RULE 10-I

Oral authorization and acknowledgements, between foreman and engineers, for trains to pass red "Conditional Stop" signs, must be worded in the following forms:

FOREMAN'S RESPONSE

THIS IS SP FOREMAN _____ AT MP _____ CALLING SP (TRAIN NO.) _____. (AFTER ENGINEER ANSWERS GIVING PROPER IDENTIFICATION)

THIS IS SP FOREMAN _____ IN CHARGE OF WORK BETWEEN MP _____ AND MP _____SP TRAIN ORDER NO. _____ WE ARE IN THE CLEAR AND YOU MAY PROCEED PAST THE RED CONDITIONAL STOP SIGN AND THROUGH THE LIMITS OF THE ORDER AT _____ MPH, REPEAT _____ MPH*.

ENGINEER'S RESPONSE

THIS IS ENGINEER OF SP TRAIN NO. _____ I MAY PROCEED PAST THE RED CONDITIONAL STOP SIGN AND THROUGH THE LIMITS OF ORDER NO. _____ BETWEEN MP _____ AND MP _____ AT _____ MPH*, REPEAT _____MPH*.

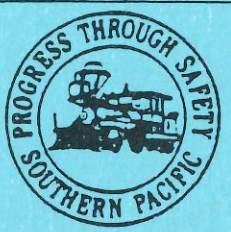
FOREMAN MUST ACKNOWLEDGE ENGINEER'S RESPONSE AS FOLLOWS:

SP TRAIN ORDER NO. _____, BETWEEN MP _____ AND MP _____, _____MPH* OK.

*WHERE NO SPEED RESTRICTION IS REQUIRED, FOREMAN WILL TELL ENGINEER "AT MAXIMUM AUTHORIZED SPEED".

WHEN FORM Y TRAIN ORDER IS USED IN MULTIPLE MAIN TRACK TERRITORY WHERE TRAINS MAY OPERATE IN EITHER DIRECTION, FOREMAN'S ORAL AUTHORIZATION MUST INDICATE THE MAIN TRACK ON WHICH MOVEMENT IS AUTHORIZED.

Southern Pacific
Transportation Company



TUCSON DIVISION TIMETABLE

13

EFFECTIVE SUNDAY, APRIL 25, 1982

AT 12:01 A.M.

MOUNTAIN STANDARD TIME

R. D. KREBS,
Vice President-Operations.

C. T. BABERS,
General Manager.

L. G. SIMPSON,
Assistant Vice President-Operations Planning and Control.

J. J. WILLIS,
Asst. Vice President-Transportation.

J. J. TIERNEY,
Superintendent.

W. H. TANNER,
J. O. MARTIN
R. L. ROSS
Assistant Superintendents.

ON THE JOB—OFF THE JOB IT'S UP TO YOU TO PREVENT ACCIDENTS.

TERMINAL SUPERINTENDENT

J. BAUER, III ..... El Paso

ASSISTANT TERMINAL SUPERINTENDENTS

R. D. MULLINS ..... El Paso

TRAINMASTERS

L.M. LAWSON ..... El Paso
G. A. TONCHEFF ..... Tucson
W. H. STIVER ..... Tucson
R. M. McLANE ..... Tucson
M. E. MULLINS ..... Phoenix
H. C. HANSEN ..... Lordsburg

TRAINMASTER-ROAD FOREMAN OF ENGINES

J. R. EFAW ..... El Paso

ASSISTANT TRAINMASTERS

R. W. LITTLE ..... Tucson
G. W. YOUNG ..... Tucson
A. CARO ..... El Paso
B. H. CREHAN ..... El Paso
W. M. WHALEY ..... Phoenix

ROAD FOREMEN OF ENGINES

D. R. McKILLOP ..... Tucson
D. L. GREEN ..... Tucson

CHIEF TRAIN DISPATCHER

H. L. ANDERSON ..... Tucson

GENERAL YARDMASTER

R. W. YORK ..... El Paso

AMTRAK

J. W. WILSHIRE, Trainmaster ..... Oakland
L. L. LAPORTE, Asst. Trainmaster ..... Oakland
W. E. MOFFETT, Trainmaster ..... Los Angeles
IRA YOUNG, JR., Trainmaster ..... Los Angeles
G. M. TODD, Trainmaster ..... Los Angeles
R. B. LUTTON, Trainmaster ..... San Antonio
T. R. MALISH, Asst. Trainmaster ..... San Antonio

TABLE OF CONTENTS

SPEED TABLE

Time Per Mile Mins.	Time Per Mile Sec.	Miles Per Hour	Time Per Mile Mins.	Time Per Mile Sec.	Miles Per Hour	Time Per Mile Mins.	Time Per Mile Sec.	Miles Per Hour
—	45	80.0	1	08	52.9	1	46	34.0
—	46	78.3	1	10	51.4	1	48	33.3
—	47	76.6	1	12	50.0	1	50	32.7
—	48	75.0	1	14	48.6	1	52	32.1
—	49	73.5	1	16	47.4	1	54	31.6
—	50	72.0	1	18	46.1	1	56	31.0
—	51	70.6	1	20	45.0	1	58	30.5
—	52	69.2	1	22	43.9	2	—	30.0
—	53	67.9	1	24	42.9	2	05	28.8
—	54	66.6	1	26	41.9	2	10	27.7
—	55	65.5	1	28	40.9	2	15	26.7
—	56	64.2	1	30	40.0	2	24	25.0
—	57	63.2	1	32	39.1	2	30	24.0
—	58	62.6	1	34	38.3	2	45	21.8
—	59	61.0	1	36	37.5	3	—	20.0
1	—	60.0	1	38	36.8	3	30	17.1
1	02	58.0	1	40	36.0	4	—	15.0
1	04	56.2	1	42	35.3	5	—	12.0
1	06	54.2	1	44	34.6	6	—	10.0

EAST-WARD FIRST CLASS 2 Psgr Lv. Mon. Wed. & Sat.	Mile Post	STATIONS Gila Line			Station Number	WEST-WARD FIRST CLASS 1 Psgr Arrive Sun. Wed. & Fri.
AM 4.20	732.7	Yd. Lmts TO-R	YUMA	BKYPQ DT	49095	AM s3.10
	737.4	4.7				
	737.5		EAST YARD		49099	
	743.7	6.2				
		8388	FORTUNA		50020	
	750.6	6.9				
	750.7	8487	KINTER		50040	
	753.5	2.8	DOME	2 Main Tracks	50050	
5.03 AM	770.0	16.5	WELLTON	P	50080	2.15 AM
	776.4	6.4				
		8371	NOAH		52010	
	783.8	7.4				
		8415	COLFRED		52018	
	792.6	8.8				
	792.7	8401	MOHAWK		52027	
	800.5	7.9				
		8386	STOVAL		52031	
	811.9	11.4				
		8388	AZTEC		52038	
	819.7	7.8				
		8240	STANWIX		52046	
	830.0	10.3				
		8369	SENTINEL		52056	
	839.9	9.9				
		8392	PIEDRA		52066	
	845.5	5.6				
		8356	THEBA		52072	
	855.7	10.2				
		17014	GILA	BKP	52090	
	863.0	7.3				
	863.2	8049	BOSQUE		52107	
	870.0	6.8				
	870.2	8883	SHAWMUT		52114	
	874.6	4.4				
		8305	ESTRELLA		52119	
	883.7	9.1				
		8330	MOBILE		52128	
	890.0	6.3				
		8359	ENID		52134	
	897.8	7.8				
		8309	MARICOPA		52142	
	907.7	9.9				
		8330	BON		52152	
	918.8	11.1				
		8336 TO	CASA GRANDE	BKPQ	52163	
	928.4	9.6				
		8344	TOLTEC		52174	
AM 9.11	936.7	8.3				
		N-8677 S-8754	PICACHO	Y	52200	PM 10.10
	944.2	7.5				
		8381	WYMOLA		52209	
	951.4	7.2				
		8337	RED ROCK		52216	
	958.4	7.0				
		8445	NAVISKA		52226	
	966.9	8.5				
		8372	RILLITO		52238	
	974.7	7.8				
		8195	KINO		52251	
	979.3	4.6				
		W-7890	STOCKHAM		52258	
s10.05 AM	983.9	4.6				
		Yd. Lmts R	TUCSON	BKPQ DT	52270	9.30 PM
	986.6	2.7 TO-R	PFE YARD	BKIYPQ	52280	
Arrive Mon. Wed. & Sat.		(253.2)				Leave Tue. Thu. & Sat.
2						1

Automatic Block System

Centralized Traffic Control

MAXIMUM AUTHORIZED SPEED FOR TRAINS

(Between Yuma and Tucson Refer to Timetable Bulletin for Speed Table)

The following establishes the maximum allowable speed for freight trains provided speed is not otherwise restricted: (e.g., Restricted cars or engines, AB Rule 33, etc.)

a. BSMFF, CHLAT and MBSMF are authorized to operate at passenger train speed. If train exceeds 120 cars, maximum speed is reduced to 55 MPH.

b. APLAA, AVBAT, AVLAT, BAESY, ESBAT, HOLAT, LAAVT, LACHT, LADAT, LAEST, LAHOT, LAKCP, LAMFT and MPLAT are authorized to operate at passenger train speed not to exceed 65 MPH. If train length exceeds 120 cars, maximum speed is reduced to 55 MPH.

c. BALFY, BSMFY, EUASY, LAESJ, LAHOY, LAMPT, SRLAT and WCARY are authorized to operate at freight train speed.

d. Light engine with operative dynamic brake is authorized to operate at passenger train speed.

Exception: Without dynamic brake in operation, must operate at freight train speed.

e. Other freight trains may be authorized by train dispatcher to operate at passenger train speed not to exceed 65 MPH. If train exceeds 120 cars, maximum speed is reduced to 55 MPH.

f. Trains not covered in items a, b, c, d or e will operate at freight train speed not to exceed 45 MPH, except as provided in A.B. Rule 65.

MAXIMUM HORSEPOWER PER TON RATIOS

APLAA, BSMFF, CHLAT, LACHT, LADAT, LAEST, LAMFT, MBSMF	3.0
AVBAT, AVLAT, BAESY, ESBAT, HOLAT, LAAVT, LAHOT, LAKCP, MPLAT, SRLAT	2.0
All other trains except on Branches (Refer to A.B. Rule 65)	1.5

SPEEDS ON OTHER THAN MAIN TRACK:

Remotely controlled turnouts, crossovers and sidings	25
PFE Yard: on following tracks on and around fueling facilities at west end PFE Yard near Roundhouse: Roundhouse link track, North Fueling Track, Middle Fueling Track, Storage Track-22nd St	5
Sahuarita: Eastward on AS&R, Pima and Anamax mine spurs	20
Eastward on Duval Mine Spur	25
Westward on AS&R, Pima, Anamax and Duval mine spurs	15
Exception: Through curves #2 and #3 on Anamax mine spur in both directions	10
All other tracks Gila Subdivision	10

Eastward freight trains arriving main track PFE Yard will reduce train speed to 10 MPH one train length before spotting for fuel to allow for train inspection.

ADDITIONAL STATIONS

Mile Post	Station	Station Number	Mile Post	Station	Station Number
746.6	Blaisdell	50030	968.6	Plata	52241
760.2	Ligurta No. 1 Track	50070	977.4	Jaynes	52254
850.3	Smurr	52078	981.2	Petrie	52263
921.0	Seco	52167		**Nogales Branch**	
933.1	Eloy	52179	992.4	Aldona	52312
953.5	Avra	52221	1010.4	Continental	52332
962.2	Marana	52231	1034.2	Otero	52357

GILA SUBDIVISION

EAST-WARD		STATIONS		WEST-WARD
Mile Post		Nogales Branch		Station Number
986.6	Yd. Lmts. TO-R	PFE YARD 15.6	BKIYPQ	52280
1002.4	Yd. Lmts.	SAHUARITA 18.7		52322
1021.1		AMADO 28.7		52344
1049.8	Yd. Lmts. TO-R	NOGALES	BKPQ	52370
		(62.9)		

MAXIMUM AUTHORIZED SPEED FOR TRAINS

BETWEEN	NOGALES BRANCH	ALL TRAINS
PFE YARD and NOGALES		25

Exceptions:			Exceptions:	
984.2 and	985.1	10	1040.0 and 1048.5	20
985.1 and	991.4	20	1048.5 and 1049.9	10

"K" trains must not exceed 10 MPH between the following locations:

MP 985 and MP 993
MP 1002 and MP 1004
MP 1010 and MP 1011
MP 1041 and MP 1049.8

SPECIAL INSTRUCTIONS

RULE 7-C. Yuma and PFE Yard: Freight trains arriving or departing Yuma Yard and Westward trains departing PFE Yard must receive proceed signal (green flag by day, green light by night), or oral authorization from yardmaster or his representative.

RULE 10-J. Speed may be increased as soon as lead engine has passed increase in speed sign at following locations:

Westward MP		Eastward MP
855.7	Gila (Martin Ave.)	855.8

RULE 21. Identification of superior trains must be made by eastward trains enroute Phoenix Subdivision between Yuma and Wellton to be applied at Wellton, and by westward trains enroute Phoenix Subdivision between Tucson and Coolidge to be applied at Coolidge.

RULE 82-A. Eastward trains originating Yuma, and westward trains originating PFE Yard or Tucson, enroute Phoenix Subdivision with same conductor and engineer must obtain two clearances, one endorsed Gila Subdivision and one endorsed Phoenix Subdivision. Phoenix Subdivision clearance and orders, if any, addressed to such trains at Yuma, PFE Yard or Tucson must be respected on Phoenix Subdivision.

RULE 83. Yuma: Check of train register by eastward trains enroute Phoenix Subdivision will apply at Wellton.

Tucson: Check of train register by westward trains enroute Phoenix Subdivision will apply at Coolidge.

RULE 83-A. At following stations only trains indicated will register:

PFE Yard.....Trains originating or terminating.

RULE 83-B. Tucson: Trains originating and terminating will leave register ticket on prescribed form with messenger.

RULE 93. Location of yard limits:

732.5	Yuma	737.4
977.0	Tucson (No. 2 Track)	993.0
	Tucson (No. 1 Track)	992.1
	Tucson (Nogales Br.)	993.4
998.7	Sahuarita	1005.5
1040.0	Nogales	1049.9

Nogales: Trains arriving Nogales not exceeding 2000 ft. in length unless otherwise instructed, will trail through spring derail in main track at west end of yard, proceed on main track and stop short of fouling point of crossover from main track to No. 1 yard track, west of Court Street.

RULES D-97 and D-251. Will apply as follows:

Between end of CTC, MP 732.5, Yuma and Subway, MP 734.3 and between PFE Yard and Stockham.

RULE 99-C. Will apply on Nogales Branch.

RULE 103. Toltec: Sound detector microphone located on mast 75 feet west of Toltec Road Crossing. Eastward trains stopping west of crossing MP 928.6 on Toltec siding, before starting must sound whistle to lower or keep crossing gates down.

Sahuarita: When necessary to cross US-89 on Drill Track to AS&R Mine, and Anamax Mine, MP 999.8, west of Sahuarita during night hours, movements must be preceded by a member of train crew displaying lighted red fusee. Except in an emergency, trains must not stop while on the highway right-of-way. Eastward trains entering the Drill Track to AS&R Mine and Anamax Mine will continue across and clear the highway before stopping for brakeman to board train. Westward trains will stop at the highway right-of-way line and not proceed until main track switch has been lined for continued movement across highway. Switching movements must not be made at main track switch to Drill Track.

RULE 104.

Derails on main track:

Nogales.....Spring point derail, facing westward movement, just west of west switch of first yard track north of main track may be trailed through in eastward movement.

RULE D-160. Yuma: Westward signal 7343 adjacent to NO.2 Track displays permanent red aspect. Train or engine may pass this signal without stopping and move against current of traffic **after protection has been provided in accordance with provisions of Rule D-161. Movements must be made at Restricted Speed.**

RULE: 204. Trains of Gila and Phoenix Subdivisions with same conductor and engineer may be issued train orders on one Subdivision that affects their movement on Gila or Phoenix Subdivision.

RULE: 221. PFE Yard, and Casa Grande are train-order offices only for trains originating.

TUCSON: Trains orginating Tucson will receive train orders and clearances from P.F.E. Yard. Train orders and clearances will be carried from P.F.E. Yard to Tucson by messenger and delivered to conductor.

RULE 306. Block signals with "P" plates:

Eastward	Protection	Westward
P-A	Spring switch, east end Colorado River bridge	
	Spring switch, MP 737.5, east end crossover from running track to Track No. 2	P-SA
P-A East End Fortuna	High Water Detector MP 745.8 Fortuna Wash	P-7461
P-7480	Collision Detector, Bridge 748.6	P-A West end Kinter
P-A Dome No. 1 Track	Collision detector, Ligurta underpass, MP 760.6	P-7607
P-7606 No. 2 Track	Collision detector, Ligurta underpass, MP 760.6	P-A MP 768
P-7988	High Water Detector, Bridge MP 799.0	P-A West end Stoval
P-8608	High Water Detector, Bridge MP 862.0	P-A West end Bosque
P-8674	High Water Detector, Bridge MP 868.9	P-A West end Shawmut

Eastward	Protection	Westward
P-8778	High Water Detector, Bridge MP 878.3	P-8807
P-8948	High Water Detector, Bridge MP 894.9	P-A West end Maricopa
P-A, East end Maricopa	High Water Detector, Bridge MP 899.0	P-8991
P-9488	High Water Detector, Bridge MP 949.3	P-A West end Red Rock
P-A	Spring switch, west end westward siding, Stockham	
P-9834	Spring switch, west end cross over, Sixth Ave., Tucson	
P-I Westward Main Track Tucson	Spring switch, west end of crossover, westward main track to eastward main track, Cherry Avenue	
P-I Eastward Main Track Tucson	Spring switch, west end of crossover from eastward main track to Nogales lead, Cherry Avenue	
P-I Nogales Lead Tucson	Spring switch, west end of west lead, Cherry Avenue	
	Spring switch, east end of double track, Cherry Ave.	P-SA East end double track, Cherry Ave.
	Spring switch, east end of crossover from westbound main to eastbound main, Cherry Avenue	P-SA west lead / P-SA east lead
	East End of crossover from eastward main to east lead	P-SA east lead

RULE 505. Yuma: Main tracks between MP 734.3 and MP 737.5 are designated as follows:

No. 1—North track No. 2—South track

Between MP 734.3 and MP 737.5 trains and engines may use main tracks in either direction, being governed by signal indication.

Signal 7333 governs westward movements through crossover to main track only and will remain dark until crossover switch is open.

Tucson: Westward Signal 9833 on eastward main track governs westward movement through crossover and displays stop indication until east crossover switch is lined for crossover movement to westward main track.

Eastward 2-unit Signal P-9834 top unit governs movements on eastward main track, bottom unit governs movements to Passenger Track.

When westward signal 9835 display stop indication westward freight trains must not pass this signal if there is a westward passenger train in passenger track, except on instructions from yardmaster.

Between MP 987.7 at 36th St. and MP 985.5 at Cherry Ave. There is no superiority of trains.

RULE 538. Spring switches equipped with facing point locks are located as follows:

Station	Location	Normal Position
East Yard	East end of crossover from running track to Track No. 2	Track No. 2
Stockham	West end westward siding	Main Track
PFE Yard	End of double track Cherry Ave MP 985.5	Westward Track
PFE Yard	End double track 36th STREET MP. 987.8	

RULE 540. Switch-point indicators

Tucson	West end crossover, Stone Avenue West end crossover from passenger tracks

RULE 606. Tucson: Limits extent on westward main track from eastward interlocking signal MP 985.2 to westward interlocking signal end of double track MP 985.5. On eastward

main track from eastward interlocking signal MP 985.2 to westward interlocking signal end of double track MP 985.5, and from eastward interlocking signal MP 985.2 on Nogales lead to westward interlocking signal MP 985.4 and to westward interlocking signal on west lead MP 985.4.

Signals are under the control of Operator at PFE Yard.

RULE 705. Indicators located as follows:

Illum. Letter	Authorizes and requires movement as follows:
W	MP 986.8 Nogales Branch, Westward trains must stop east of Indicator. When flashing white light is displayed train is authorized to proceed to PFE yard, or be governed by oral authority from yardmaster.

RULE 760. CTC in effect on main track and sidings from end of double track, East Yard, MP 737.4 to westward absolute signal at end of double track, Stockham.

Between Wellton and Dome, south track is identified as No. 2 track and north track identified as No. 1 track.

PFE Yard: CTC in effect from MP 987.7 to east end PFE Yard MP 987.9.

Stockham: Eastward movement from main line or siding at the east end Stockham against current of traffic "A" signals governing route will clear green only if first selected by train dispatcher and a special switch key actuator is operated by a member of train crew. Switch key activator is located on west side of signal case on main track signal. Switch key activator is located on short mast beside siding dwarf signal. In addition, before movement against current of traffic, movement must be protected in accordance with provision of Rule D-161 or Rule D-162.

RULE 825. Instructions for applying hand brakes:

Yuma: Freight trains ... Five hand brakes on west end.

East Yard: Freight trains Five hand brakes on west end.

Tucson: Passenger trains — To prevent uncontrolled movement, rail skid must be placed under west end of train and a sufficient number of hand brakes must be applied, but not less than two brakes on west end and two brakes on east end, unless outbound crew takes charge and engine remains attached.

Tucson and PFE Yard:

Freight trains, 1 to 10 cars	All hand brakes.
Freight trains, 11 to 20 cars ...	10 hand brakes west end.
Freight trains, 21 to 49 cars ...	10 hand brakes west end, 5 hand brakes east end.
Freight trains, 50 cars or more .	15 hand brakes west end, 10 hand brakes east end.

Hand brakes will not be applied if outgoing crew takes charge of train on arrival, and inbound crew is advised by Yardmaster that engine is not to be detached and no switching is to be performed on the train. Hand brakes will not be applied if switch crew takes charge of train on arrival.

Hand brakes on outbound trains must not be released until engine is coupled to train, air test completed, and blue sign removed.

RULE 827. Location of high and/or wide load, Dragging and/or Derailed Equipment Detectors. MP 740.4, 752.5, 773.2, 780.4, 788.6, 790.0, 796.6, 806.3, 815.6, 825.0, 836.3, 843.1, 852.0, 859.8, 866.4, 873.0, 879.2, 886.4, 893.6, 902.0, 912.5, 922.8, 930.8, 940.7, 947.7, 954.5, 962.7, 971.6 and 976.4.

NOGALES BRANCH:MP 994.5 and 1040.0.

GILA SUBDIVISION

HOT BOX DETECTORS

MP	Type	Direction(s)	MP	Type	Direction(s)
740.2	C	Both	878.7	C	Both
772.7	C	Both	902.0	C	Both
790.0	C	Both	922.0	C	Both
806.3	C	Both	941.4	C	Both
834.9	C	Both	961.7	C	Both
851.3	C	Both	979.4	D*	Eastward

*Readout at PFE Yard.

RULE 827-A. Nogales Branch: Eastward "K" trains will stop at the runaround track at MP 1045 and inspect entire train.

RULE 872. Does not apply PFE Yard, Tucson and Yuma.

AIR BRAKE RULES

RULE 17. Retaining valves must be used on freight trains on descending grades as follows:

Sahuarita: AS&R, Pima, Anamax and Duval mines. All retainers will be used. Retainers will be used in high pressure position on loaded cars and low pressure or slow direct position on empty cars. Descending movement will not be made unless locomotive has an operative dynamic brake but not more than 15 cars for each four axles of dynamic brake at speed not exceeding 15 MPH.

RULE 24-C. Sahuarita: Before making any switch moves at AS&R, Pima, Anamax or Duval mines, it must be known that air brakes system on each car being handled is fully charged, air hoses coupled between engine and cars and angle cocks properly positioned.

Ten minutes must be allowed to charge air brake system on cars picked up at AS&R, Pima, Anamax and Duval mines before making air brake test. All brakes must be operative on loaded and empty cars before leaving AS&R, Pima, Anamax and Duval mines.

After fully charging air brake system, engineer will make a 20-pound brake pipe reduction, and conductor will see that a member of crew observes each car to see that brakes are properly working, then release brakes and wait five minutes before switch move commences. In addition, engineer will check brake pipe leakage as prescribed by Air Brake Rule 22.

RULE 24-F. Will apply as follows:

Casa Grande: To all switching movements on all tracks at AS&R, Sacaton Mill.

Tucson: When making movements either direction between PFE Yard and areas outside PFE Yard but within yard limits.

RULE 33. Sahuarita: AS&R, Pima, Anamax and Duval mines.

Maximum tonnage per operative brake ..... 140½ tons.

MISCELLANEOUS

1. Rillito: Cars must not be kicked or dropped into Arizona Portland Cement Spur, and cars must not be left standing on this spur west of insulated joints at east end of circuit actuating highway crossing signals. Chains across crusher spur at each end of pit are secured by snaps to posts, and may be unfastened to move cars to or from pit. Chains must be fastened across track when there is no car spotted over pit.

Derail on crusher spur, located 80 feet east of crusher pit, must not be lined for movement into spur until it is known that track over pit is ready for the movement.

2. Plata: AS&R belt loader on scale. Engine and cars, other than ore cars, must not pass over scale track.

3. Sahuarita: At AS&R plant, spur to Rod & Ball Mill. Cars must not be moved beyond face of building.

4. Ajo: All movements on Ajo interchange tracks must be made in accordance with provisions of Rules 535, 536, and 537 of the Rules and Regulations of the Transportation Department, Southern Pacific Transportation Company.

PHOENIX SUBDIVISION

EASTWARD FIRST CLASS 2 Psgr Leave Mon. Wed. & Sat.	Mile Post	STATIONS — Phoenix Line			Station Number	WESTWARD FIRST CLASS 1 Psgr Arrive Sun. Wed. & Fri.
AM 5.03	770.0	Automatic Block System	Yd. Lmts.	WELLTON P	50080	AM 2.15
				10.9		
5.14	780.9		3453	ROLL	51012	2.04
				21.6		
5.36	802.5		3686	KOFA	51034	1.42
				19.8		
5.56	822.3		3688	HYDER	51053	1.22
				18.8		
6.16	841.1		3680	SADDLE	51063	1.02
				9.9		
6.27	851.0		3551	GILLESPIE	51068	12.52
				10.3		
6.37	861.3		3628	ARLINGTON Y	51073	12.41
				4.4		
6.41	865.7		3537 Yd Lmts.	DIXIE	51078	12.37
				10.0		
6.51	875.7		3707 Yd Lmts.	BUCKEYE	51088	12.27
				13.6		
	889.3		Yd. Lmts.	LITCHFIELD JCT.	51110	
				0.4		
7.05	889.7		3595	LITCHFIELD	51120	12.13
				3.3		
7.09	893.0		4825	CASHION	51123	12.09
				2.7		
7.12	895.7	Yard Limits		TOLLESON	51126	12.06
				2.4		
7.15	898.1		3575	FOWLER	51128	12.03 AM
				5.9		
7.23	904.0		3661	23RD. AVE. PHOENIX	51136	11.55 PM
				2.0		
s7.45	906.0			PHOENIX P	51140	s11.50
				1.0		
7.48	907.0		TO-R	PHOENIX YARD BKYPQ	51160	11.28
				4.1		
7.55	911.1			KENDALL	51164	11.22
				3.3		
8.02	914.4		3835	TEMPE P	51170	11.15
				7.4		
8.10	921.8		Yd. Lmts. 3972 TO	MESA KP	51185	11.06
				1.8		
8.15	923.6			McQUEEN	51187	11.02
				3.4		
8.19	927.0		Yd. Lmts.	GILBERT	51205	10.58
				10.2		
8.29	937.2		5785 Yd. Lmts.	GERMANN	51218	10.48
				11.7		
8.41	948.9		5733 Yd. Lmts.	MAGMA	51240	10.38
				11.8		
8.53	960.7 962.0		3603	COOLIDGE C.O.	51415	10.27
				17.7		
9.11 AM	979.7 936.7		N-8677 S-8754	PICACHO Y C.O.	52200	10.10 PM
Arrive Mon. Wed. & Sat.				(208.4)		Leave Tue. Thu. & Sat.
2						1

RULE 5. Phoenix Yard: Time applies for eastward first-class trains at 6th Street, MP 906.7 and westward first-class trains at 16th Street, MP 907.8.

MAXIMUM AUTHORIZED SPEED FOR TRAINS

(Between Wellton and Picacho Refer To Timetable Bulletin for Speed Table)

MAXIMUM HORSEPOWER PER TON RATIOS:

All trains except on Branches 1.5

(Refer to A.B. Rule 65)

PHOENIX SUBDIVISION

EAST-WARD Mile Post		STATIONS		WEST-WARD Station Number
		Chandler Branch		
923.6	Yd. Lmts.	**McQUEEN**		51187
		19.6		
943.2		3087 **DOCK**		51199
		(19.6)		

Tempe Branch

915.3	Yard Limits	**TEMPE**		51170
		2.4		
917.7		**PETERSON**		51175
		1.5		
919.2		**HELENA**		51177
		3.8		
923.0		**WEST CHANDLER**		51179
		(7.7)		

Litchfield Branch

889.3	Yd. Lmts.	**LITCHFIELD JCT.**	Y	51110
		5.4		
894.0		**LITCHFIELD PARK**		51115
		(4.7)		

Hayden Branch

948.9		2100 Yd. Lmts. R **MAGMA**		51240
		10.1		
959.0		**FLORENCE**		51310
		28.8		
987.8	APB	Yd. Lmts. **RAY JCT.**		51340
		12.4		
1000.2		Yd. Lmts. TO-R **HAYDEN**	BKPQ	51360
		(51.3)		

MAXIMUM AUTHORIZED SPEED FOR TRAINS

BETWEEN	CHANDLER BRANCH	ALL TRAINS
McQUEEN and DOCK		20
TEMPE BRANCH		
TEMPE and WEST CHANDLER		20
LITCHFIELD BRANCH		
LITCHFIELD JCT. and LITCHFIELD PARK		20
HAYDEN BRANCH		
MAGMA and HAYDEN		30

Exceptions:	ALL TRAINS	Exceptions:	ALL TRAINS
949.4 and 958.8	20	988.7 and 989.7	25
970.6 and 984.6	20	998.9 and 1001.8	20
984.6 and 984.8	10	1001.8 and 1003.3	10
984.8 and 988.7	20		

SPEED ON OTHER THAN MAIN TRACK:

Arlington (MP 859.3) Palo Verde Power Plant Spur 20
All movements within plant 5*
*and with bell ringing.
All other tracks, Phoenix Subdivision 10

PHOENIX SUBDIVISION

ADDITIONAL STATIONS

Mile Post	Station	Station Number
	Phoenix Line	
793.0	Growler	51024
812.4	Horn	51044
900.4	Pipeola	51130
900.8	Cotpro	51132
902.0	Campo	51134
909.4	Aristuc	51162
911.8	Tovrea	51166
912.4	Auction	51167
912.9	Yeso	51169
917.1	Normal Jct.	51182
932.0	Higley	51211
938.1	Rittenhouse	51223
941.6	Queen Creek	51229
966.4	Randolph	51421
	Chandler Branch	
925.4	Tremaine	51190
929.3	Chandler	51193
931.0	Pozo	51195
934.3	Serape	51197
	Hayden Branch	
1003.5	Winkelman	51380

SPECIAL INSTRUCTIONS

RULE P. Impaired Side Clearances:

MP	Description	MP	Description
778.0	Bridge	976.0 to 977.0	Rock cuts
891.0	Bridge	980.0 to 982.0	Rock cuts
914.0	Bridge	983.5	Rock cut
959.3	Bridge	985.3	Bridge
	Hayden Branch	985.5	Rock cut
971.3 to 971.8	Rock cuts	988.3	Rock cut
972.4	Tunnel	988.5	Tunnel
972.5	Bridge	990.0	Tunnel
973.0	Rock cut	992.3	Rock cut
973.1	Rock cut		

RULE 7-C. Phoenix Yard: Freight trains arriving or departing must receive proceed signal (green flag by day, green light by night) or oral authorization from yardmaster or his representative.

RULE 10-H. Exception: On the Litchfield, Tempe and Chandler Branches when a yellow flag is required it will be displayed one-half mile from point of restriction.

RULE 82-A. Trains authorized at Phoenix Yard or Hayden enroute Gila Subdivision with same conductor and engineer are thereby authorized on both Phoenix and Gila subdivisions.

Trains operating in ore service betwen Hayden and Ray Junction need not obtain clearance at Hayden.

RULE 83-A. At following stations only trains indicated will register:

Hayden .... Trains operating via Florence.
Magma .... Trains to and from Hayden Branch and trains instructed by train order.
Phoenix Yard .... Trains originating or terminating.

RULE 93. Location of yard limits:

770.7	Wellton (Phoenix Line)	782.0
864.3	Dixie	867.1
874.2	Buckeye	877.0
888.8	Litchfield Jct.	890.6
	Litchfield Jct. (Litchfield Branch)	End of track
894.2	Phoenix	916.1
	Tempe (Tempe Branch)	End of track
920.5	Mesa	924.5
923.6	McQueen (Chandler Branch)	Dock 943.2
925.7	Gilbert	928.5
934.5	Germann	939.7
940.5	Queen Creek	943.0
946.8	Magma	951.0
	Magma (Hayden Branch)	950.5
986.8	Ray Jct.	988.7
998.9	Hayden	1004.9

RULE 99-C. Will apply on Hayden Branch.

RULE 103. A member of crew must precede all movements over:

Pipeola: Crossings within Southern Pacific Pipe Line reservation.
Phoenix: Zeb Pearce track No. 207 over Lincoln Street.
Tovrea: Washington Street.
Tempe: Dorsey Lane on track No. 1606.

RULE 204. Trains of Gila and Phoenix Subdivisions with same conductor and engineer may be issued train orders on one Subdivision that affect their movement on Gila or Phoenix Subdivision.

RULE 211 Mesa: Letter "M" indicator located on stub mast MP 921.9 for westward trains and on signal 9210 for eastward trains.

RULE 306. Block Signals with "P" plates:

Eastward	Protection	Westward
P-7916	High water detector, bridge 792.7	P-7927
P-8406	High water detector, bridge 841.3	P-8415
P-8414	High water detectors, bridges 842.8 and 842.9	P-8431
P-8550	High water detector, bridge 857.6	P-8589
P-8662	High water detector, bridge 866.9	P-8673
P-9052	Spring switch, west end passenger lead, Phoenix	
P-9218	Barricade detector for Dead End Streets MP 922.8	P-9231
P-9290	High water detector, bridge 933.7	P-9351
P-9396	High water detector, bridge 941.1	P-9415
P-9756	High water detector, bridge 976.9	P-A, MP 977.1

RULE 505. Phoenix: Crossing—ATSF Wye: If signal indicates "Stop" trains and engines must stop, and if wye is clear of intersecting movement, may then proceed as prescribed by Rule 507, but must provide flag protection on intersecting track unless derail is known to be in derailing position.

Coolidge: Trains moving on main track in either direction between Signal 9623 and Signal 9616 will move by block signal indication which will supersede the superiority of trains.

When Signal 9623 displays stop indication and letter "S" is not displayed, westward trains after stopping must obtain permission from train dispatcher before proceeding under the provisions of Rule 507 or entering the siding.

When Signal 9616 displays stop indication eastward trains after stopping must obtain permission from train dispatcher before proceeding under provisions of Rule 507 or entering the siding.

Main track or siding must not be occupied or fouled except as authorized by signal indication or the train dispatcher.

Eastward trains on siding must obtain train dispatcher's permission before fouling main track to proceed to beginning of CTC regardless of the aspect displayed in eastward absolute signal and after permission obtained from train dispatcher, **Rule 81-A must be complied with before fouling main track.**

RULE 516. Overlap posts:

Tolleson	450 feet east of Signal 8958	Eastward trains
Tolleson	750 feet east of MP 895.0	Westward trains
23rd Ave. Phoenix	Middle of siding	Eastward trains
23rd Ave. Phoenix	Middle of siding	Westward trains

RULE 538. Spring switches equipped with facing point locks are located as follows:

Stations	Location	Normal Position
Phoenix	Main track at passenger lead	Freight lead
Hayden	700 feet west of KCC gate. Main track derail	
*Hayden	MP 1001.8	Ore track

*Equipped with switch point indicator.

RULE 540. Hayden Jct.: Switch point indicator MP 1001.8, ore track, will display green indication when switch is in full normal or full reverse position and will display red indication if switch is not properly lined. Trains and engines making trailing movement over this switch may leave switch in position to which forced by trailing movement.

RULE 705. Indicator located as follows:

Illum. Letter	On Signal	Approaching	Authorizes and Requires Movement as follows:
S	9623	East switch Coolidge	Enter siding and remain in siding until authorized by timetable or train order authority to proceed.

RULE 740. Hayden-Ray Jct.: Limits extend between absolute signal MP 988.7 and absolute signal MP 998.9.

RULE 760. C.T.C in effect east end of Coolidge to Picacho.

RULE 821. Hayden Branch: Eastward trains must stop short of STOP sign MP 984.7 and Westward trains must stop short of STOP sign MP 984.8 and be preceded by crew member through Wooley Wash.

High water detector at MP 972.1 Hayden Branch, equipped with revolving red light. Trains must approach structure at MP 972.1 prepared to stop until it is ascertained that structure is safe for passage of trains. Train crew must then notify train dispatcher so that Maintenance of Way personnel can be contacted to re-set high water detector and inspect structure at MP 972.1.

RULE 827. Location of High and/or Wide Load, Dragging and/or Derailed Equipment Detectors: MP775.5, 808.9, 880.0, 899.0, 911.0, 929.0, 954.0, 957.0, 970.3, 975.2, 976.8, 979.8, 982.3, 991.0, 997.8.

High and/or wide load detector located at MP 964.2 Hayden Branch is for eastward trains. Revolving red beacon is mounted on instrument case on south side. If detector is activated, beacon will display a revolving red light. Train must stop and inspect for high and/or wide load or excess Plate "C" car or cars before proceeding. Contact Dispatcher's Office for instructions.

HOT BOX DETECTORS

MP	Type	Direction(s)	MP	Type	Direction(s)
856.5	C	Both	798.0	C	Both
953.0	C	Both			

RULE 827-A. Westward "K" trains will stop and inspection will be given entire train both sides at Baseline Road east of McQueen.

RULE 872. Will not apply at Phoenix.

AIR BRAKE RULES

RULE 21. Phoenix Yard: Trainmen must not couple air hose on outgoing trains until train is made up and caboose and road engine are on train. Coupling caboose and road engine to train will be considered as an indication that the train is made up and switchmen have completed their work. Switchmen must not perform switching on or couple other cars to a train on which the caboose and road engine have been attached without instructions from the yardmaster who will see that members of the train crew are notified in advance. After train is made up switchmen must not place cars or engines behind or ahead of train in same track.

RULE 24-F. Will apply to all movements Tempe and Chandler Branches.

Where one or more cars are added, air brakes on these cars must apply and release before proceeding.

Inspection of cars previously tested under other air brake rules will not be required.

RULE 38. Will apply at Phoenix.

MISCELLANEOUS

1. Hayden Branch: Cars bearing "Exceed Plate C" symbol or words "Excess Height" must not be operated between Magma and Hayden.

Crew of eastward train, before leaving Magma, will make visual inspection of their train to insure there are no restricted cars in their train.

2. Hayden: Kennecott Copper Corporation Railroad between Hayden and Hayden Smelters is operated by the Tucson Division, is within Hayden yard limits, S.P. Rules apply.

Kennecott Copper Company has three signal lights governing movement to the main track which are as follows:

1. Hayden Junction.
2. The lower track from ASARCO.
3. The upper track from ASARCO.

Signal indications are: Yellow . . . Proceed with Caution.
Red . . . . . Stop.

When signal system displays a red indication, SP crews will try to locate KCC switch engine on or around main track in front of the smelter. If KCC switch crews cannot be seen working in the vicinity of the smelter, then call the Agent at Hayden, who will report the red signal to the KCC guard shack at the main entrance. When light remains red and Agent has been notified, or crew cannot reach Agent at Hayden, SP may go by red signal preceded by flagman to the point where SP leaves the main track in front of KCC smelter.

Main track in front of KCC smelter shall be that portion from the derail to the ASARCO upper track; also from the derail to ASARCO lower track, also known as the entrance to the bullion hole.

Back-up hose must be used when shoving cars Hayden to Hayden Smelters.

Maximum speed permitted between Hayden and Hayden Smelters is 10 MPH.

LORDSBURG SUBDIVISION

EAST-WARD FIRST CLASS 2 Psgr Leave Mon Wed & Sat	Mile Post	STATIONS North Line				Station Number	WEST-WARD FIRST CLASS 1 Psgr Arrive Tue Thur & Sat
AM 10.25	983.9	Yd. Lmts.	R	TUCSON	BKPQ	52270	PM s9.10
	986.6		TO-R	PFE YARD (2.7)	BKIYPQ	52280	
	994.8		E-6699 W-6485	WILMOT (8.2)		53010	8.40
	1022.2 1023.6		4226	MESCAL (27.4)	P	53035	
	1028.2		8099	CHAMISO (4.6)		53041	
AM s11.40	1032.5 1032.6			BENSON (4.3)	YP	53050	s8.05
	1035.4 1035.8		8429	FENNER (2.8)		53205	
	1041.0		9197	SIBYL (5.2)		53212	
	1046.7 1047.2		8239	TULLY (5.7)		53219	
	1053.9		15306	DRAGOON (6.7)		53227	
	1063.9		8415	COCHISE (10.0)	Y	53238	
	1074.7		8379	WILLCOX (10.8)	P	53251	
	1082.6		8480	RASO (7.9)		53259	
	1091.0		9947	LUZENA (8.4)		53268	
	1098.4		8209	BOWIE (7.4)	BKYPQ	53280	
	1106.6		8236	OLGA (8.2)		53410	
	1114.2		8017	SAN SIMON (8.2)		53419	
	1121.8		8026	VANAR (7.6)		53428	
	1128.7 1128.9		10777	STEINS (6.9)		53439	
	1133.7		8324	MONDEL (4.8)		53446	
	1140.8		8360	GARY (7.1)		53455	
PM s1.45	1148.3		Yd. Lmts. TO	LORDSBURG (7.5)	BKYPQ	53470	s6.00
	1153.0		8378	ULMORIS (4.7)		54115	
	1159.0		8457	LISBON (6.0)		54122	
	1167.0		8362	SEPAR (8.0)		54133	
	1177.0		8385	WILNA (10.0)		54138	
	1188.0		8371	GAGE (11.0)		54152	
	1198.0		8361	TUNIS (10.0)		54170	
s2.45	1208.0		8309 TO	DEMING (10.0)	KPQ	54200	s5.05
	1219.5		8352	CARNE (11.5)		54226	
	1229.0		8359	AKELA (9.5)		54239	
	1238.0		8376	DONA (9.0)		54248	
	1248.0		8347	ADEN (10.0)		54259	
	1259.0		8352	AFTON (11.0)		54271	
	1269.0		8380	LANARK (10.0)		54277	
	1279.0		8388	STRAUSS (10.0)		54282	
	1285.5		9692	LIZARD (6.5)		54287	
	1289.9 1317.7			ANAPRA (4.4)		54290	
	1323.3 1295.9	Yd. Lmts.	TO-R	EL PASO (Tower 196)	KIPQ	54297	
s4.25 PM	1323.3 1295.9		R	EL PASO (Union Depot)	BKIP	54297	3.30 PM
	1297.6			EL PASO (Cotton Ave.)	BKIYPQ	55005	
Arrive Mon Wed & Sat	(312.7 Eastward)			(308.5 Westward)			Leave Tues Thu & Sat
2							1

Automatic Block System

DT CTC — Centralized Traffic Control

DT — Centralized Traffic Control

DT 2 MT

MAXIMUM AUTHORIZED SPEED FOR TRAINS

(Between Tucson and El Paso refer to Timetable Bulletin for Speed Table)

The following establishes the maximum allowable speed for freight trains provided speed is not otherwise restricted: (e.g., Restricted cars or engines, AB Rule 33, etc.)

a. BSMFF, CHLAT and MBSMF are authorized to operate at passenger train speed. If train exceeds 120 cars, maximum speed is reduced to 55 MPH.

b. APLAA, AVBAT, AVLAT, BAESY, ESBAT, HOLAT, LAAVT, LACHT, LADAT, LAEST, LAHOT, LAKCP, LAMFT and MPLAT are authorized to operate at passenger train speed not to exceed 65 mph. If train exceeds 120 cars, maximum speed is reduced to 55 mph.

c. BALFY, BSMFY, EUASY, LAESJ, LAHOY, LAMPT, SRLAT, and WCAVY are authorized to operate at freight train speed.

d. Light engine with operative dynamic brake is authorized to operate at passenger train speed.

Exception: Without dynamic brake in operation, must operate at freight train speed.

e. Other freight trains may be authorized by train dispatcher to operate at passenger train speed not to exceed 65 MPH. If train length exceeds 120 cars, maximum speed is reduced to 55 MPH.

f. Trains not covered in items a, b, c, d or e will operate at freight train speed not to exceed 45 MPH, except as provided in A. B. Rule 65.

MAXIMUM HORSEPOWER PER TON RATIOS:

APLAA, BSMFF, CHLAT, LACHT, LADAT, LAEST, LAMFT, MBSMF 3.5

AVBAT, AVLAT, BAESY, ESBAT, HOLAT, LAAVT, LAHOT, LAKCP, MPLAT, SRLAT 2.5

All other trains except on Branches 2.0

(Refer to A. B. Rule 65)

SPEED ON OTHER THAN MAIN TRACK:

Remotely controlled turnouts, crossovers and sidings 25
Lordsburg: Through No. 1 track 25
Willcox: On all tracks and turnouts serving Red Barn Chemical 5
Benson: On south house track 5
Through west turnout (MP 1320.9) and east turnouts (MP 1293.9). Icehouse crossovers 20
Curtiss: On all tracks beyond clear point of main track switch (MP 1039.5) Apache Powder Co. 5
Over track scales 4
Cochise: (MP 1061.66), Arizona Electric Power Coop, Inc.: on tangent track 20
on curved track 10
within plant 5*
*with bell ringing.
Douglas Branch: All P.D. Plant track at Calumet 5
Globe Branch: Trains with 6-axle locomotives in consist thru all turnouts and on tracks other than main track .. 5
Clifton Yard Tracks 5
Tucson-PFE Yard: on following tracks on and around fueling facilities at west end PFE Yard near Roundhouse: Roundhouse link track, North Fueling Track, Middle Fueling Track, Storage Track-22nd St. .. 5
All Other Tracks, Lordsburg Subdivision 10

LORDSBURG SUBDIVISION

EAST-WARD ↓ Mile Post	STATIONS			WEST-WARD Station Number
	Douglas Branch			
1032.6	Yard Limits R	**BENSON**	Y	53050
		26.2		
1058.8		**LEWIS SPRINGS**	Y	53129
		26.2		
1085.0		**BISBEE JCT.**	Y	53155
		22.0		
1107.0	Yd. Lmts. TO-R	**DOUGLAS**	BKYPQ	53190
		(74.4)		

Bisbee Branch

1085.0	Yard Limits	**BISBEE JCT.**	YP	53155
	1721	3.3		
1088.3		**CORTA**		53157
		1.3		
1089.6		**WARREN**		53162
		0.9		
1090.5		**LOWELL**		53163
		0.2		
1090.7		**BISBEE**		53165
		(5.7)		

Don Luis Branch

1088.3	Yard Limits 1721	**CORTA**		53157
		1.5		
1089.8		**DON LUIS**		53159
		1.0		
1090.8		**GALENA**		53160
		(2.5)		

Globe Branch

1098.4	Yd. Lmts.	**BOWIE**	BKYPQ	53280
1098.1	TO-R	39.4		
1137.5		**SAFFORD**		53322
		84.0		
1221.5	Yd. Limits R	**GLOBE**	BKP	53376
		10.4		
1231.9	TO	**MIAMI**	P	53395
		(133.8)		

Clifton Branch

1148.3	Yd. Lmts.	**LORDSBURG**	BKYPQ	53470
1146.4	TO-R	18.9		
1165.3		**SUMMIT**		54010
		19.0		
1184.3		**DUNCAN**		54031
	380	2.6		
1186.9		**FOX**		54036
		18.3		
1205.2		**GUTHRIE**		54050
		4.6		
1209.8	1120	**SOUTH SIDING**		54062
		6.5		
1216.3	ABS	**CLIFTON**	P	54070
		(69.9)		

ADDITIONAL STATIONS

Mile Post	STATION	Station Number
1003.3	Vail No. 2 Track	53013
1012.9	Marsh No. 1 Track	53029
1208.7	Sage	54213
1320.9	Icehouse Crossover.	
	Douglas Branch	
1039.8	Curtis	53110
1048.2	Fairbank	53118
1042.4	Land	53112
1081.2	Naco	53150
1096.7	Paul Spur	53177
1096.9	Forrest	53175
1104.3	Calumet (Yd. Lmts.)	53183
	Globe Branch	
1145.6	Pima	53329
1176.8	Calva	53349
1201.0	San Carlos	53361
1213.5	Cutter	53368
1219.3	Pinal	53373
1227.3	Burch	53387

MAXIMUM AUTHORIZED SPEED FOR TRAINS

BETWEEN DOUGLAS BRANCH ALL TRAINS

BENSON and DOUGLAS 40

Exceptions:	ALL TRAINS	Exceptions:	ALL TRAINS
1032.6 and 1034.0	20	1060.0 and 1067.0	25
1034.0 and 1050.6 (1046.4)	25	1076.0 and 1102.9	25
1053.5 and 1053.8	25	1102.9 and 1108.0	20

BISBEE BRANCH

BISBEE JCT. and BISBEE 10

DON LUIS BRANCH

CORTA and GALENA 10

GLOBE BRANCH

BOWIE and MIAMI 35

Exceptions:	ALL TRAINS	Exceptions:	ALL TRAINS
1098.1 and 1099.5	20	1220.5 and 1222.6	10
1099.5 and 1210.0	25	1222.6 and 1226.3	20
1215.0 and 1217.5	30	1226.3 and 1232.6	10
1217.5 and 1220.5	25		

GLOBE BRANCH: Between MP 1099.5 Bowie and MP 1200.4 San Carlos, trains handling empty ore cars SP 341000 to SP 341335 and ATSF 64000 to 64099 must not exceed 20 MPH.

Locomotives of the following classifications must not exceed the speeds shown between mile post locations as listed below.

Class of locomotives		
All 6 Axle locomotives	MP 1098.1 to 1200.4	20 MPH
GF425	MP 1227.4 to 1231.9	10 MPH

CLIFTON BRANCH

LORDSBURG and CLIFTON 40

Exceptions:	ALL TRAINS	Exceptions:	ALL TRAINS
1146.5 (1148.3) and 1149.3	10	1175.0 and 1175.3	20
1149.3 and 1157.4	30	1183.2 and 1197.4	20
1157.4 and 1160.8	20	1197.4 and 1216.7	10
1160.8 and 1171.5	30		

SPECIAL INSTRUCTIONS

RULE P. Impaired side clearance:

MP	Description	MP	Description
1030.7	Wide Ld. Det	**Clifton Branch**	
1032.5	Bridge	1215.9	Bridge
1036.7	Wide Ld. Det	**Douglas Branch**	
		1089.9	Tunnel

RULE 7-C. PFE Yard: Freight trains arriving or departing PFE Yard must receive proceed signal (green flag by day, green light by night) or oral authorization from yardmaster or his representative.

RULE 30. Douglas Branch-Paul Spur: Engine bell must be rung at all times during swtiching movements within Paul Lime Plant.

RULE 30 and 31. Douglas Branch-Curtiss: Whistle signal must be sounded and bell kept ringing approaching and over all crossings Apache Powder Co. tracks.

RULE 82-A. El Paso: When interlocking signal Tower 47 displays proceed indication for movement to eastward main track, such indication will authorize engines to move from Tower 47 to Alfalfa unit, El Paso Yard.

RULE 83-A. At following stations only trains indicated will register:

Tucson, PFE Yard } Trains originating or teminating.

Benson ..... Trains to and from Douglas Branch.

RULE 83-B. At open train order offices, trains may register by ticket as follows:

El Paso (Tower 196): Trains originating or terminating Alfalfa or Cotton Avenue units.

El Paso (Union Depot): Trains originating or terminating will register by ticket, placing ticket in pneumatic tube receptacle located on station platform.

Tucson (Psgr Station): Trains originating and terminating will leave register ticket on prescribed form with messenger.

RULE 93. Location of yard limits:

977.0	Tucson (No. 2 Track)	993.0
	Tucson (No. 1 Track)	992.1
	Benson (Douglas Br.)	1034.0
	Bisbee Jct. (Don Luis Branch)	End of track
	Bisbee Jct. (Bisbee Branch)	End of track
1102.9	Douglas	1109.1
	Bowie (Globe Br.)	1099.5
1218.7	Globe-Miami	1233.0
1147.6	Lordsburg	1149.8
	Lordsburg (Clifton Br.)	1148.5
1319.9	El Paso (No. 2 Track)	
1291.5	El Paso (No. 1 Track)	
	El Paso (Carrizozo Subdivision)	1300.5
	El Paso (San Antonio Div.)	820.0

RULE D-97 and D-251. Will apply as follows:

On No. 1 track and on No. 2 track between PFE Yard and Mescal.

On No. 1 and No. 2 Tracks between Anapra and Icehouse Crossover; on No. 1, No. 2 and No. 3 Tracks between Icehouse Crossover and El Paso (Union Depot); on No. 1 and No. 2 Tracks between El Paso (Union Depot) and El Paso (Cotton Avenue); between Tower 47 and Alfalfa unit, El Paso Yard.

RULE 99-C. Will apply on Douglas, Globe and Clifton Branches.

RULE 103. Lordsburg: Through freight trains arriving Lordsburg will stop for crew change 100 feet short of crossing east of depot. Trains doing switching will avoid blocking this crossing except when absolutely necessary.

Clifton Branch: Clifton: Crossing at MP 1216.2 is equipped with unit for display of flashing white lights. Display of flashing white lights indicates gates are down.

Globe Branch: Miami: Crew member must proceed all movements over U.S. Highway 60-70 at MP 1232.6.

RULE 104. Derails in main track:

Galena ..... West end Interchange Track
Globe ..... MP 1221.4
Miami ..... MP 1230.6
MP 1231.7
MP 1232.0

Mescal: Before siding is used, train dispatcher's permission must be obtained, derail lined by hand, then train dispatcher can clear eastward or westward signal to enter siding.

RULE D-151.

No. 1 Track (North track at Mescal; South track between Wilmot and PFE Yard) current of traffic westward.

No. 2 Track (South track at Mescal; North track between Wilmot and PFE Yard) current of traffic eastward.

Between Icehouse Crossover, MP 1320.9, and El Paso (Union Depot), three main tracks are designated as follows:

North Track ... No. 1 Track, current of traffic westward;
Middle Track .. No. 2 Track, current of traffic eastward;
South Track ... No. 3 Track, current of traffic eastward;

Between El Paso (Union Depot) and El Paso (Cotton Avenue), the two main tracks are designated as follows:

No. 1 Track, North Track.
No. 2 Track, South Track.

RULE 221. PFE Yard, Bowie, and Deming are train-order offices only for trains originating except:

Tucson: Trains originating Tucson will receive train orders and clearances from PFE Yard. Train orders and clearances will be carried from PFE Yard to Tucson by messenger and delivered to Conductor.

RULE 306. Block signals with "P" plates:

Eastward	Protection	Westward
P-I Westward Main Track Tucson	Spring switch, west end of crossover, westward main track to eastward main track, Cherry Avenue	
P-I Eastward Main Track Tucson	Spring switch, west end of crossover from eastward main track to Nogales lead, Cherry Avenue	
P-I Nogales Lead Tucson	Spring switch, west end of west lead, Cherry Avenue.	
	Spring switch, east end of double track, Cherry Ave.	P-SA East end double track, Cherry Ave.
	Spring switch east end of crossover from westward main track to eastward main track Cherry Avenue.	P-SA West lead / P-SA East lead
	East end of crossover from Eastward main track to east lead	P-SA East lead
P-SA	Spring switch, end double track, PFE Yard, MP 987.7	
P-10140	Collision detector, underpass, MP 1014.0	
P-A	East end Fenner High water detector, Bridge MP 1037.4	P-10379
P-A	Spring switch, west end northsiding Mescal	
P-A	Collision detector, Luzena underpass, MP 1091.0	P-A
P-10572	High water detector, Bridge 1057.9	P-10601
P-10600	High water detector, Culvert 1060.5	P-10625
P-10862	High water detector, Bridge 1086.9	P-10883
P-A, West end Olga	High water detector, Bridge 1106.3, main track and siding	P-A East end Olga
P-A East end San Simon	High water detector, Bridge 1115.3	P11157
P-11202	High water detector, Bridges 1121.4 and 1121.5	P-A west end Vanar
P-A, East end Vanar	High water detector, Bridge 1123.3	P-11243
P-11650	High water detector, Bridge 1166.2	P-A West end Separ
P-11694	High water detector, Bridge 1170.6 / High water detector, Bridge 1170.8	P-11721
P-A East end Tunis	High water detector, Bridge 1199.0	P-12005
P-12112	High water detector, Bridge 1211.9 / High water detector, Bridge 1212.9	P-12131
P12132	High water detector, Bridge 1213.2 / High water detector, Bridge 1213.3	P-12151
P-12152	High water detector, Bridge 1215.9 / High water detector, Bridge 1216.1	P-12173
P-12172	High water detector, Bridge 1218.1	P-A West end Carne
P-A West end Carne	High water detector, Bridge 1219.0	P-A East end Carne
P-12314	High water detector, Bridge 1233.6	P-12337
P-12430	High water detector, Culvert 1244.7	P-12455
P-13188	No. 2 Track Slide Detector Fence MP 1319.4 to 1319.6	
P-13198	Fire protection Rio Grande bridge	

RULE 505. PFE Yard: There is no superiority of trains between MP 987.7 at 36th St. and MP 985.5 at Cherry Ave.

Lordsburg: There is no superiority of trains between end of CTC, at west switch yard track No. 1 and end of CTC, at east switch yard track No. 1.

RULE 538. Spring switches equipped with facing point locks are located as follows:

Station	Location	Normal Pos.
PFE Yard	End of double track Cherry Ave. MP 985.5	Westward main track
PFE Yard	End of double track 36th St. MP 987.8	No. 2 track

RULE 606. PFE Yard: Limits extend on westward main track from eastward interlocking signal MP 985.2 to westward interlocking signal end of double track MP 985.5. On eastward main track from eastward interlocking signal MP 985.2 to westward interlocking signal end of double track MP 985.5, and from

eastward interlocking signal MP 985.2 on Nogales lead to westward interlocking signal MP 985.4 and to westward interlocking signal on west lead MP 985.4.

Signals are under the control of Operator PFE Yard.

RULE 705. Indicators located as follows:

Illum. Letter	On Signal	Approaching	Authorizes and Requires Movement as Follows
S	12060	Deming	Train to enter station track at west switch, MP 1207.2.

RULE 760. PFE Yard: CTC in effect on main track from MP 987.7 to East end PFE Yard, MP 987.9.

Eastward movement from east lead or from P.F.E. lead at the east end of yard 36th Street, Tucson, against current of traffic "A" signals governing route will clear green only if first selected by the dispatcher and a special switch key activator is operated by a member of train crew.

In addition, before movement against current of traffic, movement must be protected in accordance with provisions of Rule D-161 and Rule D-162.

Mescal-Anapra: CTC in effect on main track and sidings from end of double track Mescal, MP 1023.0, to west switch of No. 1 yard track, Lordsburg, MP 1147.7, and from fouling point at east end No. 1 yard track, Lordsburg, MP 1149.8 to clear point on north main track at Anapra, MP 1290.0.

RULE 812. Deming. Movements over AT&SF tracks will be governed by the Rules and Regulations of the Transportation Department, Southern Pacific Transportation Company, and SP Tucson Division current timetable.

Main track is outside of block system limits, but is within yard limits extending between AT&SF MP 1132.4 and MP 1133.9. No first class trains are authorized.

Movements on main track will be made at restricted speed not exceeding 10 MPH under the authority of Rule 93.

Movements through turnouts, crossovers and yard tracks will be made with caution not exceeding 5 MPH.

RULE 825. Instructions for applying hand brakes:

Tucson: Passenger trains — To prevent uncontrolled movement, rail skid must be placed under west end of train and a sufficient number of hand brakes must be applied, but not less than two hand brakes on west end and two hand brakes on east end, unless outbound crew takes charge and engine remains attached.

TUCSON AND PFE YARD:

Freight trains, 1 to 10 cars ....All hand brakes.
Freight trains, 11 to 20 cars ...Ten hand brakes west end.
Freight trains, 21 to 49 cars ...Ten hand brakes west end, Five hand brakes east end.
Freight trains, 50 cars or more .15 hand brakes west end, 10 hand brakes east end.

Hand brakes will not be applied if outgoing crew takes charge of train on arrival, and inbound crew is advised by yardmaster that engine is not to be detached and no switching to be performed on the train. Hand brakes will not be applied if switch crew takes charge of train on arrival.

Hand brakes on outbound trains mut not be released until engine is coupled to train, air test completed, and blue sign removed.

RULE 827. Locations of High and/or Wide Load, Dragging and/or Derailed Equipment Detectors. MP 991.5 (No. 1&2 Track), 998.8 (No. 1 Track), 1013.0 (No. 1 Track), 1017.5 (No. 2 Track), 1025.9, 1029.8, 1030.7, 1035.9, 1036.7, 1039.5, 1044.0, 1050.3, 1059.3, 1069.3, 1077.9, 1086.1, 1094.0, 1101.3, 1110.0, 1118.0, 1125.8, 1130.5, 1136.9, 1144.9, 1156.2, 1163.1, 1174.3,

1183.4, 1192.2, 1202.3, 1213.1, 1224.2, 1233.5, 1243.0, 1255.1, 1264.0, 1273.0, 1282.2, 1288.7, 1288.9; Douglas Branch: 1043.0, 1083.2; Clifton Branch: 1189.7, 1205.2; Globe Branch: 1133.5, 1166.0, 1219.0.

HOT BOX DETECTORS

MP	Type	Direction(s)	MP	Type	Direction(s)
991.5	D*	West	1152.0	C	Both
1016.4	C	West	1181.2	C	Both
1038.1	C	Both	1224.2	C	Both
1069.3	C	Both	1252.0	C	Both
1102.6	C	Both	1289.3	C**	Both
1126.2	C	Both			

*Readout at PFE Yard.
**Readout at El Paso Yard.

Location of Loose Wheel Detector: 1289.3

Train crew members must observe white light on side of Hot Box Scanner House at M.P. 1289.3. If white light is observed flashing, train must be brought to a stop and El Paso Tower Yardmaster contacted to the type of indication and location of indication in train.

Lordsburg: Rolling inspection on both sides of all freight trains will be made by the outbound crew.

RULE 872. Will not apply at El Paso, Lordsburg, Tucson, and PFE Yard.

AIR BRAKE RULES

RULE 14. Part A (2) is revised to read:

(2) On trains of 100 or more cars helper engine consisting of only one locomotive may be placed behind caboose.

EXCEPTION:

On trains of 100 cars or more, a helper engine consisting of two operative, 4-axle locomotives, the weight of each not exceeding 266,000 lbs., may be placed behind the caboose between Lordsburg and PFE Yard.

The helper engine must not exceed:

1.) 700 amps of power on No. 2 Track between Vail and Mescal;
2.) 700 amps of power from at least 500 feet before entering, and 150 feet after passing, through any turnout or crossover;
3.) 800 amps of power between M.P. 1046 (Tully) and M.P. 1052 (Dragoon).

RULE 14. Part A(5) is revised to read:

(5) Not more than two locomotives (operating or isolated in helper consist) may be place behind caboose at any time, except may assist in setting out bad order cars or recoupling train.

EXCEPTION:

Between Lordsburg and PFE Yard on ASCENDING GRADES only, engine consist, consisting of other than two 4-axle locomotives weighing up to a maximum of 1,700,000 lbs. may be placed behind caboose as helper provided power is isolated in excess of:

a) One locomotive of any class; or
b) Two 4-axle locomotives, the weight of each does not exceed 266,000 lbs. The operative locomotives are to be the leading and trailing unit when possible, to maintain slackbunched state in helper consist.

RULE 17. Retaining valves must be used on freight trains on descending grades as follows:

Pinal to Burch, Pinal to Cutter, between Clifton and Guthrie, Galena to Corta, Don Luis Branch, Bisbee to Bisbee Jct.

WITHOUT DYNAMIC BRAKE IN OPERATION: One retaining valve for each 80 tons in train. If gross tonnage exceeds 80 tons per operative brake, retaining valves must be used on all cars and speed must not exceed 15 MPH.

WITH DYNAMIC BRAKE IN OPERATION:

Permissible tons per axle without retaining valves

Standard Range	Extended Range
375	450

LORDSBURG SUBDIVISION

If permissible tonnage is exceeded, one retaining valve must be used for each 150 tons in excess thereof.

RULE 24-F. Will apply as follows: Bisbee Branch, Don Luis Branch, on all tracks at Curtiss Powder Plant, Paul's Spur at Forrest and on unloading trestle at P.D. Smelter at Calumet.

PFE Yard: When making movements in either direction between PFE Yard and areas outside PFE Yard but within yard limits.

RULE 26. Will apply at:

South Siding ..... East and West
Bisbee ..... West

RULE 33. Pinal to Burch, Pinal to Cutter, between South Siding and Guthrie, South Siding and Clifton, Don Luis Branch and Bisbee to Bisbee Jct.

Maximum tonnage per operative brake ..... 80 tons
Except with dynamic brake in operation, not more than 15 cars for each four axle of dynamic brake; speed not exceeding 15 MPH and all retaining valves on loaded cars in high pressure position .... 140½ tons

Insufficient dynamic brake capacity or failure of dynamic brake which results in exceeding these tonnages per axle, is to be considered as operating without dynamic brake.

Should dynamic brake failure occur or partial failure of dynamic braking occur resulting in insufficient dynamic brake capacity, train is to be considered as operating without any dynamic brake. Trains must stop and all retaining valves turned up. Train may then proceed not exceeding 15 MPH if, in the judgment of the conductor and engineer, it is safe to do so.

Restrictive grades are as follows:

Westward	MP	to	MP	MPH
Fairbank-Benson	1046.4		1032.7	25
Globe-Cutter	1217.5		1213.5	20

***Descending grades of 1.4 percent or over are as follows:**

Eastward:
MP 1023.1 (Mescal) to MP 1033.6 (Benson)
MP 1128.9 (Steins) to MP 1132.0 (Mondel)

Westward:
MP 1128.9 (Steins) to MP 1121.8 (Vanar)
MP 1041.3 (Sibyl) to MP 1033.6 (Benson)
*Refer to Air Brake Rule 33. 3rd Par.

MISCELLANEOUS

Paul Spur: Paul Lime Plant. Gate is located on east end of first building approximately 500 feet west of the derail.

Prior to any switching movement into Paul Lime Plant, gate must be secured with latch in open position and red light located on wall of building must be illuminated. If red light does not illuminate after securing gate in open position, switching movement must not be made into plant beyond the gate until member of crew has contacted supervisor in charge of Paul Lime Plant, who must assure SP crew members that it is safe to make the switching movement.

After switching movement is complete, gate must be closed.

EL PASO TERMINAL

SPECIAL INSTRUCTIONS

RULE 7-C. Freight trains must not enter receiving tracks unless proceed signal (green flag by day, green light by night), or on oral instructions from yardmaster or his representative.

RULE 93. Location of yard limits:

1319.9	El Paso	
1291.5	El Paso (No. 1 Track)	
	El Paso (Carrizozo Subdivision)	1300.5
	El Paso (San Antonio Div.)	820.0
1301.5	Fort Bliss-Tobin	1308.0

RULE 98. Railroad crossings at grade not interlocked.

Joint SP Santa Fe Levee Track crossing Santa Fe connection to International Bridge located 387 feet North of the center of the Santa Fe International Bridge. Stop signs are located on both sides of the Santa Fe connection to the International Bridge. Movements over this crossing may be made after stopping and flagman has preceded the movement.

RULE 103. Automatic crossing warning device on No. 3 track at Globe Mills is not connected with industry track.

Crew member must precede all movements over:

Globe Mill — Road crossing over industry track.
Fort Bliss Drill — Airport Road.

RULE 306. Block Signals with "P" plates:

Eastward	Protection	Westward
P-8232	Barricade Detector for Dead End	P-8231
	Streets	P-8233

RULE 505. Westward trains or engines stopped by Signal 8231 must actuate push button, wait 45 seconds and if signal does not display a proceed indication, may proceed under the provisions of Rule 507.

Westward trains or engines leaving Alfalfa unit from drill track and stopped by signal 8233, provided no westward movement is approaching on Westward Track, may actuate push button and, if after waiting 2 minutes and 50 seconds, signal does not display a proceed indication, may proceed under the provisions of Rule 507 after first complying with Rule 81-A.

When signal 8226 displays stop indication an eastward train or engine to enter Alfalfa unit at this location, after stopping, may proceed at restricted speed if proceed signal received from yardman, (green flag by day, green light by night) or oral authorization from yardmaster or his representative which will indicate protection on Westward Track has been provided in the directions necessary to safeguard movement.

RULE 538. Spring switches equipped with switch-point indicator are located as follows:

Station	Location	Normal Position
Tower 47 El Paso	No. 6 Lead to Tucumcari Connection	Tucumcari Conn.
Tower 47 El Paso	West End Crossover 3 and 6 Diesel Shop Track	Track 3

RULE 606. El Paso (Union Depot) Tower 196: Limits on track Nos. 1 and 2 extend from eastward interlocking signals located opposite signal 8299 at MP 1295.4 to westward interlocking signals at MP 1297.4. Limits on track No. 3 extends between interlocking signal at MP 1296.1 east end Union Depot yard and interlocking signal at MP 1296.6 Campbell Street overpass.

Interlocking signal governing westward movement against current of traffic from depot Tracks 11 and 12, interlocking signal, governing westward movement against current of traffic on eastward track, also interlocking signal, governing westward movement against current of traffic over No. 11 crossover reverse. These signals will display green aspect only if first selected by the tower 196 operator and a special switch key activator is operated by a member of train crew. Switch key activator is located on

short mast beside these signals. **In addition, before movement against current of traffic, protection must be provided in accordance with Rule D-161.**

Tower 47: Limits on track Nos. 1 and 2 extend from eastward interlocking signals at MP 1297.4 east end of trainway to westward interlocking signals at MP 1298.2 just west of San Marcial Street and on the Carrizozo subdivision to absolute signal at MP 1297.8.

The following interlocking signals will display green aspect for movement against current traffic on No. 1 track only when route is selected by Tower 47 operator and special switch key activator is operated by a member of train crew:

from No. 2 track over crossover No. 3 to No. 1.

from Dead Main over crossover No. 3 to No. 1.

from Track 31 over crossover No. 3 to No. 1.

from (D) Yard over crossover No. 3 to No. 1.

from diesel house track over crossover No. 3 to No. 1.

for movement on No. 1.

In addition, before movement against current of traffic, protection must be provided in accordance with Rule D-161.

Tidwell Alley and Azar Nut: Limits extend from eastward interlocking signal at MP 1298.0 on MoPac Main to westward interlocking signals at MP 1298.2 on MoPac Main and River track. On Tidwell Alley track from eastward interlocking signals MP 1298.1 to westward interlocking signals MP 1298.1. On Azar Nut track from eastward interlocking signals MP 1298.0 to westward interlocking signals MP 1298.1.

MoPac Yard: Limits extend from eastward interlocking signals MP 1298.4 to westward interlocking signals MP 1298.

MoPac Main Lead & Hussman Spur: Limits extend from westward interlocking signal MP 1297.9 on MoPac Main to eastward interlocking signal MP 1298.0. On Hussman Spur from westward interlocking signal MP 1297.9 to eastward interlocking signal MP 1298.0.

Dwarf signal governing movements from Tracks 203 or 206 does not indicate position of inside switch 206, observance of points must be made to assure proper line-up for movement.

RULE 740. Limits extend between MP 1297.8 (east limit Tower 47), El Paso, and MP 1302.2 (west end siding), Planeport.

RULE 741. When absolute signal at either end of APB displays stop indication, train or engine must obtain authority from operator at Tower 47 to proceed. If signal cannot be cleared and there is no opposing train or engine causing signal to display stop indication, operator Tower 47 may authorize train or engine to proceed on main track to limit of APB as prescribed by Rule 507.

Trains or engines must not enter main track or use main track switches within APB limits without first obtaining permission from operator Tower 47.

If, for any reason, proceed indication of absolute signal cannot be acted upon at once operator Tower 47 must be notified immediately.

RULE 744. Will not apply within these limits.

RULE 812. The El Paso Terminal is under the jurisdiction of the Superintendent of the Tucson Division.

RULE 825. Unless relieved of responsibility by yardmaster, crews of freight trains or transfer cuts arriving in a unit of El Paso Terminal with 15 or more cars will apply five hand brakes on west end and five hand brakes on east end.

Hand brakes on outbound trains must not be released until engine and caboose are coupled to train, and if it is known that air is through train.

Sufficient hand brakes must be applied on all trains arriving Union Depot and not less than two hand brakes at any time on the east end of the train. Any employee releasing any of these brakes must first apply as many others to replace them.

AIR BRAKE RULES

RULE 21. Refer to All Subdivisions.

RULE 24-F. Will apply as follows:

El Paso: Direct movements between:

Planeport and Cotton Avenue Yard,
Slag pit and Cotton Avenue Yard,
Chamizal Yard and Cotton Avenue Yard,
Cotton Avenue Yard and Alfalfa Yard,
Rod Mill Refinery and Alfalfa Yard,
Phelps Dodge Refinery and Alfalfa Yard,
Standard Oil Refinery and Alfalfa Yard,
Chevron Asphalt and Alfalfa Yard,

All tracks in Zone No. 10 and Alfalfa Yard, when there are no set-outs or pick-ups enroute.

MISCELLANEOUS

1. SPEED RESTRICTIONS ON MAIN TRACK	Not Exceeding MPH
West Limits Tower 196, MP 829.9 and MP 829.2	20
MP 829.2 and MP 828.5	10
MP 828.5 and MP 827.7	20
MP 827.7 Slip Switch (East Main Track)	10
MP 827.7 and MP 825.0	20
MP 825.0 and MP 820.0	30
Dallas Street MP 827.7 and east limits Tower 47 (Carrizozo Subdivision), MP 1297.8	10

2. SPEED ON OTHER THAN MAIN TRACK	
East and west turnouts Ice House Crossover	20
Industry tracks, repair, store and material tracks, shop yard, Diesel service facility tracks, and over Track Scales in Cotton Ave. and Chamizal Yard	5
On and off Turn Table diesel facility	3
All Missouri Pacific Tracks	10
All other tracks, El Paso Terminal	10

3. OPERATIONS OVER MISSOURI PACIFIC TRACKS

Movements over Missouri Pacific Tracks between Tower 47 and/or in Missouri Pacific Yard will be governed by the Rules and Regulations of the Transportation Department of The Southern Pacific Transportation Company.

EAST-WARD Mile Post	STATIONS East Line			WEST-WARD Station Number
1295.9	Yd. Limits R	EL PASO (Union Depot)	BKIP	54297
		1.7		
1297.6	Yd. Limits TO-R	EL PASO (Cotton Ave.)	BKIYPQ	55005
1297.6	Yd. Limits TO-R	TOWER 47	IQ	55042
		3.9		
1301.5	APB Yd. Lmts. 8726	FORT BLISS	P	55070
		0.8		
1302.3	APB Yd. Lmts. 8726	PLANEPORT	P	55080
		13.8		
1316.1	4897	NEWMAN	P	55117
		16.0		
1332.1	5013	DESERT	P	55133
		12.9		
1345.0	9100 Yd. Lmts.	OROGRANDE	P	55147
		21.0		
1366.0	4604	DUNES	P	55169
		12.2		
1378.2	5359	OMLEE	P	55185
		4.6		
1382.8	9426 Yd. Lmts. TO	ALAMOGORDO	PQ	55200
		30.1		
1412.9	4882	THREE RIVERS	P	55235
		19.9		
1432.8	5318	POLLY	P	55260
		7.1		
1439.9	5580 Yd. Lmts. TO	CARRIZOZO	PQ	55300
		7.0		
1446.9	5073	ROBSART	P	55309
		16.6		
1463.5	6186	ANCHO	P	55327
		19.0		
1482.5	9000	GALLINAS	P	55347
		8.4		
1490.9	4911	CORONA	P	55351
		34.5		
1525.4	5803 Yd. Lmts. TO	VAUGHN	PQ	55400
		7.9		
1533.3	5148	LEONCITO	P	55419
		13.9		
1547.2	4985	PASTURA	P	55433
		11.3		
1558.5	5026	ARABELLA	P	55445
		9.8		
1568.3	5605 Yd. Lmts.	SANTA ROSA	P	55500
		9.1		
1577.4	5168	LOS TANOS	P	55521
		8.4		
1585.8	4821	CUERVO	P	55532
		8.9		
1594.7	4970	NEWKIRK	P	55541
		12.0		
1606.7	4948	MONTOYA	P	55554
		8.8		
1615.5	5380	PALOMAS	P	55563
		6.4		
1621.9	4927	HARGIS	P	55574
		5.5		
1627.4	Yd. Lmts. TO-R	TUCUMCARI	BKYPQ	55580
		(331.5)		

Automatic Block System

MAXIMUM AUTHORIZED SPEED FOR TRAINS

(Between El Paso and Tucumcari refer to Timetable Bulletin for Speed Table.)

The following establishes the maximum allowable speeds for freight trains provided speed is not otherwise restricted: (e.g., Restricted cars or engines, A.B. Rule 33, etc.)

a. CHLAT, LACHT, LAKCP are authorized to operate at maximum freight train speed.

b. Other freight trains may be authorized by train dispatcher to operate at maximum freight train speed.

c. Trains not covered in items a or b will operate at freight train speed not to exceed 45 MPH, except as provided by A.B. Rule 65.

MAXIMUM HORSEPOWER PER TON RATIOS:

CHLAT, LACHT	3.5
LAKCP	2.5
All other trains	2.0

SPEED ON OTHER THAN MAIN TRACK:

On Sidings, Alamogordo, Orogrande, and Gallinas	20
Tucumcari...No. 2 track departing to main track via east or west lead	30
From main track No. 20 Turnout, to west lead to No. 2 track	30
From main track No. 20 Turnout, to east lead No. 2 track	20
All other Tracks, Carrizozo Subdivision	10

ADDITIONAL STATIONS

Mile Post	STATION	Station Number	Mile Post	STATION	Station Number
1306.4	Tobin	55105	1312.6	Bunsen	55111
1307.5	Tobin Safeway	55105			

SPECIAL INSTRUCTIONS

RULE 83-B. Conductors of trains terminating at Alfalfa unit of El Paso yard must leave register ticket with waybills.

RULE 93. Location of yard limits:

1319.9	El Paso (No. 2 Track)	
1291.5	El Paso (No. 1 Track)	
	El Paso (Carrizozo Subdivision)	1300.5
	El Paso (San Antonio Div.)	820.0
1301.5	Fort Bliss-Tobin	1308.0
1343.3	Orogrande	1346.5
1381.1	Alamogordo	1385.1
1438.5	Carrizozo	1441.9
1523.7	Vaughn	1537.0
1567.8	Santa Rosa	1569.7
1625.0	Tucumcari	1629.2

RULE 104. Tucumcari: Normal position of east switch Track No. 2 is lined for Track No. 2.

RULE 221. El Paso (Cotton Ave.) is a train order office for eastward trains operating on the Carrizozo Subdivision.

Unit for display of flashing light installed at the following locations:

Station	Location	Direction
Vaughn	On mast of Signal 15247	Eastward

RULE 306. Block Signals with "P" plates.

Eastward	Protection	Westward
P-A	Barricade Detector for dead end Streets MP 1298.2	P-12989
P-SA	Spring switch, west end siding, Planeport	
P-12988	Barricade detector for dead end streets at MP 1300.2 and MP 1300.4	P-13037
	Spring switch, east end siding, Orogrande	P-13461
P-13468	High water detector, bridge 1349.6	P-13497
P-13738	High water detector, bridge 1374.2	P-13763
P-13788	High water detector, bridge 1379.0	P-13805
P-13838	High water detector, bridge 1384.4	P-13853
P-13804	High water detector, bridge 1381.5	P-13819
P-13886	High water detector, bridge 1389.1	P-13901
P-13922	High water detector, bridge 1393.4	P-13943
P-13972	High water detector, bridge 1399.2	P-13993
P-13994	High water detector, bridge 1399.6	P-14017
P-14068	High water detector, bridge 1407.2	P-14091
P-14092	High water detector, bridge 1409.8	P-14117
P-14364	High water detector, arch 1436.8	P-14379
P-14540	High water detector, bridge 1454.0	P-14559
P-14788	High water detector, arch 1479.9	P-14805
P-14900	Spring switch, west end siding, Corona	
	Spring switch, east end siding, Corona	P-14911
P-15070	High water detector, bridge 1508.1	P-15091
P-15578	Spring switch, west end siding, Arabella	
	Spring switch, east end siding, Arabella	P-15589
P-15616	High water detector, bridge 1561.7	P-15621

Eastward	Protection	Westward
P-15616	Fire detector, bridge 1561.7	P-15621

CARRIZOZO SUBDIVISION

P-15682	Spring switch, west end siding, Santa Rosa	
	Spring switch, east end siding, Santa Rosa	P-15693
	Spring switch, east end siding, Los Tanos	P-15781
	Spring switch, east end siding, Montoya	P-16073
P-15838	High water detector, bridge 1584.0	P-15855
P-15956	High water detector, bridge 1595.8	P-15969
P-16048	High water detector, bridge 1605.9	P-16063
P-16072	High water detector, bridge 1607.4	P-16087
P-16172	High water detector, bridge 1618.4	P-16197
P-16232	High water detector, bridge 1623.3	P-16249
P-16260	Spring switch, west end yard track, Tucumcari	

RULE 505. Unless otherwise instructed, eastward trains arriving Tucumcari will use Main Track and westward trains arriving Tucumcari will use track No. 2.

Trains moving on main track in either direction will move between Southern Pacific MP 1626 and SSW MP 637 by block signal indications, which indications will supersede the superiority of trains.

RULE 538. Spring switches equipped with facing point locks are located as follows:

Station	Location	Normal Position
Planeport	West end siding	Main track
Orogrande	East end siding	Main track
Corona	West end siding	Main track
Corona	East end siding	Main track
Arabella	West end siding	Main track
Arabella	East end siding	Main track
Santa Rosa	West end siding	Main track
Santa Rosa	East end siding	Main track
Los Tanos	East end siding	Main track
Montoya	East end siding	Main track
Tucumcari	West end yard track	Main track
Tucumcari	East end yard track	No. 2 track

RULE 705. Indicators located as follows:

Illum. Letter	On Signal	Approaching	Authorizes and Requires Movement as follows:
M	13022	Planeport	Proceed to east end siding.
S	10322	Planeport	Enter siding.
M	13039	Planeport	Proceed to west end siding.
S	13039	Planeport	Enter siding.

Rule 827. Location of High and/or Wide Load, Dragging and/or Derailed Equipment Detectors: MP 1305.9, 1321.2, 1327.2, 1352.9, 1380.4, 1398.8, 1428.5, 1457.6, 1476.5, 1502.6, 1551.4.

Location of Loose Wheel Detector: 1305.9

If white light is observed flashing, train must be brought to a stop and El Paso Tower yardmaster contacted to the type of indication and location of indication in train.

HOT BOX DETECTORS

MP	Type	Direction(s)	MP	Type	Direction(s)
1305.9	D*	West	1476.5	C	Both
1305.9	C	Both	1530.3	C	Both
1327.2	C	Both	1563.4	C	Both
1380.4	C	Both	1589.6	C	Both
1407.2	C	Both	1622.6	D**	East
1445.6	C	Both			

*Readout at El Paso Yard

**Readout at Tucumcari Yard.

RULE 872. Will not apply at Tucumcari and El Paso:

MISCELLANEOUS

1. Tucumcari to El Paso. Trains in excess of 8,000 tons must have empties placed to rear.

Trains without helpers must not exceed 9,000 tons between Tucumcari and Gallinas and must not esceed 12,000 tons between Gallinas and El Paso or 120 Cars.

Trains with helpers, remote controlled or manned, must not exceed 120 cars or 12,000 tons, with empties placed behind helper units.

ALL SUBDIVISIONS

SPECIAL INSTRUCTIONS

RULES 1 and 3. Pacific Standard Time may be obtained from San Francisco, 1827 or Mountain Standard Time from Tucson, 412.

RULE S-72. Westward trains are superior to trains of the same class in the opposite direction.

RULE 103. Trains or engines when standing or switching must not block traffic on street or road crossings for a period exceeding 15 minutes, except in cases of unavoidable accident.

In the event of any uncontrolled blockage involving more than one grade crossing and a peace officer is on the scene, primary consideration shall be given to the clearing of that crossing which, in the peace officer's judgment, will result in minimum delay to vehicular traffic.

Train or yard crew member of a train blocking a public crossing shall immediately take all reasonable steps, consistent with the safe operation of such train, to clear the crossing upon receiving information from a peace officer, member of any fire department, or operator of an emergency vehicle, that emergency circumstances require the clearing of the crossing.

In the event of any uncontrolled blocking not otherwise provided for in this rule, crossing shall be cleared with reasonable dispatch.

A. When during normal train operations at night it becomes necessary to block a public grade crossing with standing railroad cars, and the crossing does not have automatically controlled crossing signals, fusees shall, as soon as possible, be placed in the center of the roadway on both sides of the track at not less than ten (10) feet from the railroad car or cars to warn motorists that the crossing is occupied.

B. Detached railroad cars containing explosive or hazardous material shall not be left standing on any grade crossing during normal train operations.

RULE 505. Where signal protection is provided for movements from an adjacent track to main track, push buttons and lights are installed in box near each of the two signals, with time-release feature to clear signals on one track when the control circuit on the other track is occupied.

Train on main track to allow train on siding to pass may clear signal on siding by pressing button bearing number of signal on siding. Train on siding to allow train on main track to pass should not pass APPROACH CIRCUIT sign, but when necessary to do so, may clear signal in main track by pressing button bearing number of signal on main track.

Further instructions posted inside push-button box.

RULE 825. At terminals where instructions require application of a specified number of hand brakes, outgoing crews must not release hand brakes until road engine is coupled, brake system charged and blue signal removed.

RULE 827. Where high and/or wide load, dragging and/or derailed equipment detectors are installed as listed under subdivisions, revolving red light will be mounted on hot box detector house, on post or relay case adjacent to detector and will be normally dark. When detector is activated, the revolving red light will be displayed. Train must be stopped and a walking inspection made of entire train.

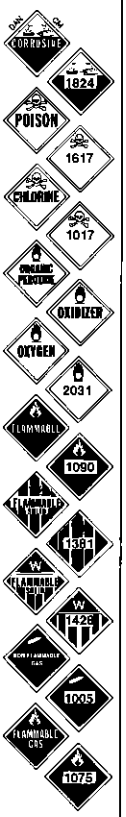
When a revolving red light is observed prior to engine passing detector location, train may proceed without stopping for inspection. Report must be made to train dispatcher promptly.

Position in train of placarded cars containing hazardous materials

NOTE: Cars with same placards may be placed next to each other.

Shippers may use either words or numbers on placards. Numbers shown are samples. Other numbers may appear on placards.

RESTRICTIONS

	Cars placarded: 	Cars placarded: 	Cars placarded: 	Any loaded placarded tank cars: 	Any empty placarded tank cars:	Placarded loaded cars other than tank cars: 	Cars placarded: 
Must not be nearer than the sixth car from the engine occupied caboose or passenger car	X	X		X			NO RESTRICTIONS
When train length does not permit, must be placed as near the middle of train as possible but not nearer than the second car from the engine, occupied caboose or passenger car	X	X		X			
MUST NOT BE NEXT TO: Engine, occupied caboose or passenger car	X	X	X	X	X		
Car occupied by guard or escort	X(1)	X(1)		X(1)			
Loaded plain flat car	X	X		X			
Loaded bulkhead flat car	X(2)	X(2)		X(2)			
Loaded TOFC/COFC flat car	X(3)	X		X(4)			
Car loaded with vehicles	X	X		X(5)			
Open top car with shiftable load	X(2)	X(2)		X(2)			
Car with internal combustion engine in operation. Car with any heating apparatus or any lighted stove, heater or lantern	X	X		X			
Car placarded EXPLOSIVES A		X	X	X		X	
Car placarded POISON GAS	X		X	X		X	
Car placarded RADIOACTIVE	X	X		X		X	
Any loaded placarded car (other than COMBUSTIBLE or same placard)	X	X	X				

(1) A placarded rail car must be next to and ahead of any car occupied by the guards or technical escorts accompanying this car. However, if a car occupied by guards or technical escorts is equipped with a lighted heater or stove, it must be the fourth car behind any car placarded EXPLOSIVES A.

(2) Restriction applies only when any of the lading protrudes beyond the car ends or when any of the lading extending above the car ends is liable to shift so as to protrude beyond the car ends.

(3) Cars placarded EXPLOSIVES A may be placed next to each other.

(4) Restriction applies only to loaded flatbed or opentop trucks and trailers and to loaded trucks and trailers without securely closed doors.

(5) Restriction does NOT apply to a car loaded with vehicles secured by a device designed for that purpose and permanently installed on the car and of a type generally accepted for handling in interchange between railroads.

HOT BOX DETECTORS

Each hot box detector scanner site has a white light continuously illuminated on track side of detector instrument house. When a hot bearing is detected, the white light will start flashing. When flashing light is observed, train must be stopped promptly and inspection made to locate hot bearing(s).

The absence of a white light continuously illuminated on the track side of detector instrument house is an indication detector may be inoperative. Under such circumstances, train must be stopped and all bearings inspected except under the following conditions:

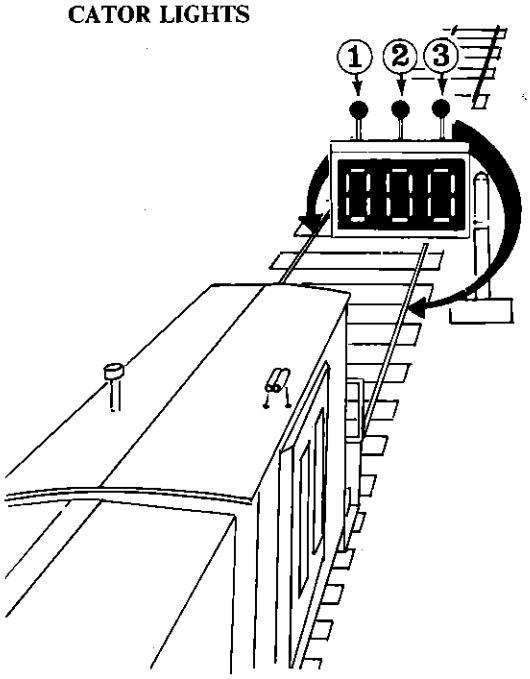
a. If employees other than members of crew make a rolling inspection (train speed not to exceed 20 MPH) on both sides.

b. If the monitor display board on a Type C detector displays "000" after train has passed scanner location.

c. If personnel at location of recorder of a Type D detector advises it is safe to proceed to terminal.

The absence of a white light must be promptly reported to train dispatcher. To avoid unnecessary delay to trains passing an inoperative hot box detector, train dispatcher may authorize such trains to make the required walking inspection or rolling inspection under condition (a) at another location provided it is no more than 10 miles in advance of or beyond detector site.

TYPE C. NUMERICAL DISPLAY BOARD WITH INDICATOR LIGHTS

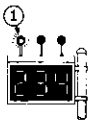
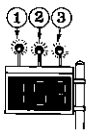
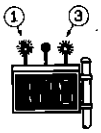


The diagram depicts a Type C hot box detector's monitor display board and indicator lights as it would be viewed looking back after rear of train has passed detector site. The indicator lights indentified ①②③ are normally dark, but when a hot bearing is detected, lights ① (right side) or ③ (left side) will immediately display a flashing white light to identify the side of train on which the hot bearing was detected.

When an additional hot bearing is detected, the center indicator light ② will also commence flashing. To assist in locating hot bearing, the detector will count the number of axles from the first hot bearing detected to the rear of train. Two seconds after train

has passed the detector, the numerical board will illuminate and display the accumulated axle count for 90 seconds.

The following are examples of displays as would be viewed looking back from rear of train and the corresponding required train inspection:

DISPLAY	REQUIRED INSPECTION
	No inspection required
	Inspect for one hot bearing on the 234th axle from rear on side of train indicated. If hot bearing is not located, all bearings of car indicated as well as five cars ahead and behind must be inspected on BOTH SIDES.
	Inspect for two or more hot bearings from rear of train to and including the 095th axle on indicated side. If two or more hot bearings are not located, inspect all bearings from rear of train to and including five cars ahead of indicated axle on BOTH SIDES.
	Inspect for two or more hot bearings from rear of train to and including the 153rd axle on BOTH SIDES. If hot bearing is not found on indicated axle, inspect all bearings on five cars ahead on BOTH SIDES.
	Inspect for two hot bearings on each end of the 126th axle from rear of train. If hot bearings are not located on indicated axle, all bearings of car indicated as well as five cars ahead and behind must be inspected on BOTH SIDES.

TYPE D. REMOTE READOUT AT TERMINAL

When white light is flashing on instrument house, train must be stopped promptly and crew member must contact personnel at location of recorder to determine location of hot bearing to be inspected. If hot bearing is not located, all bearings of car indicated as well as five cars ahead and behind must be inspected on both sides.

Personnel at recorder may authorize train to proceed to terminal without making inspection.

CHECKING FOR JOURNALS SUSPECTED OF OVERHEATING

Crew members must have in their possession a tempilstik, if available, when making ANY walking inspection of train.

Passenger cars with bearings located behind the wheels (Amfleet equipment) will not permit the use of tempilstik. Hot bearing on these cars will be indicated by strong odor (stink) from built-in heat indicator.

When a roller bearing car experiences two hot box detector actuations and overheated journal cannot be found, car must be set out. Connecting crew, if any, must be notified by incoming crew of any roller bearing car experiencing a hot box actuation and car was not set out.

CONTINUOUS WELDED RAIL (CWR) TRAINS

A box car or high-side gondola car must be positioned on each end of CWR train as a buffer car during all movement except preparatory to and during unloading or loading.

When making walking inspection of a CWR train carrying a full or partial load, the following items must be inspected:

a. Check for undesired movement of rail. The tops of rails are painted adjacent to the tie-down rack on the tie-down car which is located near center of train. Paint marks on each tier of rail must be in line; otherwise, this is an indication of an undesired movement of rail.

b. Check each rail end to make certain it overhangs the last supporting roller by at least 12 feet and is no closer than 12 feet from the next empty roller. Rails are marked 12 feet from each end.

When any of these conditions are not as required, train must not be moved until train dispatcher has been notified and further instructions are received.

LOOSE WHEEL DETECTORS

If indication is for loose wheel, all wheels and journals must be inspected on car indicated as well as five cars ahead and behind.

RULE 827-A. Unless specifically authorized by Superintendent, "K" trains must not exceed 8,000 feet in length, excluding locomotives.

RULE 874. Enginemen must specifically look for defects in shock absorber on locomotives equipped with HTC trucks.

What to do in case defect is noted:

1. Reduce train speed to not exceeding 50 MPH.
2. Notify train dispatcher of defective condition.
3. Report defect on Form CS 2326 for correction.

AIR BRAKE RULES

RULE 9. The following series of cars are equipped with empty-load brake system which has semi-automatic change-over feature:

SSW 75700-75799	SP 354000-354749	SP 491000-491059
SSW 78500-78599	SP 463500-464899	SP 492000-492039
SP 333500-334605	SP 467500-467549	SP 500604
SP 337500-337599	SP 480000-480193	SP 590000-590099
SP 345000-345699		

The following series of cars are equipped with empty-load brake system which has fully automatic change-over feature:

SP 323000-323239	SP 354750-355299	SP 481000-481149
SP 329310-329359	SP 463337 &	SP 590100-590131
SP 329620-329629	463486	SP 595500-595624
SP 337600-337699	SP 464900-467049	

RULE 14. Maximum tonnage to be handled behind engines with helpers entrained:

TERRITORY	*Road Engine	Helper Engine
Tucson-Lordsburg	6,500	5,525
Yuma-Tucson	8,500	7,225
Lordsburg-Mescal	7,500	6,375

*Not including portion of tonnage being shoved by helper engine.

RULE 24. Will apply at PFE Yard, Tucson and El Paso.

RULE 24-E. Will apply at Yuma.

RULE 24-G. Will apply at Yuma, Phoenix, and Lordsburg and will apply at Hayden to HYTUD when departing crew is assured by arriving crew that initial air brake test has been made.

RULE 33. Trains that contain 90% or more mechanical refrigerator cars and do not exceed 120 cars and/or 90 tons per operative brake may operate at the maximum speed permitted by "TOPS" identification; or unless otherwise restricted (e.g., restricted cars, engines, "TOPS" ID symbol, etc.), trains that meet the requirements of the following table may operate at speeds specified above 45 MPH provided tons per axle of operative extended and/or standard range dynamic brake does not exceed 500 tons:

Number of Cars	TONS PER OPERATIVE BRAKE 80+ to 85	85+ to 90
1 to 40	Speed sign speed	Speed sign speed
41 to 45	Speed sign speed	Speed sign speed
46 to 50	Speed sign speed	Speed sign speed
51 to 55	Speed sign speed	Speed sign (minus) 5 MPH
56 to 60	Speed sign (minus) 5 MPH	Speed sign (minus) 10 MPH
61 to 65	Speed sign (minus) 10 MPH	Speed sign (minus) 15 MPH
66 to 70	Speed sign (minus) 15 MPH	Speed sign (minus) 20 MPH
71 to 75	Speed sign (minus) 20 MPH	Maximum 45 MPH

Number of Cars	TONS PER OPERATIVE BRAKE 90+ to 95	95+ to 100
1 to 40	Speed sign speed	Speed sign speed
41 to 45	Speed sign speed	Speed sign (minus) 5 MPH
46 to 50	Speed sign (minus) 5 MPH	Speed sign (minus) 10 MPH
51 to 55	Speed sign (minus) 10 MPH	Speed sign (minus) 15 MPH
56 to 60	Speed sign (minus) 15 MPH	Speed sign (minus) 20 MPH
61 to 65	Speed sign (minus) 20 MPH	Maximum 45 MPH
66 to 70	Maximum 45 MPH	Maximum 45 MPH
71 to 75	Maximum 45 MPH	Maximum 45 MPH

RULE 49. Section A will apply at Yuma, Tucson, PFE Yard, Nogales, Phoenix, Douglas, Lordsburg, El Paso and Tucumcari.

Not more than 10 units in multiple operative or inoperative may be entrained on head end of any train.

MISCELLANEOUS

1. SPEED RESTRICTIONS FOR TRAINS:

a. Trains identified with multiple "TOPS" train identification symbols (example BSMFF/BSMFY) are authorized to operate at the highest maximum speed permitted for any symbol within the train identity. Speed restrictions on empties, car containing hazardous materials, and restricted cars are still applicable in determining maximum authorized speed.

b. When moving against current of traffic, or when movement is not protected by block signals, speed of passenger trains and light engines must not exceed 59 MPH and speed of freight trains must not exceed 49 MPH.

2. SPEED RESTRICTIONS FOR LOCOMOTIVES:

LOCOMOTIVE NUMBER	MAXIMUM SPEED	CLASSIFICATION	DYN BRK	STARTING TRACTIVE EFFORT	WGT 000
SP-SSW					
1000-1002	70	AS600	SF	102,000	408
@1010-1013	65	ES400		65,250	261
@1100	65	ES408		51,750	207
@1105-1127	65	ES408	ST	58,250	233
@1191-1199	65	ES409		59,250	237
@1300-1337	65	ES410		61,750	247
1500-1542	70	ES615	ST	82,500	330
⊙1600-1611	70	GS400	EF	70,000	280
@2250-2316	65	ES412		62,250	249
@2450-2759	65	ES415		65,250	261
2868-2899	70	ES418	ST	63,250	253
2961-2970	70	ES620	ET	97,500	390
2971-2976	50	ES620	EF	104,000	416
3100-3101	70	GS425	SF	67,000	268
3102-3109	70	ES625		95,500	390
3118-3135	25	AS628		97,750	391
3148-3153	25	AS630		101,000	404
3186-3196	70	EP418	ST	65,000	260
3197-3199	70	EP430	EF	70,000	280
3200-3209	70	EP636	ET	102,500	410
3301-3886	70	EF418	ST	63,250	253
4050-4153	70	EF420	ST	65,250	261
4160	70	EF420	ET	65,750	263
4200-4249	70	EF420	ET	66,500	266
4300-4451	70	EF618	ST	90,000	360
4800-4844	70	EF420	EF	69,250	277
5002-5017	70	EF423	ST	66,000	264

LOCOMOTIVE NUMBER	MAX-IMUM SPEED	CLAS-SIFICA-TION	DYN BRK	STARTING TRACTIVE EFFORT	WGT 000
5100-5114	70	GF423	EF	66,500	266
5300-5325	70	EF623	ET	104,250	417
6300-6681	70	EF425	ET	66,500	266
6901-6921	70	EF625	ET	97,500	390
7030-7033	70	SF428	SF	70,000	280
①7200-7201	70	EF435	EF	69,500	278
②7230-7231	70	EF435	EF	69,500	278
7300-7399	70	EF630	EF	102,750	411
7400-7599	70	EF632	EF	98,500	394
7600-7607	70	EF430	ET	67,560	278
7608-7677	70	EF430	EF	69,500	278
7770-7883	70	GF430	EF	70,000	280
7900-7929	70	GF630	EF	104,750	419
7930-7936	70	GF630	ET	104,750	419
③7940-7961	70	EF430	EF	69,500	278
#8230-8299	70	EF630	EF	97,750	391
#①8300-8341	70	EF630	EF	102,500	410
#②8350-8391	70	EF630	EF	102,500	410
#8489-8573	70	EF630	EF	102,500	410
8585-8599	70	GF633	EF	104,750	419
8600-8687	70	GF633	ET	104,750	419
8688-8796	70	GF633	EF	104,750	419
8800-9156	70	EF636	ET	103,500	414
#9157-9404	70	EF636	EF	102,750	411
#9500-9504	70	EF642	ET	103,250	413
AMTRAK ENGINES:					
200-360	70	EP430A		63,500	254
361-390	70	EP430A		64,750	259
500-649	70	EP630A		98,250	393
700-724	70	GP630A		96,500	386
ATSF ENGINES:					
@2700-2784	70	EF423		65,750	263
@2800-2961	70	EF425		66,500	266
@3000-3074	70	EF420		66,250	265
@3100-3174	70	EF420		66,250	265
@3200-3284	70	EF423		65,750	263
@3300-3460	70	EF425		66,500	266
3500-3560	70	EF420		65,750	263
3600-3705	70	EF423		66,000	264
3800-3839	70	EF435		79,500	265
4000-4019	70	EF623		98,000	392
@4600-4679	70	EF626		96,750	387
5000-5019	70	EF630		98,000	392
#5020-5194	70	EF630		97,500	390
#5200-5213	70	EF636		97,000	388
5300-5489	70	EF636		98,000	392
5490-5499	70	EF636		98,000	392
5500-5624	70	EF636		98,000	392
5625-5714	50	EF636		98,000	392
5900-5939	70	EF636-A		98,750	395
5940-5948	70	EF636-A		103,000	412
5950-5989	70	EF636-A		98,750	395
5990-5984	70	EF636-A		103,000	412
6300-6348	70	GF423		65,750	263
6350-6404	70	GF423		66,000	264
7484-7499	70	GF436		69,250	277
7500-7519	70	GF623		98,750	395
@7900-7909	70	GF628		99,000	396
8010-8152	70	GF630		103,000	412
8500-8524	70	GF633		98,000	392
8700-8799	70	GF636		98,000	392
UP:					
1-50	65	EF636		98,250	393
2400-2462	70	GF630		98,250	393
2800-2809	70	GF628		93,500	374
2810-2959	70	GF630		97,750	391
3000-3122	65	EF630		98,250	393

LOCOMOTIVE NUMBER	MAX-IMUM SPEED	CLAS-SIFICA-TION	DYN BRK	STARTING TRACTIVE EFFORT	WGT 000
3123-3475	50	EF630		97,500	390
#3476-3808	65	EF630		97,500	390
8051-8074	50	EF630		97,500	390
#8075-8089	70	EF630		97,500	390
9000-9005	70	EF435		82,500	275
BN ENGINES:					
@602-761	70	EF415		62,750	251
@766-853	70	EF418		62,500	250
@1350-1365	70	EF414		60,750	243
1375-1399	65	EF415		64,500	258
1400-1499	70	EF418		64,250	257
@1524-1673	70	EF415		63,500	254
@1700-1980	70	EF418		64,750	259
@1990-1997	70	EF418		62,000	248
2001-2071	70	EF420		65,250	261
2072-2154	70	EF420		66,750	267
2200-2254	70	EF423		65,250	261
2255-2369	65	EF420		66,800	267
2500-2582	70	EF425		65,500	262
3000-3064	70	EF430		68,750	275
3100-3109	70	EF435		68,250	275
5000-5199	70	GF630		103,250	413
5200-5208	70	GF623		92,500	370
5210-5233	65	GF425		66,800	267
5300-5394	70	GF630		104,000	416
5400-5429	70	GF425		67,750	271
5450-5465	70	GF428		68,750	275
5470-5484	70	GF430		68,750	275
5485-5492	65	GF430		68,800	275
5500-5599	70	GF630		104,250	417
5600-5641	70	GF625		98,000	392
5650-5677	70	GF628		98,000	392
5700-5765	70	GF633		102,750	411
5770-5799	65	GF430		67,000	278
5800-5944	70	GF630		104,000	416
@6000-6059	70	EF615		86,000	344
@6100-6206	70	EF618		86,500	346
@6240-6255	70	EF624		86,500	346
6260-6263	65	EF620		97,750	391
6300-6324	70	EF630		95,500	382
6325-6385	50	EF630		96,500	386
#6394-6399	70	EF630		92,750	371
6400-6567	70	EF636		98,500	394
6592-6599	70	EF636		99,000	396
6600-6645	70	EF636		96,750	387
6650-6696	65	EF636		95,300	381
6700-6799	50	EF630		104,250	417
6800-6807	70	EF630		104,250	417
6808-7053	50	EF630		104,250	417
7054-7291	70	EF630		104,750	419
7800-7899	50	EF630		104,250	417
7900-7940	70	EF630		103,750	415
8000-8099	50	EF630		103,750	415
8100-8181	65	EF630		103,750	415
9900-9925	70	EP624		56,000	224

* May be handled isolated in multiple, dead in multiple, or dead in train at maximum speed of 70 MPH.

\# Equipped with HTC trucks and truck snubbers.

① RCE Master.

② RCE Remote.

③ Mother.

④ Mate.

@ Locomotives not equipped with alignment control couplers.

A locomotive that is NOT listed in these tables must NEVER be operated or handled in a train unless it is specifically authorized by train dispatcher. Authorization must include the speed and weight of the locomotive as well as its starting tractive effort if it is to be operative in the train.

Unless otherwise notified in writing or verified by a Mechanical Department employee, a locomotive that does not appear in these tables must be considered as a locomotive that is NOT equipped with alignment control couplers.

Trains with AMTRAK EP630A locomotives in consist, must not exceed 50 MPH from point where engine enters curve until engine and first car behind engine are again on tangent track between the following mile post locations:

Gila Subdivision; MP 748.6 and MP 770.7, MP 982.8 and 983.9, MP 986.6 and MP 987.8.

Phoenix Subdivision; MP 770.7 and 777.8, MP 878.4 and 876.1, MP 887.4 and MP 894.5, MP 904.9 and MP 924.9, MP 958.9 and MP 959.0.

Lordsburg Subdivision; MP 982.9 and MP 983.9, MP 986.6 and MP 1023.8 on No. 2 track, MP 1021.7 and MP 1007.5 on No. 1 track, MP 990.3 and MP 982.9 on No. 1 track, MP 1023.6 and MP 1057.9, MP 1082.9 and MP 1090.9, MP 1121.4 and MP 1128.8.

3. SPEED RESTRICTIONS WITH CERTAIN EQUIPMENT	MAIN TRACKS OTHER THAN BRANCHES	MAIN TRACKS ON BRANCHES
Scale test cars		
WO-2, SPMW 5868, SSW 99203 (must be handled next to caboose)	30	30
K&J pedestal or center hinged air-dump cars, loaded or empty (except SPMW-5100 to 5289)	35*	25*
Relief outfits with steam derrick	45*	25*
Relief outfit SPMW 7130 must not be operated east of MP 972.37 on Hayden Branch, nor east of MP 1088.9 on Douglas Branch		
Locomotive Crane-Piledrivers		
SPMW 4027, 4028, 4029, 4088, 4091, 5437, 5479, 5595, 5852, 5870, 5874, 5899, 6601, 6602, 6603, 6604, 8000, 8002, 8003, 8004, SSWMW 96404 and 96405:		
With boom in place, either end forward ①	25*	15*
With boom disconnected, heavy end forward	40	25
boom end forward	20*	15*
With boom disconnected and removable counterweight properly positioned, either end forward	40	25
Steam pile driver SPMW 4053	35	25*
Jordan Spreaders:		
Moving backward	25	20
Moving forward	35	35

*On curves where authorized speed is more than 15 MPH speed must be reduced to 5 MPH less than speed permitted.

① When moving in train with boom in place, operator must be on board.

Unless specifically authorized, all relief outfit cranes, locomotives cranes and pile drivers must not operate over routes having maximum load limits of less than 263,000 lbs. and must observe all restrictions applying to cars weighing over 210,000 lbs.

4. OTHER SPEED RESTRICTIONS	MPH
Trains handling hazardous material listed in Rule 827-A	55
Engines operated from other than lead locomotive in direction of movement	20
Trains handling empty bulkhead flat cars	45
Trains handling empty, specially equipped gondola cars (TOPS car kind code "GP")	45
Trains handling pipe loaded on 89 ft. flat cars	55
PC 598500 to 598999 (Gondolas)	45
Loaded Continuous Welded Rail (CWR) Trains	45*
Trains handling empties, except cabooses	55

*Loaded CWR trains must be handled separately from other trains.

5. PLACEMENT OF RESTRICTED CARS IN TRAIN WITH OR WITHOUT HELPER:

(a) When the tonnage of any train including local or road switcher exceeds 4,000 tons, the weight of each of the first five cars behind engine must weigh 50 tons or more.

This restriction will not apply when there are less than 20 loaded cars in train.

In addition, the weight of each of the first five cars behind the engine of the Hayden Local westward from Hayden to Magma must weigh 85 tons or more, if available, regardless of train tonnage.

(b) Cars measuring less than 42 feet in length must not be coupled to a car longer than 73 feet in length. This restriction will not apply to rear 20 cars of train.

Empty tank cars measuring less than 35 feet in length must be entrained in rear 20 cars of train.

(c) It is the responsibility of Yardmasters and Conductors to take into consideration the overall distribution of tonnage when making up or changing consist of train. The following are requirements governing train makeup.

1. Train consisting of predominantly empty cars will have any block of loaded cars entrained near the head end.
2. Train makeup requirements will prevail when they conflict with outstanding blocking instructions unless authorized by Division Officer or Chief Dispatcher.
3. Train Mass Profile Graph should be used to monitor train makeup when available.
4. When in doubt as to proper distribution of train tonnage, Yardmaster or Conductor will contact Division Officer or Chief Dispatcher for instructions.

(d) Cabooses are not to be moved other than at rear of train, unless specifically authorized, except when handling a few cars in local or road switcher service.

6. DOUBLE-STACK ARTICULATED CARS (FMA):

(a) Series SP 513302 to 513343 and SP 513301 are to be:

1. Positioned on headend of train when loaded.
2. Considered the equivalent of three (3) cars in determining tons per operative brake.

(b) Series SP 513302 to SP 513343 are to be considered the equivalent of five (5) cars and SP 513301 the equivalent of three (3) cars when:

1. Determining proper position in train of placarded cars containing hazardous materials.
2. Train tonnage requires the first five cars behind engine to weigh 50 tons or more.
3. Considering maximum load limit.

7. LOAD LIMIT: (car and contents):

Other than Branches .....315,000 pounds

Exceptions:

ALL SUBDIVISIONS

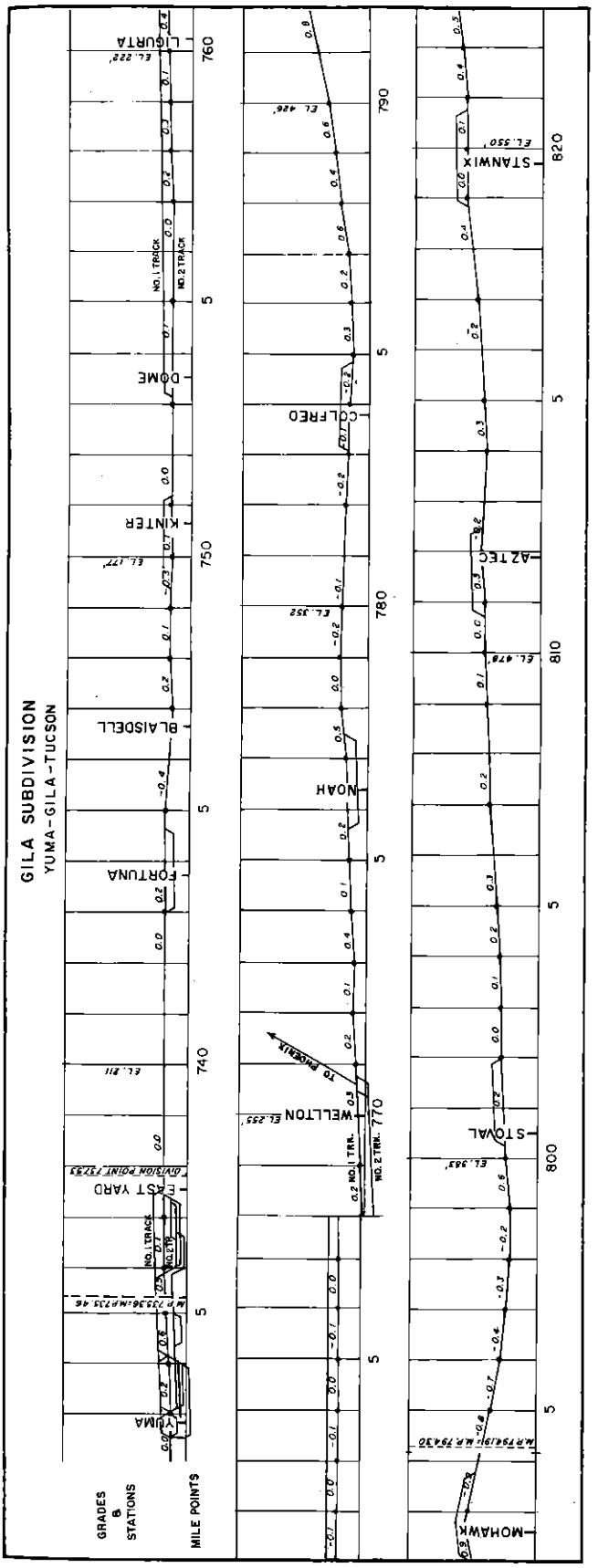
El Paso-Tucumcari ..... 263,000 pounds
Branches
PFE Yard — Nogales ..... 263,000 pounds
Exceptions:
Ore cars SP 333500 to 334399 and SP 341000 to 341400 and ATSF 64000 to 64099 between MP 1004.8 and PFE Yard including AS&R spur, Anamax, Pima and Duval mines Sahuarita ..... 281,000 pounds
Hopper cars series SP 464000 ..... 281,000 pounds
Litchfield Jct.-Litchfield Park ..... 240,000 pounds
Tempe-West Chandler ..... 240,000 pounds
McQueen-Dock ..... 263,000 pounds
Magma-Hayden ..... 263,000 pounds
Exceptions:
KCC ore cars between Ray Jct. and Hayden .. 281,000 pounds
Ore cars SP 341000 to 341400 and ATSF 64000 to 64099 ..... 281,000 pounds
Cars having truck centers 30 ft. 0 in. or less .. 240,000 pounds
Except: UTLX, GATX, and ACFX sulphuric acid tank cars having truck centers 30 ft. 0 in. or less are permitted to operate with load limit ..... 263,000 pounds
Bowie-Miami, ... 281,000 pounds
except Air dump cars SPMW 6400-6439 ..... 263,000 pounds
Lordsburg-Clifton
Cars having truck centers:
24 ft. 0 in. and less ..... 240,000 pounds
Over 24 ft. 0 in. to 30 ft. 0 in. ..... 263,000 pounds
Over 30 ft. 0 in. ..... 281,000 pounds
Benson-Douglas
Cars having truck centers 30 ft. 0 in. or more . 281,000 pounds
Cars having truck centers less than 30 ft. 0 in. 240,000 pounds
Hopper cars SP 464000 series ..... 281,000 pounds
Ore cars SP 467500 to 467549 between Bisbee Jct. and Douglas ..... 281,000 pounds
Corta-Galena, ... 240,000 pounds
except Ore cars SP 467500-467549 ..... 281,000 pounds
Bisbee Jct.-Bisbee, ... 240,000 pounds
except Ore cars SP 467500-467549 ..... 281,000 pounds

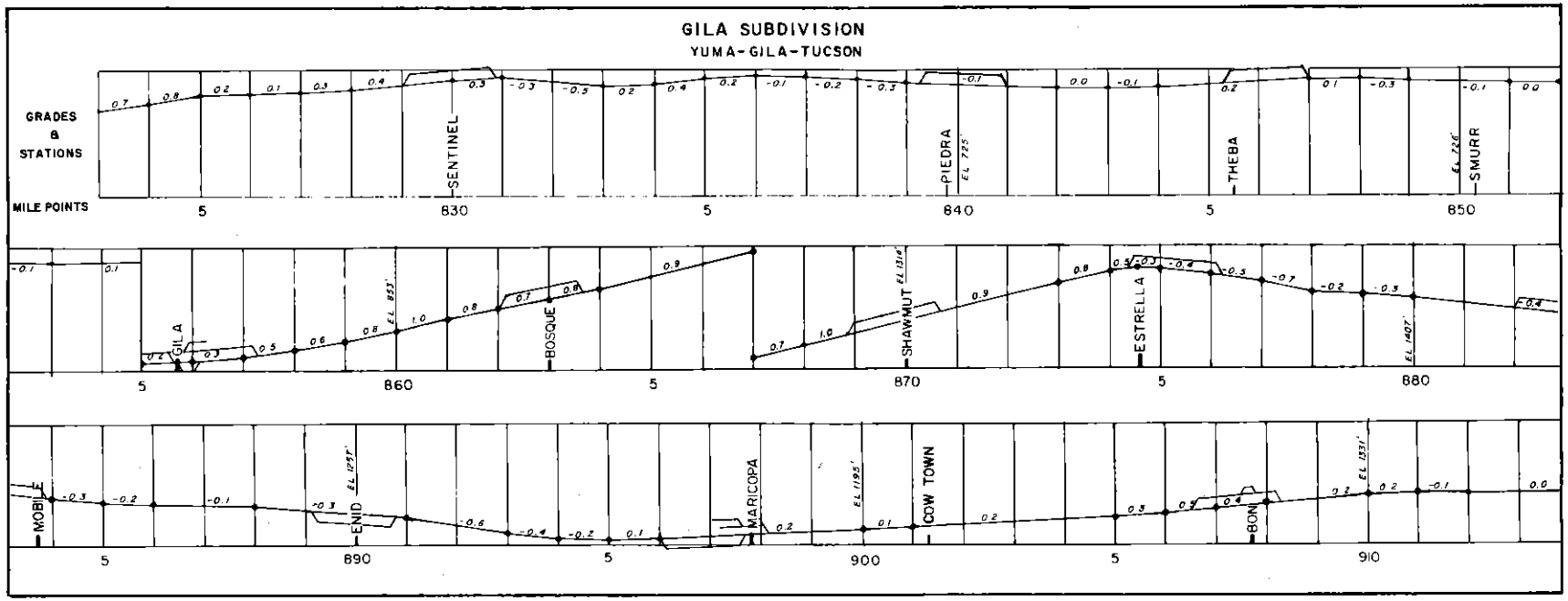
Unless authorized by Superintendent, heavier loads will not be handled.

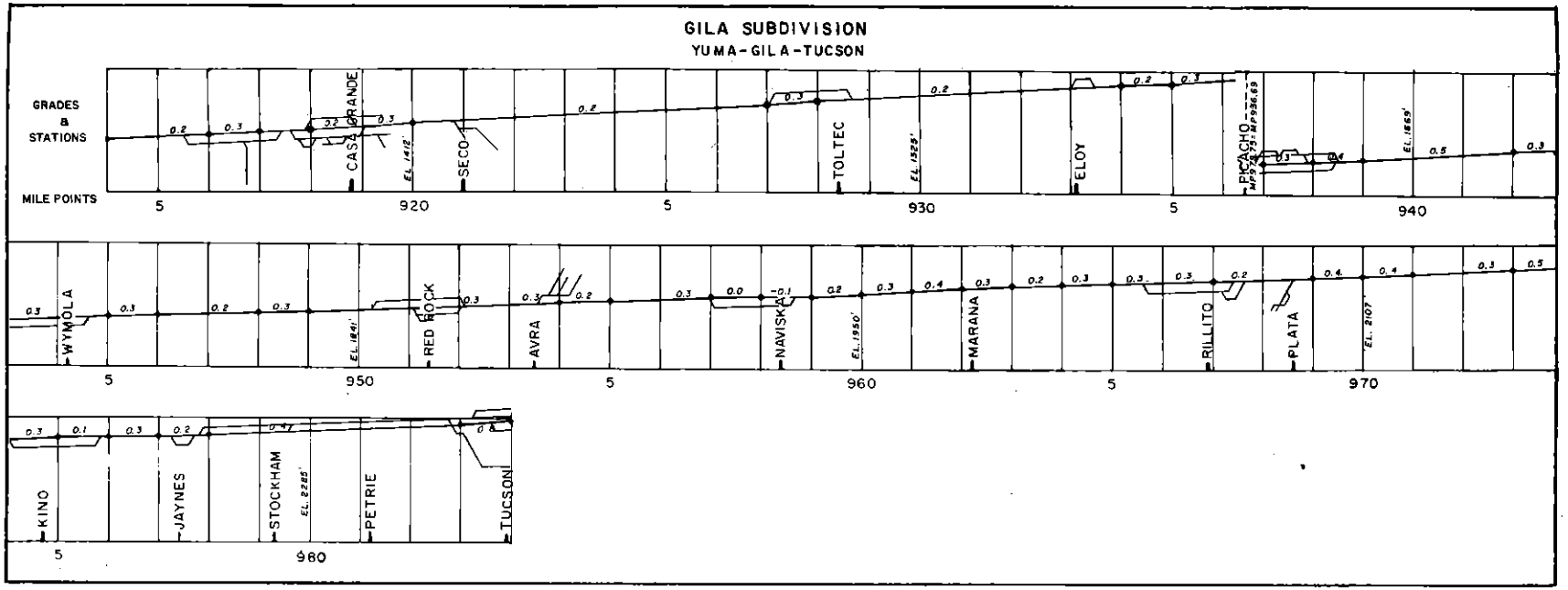
Where maximum load limit is 263,000 pounds or more, gross loads of 395,000 pounds may be handled on 6 axle cars when load limit of car is not exceeded.

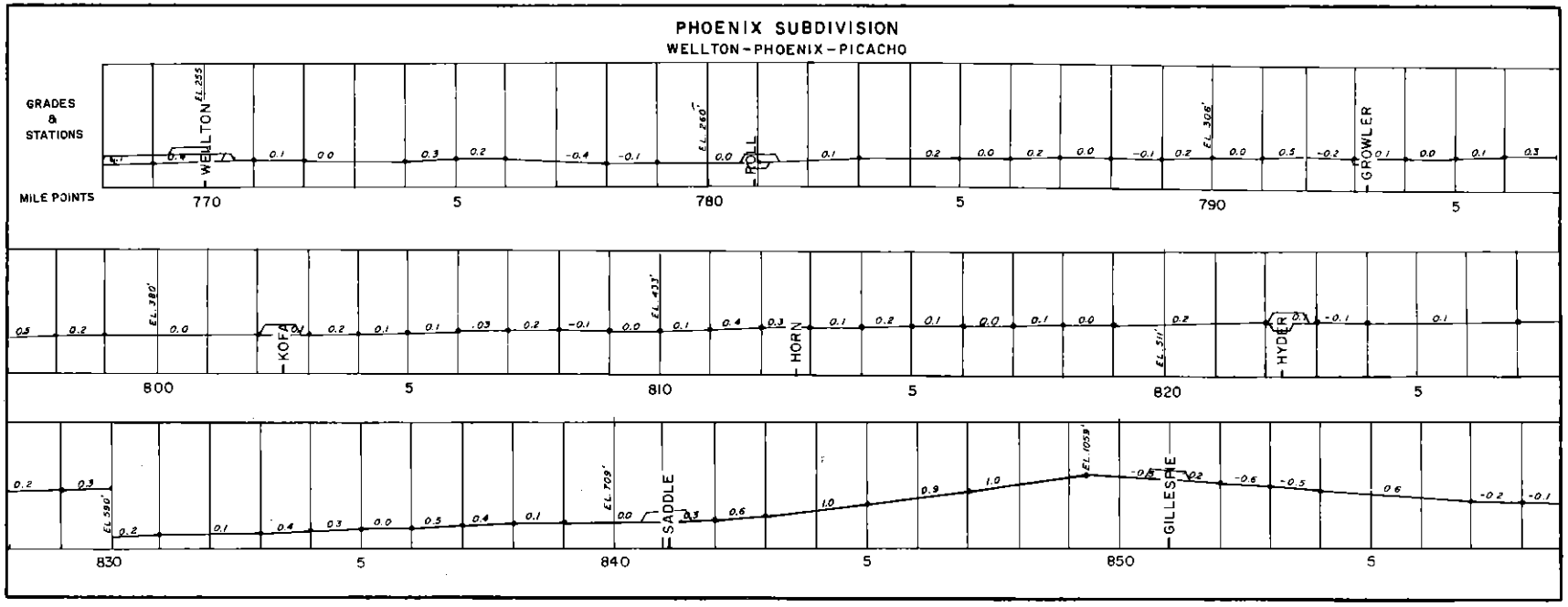
Where maximum load limit is 263,000 pounds or more, gross loads of 526,000 pounds may be handled on 8 axle tank cars, with a maximum of 3 tank cars coupled together, when load limit of cars is not exceeded.

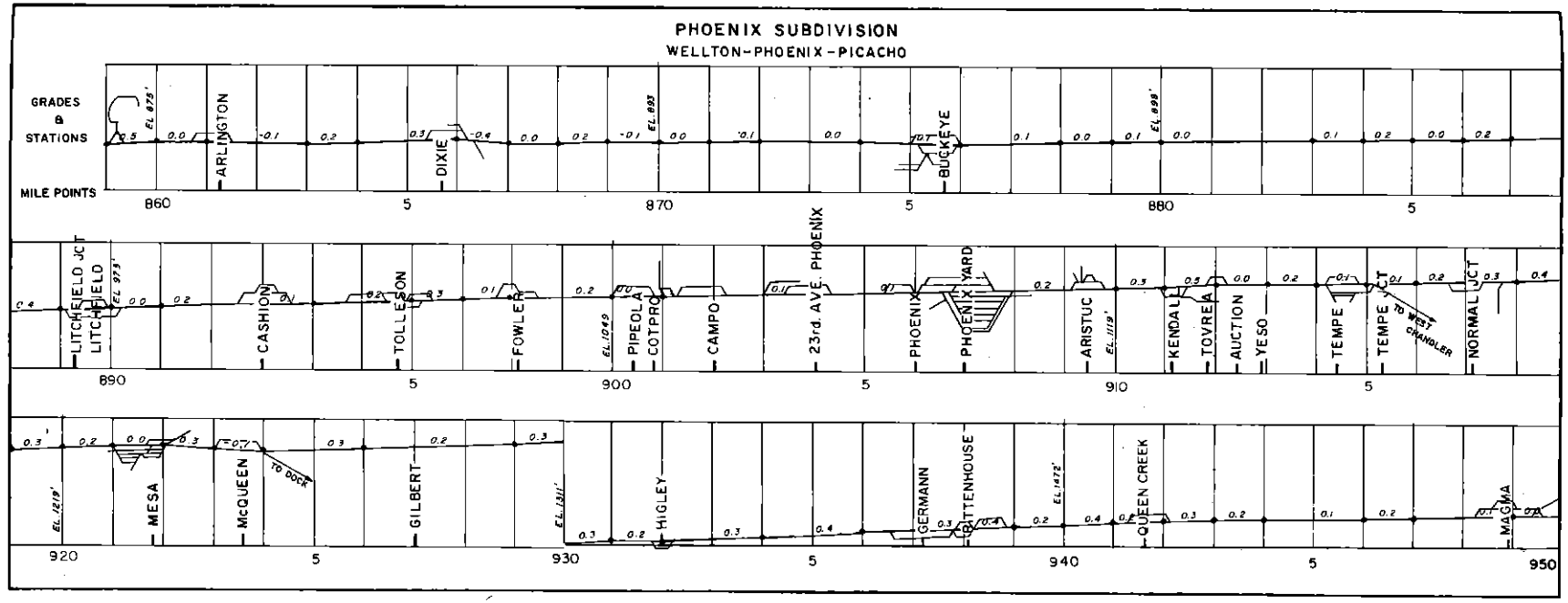
8. Passenger trains are restricted to movements on main tracks, sidings and designated receiving tracks at Passenger Stations. Movement on any other tracks must be authorized by Chief Train Dispatcher.

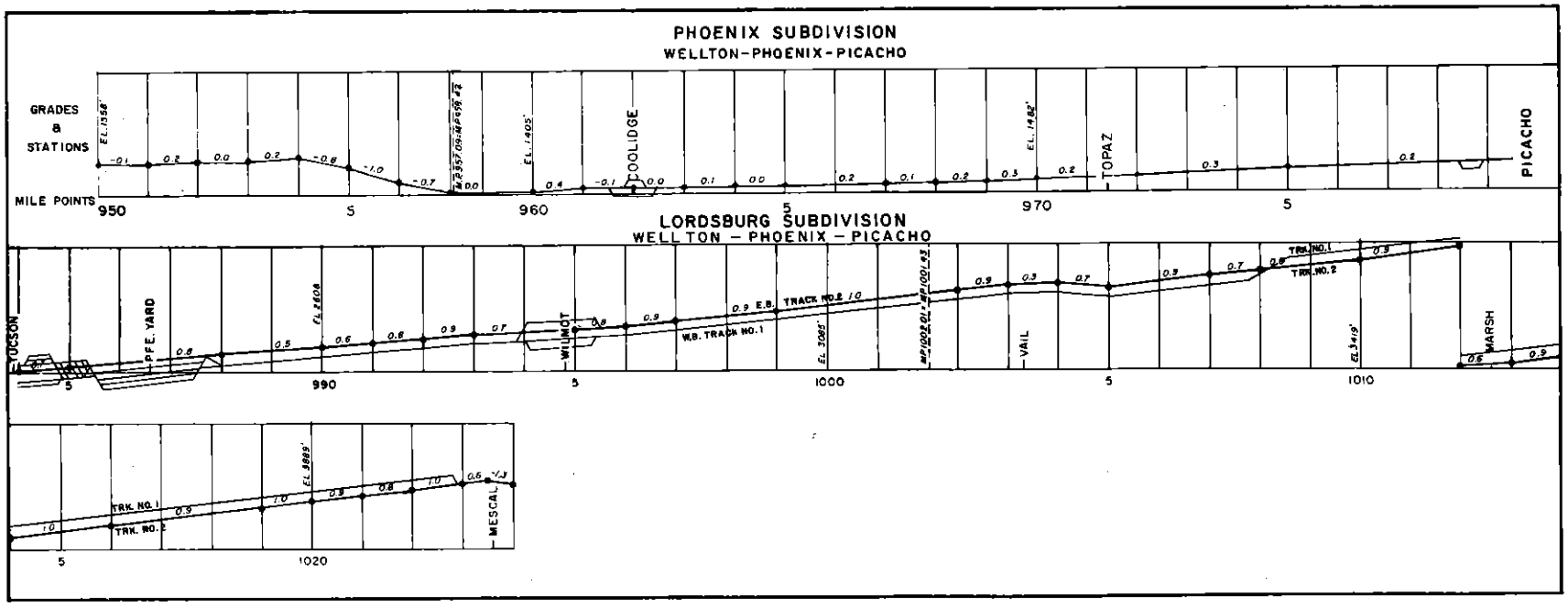


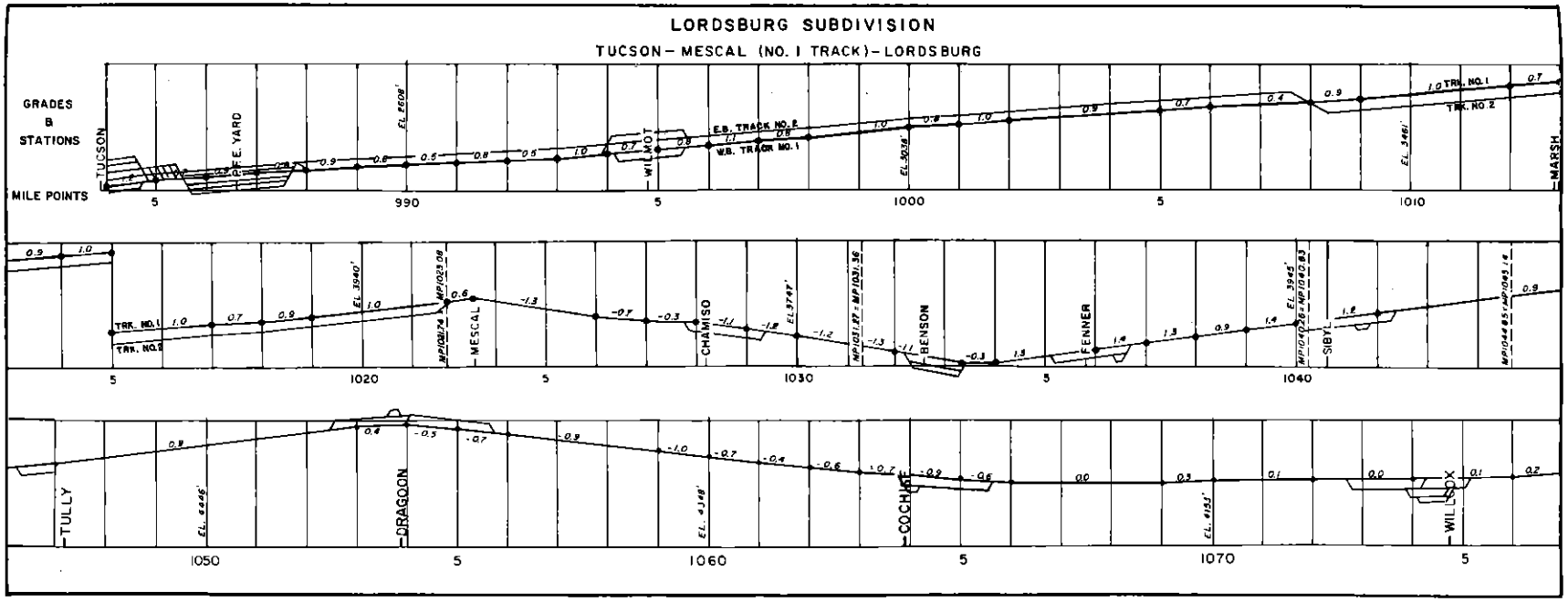

GILA SUBDIVISION
YUMA-GILA-TUCSON
GRADES & STATIONS
MILE POINTS
SENTINEL
PIEDRA
EL 725'
THEBA
EL 725'
SMURR
5
830
5
840
5
850
GILA
EL 853'
BOSQUE
SHAWMUT
EL 1314'
ESTRELLA
EL 1407'
5
860
5
870
5
880
MOBILE
ENID
EL 1251'
MARICOPA
EL 1195'
COW TOWN
BONI
EL 1351'
5
890
5
900
5
910


GILA SUBDIVISION
YUMA-GILA-TUCSON
GRADES & STATIONS
MILE POINTS
CASA GRANDE
EL 1412'
SECO
TOLTEC
EL 1525'
ELOY
PICACHO
EL 1869'
5
920
5
930
5
940
WYMOLA
EL 1841'
RED ROCK
AVRA
NAVISKA
EL 1950'
MARANA
RILLITO
PLATA
EL 2107'
5
950
5
960
5
970
KINO
JAYNES
STOCKHAM
EL 2285'
PETRIE
TUCSON
5
980


PHOENIX SUBDIVISION
WELLTON-PHOENIX-PICACHO
GRADES & STATIONS
MILE POINTS
WELLTON
EL. 255'
ROLL
EL. 260'
GROWLER
EL. 306'
770
5
780
5
790
5
KOFA
EL. 380'
EL. 433'
HORN
EL. 511'
HYDER
800
5
810
5
820
5
SADDLE
EL. 709'
GILLESPIE
EL. 1059'
830
5
840
5
850
5


PHOENIX SUBDIVISION
WELLTON-PHOENIX-PICACHO
GRADES & STATIONS
MILE POINTS
ARLINGTON
EL. 875'
DIXIE
EL. 893'
BUCKEYE
EL. 899'
860
5
870
5
880
5
LITCHFIELD JCT
LITCHFIELD
EL. 973'
CASHION
TOLLESON
FOWLER
EL. 1049'
PIPEOLA
COTPRO
CAMPO
23rd AVE. PHOENIX
PHOENIX
PHOENIX YARD
ARISTUC
EL. 1119'
KENDALL
TOVREA
AUCTION
YESO
TEMPE
TEMPE JCT
TO WEST CHANDLER
NORMAL JCT
890
5
900
5
910
5
EL. 1219'
MESA
McQUEEN
TO DOCK
GILBERT
EL. 1311'
HIGLEY
GERMANN
ROTTENHOUSE
EL. 1472'
QUEEN CREEK
MAGMA
920
5
930
5
940
5
950

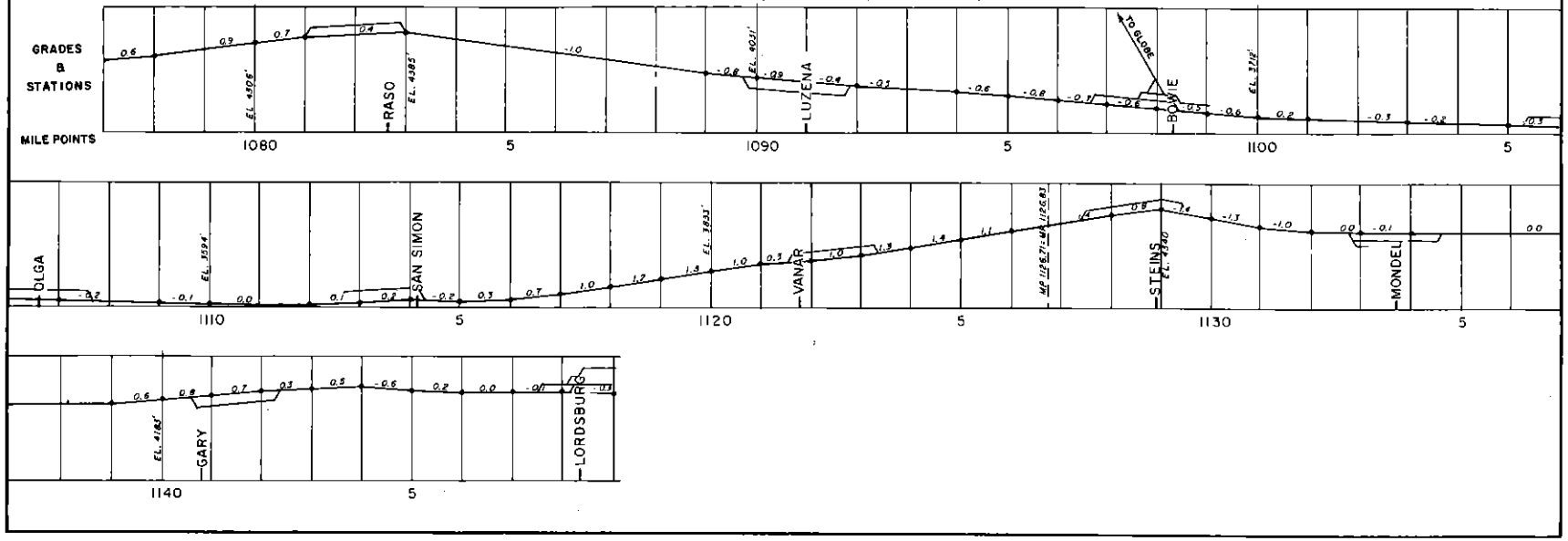

PHOENIX SUBDIVISION
WELLTON-PHOENIX-PICACHO
GRADES & STATIONS
MILE POINTS
950
960
970
COOLIDGE
TOPAZ
PICACHO
LORDSBURG SUBDIVISION
WELLTON - PHOENIX - PICACHO
TUCSON
PFE. YARD
WILMOT
VAIL
MARSH
990
1000
1010
TRK. NO. 1
TRK. NO. 2
W.B. TRACK NO. 1
E.B. TRACK NO. 2
MESCAL
1020


LORDSBURG SUBDIVISION
TUCSON - MESCAL (NO. 1 TRACK) - LORDSBURG
GRADES & STATIONS
MILE POINTS
TUCSON
PFE. YARD
WILMOT
MARSH
990
1000
1010
TRK. NO. 1
TRK. NO. 2
W.B. TRACK NO. 1
E.B. TRACK NO. 2
MESCAL
CHAMISO
BENSON
FENNER
SIBYL
1020
1030
1040
TULLY
DRAGOON
COCHISE
WILCOX
1050
1060
1070

48

LORDSBURG SUBDIVISION

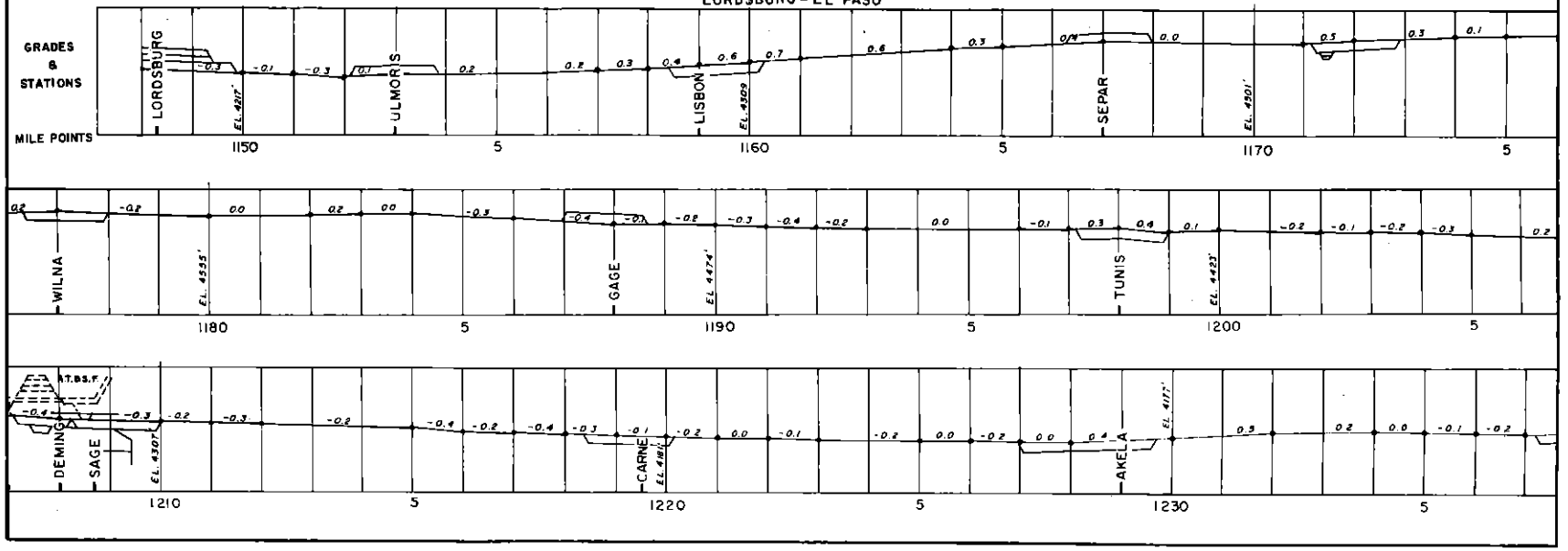
TUCSON – MESCAL (NO. 1 TRACK) – LORDSBURG



49

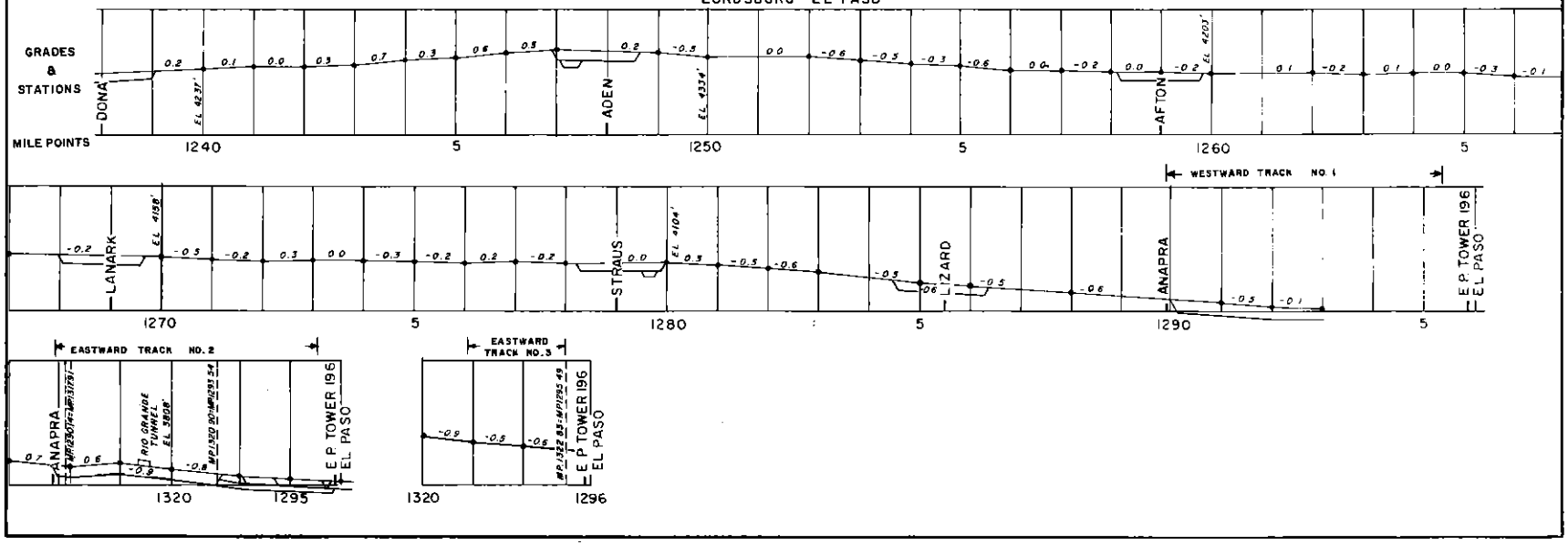
LORDSBURG SUBDIVISION

LORDSBURG – EL PASO



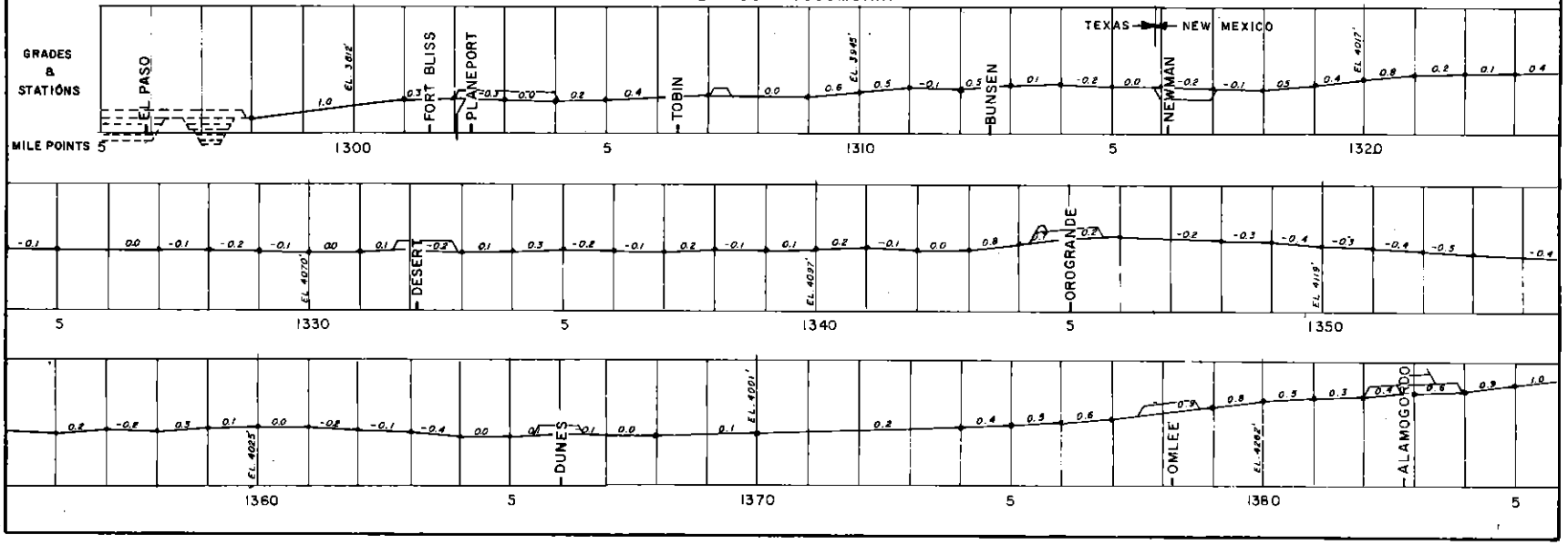
LORDSBURG SUBDIVISION

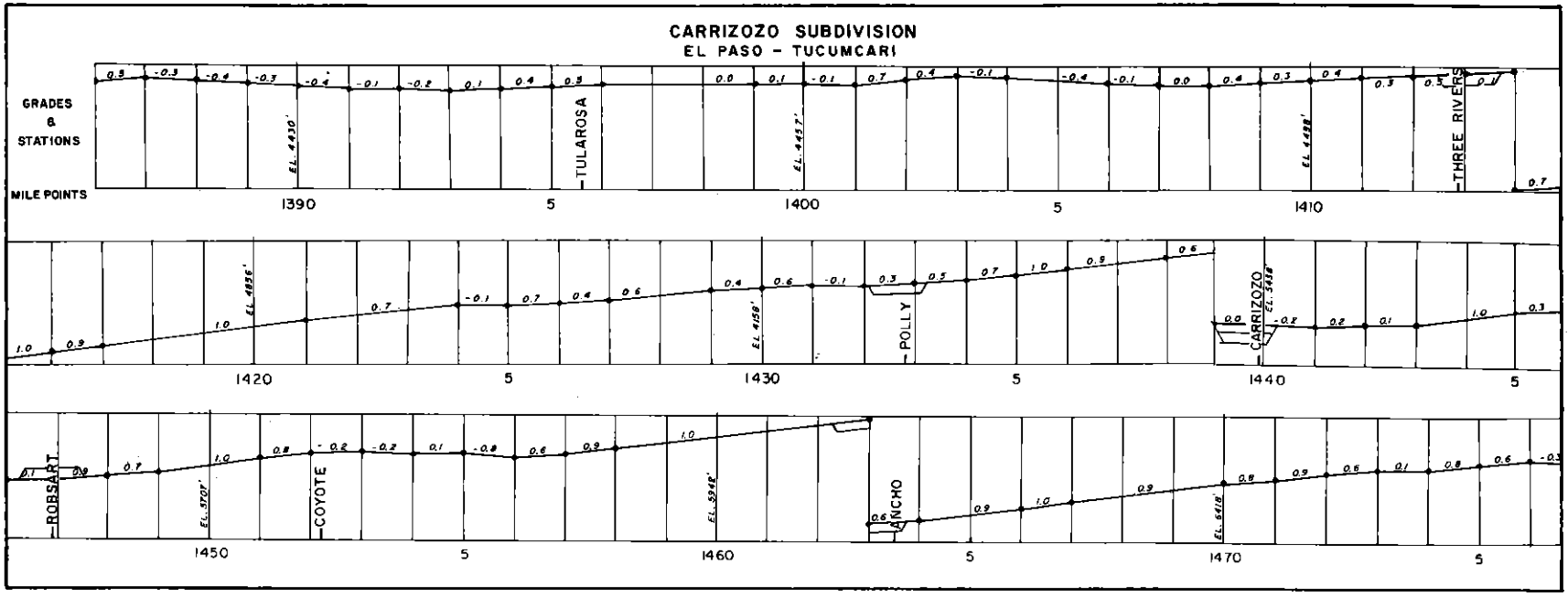
LORDSBURG – EL PASO

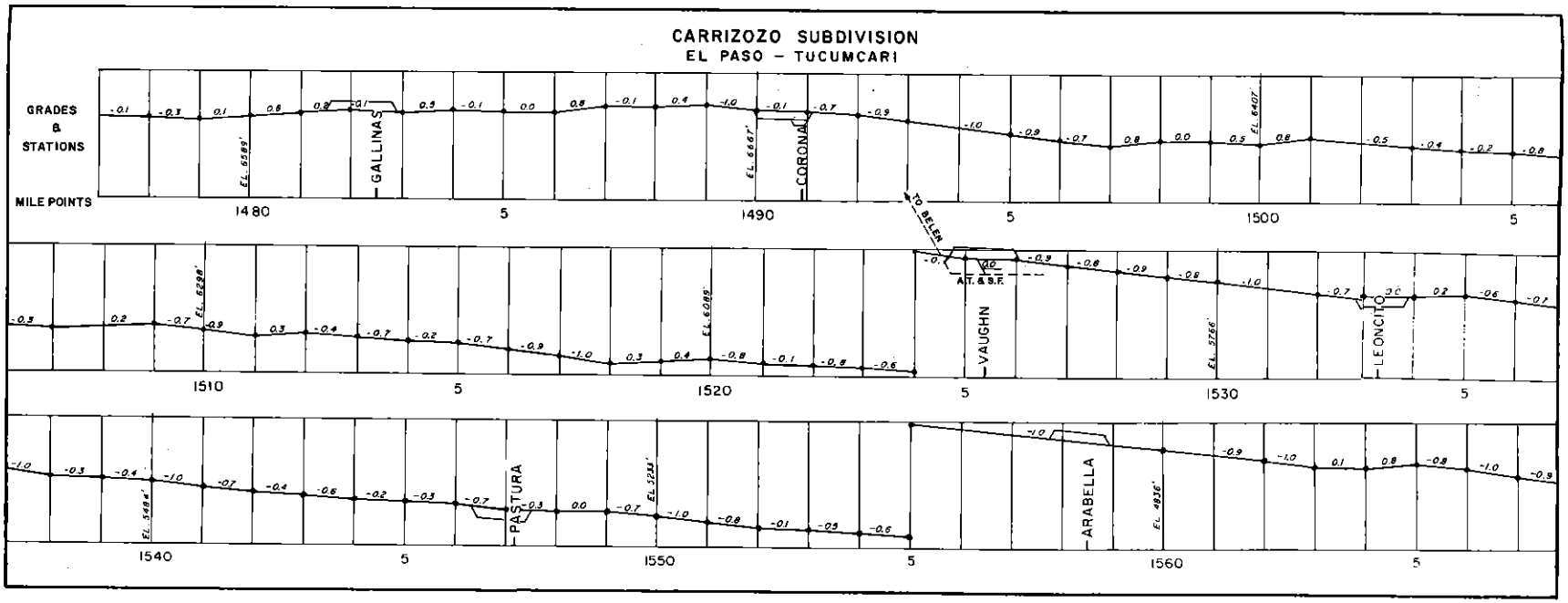


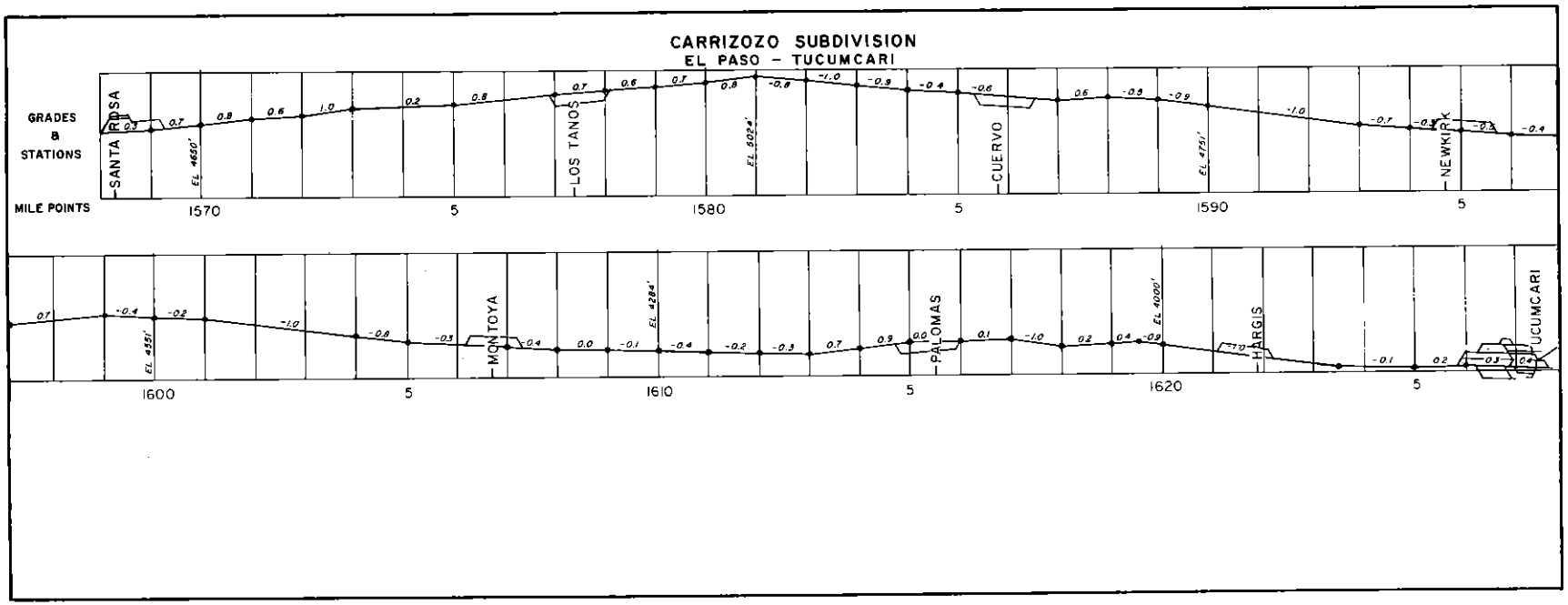
CARRIZOZO SUBDIVISION

EL PASO – TUCUMCARI

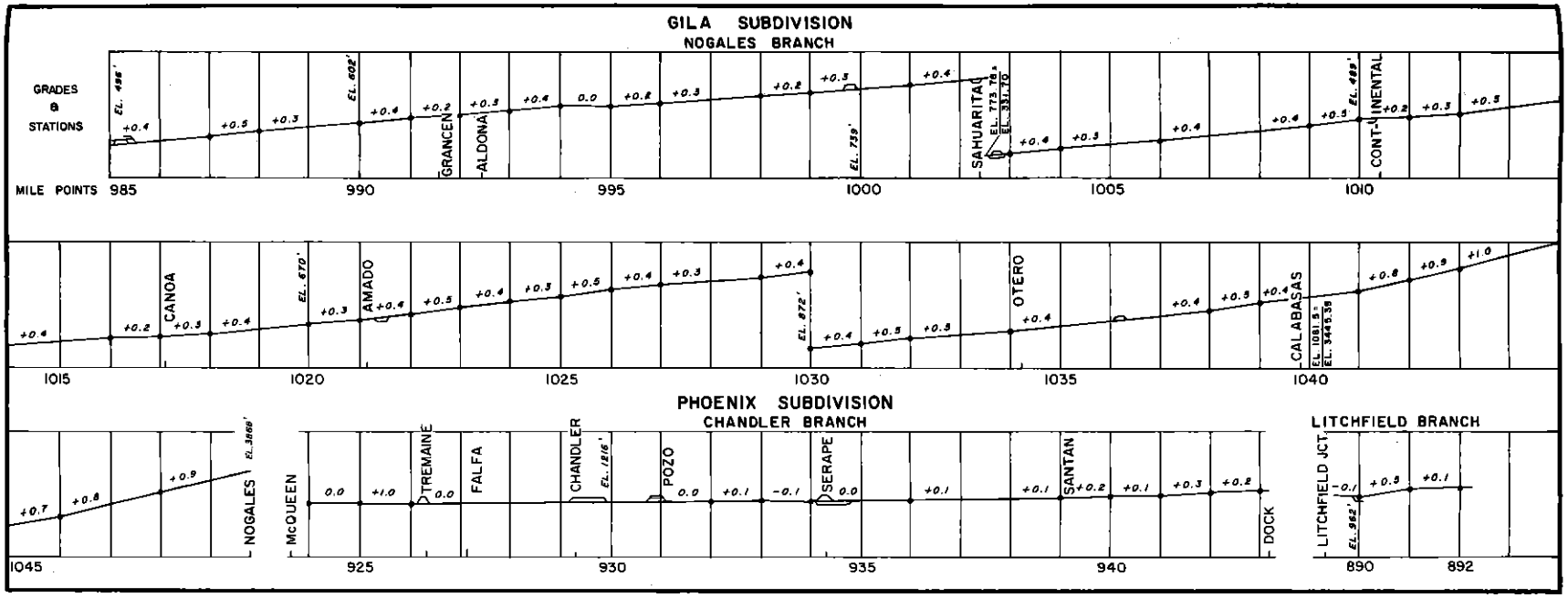



CARRIZOZO SUBDIVISION
EL PASO - TUCUMCARI
GRADES & STATIONS
MILE POINTS
TULAROSA
THREE RIVERS
POLLY
CARRIZOZO
ROBSART
COYOTE
ANCHO
1390
1400
1410
1420
1430
1440
1450
1460
1470
5

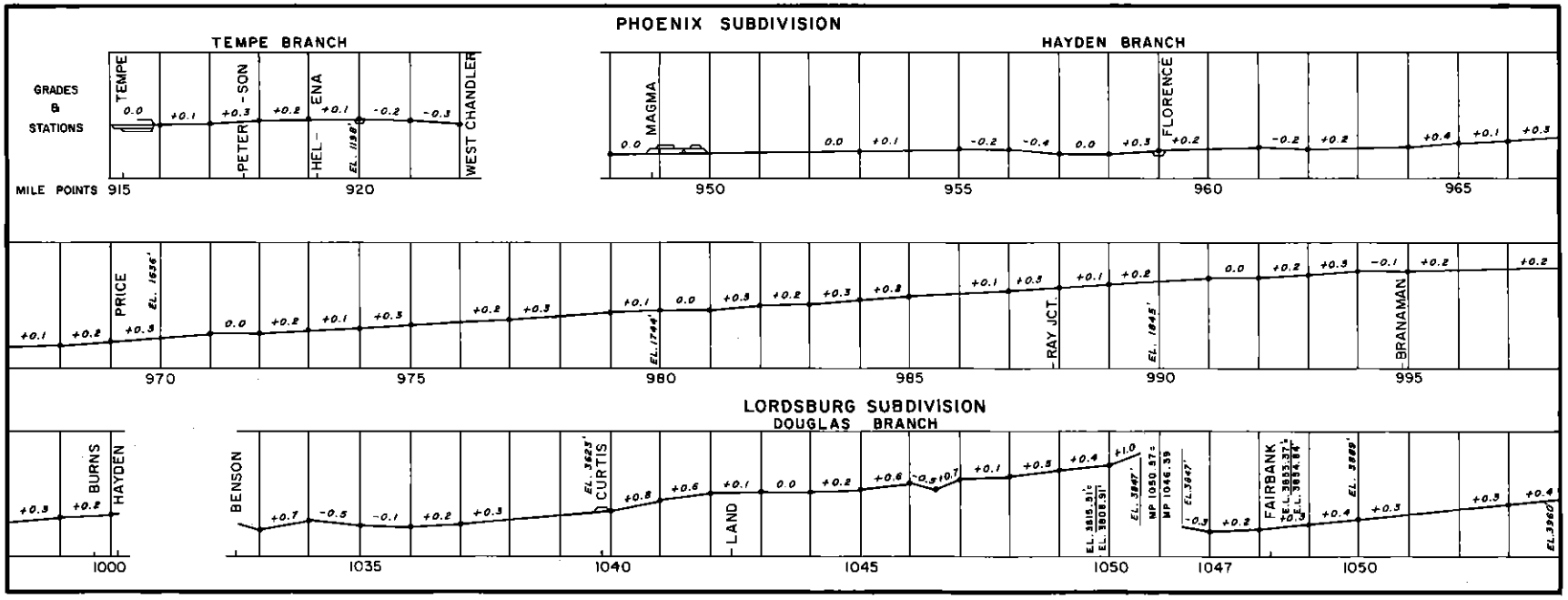

CARRIZOZO SUBDIVISION
EL PASO - TUCUMCARI
GRADES & STATIONS
MILE POINTS
GALLINAS
CORONA
TO BELEN
AT. & S.F.
VAUGHN
LEONCITO
PASTURA
ARABELLA
1480
1490
1500
1510
1520
1530
1540
1550
1560
5

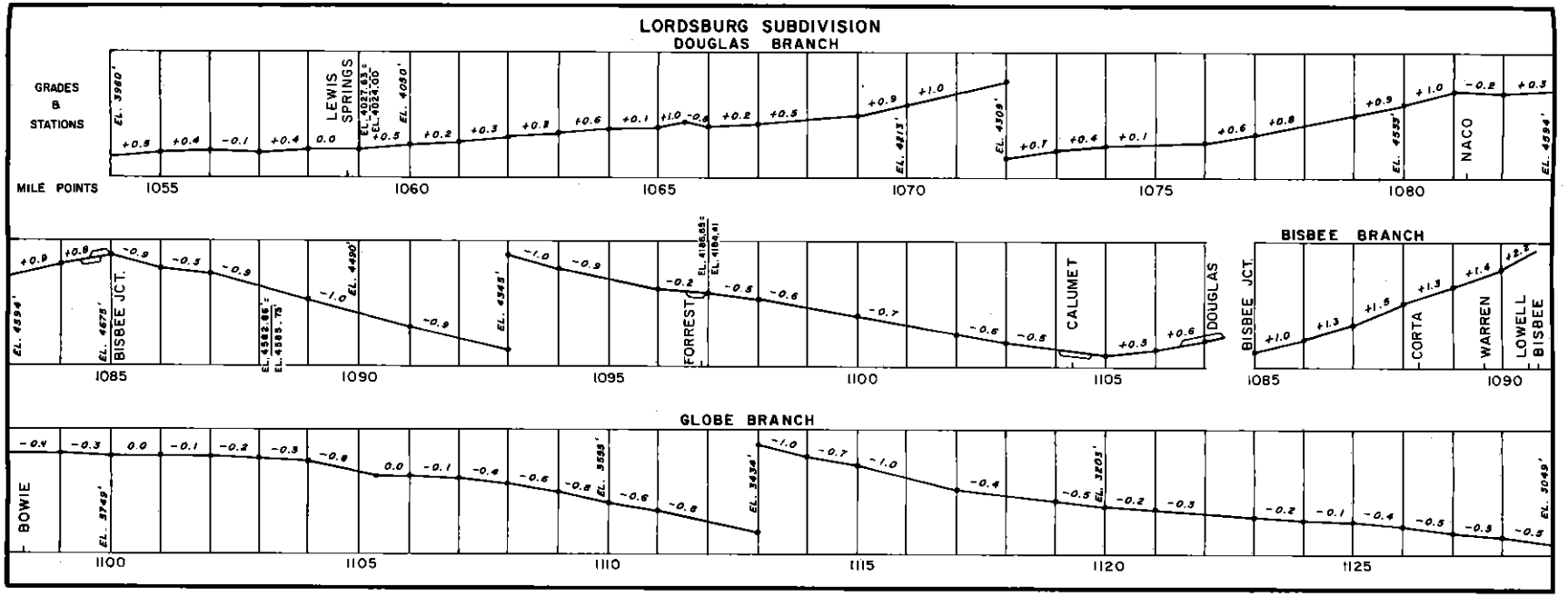

CARRIZOZO SUBDIVISION
EL PASO – TUCUMCARI
GRADES & STATIONS
MILE POINTS
SANTA ROSA
LOS TANOS
CUERVO
NEWKIRK
MONTOYA
PALOMAS
HARGIS
TUCUMCARI
1570
5
1580
5
1590
5
1600
5
1610
5
1620
5

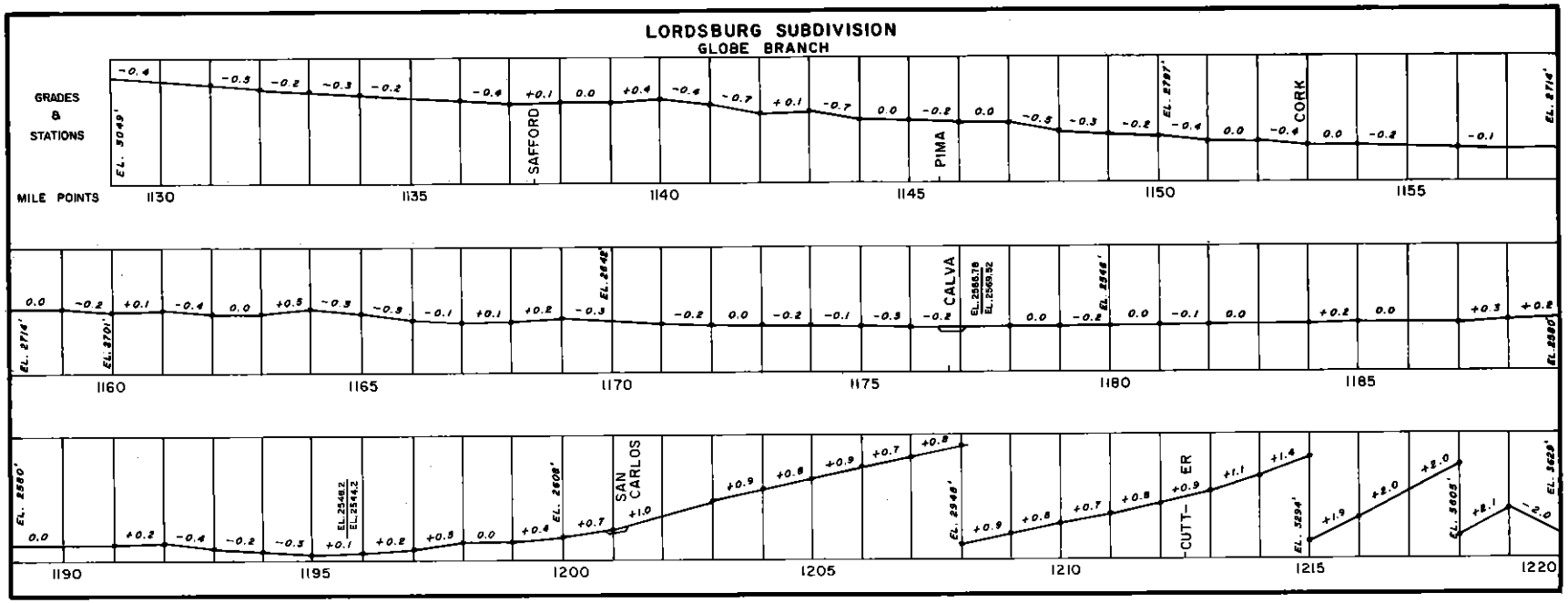
54

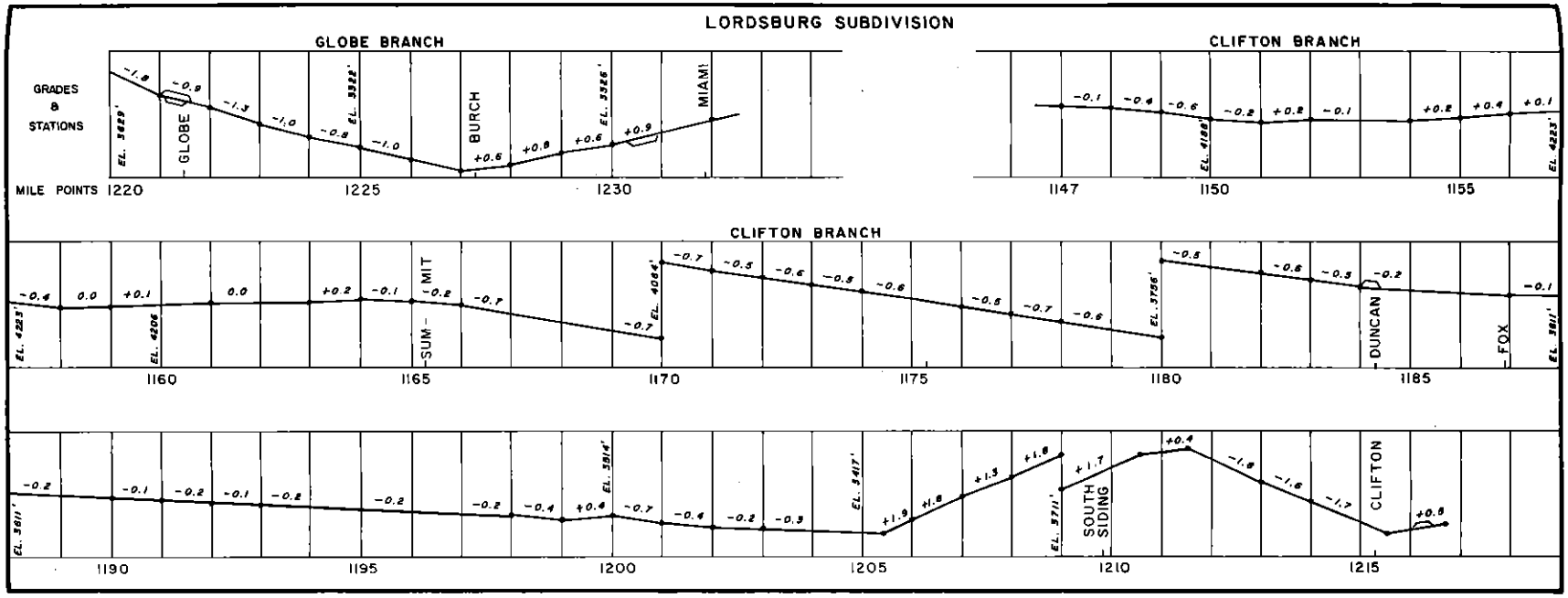

GILA SUBDIVISION
NOGALES BRANCH
GRADES & STATIONS
MILE POINTS
GRANCEN
ALDONA
SAHUARITA
CONTINENTAL
CANOA
AMADO
OTERO
CALABASAS
985
990
995
1000
1005
1010
1015
1020
1025
1030
1035
1040
PHOENIX SUBDIVISION
CHANDLER BRANCH
LITCHFIELD BRANCH
NOGALES
McQUEEN
TREMAINE
FALFA
CHANDLER
POZO
SERAPE
SANTAN
DOCK
LITCHFIELD JCT.
1045
925
930
935
940
890
892

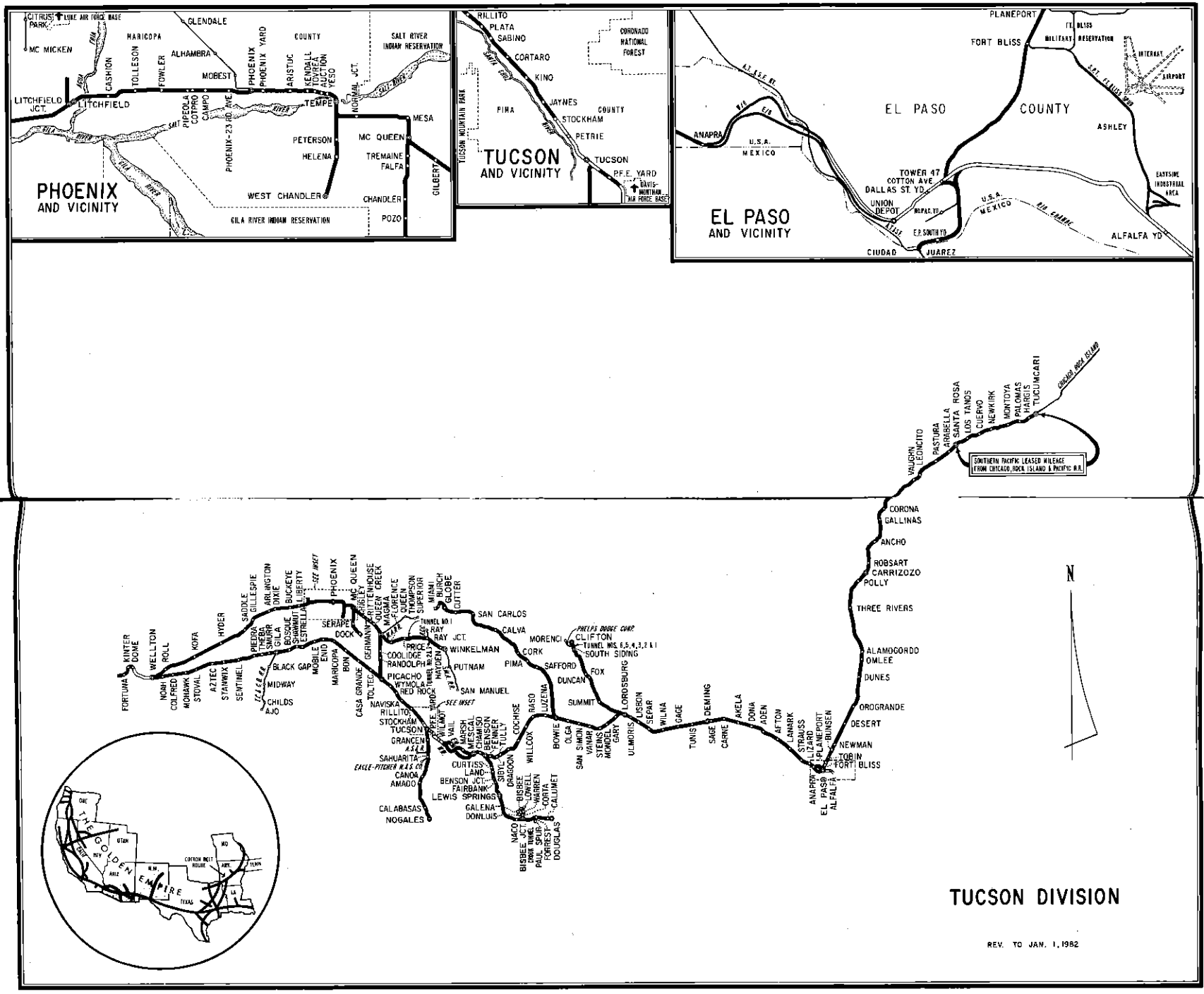
55


PHOENIX SUBDIVISION
TEMPE BRANCH
HAYDEN BRANCH
GRADES & STATIONS
TEMPE
PETER-SON
HEL-ENA
WEST CHANDLER
EL. 1138'
MAGMA
FLORENCE
MILE POINTS 915
920
950
955
960
965
PRICE
EL. 1636'
970
975
EL. 1744'
980
985
RAY JCT.
EL. 1845'
990
BRANAMAN
995
LORDSBURG SUBDIVISION
DOUGLAS BRANCH
BURNS
HAYDEN
1000
BENSON
EL. 3623'
CURTIS
LAND
EL. 3815.51'
EL. 3809.91'
EL. 3867'
MP 1050.57
MP 1046.39
EL. 3647'
FAIRBANK
SE EL. 3853.37'
SW EL. 3854.84'
EL. 3868'
EL. 3960'
1035
1040
1045
1050
1047
1050


LORDSBURG SUBDIVISION
DOUGLAS BRANCH
GRADES & STATIONS
EL. 3960'
LEWIS SPRINGS
EL. 4027.55'
EL. 4024.06'
EL. 4030'
EL. 4213'
EL. 4309'
EL. 4555'
NACO
EL. 4594'
MILE POINTS 1055
1060
1065
1070
1075
1080
EL. 4594'
BISBEE JCT.
EL. 4675'
EL. 4562.85'
EL. 4555.79'
EL. 4490'
EL. 4345'
FORREST
EL. 4185.55'
EL. 4184.41'
CALUMET
DOUGLAS
1085
1090
1095
1100
1105
BISBEE BRANCH
BISBEE JCT.
CORTA
WARREN
LOWELL
BISBEE
1085
1090
GLOBE BRANCH
BOWIE
EL. 3749'
EL. 3559'
EL. 3434'
EL. 3203'
EL. 3049'
1100
1105
1110
1115
1120
1125


LORDSBURG SUBDIVISION
GLOBE BRANCH
GRADES & STATIONS
MILE POINTS
1130
1135
1140
1145
1150
1155
SAFFORD
PIMA
CORK
1160
1165
1170
1175
1180
1185
CALVA
1190
1195
1200
1205
1210
1215
1220
SAN CARLOS
CUTTER


LORDSBURG SUBDIVISION
GLOBE BRANCH
CLIFTON BRANCH
GRADES & STATIONS
MILE POINTS
1220
1225
1230
GLOBE
BURCH
MIAMI
1147
1150
1155
CLIFTON BRANCH
1160
1165
1170
1175
1180
1185
SUMMIT
DUNCAN
FOX
1190
1195
1200
1205
1210
1215
SOUTH SIDING
CLIFTON


PHOENIX
AND VICINITY
CITRUS PARK
LUKE AIR FORCE BASE
GLENDALE
MC MICKEN
MARICOPA
CASHION
TOLLESON
ALHAMBRA
FOWLER
MOBEST
PHOENIX
PHOENIX YARD
ARISTUC
COUNTY
KENDALL
TOLTEA
JUNCTION
YESO
SALT RIVER INDIAN RESERVATION
NORMAL JCT.
LITCHFIELD JCT.
LITCHFIELD
PICEOLA
COTTINO
CAMPO
PHOENIX-23RD AVE.
TEMPE
MESA
PETERSON
HELENA
MC QUEEN
TREMAINE
FALFA
GILBERT
WEST CHANDLER
CHANDLER
POZO
GILA RIVER INDIAN RESERVATION
TUCSON
AND VICINITY
RILLITO
PLATA
SABINO
CORTARO
KING
JAYNES
PIMA
COUNTY
STOCKHAM
PETRIE
TUCSON
P.F.E. YARD
DAVIS-MONTHAN AIR FORCE BASE
CORONADO NATIONAL FOREST
TUCSON MOUNTAIN PARK
EL PASO
AND VICINITY
PLANEPORT
FORT BLISS
TX. BLISS MILITARY RESERVATION
INTERNAT. AIRPORT
EL PASO
COUNTY
ASHLEY
ANAPRA
U.S.A.
MEXICO
TOWER 47
COTTON AVE.
DALLAS ST. YD.
UNION DEPOT
MOPAC YD.
T&NO
E.P. SOUTH YD.
EASTSIDE INDUSTRIAL AREA
CIUDAD JUAREZ
ALFALFA YD.
SOUTHERN PACIFIC LEASED MILEAGE FROM CHICAGO, ROCK ISLAND & PACIFIC R.R.
CHICAGO, ROCK ISLAND
VAUGHN
LEONCITO
PASTURA
ARABELLA
SANTA ROSA
LOS TANOS
CUERVO
NEWKIRK
MONTOYA
PALOMAS
HARRIS
TUCUMCARI
CORONA
GALLINAS
ANCHO
ROBSART
CARRIZOZO
POLLY
THREE RIVERS
ALAMOGORDO
OMLEE
DUNES
OROGRANDE
DESERT
NEWMAN
TOBIN
FORT BLISS
ANAPRA
EL PASO
ALFALFA
PLANEPORT
BUNSEN
STRAUSS
LIZARD
LANARK
AFTON
ADEN
DONA
AKELA
CARNE
SAGE
TUNIS
DEMING
WILNA
GAGE
LUSSON
SEPAR
LORDSBURG
ULMORIS
GARY
STEINS
MOMDEL
VANAR
SAN SIMON
OLGA
BOWIE
WILCOX
COCHISE
BASO
LUZENA
SUMMIT
DUNCAN
FOX
SAFFORD
PIMA
CORK
MORENCI
PHELPS DODGE CORP.
CLIFTON
TUNNEL NOS. 6,5,4,3,2 & 1
SOUTH SIDING
CALVA
SAN CARLOS
TUNNEL NO. 1
RAY
RAY JCT.
WINKELMAN
PUTNAM
HAYDEN
TUNNEL NO. 2 & 3
PRICE
COOLIDGE
RANDOLPH
PICACHO
WYMOLA
RED ROCK
SAN MANUEL
SEE INSET
NAVISKA
RILLITO
STOCKHAM
TUCSON
GRANCEN
A.S.&K.
SAHUARITA
EAGLE-PITCHER R.R.S. CO.
CANOA
AMADO
CALABASAS
NOGALES
CURTISS
LAND
BENSON JCT.
FAIRBANK
LEWIS SPRINGS
GALENA
DONLUS
SIBYL
DRAGOON
BENSON
FENNER
TULLY
MARSH
MESCAL
CHAMISO
VAIL
PANTANO
TUNNEL NO. 4
CASA GRANDE
TOLTEC
GERMANN
MARICOPA
BON
MOBILE
END
BLACK GAP
MIDWAY
CHILDS
AJO
PIEDRA
THEBA
SMURR
GILA
BOSQUE
SCHAMMEL
ESTRELLA
SERAPE
DOCK
SADDLE
GILLESPIE
ARLINGTON
DIXIE
BUCKEYE
LIBERTY
SEE INSET
PHOENIX
MC QUEEN
WISLEY
CRITTENHOUSE
QUEEN CREEK
MAGMA
FLORENCE
THOMPSON
SUPERIOR
MIAMI
BURCH
GLOBE
CUTTER
KINTNER DOME
WELLTON
ROLL
NOAH
COLFRED
MOHAWK
STOVAL
AZTEC
STANWIX
SEMTINEL
KOFA
HYDER
FORTUNA
N
THE GOLDEN EMPIRE
TUCSON DIVISION
REV. TO JAN. 1, 1982