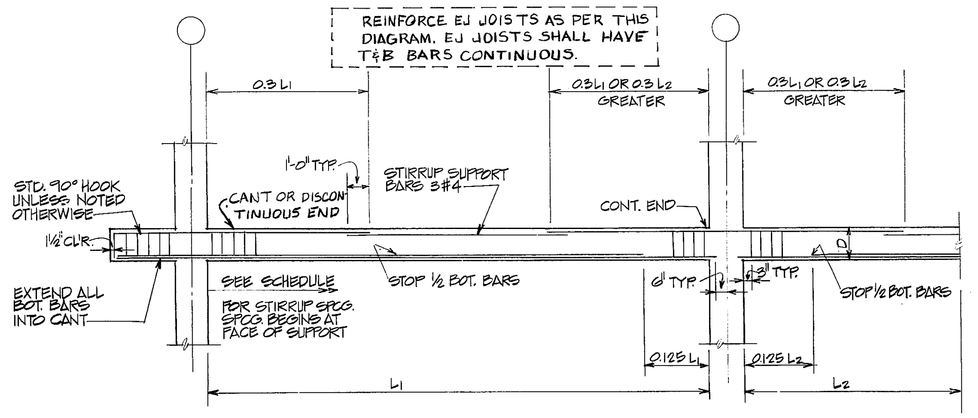
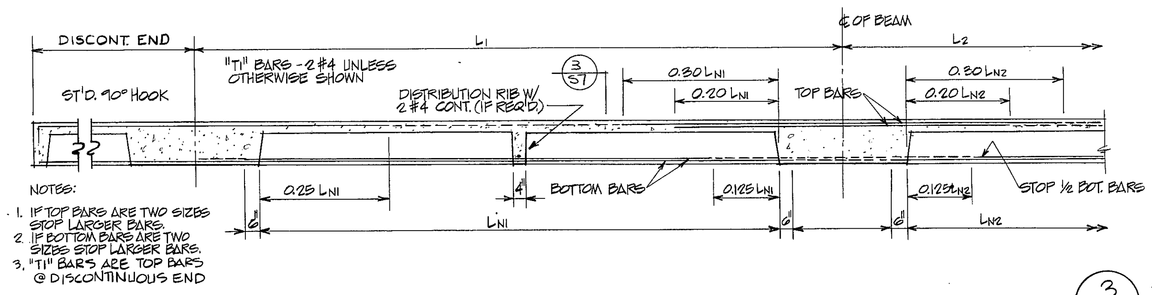


NOTES:
1. WHERE CONTINUOUS BARS ("TOP CONT") ARE CALLED FOR IN THE BEAM SCHEDULE THESE BARS RUN FULL LENGTH OF BEAM AND EITHER CONTINUE INTO ADJACENT SPAN OR TERMINATE WITH STANDARD 90° HOOK AT A DISCONTINUOUS END. WHERE TOP CONT. BARS ARE SPECIFIED STIRRUP SUPPORT BARS ARE NOT REQUIRED.
2. CONTINUE 2 BOTTOM BARS MINIMUM INTO SUPPORT WHERE SOME OF BOTTOM BARS STOP SHORT OF SUPPORT.

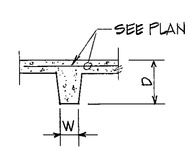
1 / S7 TYPICAL BEAM REINFORCING DIAGRAM
NO SCALE



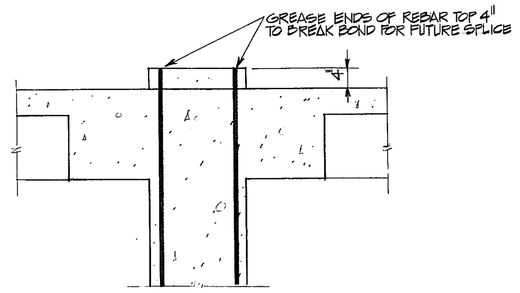
NOTES:
1. 1ST TOP BARS ARE TWO SIZES STOP LARGER BARS.
2. 1ST BOTTOM BARS ARE TWO SIZES STOP LARGER BARS.
3. "T" BARS ARE TOP BARS @ DISCONTINUOUS END

2 / S7 TYPICAL JOIST REINFORCING DIAGRAM
NO SCALE

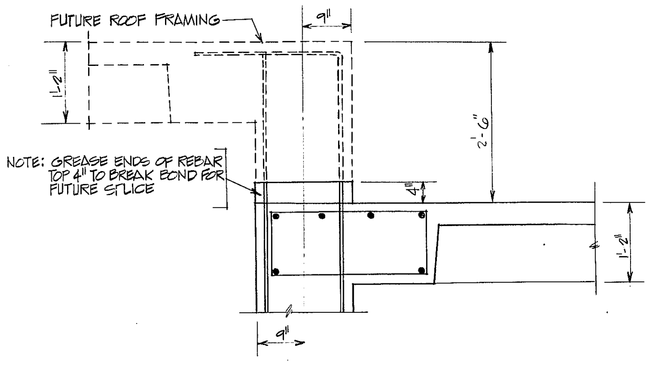
REINFORCE "EJ" JOIST BY TYPICAL BEAM REINFORCING, SEE DIAGRAM 1/S7



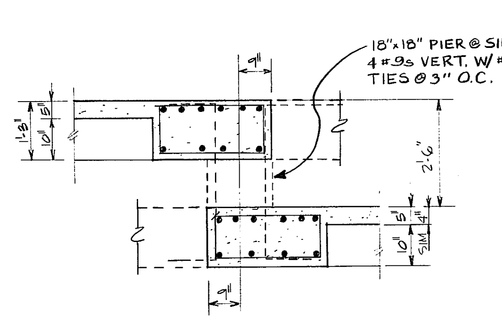
3 / S7 SECTION THRU TYP. CONC. JOIST
NO SCALE



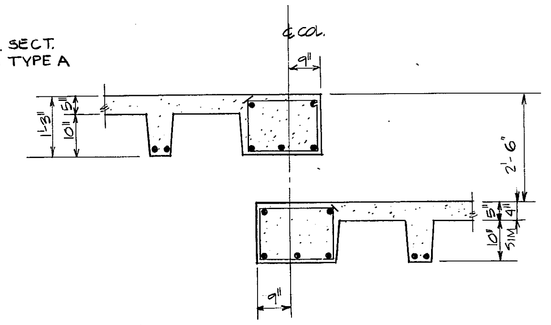
4 / S7 COLUMN SECTION @ FUTURE ADDITION
3/4" = 1'-0"



5 / S7 SECTION @ FUTURE ROOF CONNECTION



6 / S7 SECTION @ MECHANICAL ROOM ROOF



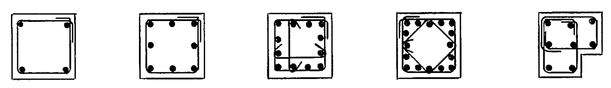
7 / S7 SECTION @ MECHANICAL ROOM ROOF

COLUMN MARK / FLOOR LEVEL		C1	C2	C3	C4	C5	C6
5000 PSI CONCRETE — ROOF	TYPE	"A"					"A"
	SIZE	18x18					18x18
2nd	VERT. BAR	4 #10s					4 #10s
	TIES	#3@18					#3@18
4000 PSI CONCRETE — 2nd	TYPE	"B"	"A"	"B"		"A"	"B"
	SIZE	18x18	18x18	18x18		18x18	18x18
	VERT. BAR	8 #10s	4 #9s	8 #10s		4 #10s	8 #10s
1st	TIES	#3@18	#3@18	#3@18		#3@18	#3@18
5000 PSI CONCRETE — 1st	TYPE	"C"	"B"	"D"	"C"	"C"	"D"
	SIZE	18x18	18x18	18x18	18x18	18x18	18x18
	VERT. BAR	12 #10s	8 #11	16 #10s	12 #10s	12 #10s	16 #10s
BASEMENT	TIES	#3@18	#4@18	#3@18	#3@18	#3@18*	#3@18
	TYPE	"C"	"B"	"D"	"C"	"C"	"D"
	SIZE	18x18	18x18	18x18	18x18	18x18	18x18
	VERT. BAR	12 #10s	8 #11	16 #10s	12 #10s	12 #10s	16 #10s
PILE CAP	TIES	#3@18	#4@18	#3@18	#3@18	#3@18	#3@18

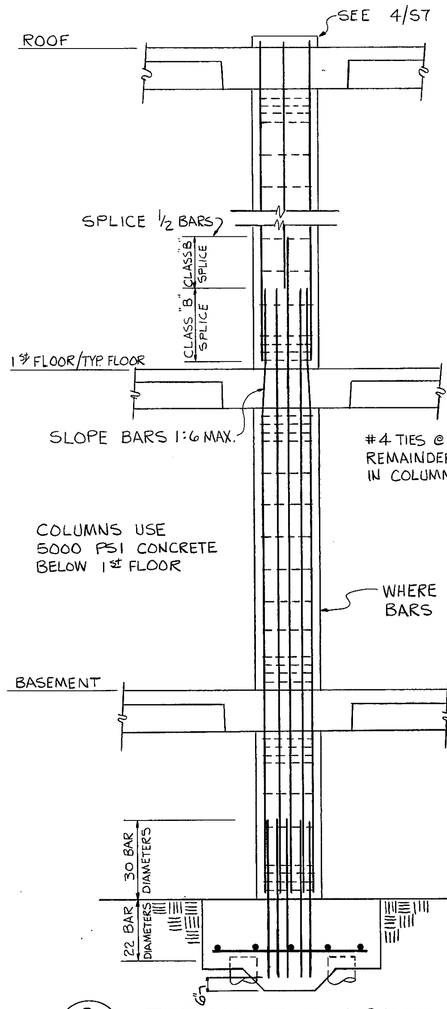
COLUMN MARK / FLOOR LEVEL		C7	C8	C9	C10	C11	C12
5000 PSI CONCRETE — ROOF	TYPE	"A"	"B"	"B"	"E"		
	SIZE	18x18	18x18	18x18	12x12 NOTCHED		
2nd	VERT. BAR	4 #9s	8 #10s	8 #10s	8 #9s		
	TIES	#3@18	#3@18	#3@18	#3@18		
4000 PSI CONCRETE — 2nd	TYPE	"A"	"B"	"B"	"E"	"B"	
	SIZE	18x18	18x18	18x18	12x12 NOTCHED	18x18	
	VERT BAR	4 #9s	8 #10s	8 #10s	8 #9s	8#10s	
1st	TIES	#3@18	#3@18	#3@18	#3@18	#3@18	
5000 PSI CONCRETE — BASEMENT	TYPE	"A"	"D"	"C"	"E"		SEE DETAIL 10/S9 16x34 6#7s 6"5s #4@16
	SIZE	18x18	18x18	18x18	12x12 NOTCHED		
	VERT. BAR	4 #10s	16 #10s	12 #10s	8 #9s		
	TIES	#3@18	#3@18	#3@18	#3@18		
	TYPE	"A"	"D"	"C"	"E"		
	SIZE	18x18	18x18	18x18	12x12		
PILE CAP	VERT. BAR	4 #10s	16 #10s	12 #10s	8 #9s		
	TIES	#3@18	#3@18	#3@18	#3@18		

COLUMN SCHEDULE

TIE TYPES



TYPE "A" TYPE "B" TYPE "C" TYPE "D" TYPE "E"



8 / S7 TYPICAL COLUMN SPLICE DETAIL

GENERAL NOTES

1. THESE DRAWINGS, SHEET 1-S1 THROUGH 1-S9 SHALL BE USED IN CONJUNCTION WITH ARCHITECTURAL AND OTHER CONTRACT DRAWINGS.
2. DESIGN LIVE LOADS (POUNDS PER SQUARE FOOT)

ROOF, PENTHOUSE ROOF	20 P.S.F.
MECHANICAL ROOM FLOOR	150 P.S.F.
BASEMENT - 2ND FLOOR	100 P.S.F.
SLIDE AND BLOCK FILES, FILM STORAGE	250 P.S.F.
WIND (BASIC PRESSURE)	25 P.S.F.

3. THE GENERAL CONTRACTOR SHALL VERIFY THE SIZE AND LOCATION OF ALL SLEEVES, PADS, DEPRESSIONS, OPENINGS, ETC., REQUIRED BY THE VARIOUS TRADES. SLEEVES, INSERTS AND OTHER ITEMS TO BE CAST IN CONCRETE SHALL BE SET BY THE GENERAL CONTRACTOR AT LOCATIONS DESIGNED BY AND UNDER THE SUPERVISION OF A REPRESENTATIVE OF EACH TRADE.

FOUNDATIONS

1. PILES SHALL HAVE A MINIMUM LOAD CAPACITY OF 40 TONS PER PILE. SEE CONTRACT SPECIFICATIONS FOR TYPE AND SIZE OF PILES.
2. LOCATION OF TEST PILES SHALL BE AS INDICATED ON THE DRAWINGS.
3. FOR BASIS OF BID, THE TIP OF PILES SHALL BE ASSUMED CAST TO ELEVATION 137.08 FEET.
4. BACKFILL AGAINST CONCRETE BASEMENT WALLS SHALL BE DELAYED UNTIL THE SUPPORTED FLOOR HAS BEEN POURED AND CURED.
5. GROUNDWATER TABLE SHALL BE ARTIFICIALLY LOWERED WHEN EXCAVATING BELOW THE WATER TABLE.

CONCRETE

1. DESIGN, DETAILING, AND PLACING SHALL BE IN ACCORDANCE WITH ACI BUILDING CODE AND DETAILING MANUAL, 1977 EDITION.
2. CONCRETE DESIGN STRENGTH AT 28 DAYS:

A. PILE CAPS.	3000 P.S.I. REGULAR STONE AGGREGATE
B. JOISTS, BEAMS, GIRDERS, WALLS, SLABS ABOVE GRADE	4000 P.S.I. REGULAR STONE AGGREGATE
C. COLUMNS	4000 / 5000 PSI. REGULAR STONE AGGREGATE

3. THE CONTRACTOR SHALL NOTIFY THE RESIDENT ENGINEER FAR ENOUGH IN ADVANCE OF THE TIME EACH CONCRETE POUR IS TO BE MADE TO ALLOW AMPLE TIME TO CHECK THE LAYOUT OF THE STEEL BEFORE BEGINNING OF THE ACTUAL POUR.

REINFORCING STEEL

1. REINFORCING STEEL SHALL BE NEW BILLET STEEL DEFORMED BARS CONFORMING TO A.S.T.M. SPECIFICATIONS A615 GRADE 60; STIRRUPS AND TIES A615, GRADE 60.
2. WELDED WIRE FABRIC SHALL BE NEW BILLET STEEL CONFORMING TO A.S.T.M. SPECIFICATIONS A185.
3. BAR SUPPORTS, DESIGN, DETAILING, FABRICATION AND PLACING OF REINFORCING BARS SHALL BE IN ACCORDANCE WITH THE ACI CODE AND DETAILING MANUAL.
4. MINIMUM LENGTH OF LAP FOR REINFORCING BARS SHALL BE 30 BAR DIAMETERS (12" MIN.) UNLESS NOTED OTHERWISE.
5. CONCRETE COVERAGE OF REINFORCING STEEL SHALL BE AS FOLLOWS UNLESS OTHERWISE NOTED ON DRAWINGS.
   A. FOOTINGS AND OTHER PRINCIPAL STRUCTURAL MEMBERS IN WHICH THE CONCRETE IS DEPOSITED AGAINST THE GROUND: 3"
   B. MEMBERS WITH FORMED SURFACES EXPOSED TO WEATHER OR GROUND:
      #6 BARS OR LARGER: 2"
      #5 BARS OR SMALLER: 1-1/2"
   C. MEMBERS NOT EXPOSED TO WEATHER OR GROUND:
      BEAMS, GIRDERS, WALLS AND COLUMNS: 1-1/2"
      SLABS AND JOISTS: 1"
6. PROVIDE HORIZONTAL CORNER BARS AT THE CORNERS AND INTERSECTIONS OF WALLS, BEAMS, AND GIRDERS. BARS TO BE PLACED AT SIZE AND SPACING TO MATCH HORIZONTAL BARS.

EARTHQUAKE FORCES

CODE: HANDBOOK H-08-8 EARTHQUAKE RESISTANT DESIGN FOR VA HOSPITAL FACILITIES
UNIFORM BUILDING CODE
A = 0.02 g (MINIMUM)
$T_1 = 0.08N = 0.32$
MOMENT RESISTING REINFORCED CONCRETE FRAME WITH LIGHT AND FLEXIBLE WALLS
$\alpha = 0.56$ 25% REDUCTION HAS BEEN TAKEN
$\beta = 0.75$ BECAUSE $A_{MAX} < 0.1$ g
DAF = 3.00
$S_a = (DAF) \times A_{max} = 0.06$
$V_b = \alpha S_a W = 0.03$ W
DRIFT = 3/32" PER FOOT
NOTE: EARTHQUAKE FORCES CONTROLLED LATERAL RESISTANCE DESIGN OF BUILDING.

7-2-1-2471

AS BUILT JUN 1 1988

Revisions | Date

SOUTH CAROLINA REGISTERED SEAL 4640 ENGINEER DONALD D. HAIGH

O'DELL ASSOCIATES INC. REG. ARCHITECTURAL DESIGN SEAL 1970 CHARLOTTE, N.C.

Planning Architecture Engineering
Odell Associates Inc. 222 South Church Street Charlotte, NC 28202
ODELL

Drawing Title: DETAILS		Project Title: CLINICAL ADDITION	Date: MAR. 29, 1985
Approved: Division Chief	Drawn	Building Number: 1	Project No.: 565-027
Approved: Service Director	Checked	Location: V.A.M.C. - FAYETTEVILLE, N.C.	DRAWING NO.: 1-S7 Dwg. Of

Veterans Administration

VA FORM 08-6231, OCT 1978

* U. S. GOVERNMENT PRINTING OFFICE: 1979-0-305-390

Proj. # 1920