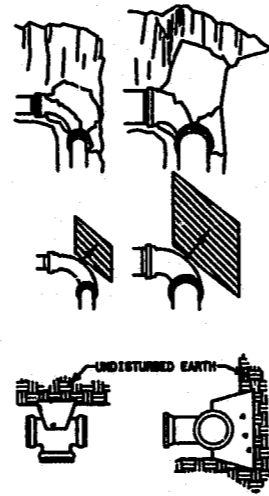


1 STANDARD HYDRANT INSTALLATION
NOT TO SCALE

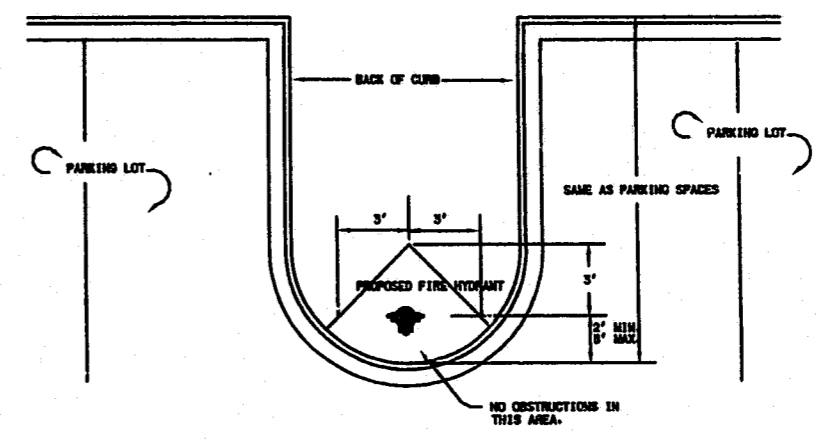


MINIMUM CONCRETE BLOCKING (C.Y.)

PIPE DIA. IN.	TEES & REDS	ENDS	90° BEND	45° BEND	22 1/2° BEND	11 1/4° BEND
4	1/3	1/3	1/3	1/3	1/3	1/3
6	1/3	1/3	1/3	1/3	1/3	1/3
8	1/3	1/2	1/3	1/3	1/3	1/3
10	2/3	3/4	1/2	1/3	1/3	1/3
12	3/4	1.0	2/3	1/3	1/3	1/3
14	1.0	1 1/2	3/4	1/2	1/3	1/3
16	1 1/3	2.0	1.0	1/2	1/3	1/3
18	1 2/3	2 1/3	1 1/3	2/3	1/3	1/3
20	2.0	3.0	1 2/3	3/4	1/2	1/3
24	3.0	4 1/3	2 1/3	1 1/3	2/3	1/3

CONCRETE SHALL BE 3000 P.S.I. MIN.
MINIMUM COVER SHALL BE 4\"/>

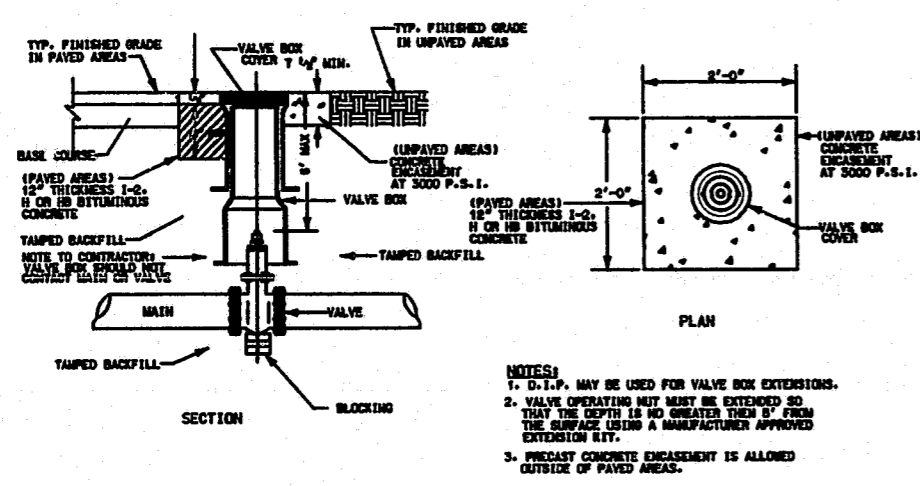
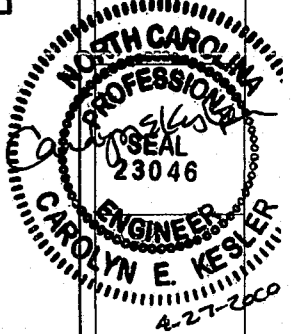
2 STANDARD REACTION BLOCKING
NOT TO SCALE



3 STANDARD HYDRANT LOCATION (FOR PARKING LOT)
NOT TO SCALE

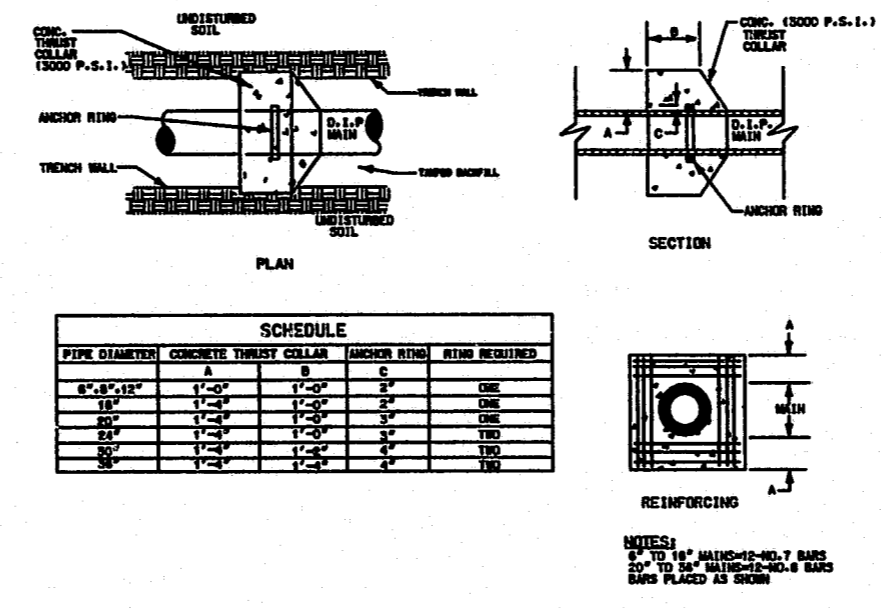
O'Brien Atkins
ARCHITECT/ENGINEER/INTERIOR DESIGNER/LANDSCAPE ARCHITECTURE/PLANNING
559 Jones Franklin Road
Suite 164-A
Raleigh, N.C. 27606
(919) 851-1912
(919) 851-1918 (FAX)

SEE SHEET C-20 FOR GENERAL NOTES



4 STANDARD VALVE BOX INSTALLATION
NOT TO SCALE

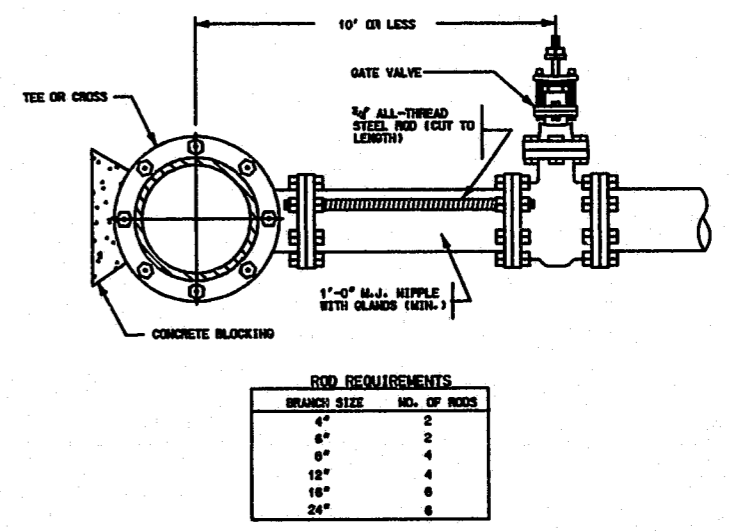
The Engineer does not guarantee that all existing facilities such as pipelines, electric lines, conduits, telephone cables, service connections, or other facilities are shown on the Plans. It shall be the contractor's responsibility to have all utilities located by their respective owners, field verify the utility locations, and protect all such existing facilities prior to beginning construction. The contractor is fully responsible for notifying all utility owners in accordance with NC General Statute - Chapter 81, Article 6, the Underground Damage Prevention Act.



SCHEDULE

PIPE DIAMETER	CONCRETE THRUST COLLAR	ANCHOR RING	RING REQUIRED
6\"/>			

5 STANDARD THRUST COLLAR INSTALLATION
NOT TO SCALE



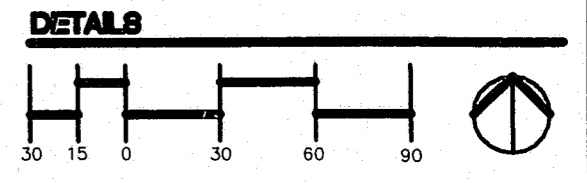
ROD REQUIREMENTS

BRANCH SIZE	NO. OF RODS
4"	2
6"	2
8"	4
10"	4
12"	6
14"	6
16"	6

GENERAL NOTES:
1. ONCE INSTALLED AND TIGHT, THE STEEL RODS AND BOLTS SHALL BE COATED WITH 2 COATS OF BITUMINOUS BASE PAINT.
2. SEE STANDARD THRUST BLOCK.
3. CONCRETE SHALL NOT CONTACT BOLTS OR ENDS OF MECHANICAL FITTINGS.

6 STANDARD VALVE RODDING
NOT TO SCALE

APPROVED
JFK 7/25/00



REVISIONS BY: 6-22-00 PER TERMS OF CONTRACT; 7-18-00 PER TERMS OF CONTRACT; 7-14-00 PER LANSPECIFIC PLANS; 7-14-00 PER IN GLOBAL COMMENTS; 8-12-00 ADD TO ENCASUREMENTS.

CISCO SYSTEMS, INC.
SITE UTILITY PACKAGE
Buildings 10, 11, & 12 RESEARCH TRIANGLE PARK, N.C.

DATE: 4/27/00
SCALE: AS SHOWN
DRAWN: RLF
JOB: 99487.00
SHEET: C-85
2 OF 3 SHEETS