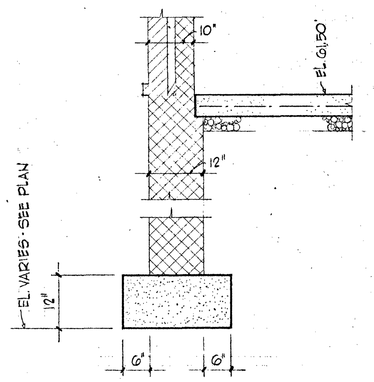
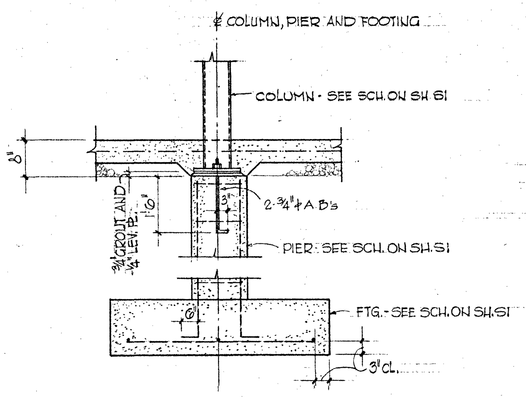
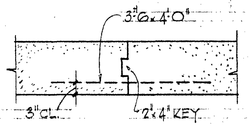


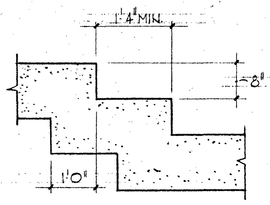
TYPICAL WALL FOOTING



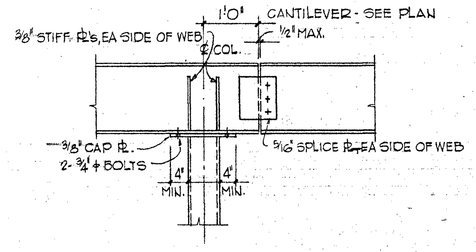
TYPICAL COLUMN, PIER AND FOOTING DETAIL



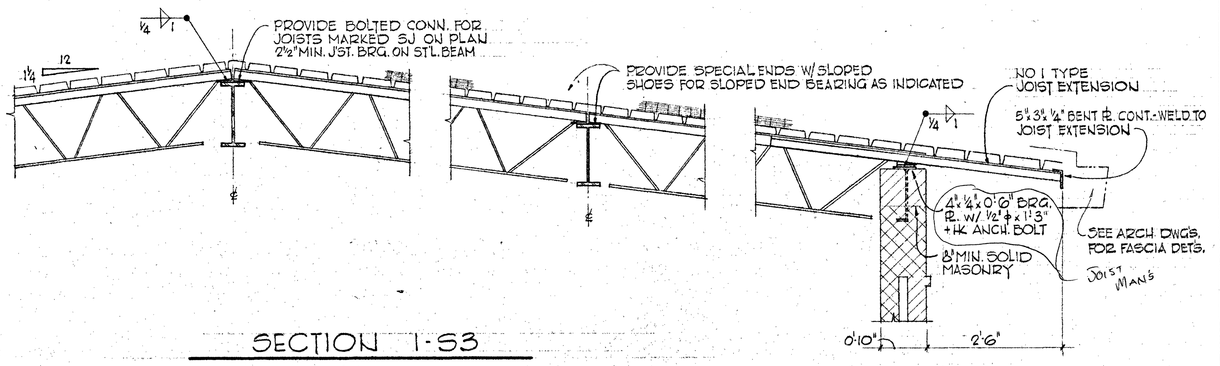
TYPICAL FOOTING CONSTRUCTION JT.



TYPICAL FOOTING STEP.

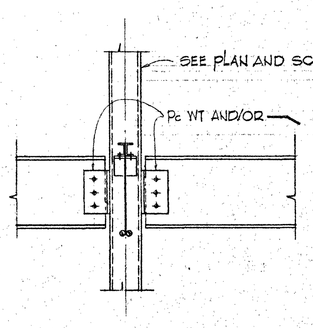


CANTILEVER BEAM TO COL. CONN.
@ COLS. B4, C4, D4, C6, C7, B9, C9, D9
NO SCALE



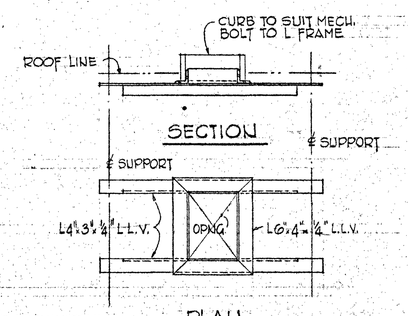
SECTION 1-S3

TYPICAL JOIST BEARING DETAILS
NO SCALE



UNLESS OTHERWISE NOTED

BEAM TO COLUMN CONN. - TYPICAL
NO SCALE



PLAN

NOTE: SEE ARCH AND MECH. DWGS. FOR SIZE AND LOCATION OF OPENINGS.

TYP. ROOF OPENING FRAMING

STRUCTURAL NOTES

SOIL VALUE: ALL FOOTINGS SHALL BE SUPPORTED BY ORIGINAL UNDISTURBED SOIL OR DISINTEGRATED ROCK CAPABLE OF SAFELY SUPPORTING 5000 PSF. SEE SPECIFICATIONS FOR COMPACTION REQUIREMENTS FOR FILL UNDER SLABS ON GRADE.

LIVE LOADS: ROOF, 30 PSF; FLOOR SLABS ON GRADE, 150 PSF, MAXIMUM.

CONCRETE: ALL CONCRETE WORK SHALL CONFORM TO THE ACI BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE (ACI 318-71). CONCRETE SHALL HAVE A 28-DAY COMPRESSIVE STRENGTH OF 3000 PSI;

REINFORCING STEEL: ALL REINFORCING STEEL SHALL BE NEW BILLET STEEL DEFORMED BARS, CONFORMING TO ASTM A615, GRADE 60 (MIN. fy= 60,000 PSI) EXCEPT COLUMN TIES AND BEAM STIRRUPS WHICH SHALL CONFORM TO A.S.T.M. A615, GRADE 40. FABRICATE AND PROVIDE STANDARD SUPPORTING ACCESSORIES IN ACCORDANCE WITH ACI MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES (ACI 315-65). WELDED WIRE MESH SHALL CONFORM TO ASTM A185-72; LAP EDGES OF WIRE MESH AT LEAST 6" IN EACH DIRECTION.

PROTECTIVE COVER: CLEAR DISTANCE TO MAIN REINFORCING STEEL SHALL BE AS FOLLOWS: FOOTINGS 3"; PIERS, 2"; SLABS, 3/4"; WALLS-EARTH FACE, 2"-INSIDE FACE, 1"; BEAMS IN CONTACT WITH EARTH, 3"; SLABS AGAINST EARTH, 1".

STRUCTURAL STEEL: SHALL CONFORM TO THE AISC SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STEEL FOR BUILDINGS. MATERIAL SHALL CONFORM TO ASTM SPEC. A-36-74. ALL WELDING SHALL BE DONE IN ACCORDANCE WITH THE STANDARDS OF THE AMERICAN WELDING SOCIETY. UNLESS OTHERWISE NOTED FIELD CONNECTIONS SHALL BE 3/4" ø HIGH STRENGTH BOLTS (ASTM A325X). STRUCTURAL STEEL FABRICATOR SHALL COORDINATE WITH STEEL JOIST SUPPLIER FOR BOLTED CONNECTION REQUIREMENTS FOR STEEL JOISTS FRAMING TO BEAMS AND/OR COLUMNS. PAINT ONE SHOP COAT OF RUST INHIBITIVE PAINT AS SPECIFIED.

STEEL JOIST: JOISTS SHALL BE H SERIES, DESIGNED, FABRICATED AND ERECTED IN ACCORDANCE WITH THE LATEST SPECIFICATIONS OF THE STEEL JOIST INSTITUTE (SJI). ONLY JOISTS DESIGNED AND FABRICATED BY SJI MEMBER COMPANIES SHALL BE PERMITTED. LENGTH OF JOIST BEARING ON STEEL OR MASONRY SHALL BE IN ACCORDANCE WITH SJI SPECIFICATIONS; ALSO SEE TYPICAL DETAILS ON DRAWING # S3. FOR H SERIES PROVIDE 1-1/2"x 1-1/2" x 1/8" ANGLE HORIZONTAL BRIDGING AT TOP AND BOTTOM CHORDS, WELDED TO JOISTS AND SPACED AS SHOWN ON PLANS. PROVIDE ANCHOR PLATES AT JOIST ENDS BEARING ON MASONRY AND EXTENDED ENDS AND CEILING EXTENSIONS WHERE REQUIRED. PAINT ONE SHOP COAT OF PAINT CONFORMING TO STEEL STRUCTURES PAINTING COUNCIL SPECIFICATION NO. 15, TYPE I. PROVIDE SPECIAL BEARING ENDS OF JOISTS TO SUIT SLOPE CONDITIONS.

MASONRY: ALL MASONRY WORK SHALL BE IN ACCORDANCE WITH AMERICAN STANDARD BUILDING CODE REQUIREMENTS FOR MASONRY. PROVIDE PIERS OF SOLID BRICK OR SOLID MASONRY UNITS, FULL BEDDED IN CEMENT MORTAR FULL HEIGHT, UNDER WALL BEARING ENDS OF ALL BEAMS AND LINTELS. UNLESS OTHERWISE NOTED ON PLANS, SUCH PIERS SHALL BE A MIN 16" IN LENGTH TIMES THE WALL THICKNESS. PROVIDE 3 COURSES OF BRICK UNDER WALL BEARING ENDS OF SLABS AND JOISTS. MINIMUM BEARING FOR BEAMS, 8", SLABS, 4". BEARING WALLS SHALL BE OF LOAD BEARING UNITS, FULL BEDDED IN CEMENT MORTAR. CORBELS, IF REQUIRED OR INDICATED SHALL BE SOLID MASONRY WITH 8" MINIMUM EMBEDMENT IN WALL. MORTAR SHALL BE TYPE "S".

ROOF DECK: SHALL BE 2-1/4" RIGID INSULATION ON 1-1/2INCH DEEP, 20 GAUGE, PAINTED METAL DECK, SDI STANDARD, WITH THE FOLLOWING MINIMUM PROPERTIES, S = .221in³, I = .201in⁴. DECK SHALL BE IN ACCORDANCE WITH THE STEEL DECK INSTITUTE BASIC DESIGN SPECIFICATIONS.

FLOOR SLABS OVER PIPE TRENCH: SHALL BE 4" CONCRETE SLAB OVER HEAVY DUTY (26 GAUGE) CORRUFORM (MIN. S = .093 in³), REINFORCED WITH 6" x 6" - 4/4 WELDED WIRE MESH.

FOOTINGS: ALL FOOTINGS SHALL BEAR A MINIMUM OF 1'-0" INTO SOLID UNDISTURBED SOIL. ALL EXTERIOR FOOTINGS SHALL BEAR A MINIMUM OF 2'-6" BELOW FINISHED OUTSIDE GRADE. ELEVATIONS SHOWN ON PLAN ARE TO BOTTOM OF FOOTINGS. ALL FOOTING ELEVATIONS ARE APPROXIMATE; LOWER FOOTINGS, IF REQUIRED, IN ORDER TO BEAR ON SOIL OF BEARING CAPACITY AS SPECIFIED ABOVE. WALL FOOTINGS SHALL BE 12" THICK WITH 6" PROJECTIONS EACH SIDE OF WALL UNLESS OTHERWISE NOTED ON PLAN.

SLAB ON GROUND: UNLESS OTHERWISE NOTED, SLAB ON GROUND SHALL BE 4" CONCRETE SLAB OVER VAPOR BARRIER AND 4" GRAVEL FILL. REINFORCE SLAB WITH 6" x 6"-10/10 WELDED WIRE MESH.

LINTELS: UNLESS OTHERWISE SHOWN, AT EXTERIOR WALLS PROVIDE 1 ANGLE FOR EACH 4" OF WALL THICKNESS AS FOLLOWS:
OPENING to 3'-0" - L3-1/2 x 3 x 5/16 - 3-1/2 LEG HORIZONTAL
3'-1" to 5'-0" - L4 x 3-1/2 x 5/16 - 3-1/2 LEG HORIZONTAL
5'-1" to 7'-11" - L5 x 3-1/2 x 5/16 - 3-1/2 LEG HORIZONTAL
8'-0" AND UP: W8x17 WITH 5/16" SUSP. PLATE.
PROVIDE MINIMUM BEARING, 6" FOR ANGLES, 8" FOR BEAMS.

UNLESS OTHERWISE SHOWN, AT INTERIOR MASONRY WALLS PROVIDE PRECAST CONCRETE LINTELS AS FOLLOWS:

4" WALL - 4" x 8" WITH 1 - #4 TOP AND BOTTOM
6" WALL - 6" x 8" WITH 2 - #4 TOP AND 2 #4 BOTTOM
8" WALL - 8" x 8" WITH 2 - #4 TOP AND 2 #4 BOTTOM
12" WALL -12" x 8" WITH 2 - #5 TOP AND 2 #5 BOTTOM
MAXIMUM OPENING FOR CONCRETE LINTELS, 8' - 0" WITH 8" BEARING EACH END.

BEARING PLATES: UNLESS OTHERWISE NOTED LINTEL AND BEAM BEARING PLATES ON MASONRY SHALL BE 8" x 1/2" x 0'-8", WITH 2-5/8" ø x 1'-6" ANCHOR BOLTS, BEAMS SHALL BE WELDED TO BEARING PLATES. EXCEPT AS OTHERWISE NOTED OR SHOWN.

CONCRETE WALLS: UNLESS OTHERWISE NOTED REINFORCE CONCRETE WALL WALLS AS FOLLOWS:

8" WALL	#4 @ 10" O.C.	EACH WAY ON CENTER LINE
10" WALL	#4 @ 16" O.C.	EACH WAY, EA. FACE
12" WALLS	#4 @ 12" O.C.	EACH WAY, EA. FACE

PROVIDE DOWELS FROM FOOTING SAME SIZE AND SPACING AS VERT. REINF. OVER. HORIZONTAL BARS TO RETURN 1'-0" AT CORNERS. LAP HORIZONTAL BARS 24 DIAMS.

BACKFILL AND WALL BRACING: BACKFILL SHALL NOT BE PLACED AGAINST WALLS UNTIL SLABS ON GRADE AND FRAMED FLOOR SLABS HAVE BEEN POURED AND ATTAINED THEIR DESIGN STRENGTH. WHERE BACKFILL IS REQUIRED ON BOTH SIDES OF WALLS, BACKFILL BOTH SIDES SIMULTANEOUSLY. EXERCISE EXTREME CARE IN BACKFILLING OPERATIONS TO PREVENT DAMAGE TO WALLS DUE TO EQUIPMENT AND/OR EARTH PRESSURE. SHORING, BACK PROPPING OR OTHER SUITABLE METHODS OF PROTECTION SHALL BE PROVIDED UNTIL THE FULL LOAD OF THE BUILDING IS ON THE WALLS. DURING ERECTION, MASONRY WALLS SHALL NOT BE BUILT HIGHER THAN TEN TIMES THEIR THICKNESS UNLESS ADEQUATELY BRACED.

STATE OF MARYLAND — JAMES B. SULLIVAN — REGISTERED PROFESSIONAL ENGINEER

638A

PROJ. CP
ARCH
DRAWN SRM

JOHANNES & MURRAY & ASSOCIATES
REGISTERED ARCHITECTS
SILVER SPRING, MARYLAND
8515 PERSHING DRIVE JU 5-3792
JAMES B. SULLIVAN STRUCT. ENGR.
J.B. WYBLE ASSOC. MECH. ENGR.
HARRY G. FULFORD ELECT. ENGR.
APPROVED

CONTINUING EDUCATION BUILDING
ALLEGANY COMMUNITY COLLEGE
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SHEET S3 OF 3
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