

1 MAIN FLOOR FIRE PROTECTION SPRINKLER SYSTEM DESIGN CRITERIA PLAN

GENERAL NOTES

THE FIRE PROTECTION PLANS AND INFORMATION PROVIDED ARE NOT INTENDED TO BE THE DESIGN FOR THE FIRE PROTECTION SPRINKLER SYSTEM FOR THIS BUILDING ADDITION. THE PLANS AND INFORMATION ARE PROVIDED FOR GENERAL INFORMATION AND TO ESTABLISH THE COORDINATE TO BE USED BY A LICENSED FIRE PROTECTION SPRINKLER CONTRACTOR FOR BIDDING PURPOSES ONLY. THE FIRE PROTECTION SPRINKLER CONTRACTOR SHALL BE RESPONSIBLE FOR THE COMPLETE DESIGN AND INSTALLATION OF THE SYSTEM.

THE CONTRACTOR SHALL PROVIDE THE DESIGN (INCLUDING HYDRAULIC CALCULATIONS) AND INSTALLATION OF THE WET PIPE AND AUXILIARY DRY PIPE FIRE PROTECTION SPRINKLER SYSTEMS FOR COMPLETE COVERAGE OF THE BUILDING INCLUDING THE SPACES WITH THE CEILING COVERED DRY-OFF AREAS AND THE MECHANICAL EQUIPMENT SHED IN ACCORDANCE WITH THE REQUIREMENTS OF NFPA 13, NFPA 24 (2007 EDITION) AND THE REQUIREMENTS OF THE STATE AND LOCAL FIRE MARSHAL AND LOCAL CODES AND CODE ENFORCEMENT OFFICES.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING HYDRANT FLOW TESTS TO VERIFY AND CONFIRM THE WATER SERVICE CAPACITY FOR THE HYDRAULIC CALCULATIONS. THE CONTRACTOR SHALL COORDINATE THE TEST WITH THE LOCAL CITY AND FIRE OFFICIALS. HYDRANT FLOW DATA IS NOT AVAILABLE AT THIS TIME. REFER TO THE "GENERAL NOTES - HYDRANT FLOW TEST" SHEET.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF ALL EQUIPMENT, COMPONENTS AND FOR SIZING AND FIELD TIGHTENING OF THE SPRINKLER PIPING TO AVOID INTERFERENCE WITH OTHER TRADES AND STRUCTURE. PIPE SIZES, IF SHOWN, ARE FOR INFORMATION PURPOSES ONLY. IT IS THE FIRE PROTECTION SPRINKLER CONTRACTOR'S RESPONSIBILITY TO SIZE ALL PIPING BASED ON HIS HYDRAULIC CALCULATIONS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SUBMISSION OF SHOP DRAWINGS AND DOCUMENTS REQUIRED BY THE STATE FIRE MARSHAL'S OFFICE AND THE LOCAL AUTHORITIES AND SHALL BE RESPONSIBLE FOR OBTAINING THE REQUIRED APPROVALS AND PERMITS.

THE FIRE PROTECTION SPRINKLER CONTRACTOR SHALL BE LICENSED IN THE STATE OF SOUTH CAROLINA IN ACCORDANCE WITH THE STATE AND LOCAL REQUIREMENTS FOR THE INSTALLATION AND DESIGN OF FIRE PROTECTION SPRINKLER SYSTEMS.

REFER TO THE SITE UTILITY PLAN FOR UNDERGROUND FIRE PROTECTION PIPING AND COMPONENTS.

THE CONTRACTOR SHALL NOTIFY AND MAKE THE NECESSARY ARRANGEMENTS WITH THE LOCAL WATER UTILITY AT LEAST 24 HOURS PRIOR TO PERFORMING ANY WORK ASSOCIATED WITH CONNECTION TO THE MUNICIPAL WATER SUPPLY.

THE PRODUCTS AND MATERIALS UTILIZED FOR FIRE PROTECTION SERVICE SHALL BE UL LISTED AND FM APPROVED FOR THE INTENDED SERVICE.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL REQUIRED FEES, INCLUDING BUT NOT LIMITED TO, TESTS, PERMITS, REVIEWS, ETC. REQUIRED BY NFPA AND THE STATE AND LOCAL FIRE JURISDICTION.

THE TEMPERATURE RATINGS OF THE NEW SPRINKLER HEADS SHALL BE IN ACCORDANCE WITH THE APPLICABLE NFPA STANDARDS AND REQUIREMENTS. THE CONTRACTOR SHALL LOCATE THE NEW HEADS WITH RESPECT TO HEAT GENERATING COMPONENTS SUCH AS LIGHTS AND HVAC DIFFUSERS IN ACCORDANCE WITH THE REQUIREMENTS OF NFPA 13.

THE CONTRACTOR SHALL PROVIDE FOR THE PROTECTION OF THE BUILDING PORTABLE WATER SUPPLY DURING THE COURSE OF WORK AS REQUIRED BY THE LOCAL WATER UTILITY.

THE CONTRACTOR SHALL OBTAIN APPROVAL FROM ALL GOVERNING AGENCIES PRIOR TO ORDERING MATERIALS AND BEGINNING THE WORK.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DETERMINATION OF THE HEAD LOCATIONS, SPACING AND QUANTITIES AS REQUIRED TO ACHIEVE COMPLETE COVERAGE OF THE ENTIRE FACILITY.

SPRINKLER HEADS INSTALLED IN DRY-IN CEILING AND EXPOSED IN AREAS INSTALLED WHERE NO CEILING EXIST SHALL BE CHROME PLATED. SPRINKLER HEADS SHALL BE CHROME PLATED.

PROVIDE INSTRUCTIONS ON ALL HEADS IN EXPOSED FINISHED AREAS. SPRINKLER HEADS IN EXTERIOR AREAS AND COOLERS SHALL BE DRY TYPE PENDENT HEADS.

PIPING PENETRATING RATED WALLS SHALL BE PROTECTED TO MAINTAIN THE WALL FIRE RATING. ALL FIRE RATED PENETRATIONS SHALL BE MADE WITH UL LISTED SYSTEMS WITH THE APPROPRIATE UL SYSTEM NUMBER. THE CONTRACTOR SHALL SUBMIT MANUFACTURER'S DETAILS AND DATA FOR ALL RATED SYSTEMS TO THE ARCHITECT FOR APPROVAL.

ANY DEVIATION FROM THE REQUIREMENTS OF NFPA, STATE AND LOCAL CODE AUTHORITIES AND UTILITY PROVIDER SHALL REQUIRE A LETTER TO BE SUBMITTED TO THE ARCHITECT/ENGINEER LISTING THE PROPOSED DEVIATION AND APPROVAL (ON WRITING) FROM THE APPROVING AGENCY PRIOR TO THE INSTALLATION OF THE NEW SYSTEM.

THE CONTRACTOR SHALL SUBMIT THE SYSTEM DESIGN PLANS, CALCULATIONS AND EQUIPMENT DATA SHEETS TO THE ARCHITECT/ENGINEER FOR REVIEW AND APPROVAL PRIOR TO SUBMISSION TO THE STATE FIRE MARSHAL AND FIREWORKING ANY WORK.

REFER TO THE ARCHITECTURAL AND STRUCTURAL PLANS FOR ADDITIONAL INFORMATION, INCLUDING TYPES, SIZES, CHANGES AND GENERAL CONSTRUCTION.

WET PIPE SPRINKLER SYSTEM DESIGN INFORMATION

- * OCCUPANCY CLASSIFICATION : LIGHT HAZARD
- * AREAS : CLASSROOMS, LOBBY, ROOMS, CORRIDORS, LOBBIES, VESTIBULES, OFFICES, EXAM ROOMS, TREATMENT ROOMS, COMMON AREAS, STAIR AREAS, CHANGES AND SIMILAR AREAS AS INDICATED
- * DENSITY : 0.1 GPM/SF
- * AREA OF SPRINKLER OPERATION : 1800 SF
- * HOSE ALLOWANCE : 100 GPM

- * OCCUPANCY CLASSIFICATION : ORDINARY GROUP 1
- * AREAS : KITCHEN, STORAGE ROOMS, MECHANICAL ROOMS, STORAGE CLOSETS, CLINICAL STORAGE ROOMS, JANITOR'S CLOSETS, FILE ROOM, ATTIC AND SIMILAR AREAS AS INDICATED
- * DENSITY : 0.15 GPM/SF
- * AREA OF SPRINKLER OPERATION : 1500 SF
- * HOSE ALLOWANCE : 250 GPM

- * OCCUPANCY CLASSIFICATION : ORDINARY GROUP 2
- * AREAS : LABORATORIES, ASSOCIATED AND SIMILAR AREAS, CHEMICAL STORAGE, MECHANICAL ROOMS AND SIMILAR AREAS AS INDICATED.
- * DENSITY : 0.20 GPM/SF
- * AREA OF SPRINKLER OPERATION : 1500 SF
- * HOSE ALLOWANCE : 250 GPM

- * OCCUPANCY CLASSIFICATION : EXTRA HAZARD GROUP 1
- * AREAS : ELEVATOR EQUIPMENT ROOM, BOTTOM OF ELEVATOR SHAFT (HYDRAULIC FLUID) AND SIMILAR AREAS.
- * DENSITY : 0.5 GPM / 500 GPM HOSE DEMAND
- * AREA OF SPRINKLER OPERATION : 2500 SF

AUXILIARY DRY PIPE SPRINKLER SYSTEM DESIGN INFORMATION

- * OCCUPANCY CLASSIFICATION : ORDINARY GROUP 1
- * AREAS : MECHANICAL EQUIPMENT SHED AND COVERED DROP OFF AREA
- * DENSITY : 0.15 GPM/SF
- * AREA OF SPRINKLER OPERATION : 1500 SF
- * HOSE ALLOWANCE : 250 GPM

SPECIAL NOTE: HYDRANT FLOW TEST

THE GREENWOOD COUNTY UPW WILL HAVE ADEQUATE WATER SUPPLY AVAILABLE TO THE SITE WITH A NEW HYDRANT(S) PRIOR TO THE START OF THIS PROJECT. THE CONTRACTOR SHALL BASE HIS BID ON HAVING THE MINIMUM WATER CAPACITY AVAILABLE IN ORDER TO PROVIDE THE SYSTEM FOR THIS FACILITY. AFTER INSTALLATION OF THE WATER SYSTEM AND HYDRANT, THE CONTRACTOR SHALL PERFORM, OR HAVE PERFORMED, AN INDEPENDENT HYDRANT FLOW TEST TO DETERMINE THE CAPACITY OF THE AVAILABLE WATER SUPPLY. THE CONTRACTOR SHALL PROVIDE TO THE OWNER/ARCHITECT THE RESULTS OF THE HYDRANT TEST WITH THE FOLLOWING INFORMATION AS A MINIMUM:

- 1). LOCATION AND IDENTIFICATION OF THE HYDRANT(S) TESTED
- 2). STATIC AND RESIDUAL PRESSURES (PSI)
- 3). FLOW RATE (GPM)
- 4). HORIZONTAL AND VERTICAL DISTANCES BETWEEN THE HYDRANT AND BASE OF THE RISER
- 5). NAME, ADDRESS, COMPANY AND PHONE NUMBER OF THE PERSON PERFORMING THE HYDRANT FLOW TEST
- 6). THE DATE OF THE TEST
- 7). IF THE WATER SYSTEM IS CIRCULATING OR DEAD END
- 8). THE SIZE OF THE WATER MAIN CONNECTED TO THE HYDRANT TESTED

IF THE INSTALLED WATER CAPACITY IS LESS THAN THAT REQUIRED TO PROVIDE THE SYSTEM AS SPECIFIED, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER/ARCHITECT WITH THE INFORMATION AND DEFICIENCIES AND RECOMMEND POSSIBLE CORRECTIVE MEASURES AND/OR ALTERNATIVES.

THE CONTRACTOR SHALL COORDINATE THE HYDRANT FLOW TEST WITH THE LOCAL WATER AUTHORITY.

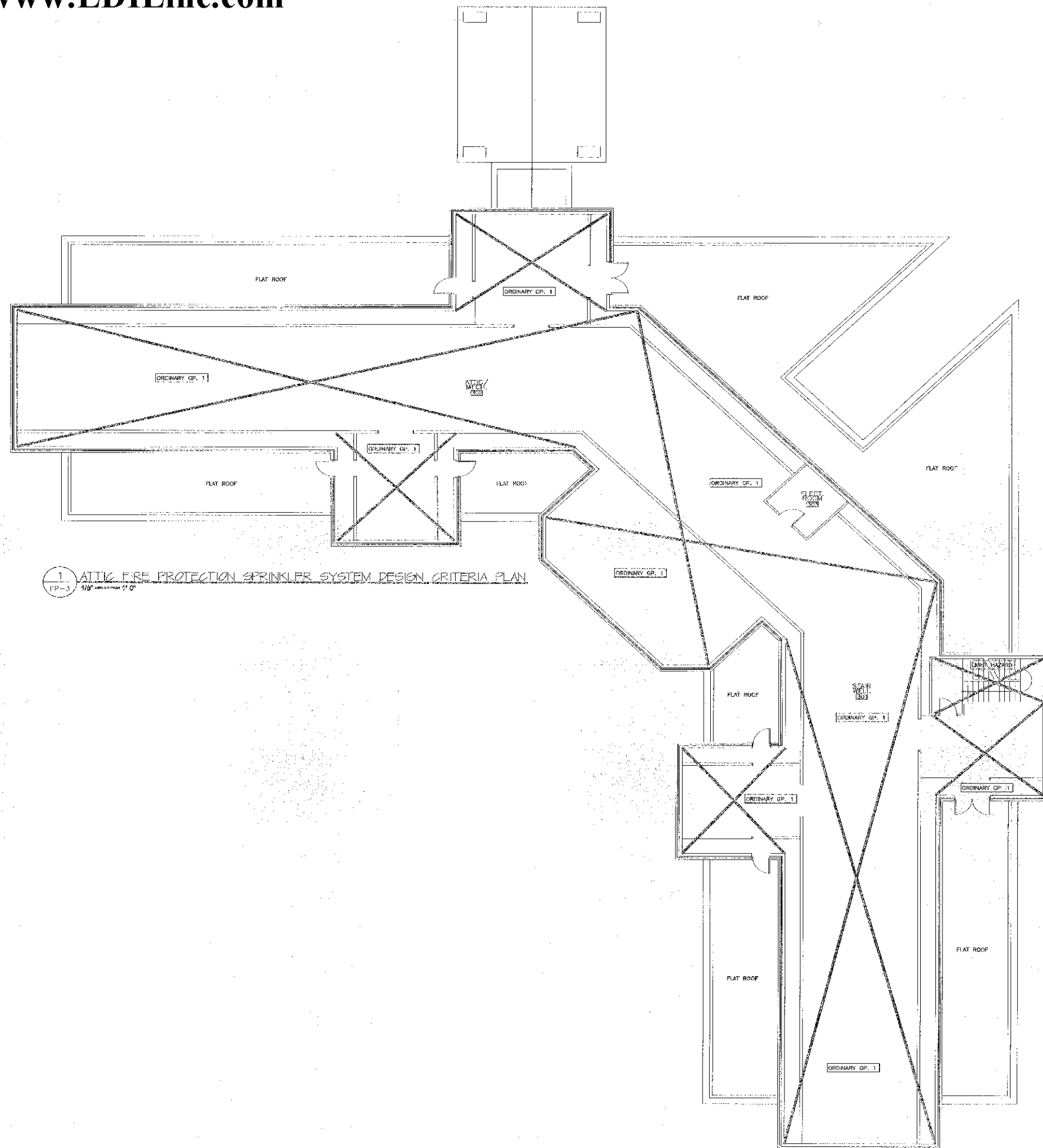
PROJECT NAME:

REVISIONS:

R/D SET 09/14/07
 PREPARED IN C-BLOCK
 PROJECT ARCHITECT: ID
 DRAWN BY: W.A.R.

SHEET TITLE:
**MAIN FLOOR PLAN
 FIRE PROTECTION
 SPRINKLER SYSTEM
 DESIGN CRITERIA**

SHEET NO. FP-1
 PROJ. NO. 05061
 DATE: 01/08/06
 SHEET 1 OF 1



1 ATTIC FIRE PROTECTION SPRINKLER SYSTEM DESIGN CRITERIA PLAN
 FP-3 1/8" = 1'-0"

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PROJECT NAME

REVISIONS:

NO.	DATE	DESCRIPTION	BY

BID SET 09/14/07
 PRINCIPAL IN CHARGE: [blank] CP
 PROJECT ARCHITECT: [blank] AD
 DRAWN BY: [blank] W.A.R.

SHEET TITLE:
 ATTIC PLAN
 FIRE PROTECTION
 SPRINKLER SYSTEM
 DESIGN CRITERIA

SHEET NO. FP-3	PROJ. NO. 05051
SHT. 3 OF 3	DATE: 01/06/06