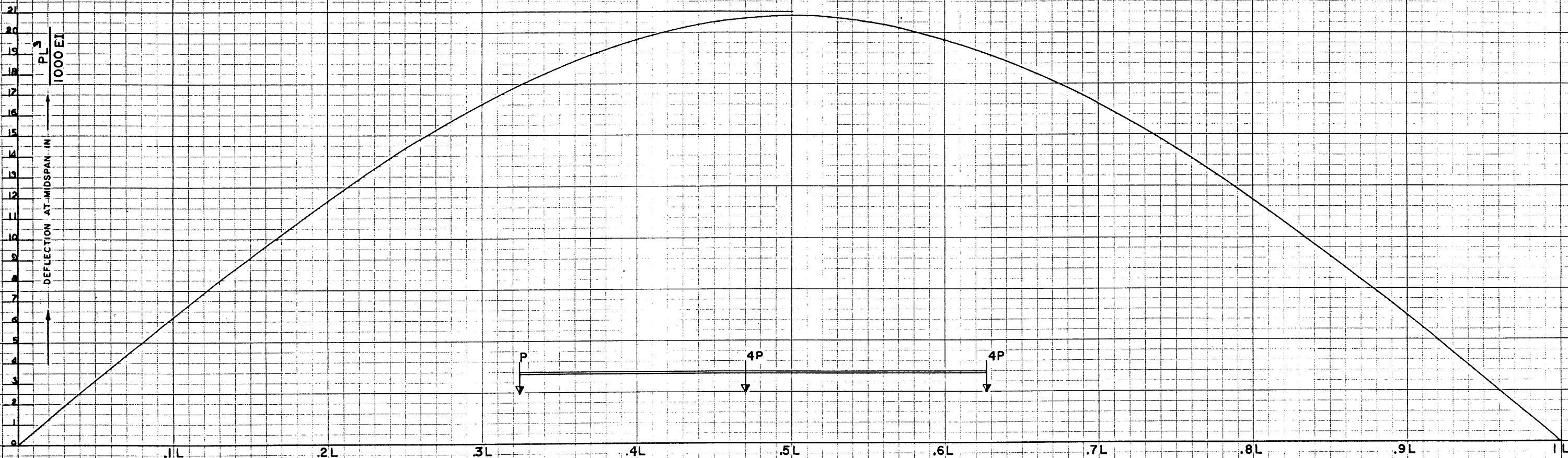


MIDSPAN DEFLECTION INFL. LINE FOR SIMPLY SUPPORTED SPANS WITH CONSTANT MOMENT OF INERTIA.



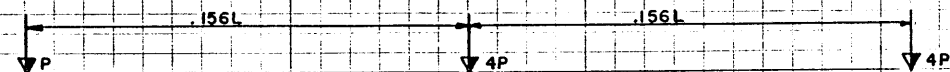
EXAMPLE:

90' SPAN, GIRDERS 5'-3" C. TO C. → L.L. PER GIRDER $\frac{5.25}{5} = 1.05$ WHEEL LOAD PER GIRDER
 IMPACT = .233 $1.05 \times 1.233 = 1.292$ WHEEL LOAD PER GIRDER

L = 90'
 P = WHEEL LOAD $\times 1.292$
 I = 28,400 in³
 E = 29×10^6 psi

WHEEL LOADS:


$\frac{14}{90} = .156$



P = $4000 \times 1.292 = 5168$ lbs.
 PLACE WHEEL LOAD SO, THAT DEFL. BECOMES MAX.
 AT LEAST 3 POSITIONS OF THE TRUCK HAVE TO BE TRIED OUT.
 DEFLECTION AT MIDSPAN IF TRUCK IS PLACED AS SHOWN IN GRAPH:

$1 \times 17.35 = 17.35$
 $4 \times 20.7 = 82.8$
 $4 \times 18.95 = 75.80$
 $175.95 \times \frac{PL^3}{1000EI} = 175.95 \times \frac{5168 \times 90^3 \times 12^3}{1000 \times 29 \times 10^6 \times 28,400} = 1.39"$

MIDSPAN DEFLECTION INFLUENCE LINE
 FOR
 SIMPLY SUPPORTED SPANS
 WITH
 CONSTANT MOMENT OF INERTIA



GOVERNMENT OF THE PROVINCE OF ALBERTA
 DEPARTMENT OF HIGHWAYS
 BRIDGE BRANCH, EDMONTON

FILE NO.	HWY. NO.	DWG. NO.
LOCATION	SCALE	5.746
STREAM	SHEET OF	

AT & U - RECORDS CENTRE
 F100054