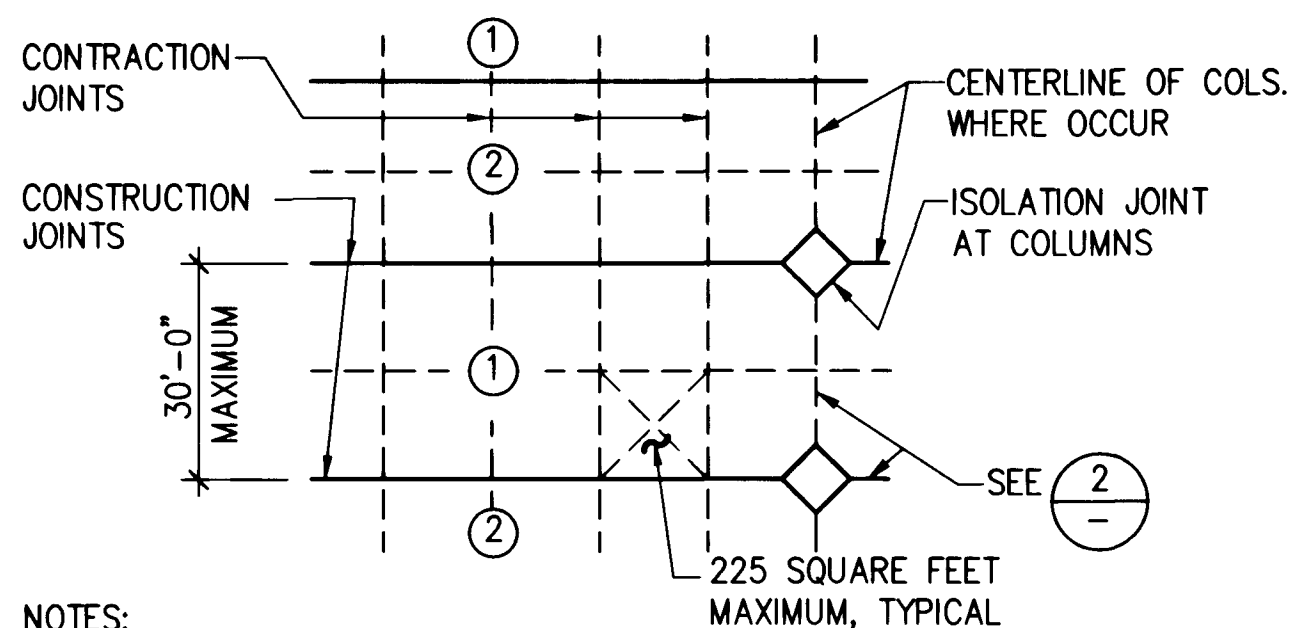
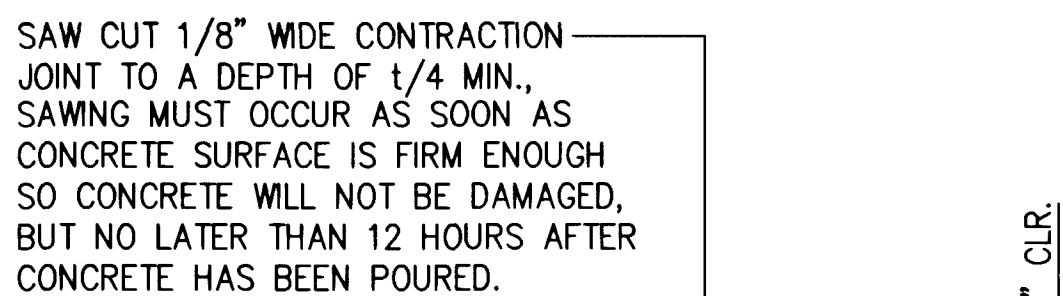
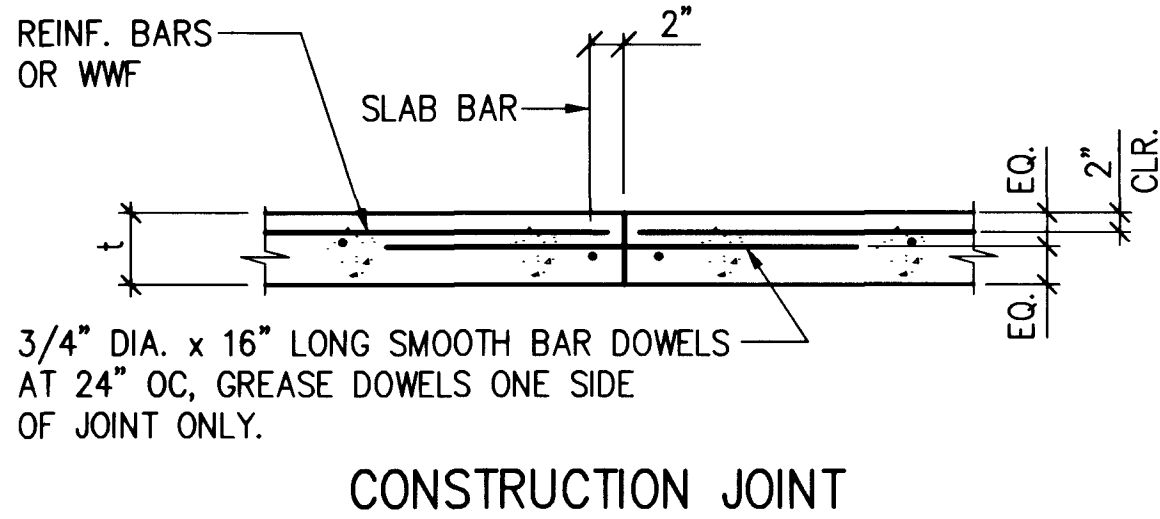




- NOTES:
- 1 SLAB SHALL BE POURED IN STRIP PATTERN.
① = FIRST POUR ② = SECOND POUR.
 - 2 STRIPS TO BE DIVIDED BY CONSTRUCTION JOINTS AT THE CENTERLINE OF COLUMNS WHERE THEY OCCUR AND SUBDIVIDED AS REQUIRED INTO AREAS NOT EXCEEDING 225 SQ. FT. BY CONSTRUCTION JOINTS.
 - 3 IN AREAS WHERE COLUMNS DO NOT OCCUR PROVIDE CONSTRUCTION AND CONSTRUCTION JOINTS AS ABOVE.
 - 4 CONTRACTORS SHALL OBTAIN ARCHITECT'S APPROVAL FOR ALL JOINT LOCATIONS.

METHOD OF POURING SLAB ON GRADE



JOINTS IN SLAB ON GRADE

$f'_c = 4000$ PSI

BAR SIZE	TOP BARS CASE 1	TOP BARS CASE 2	OTHER BARS CASE 1	OTHER BARS CASE 2
#3	19	28	15	22
#4	25	37	19	29
#5	31	47	24	36
#6	37	56	29	43
#7	54	81	42	63
#8	62	93	48	71
#9	70	105	54	81
#10	79	118	61	91
#11	87	131	67	101
#14	105	157	81	121
#18	139	209	107	161

NOTES:

- 1 THIS TABLE FOR USE WITH NORMAL WEIGHT HARDROCK CONCRETE AND GRADE 60 UNCOATED REINFORCING BARS. FOR LIGHTWEIGHT AGGREGATE USE $1.3 Q_d$. Q_d = TENSION DEVELOPMENT LENGTH SHOWN AT THIS TABLE.
- 2 TOP BARS ARE HORIZONTAL BARS WITH MORE THAN 12" OF CONCRETE CAST IN THE MEMBER BELOW THE BAR.
- 3 FOR BARS ENCLOSED IN STANDARD COLUMN SPIRALS, USE $0.75 Q_d$ OR 12" MIN.
- 4 TENSION DEVELOPMENT LENGTH OF INDIVIDUAL BARS WITHIN A BUNDLE SHALL BE $1.2 Q_d$ FOR THAT BAR IN A 3-BAR BUNDLE AND $1.33 Q_d$ FOR A 4-BAR BUNDLE.
- 5 COMPRESSION DEVELOPMENT LENGTH (ONLY WHERE INDICATED ON DRAWINGS) FOR GRADE 60 BARS USE 22 BAR DIAMETERS.

6 CASES 1 AND 2 ARE DEFINED AS FOLLOWS:

BEAMS OR COLUMNS

- CASE 1: COVER AT LEAST 1.0 db AND CENTER TO CENTER SPACING AT LEAST 2.0 db
CASE 2: COVER LESS THAN 1.0 db OR CENTER TO CENTER SPACING LESS THAN 2.0 db

ALL OTHER MEMBERS

- CASE 1: COVER AT LEAST 1.0 db AND CENTER TO CENTER SPACING AT LEAST 3.0 db
CASE 2: COVER LESS THAN 1.0 db OR CENTER TO CENTER SPACING LESS THAN 3.0 db

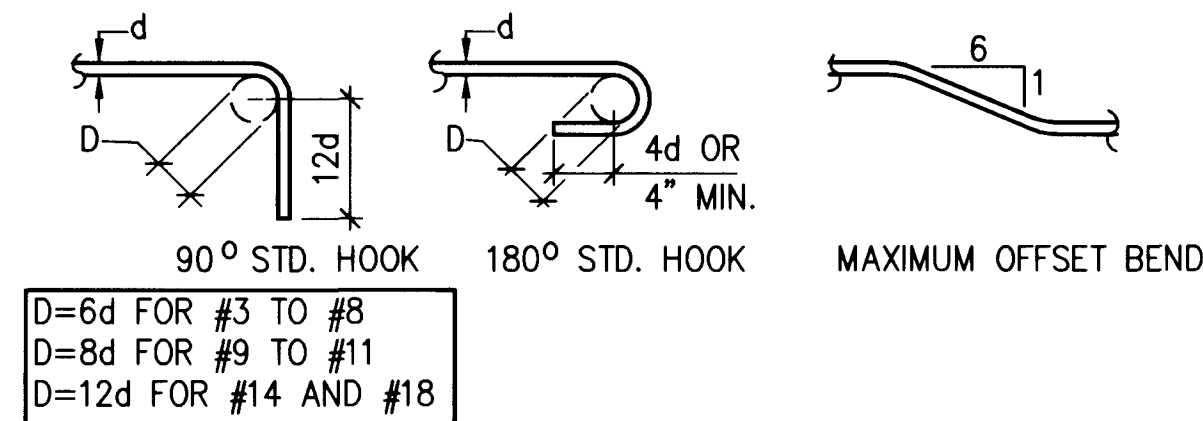
TENSION DEVELOPMENT LENGTH, Q_d (IN INCHES)

$f'_c = 4000$ PSI

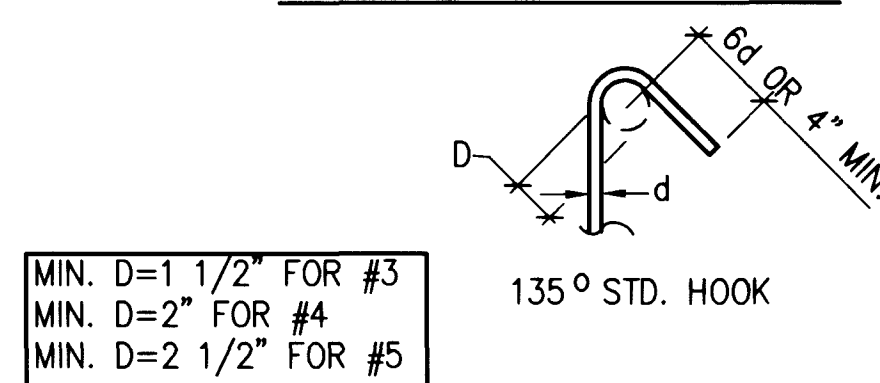
BAR SIZE	LAP CLASS	TOP BARS CASE 1	TOP BARS CASE 2	OTHER BARS CASE 1	OTHER BARS CASE 2
#3	A	19	28	15	22
	B	24	36	19	28
#4	A	25	37	19	29
	B	32	48	25	37
#5	A	31	47	24	36
	B	40	60	31	47
#6	A	37	56	29	43
	B	48	72	37	56
#7	A	54	81	42	63
	B	70	106	54	81
#8	A	62	93	48	71
	B	80	121	62	93
#9	A	70	105	54	81
	B	91	136	70	105
#10	A	79	118	61	91
	B	102	153	79	118
#11	A	87	131	67	101
	B	113	170	87	131

NOTES:

- 1 TABLE FOR USE WITH NORMAL WEIGHT HARDROCK CONCRETE AND GRADE 60 UNCOATED REIN. BARS. FOR LIGHTWEIGHT AGGREGATE USE $1.3 Q_d$. Q_d = BASIC LAP LENGTH SHOWN AT THIS TABLE.
- 2 CLASS A - HALF OR LESS OF THE BARS ARE SPLICED WITHIN A REQUIRED LAP LENGTH.
CLASS B - MORE THAN HALF OF THE BARS ARE SPLICED WITHIN A REQUIRED LAP LENGTH.
- 3 TOP BARS ARE HORIZONTAL BARS WITH MORE THAN 12" OF CONCRETE CAST IN THE MEMBER BELOW THE BAR.
- 4 FOR BARS ENCLOSED IN STANDARD COL. SPIRALS, USE $0.75 Q_d$ OR 12" MIN.
- 5 LAP SPLICES OF INDIVIDUAL BARS WITHIN A BUNDLE SHALL BE $1.2 Q_d$ FOR THAT BAR IN A 3-BAR BUNDLE AND $1.3 Q_d$ FOR A 4-BAR BUNDLE. ENTIRE BUNDLES SHALL NOT BE LAP SPLICED AT THE SAME LOCATION. SPLICES FOR INDIVIDUAL BARS WITHIN A BUNDLE SHALL BE STAGGERED SUCH THAT THEY DO NOT OVERLAP.
- 6 COMPRESSION LAP SPLICE (ONLY WHERE INDICATED ON DRAWINGS) FOR GRADE 60 BARS USE 30 BAR DIA.
- 7 CASES 1 AND 2 ARE DEFINED AS FOLLOWS:
BEAMS OR COLUMNS
CASE 1: COVER AT LEAST 1.0 db AND CENTER TO CENTER SPACING AT LEAST 2.0 db
CASE 2: COVER LESS THAN 1.0 db OR CENTER TO CENTER SPACING LESS THAN 2.0 db
ALL OTHER MEMBERS
CASE 1: COVER AT LEAST 1.0 db AND CENTER TO CENTER SPACING AT LEAST 3.0 db
CASE 2: COVER LESS THAN 1.0 db OR CENTER TO CENTER SPACING LESS THAN 3.0 db



PRINCIPAL REINFORCING

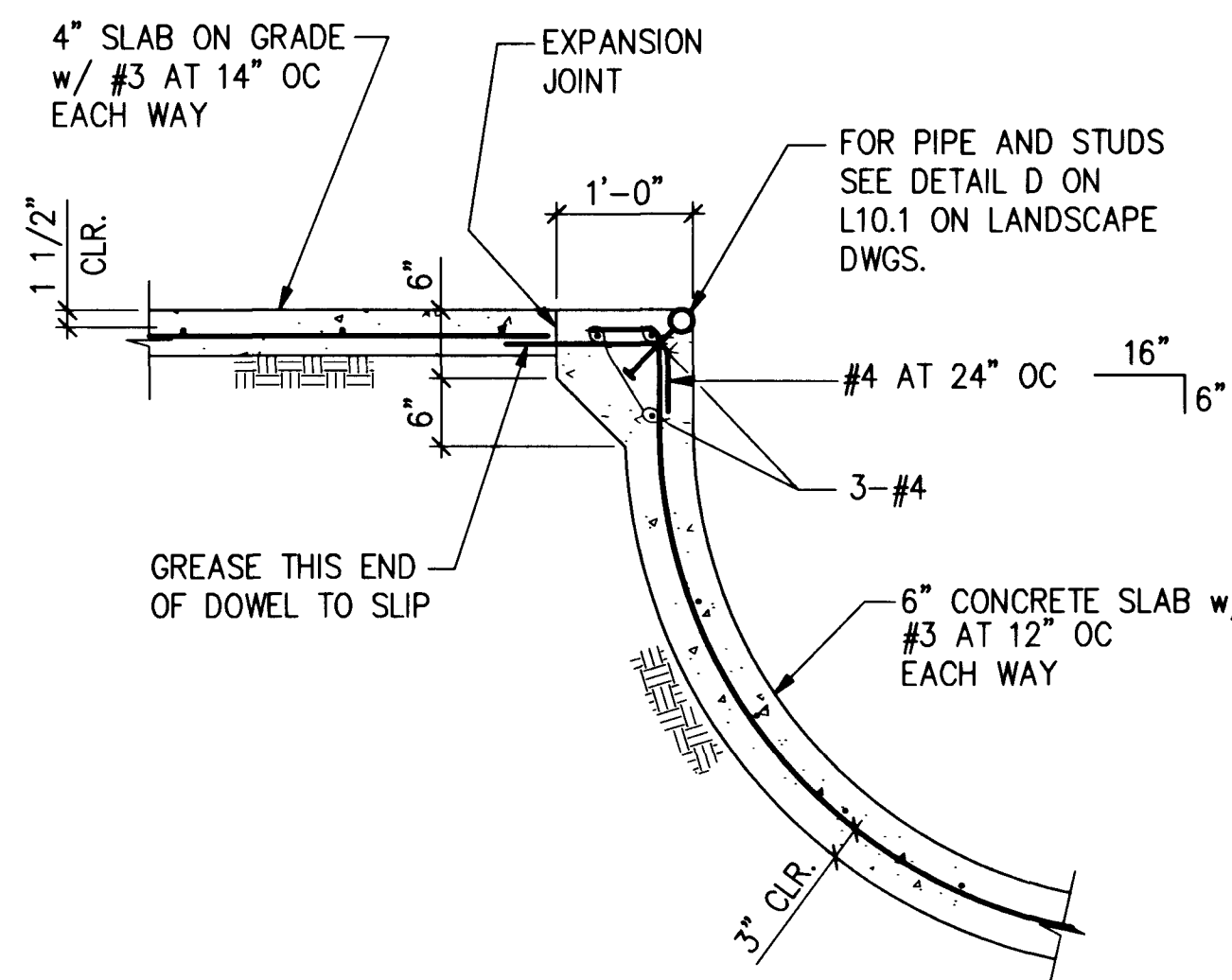


STIRRUPS AND TIES

NOTES:

- 1 ALL BENDS SHALL BE MADE COLD.
- 2 #14 AND #18 BARS SHALL BE BEND TESTED AND LAB APPROVED PRIOR TO BENDING.

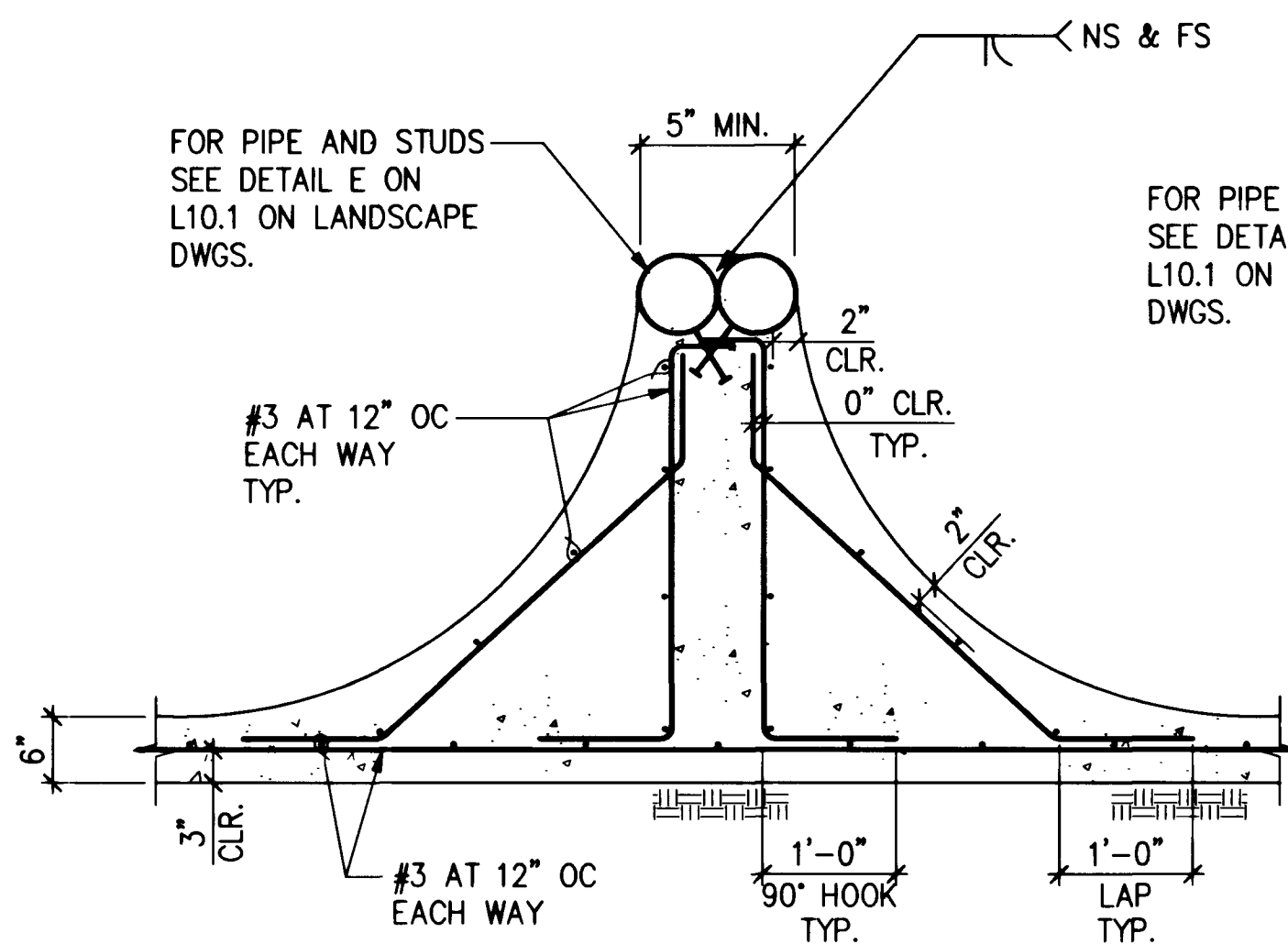
BAR BENDS



SECTION

N.T.S.

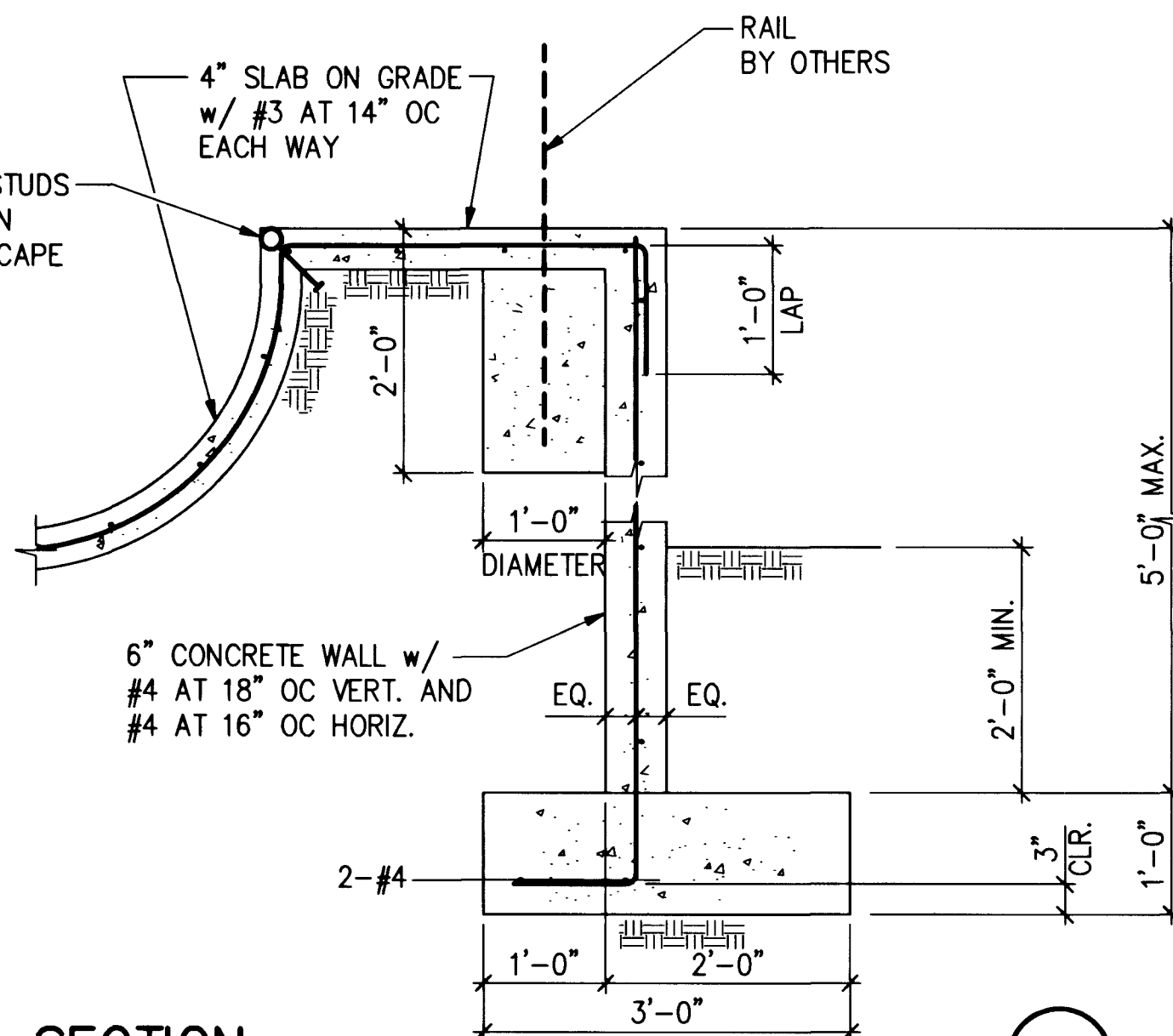
TENSION LAP SPLICE LENGTH, Q_d (IN INCHES)



SECTION

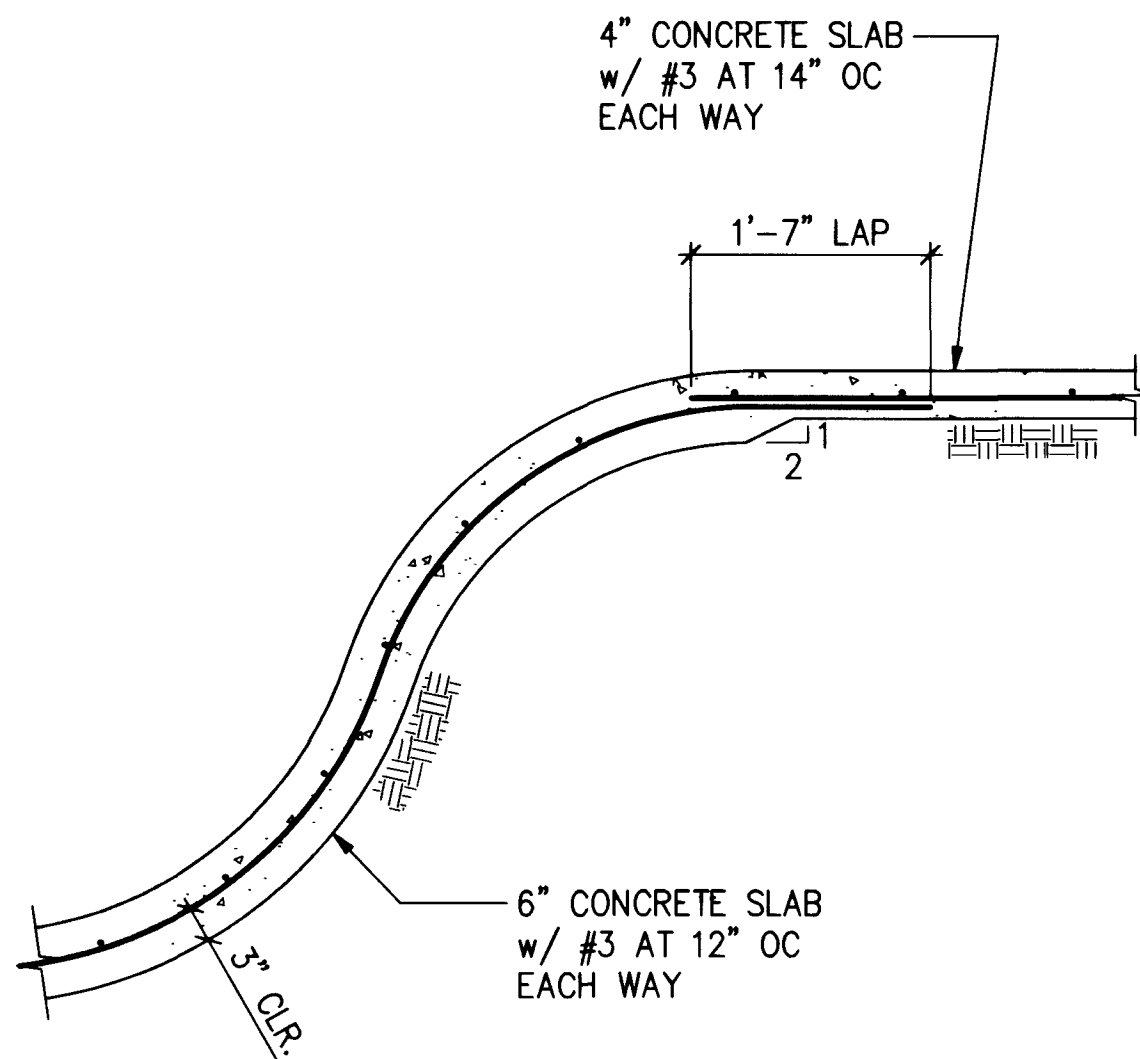
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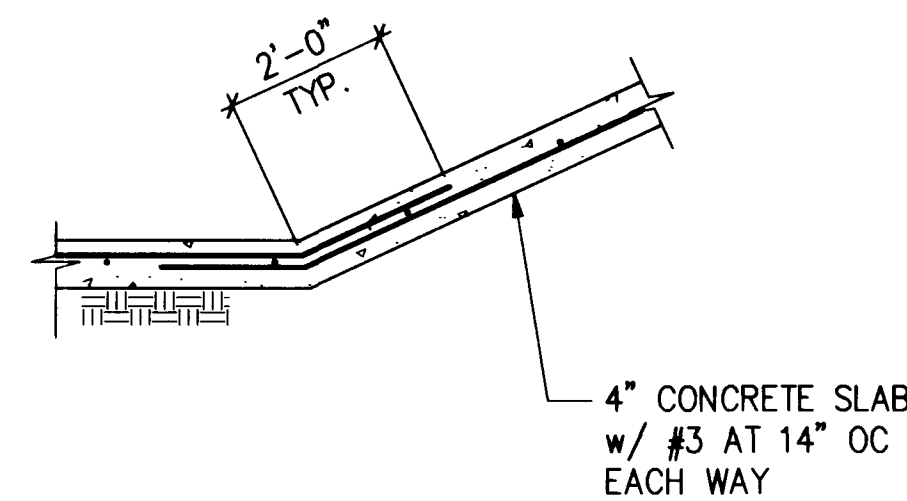
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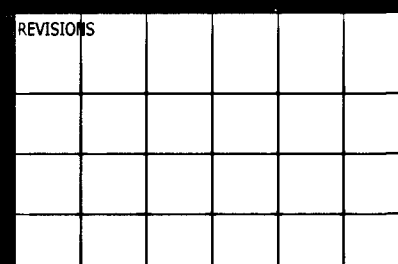
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SECTION

N.T.S.



800 PILOT ROAD, SUITE A
LAS VEGAS, NEVADA 89119
(702) 263-7111

MARTIN & PELTYN, INC.
STRUCTURAL ENGINEERS
1909 SOUTH JONES BLVD.
LAS VEGAS, NV 89146
PHONE (702) 248-7000
FAX (702) 253-5353
JOB NO. 5066

ELKHORN SPRINGS
NEIGHBORHOOD PARK
BUFFALO DRIVE
SKATE PARK STRUCTURAL
SECTIONS AND DETAILS

OWNER: CITY OF LAS VEGAS
DEPARTMENT OF PUBLIC WORKS
ARCHITECTURAL SERVICES

400 EAST STEWART AVENUE
LAS VEGAS, NEVADA 89101
PHONE: (702) 229-5535
FAX: (702) 386-3232
TDD: (702) 386-9108

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CLV DWG NO.	650.64
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