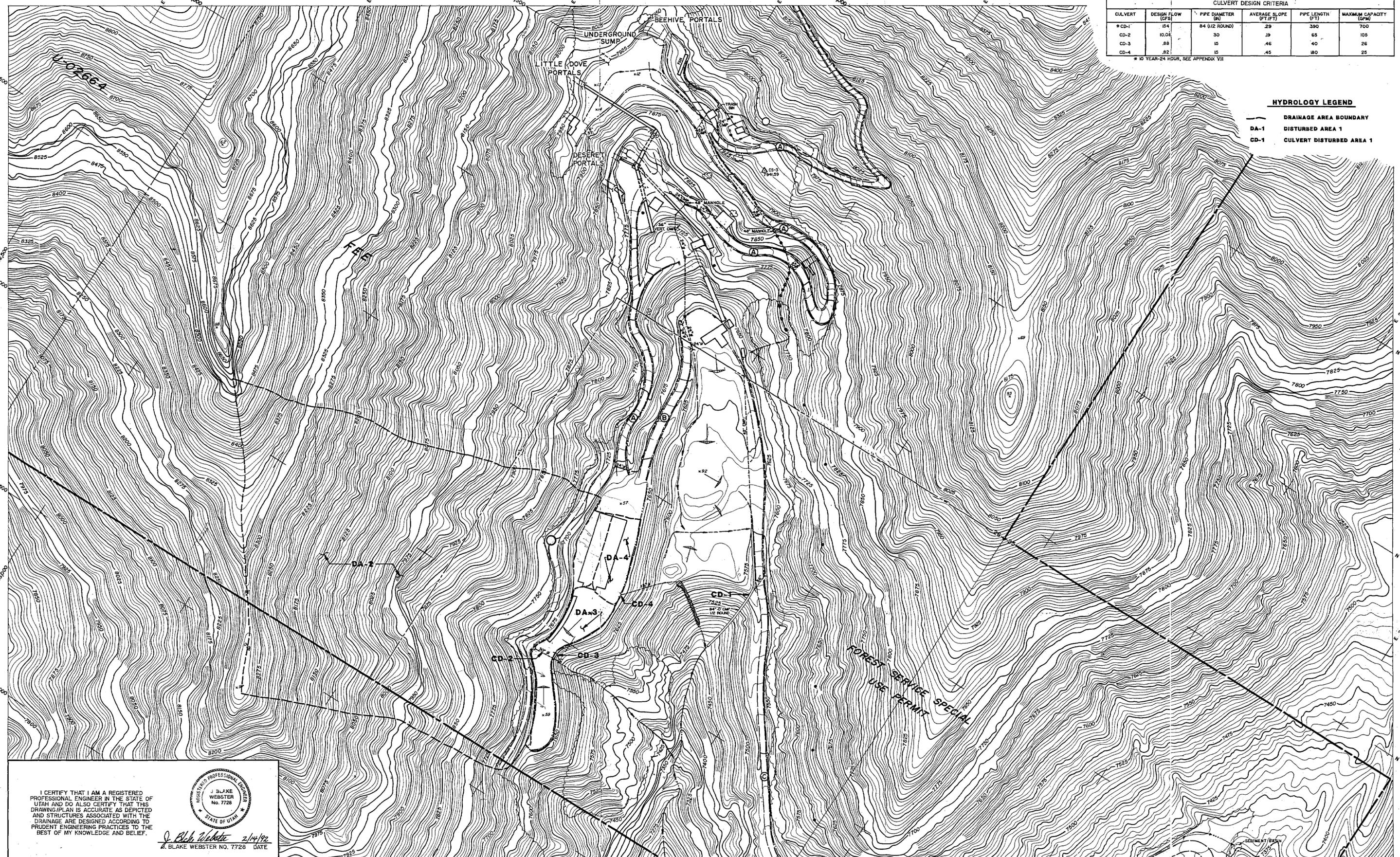


CULVERT DESIGN CRITERIA					
CULVERT	DESIGN FLOW (CFS)	PIPE DIAMETER (IN)	AVERAGE SLOPE (FT/FT)	PIPE LENGTH (FT)	MAXIMUM CAPACITY (GPM)
*CD-1	.54	84 (1/2 ROUND)	.29	390	700
CD-2	10.06	30	.39	65	105
CD-3	.88	15	.46	40	26
CD-4	.82	15	.45	180	25

* 10 YEAR-24 HOUR, SEE APPENDIX VII

HYDROLOGY LEGEND

- DRAINAGE AREA BOUNDARY
- DA-1 DISTURBED AREA 1
- CD-1 CULVERT DISTURBED AREA 1

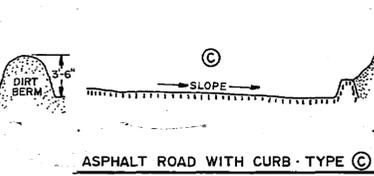
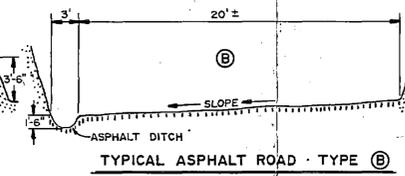
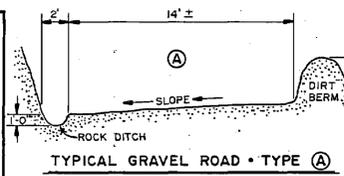


I CERTIFY THAT I AM A REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF UTAH AND DO ALSO CERTIFY THAT THIS DRAWING (PLAN) IS ACCURATE AS DEPICTED AND STRUCTURES ASSOCIATED WITH THE DRAINAGE ARE DESIGNED ACCORDING TO PRUDENT ENGINEERING PRACTICES TO THE BEST OF MY KNOWLEDGE AND BELIEF.



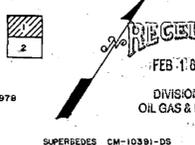
Blake Webster 2/14/92
BLAKE WEBSTER NO. 7728 DATE

LEGEND	
— U.P.B.L.CO. PERMIT BOUNDARY LINE	— ASPHALT CURB
— FEDERAL COAL LEASE BOUNDARY LINE	— CULVERT & SIZE
U-02664 FEDERAL COAL LEASE NUMBER	— SLOPE
— OPEN DITCH	○ CATCH BASIN
— NATURAL DRAINAGE	○ MANHOLE
— DIRT BERM	■ THRUST BLOCK



DATE	REVISIONS	BY
2-18-92	ADDED HYDROLOGY LEGEND, DRAINAGE AND CULVERT DISTURBED AREAS AND CULVERT DESIGN CRITERIA TABLE	CKL
3-28-90	REVISED TO REFLECT CURRENT SURFACE DRAINAGE	CKL
9/11/88	CULVERT ON WEST SIDE OF DSEHWMS SUBSTATION REVISED TO 24" AND EXTENDED BERM TO PROTECT BEEHIVE SUBSTATION	CKM
8/17/88	ADDED 18" DIA. CULVERT ON WEST SIDE OF BEEHIVE SUBSTATION	LIG
10/1/84	ADDED CULVERTS ON EAST SIDE OF PARKING LOT	LIG

CONTOUR INTERVAL - 5'
DATE OF PHOTOGRAPHY - MAY 12, 1978



DEPARTMENT OF MINING & EXPLORATION **3-8**

DES-BEE-DOVE COAL MINES
EMERY COUNTY, UTAH

SURFACE DRAINAGE MAP

UTAH POWER & LIGHT COMPANY
SALT LAKE CITY, UTAH

SCALE: 1" = 200'
DRAWING NUMBER: CM-10421-DS
SHEET: 1 of 2