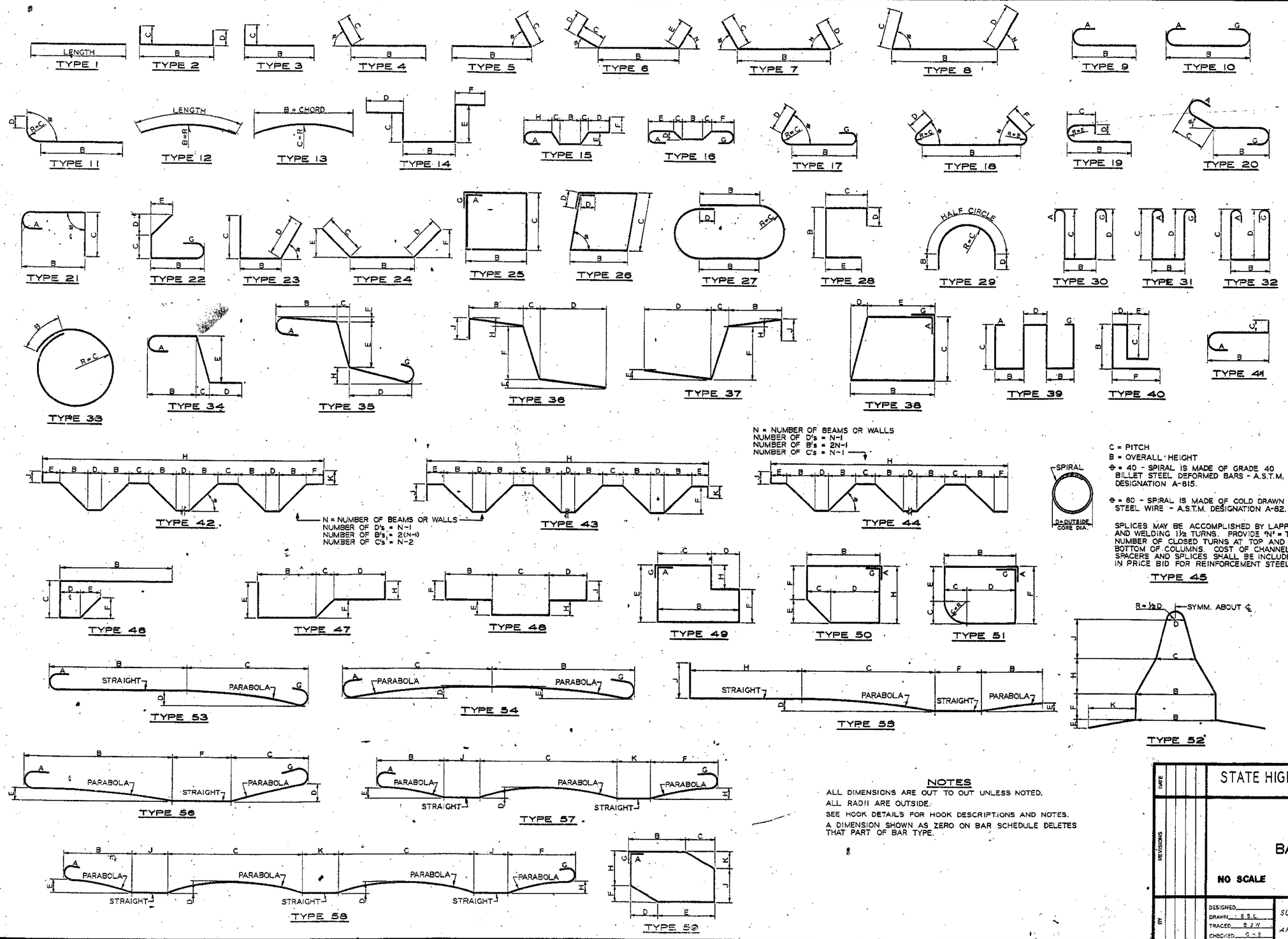
NHS-M000-00(436)

| FED ROAD DIV. NO. | STATE | FED AID PROJ. NO. | STATE AID PROJ. NO | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| 3 | GA. | | | | 21 | 50 |




N = NUMBER OF BEAMS OR WALLS
NUMBER OF D's = N-1
NUMBER OF B's = 2N-1
NUMBER OF C's = N-1

N = NUMBER OF BEAMS OR WALLS
NUMBER OF D's = N-1
NUMBER OF B's = 2(N-1)
NUMBER OF C's = N-2

C = PITCH
B = OVERALL HEIGHT
Φ = 40 - SPIRAL IS MADE OF GRADE 40 BILLET STEEL DEFORMED BARS - A.S.T.M. DESIGNATION A-615.
Φ = 60 - SPIRAL IS MADE OF COLD DRAWN STEEL WIRE - A.S.T.M. DESIGNATION A-82.

SPLICES MAY BE ACCOMPLISHED BY LAPPING AND WELDING 1½ TURNS. PROVIDE 'N' = TOTAL NUMBER OF CLOSED TURNS AT TOP AND BOTTOM OF COLUMNS. COST OF CHANNEL SPACERS AND SPLICES SHALL BE INCLUDED IN PRICE BID FOR REINFORCEMENT STEEL.

## HOOK DETAILS

RECOMMENDED 180° HOOKS
GRADE 40 ksi
D = 8d for #3 through #11
D = 10d for #14 and #18
GRADES 50-60-75 ksi
D = 6d for #3 through #8
D = 8d for #9, #10, and #11
D = 10d for #14 and #18

RECOMMENDED 180° END HOOK DIMENSIONS

| BAR SIZE | GRADES 50-60-75 ksi A or G | GRADES 50-60-75 ksi J | GRADE 40 ksi A or G | GRADE 40 ksi J |
|---|---|---|---|---|
| #3 | 5 | 3 | 5 | 2¾ |
| #4 | 6 | 4 | 6 | 3½ |
| #5 | 7 | 5 | 7 | 4½ |
| #6 | 8 | 6 | 8 | 5¼ |
| #7 | 10 | 7 | 9 | 6¼ |
| #8 | 11 | 8 | 10 | 7 |
| #9 | 1-3 | 11¼ | 1-0 | 8 |
| #10 | 1-5 | 1-0¾ | 1-1 | 9 |
| #11 | 1-7 | 1-2¼ | 1-2 | 10 |
| #14 | 2-2 | 1-8½ | 2-2 | 1-6½ |
| #18 | 2-11 | 2-3 | 2-11 | 2-3 |
| STYLE | 1 | | 2 | |

RECOMMENDED 90° END HOOK DIMENSIONS
ALL GRADES
D = 6d for #3 through #8
D = 8d for #9, #10, and #11
D = 10d for #14 and #18

| BAR SIZE | HOOK A or G |
|---|---|
| #3 | 6 |
| #4 | 8 |
| #5 | 1-0 |
| #6 | 1-0 |
| #7 | 1-2 |
| #8 | 1-4 |
| #9 | 1-7 |
| #10 | 1-10 |
| #11 | 2-0 |
| #14 | 2-7 |
| #18 | 3-5 |
| HOOK STYLE 3 | |

STIRRUP AND TIE HOOK

STIRRUPS
(TIES SIMILAR)

STIRRUP AND TIE HOOK DIMENSIONS
GRADES 40-50-60 ksi

| BAR SIZE | D (in.) | 90° HOOK HOOK A or G | 90° HOOK H Approx. | 135° HOOK HOOK A or G | 135° HOOK H Approx. |
|---|---|---|---|---|---|
| #3 | 1½ | 4 | 2½ | 4 | 2½ |
| #4 | 2 | 4½ | 3 | 4½ | 3 |
| #5 | 2½ | 5 | 3¾ | 5½ | 3¾ |
| #6 | 3 | 6½ | 4½ | 6½ | 4½ |
| STYLE | | 4 | | 5 | |

STYLE 6 = NO HOOK

HOOK STYLES DETAILED ON THIS SHEET ARE FOR ILLUSTRATION ONLY. ACTUAL HOOK STYLE FOR ANY PARTICULAR BAR WILL BE SHOWN UNDER A or G HEADING ON BAR SCHEDULE.

## NOTES

ALL DIMENSIONS ARE OUT TO OUT UNLESS NOTED.
ALL RADII ARE OUTSIDE.
SEE HOOK DETAILS FOR HOOK DESCRIPTIONS AND NOTES.
A DIMENSION SHOWN AS ZERO ON BAR SCHEDULE DELETES THAT PART OF BAR TYPE.

DATE | REVISIONS | BY

STATE HIGHWAY DEPARTMENT OF GEORGIA
BRIDGE DIVISION

# STANDARD
# BAR BENDING DETAILS

NO SCALE — AUGUST 1969

DESIGNED
DRAWN E.S.L.
TRACED B.J.N.
CHECKED G.S.

SUBMITTED R. L. Chapman Jr. BRIDGE ENGINEER
APPROVED STATE HIGHWAY ENGINEER

NUMBER 3901