SUMMARY OF QUANTITES CHANGE ORDERS FINAL QUANTITY DEMA											
TEM NUMBER	ITEM DESCRIPTION	UNITS	BIC	QUANTI	NON AJ.P.		CHANGE ORDERS	FINAL		NON A.I.P.	REMARKS
			TOTAL	A.I.I .	TON Page 3						
P-101-2.1	MOBILIZATION	L.S.	1	1				15 . 5	15 5		
P-152-4.1	SHOULDER GRADING		15,325	15,325							
2-401-6.1	BITUMINOUS SURFACE COURSE		20,500	20,500				1	3,070		
2-401-6.2	MILLING EXISTING PAVEMENT		4,100 63,830	63,830				63.822			
P-401-6.3	RUNWAY PAVEMENT GROOVING BITUMINOUS TACK COAT	GAL.		29,000					15,160		
2-603-5.1 2-620-5.1	RUNWAY AND TAXIWAY PAINTING	S.F.		106,600				166,000	166,600		
P-620-5.2	TEMPORARY RUNWAY AND TAXIWAY PAINTING	S.F.	159,900	159,900	·			222,95	272,18	-	
									2. 5. 5		
T-901-5.1	SEEDING	S.Y.	16,400	16,400				31, 123	17,460		
			00.400	20.400				11411	20,419		
L-108-5.1	CABLE TRENCH, 4" WIDE		20,400 48,500	20,400					45.614	1	-
L-108-5.2	UNDERGROUND CABLE, 5KV, 1/C, TYPE C, INSTALLED IN TRENCH, DUCT OR CONDUIT	L.F.	40,000	10,000							
L-108-5.3	#8 AWG BARE COUNTERPOISE WIRE, INSTALLED	1.1.1	24,000	24,000				27.807	2: 509		
L-100-J.J	IN TRENCH, DUCT OR CONDUIT										
L-108-5.4	GROUND ROD AND GROUND CONNECTION, INSTALLED-	EA.	50	50					55	-	
	IN-PLACE			<u> </u>				1 -			
L-108-5.5	CONNECT / SPLICE CABLE TO EXISTING WINDCONE	EA.	4	4				3			
* 4.00	CABLES CABLES CONSTANT	To A	1	1	+			/	,	†	
L-109-5.1	INSTALL 30 KW, 6.6 AMP L-828 CONSTANT CURRENT REGULATOR	EA.	1	1 1	+						
1 100 50		EA	1	1				/	/		
L-109-5.2	REMOVE AND REINSTALL EXISTING 7.5 KW CONSTANT CURRENT REGULATOR	LA									
L-109-5.3	INSTALL ELECTRICAL EQUIPMENT PANELS	L.S.	1	1				1			
	AND APPURTENANCES		-								
L-109-5.4	INSTALL CONTROL / RELAY EQUIPMENT	L.S.	1	1							
	FOR ATCT CONTROL PANEL		<u> </u>					,	ļ		
L-109-5.5	INSTALL LIGHTING CONTROL PANEL INCLUDING	L.S.	1	1 1	 			+	/		
	COUNTER MODIFICATIONS IN EXISTING AIR TRAFFIC				,				<u> </u>		
	CONTROL TOWER	* O	1 1	1				1 /	1		
L-109-5.6	INSTALL CONDUIT, WIRING, CONTROL CABLES AND	L.S.	1 1	1							
100 57	APPURTENANCES FROM VAULT TO ATC TOWER CAB CONSTRUCT AIRFIELD LIGHTING VAULT BUILDING	L.S.	1	1					1		
L-109-5.7	AND ALL APPURTENANCES	<u>, L</u>								<u> </u>	
L-110-5.1	INSTALL 1-4" RIGID CONDUIT, JACK AND BORED	L.F.	1,750	1,750				1.054	1,084		
<u> </u>	UNDER EXISTING PAVEMENT, COMPLETE-IN-PLACE									ļ	
L-110-5.2	INSTALL 4-4" UNDERGROUND ELECTRICAL SCHEDULE	L.F.	800	800	-			471	471		
	40, PVC, CONCRETE ENCASED COMPLETE-IN-PLACE							21	3/	†	
L-110-5.3	INSTALL PRECAST CONCRETE ELECTRICAL HANDHOLE,	EA.	26	26				1-1	1		
	COMPLETE-IN-PLACE	EA.	3	3				3	3		
L-110-5.4	INSTALL PRECAST CONCRETE ELECTRICAL MANHOLE, COMPLETE-IN-PLACE	LA.	1 0	<u> </u>							
L-110-5.5		EA	28	28				15	15	<u> </u>	
L-110-5.5	COMPLETE-IN-PLACE								<u> </u>		
									 	1	
L-125-5.1	REMOVE AND SALVAGE EXISTING AIRFIELD LIGHT	EA.	100	100				1/2	113	 	
	FIXTURE		<u> </u>					65	63	1	
L-125-5.2	INSTALL MEDIUM INTENSITY RUNWAY LIGHT	EA.	70	70	-			4 5	60	 	
٠.	(MIRL), BASE MOUNTED WITH TRANSFORMER,		1		++					†	
	COMPLETE-IN-PLACE	EA.	14	14				16	16		
L-125-5.3	INSTALL RUNWAY END LIGHT, BASE MOUNTED WITH TRANSFORMER, COMPLETE-IN-PLACE	LA.	1.4	14							
I_195 5 4	INSTALL RUNWAY DISPLACED THRESHOLD LIGHT, BASE	EA.	14	14				1/2	14		ļ
L-125-5.4	MOUNTED W/ TRANSFORMER, COMPLETE IN PLACE									 	
L-125-5.5	INSTALL MEDIUM INTENSITY TAXIWAY LIGHT, (MITL)	EA.	76	76				71	79		
	BASE MOUNTED WITH TRANSFORMER,								 	+	
	COMPLETE-IN-PLACE	T.A.		1				1/	1//	+	
L-125-5.6	INSTALL GUIDANCE SIGN, BASE MOUNTED	EA.	11	11				1-11-	1 11	1	
	WITH TRANSFORMER, COMPLETE-IN-PLACE	EA.	20	20				20	20		
L-125-5.7	ADJUST EXISTING MALSR IN-PAVEMENT LIGHTS, COMPLETE-IN-PLACE	E.A.	20	1 ~0	1						
	COMPLETE-IN-FLACE			1							
										1 /	
GP-70-11	THIRD PARTY INSURANCE	L.S.	1		, 1					_	+
		<u> </u>					At A section of the s	,		-	
		-				- /	KALIN CONTROL EL HITTEN	1	+	 	
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<u></u>				+							
		<u>† </u>									<u> </u>
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Greiner, Inc.

Fort Worth, Texas

and Planners

A.I.P. NO.: 3-48-0063-04-9

92-29

Y8024.30

REVISIONS

K.E.G.

CHECKED: L.D.T.

J.R.H.

DESIGN:

DRAWN:

CONTRACTOR'S SAFETY AND SECURITY REQUIREMENTS

SAFETY

SECURITY

- 1. The Contractor shall acquaint his supervisors of the airport activity and operations that are inherent of this active airport and shall conduct his construction activities to conform to all routine and emergency air traffic requirements and guidelines on safety specified in Special Provisions of the contract documents.
- 2. All Contractor vehicles that are authorized to operate on the airport outside of the designated construction are limited to haul routes as specified on the plans. Contractor vehicles in the active Aircraft Operations Area (AOA) shall display in full view above the vehicle a 3' x 3' or larger, orange and white checkerboard flag, each checkerboard color being 1' square and escorted under the control of the Contractor mobile (two-way) radio operator on the job at all times. During daytime operations the mobile operator shall be in constant contact with ATCT group control. Any vehicle operating in the active AOA during the hours of darkness should be equipped with a flashing amber (yellow) dome type light, mounted on top of the vehicle and of such intensity to conform to local codes for maintenance and emergency vehicles.
- A Contractor vehicles that are required to cross active runways. and instrument of approach clear zones shall do so under the -direct control of a flagman who is in direct (two-way) radio communication with the ground controller of the Air Traffic Control Tower, on ground control frequency. The Hagman and radic operator shall be trained and instructed by Airport Management in the regulations governing operations on the ACA. The Inograph and radio obstrator snot remain with his vehicle at all times. Contractor on a form on together equipped with two-way. indicas as we last timesting a two way to be utilized by the Engineer. All council troffs on runways, taxiways and aprons-shall have priority over Contractor's traffic.
- 4. No ruhway, tax way, apron or disport indadway shall be liesed. without written approval of the Aircort transmitted by the Engineer. to enable necessary "Notices to Airmen" (NOTAM) or advisories to direct services or tenants. A minimum of 48 hours notice of requested diosing shall be directed to the lingineer, who will coordinate the request with the Owner
- 5. Any construction activity within 200' of an active runway edge or 40' from an active taxiway edge or open excavations in excess of 1 1/2" inches deep within the above creas, will require closure of the affected runway or taxiway, unless otherwise approved by the owner. Closure requires the same provisions as paragraph four above. See phasing notes sheet 4 for additional closure requirments.
- 6. Stockpiled material should be constrained in a manner to prevent movement resulting from direcraft jet blast or wind conditions in excess at 10 knots.
- 7. Open trenches, excavations and stockpiled material located in the ANA shall be prominently marked with flags and lighted by approved light units during hours of restricted visibility and darkness.
- 8. Debris, waste and loose material capable of causing damage to aircraft landing gears, propellers or being ingested in jet engines shall not be allowed on active aircraft movement areas. If these materia's are observed to be on active aircraft movement areas, they will be removed immediately and or continuously during construction. Contractor is required to maintain on site a power sweeper with vacuum abilities to maintain the area debris free. This requirement is of the utmost importance. Any damage to aircraft as a result of non-compliance will be the sole responsibility of the Contractor.
- 9. The Engineer will arrange with the owner for inspection prior to opening for aircraft use any runway or taxiway that has been closed for work, on or adjacent thereto, or that has been used for a crossing point or haul by the Contractor. Prior to opening any runway or taxiway, an inspector duly authorized by the City (not part of the Engineer's staff shall inspect and approve the runway or taxiways for use.
- 10. The Contractor's Security Officer (C.S.O.) will be responsible for all safety precautions. Prior to the commencement of the work the C.S.O. shall provide the Engineer an outline of a proposed accident and fire protection plan for all work contemplated under the contract and conduct at least one safety meeting each month for each shift and require the attendance of all supervisors at such meetings. Copies of the minutes of safety meetings shall be kept on file in the Contractor's field office and available upon demand by the Engineer.

- 1. General Intent: It is intended that the Contractor shall comply with all requirements of the airport security plan and with the security requirements specified herein. The Contractor shall designate to the Engineer in writing, the name of his "Contractor Security Officer" (C.S.O.). The C.S.O. shall represent the Contractor on the security requirements for the contract.
- 2. Contractor Personnel Security Orientation: The Contractor Security Officer shall be responsible for briefing all Contractor personnel on these requirements and, from time to time, and other security provisions adopted by the owner. All new Contractor employees shall be briefed on these requirements prior to working in the construction area. The Contractor Personnel Security Officer shall be required to attend the Preconstruction Meeting before the project begins.
- 3. Access to the Site: Contractor's access to the site shall be as shown on plans. No other access points shall be allowed unless approved by the Engineer. All contractor traffic authorized to enter the site shall be experienced in the route or guided by Contractor personnel. The Contractor shall be responsible for traffic control to and from the various construction areas on the site, and for the operations of the access gate to the site. A Contractor's flagman or traffic control person shall monitor and coordinate all Contractor traffic at the access gate with Security. The Contractor shall not permit any unauthorized construction personnel or traffic on the site. The Contractor is responsible for immediate clean up of any debris deposited along the access route as a result of his construction traffic. Direction signing at the access gate and along the delivery route to the storage area, plant site or work site shall be as directed by the Engineer.
- 4. Materials Delivery to the Site: All Contractor's material orders for delivery to the work site will use as a delivery address, the street name assigned to the access point at the Contractor's storage site at the airport.
- 5 Construction Area Limits: The limits of construction, material storage areas, plant site, equipment storage area, parking area and other areas defined as required for the Contractor's exclusive use during construction shall be marked by the Contractor. The Contractor shall erect and maintain around the perimeter of these areas suitable fencing, marking and/or warning devices visible for day/night use. Temporary barricades, flagging and flashing warning lights will be required at critical access points. Type of marking and warning devices shall be approved by the Owner, through the Engineer.
- 6. Identification Personnel: All employees of Contractor or Subcontractors requiring access to the construction site are required to be supplied with identification badges, identifiable hard hats, and other identification approved by the Engineer, to be worn at all times while within the area.
- 7. Identification Vehicles: The Contractor, through the Contractor Security Officer, shall establish and maintain a list of Contractor and Subcontractor vehicles authorized to operate on the site and shall issue a permit to each vehicle to be made available upon demand by the Engineer. Vehicles delivering materials to the Contractor's site shall pick up a temporary pass at the access gate and surrender same upon leaving the gate. Vehicle permits shall be assigned in a manner to assure positive identification at all times. In lieu of issueing individual vehicle permits, the C.S.O. can require each vehicle to display a large company sign on both sides of vehicle and advise Security and Operations through the Engineer, with a current list of companies authorized to enter and conduct work on the airport. Contractor employee personal vehicles shall be restricted to the Contractor's storage area and are not allowed on the airfield at any time.

GENERAL CONTRACT NOTES

- HAUL ROUTES LOCATION OF HAUL ROUTES ON THE AIRPORT SITE SHALL BE AS SPECIFIED ON THE PLANS OR AS APPROVED BY THE ENGINEER. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE OFF-SITE HAUL ROUTES (STATE HIGHWAYS, COUNTY ROADS OR CITY STREETS) WITH THE APPROPRIATE OWNER WHO HAS JURISDICTION OVER THE AFFECTED ROUTE. THE CONTRACTOR SHALL PROVIDE APPROPRIATE SIGNAGE ON AND OFF THE AIRPORT TO DIRECT DELIVERIES TO THE STAGING AREA. ON-SITE HAUL ROUTES SHALL BE MAINTAINED BY THE CONTRACTOR AND SHALL BE RESTORED TO THEIR ORIGINAL CONDITION UPON COMPLETION OF BEING USED AS A HAUL ROUTE. THE BEFORE AND AFTER CONDITION OF ON-SITE HAUL ROUTES SHALL BE JOINTLY INSPECTED AND DETERMINED BY THE CONTRACTOR AND THE ENGINEER. FENCING, DRAINAGE, GRADING AND OTHER MISCELLANEOUS CONSTRUCTION REQUIRED TO CONSTRUCT TEMPORARY HAUL ROUTES OR ACCESS POINTS ON THE AIRPORT WILL BE THE CONTRACTOR'S TOTAL RESPONSIBILITY AND SHALL BE APPROVED BY THE ENGINEER PRIOR TO THE WORK. ALL SERVICE ROADS AND ACCESS ROADS SHALL REMAIN OPEN DURING DURING CONSTRUCTION.
- 2. CONTRACTOR UTILITIES THE CONTRACTOR'S STAGING AREA, SHOWN ON THE PHASING PLANS, DOES NOT HAVE ANY UTILITIES. THE CONTRACTOR MAY MAKE PROVISIONS FOR THE UTILITIES. THE CONTRACTOR SHALL PAY FOR ALL CONNECTION COSTS AND SHALL PAY FOR POWER AND TELEPHONE.
- 3. SAFETY AND SECURITY THE CONTRACTOR SHALL CONDUCT HIS ACTIVITIES IN A SAFE AND SECURE MANNER AS SPECIFIED IN THE "CONTRACTOR'S SAFETY AND SECURITY REQUIREMENTS" AS ABOVE AND IN THE SPECIAL PROVISIONS SECTION

- 4. SEEDING AND MULCHING ALL AREAS WHICH ARE DISTURBED BY THE CONTRACTOR SHALL BE SEEDED AND MULCHED. PAYMENT FOR SEEDING AND MULCHING FOR AREAS RECEIVING SHOULDER GRADING SHALL BE MADE UNDER ITEM T-901-5.1 SEEDING AND MULCHING. ALL OTHER SEEDING AND MULCHING SHALL BE INCIDENTAL TO THE PROJECT.
- ALL WASTE MATERIALS FROM MILLING OPERATIONS SHALL BE DISPOSED OF OFF SITE AT NO EXPENSE TO THE OWNER.



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THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY L.DARRELL THOMPSON, P.E. 60770, DN JUNE, 1992.

Engineers, Architects

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SUMMARY OF QUANTITIES

SHEET

DATE: JUNE, 1992

AND CONTRACTOR'S SAFETY AND SECURITY REQUIREMENTS