO SEALED THE ISSUED FOR TENDER DRAWINGS IN 1991.

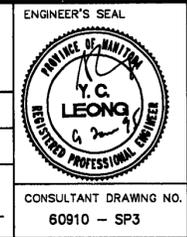
REID, CROWTHER & PARTNERS LIMITED
WINNIPEG
AS CONSTRUCTED
SIG. *[Signature]* DATE *Nov. 29/94*

detail symbol
A detail number
B drawing where detail shown
C cross reference to drawing
where detail taken



B.M.	68-006				
ELEV.	237.636 m				
NO.	REVISIONS	DATE	BY	DATE	
1	AS CONSTRUCTED	94.08.28	DJT		
0	ISSUED FOR TENDER	91.06.17	PAL		

Reid Crowther		ENGINEER'S SEAL	
DESIGNED BY	DJT	CHECKED BY	
DRAWN BY	PAL/GGB	APPROVED BY	
HOR. SCALE: 1:100		RELEASED FOR CONSTRUCTION:	
VERTICAL:		DATE	
DATE 94-09-26		DATE	



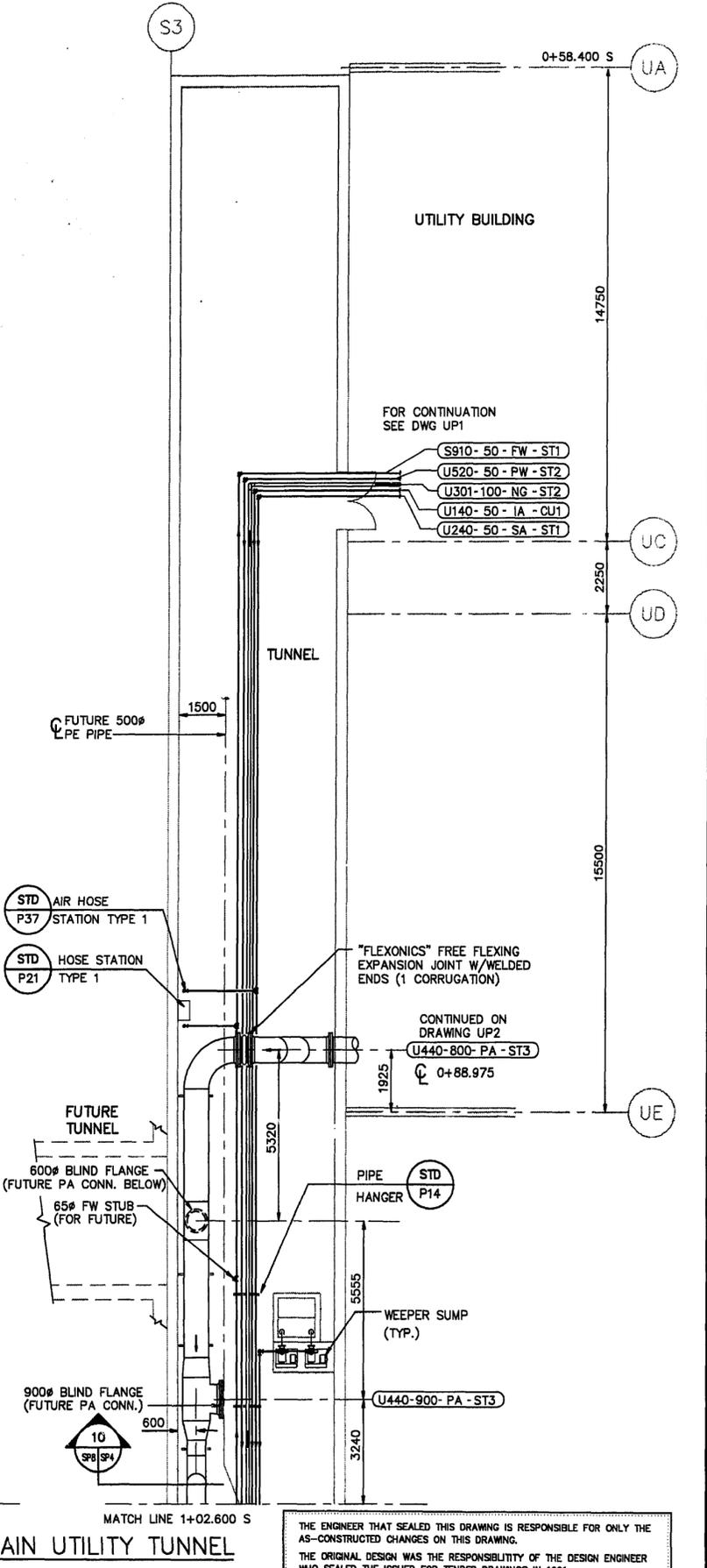
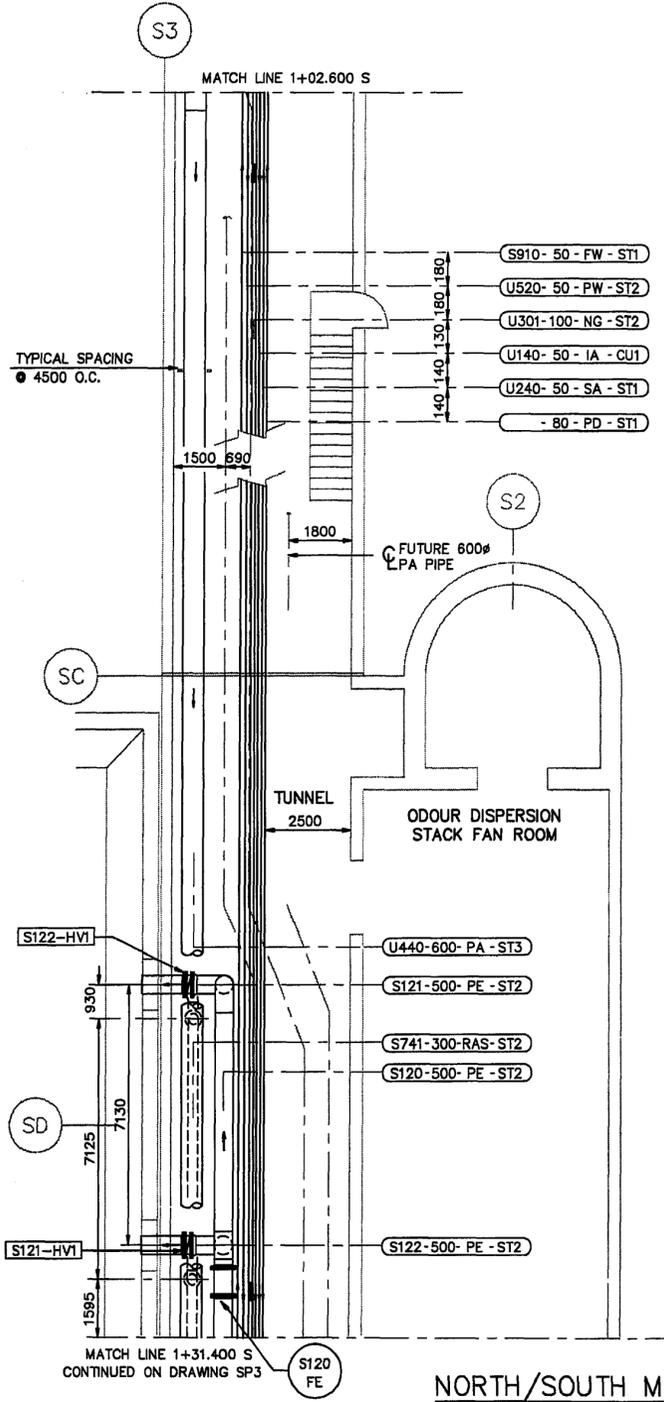
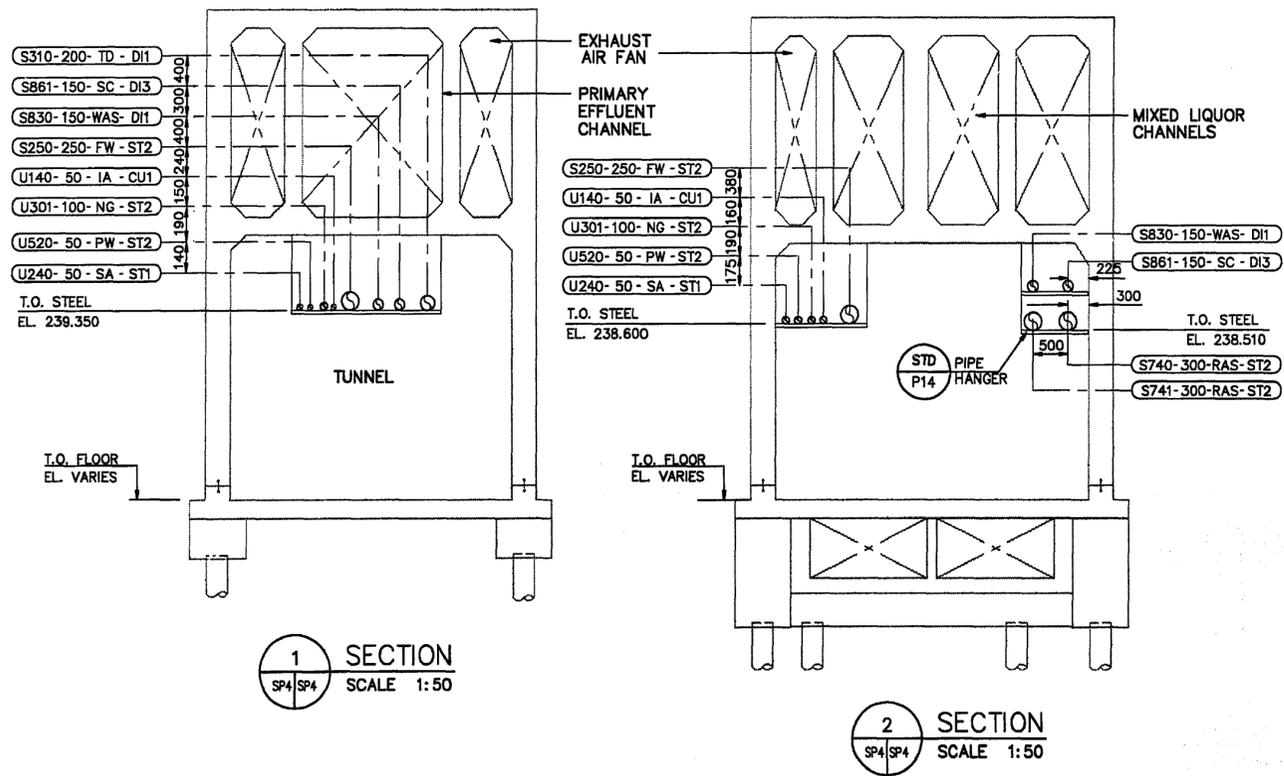
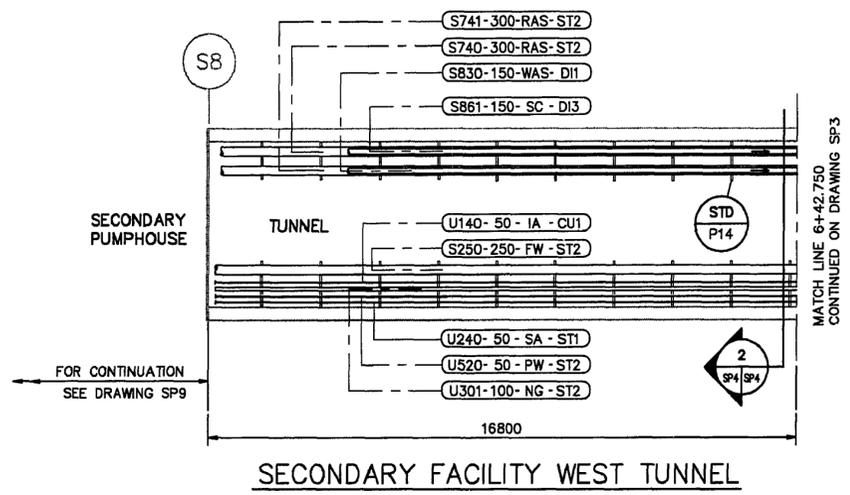
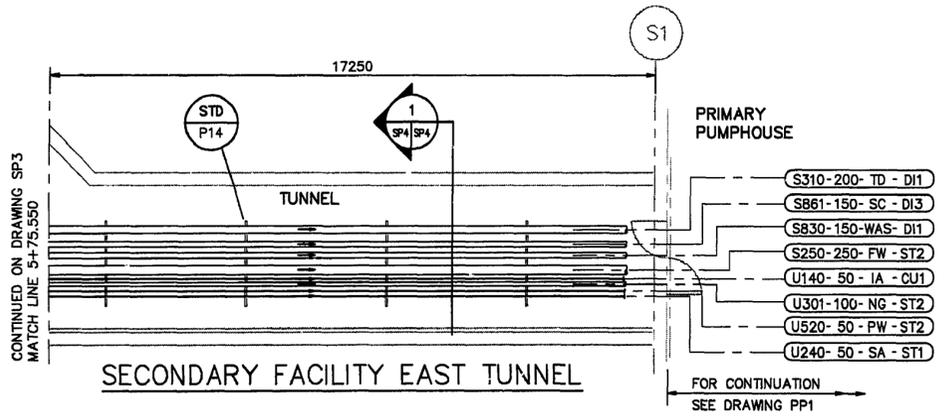
THE CITY OF WINNIPEG
WORKS AND OPERATIONS DIVISION
WATERWORKS WASTE AND DISPOSAL DEPT.

WEST END WATER POLLUTION CONTROL CENTRE
AREA S - AERATION BASINS

AERATION BASIN No. 1
PROCESS PLAN

CITY DRAWING NUMBER
SHEET OF
WEP-227

File # WS 10282



THE ENGINEER THAT SEALED THIS DRAWING IS RESPONSIBLE FOR ONLY THE AS-CONSTRUCTED CHANGES ON THIS DRAWING. THE ORIGINAL DESIGN WAS THE RESPONSIBILITY OF THE DESIGN ENGINEER WHO SEALED THE ISSUED FOR TENDER DRAWINGS IN 1991.

REID, CROWTHER & PARTNERS LIMITED
WINNIPEG

AS CONSTRUCTED

SIG. *KL* DATE Nov 29/94

detail symbol

A detail number

B drawing where detail shown

C cross reference to drawing where detail taken



B.M. 69-006	ELEV. 237.636 m
DESIGNED BY	DJT
CHECKED BY	
DRAWN BY	PAL/GGB
APPROVED BY	
HOR. SCALE:	1:100
VERTICAL:	U.N.O.
RELEASED FOR CONSTRUCTION:	
NO. REVISIONS	DATE BY
1	AS CONSTRUCTED 94.09.26 DJT
2	ISSUED FOR TENDER 91.06.17 PAL
94-09-26	DATE

Reid Crowther

DESIGNED BY DJT

CHECKED BY

DRAWN BY PAL/GGB

APPROVED BY

HOR. SCALE: 1:100

VERTICAL: U.N.O.

RELEASED FOR CONSTRUCTION:

94-09-26

ENGINEER'S SEAL

PROVINCE OF MANITOBA

Y. C. LEONG

REGISTERED PROFESSIONAL ENGINEER

CONSULTANT DRAWING NO. 60910 - SP4

THE CITY OF WINNIPEG

WORKS AND OPERATIONS DIVISION

WATERWORKS WASTE AND DISPOSAL DEPT.

WEST END WATER POLLUTION CONTROL CENTRE

AREA S - AERATION BASINS

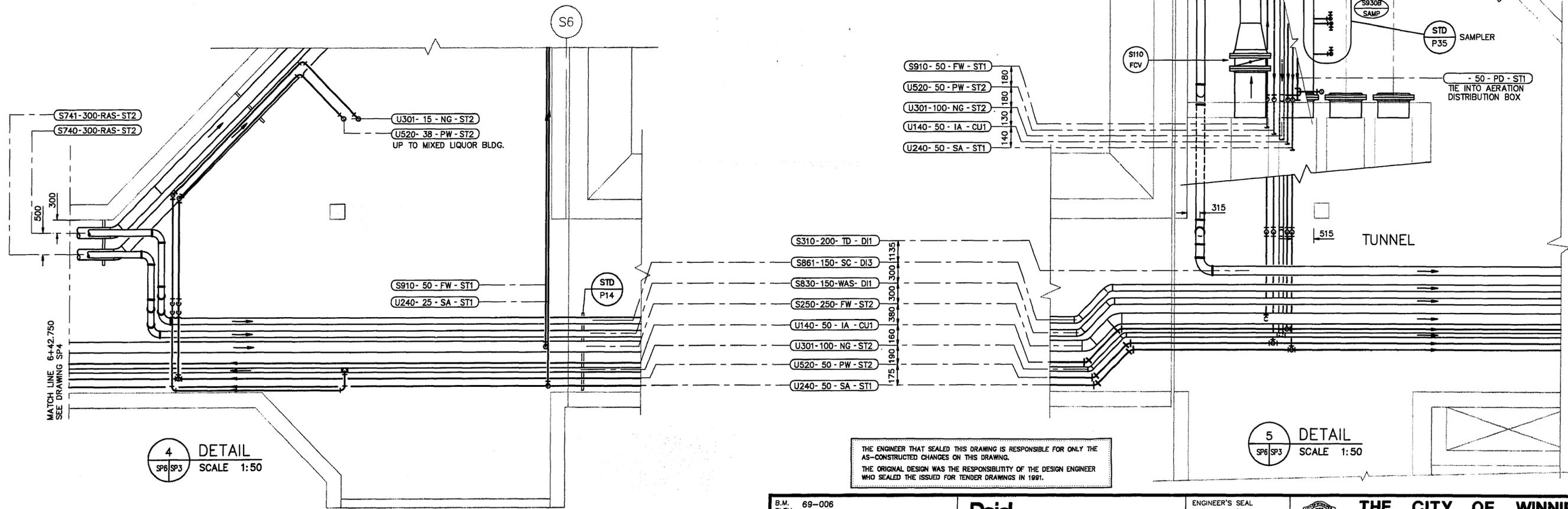
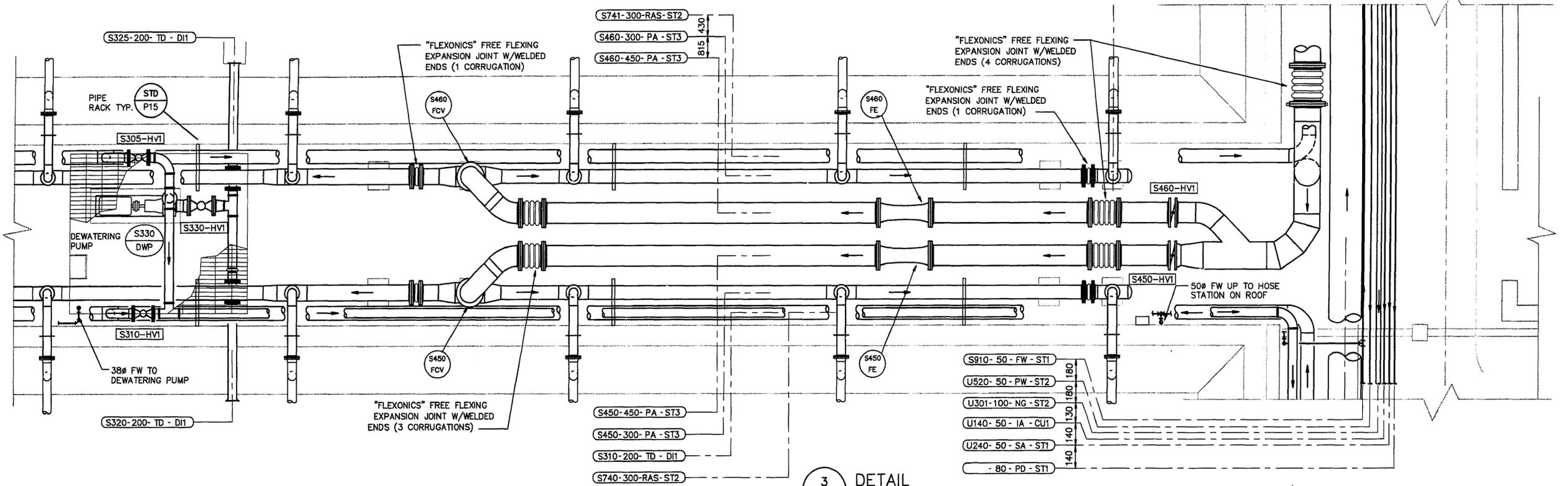
CITY DRAWING NUMBER

SHEET OF

AERATION TUNNELS PROCESS PLANS AND SECTIONS

WEP-228

File # WS 10283



THE ENGINEER THAT SEALED THIS DRAWING IS RESPONSIBLE FOR ONLY THE AS-CONSTRUCTED CHANGES ON THIS DRAWING.
THE ORIGINAL DESIGN WAS THE RESPONSIBILITY OF THE DESIGN ENGINEER WHO SEALED THE ISSUED FOR TENDER DRAWINGS IN 1991.

REID, CROWTHER & PARTNERS LIMITED
WINNIPEG
AS CONSTRUCTED
SIG: *ALG* DATE: Nov 29, 1994

detail symbol
A detail number
B drawing where detail shown
C cross reference to drawing where detail taken



B.M.	69-006		
ELEV.	237.636 m		
NO.	REVISIONS	DATE	BY
1	AS CONSTRUCTED	94,09,26	DJT
0	ISSUED FOR TENDER	91,06,17	PAL

Reid Crowther		DESIGNED BY	DJT	CHECKED BY	
		DRAWN BY	GGB	APPROVED BY	
		HOR. SCALE:	1:50	RELEASED FOR CONSTRUCTION:	
		VERTICAL:		DATE	94-09-26

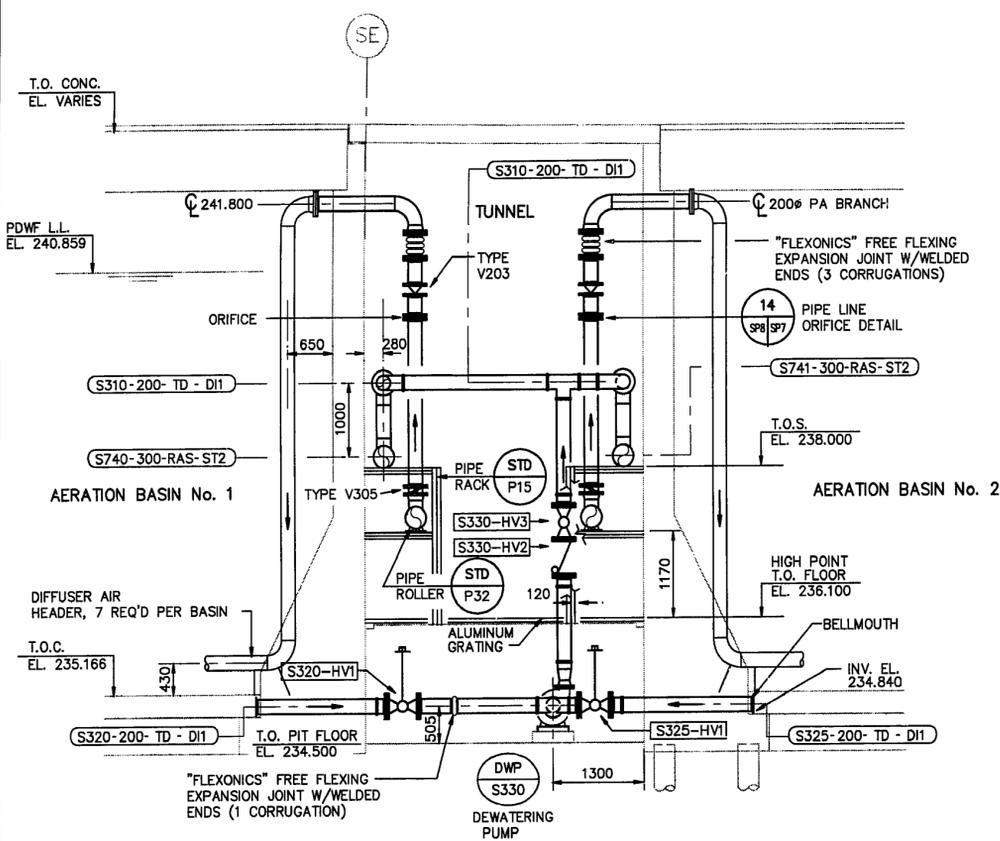
ENGINEER'S SEAL

 CONSULTANT DRAWING NO.
60910 - SP6

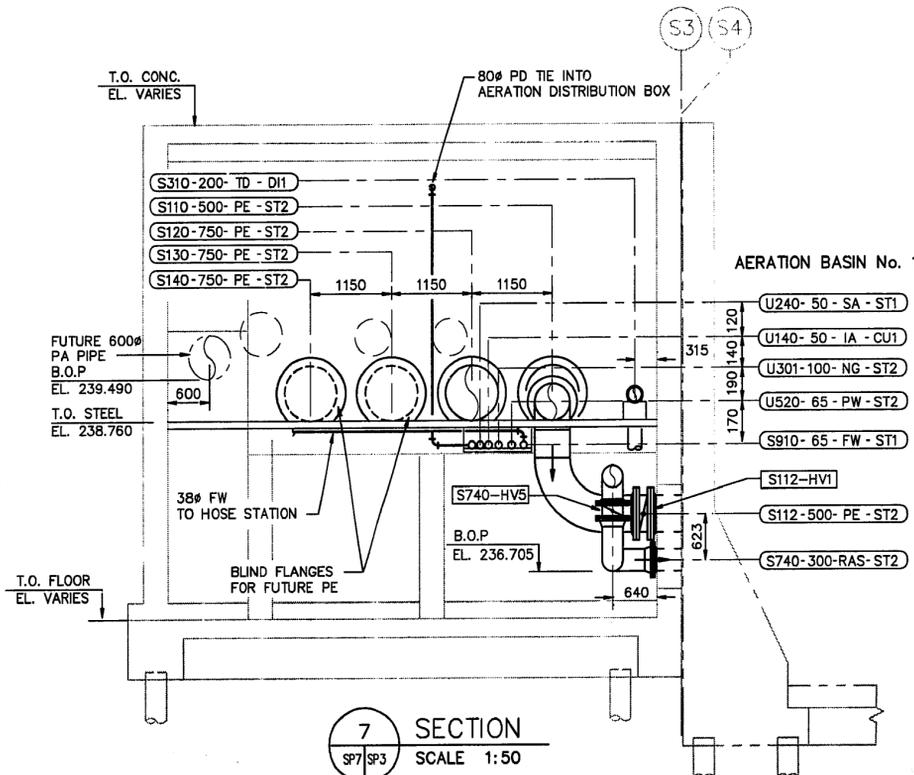
THE CITY OF WINNIPEG
 WORKS AND OPERATIONS DIVISION
 WATERWORKS WASTE AND DISPOSAL DEPT.
 WEST END WATER POLLUTION CONTROL CENTRE
 AREA S - AERATION BASINS
 PROCESS DETAILS

CITY DRAWING NUMBER
SHEET OF
WEP-230

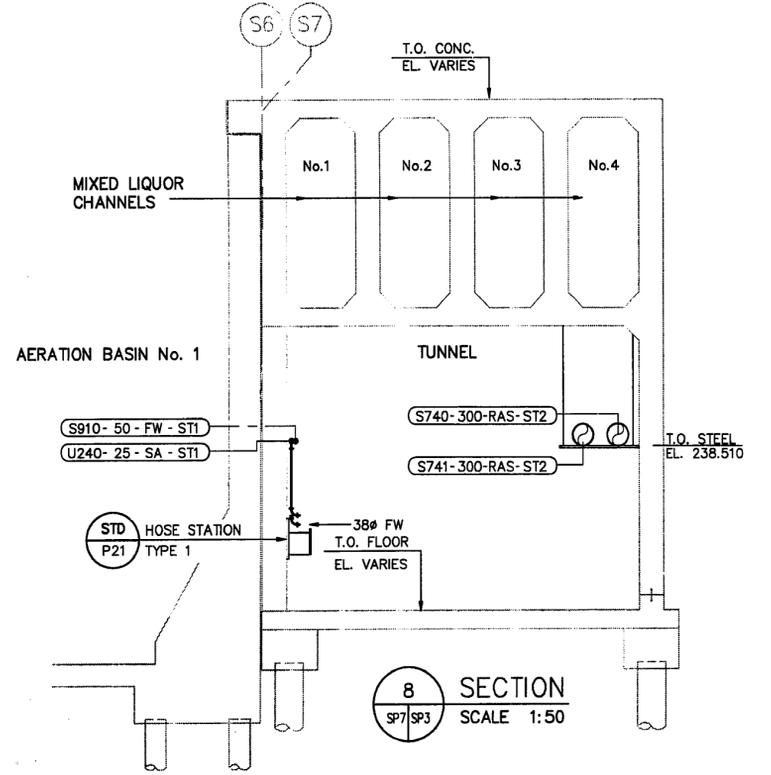
File # WS 10285



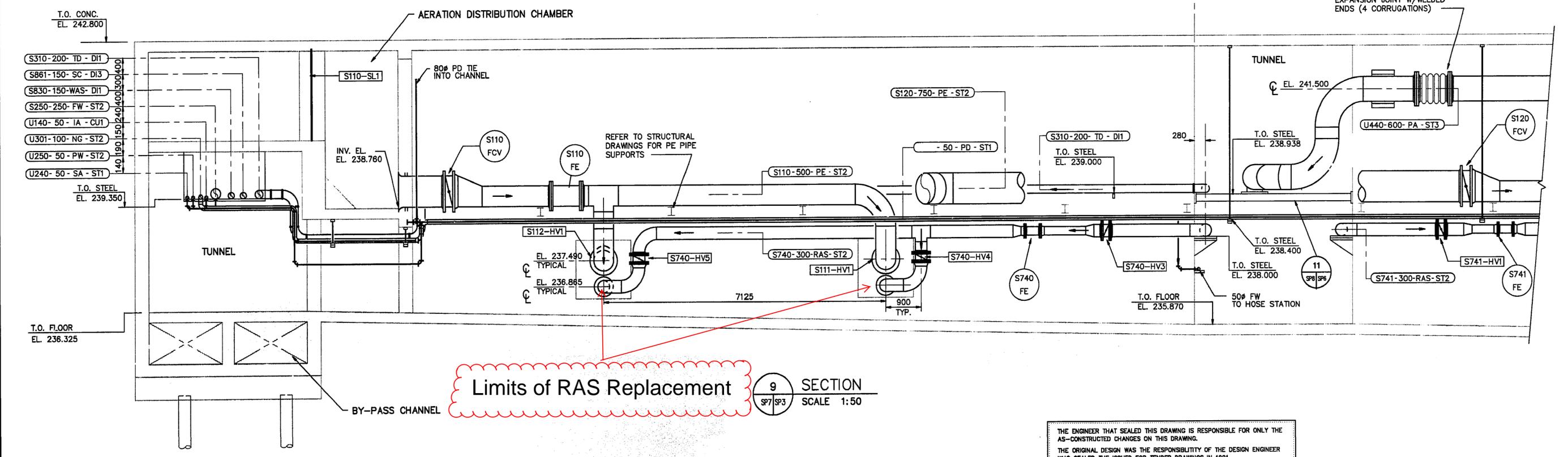
6 SECTION
SCALE 1:50



7 SECTION
SCALE 1:50



8 SECTION
SCALE 1:50



9 SECTION
SCALE 1:50

THE ENGINEER THAT SEALED THIS DRAWING IS RESPONSIBLE FOR ONLY THE AS-CONSTRUCTED CHANGES ON THIS DRAWING.
THE ORIGINAL DESIGN WAS THE RESPONSIBILITY OF THE DESIGN ENGINEER WHO SEALED THE ISSUED FOR TENDER DRAWINGS IN 1991.

REID, CROWTHER & PARTNERS LIMITED
WINNIPEG
AS CONSTRUCTED
SIG. *ACJ* DATE *Nov 29/94*

detail symbol
A detail number
B drawing where detail shown
C cross reference to drawing where detail taken

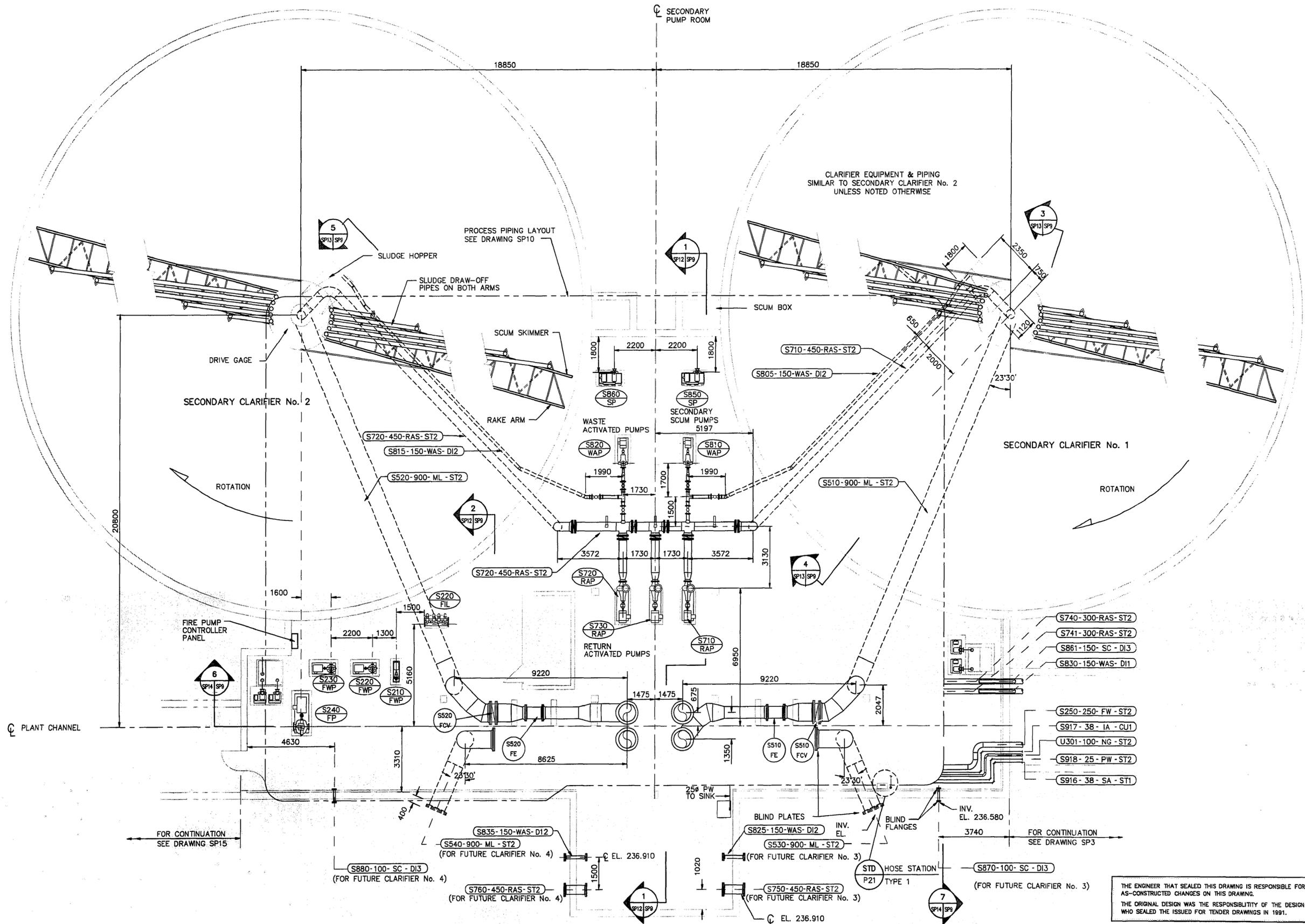
B.M. 69-006	ELEV. 237.636 m
DESIGNED BY	DJT
DRAWN BY	GGB
1 AS CONSTRUCTED	94,09,26 DJT
0 ISSUED FOR TENDER	91,06,17 PAL
NO. REVISIONS	DATE BY

Reid Crowther
DESIGNED BY DJT
DRAWN BY GGB
HOR. SCALE: 1:50
VERTICAL:
94-09-26

ENGINEER'S SEAL
Y.C. LEONG
REGISTERED PROFESSIONAL ENGINEER
CONSULTANT DRAWING NO. 60910 - SP7

THE CITY OF WINNIPEG
WORKS AND OPERATIONS DIVISION
WATERWORKS WASTE AND DISPOSAL DEPT.
WEST END WATER POLLUTION CONTROL CENTRE
AREA S - AERATION BASINS
CITY DRAWING NUMBER
SHEET OF
PROCESS SECTIONS
WEP-231

File # WS10286



CLARIFIER EQUIPMENT & PIPING
SIMILAR TO SECONDARY CLARIFIER No. 2
UNLESS NOTED OTHERWISE

THE ENGINEER THAT SEALED THIS DRAWING IS RESPONSIBLE FOR ONLY THE AS-CONSTRUCTED CHANGES ON THIS DRAWING.
THE ORIGINAL DESIGN WAS THE RESPONSIBILITY OF THE DESIGN ENGINEER WHO SEALED THE ISSUED FOR TENDER DRAWINGS IN 1991.

REID, CROWTHER & PARTNERS LIMITED
WINNIPEG
AS CONSTRUCTED
SIG. *Ally* DATE: Nov. 29, 1994

detail symbol

A	detail number
B	drawing where detail shown
C	cross reference to drawing where detail taken



B.M.	69-006
ELEV.	237.636 m
DESIGNED BY	DJT
CHECKED BY	
DRAWN BY	PAL/GGB
APPROVED BY	
HOR. SCALE:	1:100
VERTICAL:	
RELEASED FOR CONSTRUCTION:	
DATE	94-04-26
NO. REVISIONS	
DATE	
BY	

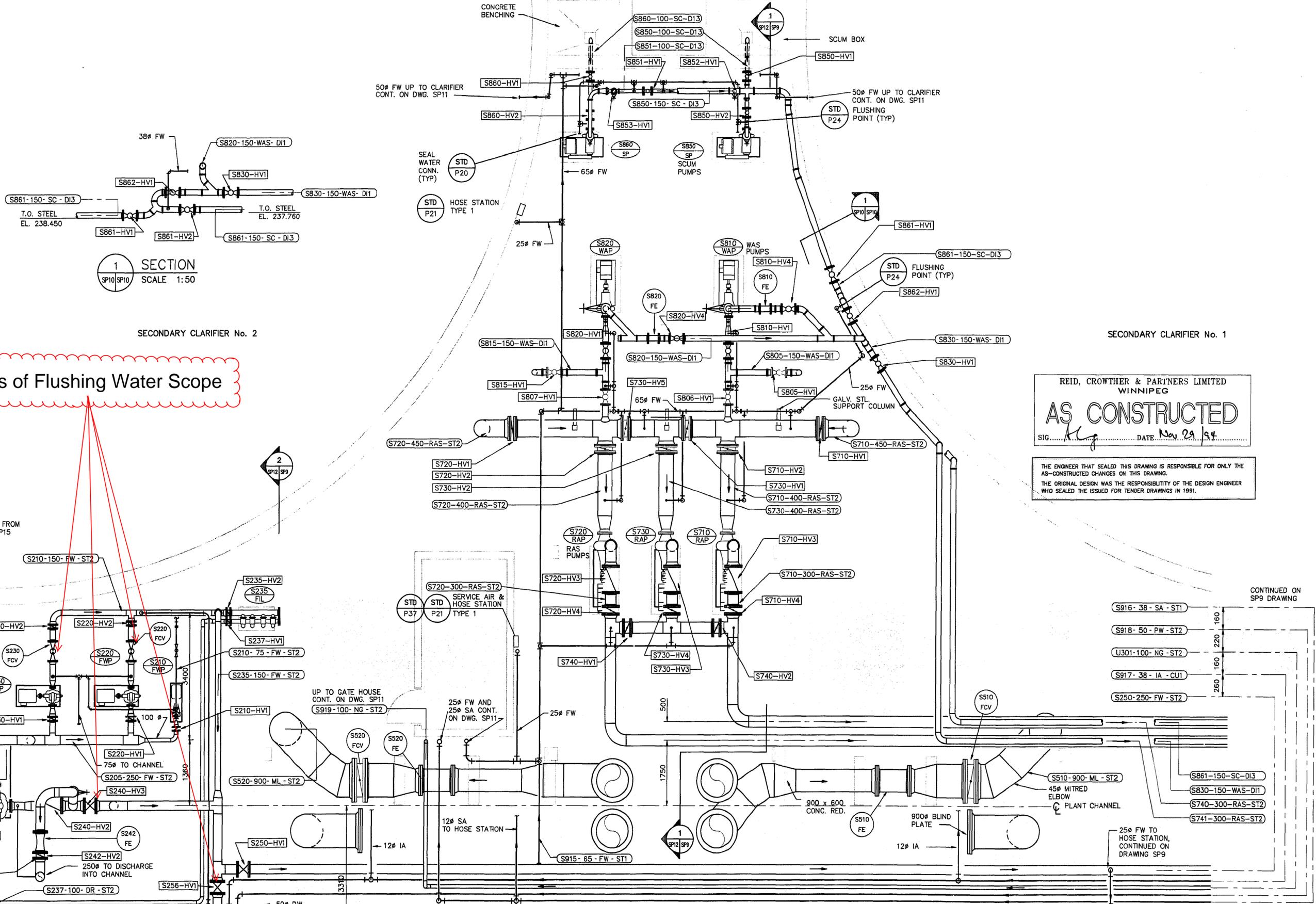
Reid Crowther
 DESIGNED BY: DJT
 CHECKED BY:
 DRAWN BY: PAL/GGB
 APPROVED BY:
 HOR. SCALE: 1:100
 VERTICAL:
 RELEASED FOR CONSTRUCTION:
 DATE: 94-04-26

ENGINEER'S SEAL

 Y.C. LEONG
 REGISTERED PROFESSIONAL ENGINEER
 CONSULTANT DRAWING NO. 60910 - SP9

THE CITY OF WINNIPEG
 WORKS AND OPERATIONS DIVISION
 WATERWORKS WASTE AND DISPOSAL DEPT.
 WEST END WATER POLLUTION CONTROL CENTRE
 AREA S - SECONDARY CLARIFIERS
 SECONDARY PUMP ROOM LOWER LEVEL - PROCESS PLAN
 CITY DRAWING NUMBER: WEP-259
 SHEET OF

File # WS10314



SECTION 1
SCALE 1:50
SP10/SP10

SECONDARY CLARIFIER No. 2

SECONDARY CLARIFIER No. 1

Limits of Flushing Water Scope

REID, CROWTHER & PARTNERS LIMITED
WINNIPEG
AS CONSTRUCTED
SIG. *KL* DATE: Nov 29, 94
THE ENGINEER THAT SEALED THIS DRAWING IS RESPONSIBLE FOR ONLY THE AS-CONSTRUCTED CHANGES ON THIS DRAWING.
THE ORIGINAL DESIGN WAS THE RESPONSIBILITY OF THE DESIGN ENGINEER WHO SEALED THE ISSUED FOR TENDER DRAWINGS IN 1991.

CONTINUED FROM DRAWING SP15

CONTINUED ON SP9 DRAWING

WEPC-1
PPP-SL2

detail symbol
A detail number
B drawing where detail shown
C cross reference to drawing where detail taken



B.M. 69-006 ELEV. 237.636 m	DESIGNED BY DUT	CHECKED BY
	DRAWN BY PAL	APPROVED BY
1 AS CONSTRUCTED 94.09.26 DUT	HOR. SCALE: 1:50	RELEASED FOR CONSTRUCTION:
0 ISSUED FOR TENDER 91.06.17 PAL	VERTICAL:	DATE 94-09-26
NG REVISIONS DATE BY		DATE

Reid Crowther	
DESIGNED BY DUT	CHECKED BY
DRAWN BY PAL	APPROVED BY
HOR. SCALE: 1:50	RELEASED FOR CONSTRUCTION:
VERTICAL:	DATE 94-09-26

ENGINEER'S SEAL
PROVINCE OF MANITOBA
REGISTERED PROFESSIONAL ENGINEER
Y.C. LEONG
CONSULTANT DRAWING NO. 60910 - SP10

THE CITY OF WINNIPEG
WORKS AND OPERATIONS DIVISION
WATERWORKS WASTE AND DISPOSAL DEPT.
WEST END WATER POLLUTION CONTROL CENTRE
AREA S - SECONDARY CLARIFIERS
CITY DRAWING NUMBER
SHEET OF
SECONDARY PUMPROOM LOWER LEVEL
DETAILED PROCESS PLAN
WEP-260

File # WS10315