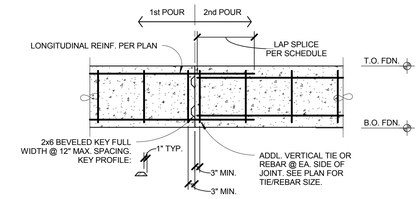
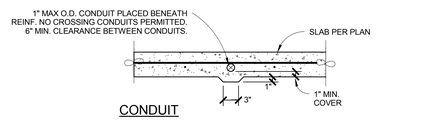
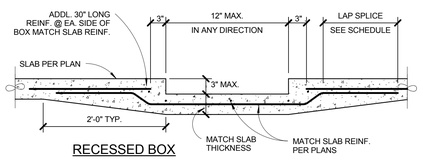


B1 CONCRETE FOOTING JOINT

SS102 NOT TO SCALE



CONDUIT

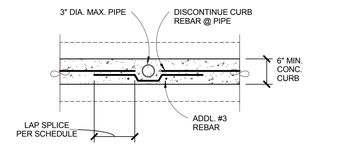


RECESSED BOX

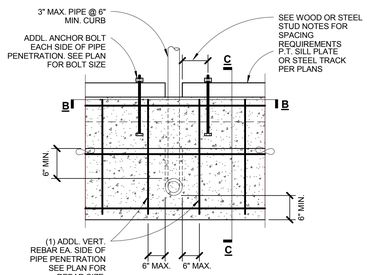
NOTE:
SEAL ALL PENETRATIONS THROUGH VAPOR BARRIER, AND PATCH ALL PUNCTURES AND CUTS, PRIOR TO PLACING CONCRETE.

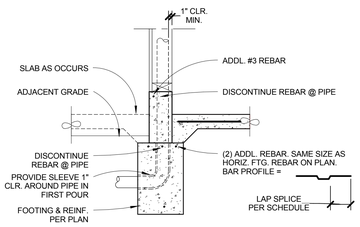
D1 CONDUITS AND BOXES IN SLAB

SS102 NOT TO SCALE



VIEW B-B



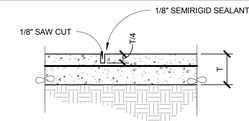


VIEW C-C

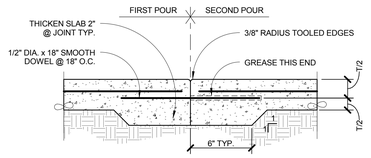
D2 PIPE THRU CONC. CURB AND FTG.

SS102 NOT TO SCALE

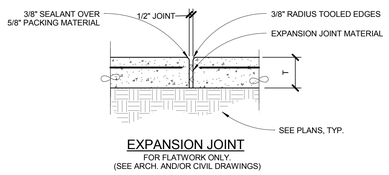
NOTES:
1. JOINT SPACING SHALL NOT EXCEED 10 FEET O.C. IN ANY DIRECTION.
2. JOINTS SHALL DIVIDE SLABS INTO AREAS NOT EXCEEDING 100 SQUARE FEET. THESE AREAS SHALL NOT CONTAIN REENTRY CORNERS AND MUST HAVE LENGTH TO WIDTH RATIOS NOT EXCEEDING 1.5 TO 1.0.
3. THE CONTRACTOR SHALL SUBMIT A CONTROL JOINT PLAN FOR APPROVAL PRIOR TO POURING THE CONCRETE SLAB.
4. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE SLAB JOINTS WITH THE LOCATIONS OF TILE CRACK CONTROL JOINTS. CONTRACTOR TO COORDINATE SLAB CONTROL JOINTS. DO NOT ALIGN WITH TILE JOINTS.
5. CONCRETE SLAB WORK SHALL BE IN ACCORDANCE WITH A.C.I. 302.1R.



CONTROL JOINT



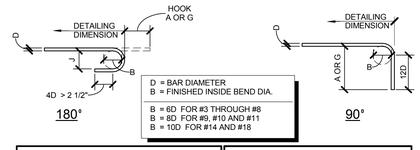
CONSTRUCTION JOINT



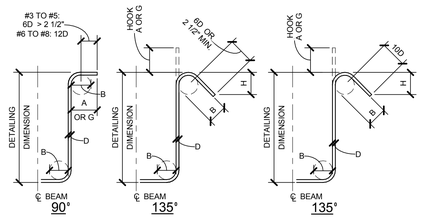
EXPANSION JOINT
FOR FLATWORK ONLY.
(SEE ARCH. AND/OR CIVIL DRAWINGS)

D4 CONCRETE SLAB JOINTS

SS102 NOT TO SCALE



DIMENSION OF STD. 180° HOOKS, ALL GRADES				DIMENSION OF STD. 90° HOOKS, ALL GRADES	
BAR SIZE	A OR G	J	B	A OR G	B
#3	5"	3"	2 1/4"	6"	2 1/4"
#4	6"	4"	3"	8"	3"
#5	7"	5"	3 3/4"	10"	3 3/4"
#6	8"	6"	4 1/2"	1'-0"	4 1/2"
#7	10"	7"	5 1/4"	1'-2"	5 1/4"
#8	11"	8"	6"	1'-4"	6"
#9	1'-3"	1'-1 3/4"	9 1/2"	1'-7"	9 1/2"
#10	1'-5"	1'-1 1/4"	10 3/4"	1'-10"	10 3/4"
#11	1'-7"	1'-2 3/4"	12"	2'-0"	12"
#14	2'-3"	1'-9 3/4"	18 1/4"	2'-7"	18 1/4"
#18	3'-0"	2'-4 1/2"	24"	3'-5"	24"



STIRRUP HOOKS
(TIE BENDS SIMILAR)

SEISMIC STIRRUP/TIE

BAR SIZE	B	90°	135°		135° SEISMIC HOOK			
		A OR G	A OR G	APPROX H.	SIZE	B	A OR G	APPROX H.
#3	1 1/2"	4"	4"	2 1/2"	#3	1 1/2"	4 1/4"	3"
#4	2"	4 1/2"	4 1/2"	3"	#4	2"	4 1/2"	3"
#5	2 1/2"	6"	5 1/2"	3 3/4"	#5	2 1/2"	5 1/2"	3 3/4"
#6	4 1/2"	1'-0"	8"	4 1/2"	#6	4 1/2"	8"	4 1/2"
#7	5 1/4"	1'-2"	9"	5 1/4"	#7	5 1/4"	9"	5 1/4"
#8	6"	1'-4"	10 1/2"	6"	#8	6"	10 1/2"	6"

D6 STANDARD REBAR HOOKS

SS102 NOT TO SCALE

1. FOUNDATIONS SHALL BEAR ON ENGINEERED FILL OR NATIVE SOIL **F2/SS101**, U.N.O. IN A SOILS REPORT.

2. MAXIMUM SIZE AGGREGATE SHALL BE AS FOLLOWS:
- SLAB ON GRADE: 1"
- CONCRETE OVER METAL DECK: 3/8"
- FOOTINGS: 1 1/2"
- COLUMNS & WALLS 1 1/2"

3. MINIMUM COMPRESSIVE STRENGTH OF CONCRETE AT 28 DAYS SHALL BE AS FOLLOWS:
- 4000 PSI NORMAL WEIGHT SLAB ON GRADE
- 3000 PSI NORMAL WEIGHT CONCRETE OVER METAL DECK
- 3000 PSI NORMAL WEIGHT FOOTINGS
- 3000 PSI NORMAL WEIGHT COLUMNS & WALLS

4. MAXIMUM WATER CEMENT RATIOS SHALL BE AS FOLLOWS:
- 0.45 SLAB ON GRADE
- 0.45 CONCRETE OVER METAL DECK
- 0.58 FOOTINGS
- 0.50 COLUMNS & WALLS

5. THICKNESS OF CONCRETE FILL OVER METAL DECK PER PLANS ARE MINIMUM THICKNESSES. CONTRACTOR SHALL MAKE ALLOWANCES FOR ADDITIONAL FILL REQUIRED TO COMPENSATE FOR BEAM AND DECK DEFLECTIONS AND TO MAINTAIN SURFACE TOLERANCES PER PLANS AND SPECIFICATIONS.

6. THE FOLLOWING ARE MINIMUM CONCRETE COVER DIMENSIONS PER A.C.I. 318-05 SECTION 7.7.1. THEY ARE FROM FACE OF REINFORCING STEEL TO FACE OF CONCRETE. ALL REINFORCING SHALL MAINTAIN THE FOLLOWING CLEAR DISTANCES, U.N.O.
- CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH: 3"
- CONCRETE EXPOSED TO EARTH OR WEATHER: (NO. 6 THROUGH NO. 18) 2"
  (NO. 5 AND SMALLER) 1 1/2"
- CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND:
  SLABS, WALLS AND JOISTS: (NO. 14 AND NO. 18) 1 1/2"
  (NO. 11 AND SMALLER) 3/4"
  BEAMS AND COLUMNS: (ALL SIZES) 1 1/2"
  SHELLS AND FOLDED PLATE MEMBERS: (NO. 6 AND LARGER) 3/4"
  (NO. 5 AND SMALLER) 1/2"
- PLACE REINF. AT MID-THICKNESS FOR SLABS ON GRADE.

7. CONSTRUCTION LOADS SHALL NOT BE PLACED ON NEW CONCRETE CONSTRUCTION, INCLUDING CONCRETE TOPPING ON METAL DECK, FOR AT LEAST 7 DAYS AFTER CONCRETE PLACEMENT OR WITH APPROVAL BY STRUCTURAL ENGINEER.

8. ALL SPLICES IN CONTINUOUS REINFORCEMENT USED IN WALLS, FOOTINGS, ETC. SHALL HAVE A MINIMUM LAP AS DESCRIBED IN THE TYPICAL LAP SPLICE DETAIL. SPLICES IN ADJACENT BARS SHALL NOT BE LESS THAN 4'-0" APART. VERTICAL WALL BARS SHALL BE SPLICED AT OR NEAR BEAM AND SLABS, OR WHERE SPECIFICALLY DETAILED TO BE SEPARATED.

9. FOR FOUNDATIONS, COLUMNS, ELEVATED CAST-IN-PLACE SLABS, AND CONC. BEAMS ALL REINFORCEMENT CROSSING CONSTRUCTION JOINTS SHALL BE CONTINUOUS, OR SHALL BE MADE EFFECTIVELY CONTINUOUS BY USE OF FULLY DEVELOPED LAP SPLICES, DOWELS (WITH LAPPED SPLICES) OR APPROVED COUPLERS.

10. HORIZONTAL CONSTRUCTION JOINTS SHALL HAVE ENTIRE SURFACE REMOVED TO EXPOSE CLEAN AGGREGATE SOLIDLY EMBEDDED.

11. CONCRETE SHALL NOT BE DROPPED THROUGH REINF. STEEL (AS IN WALL) SO AS TO CAUSE SEGREGATION OF AGGREGATES. IN SUCH CASES, HOPPERS AND VERTICAL CHUTES OR TRUNKS SHALL BE USED. CHUTES OR TRUNKS SHALL BE OF VARIABLE LENGTHS SO THAT FREE UNCONFINED FALL OF CONCRETE SHALL NOT EXCEED 5'-0" AND A SUFFICIENT NUMBER OF CHUTES AND TRUNKS SHALL BE USED TO ENSURE THE CONCRETE REMAINS LEVEL AT ALL TIMES.

12. ALL STEEL COLUMN BASE PLATES AND STEEL BEAMS BEARING ON CONCRETE SHALL BEAR UPON 1 1/2" MIN. OF NON-SHRINK, 3,000 PSI MIN, GROUT PADS AND LEVELING NUTS, U.N.O.

13. WHERE STEEL MEMBERS BEAR IN CONCRETE OR MASONRY WALLS, OPENINGS SHALL BE DRY-PACKED AFTER STEEL IS IN PLACE AND PRIOR TO SUPERIMPOSED LOADS BEING ADDED.

14. CONTRACTOR SHALL SUBMIT PROPOSED POUR SCHEDULE FOR ENGINEERS APPROVAL PRIOR TO THE FORMING OR POURING OF ANY CONCRETE WORK.

15. SEE ARCHITECTURAL PLANS FOR LOCATING ANCHOR BOLTS IN NON-BEARING WALLS OTHER THAN CURTAIN WALLS.

16. THE CONTRACTOR SHALL FURNISH AND INSTALL 1/2" PRE-MOLDED EXPANSION JOINTS IN ALL EXTERIOR WALKS AND SLABS AS INDICATED ON DRAWINGS.

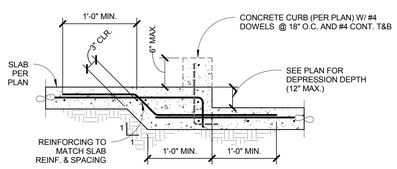
17. ALL REINFORCING SHALL CONFORM TO A.S.T.M. A615 AND SHALL BE GRADE 40 FOR #3, GRADE 60 FOR #4 AND LARGER.

18. WELDED WIRE FABRIC SHALL CONFORM TO A.S.T.M. A185.

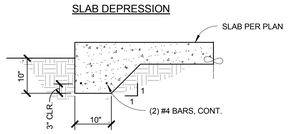
19. ALL WELDING OF REINFORCING STEEL SHALL BE WITH LOW HYDROGEN ELECTRODES U.N.O. WELDING OF REINFORCING SHALL BE ALLOWED ONLY WHERE DETAILED ON DRAWINGS. ALL WELDING SHALL BE DONE IN ACCORDANCE WITH AMERICAN WELDING SOCIETY SPECIFICATIONS A.W.S. D1.4. WELDING SHALL NOT BE DONE WITHIN TWO BAR DIAMETERS OF ANY BENT PORTION OF A BAR WHICH HAS BEEN BENT COLD. WELDING OF CROSSING BARS SHALL NOT BE PERMITTED FOR ASSEMBLY OF REINFORCEMENT UNLESS AUTHORIZED BY THE STRUCTURAL ENGINEER OF RECORD. A.S.T.M. A706 REINFORCING SHALL BE USED FOR ALL REINFORCING THAT IS BEING WELDED.

D8 FOUNDATION AND CONC. NOTES

SS102 NOT TO SCALE



SLAB DEPRESSION

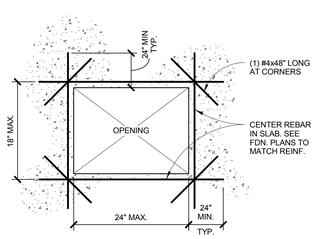


SLAB EDGE FOR FLATWORK

NOTES:
1. FOR DEPRESSED SLAB LOCATION & DEPTH SEE ARCH. PLANS.
2. FOR SLAB ON GRADE & REINF. INFORMATION SEE PLANS.

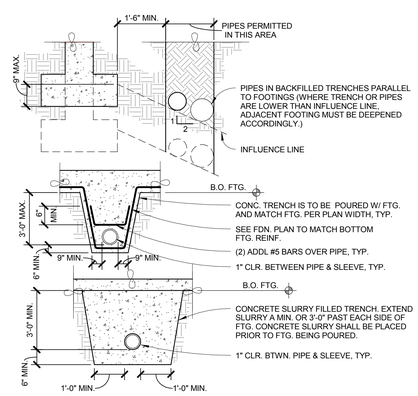
F1 SLAB DEPRESSION AND EDGE

SS102 NOT TO SCALE



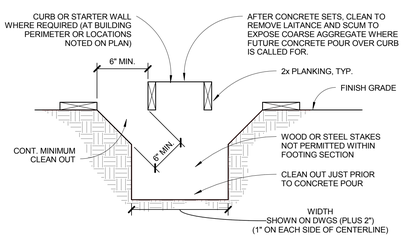
F2 CONCRETE SLAB OPENING

SS102 NOT TO SCALE



F4 PIPES BELOW/ADJACENT TO FTG.

SS102 NOT TO SCALE

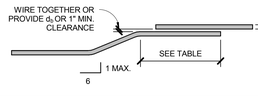


NOTES:
1. FOUNDATION CONCRETE MAY BE PLACED DIRECTLY INTO NEAT EXCAVATIONS PROVIDED THAT FOUNDATION TRENCH WALLS ARE STABLE AS DETERMINED BY THE ARCHITECT, OR STRUCTURAL ENGINEER, SUBJECT TO THE APPROVAL OF THE DEPARTMENT OF VETERANS AFFAIRS IN SUCH CASE, THE MINIMUM FORM WORK SHOWN ABOVE IS MANDATORY TO INSURE CLEAN EXCAVATIONS IMMEDIATELY PRIOR TO, AND DURING, THE PLACING OF CONCRETE.
2. FORMWORK NOT PERMITTED BELOW GRADE UNLESS FULLY FORMED.
3. SEE SPEFICATIONS FOR ADDITIONAL FORMWORK INFORMATION.

F6 REQUIRED CONT. FTG. FORM WORK

SS102 NOT TO SCALE

LAP LENGTH (3,000 PSI CONCRETE)									
BAR SIZE	#3	#4	#5	#6	#7	#8	#9	#10	#11
BOTTOM BAR	16"	29"	36"	43"	62"	72"	81"	91"	101"
TOP BAR	21"	38"	47"	56"	81"	94"	105"	118"	131"



NOTES:
1. SPLICES ARE SHOWN IN INCHES AND SHALL CONFORM TO CLASS "B" SPLICES AS PER A.C.I. 318-08, FOR 3,000 PSI CONCRETE.
2. SPLICE LENGTHS ASSUME THE MODIFICATION FACTORS OF A.C.I.318-08 SECTIONS 12.2 ARE 1.0. FOR OTHER CONDITIONS PROVIDE SPLICE LENGTHS IN ACCORDANCE WITH A.C.I. 318-08.
3. USE THE SPLICE LENGTH GIVEN FOR TOP BARS WHEN MORE THAN 12" OF CONCRETE IS CAST BELOW HORIZONTAL BARS IN THE MEMBER. USE THE SPLICE LENGTH GIVEN FOR BOTTOM BARS FOR ALL OTHER CONDITIONS.

F8 LAP SPLICE SCHEDULE (CONC.)

SS102 NOT TO SCALE

CONSULTANTS:

BROOKS-RANSOM ASSOCIATES
STRUCTURAL ENGINEERS CIVIL ENGINEERS
WWW.BROOKSRANSOM.COM
7415 N. PALM AVE., SUITE 100
FRESNO, CALIFORNIA 93711
PHONE: 559-449-8440 FAX: 559-449-8404

1100B.02

REGISTERED PROFESSIONAL ENGINEER GAYLORD R. RANSOM NO. S2386 EXPIRES 3-31-16 STRUCTURAL CALIFORNIA

ARCHITECT/ENGINEERS:

HMC Architects
1827 E. Fir Avenue / Studio 103 / Fresno, CA 93720
T 559 322.2444/ www.hmcarchitects.com
HMC PROJECT #1393002-000

Drawing Title	TYPICAL CONCRETE NOTES AND DETAILS
Approved: Project Director	
Project Title	Mental Health Psychosocial Rehab Recovery and Health Care for Homeless Veteran Center
Location	2615 E. CLINTON AVE, FRESNO, CA 93703
Date	08/11/2014
Checked	AL
Drawn	ESB
Project Number	570-217
Building Number	37
Drawing Number	SS102
Dwg. 83 of 197	

Office of Construction and Facilities Management:

Department of Veterans Affairs