

SECTION 22 41 60

NATURAL GAS PIPING

1.01 GAS SYSTEM:

- A. Provide a system of gas piping including connection to the gas meter. See notes and detail on plans. Meter and piping to site shall be by local gas utility company.
- B. Connect to each gas consuming appliance and outlet. Install gas cock and union ahead of each connection. All work and materials shall meet local requirements and comply with the International Gas Code. Contractor shall provide letter of certification to the Engineer that gas system has been installed and tested per the International Gas Code.
- C. Interior above grade pipe 2 ½" and smaller shall be Type A53 Schedule 40 black steel with screwed malleable iron fittings. Exterior above grade piping 2 ½" and smaller shall be Type A53 Schedule 40 galvanized steel with screwed malleable iron fittings. Gas piping 3" and larger shall be welded Type A53 Schedule 40 with welded fittings. Pipe shall be either black steel or galvanized as specified previously for threaded pipe. Weld joints and fittings on galvanized pipe shall be cold galvanized after fabrication. All gas piping and fittings shall be made in the USA.
- D. Pipe below grade shall be specially made for gas service and be plastic coated with primer and tape at welded joints. Holliday test all pipe after installation for voids in protective coating. Repair all defects prior to backfilling. Notify Engineer 24 hours prior to test. All below grade gas piping shall be made in the USA.
- E. Pipe below slab on grade shall be Type A53 Schedule 40 black steel as specified above within conduit poured in the slab. Conduit shall be Schedule 40 galvanized steel. Conduit shall be connected together and sealed gas tight. See plans for gas vents, conduit details, and special notes. Conduit shall be sized to allow removal of gas piping with last elbow in place.
- F. Leak test all pipe before concealment and connection as required by local authority (or at 150 psig) and deliver certificate of approval, in triplicate, to Architect. Notify Engineer 24 hours prior to test so a Representative may be present during test.
- G. Leak test completed system after installation of all fittings, valves, trim, etc., are in place and before any use by Owner. Test pressure shall be 4 psig and shall be scheduled so Owner, State Fire Marshal, Architect, and Engineer, as well as Contractor, may have a Representative present. Test shall be a minimum of 20 minutes.
- H. Provide ten-foot ground rod at meter location. Bond gas line to ground rod and to main domestic cold water line with bare #6 copper wire. Route wire through 1/2" EMT.
- I. Valves:
 - 1. Plug valves shall be bronze body and plug, threaded ends, and square head for 125 pound W.O.G. Valves shall be as manufactured by Nordstrom or equal. Plug valves shall be made in the U.S.A.

2. Lubricated plug valves shall be factory lubricated and sealed and shall be rated for natural gas.
 3. Provide one box end wrench to the Owner for each size and type of valve head.
 4. Ball valves shall have bronze body, brass stem, chrome plated brass ball and reinforced teflon seat, threaded ends and rated 600 pound W.O.G. Valves shall be: Apollo 70-100.
- J. Provide union, ball valve, and flex hose rated for natural gas at connection to each appliance or equipment. See notes on kitchen plan and equipment schedule.
- K. Provide type "B" vents from gas heaters thru roof, see detail.

END OF SECTION