

LOGAN-CACHE AIRPORT

ADAP-03



1982

ENGINEER'S DIARY

(Parking Apron - Taxiway  
Improvements)

82 0022

# Field Book

50% rag paper  
32 pages

4 $\frac{5}{8}$ " x 7 $\frac{1}{4}$ "

## CURVE FORMULAS

$$\begin{array}{lll}
 T = R \tan \frac{1}{2} I & R = T \cot \frac{1}{2} I & \text{Chord def.} = \frac{\text{chord}^2}{R} \\
 T = \frac{50 \tan \frac{1}{2} I}{\sin \frac{1}{2} D} & R = \frac{50}{\sin \frac{1}{2} D} & \text{No. chords} = \frac{I}{D} \\
 \sin \frac{1}{2} D = \frac{50}{R} & E = R \csc \sec \frac{1}{2} I & \text{Tan. def.} = \frac{1}{2} \text{ chord def.} \\
 \sin \frac{1}{2} D = \frac{50 \tan \frac{1}{2} I}{T} & E = T \tan \frac{1}{2} I &
 \end{array}$$

The square of any distance, divided by twice the radius, will equal the distance from tangent to curve, very nearly.

To find angle for a given distance and deflection.

Rule 1. Multiply the given distance by .01745 (def. for  $1^\circ$  for 1 ft.) and divide given deflection by the product.

Rule 2. Multiply given deflection by 57.3, and divide the product by the given distance.

To find deflection for a given angle and distance. Multiply the angle by .01745, and the product by the distance.

## GENERAL DATA

**RIGHT ANGLE TRIANGLES.** Square the altitude, divide by twice the base. Add quotient to base for hypotenuse.

Given Base 100, Alt.  $10.10^2 \div 200 = .5$ .  $100 + .5 = 100.5$  hyp.

Given Hyp. 100, Alt.  $25.25^2 \div 200 = 3.125$ .  $100 - 3.125 = 96.875$  = Base.

Error in first example, .002; in last, .045.

To find Tons of Rail in one mile of track: multiply weight per yard by 11, and divide by 7.

**LEVELING.** The correction for curvature and refraction, in feet and decimals of feet is equal to  $0.574d^2$ , where  $d$  is the distance in miles. The correction for curvature alone is closely,  $\frac{2}{3}d^2$ . The combined correction is negative.

**PROBABLE ERROR.** If  $d_1, d_2, d_3, \dots$  etc. are the discrepancies of various results from the mean, and if  $\sum d^2$  = the sum of the squares of these differences and  $n$  = the number of observations, then the probable error of the mean =  $\pm 0.6745 \sqrt{\frac{\sum d^2}{n(n-1)}}$

## MINUTES IN DECIMALS OF A DEGREE

1'	.0167	11'	.1833	21'	.3500	31'	.5167	41'	.6833	51'	.8500
2'	.0333	12'	.2000	22'	.3667	32'	.5233	42'	.7000	52'	.8667
3'	.0500	13'	.2167	23'	.3833	33'	.5500	43'	.7167	53'	.8833
4'	.0667	14'	.2333	24'	.4000	34'	.5667	44'	.7333	54'	.9000
5'	.0833	15'	.2500	25'	.4167	35'	.5833	45'	.7500	55'	.9167
6'	.1000	16'	.2667	26'	.4333	36'	.6000	46'	.7667	56'	.9333
7'	.1167	17'	.2833	27'	.4500	37'	.6167	47'	.7833	57'	.9500
8'	.1333	18'	.3000	28'	.4667	38'	.6333	48'	.8000	58'	.9667
9'	.1500	19'	.3167	29'	.4833	39'	.6500	49'	.8167	59'	.9833
10'	.1667	20'	.3333	30'	.5000	40'	.6667	50'	.8333	60'	1.0000

## INCHES IN DECIMALS OF A FOOT

1-16	3-32	$\frac{1}{8}$	3-16	$\frac{3}{16}$	5-16	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$
.0052	.0078	.0104	.0156	.0208	.0260	.0313	.0417	.0521	.0625	.0729
1	2	3	4	5	6	7	8	9	10	11
.0833	.1667	.2500	.3333	.4167	.5000	.5833	.6667	.7500	.8333	.9167

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### ITEM

1 PRE-CONSTRUCTION CONFERENCE

Pre-construction Conference ~~10 JUN 1982~~  
JUNE 10, 1982 11:00 am at airports

THOSE in attendance

SCOTT RUSSELL

Ross Lapray

Preston Ward

KAMON F. BINDRUP

Rick Hill Parson Asphalt  
Dave Gabbert FAA DENVER  
Paul Brown - West Wind Aviation  
Keith Nelson Cache County.  
ACT Horman Parson Asphalt

JUNE 22, 1982

ARRIVED AT SITE 7:30 PARSON's on off-ramp, Began to cut joints on ramp and sweep area. 9 men on Job 1 foreman, RICK HILL AND Joel ? from Philips Petro-mat.

Began to get Paver ready  
Water truck ARRIVED AT 8:00 at 8:10 the fabric laying tractor arrived  
OIL DISTRIBUTOR arrived at 8:20  
Test man arrived at 8:15, at 9:10  
Dave Gabbert stopped by. Began LAying leveling coarse at 8:15  
WORKED all day on off ramp-  
Layed all the fabric for the ramp and finished all but about 2 widths  
Ron theobald stopped by. We were given the go ahead on the total ramp width.

tests looked real good for compaction 98%

Pat B. Ward

2

4-20-016

cat. patrol / asphalt wheel (12#)

Power Broom (Broce Broom) 13-006

roller (BOMAG BW140AD) #4-22-648

PAVER (BLAW-KNOX PF-500) #30-004

9 WATER WAGON (FORD 8000) 4-05-014

ALLIS-Chambers (720 special)

DISTRIBUTOR TRUCK

4-42-001

June 23, 1982

finished off-ramp and began on the north end of the taxi-way.

began to cut out areas as marked on the plans. Terry Thurston began to work on the drainage boxes.

Pittsburgh testing took 3 core samples today first thing.

At noon I talked to the paving Sup. and had him back off the oil. By 0.1% the taxiway looks a bit sticky. TESTS ON Asphalt.

ARE real good on the #4 sieve we were a bit high but all others are good. took out all the asphalt in South cut area.

finished up taxiway Between the runways things look real good.

Terry Thurston's men worked on boxes and plans to pour some BOXES tomorrow.

Pat B. Wal

3

Cat 977H TRACK Loader 4-23-026

2 Dump truck.

Cat Patrol 1ZF 4-20-016

\* 30-004

paver

13-006

Broom

4-22-648

roller tractor (720) rental

4-22-001

distributor.

June 24, 1982.

arrived at site at 7:00 operator  
and patrol began to level off  
area in south cut.

Distributor truck arrived at 7:20am  
on the South cut area the SW corner  
is real mucky. talked to "ray" about  
digging out about 2' and filling up with  
some asphalt he agreed. at about  
10:30 Parsons changed rollers they are  
now using a Dynapac. Scott found  
an error in the elevations on the  
ground and the BM set. Worked  
out the problem. Began paving parking  
apron today at about 11:00

Continued to dig out cut areas  
and pave the parking apron.

On the south cut area they  
cut down about 2 ft and then  
filled the area up to sub-grade  
with broken asphalt looks AND works  
real good.

Past B.Ward

cat 12F patrol

4-20-016

June 25, 1982

Ray decided not to pave today.  
Parson's men worked on cut areas  
and boxes. Ross off today.

2 Laborers began to pull out  
tie downs.

SCOTT ARRIVED at 8:00.

TALKED WITH RAY ABOUT SOME  
OTHER CUT AREAS OTHER THAN THOSE  
MARKED. ALSO ABOUT A PIT RUN ITEM  
TO ADD TO THE BID. I WENT INTO  
THE OFFICE AT 11:00

Paul B. Ward

June 28, 1982.

Arrived at the site at 7:00. Talked with Rick Hill, <sup>Garth</sup> Lee Jewkes, and Ray about the possibility of working up a change order to include more excavation, Pit Run Gravel, and compaction.

Rick will get me some prices. There won't be any asphalt laid today or until all the excavation has been done.

Terry Thurston's men came out at about 7:30 and began to go over the boxes.

CUT OUT AND BEGAN TO LEVEL OFF THE SOUTH EXTRA CUT AREA AND ALSO WORKED THE REQUIRED CUT AREA.

PARSONS MEN WORKED UNTIL 5:30

I FIGURED up some cost est. for the extra work and talked to Rick Hill about them.

Cat loader

Cat Patrol

RAY G10 Roller

1/2 Day Sheep's foot compactor pulled behind loader

JUNE 29, 1982

Worked on cut areas today  
SCOTT set some grades and the  
patrol began to level out the  
area.

Found 2 soft areas just  
south of the gas pad cut  
those areas out and left open  
to see if they would dry up.

7

patrol

catloader

Sheep's foot

roller

June 30, 1982

Grading up the far south cut area at 7:00. Continued to work on cut areas. Got a cost est for payment from rick hill. Windy in the aft. blew some planes around

July 1

Continued to work on cut area gave Ray a copy of change order no. 2 to give to Rick cool and windy. Partly - mostly cloudy.

8

July 8, 1982

Rain last night several small puddles parson's ALT HOFFMAN was concerned about made a few changes.

shaved off a high ridge and add two drainage boxes and lower two other boxes I gave my okay to these changes

July 9

Rained last night again the puddles look a lot better today I think that they will finish up the South portion today the weather looks good this morning Pittsburg testing man is going to take 5 cores today to see how things are.

July 10, 1982 SAT

Spent 4 hours today grading  
the north apron area to get  
ready to pave on Monday.

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