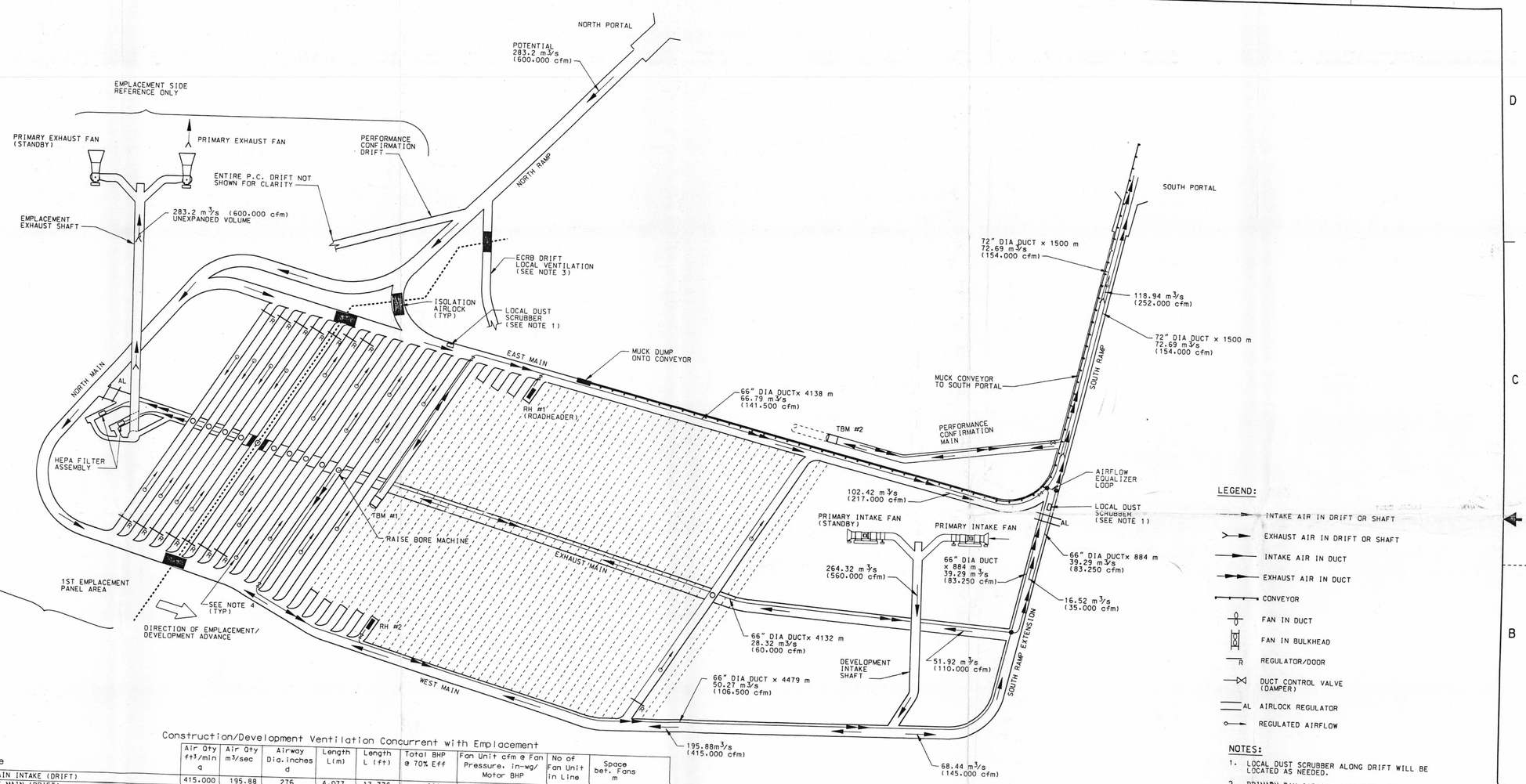

LEGEND:

- INTAKE AIR IN DRIFT OR SHAFT
- EXHAUST AIR IN DRIFT OR SHAFT
- INTAKE AIR IN DUCT
- EXHAUST AIR IN DUCT
- CONVEYOR
- FAN IN DUCT
- FAN IN BULKHEAD
- R REGULATOR/DOOR
- DUCT CONTROL VALVE (DAMPER)
- AL AIRLOCK REGULATOR
- REGULATED AIRFLOW

NOTES:

1. LOCAL DUST SCRUBBER ALONG DRIFT WILL BE LOCATED AS NEEDED.
2. PRIMARY FAN CAPACITY HAS BEEN SIZED TO HANDLE THE NEEDED FLEXIBILITY IN THE SYSTEM.
3. ENTIRE ECRB DRIFT WITH ITS LOCAL VENTILATION IS NOT SHOWN FOR CLARITY.
4. REGULATED AIRFLOW THROUGH DOORS/CURTAINS IN THE EMPLACEMENT DRIFT OR BOTTOM OF THE RAISE.

APERTURE CARD

9812040071

Construction/Development Ventilation Concurrent with Emplacement

	Air Qty ft3/min q	Air Qty m3/sec	Airway Dia. inches d	Length L(m)	Length L (ft)	Total BHP @ 70% Eff	Fan Unit cfm @ Fan Pressure, in-wg/ Motor BHP	No of Fan Unit in Line	Space bet. Fans m
Intake									
WEST MAIN INTAKE (DRIFT)	415.000	195.88	276	4.077	13.376	292			MAIN FAN LOAD
EXHAUST MAIN (DRIFT)	110.000	51.92	276	4.132	13.556	6			MAIN FAN LOAD
SOUTH RAMP EXTENSION AIRLOCK (DRIFT)	35.000	16.52	276	884	2.900	0			MAIN FAN LOAD
TRIBUTARY DEV SH & DRIFT 560.000			240	412	1.352	198	635.000@15"/2000	1	SURFACE MAIN FAN
TRIBUTARY TO EXH MAIN 145.000			276	402	1.319	1	(SEE NOTE 2)		MAIN FAN LOAD
TOTAL	560.000	264.32				497		1	
Exhaust									
EAST MAIN EXHAUST (DUCT)	141.500	66.79	66	4.138	13.576	4.291	141.500@14"/450	10	414
EAST MAIN EXHAUST (DRIFT)	217.000	102.42	276	4.138	13.576	42			MAIN FAN LOAD
EXHAUST MAIN EXHAUST (DUCT)	60.000	28.32	66	4.132	13.556	327	60.000@10"/150	3	1377
WEST MAIN EXHAUST (DUCT)	106.500	50.27	66	4.479	14.695	1.981	106.500@17"/400	5	896
SOUTH RAMP EXTENSION AIRLOCK (DRIFT)	35.000	16.52	276	0	0	0			MAIN FAN LOAD
S RAMP EXT 1ST DUCT 83.250			66	884	2.900	187	83.250@10"/250	1	884
S RAMP EXT 2ND DUCT 83.250			66	884	2.900	187	83.250@10"/250	1	884
S RAMP EXH. 1ST DUCT 154.000			72	1.500	4.921	1.298	154.000@15"/500	3	500
S RAMP EXH. 2ND DUCT 154.000			72	1.500	4.921	1.298	154.000@15"/500	3	500
SOUTH RAMP 252.000			276	1.500	4.921	24			MAIN FAN LOAD
TOTAL	560.000	264.32				9.634		26	

Total BHP 10.131 TOTAL FAN UNITS 27 (with One Primary Fan)

THIS DRAWING IS PRELIMINARY AND NOT INTENDED FOR CONSTRUCTION. PROCUREMENT OR FABRICATION.

DESIGN INPUTS
SEE DRAWING INPUTS LIST

REV	DESCRIPTION	DATE	DRN	DRG	CHK	VER	L.D.E.	D.A.	D.W.
00	INITIAL ISSUE	7/24/98	JB	RSJ	JB	N/A	RSS	N/A	

APPROVALS	INITIAL/DATE
DRAWN: S GIBSON	7/24/98
ORIGINATOR: R JURANI	RSJ 7/24/98
CHECKED: J BEESLEY	JB 7-24-98
VERIFICATION: N/A	N/A
LEAD DESIGN ENGINEER: R SAUNDERS	RSS 7-24-98
QUALITY ASSURANCE: N/A	N/A
DEPARTMENT MANAGER: K BHATTACHARYYA	7/24/98

U.S. DEPARTMENT OF ENERGY
Yucca Mountain Site Characterization Project
M&O Civilian Radioactive Waste Management System MANAGEMENT & OPERATING CONTRACTOR

REPOSITORY DESIGN
SUBSURFACE VENTILATION
DUCTED EXHAUST ARRANGEMENT
CONSTRUCTION CONDITION 4

SIZE	DOCUMENT IDENTIFIER	CI IDENTIFIER	DRAWING NO.	REV
D	BCAJ00000	01717	2700-86033	L

SCALE	QA CLASSIFICATION	W.B.S.	CAD FILE
NONE	N/A	1.2.4	1RMECHSS:86033

CAGE CODE:

RECORD DESIGNATOR

std /repl/reass/mech/dgn/86033.dgn

29-JUL-1998 12:51

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