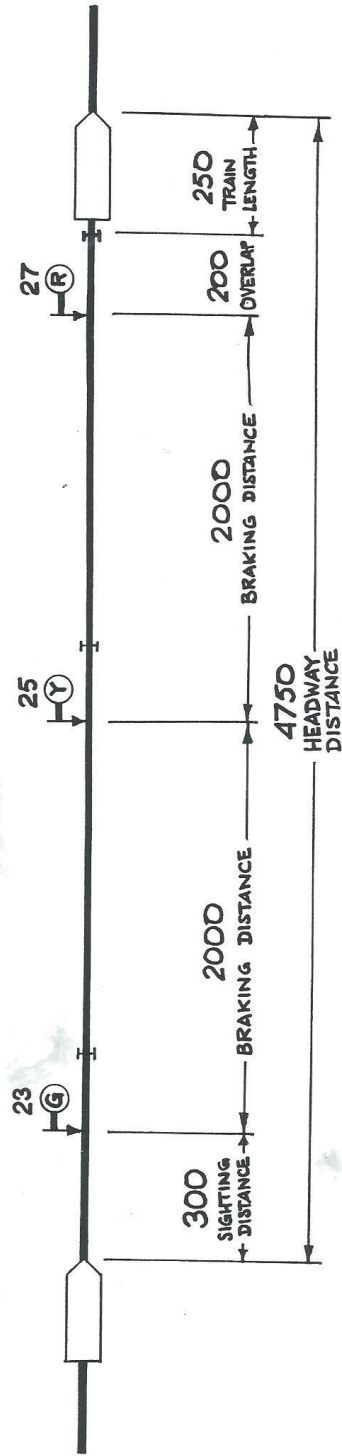


DISTANCES IN YARDS.



SPEED: 60 MPH

$$\begin{aligned} \text{HEADWAY TIME (SECONDS)} &= \frac{\text{HEADWAY DISTANCE (YARDS)}}{\text{SPEED (MPH)} \times \frac{1760}{3600}} \\ &= \frac{4750}{60 \times 0.49} \quad (29.3) \\ &= 161.9 \text{ SECONDS} \end{aligned}$$

NEAR ENOUGH:—

$$\begin{aligned} \frac{\text{HEADWAY DISTANCE (YARDS)}}{\text{HALF SPEED (M.P.H.)}} \\ &= \frac{4750}{30} \\ &= 158.3 \end{aligned}$$

HEADWAY SPECIFICATION.

(3)

3 MINUTES GREEN FOR FOLLOWING
STOPPING TRAINS. CLASS 456 8-CAR.

30 SECONDS STATION STOP.

YELLOW ACCEPTABLE ON SIGNAL APPROACHING
STATION.

STARTING SIGNAL TO BE GREEN NOT LESS
THAN 10 SECONDS BEFORE TRAIN STARTS.

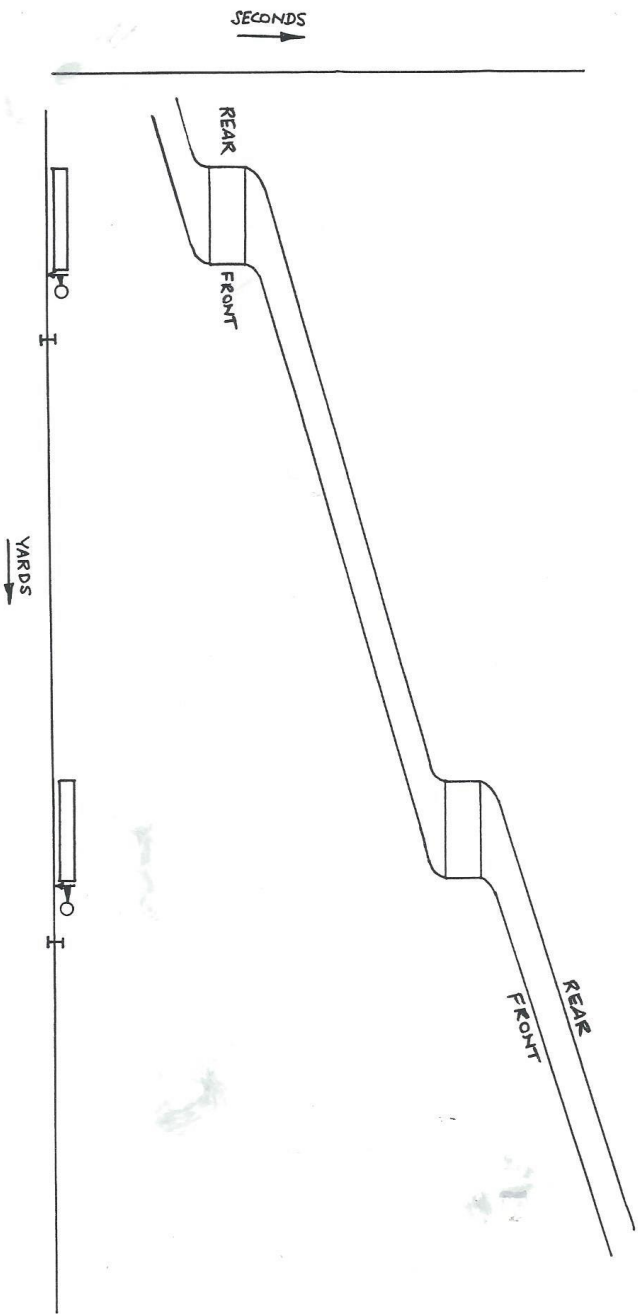
FOR ANOTHER LINE IT MAY BE:-

3 MINUTES YY FOLLOWING STOPPING TRAINS.

3 MINUTES G FOLLOWING NON-STOP TRAINS.

- ① PUT IN STATION PLATFORMS
STARTING SIGNALS
OVERLAPS.
- ② DRAW IN THE PATH OF A TRAIN.

USEFUL SCALES:
 HORIZONTAL: 1 INCH TO 400 YARDS.
 VERTICAL: 1 INCH TO 100 SECONDS.

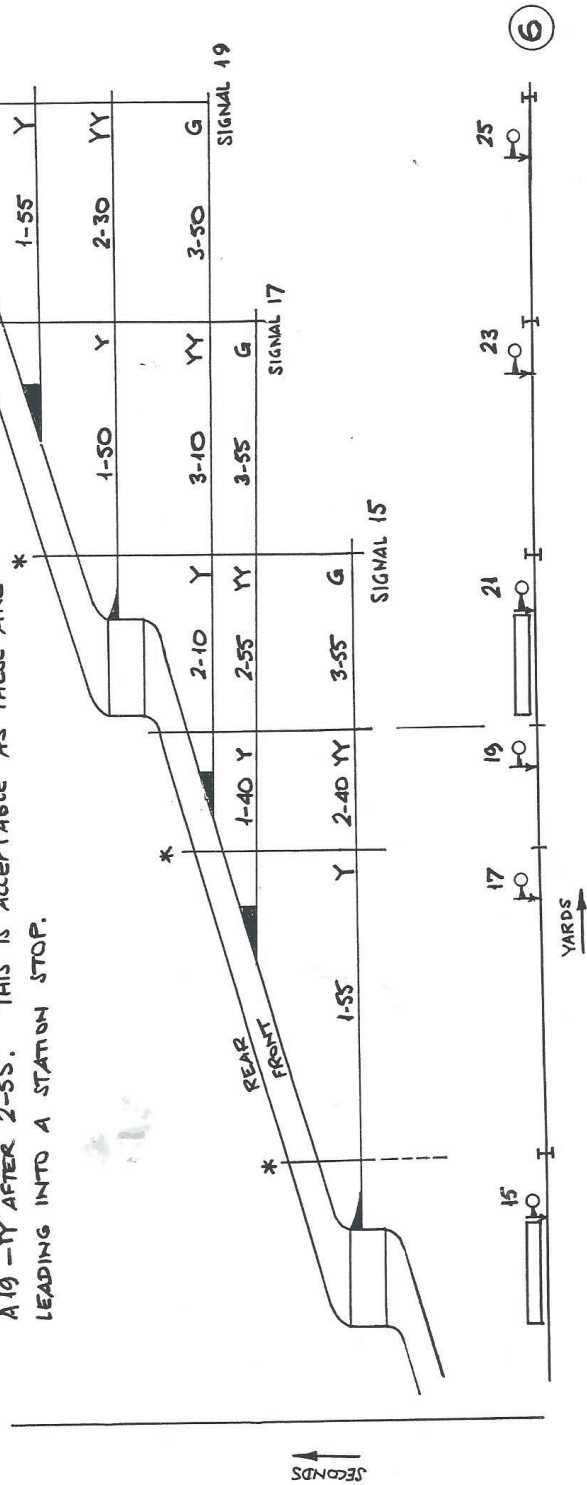


④

AFTER PUTTING IN THE OVERLAPS CHECK THE ASPECT OF EVERY SIGNAL.
 PUT IN ADDITIONAL SIGNALS, MOVE OTHERS AS NECESSARY.
 CHECK THE BRAKING DISTANCES. ADJUST IT ALL AGAIN!!

ON THIS SKETCH TWO ADDITIONAL SIGNALS HAVE BEEN ADDED.
 ALL SIGNALS HAVE BEEN NUMBERED.

THE ARRANGEMENT SHOWN IS FOR A STOPPING HEADWAY FOR WHICH
 FOUR ASPECTS ARE NECESSARY. 3 MINUTES WAS SPECIFIED.
 A GREEN ASPECT IS AVAILABLE IN LESS THAN 3 MINUTES ON ALL
 SIGNALS EXCEPT A17 - YY AFTER 2MIN. 40 SECS. AND ON
 A19 - YY AFTER 2-55. THIS IS ACCEPTABLE AS THESE ARE
 LEADING INTO A STATION STOP.



PADDINGTON TO READING.

①

TRAINS

MAXIMUM
PER HOUR

MAIN LINES

125/140 MPH	THROUGH NON-STOP	12
100 MPH	TO HEATHROW (AT 15 MINUTES "CLOCK-FACE")	4
		<hr/> 16

RELIEF LINES

(PADDINGTON OR CROSSRAIL TO LIVERPOOL STREET, ETC.).

(READING) - TWYFORD - MAIDENHEAD - PADDINGTON	4
MAIDENHEAD - TAPLOW - SLOUGH - EALING - LONDON	2
MAIDENHEAD - SLOUGH - EALING - LONDON	2
SLOUGH - ALL STATIONS - LONDON	2
SLOUGH - 4 OR 5 STOPS - LONDON	2
HEATHROW - ALL STATIONS - LONDON	2

14

INITIALLY 8-CARS, BUT FULL
PROVISION TO BE MADE TO ALLOW
12-CARS LATER.

(READING) = OXFORD / NEWBURY, ETC. THROUGH TRAINS.

ASSUME USE ON RELIEF LINES OF "NETWORKER TURBO" DMU'S
AND A.C. "NETWORKER" UNITS.

MILEAGE (MILES AND YARDS) SIGNAL TO SIGNAL (YARDS)	SIGNAL (FIGURE WITHIN CIRCLE IS NUMBER OF ASPECTS IN MAIN SIGNAL HEAD)	ASPECT SEQUENCE AND DISTANCE	MAX. PERMISSIBLE SPEEDS		OVERLAP	MAXIMUM ATTAINABLE SPEED	BD REQUIRED FOR	BD EXCESS (+)/DEFICIENCY (-)	AVERAGE GRADIENT	GRADIENT ADOPTED FOR S B D	LOCKING SKETCH AREA/REGISTERED NO
			H.S.T	MULTI-TRAFFIC							
130 1/4 + 350	129	3	5	5	200	300	11	1150	7.68F	300F	17
2205	2205	3	5	5	300	300	10	90	7.68F	300F	16
2255	2255	3	5	5	300	300	9	90	7.68F	300F	15
2260	2260	3	5	5	300	300	8	300	7.68F	300F	14
2290	2290	3	5	5	300	300	7	300	7.68F	300F	13
2300	2300	3	5	5	300	300	6	300	7.68F	300F	12
1960	1960	3	5	5	300	300	5	300	7.68F	300F	11
1223 1/4 + 280	1213 1/4 + 426	3	5	5	200	200	4	200	7.68F	300F	10
124 + 40	124 + 40	3	5	5	200	200	3	200	7.68F	300F	9
125 1/4 + 140	125 1/4 + 140	3	5	5	200	200	2	200	7.68F	300F	8
126 1/2 + 230	126 1/2 + 230	3	5	5	200	200	1	200	7.68F	300F	7
1273 1/4 + 290	1273 1/4 + 290	3	5	5	200	200	0	200	7.68F	300F	6
1273 1/4 + 290	1273 1/4 + 290	3	5	5	200	200	0	200	7.68F	300F	5
1213 1/4 + 426	1213 1/4 + 426	3	5	5	200	200	0	200	7.68F	300F	4
121 +	121 +	3	5	5	200	200	0	200	7.68F	300F	3

LINE 8 - FIGURE BELOW THE 'R' ASPECT REFERS TO THE OVERLAP AT THAT SIGNAL

LINE 9 - DERIVED FROM INFORMATION RECEIVED FROM G.O.M. DATED JANUARY 1980

LINE 10 - DERIVED FROM INFORMATION RECEIVED FROM G.O.M. DATED JANUARY 1980

LINE 11-14 - BD'S INDICATED BELOW THE 'R' ASPECT REFER TO THE DISTANCE TO THE FURTHEST CAUTION ASPECT IN REAR

LINE 15 - THE AVERAGE GRADIENT IS THAT APPROACHING THE SIGNAL AND IS DERIVED FROM C.C.E. GRADIENT DIAGRAMS

