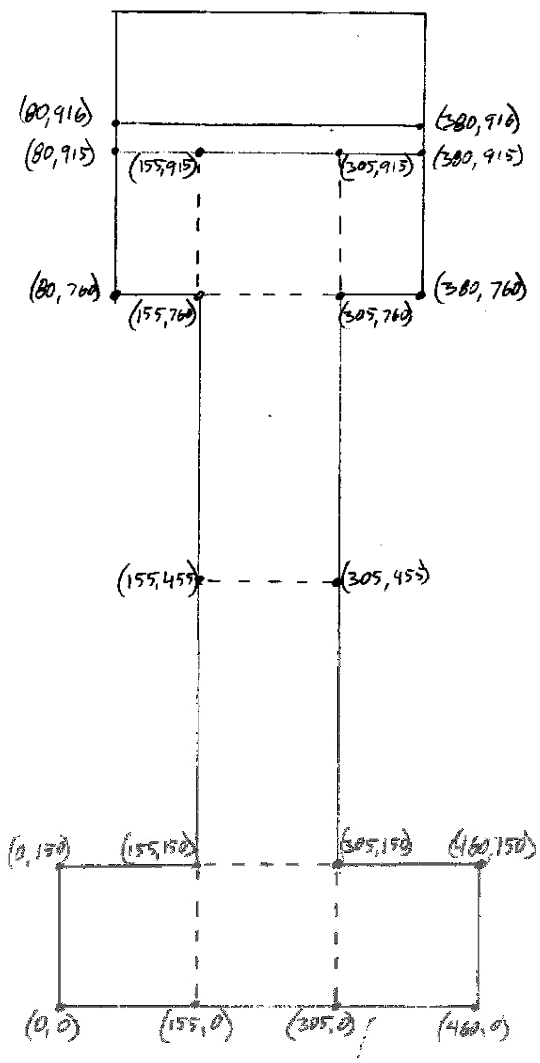
APPENDIX C
BRIDGE CONFIGURATION SKETCHES

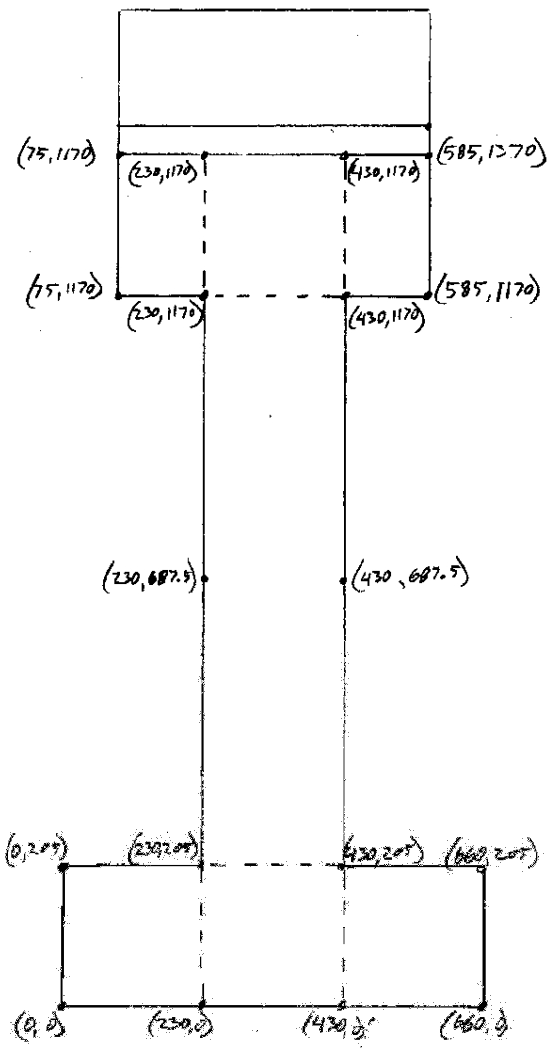
17 June 2002 Joint Coordinates



AASHTO TYPE II

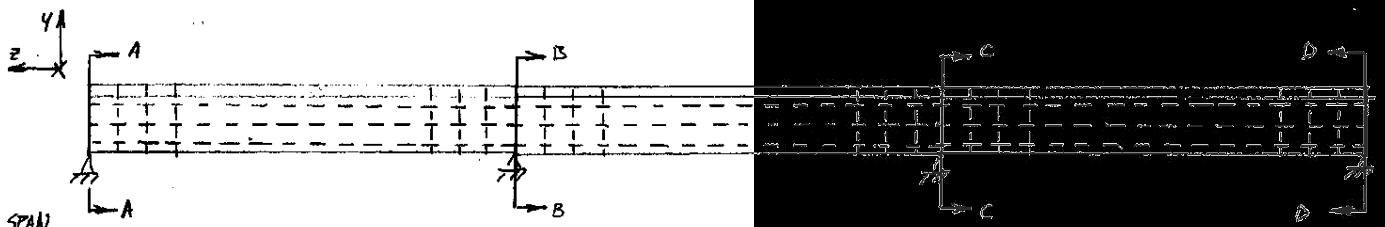
UNITS : MM

17 June 2002 Joint Coordinates

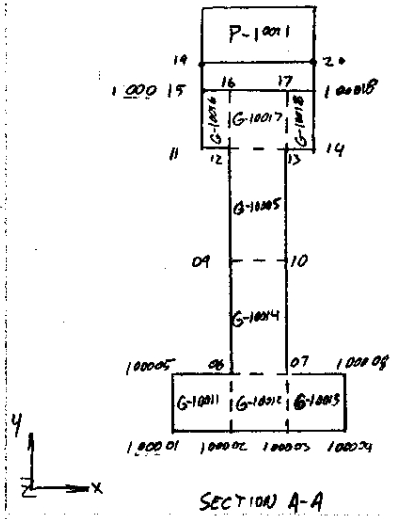


AASHTO TYPE IV

UNITS: MM



SPAN					
22.8 m	000	← 75 @ 300 mm →	076	152	228
16.8 m	000	← 55 @ 300 mm →	056	112	168
34.0 m	000	← 67 @ 500 mm →	068	136	204
28.0 m	000	← 55 @ 500 mm →	056	112	168

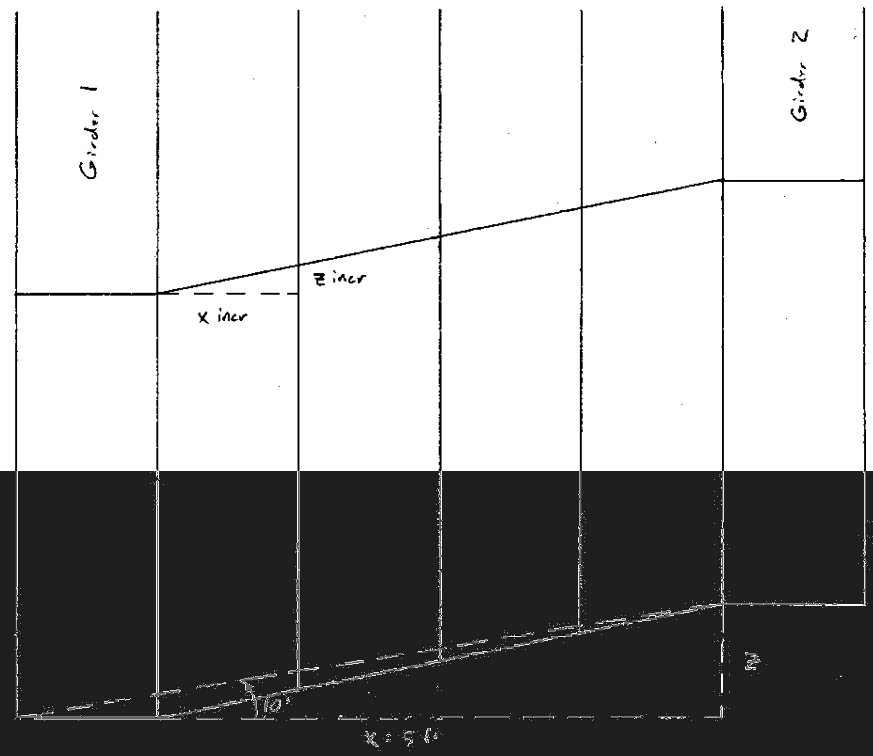


SECTION A-A

31 July 2002 | X and Z Translation

1.52m Girder Spacing
10° Bridge Skew

GROUP A



Girder Translation (x direction) $x = 5\,ft$ = 1524 mm

Girder Translation (z direction) $z = x \tan 10°$ = 268 mm

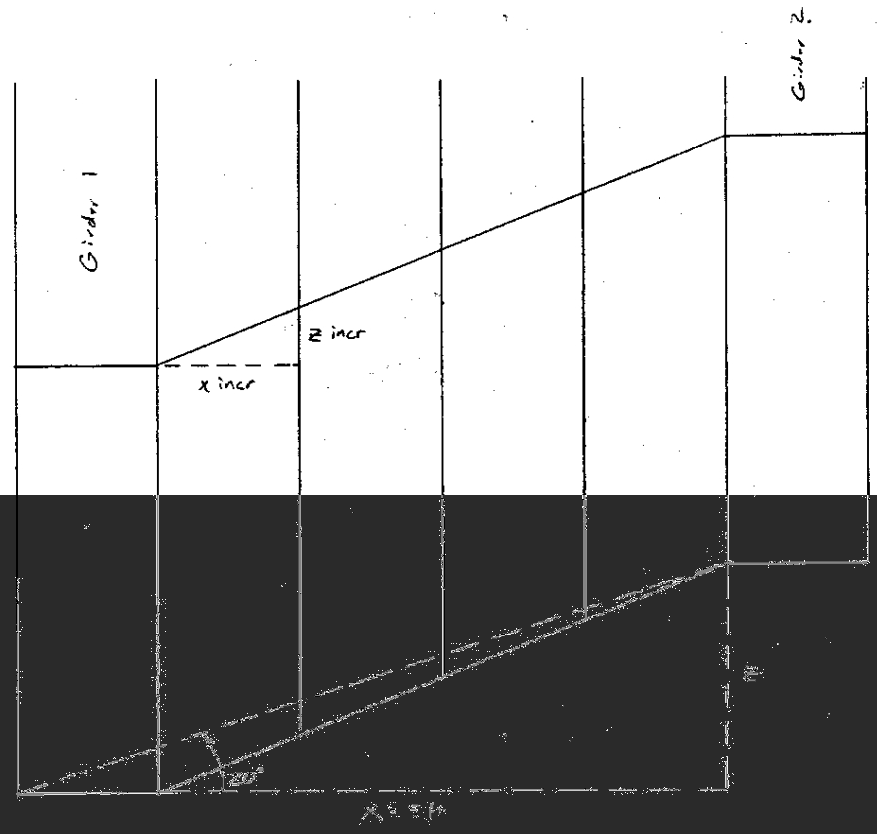
Plate Increment (x direction) $x\ incr = \frac{1524\ mm - 300\ mm}{4\ plates}$ = 305 mm/plate

Plate Increment (z direction) $z\ incr = \frac{268\ mm}{4\ plates}$ = 67 mm/plate

31 July 2002 | X and Z Translation | 71

1.52 m Girder Spacing
20° Bridge Skew

GROUP C



Girder Translation (x direction) x = 5 in = 127.0 mm

Girder Translation (z direction) z = x tan 20° = 46.6 mm

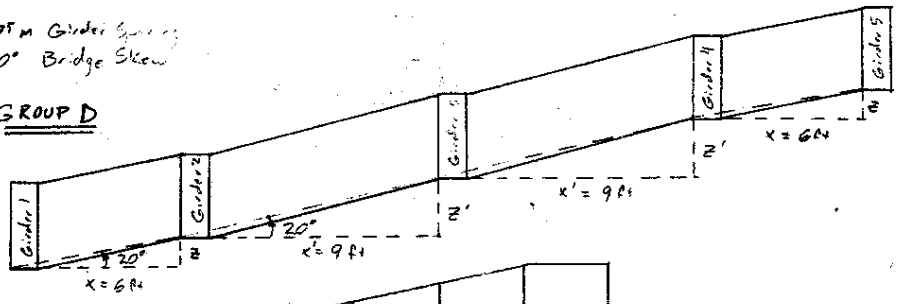
Plate Extension (x direction) x total = (127.0 mm − 50.8 mm) / 4 plates = 18.8 mm/plate

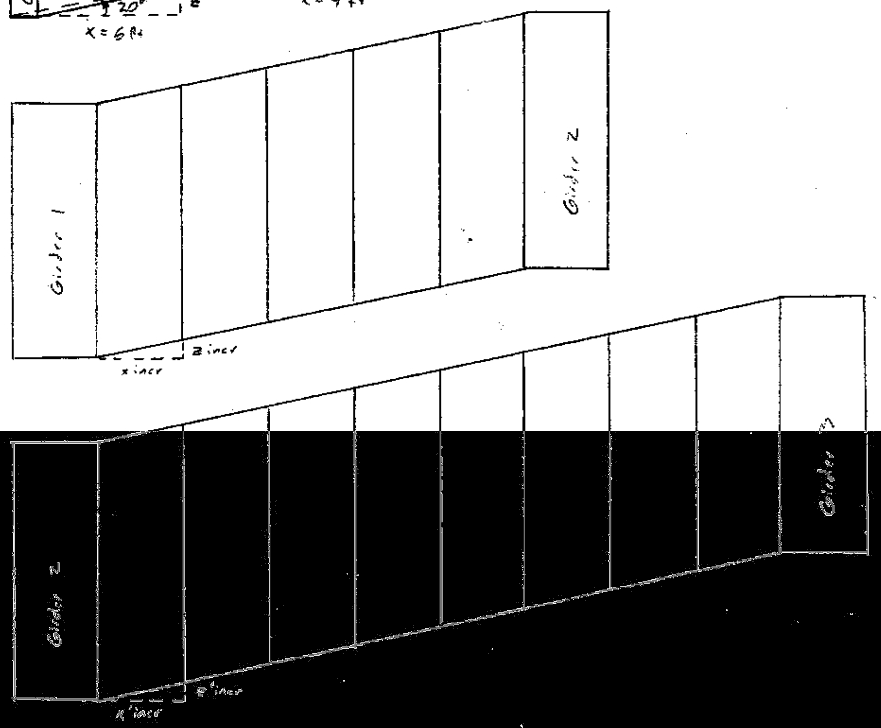
Plate Squeeze (z direction) z total = 46.6 mm / 4 plates = 11.6 mm/plate

31 July 2002 | X & Z Translation

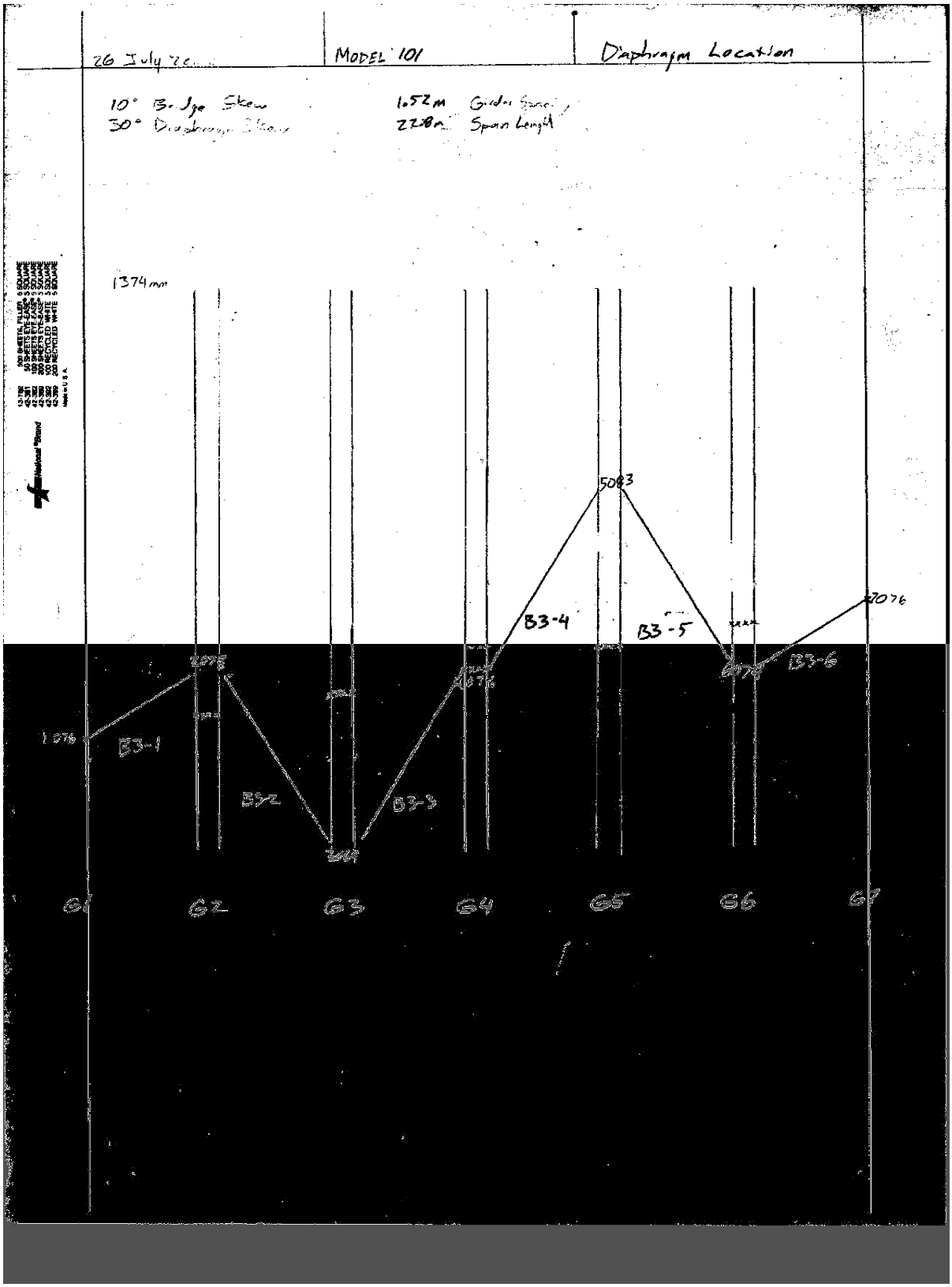
2.75 m Girder Spacing
20° Bridge Skew

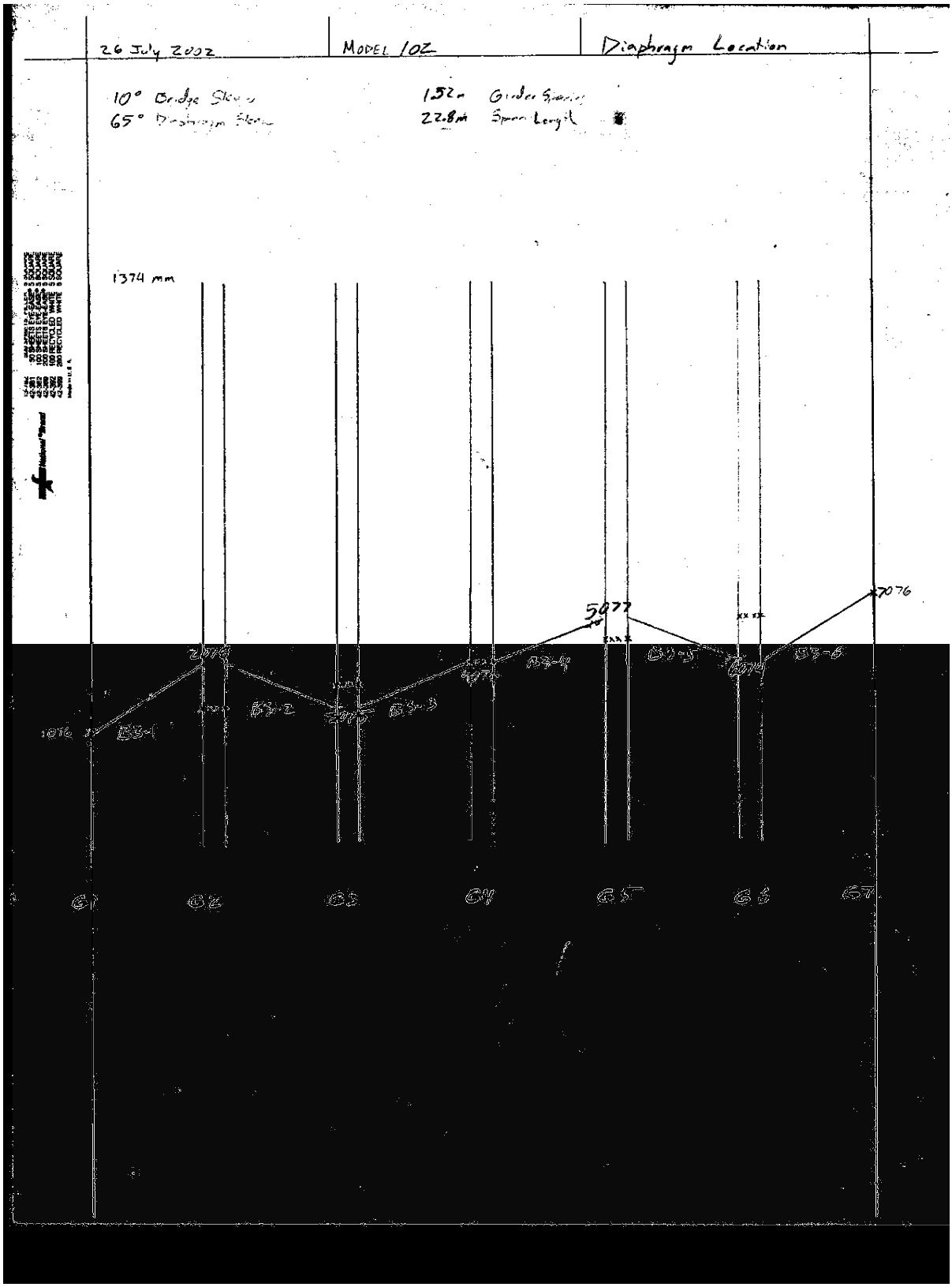
GROUP D

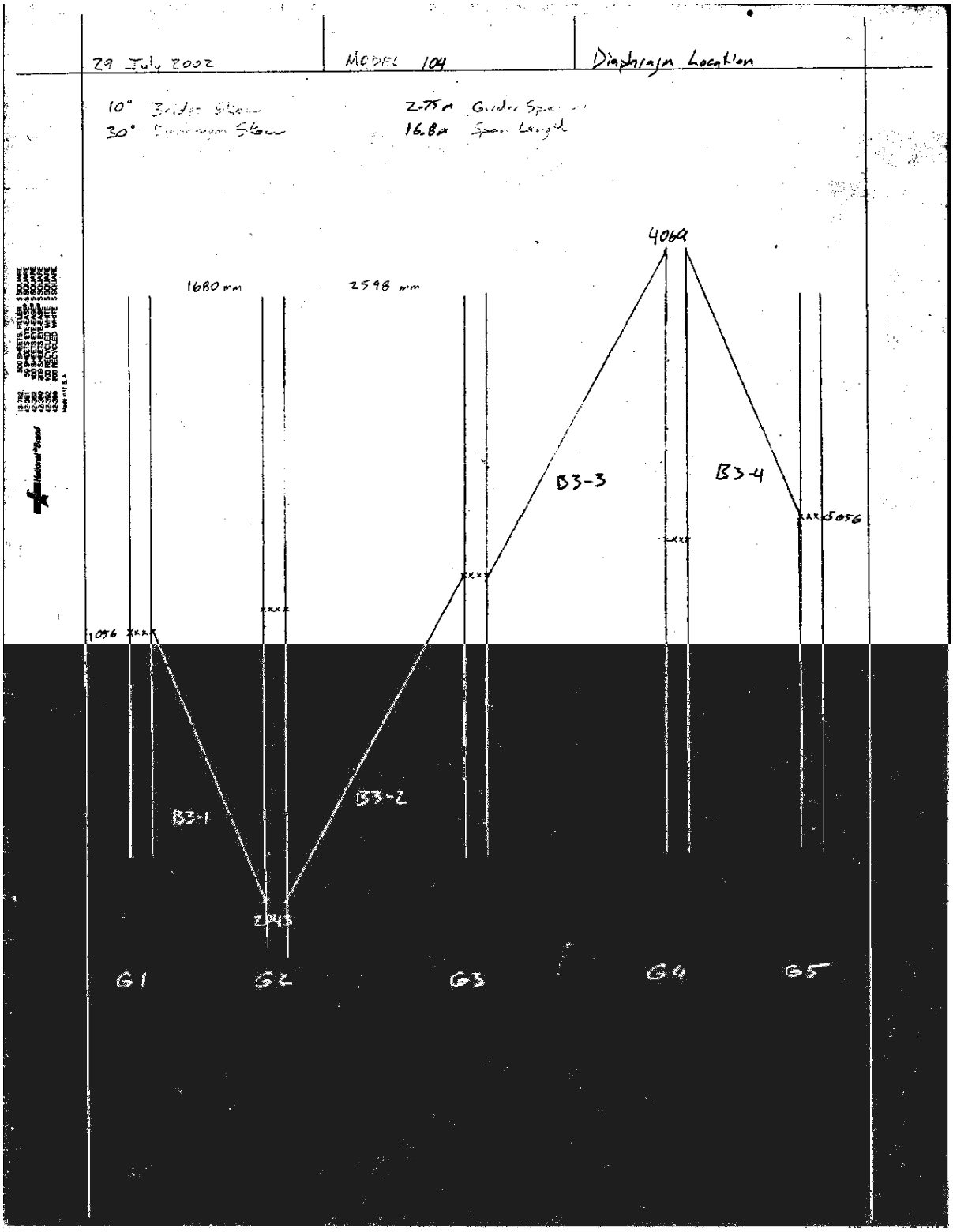




Girder Translation	(x direction on 6 ft Spacing)	$x = 6$ ft	=	1828 mm
	(x direction on 9 ft Spacing)	$x' = 9$ ft	=	2748 mm
Girder Translation	(z direction on 6 ft Spacing)	$z = x \tan 20°$	=	665 mm
	(z direction on 9 ft Spacing)	$z' = x' \tan 20°$	=	1000 mm
Plate Increment	(x direction on 6 ft Spacing)	$x_{inc} = \frac{1828\text{ mm} - 300\text{ mm}}{5\text{ plates}}$	=	306 mm/plate
	(x direction on 9 ft Spacing)	$x'_{inc} = \frac{2748\text{ mm} - 300\text{ mm}}{8\text{ plates}}$		306 mm/plate
Plate Increment	(z direction on 6 ft Spacing)	$z_{inc} = \frac{665\text{ mm}}{5\text{ plates}}$	=	133 mm/plate
	(z direction on 9 ft Spacing)	$z'_{inc} = \frac{1000\text{ mm}}{8\text{ plates}}$	=	125 mm/plate

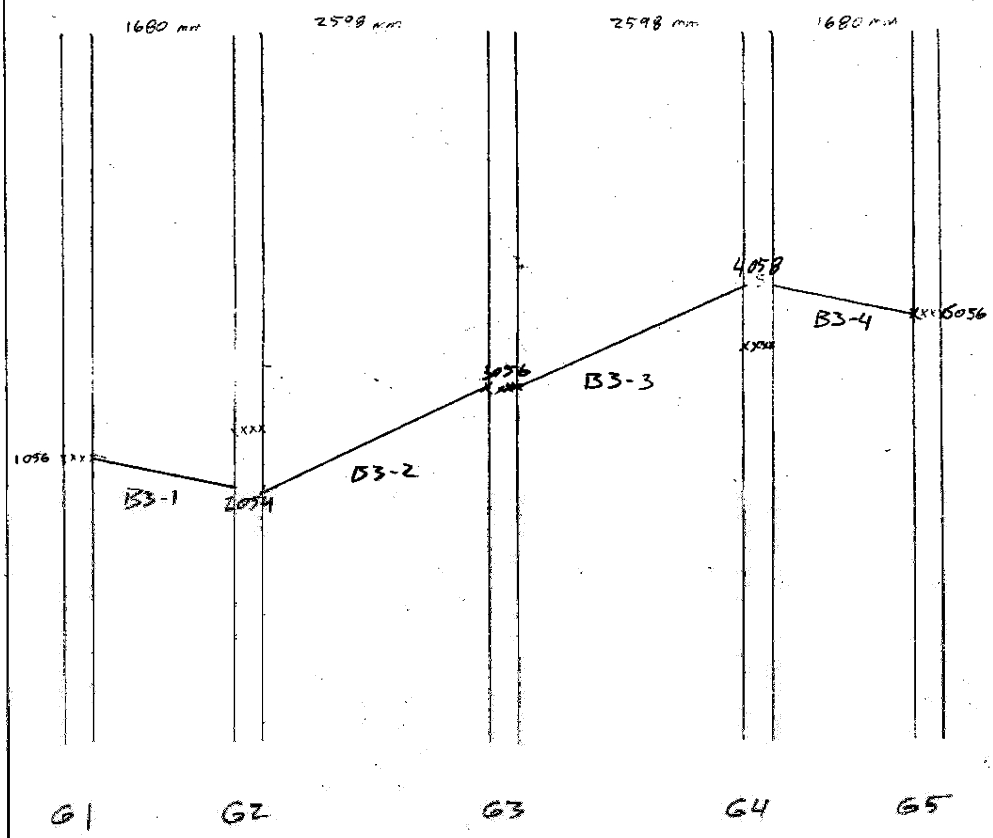

26 July
MODEL 101
Diaphragm Location
10° Bridge Skew
30° Diaphragm Skew
1.52m Girder Spacing
22.8m Span Length
1374mm
5083
2076
B3-4
B3-5
B3-6
1076
B3-1
B3-2
B3-3
G1
G2
G3
G4
G5
G6
G7

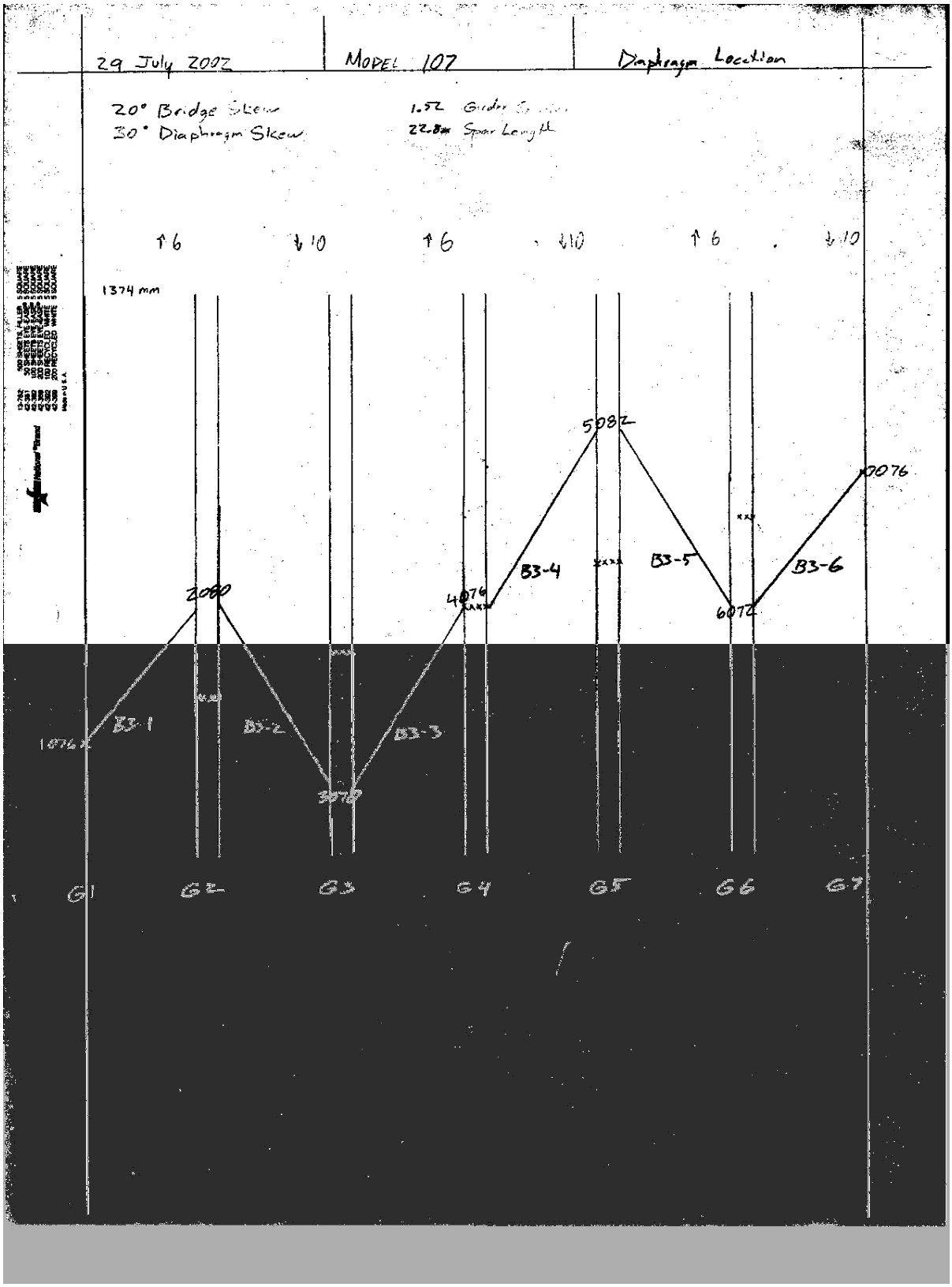

26 July 2002
MODEL 102
Diaphragm Location
10° Bridge Skew
65° Diaphragm Skew
1.52m Girder Spacing
22.8m Span Length
1374 mm
5077
7076
2076
1076
B3-1
B3-2
B3-3
B3-4
B3-5
B3-6
G1
G2
G3
G4
G5
G6
G7

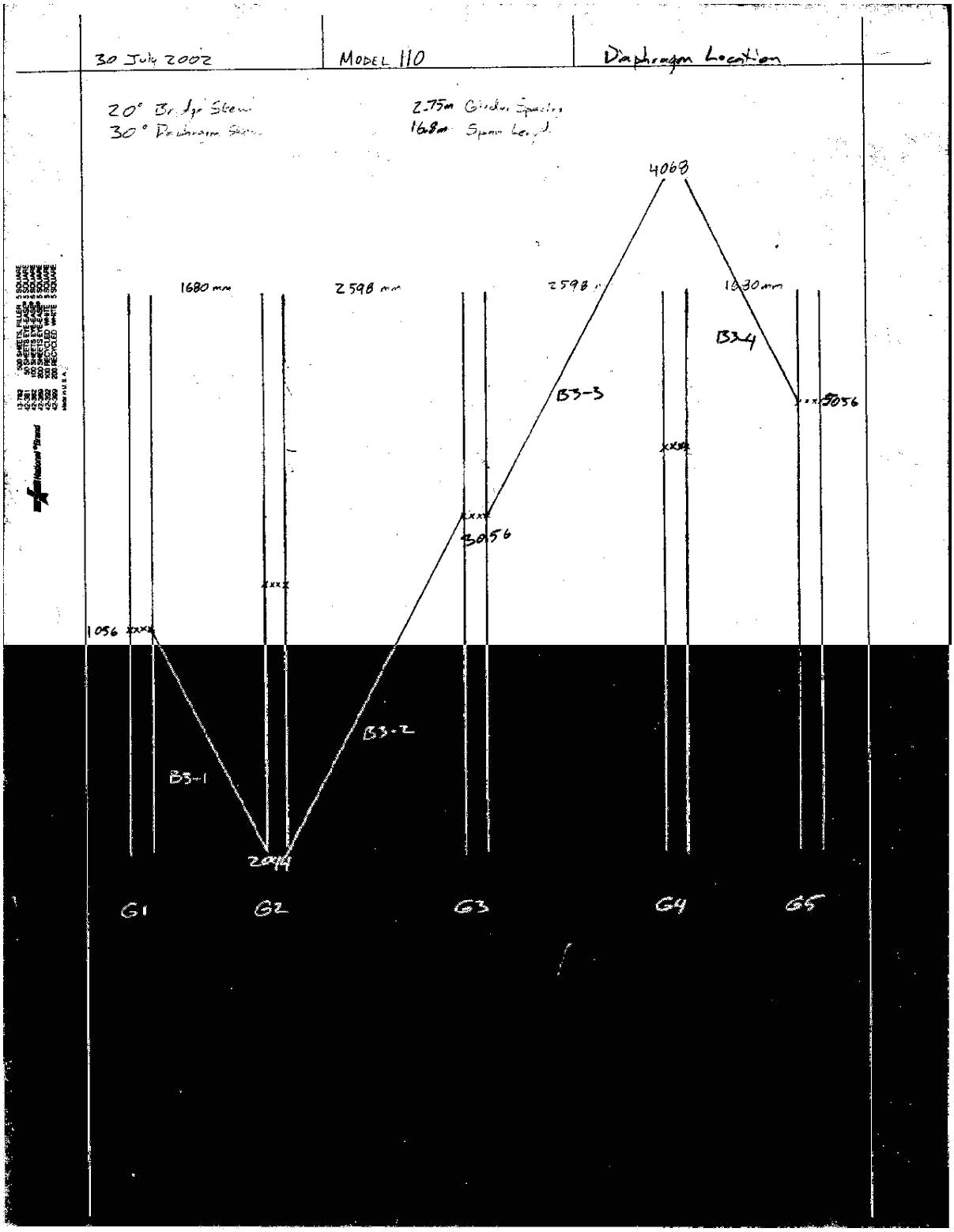

29 July 2002
MODEL 104
Diaphragm Location
10° Bridge Skew
30° Diaphragm Skew
2.75 m Girder Spacing
16.8 m Span Length
1680 mm
2598 mm
4069
B3-3
B3-4
5056
1056
B3-1
B3-2
2945
G1
G2
G3
G4
G5

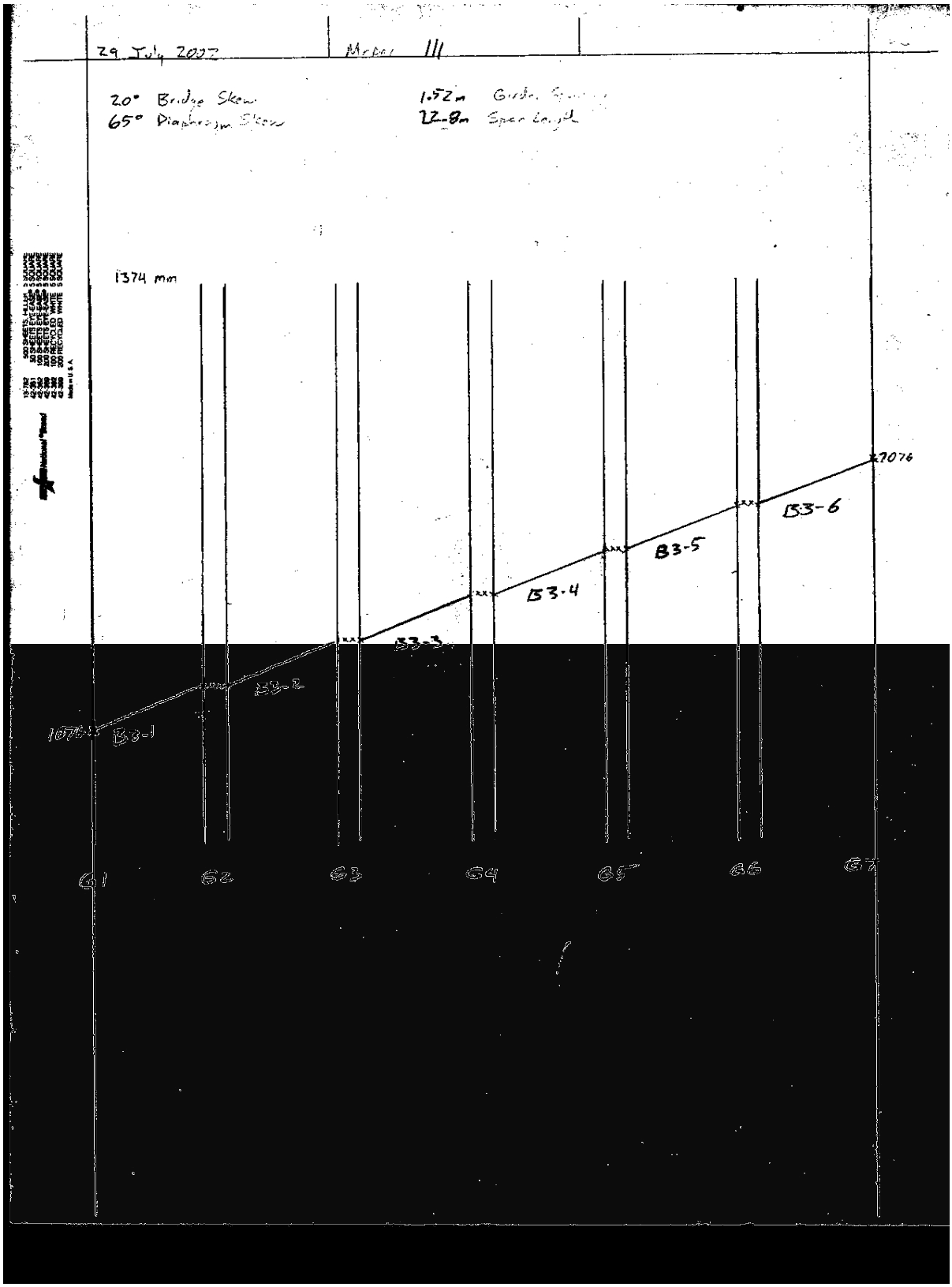
30 July 2003 | Model 105 | Diaphragm Location

10° Bridge Skew — 2.75m Girder Spacing
25° Diaphragm Skew — 16.8m Span Length




29 July 2002
MODEL 107
Diaphragm Location
20° Bridge Skew
30° Diaphragm Skew
1.52 Girder Spacing
22.8m Span Length
↑6
↓10
↑6
↓10
↑6
↓10
1374 mm
2000
4076
5082
6072
7076
1076
3070
B3-1
B3-2
B3-3
B3-4
B3-5
B3-6
G1
G2
G3
G4
G5
G6
G7


30 July 2002
MODEL 110
Diaphragm Location
20° Bridge Skew
30° Diaphragm Skew
2.75m Girder Spacing
16.8m Span Length
4068
1680 mm
2598 mm
2598 mm
1680 mm
B3-4
B3-3
3056
1056
B3-2
B3-1
2094
G1
G2
G3
G4
G5


29 July 2007
20° Bridge Skew
65° Diaphragm Skew
1.52m
22.8m
1374 mm
B3-1
B3-2
B3-3
B3-4
B3-5
B3-6
G1
G2
G3
G4
G5
G6
G7