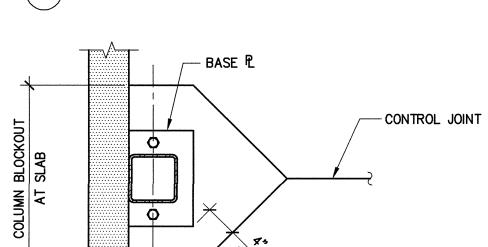
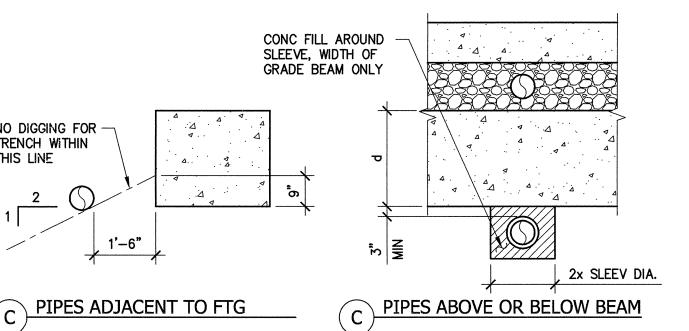
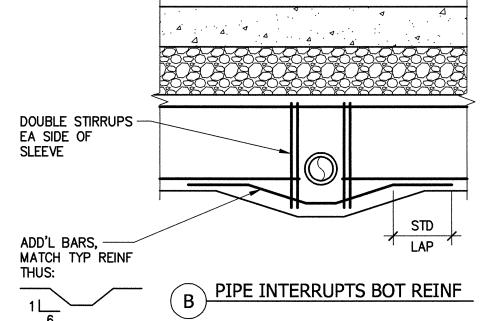


MANDATORY MINIMUM FORMWORK AND FOUNDATION EXCAVATION REQUIREMENTS Scale: NTS









| B PIPE INTERRUPTS BOT REINF | |
|--|--|
| SLAB ON GRADE TYP | |
| DOUBLE STIRRUPS EA SIDE OF SLEEVE | |
| D A A A B X X X X X X X X X X X X X X X X | |
| GRADE BEAM TYP 3 SLEEVE DIA. MIN SPACING BETWEEN SLEEVES | |
| A PIPE IN MIDDLE THIRD OF BEAM | |

| NOT | <u>ES:</u> | \bigcirc | PIPE WITHOUT |
|-----|---|------------|------------------|
| 1. | DO NOT CUT OR INTERRUPT GRADE BEAM REINFORCING. | | SLEEVE |
| 2. | MAXIMUM OUTER DIAMETER FOR SLEEVES IS d/3. | | PIPE WITH |
| 3. | FOR SIZE AND LOCATION OF PIPES S.P.D., S.É.D., S.A.D., S.M.D. | | SCHEDULE 40 |
| 4. | LENGTH OF SLEEVE = WIDTH OF GRADE BEAM. | | STEEL SLEEVE, 1' |
| 5. | FOR PIPES PARRALEL TO GRADE BEAM SEE DETAIL (12C) | | CLR ALL AROUND |
| 6. | PIPES SHALL NOT BE PLACED LONGITUDINALLY - | | CLN ALL ANOUNL |
| | INSIDE GRADE BEAM. | | |

Scale: NTS

TYPICAL PIPE AND SLEEVE AT WALL FTG.

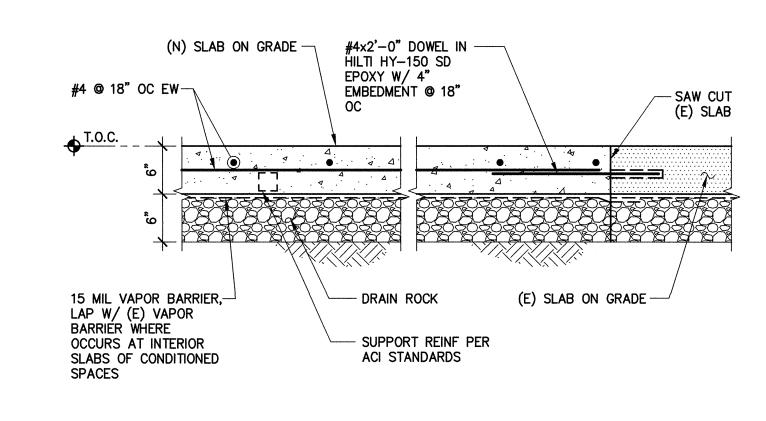
SUPPORT REINF PER SEE PLAN

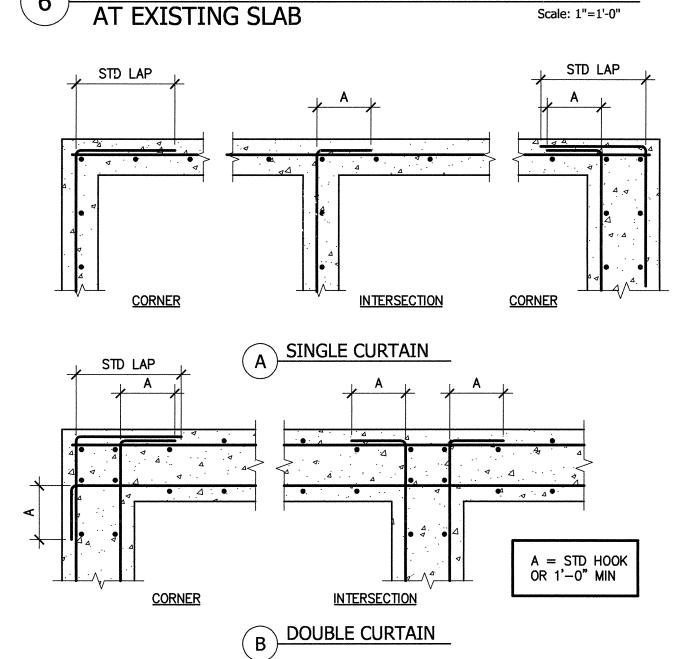
Scale: 1"=1'-0"

Scale: 1"=1'-0"

TYPICAL SLAB ON GRADE

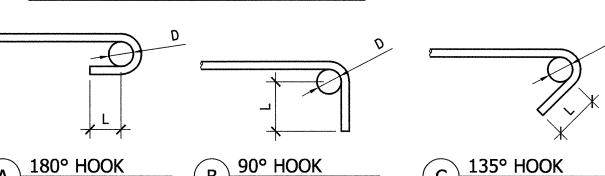
NEW SLAB ON GRADE





TYP CONC FOOTING/WALL REINFORCING AT CORNERS AND INTERSECTIONS

| | REBAR SIZE | | MAIN REINFORC | DING | STIRRUPS & TIES | | | |
|--|---------------|-------|----------------|----------|-----------------|----------|---------------|--|
| | | D | 180° HOOK L | 90° HOOK | D | 90° HOOK | 135° H00 L | |
| | #3 | 21/4" | 4" | 6" | 1½" | 3¾" | 3" | |
| | #4 | 3" | 4½" | 8" | 2" | 4½" | 3" | |
| | #5 | 3¾" | 5" | 10" | 2½" | 5¾" | 3¾" | |
| | #6 | 4½" | 6" | 12" | 4½" | 12" | 4½" | |
| | # 7 | 51/4" | 7" | 14" | 51/4" | 14" | 5¼" | |
| | #8 | 6" | 8" | 16" | 6" | 16" | 6" | |
| | # 9 | 9½" | 10¼" | 19½" | | | | |
| | # 10 | 10¾" | 11½" | 22" | | | | |
| | #11 | 12" | 12¾" | 24¼" | | | | |
| | #14 | 18¼" | 17" | 31¼" | | | | |



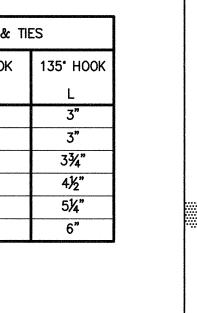
TYPICAL REBAR BENDS AND HOOKS

| 1 | | | | | | | | | Scale: NTS |
|---------|------------------------|----------------|---------------|----------------|-------------|----------------|-------------|----------------|-------------|
| П | CONCRETE STRENGTH | f'c = 3000 PSI | | | | f'c = 4000 PSI | | | |
| | CLASS OF LAP SPLICE | CLASS "A" | | CLASS "B" | | CLASS "A" | | CLASS "B" | |
| | BAR CASE SIZE | BOTTOM BARS | TOP BARS | BOTTOM BARS | TOP BARS | BOTTOM BARS | TOP BARS | BOTTOM BARS | TOP BARS |
| | #3 | 1'-4" | 1'-9" | 1'-9" | 2'-4" | 1'-2" | 1'-6" | 1'-6" | 2'-0" |
| 6 / | #4 | 1'-10" | 2'-4" | 2'-4" | 3'-1" | 1'-7" | 2'-1" | 2'-4" | 3'-1" |
| | # 5 | 2'-1" | 3'-0" | 3'-0" | 3'-10" | 2'-0" | 2'-7" | 3'-0" | 3'-10" |
| + 1 - 1 | #6 | 2'-9" | 3'-7" | 3'-7" | 4'-8" | 2'-4" | 3'-1" | 3'-7" | 4'-8" |
| | # 7 | 4'-0" | 5'-2 " | 5'-2" | 6'-9" | 3'-6" | 4'-6" | 5'-2" | 6'-9" |
| | #8 | 4'-7" | 5'-11" | 5'-11" | 7'-9" | 3'-11" | 5'-2" | 5'-11" | 7'-9" |
| | #9 | 5'-2" | 6'-10" | 6'-10" | 8'-8" | 4'-5" | 5'-9" | 6'-8" | 8'-8" |
| * " | # 10 | 5'-8" | 7'-11" | 7'-11" | 9'-8" | 4'-11" | 6'-5" | 7'-5" | 9'-8" |
| . • | #11 | 6'-3" | 8'-2" | 8'-2" | 10'-7" | 5'-5" | 7'-1" | 8'-2" | 10'-7" |

USE THE CLASS B LAP SPLICE LENGTHS, MULTIPLIED BY THE APPLICABLE FACTOR(S) LISTED BELOW, UNLESS OTHERWISE NOTED. WHERE THE CLEAR SPACING OF BARS BEING SPLICED IS LESS THAN 2 BAR DIAMETERS, INCREASE THE LAP BY 50%. WHERE THE BAR COVER IS LESS THAN OR EQUAL TO THE BAR DIAMETER, INCREASE THE LAP LENGTH BY 50%. CLASS A SPLICES MAY ONLY BE USED WHERE NOTED ON THE DRAWINGS. TOP BARS ARE ALL HORIZONTAL BARS WITH MORE THAN 12 INCHES OF CONCRETE CAST BELOW THE BARS.

LAP SPLICE LENGTHS IN TABLE ARE FOR NORMAL WEIGHT CONCRETE. WHERE LIGHTWEIGHT CONCRETE IS USED, INCREASE LAP SPLICE LENGTHS BY 30%. SPLICES OF HORIZONTAL REINFORCEMENT IN WALLS SHALL BE STAGGERED.

SPLICES OF HORIZONTAL REINFORCEMENT IN WALLS CONTAINING TWO CURTAINS OF REINFORCEMENT SHALL NOT OCCUR IN THE SAME LOCATION. LAP SPLICE LENGTHS AND DEVELOPMENT







SUITE 200 OAKLAND, CA 94607 v. 510 208-3300 F. 510 208-3303 WWW.KPWSE.COM

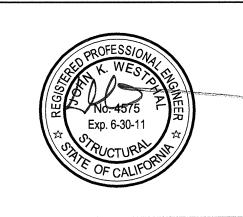
IDENTIFICATION STAMP DIVISION OF THE STATE ARCHITECT

CALIFORNIA STATE FIRE MARSHAL APPROVED APPROVAL OF THIS PLAN DOES NOT AUTHORIZE OR APPROVE ANY OMISSION OR DEVIATION FROM APPLICABLE REGULATIONS. FINAL APPROVAL IS SUBJECT TO FIELD INSPECTION. ONE SET OF APPROVED PLANS SHALL BE AVAILABLE ON THE PROJECT SITE AT ALL TIMES.

CAÑADA **COLLEGE**

Electrical Infrastructure Replacement Project

4200 Farm Hill Blvd Redwood City, CA 94061



BID SET

SHEET TITLE **TYPICAL** CONCRETE **DETAILS**

A REVISIONS

NO. DATE DESCRIPTION

| DAT | E | Jar | nuary | 14, | 2011 | |
|-----|------|-------|-------|-----------|-----------|--|
| DRA | WN. | | PIL | | | |
| CHE | CKED |) | JKW | | | |
| | DRA | DRAWN | | DRAWN PIL | DRAWN PIL | |

JOB NO. **2921.01**

TYPICAL CONSTRUCTION JOINT AT
GRADE BEAM/CONTINUOUS FOOTING
Scale: NTS

BEVELED KEY FORMED W/ — 2x4, PROVIDE ONE KEY FOR EA. 12" OF FTG WIDTH

1ST POOR -

BEVELED KEY FORMED W/ 2x4, PROVIDE ONE KEY FOR EA. 12" OF FTG WIDTH

STD LAP, TYP

--- ALL REINF CONT THROUGH JT

S5.1

SHEET NUMBER