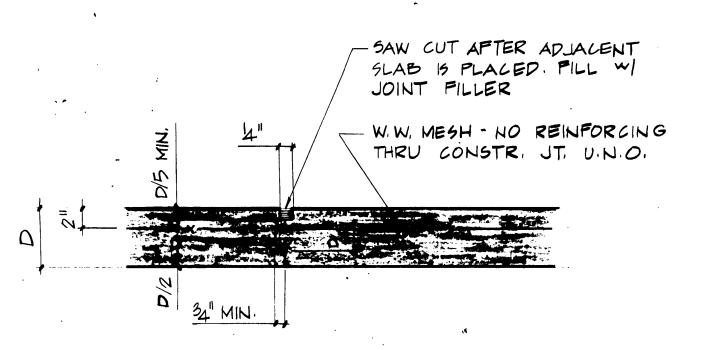


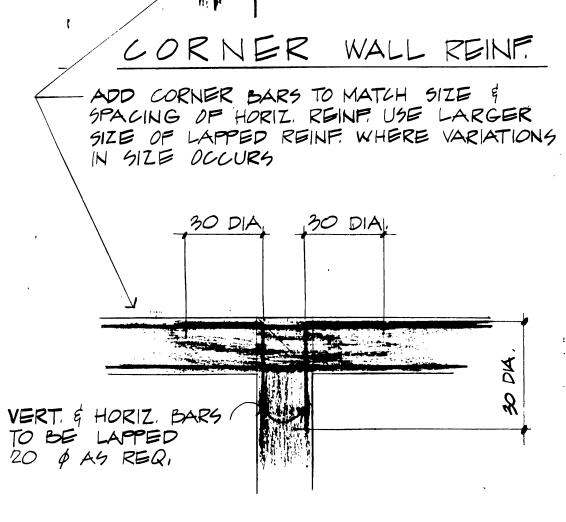
# CONTROL JOINT

PROVIDE CONTROL JOINTS ON COL, CENTERLINE'S AT PARTITIONS, BUT NOT TO EXCEED 25'-0" SPALING IN EACH DIRECTION, CONTROL JOINT TO BE FORMED WHILE CONCRETE IS STILL PLASTIC OR SAW CUT WITHIN & HOURS AFTER PLACEMENT OF LONG, PREMOLDED STRIPS MAY BE USED IN FORMED JOINT,



# CONSTRUCTION JOINT

CONSTRUCTION JOINTS TO BE ARRANGED TO LIMIT THE AREA OF ANY PLACEMENT TO 5,000 SQ. FT. SUCCESSIVE SLAB PLACEMENTS TO BE IN CHECKERBOARD PATTERN, ALLOW MINIMUM OF TWO DAYS TIME BETWEEN PLACEMENT OF ALTERNATE SECTIONS, CONSTRUCTION JOINT MAY REPLACE CONTROL JOINT.



30 DIA.

LIVE LOADS:

LATERAL LOADS:

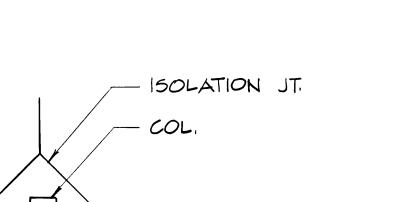
FOUNDATION BEARING:

inspected and approval is given.

before any field corrections are made.

BACKFILL COMPACTION:

# TEE WALL REINF

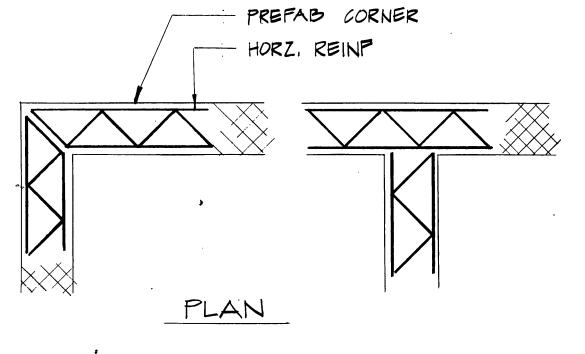


CONTROL JT.

MAX, EA; WAY,

## PLAN

CONCRETE WITHIN ISOLATION JOINT TO BE PLACED AFTER ADJACENT SLAB AREAS HAVE BEEN PLACED



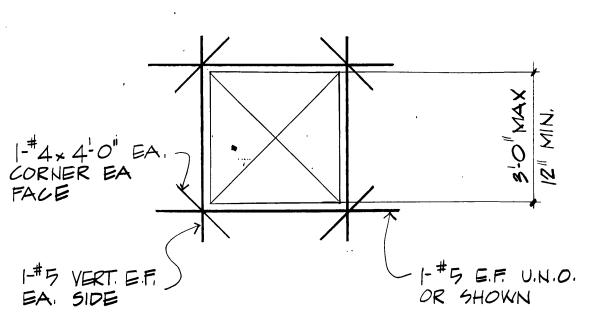
# MASONRY WALL REINF

JOINT DETAIL FOR INTERIOR SLABS ON GRADE

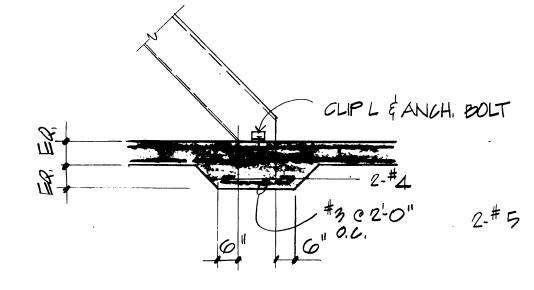
JOINTS AT 5'-0" MAX. EA. WAY. PROVIDE EXPANSION JOINTS AT 20'-0" ON CENTER

FOR SIDEWALKS & EXTERIOR SLABS ON GRADE, JOINTS ARE SIM., PROVIDE CONTROL

NOTE : USE DUR - O - WALL TRUSS EXTRA HEAVY AT 16" ON CENTER IN 8" BLOCKWALL



# OPENING REINF.



CONC. 5LAB

NOT TO SCALE

TYP STEEL STAIRS DET. C

CLIP ANGLE & ANCHOR BOLT GRADE LEVEL

TYP STEEL STARS DET @ GRADE LEVEL NOT TO SCALE

# STRUCTURAL NOTES CONT.

### MISCELLANEOUS LINTELS

Provide loose angle lintels unless noted otherwise. The architectural drawings indicate face brick and precast concrete lintels elsewhere for miscellaneous openings on walls 8" and thicker. Provide one angle for each 4" of wall thickness with a minimum bearing of 6" each end. Provide 8" minimum bearing each end for precast concrete

L4" x 3" x 1/4" OR 4" x 8" P.C.C. W/#3 Top and Bottom Up to 5'-0" L4" x 3-1/2" x 1/4" OR 4" x 8" P.C.C. W/#4 Top and Bottom Up to 6'-0" L5" x 3-1/2" x 5/16" OR 4" x 8" P.C.C. W/#4 Top and Bottom Up to 7'-0" L6" x 3-1/2" x 5/16" OR 4" x 8" P.C.C. W/#5 Top and Bottom L6" x 4" x 3/8" OR 4" x 8" P.C.C. W/#5 Top and Bottom

For openings in 4" partitions, provide 4" x 8" precast lintels reinforced as above. For 6" partitions, provide 6" x 8" precast lintels with one bar top and bottom as indicated above.

E.F. - EACH FACE N.F. - NEAR FACE T.O.S.- TOP OF STEEL U.N.O. - UNLESS NOTED OTHERWISE E.E. - EACH END F.F. - FAR FACE T.O.C. TOP OF CONCRETE E.J. - EXPANSION JOINT P C. - PIECE D.E: - DISCONTINUOUS END C.E. - CONTINUOUS END

### **ABBREVIATIONS:**

C.J. - CONTROL JOINT T.R.W.- TOP RETAINING

### Not Exposed Exposed #5 or Smaller 1-1/2" 1-1/2" Exposed #6 or Larger

STRUCTURAL NOTES

Subsurface soil investigations have been made at the project site. Based upon these investigations, column foundations have been designed for a net bearing value of 2500 PSF. Wall foundations have been designed for a bearing value of 2500 PSF. Field verifications as to soil bearing capacity shall be made prior to placing foundations.

All foundations are to be placed on undisturbed soil not less than 1'-0" below existing grade, nor less than 2'-6" below adjacent finished exterior grade. Utility lines shall not be placed through or below adjacent

Structural Engineer. Maintain 1:1 slopes from bottom edge of footing to bottom of any adjacent excavation.

Elevations are shown at tops of footings. The Contractor should take note of any water conditions at the site and ensure that excavations remain dry during construction. The bearing surface under all footings shall be

level and free of loose stone, loose earth or debris. No footings shall be poured until after the bottoms are

Compacted fill shall be used to bring all existing grades below the building slab subgrade elevation up to that

elevation. A Registered Soils Engineer shall be retained to provide full time supervision and the necessary

testing to obtain compacted soil capable of supporting footings designed for 2500 PSF soil bearing value. The

Soils Engineer shall issue written reports to the Engineer on the supervision, acceptance and supporting test

in 6" loose layers and compacted to 95% maximum dry density, based on the standard Proctor Compaction Test

The use of large vibrator compaction equipment will not be permitted. All precautions should be taken for adequate drainage prior to and after such backfilling. Backfilling against walls will not be permitted until

supporting slabs are in place or until adequate bracing arrangements are approved by the Structural Engineer.

All structural steel shall be detailed, fabricated and erected in accordance with the 1980 Edition (with supplements) of the American Institute of Steel Construction (AISC), "Specifications for the Design, Fabrication and Erection of Structural Steel for Buildings". Structural steel, of domestic origin, shall conform to ASTM A-36,

unless otherwise noted. Anchor bolts to be installed by Contractor shall conform to ASTM Designation A-36. Shop connections shall be welded. Field connections shall be friction type, threads included, using 3/4" high strengt

bolts conforming to ASTM A-325, unless otherwise noted. High strength bolts shall be tightened by the turn-ofnut method. All welding shall conform to the American Welding Society (AWS), "Structural Welding Code AWS

Openings through masonry and/or concrete walls for mechanical equipment, ducts, pipes, etc., are to be provided

All concrete shall be mixed and placed in accordance with a current American Concrete Institute (ACI) "Building Code Requirements for Reinforced Concrete" (ACI 318-77), a copy of which shall be available on the project at all

times. All reinforced concrete shall have a compressive strength F'c of 3000 at 28 days, unless otherwise noted. Concrete test cylinders shall be taken from each concrete pour in accordance with ACI code and contract specifi-

cations. At least one test shall be made from each 50 cubic yards of concrete poured. All exposed edges of

Footing dowels shall project a minimum of 24 bar diameters into wall unless otherwise shown. Provide weakened

Provide three courses of solid brick or one course of 100% solid (not filled) C.M.U. continuous by 8" width under

All reinforcing steel shall conform to ASTM Specifications A-615, Grade 60 for bars, Grade 40 for stirrups and

ties and ASTM Specifications A-185 for Welded Wire Fabric (W.W.F.). Reinforcing details and bar laps shall be

in accordance with ACI Code 318-77, current ACI "Manual of Standard Practices for Detailing Reinforcing Concrete

plane vertical contraction joints only as shown on the contract drawings. Stop all horizontal bars in inside face at joints. Provide continuous drainage system behind walls in accordance with architectural drawings.

with lintels or steel sleeves which have been built into the wall. Specific approval will be required for

Work all structural drawings in conjunction with architectural, electrical and mechanical drawings.

openings not shown on the structural drawings through bearing walls and any completed wall.

qualification. Structural steel surfaces in contact with concrete shall be unpainted. The Contractor shall notify the Structural Engineer of any fabrication and erection errors or deviations and receive written approval

D1.1-80. Welds shall be installed by welders qualified in accordance with AWS procedures for welder

(ASTM D-698). Unsuitable material shall be removed and replaced with compacted fill.

Backfill compaction shall be supervised by a Registered Soils Engineer.

concrete to have a 1/2" chamfer. Provide water stops as shown on plans.

all concrete slab bearing on masonry walls. DUR-O-WAL @ 16" o.c. VERTICAL

data for the virgin soil below fill and the selection and placement of the compacted fill. Fill shall be placed

The Contractor shall take all necessary precautions to brace foundation walls when backfilling and when there is a possibility of damage by excess water. Backfilling against such walls shall be done in a manner that will not damage walls, but should be well tamped in 6" layers in rough thickness to 95% maximum dry density per ASTM D-698

finished exterior grade. Utility lines shall not be placed through or below foundations without approval of the

Lower Level

Upper Level

Wind on vertical surface measured from proposed grade.

200 PSF with provisions for

0' to 50'

100 PSF special loadings.

Earth Formed All bars at corners of walls shall be lapped 40 diameters. Shop drawings of all reinforcing steel shall be

### NOTE TO GENERAL CONTRACTOR:

CONCRETE FOUNDATION WALLS:

Imposed construction loads in excess of stated design loads must be approved by the Structural Engineer prior to the imposition of such loads.

		1	REVISIONS
NO.	DATE		DESCRIPTION
1	`		
2			

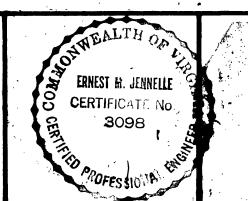
SCALE:

CF

# Dewberry & Davis

ENGINEERS ARCHITECTS PLANNERS SURVEYORS

8411 Arlington Boulevard Fairfax, Virginia 22030 Telephone 703;560:1100 19201 Montgomery Village Ave. Gaithersburg, Md. 20760 Tele. 301 · 948 · 4120



PREPARED FOR CITY OF ROANOKE ROMOKE, VIRGINIA CITY OF ROANOKE WASTEWATER TREATMENT PLANT SLUDGE DEWATERING FACILITIES

NO SCALE DATE: AUG. 1981 DESIGNED BY: w w FILE NUMBER DRAFTED BY: PP 2967

DETAILS & STRUCTURAL NOTES

Structures", and CRSI standards. Concrete protection for reinforcement shall be as follows:

submitted to the Structural Engineer for approval.