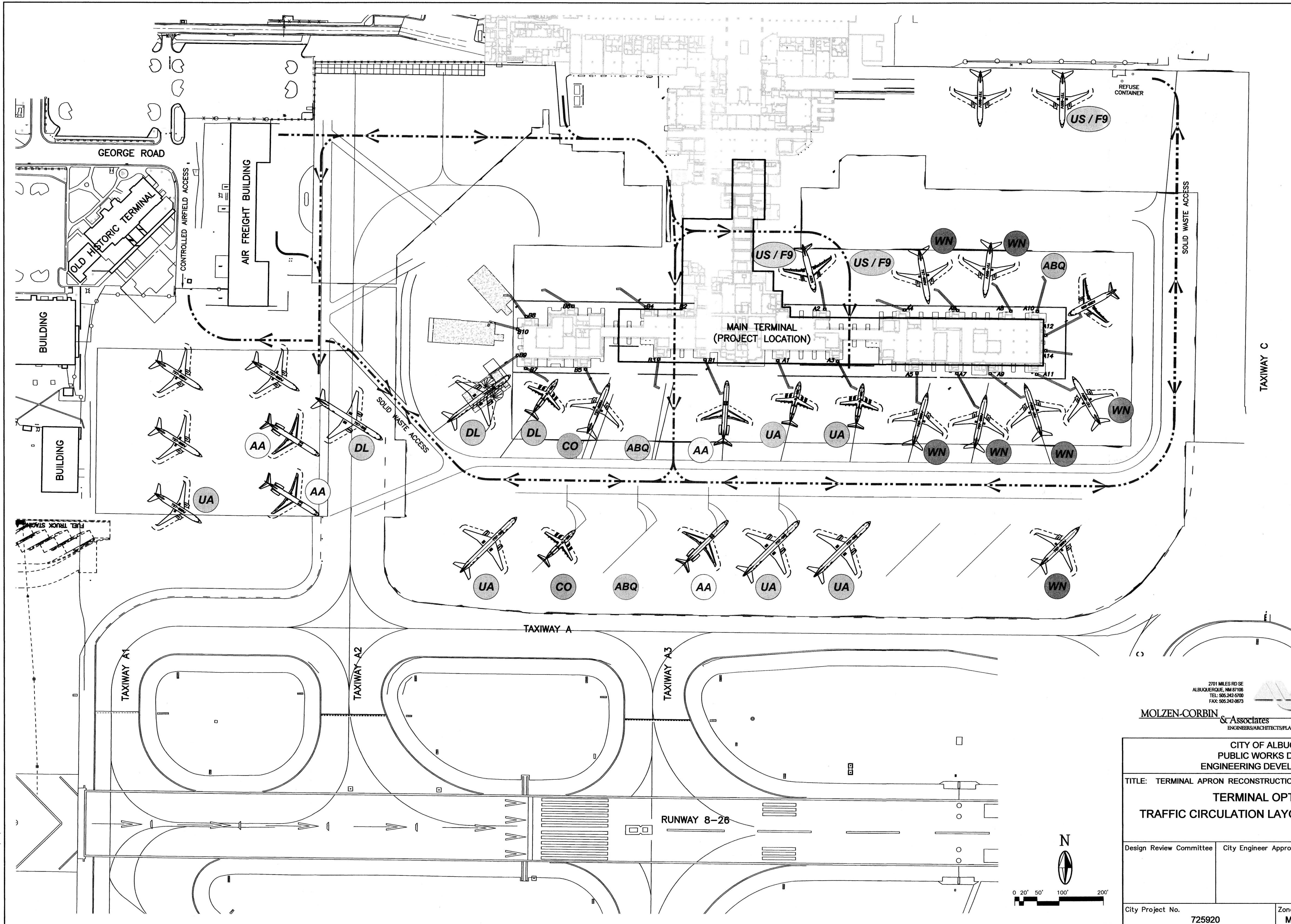


1"=100' 6/17/08



2701 MILES RD SE
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MOLZEN-CORBIN & Associates
ENGINEERS/ARCHITECTS/PLANNERS

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING DEVELOPMENT GROUP

TITLE: TERMINAL APRON RECONSTRUCTION PHASE I

**TERMINAL OPTIMIZATION
TRAFFIC CIRCULATION LAYOUT AND PARKING PLAN**

Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.
City Project No.	Zone Map No.	Sheet		
725920	M-16			

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BPL042-13.D20

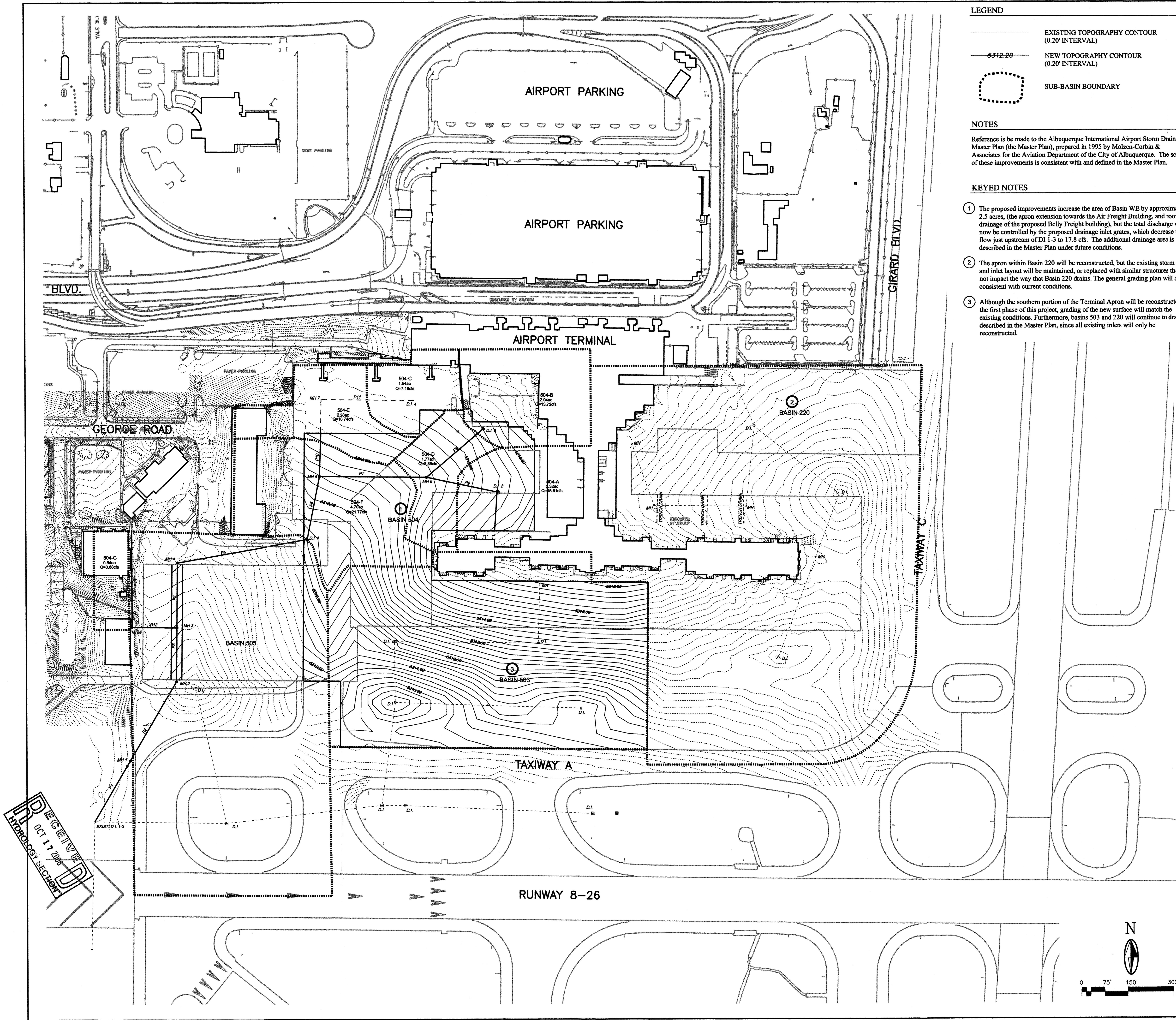
ENGINEER'S SEAL		SURVEY INFORMATION		BENCH MARKS		AS BUILT INFORMATION	
		FIELD NOTES		COA PUBLISHED CAP: AP-101 (ALUM CAP) N=470980.62, E=388996.56, EL=5308.61		CONTRACTOR	
		NO.	BY	DATE	DATE	STAMPED BY	DATE
						INSPECTOR'S FIELD	DATE
						VERIFICATION BY	DATE
						CORRECTED BY	DATE
						MICRO-FILM INFORMATION	
						RECORDED BY	DATE
						NO.	

NO.	DATE	REMARKS	BY
REVISIONS			
DESIGN			
DESIGNED BY	JMP	DATE	6/17/08
DRAWN BY	JMP	DATE	6/17/08
CHECKED BY	JMP	DATE	6/17/08

RECEIVED

JUN 18 2008

HYDROLOGY
SECTION



LEGEND

- EXISTING TOPOGRAPHY CONTOUR
(0.20' INTERVAL)
- NEW TOPOGRAPHY CONTOUR
(0.20' INTERVAL)
- SUB-BASIN BOUNDARY

NOTES

Reference is made to the Albuquerque International Airport Storm Drainage Master Plan (the Master Plan), prepared in 1995 by Molzen-Corbin & Associates for the Aviation Department of the City of Albuquerque. The scope of these improvements is consistent with and defined in the Master Plan.

KEYED NOTES

- The proposed improvements increase the area of Basin WE by approximately 2.5 acres, (the apron extension towards the Air Freight Building, and rooftop drainage of the proposed Belly Freight building), but the total discharge will now be controlled by the proposed drainage inlet grates, which decrease the flow just upstream of DI 1-3 to 17.8 cfs. The additional drainage area is described in the Master Plan under future conditions.
- The apron within Basin 220 will be reconstructed, but the existing storm drain and inlet layout will be maintained, or replaced with similar structures that do not impact the way that Basin 220 drains. The general grading plan will also be consistent with current conditions.
- Although the southern portion of the Terminal Apron will be reconstructed, in the first phase of this project, grading of the new surface will match the existing conditions. Furthermore, basins 503 and 220 will continue to drain as described in the Master Plan, since all existing inlets will only be reconstructed.

SITE CHARACTERISTICS

100 YEAR RAINFALL TABLE

100 yr - 1 hr = 2.01 in
100 yr - 6 hr = 2.35 in
100 yr - 24 hr = 2.75 in

SUB-BASIN 504-A
Area = 3.32 ac
Land Treatment:
A = 0.0%
B = 0.0%
C = 0.0%
D = 100.0%

SUB-BASIN 504-B
Area = 2.94 ac
Land Treatment:
A = 0.0%
B = 0.0%
C = 0.0%
D = 100.0%

SUB-BASIN 504-C
Area = 1.54 ac
Land Treatment:
A = 0.0%
B = 0.0%
C = 0.0%
D = 100.0%

SUB-BASIN 504-D
Area = 1.77 ac
Land Treatment:
A = 0.0%
B = 0.0%
C = 0.0%
D = 100.0%

SUB-BASIN 504-E
Area = 2.28 ac
Land Treatment:
A = 0.0%
B = 0.0%
C = 0.0%
D = 100.0%

SUB-BASIN 504-F
Area = 4.70 ac
Land Treatment:
A = 0.0%
B = 0.0%
C = 0.0%
D = 100.0%

SUB-BASIN 504-G
Area = 0.84 ac
Land Treatment:
A = 0.0%
B = 0.0%
C = 0.0%
D = 100.0%

CALCULATIONS

SUB-BASIN 504-A
Q(10-24hr) = 10.25 cfs
Q(100-24hr) = 15.51 cfs
V(10-24hr) = 0.444 ac ft
V(100-24hr) = 0.698 ac ft
Tp(10-24hr) = 1.5 hr
Tp(100-24hr) = 1.5 hr

SUB-BASIN 504-B
Q(10-24hr) = 9.07 cfs
Q(100-24hr) = 13.72 cfs
V(10-24hr) = 0.392 ac ft
V(100-24hr) = 0.618 ac ft
Tp(10-24hr) = 1.5 hr
Tp(100-24hr) = 1.5 hr

SUB-BASIN 504-C
Q(10-24hr) = 4.73 cfs
Q(100-24hr) = 7.16 cfs
V(10-24hr) = 0.205 ac ft
V(100-24hr) = 0.322 ac ft
Tp(10-24hr) = 1.5 hr
Tp(100-24hr) = 1.5 hr

SUB-BASIN 504-D
Q(10-24hr) = 5.52 cfs
Q(100-24hr) = 8.35 cfs
V(10-24hr) = 0.239 ac ft
V(100-24hr) = 0.376 ac ft
Tp(10-24hr) = 1.5 hr
Tp(100-24hr) = 1.5 hr

SUB-BASIN 504-E
Q(10-24hr) = 7.10 cfs
Q(100-24hr) = 10.74 cfs
V(10-24hr) = 0.307 ac ft
V(100-24hr) = 0.483 ac ft
Tp(10-24hr) = 1.5 hr
Tp(100-24hr) = 1.5 hr

SUB-BASIN 504-F
Q(10-24hr) = 14.39 cfs
Q(100-24hr) = 21.77 cfs
V(10-24hr) = 0.623 ac ft
V(100-24hr) = 0.980 ac ft
Tp(10-24hr) = 1.5 hr
Tp(100-24hr) = 1.5 hr

SUB-BASIN 504-G
Q(10-24hr) = 2.57 cfs
Q(100-24hr) = 3.88 cfs
V(10-24hr) = 0.111 ac ft
V(100-24hr) = 0.175 ac ft
Tp(10-24hr) = 1.5 hr
Tp(100-24hr) = 1.5 hr

PIPE DATA AND FLOW TABLE

Pipe	Length (ft)	Slope (%)	Size (in)	Flow (cfs)
P1	230	0.90	42	81.13
P2	300	0.90	42	81.13
P3	175	0.90	42	81.13
P4	210	0.90	42	77.25
P5	430	0.80	42	77.25
P6	210	0.96	36	55.48
P7	360	0.45	36	37.38
P8	290	0.40	30	13.72
P9	340	0.85	30	15.51
P10	250	0.71	30	17.90
P11	300	0.43	24	7.16
P12	150	1.00	18	3.88

DROP INLET DATA TABLE

Inlet	Grate Size (in)	Max Pond Depth (ft)	Max Radius (ft)	Time (hr)
DI 1	46 x 34	0.50*	60	3.75
DI 2	46 x 34	0.37	37	1.5
DI 3	46 x 34	0.50	42	0.0
DI 4	46 x 34	0.0	0.0	0.0

*exceeds recommended 0.4 ft pond depth. FAA criteria allows ponding on airfield pavement for short periods (1.5 hr in this case).

(Molzen-Corbin & Associates)

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CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING DEVELOPMENT GROUP
TITLE: ALBUQUERQUE INTERNATIONAL AIRPORT
TERMINAL BUILDING ADDITIONS AND RENOVATIONS
GRADING AND DRAINAGE PLAN

Design Review Committee	City Engineer Approval	Mo./Day/Yr.	Mo./Day/Yr.
City Project No.	Zone Map No.	Drawing No.	Sheet
7259.15 / 7259.16	M-16		Of

AS BUILT INFORMATION			
Contractor	Work	Date	
Issued By	Issued By	Date	
Accepted By	Accepted By	Date	
Drawn By	Drawn By	Date	
Checked By	Checked By	Date	
Recorded By	Recorded By	Date	
BENCH MARKS			
No.	By	Date	
SURVEY INFORMATION			
No.	By	Date	
ENGINEER'S STAMP & SIGNATURE			
No.	Date	Remarks	By
REVISIONS			
DESIGN			
Designed By: MOLZEN-CORBIN & ASSOCIATES Date:			
Drawn By: MOLZEN-CORBIN & ASSOCIATES Date:			
Checked By: MOLZEN-CORBIN & ASSOCIATES Date:			