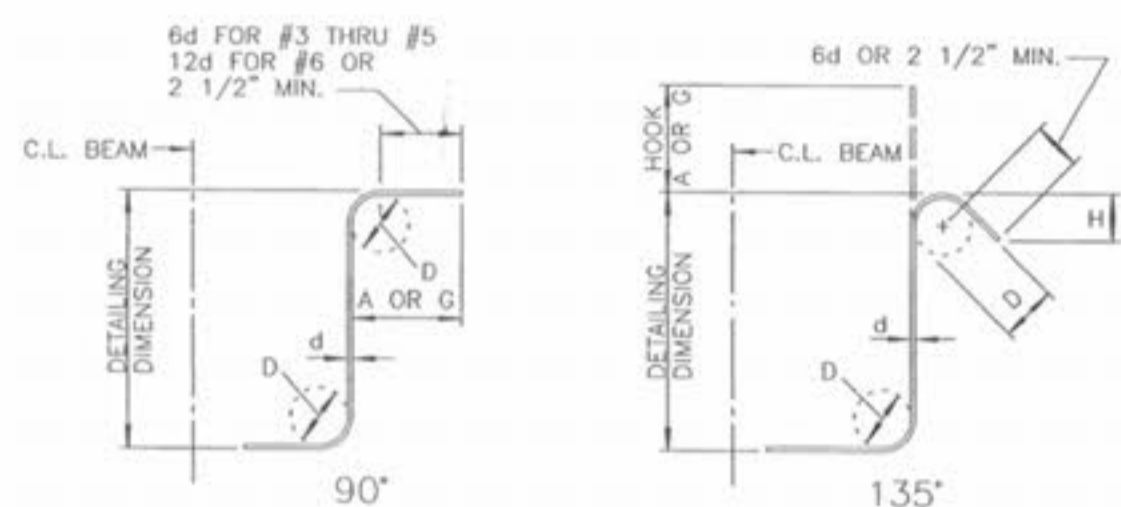


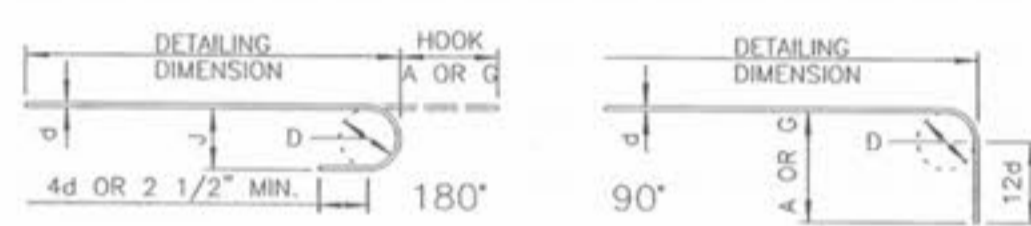
BILL OF REINFORCING STEEL



STIRRUP HOOK DIMENSIONS

| BAR SIZE | D (IN.) | 90° HOOK | | 135° HOOK | |
|----------|---------|-------------|-----------|-------------|-----------|
| | | HOOK A OR G | APPROX. H | HOOK A OR G | APPROX. H |
| #3 | 1 1/2" | 4" | 2 1/2" | 4" | 2 1/2" |
| #4 | 2" | 4 1/2" | 3" | 4 1/2" | 3" |
| #5 | 2 1/2" | 6" | 3 3/4" | 5 1/2" | 3 3/4" |
| #6 | 4 1/2" | 12" | 4 1/2" | 7 3/4" | 4 1/2" |
| #7 | 5 1/4" | 14" | 5 1/4" | 9" | 5 1/4" |

NOTE: UNLESS OTHERWISE NOTED DIAMETER "D" IS THE SAME FOR ALL BENDS AND HOOKS ON A BAR.



SIZE OF 180° HOOKS (GRADE 40 KSI)

SIZE OF 90° HOOKS ALL GRADES AND 180° HOOKS (GRADE 60 KSI)

D=5d FOR #3 THRU #11
D=10d FOR #14 AND #18

D=6d FOR #3 THRU #8
D=8d FOR #9 THRU #11
D=10d FOR #14 AND #18

END HOOK DIMENSIONS

| BAR SIZE | D (IN.) | 180° HOOKS | | 90° HOOKS |
|----------|---------|------------|---------|------------|
| | | ALL GRADES | | ALL GRADES |
| | | A OR G | J | A OR G |
| #3 | 2 1/4" | 5" | 3" | 6" |
| #4 | 3" | 6" | 4" | 8" |
| #5 | 3 3/4" | 7" | 5" | 10" |
| #6 | 4 1/2" | 8" | 6" | 12" |
| #7 | 5 1/4" | 10" | 7" | 14" |
| #8 | 6" | 11" | 8" | 16" |
| #9 | 9 1/2" | 15" | 11 3/4" | 19" |
| #10 | 10 3/4" | 17" | 13 1/4" | 22" |

NOTES:

ALL STANDARD HOOKS AND BENDS OTHER THAN 180 DEG. TO BE BENT WITH SAME PROCEDURE AS FOR 90 DEG. STANDARD HOOKS.

HOOKS AND BENDS SHALL BE IN ACCORDANCE WITH THE PROCEDURES AS SHOWN ON THIS SHEET.

E--EPOXY COATED REINFORCEMENT.

S--STIRRUP.

X--BAR IS INCLUDED IN SUBSTRUCTURE QUANTITIES.

V--BAR DIMENSIONS VARY IN EQUAL INCREMENTS BETWEEN DIMENSIONS SHOWN ON THIS LINE AND THE FOLLOWING LINE.

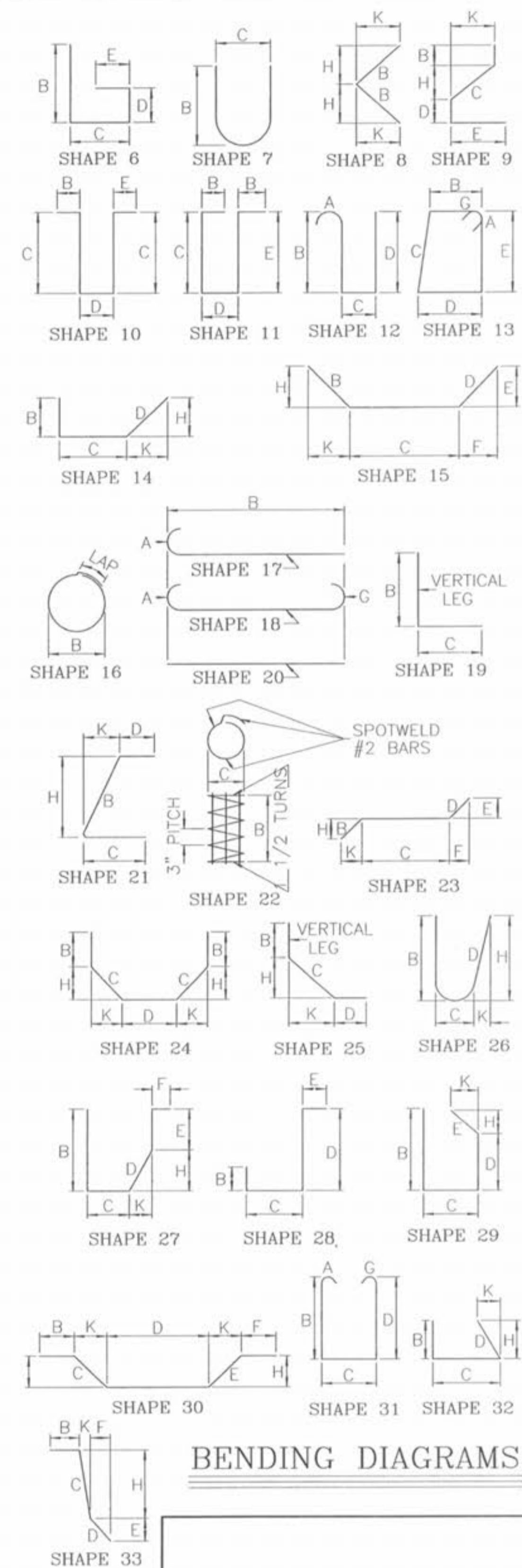
NO. EACH--NUMBER OF BARS OF EACH LENGTH.

ACTUAL LENGTHS - ARE MEASURED ALONG CENTERLINE BAR TO THE NEAREST INCH.

WEIGHT = ACTUAL WEIGHT X WEIGHT PER LINEAR FOOT X NUMBER REQUIRED.

PAYWEIGHTS ARE BASED ON ACTUAL LENGTHS.

| EPOXY (E) | NO. REQUIRED | SIZE | MARK | LOCATION | SHAPE NO. | STIRRUP | SUBSTRUCTURE VARIES | NO. EACH | B C D E F H K | | | | | | ACTUAL LENGTH | | WEIGHT Lbs. | | | | | | |
|-----------|--------------|------|------|--------------|-----------|---------|---------------------|----------|---------------|-----|--------|-----|-------|-----|---------------|-----|-------------|-------|-----|-----|-----|-----|-----|
| | | | | | | | | | B | | C | | D | | E | | | F | | H | | K | |
| | | | | | | | | | Ft. | In. | Ft. | In. | Ft. | In. | Ft. | In. | | Ft. | In. | Ft. | In. | Ft. | In. |
| | | | | SUBSTRUCTURE | | | | | | | | | | | | | | | | | | | |
| | | | | INTERMEDIATE | | | | | | | | | | | | | | | | | | | |
| | | | | BENT NO. 4 | | | | | | | | | | | | | | | | | | | |
| | 25 | 6 | D41 | BEAM KEY | 20 | X | | 2 | 6.000 | | | | | | 2 | 6 | 94 | | | | | | |
| | 72 | 9 | F41 | FOOTING | 18 | X | | 9 | 0.000 | | | | | | 10 | 9 | 2,632 | | | | | | |
| | 9 | 9 | H41 | BEAM | 20 | X | | 49 | 9.000 | | | | | | 49 | 9 | 1,522 | | | | | | |
| | 12 | 6 | H42 | BEAM | 20 | X | | 49 | 9.000 | | | | | | 49 | 9 | 897 | | | | | | |
| | 10 | 9 | H43 | BEAM | 18 | X | | 49 | 9.000 | | | | | | 51 | 6 | 1,751 | | | | | | |
| | 165 | 5 | P41 | COLUMN | 16 | X | | 4 | 3.000 | | | | | | 15 | 8 | 2,696 | | | | | | |
| | 148 | 5 | U41 | BEAM | 13 | S | X | 3 | 3.000 | 4 | 9.000 | 3 | 3.000 | 4 | 9.000 | 16 | 7 | 2,560 | | | | | |
| | 16 | 6 | U43 | BEAM | 10 | S | X | | | 1 | 10.000 | 4 | 7.750 | | | 8 | 0 | 192 | | | | | |
| | 72 | 9 | V41 | COLUMN | 20 | X | | 57 | 6.000 | | | | | | 57 | 6 | 14,076 | | | | | | |
| | 72 | 9 | V42 | COLUMN | 20 | X | | 10 | 8.000 | | | | | | 10 | 8 | 2,611 | | | | | | |
| | | | | INTERMEDIATE | | | | | | | | | | | | | | | | | | | |
| | | | | BENT NO. 5 | | | | | | | | | | | | | | | | | | | |
| | 25 | 6 | D51 | BEAM KEY | 20 | X | | 2 | 6.000 | | | | | | 2 | 6 | 94 | | | | | | |
| | 96 | 9 | F51 | FOOTING | 20 | X | | 9 | 0.000 | | | | | | 10 | 9 | 2,632 | | | | | | |
| | 9 | 9 | H51 | BEAM | 20 | X | | 49 | 9.000 | | | | | | 49 | 9 | 1,522 | | | | | | |
| | 12 | 6 | H52 | BEAM | 20 | X | | 49 | 9.000 | | | | | | 49 | 9 | 897 | | | | | | |
| | 10 | 9 | H53 | BEAM | 18 | X | | 49 | 9.000 | | | | | | 51 | 6 | 1,751 | | | | | | |
| | 129 | 5 | P51 | COLUMN | 16 | X | | 4 | 3.000 | | | | | | 15 | 8 | 2,108 | | | | | | |
| | 148 | 5 | U51 | BEAM | 13 | S | X | 3 | 3.000 | 4 | 9.000 | 3 | 3.000 | 4 | 9.000 | 16 | 7 | 2,560 | | | | | |
| | 16 | 6 | U53 | BEAM | 10 | S | X | | | 1 | 10.000 | 4 | 7.750 | | | 8 | 0 | 192 | | | | | |
| | 72 | 9 | V51 | COLUMN | 20 | X | | 45 | 7.000 | | | | | | 45 | 7 | 11,159 | | | | | | |
| | 72 | 9 | V52 | COLUMN | 20 | X | | 10 | 8.000 | | | | | | 10 | 8 | 2,611 | | | | | | |



BENDING DIAGRAMS



ENGINEER'S AUTHENTICATION: The responsibility for professional engineering liability on this project is hereby limited to the set of plans authenticated by the seal, signature and date hereunder attached. Responsibility is disclaimed for all other engineering plans involved in this project and specifically excludes revisions after this date, unless reauthenticated.