City of Aurora
Building Codes Division
15151 E Alameda Pkwy
Aurora, CO 80012
(303) 739-7420

Notice

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Building Permit Application

Permit Center - 15151 E Alameda Pkwy ✣ Ste 2400 ✣ Aurora, CO 80012 ✣ (303)739-7420
Email buildingplans@auroragov.org

Project Address: 1501 S. Potomac St. Unit # Post Partum Zip code: 80012
Project Name: Medical Center of Aurora Post Partum / Labor : Delivery
Contractor Company Name: Extreme Fire Protection Phone: (303) 389-9910 Fax:
Contact Person: Darryl Vanpraag Phone: (303) 389-9910 x104

Online Services now offers email updates of correction items found during plan review as well as email updates for all inspections during the construction phase of your project. If you are interested in receiving these emails please provide your email address. NOTE: Set your emails filter to accept emails from "AmandaSystem"

Plan Corrections: Email: darrylvp@extremefp.com
Inspection Corrections: Email: darrylvp@extremefp.com

Architect and/or Engineer Contact information for correction items:

Architect or Engineer Name: Email:
Phone #: Fax #:
Owner:(Required for Certificate of Occupancy) only:
Owner address:
Email:

Valuation / FDA$ 15,000 - (MC) **Materials cost $** 7,500

FDA = Fee Determination Assessment. (Also known as the value of project) has no relationship to the construction costs for the building which can vary greatly. Rather, the Assessment is used only to determine the appropriate level of fees to fund our code compliance activities.

Describe the work you will be doing:

Add / Relocate 17 Sprinkler Heads. Replace existing Sprinklers w/ new concealed pendents.

I declare under penalty that this application has been examined by me; and that the statements made herein are made in good faith pursuant to City of Aurora tax and licensing regulations; and to the best of my knowledge and belief are true, correct and complete.

Print Name: Darryl Vanpraag **Signature:** [signature] **Date:** 5/2/12

BOARD OF APPEALS - Contractor's Appeals and Standards Board. Applicants have the right to have the board hear appeals of orders, decisions or determinations made by the building official relative to the application and interpretation of the building code. Any application for appeal to the board shall be based on a claim that the true intent of the code or the rules legally adopted there under have been incorrectly interpreted, the provisions of the building code do not fully apply or an equally good or better form of construction is proposed.

Sprinkler & Alarm permits are separate submittals, and the value is NOT included on main permit.

◆◆◆◆ THIS SPACE FOR OFFICE USE ONLY ◆◆◆◆

Change of occupancy/use: ☐ Yes ☐ No

FDA: _____

Reviews		Inspections
☐	Structural	☐ Structural
☐	Mechanical	☐ Mechanical
☐	Plumbing	☐ Plumbing
☐	Electrical	☐ Electrical
☐	Fire Life Safety	☒ Life Safety
☐	Bldg Life Safety	☐ Gate/Haz.

Intake Date 5-2-12 PE Initial (MC)
Balance Due: $

Pre-approval(s): Zoning: ☐ Water: ☐ Initials N/A
Exterior changes? ☐ Yes ☒ No
Homeowner Verified ☐ Yes N/A
Permit Type CT
Mid roof /Avg. bldg height —
Parent Permit RSN 644410
Plans Examiner (MC)
Sub Type 4X-SPK
RSN: 654031

Plans picked up by:
Company Name
Phone:

CT - DO NOT RELEASE AHEAD OF PARENT RSN #644410

APPROVED
City of Aurora Building Division
(MC) 5-2-12
OT-575

Carmen

CODE INFORMATION SUMMARY

PROJECT NAME: POSTPARTUM/L&D RENOVATION

PROJECT ADDRESS: 1501 S. POTOMAC ST.
AURORA, CO 80012

CONSTRUCTION TYPE: I-A

OCCUPANCY CLASSIFICATION: GROUP I-2 HOSPITAL

AFFECTED SQUARE FOOTAGE:

SECOND FLOOR EAST WING:	6,586 SF
SECOND FLOOR WEST WING: (INCLUDING ELEVATOR LOBBY)	21,085 SF
SECOND FLOOR TOTAL:	27,671 SF

OCCUPANT LOAD FACTOR: 240 SF/OCC (INPATIENT)

OCCUPANT LOAD: 27,671 SF/240 = 115 OCCUPANTS (EXISTING)

SPRINKLER SYSTEM: EXISTING, MODIFIED TO ACCOMMODATE NEW ROOM LAYOUTS

APPLICABLE CODES:
2009 INTERNATIONAL BUILDING CODE (IBC)
2009 INTERNATIONAL EXISTING BUILDING CODE (IEBC)
2009 INTERNATIONAL MECHANICAL CODE (IMC)
2009 INTERNATIONAL PLUMBING CODE (IPC)
2009 INTERNATIONAL FIRE CODE (IFC)
2011 NATIONAL ELECTRICAL CODE (NEC)
2009 INTERNATIONAL ENERGY CONSERVATION CODE (IECC)
CHAPTER 22 BUILDINGS & REGULATIONS: THE AURORA BUILDING & ZONING CODES
CHAPTER 66 FIRE PREVENTION & PROTECTION REGULATIONS: THE AURORA BUILDING & ZONING CODES

EXITS: 4 STAIRS, 200' +/- APART (SEE PLAN)
8' CORRIDORS WITH 3'-8" WIDE FLIGHTS @ STAIRS

FIRE PROTECTION: EXISTING BUILDING IS FULLY SPRINKLERED. AREAS AFFECTED BY WORK UNDER THIS CONTRACT SHALL MAINTAIN FIRE PROTECTION SYSTEM AND BE FULLY SPRINKLERED ON COMPLETION

CODE NOTES

A. EXISTING SHAFTS, STAIRS, AND ELEVATORS ARE TO REMAIN WITHOUT MODIFICATION

B. FIRE ALARM AND SPRINKLER SYSTEMS WILL BE MODIFIED ONLY TO THE EXTENT REQUIRED TO ACCOMMODATE FLOOR PLAN CHANGES SHOWN

C. FIRE RATED WALL ASSEMBLIES WILL BE MODIFIED ONLY AS REQUIRED WHERE INFILL WORK OR REMODEL TO CORRIDOR OCCURS

SPRINKLER NOTES

1A. RELOCATE AND ADD SPRINKLERS FOR NEW CEILING LAYOUT FROM EXISTING SPRINKLER SYSTEM.

1B. REPLACE ALL EXISTING SPRINKLERS IN SCOPE OF WORK WITH RELIABLE G4A CONCEALED SPRINKLERS. SEE SPRINKLER LEGEND.

2. SYSTEM DESIGN:
OFFICE - LIGHT HAZARD: 10 GPM / SQ. FT.
AREA OF OPERATION: 1,500 SQ. FT. -
STORAGE AREAS TO BE ORDINARY HAZARD GROUP 2.

3. ALL MATERIAL AND INSTALLATION PER NFPA -13, 2010 REQUIREMENTS.

4. ALL HANGERS PER NFPA 13.

5. EXISTING BRANCH LINE & MAIN PIPING IS EDDY-FLOW PIPE. ALL NEW THREADED PIPE 2" AND SMALLER TO BE EDDY-THREAD ASTM A795 OR A53 WITH CAST AND/OR DUCTILE IRON FITTINGS.

6. 2 SPRINKLERS OFF OF ONE 1" OUT LET MAX.

7. ADDED OR RELOCATED SPRINKLERS WILL NOT BE CENTERED IN CEILING TILES. EXISTING SPRINKLERS NOT REQUIRING MODIFICATIONS WILL REMAIN IN THEIR PRESENT LOCATIONS.

8. USE SMALL ROOM RULE PER NFPA 13, 8.6.3.2.4.

9. NO GYP. BOARD CEILINGS SHALL BE INSTALLED UNTIL HYDROSTATIC (IF REQUIRED), OR ROUGH VISUAL INSPECTION IS COMPLETE.

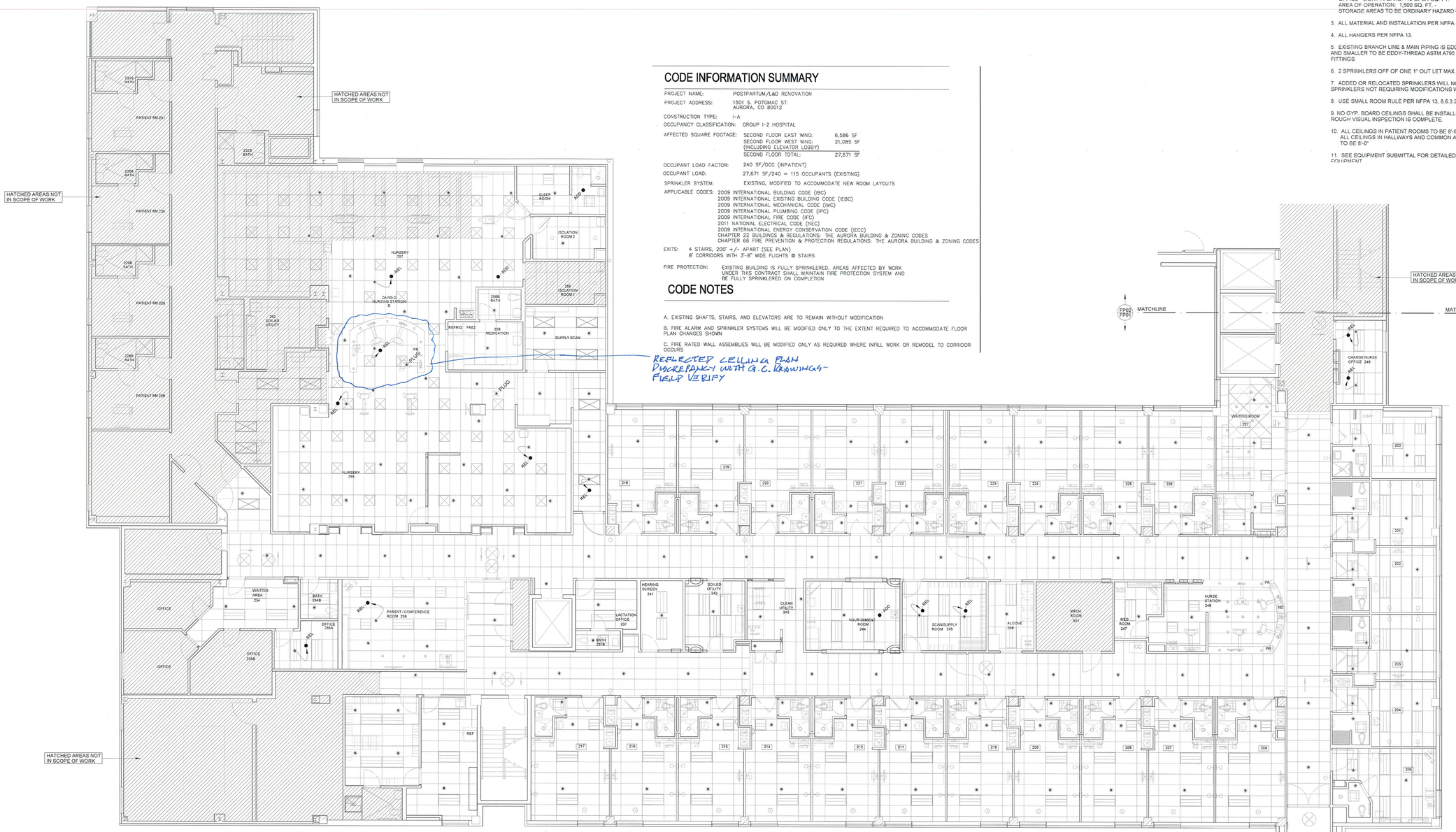
10. ALL CEILINGS IN PATIENT ROOMS TO BE 8'-6".
ALL CEILINGS IN HALLWAYS AND COMMON AREAS TO BE 8'-0"

11. SEE EQUIPMENT SUBMITTAL FOR DETAILED INFORMATION ON MATERIALS AND EQUIPMENT.

HATCHED AREAS NOT IN SCOPE OF WORK

REFLECTED CEILING PLAN DISCREPANCY WITH G.C. DRAWINGS - FIELD VERIFY

MATCHLINE FP02 FP01

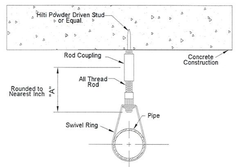


POSTPARTUM AREA - FIRE SPRINKLER PLAN

SCALE : 1/8" = 1'-0"

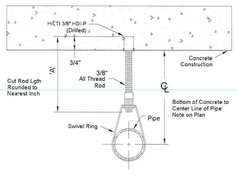
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Hanger No. 01C
Powder Driven Stud

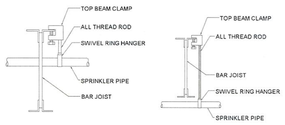


NOTE ON PLAN: HANGER NUMBER AND "A" DIMENSION

Hanger No. 05C
Concrete Anchor Hilti 3/8" HDI-P



NOTE ON PLAN: HANGER NUMBER AND "A" DIMENSION



STEEL PIPE HANGER SPACING

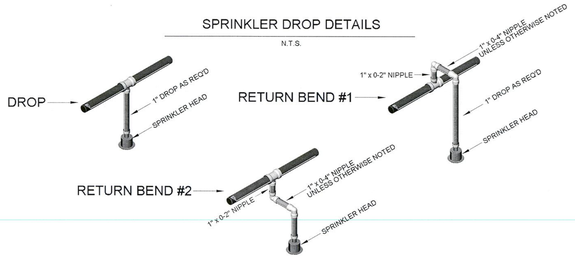
PIPE SIZE	BETWEEN HANGERS	TO END OF LINE	ARM-OVER. LENGTH MAX.
1"	12'-0"	(SSP) 3'-0" (SSU) 3'-0"	(SSP) 2'-0" (SSU) 2'-0"
1¼"	12'-0"	(SSP) 4'-0" (SSU) 4'-0"	(SSP) 2'-0" (SSU) 2'-0"
1½"	15'-0"	(SSP) 5'-0" (SSU) 5'-0"	(SSP) 2'-0" (SSU) 2'-0"
2"	15'-0"	(SSP) 5'-0" (SSU) 5'-0"	(SSP) 2'-0" (SSU) 2'-0"
2½"	15'-0"	(SSP) 5'-0" (SSU) 5'-0"	(SSP) 2'-0" (SSU) 2'-0"
3"	15'-0"	(SSP) 5'-0" (SSU) 5'-0"	(SSP) 2'-0" (SSU) 2'-0"
4"	15'-0"	(SSP) 5'-0" (SSU) 5'-0"	(SSP) 2'-0" (SSU) 2'-0"

PER NFPA 13 9.2.2.1 (A)

*NOTE: For pendent heads, the end hanger on a branch line, or the hanger on an arm-over, must be of the type that prevents upward movement.
*NOTE: This table is based upon threadable thinwall pipe 1"-2" and 2½" and larger pipe is other steel pipe.

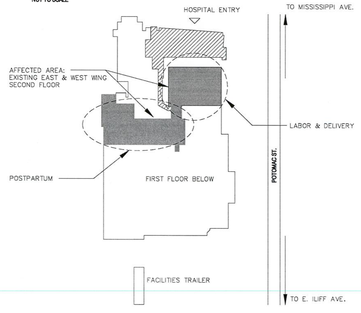
SPRINKLER DROP DETAILS

N.T.S.



KEY PLAN

NOT TO SCALE



KEY PLAN

SCALE: N.T.S.

N

VICINITY MAP

MEDICAL CENTER OF AURORA, SOUTH CAMPUS



VICINITY MAP

SCALE: N.T.S.

N

APPROVED
City of Aurora Building Division
Neil W 5217
07-5-12

CAMERON T. LEWIS
EXTREME FIRE PROTECTION CO.
NICET LEVEL III
CERT. NO. 103856
MAY 01 2012
Signature

Sprinkler Legend

Symbol	Manufacturer	SIN/Model	Quantity	K-Factor	Type	Response	Orifice	Finish	Temperature	Note
●	Reliable	G4A	11	5.6	Pendent	Quick	½"	White	155°F	REL
●	Reliable	G4A	3	5.6	Pendent	Quick	½"	White	155°F	ADD
			Total = 14							

REVISIONS

NO	DATE	DESCRIPTION	BY
1	5/1/12	FOR SUBMITTAL	DVP

DATE: 05/01/12

CONTRACT #: 22
FILE NAME: 12759_FP01.cad

FLOOR / AREA
3RD FLOOR

SHEET NUMBER
FP-01

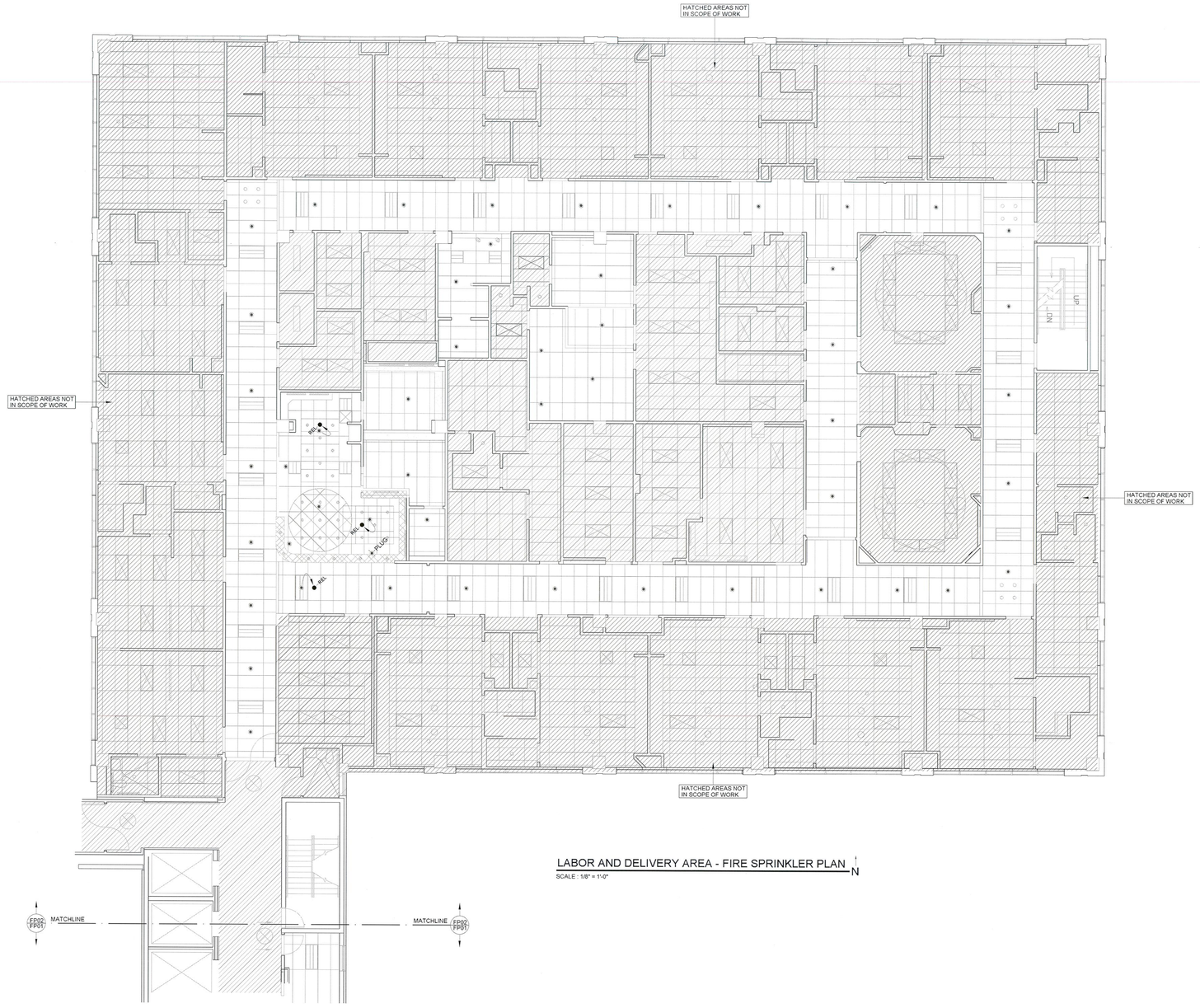
1 OF 2

DRAWN BY: DVP

0 2 4 6 8 12
SCALE: 1/8" = 1'-0"

THE MEDICAL CENTER OF AURORA
POSTPARTUM / LABOR AND DELIVERY T.I.
1501 S. POTOMAC STREET
AURORA, CO 80012
SPRINKLER PLAN

Extreme FIRE PROTECTION
6547 S. RACINE CIRCLE, SUITE 700 - CENTENNIAL, COLORADO 80111
PHONE: 303.388.9910 FAX: 303.388.9915 - COLORADO STATE REGISTRATION #924



LABOR AND DELIVERY AREA - FIRE SPRINKLER PLAN

SCALE : 1/8" = 1'-0"

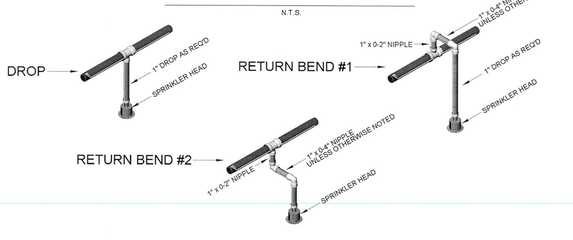
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Sprinkler Legend

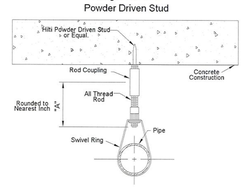
Symbol	Manufacturer	SIN/Model	Quantity	K-Factor	Type	Response	Orifice	Finish	Temperature	Note
●	Reliable	G4A	3	5.6	Pendent	Quick	½"	White	155°F	REL
			Total = 3							

SPRINKLER DROP DETAILS

N.T.S.

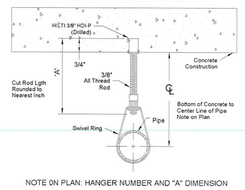


Hanger No. 01C
Powder Driven Stud

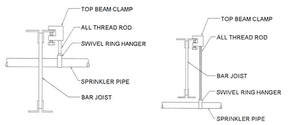


NOTE ON PLAN: HANGER NUMBER AND "A" DIMENSION

Hanger No. 05C
Concrete Anchor Hilti 3/8" HDI-P



NOTE ON PLAN: HANGER NUMBER AND "A" DIMENSION



STEEL PIPE HANGER SPACING

PIPE SIZE	BETWEEN HANGERS	TO END OF LINE	ARM-OVER LENGTH MAX.
1"	12'-0"	(SSP) 3'-0" (SSU) 3'-0"	(SSP) 2'-0" (SSU) 2'-0"
1¼"	12'-0"	(SSP) 4'-0" (SSU) 4'-0"	(SSP) 2'-0" (SSU) 2'-0"
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3"	15'-0"	(SSP) 5'-0" (SSU) 5'-0"	(SSP) 2'-0" (SSU) 2'-0"
4"	15'-0"	(SSP) 5'-0" (SSU) 5'-0"	(SSP) 2'-0" (SSU) 2'-0"

PER NFPA 13 9.2.2.1 (A)

*NOTE: For pendent heads, the end hanger on a branch line, or the hanger on an arm-over, must be of the type that prevents upward movement.

*NOTE: This table is based upon threadable thinwall pipe 1"-2" and 2½" and larger pipe is other steel pipe.

APPROVED
City of Aurora Building Division
5-2-12
07-575

CAMERON T. LEWIS
EXTREME FIRE PROTECTION CO.
NICET LEVEL III
CERT. NO. 103655

MAY 01 2012

Signature:

Extreme FIRE PROTECTION
6547 S. RACINE CIRCLE, SUITE 700 - CENTENNIAL, COLORADO 80111
PHONE: 303.388.9910 FAX: 303.388.9915 - COLORADO STATE REGISTRATION # 924

THE MEDICAL CENTER OF AURORA
POSTPARTUM / LABOR AND DELIVERY T.I.
1501 S. POTOMAC STREET
AURORA, CO 80012
SPRINKLER PLAN

DRAWN BY: DVP

0 2 4 6 8 12
SCALE: 1/8" = 1'-0"

NO.	DATE	DESCRIPTION	BY
1	5/1/12	FOR SUBMITTAL	DVP

REVISIONS

DATE: 05/01/12

CONTRACT #: 12759
FILE NAME: 12759_FP02.cad

FLOOR / AREA
3RD FLOOR

SHEET NUMBER

FP-02

Bulletin 154 Rev.F

Reliable®

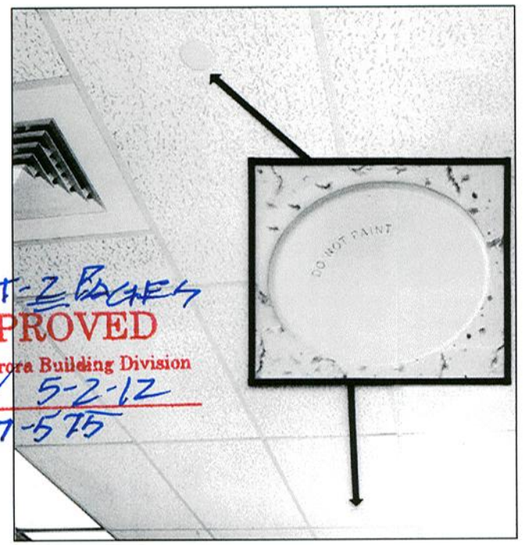
Model G4A Quick Response Concealed Automatic Sprinkler

The Concealer®

UL Quick Response
FM Standard Response
Concealed Sprinkler With a
½" (13mm) or 1½" (38mm) Adjustment

Features

1. Cover plate attachment with ½" (13mm) assembly adjustment.
2. Smooth aesthetic ceiling profile.
3. Factory installed protective cap.
4. Available in brass, chrome or black plated and white painted finishes.
5. Ordinary temperature rating.
6. Multiple orifices for design flexibility.



CT-2 BACKFLOW
APPROVED
City of Aurora Building Division
5-2-12
07-575

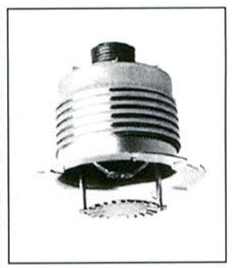
Approvals & Listings

1. Underwriters Labortories, Inc. (UL)-
   Quick Response
2. Underwriters Laboratories of Canada (ULC)-
   Quick Response
3. Factory Mutual Research Corp. (FM)-
   Standard Response
   - Light Hazard Occupanicies-
     No Limitations
   - Ordinary Hazard Occupancies
     Groups 1 & 2 Wet Systems Only
4. NYC MEA 258-93-E - Quick Response

U.S. Patent number 4,880,063.

Application

The Reliable Model G4A Concealer® is the most versatile quick response concealed sprinkler available. It provides the best form of fire protection while offering an attractive appearance and ½" (13mm) of cover adjustment for ease of installation. The small diameter cover plate assembly is easily attached and blends into the ceiling, concealing the most dependable fire protection available, an automatic sprinkler system.



The Model G4A Concealer® is designed for use where aesthetic appearance is important. Offices, hospitals, motels and restaurants are but a few of the applications where it can be used. It is available in different orifice sizes allowing the designer to optimize system performance, thereby achieving a very efficient installation.

The Model G4A Concealer® is a UL Listed Quick Response Concealed sprinkler intended for use in accordance with NFPA 13. FM Approves this sprinkler as a standard response concealed sprinkler intended for use in accordance with FM Loss Prevention Data Sheet 2-8N.

Product Description

The Reliable Model G4A Concealer® uses a proven quick response fusible element in a standard style sprinkler frame with a drop-down deflector. This assembly is recessed into the ceiling and concealed by a flat cover plate assembly. The threaded engagement provides ½" (13mm) of cover adjustment. The flat cover plate is attached to the skirt using either 135°F (57°C) or 165°F (74°C) ordinary temperature classification solder.

When the ceiling temperature rises, the solder holding the flat cover plate melts, the flat cover plate released thus exposing the sprinkler inside to the rising ambient temperature.

The subsequent fusing of the element opens the waterway and causes the deflector to distribute the water. Any secure engagement between the cover plate and cup will assure that the drop-down deflector is properly located below the ceiling.

The Reliable Automatic Sprinkler Co., Inc. , 103 Fairview Park Drive, Elmsford, New York 10523

Installation

Do not install the G4A Concealer® in ceilings which have positive pressure in the space above.

- Cut a 2⅝ inch (67mm) diameter hole is cut in the ceiling, the sprinkler is easily installed with the Model G4 Wrench. The wrench has drive tangs which insert into the cup slots. When installing a sprinkler the wrench is first positioned into the sprinkler/cup assembly until the wrench tangs engage the drive slots in the top of the cup (there are two sets of drive slots in the cup). The sprinkler is then tightened into the pipe fitting. When inserting or removing the wrench from the sprinkler/cup assembly, care should be taken to prevent damage to the sprinkler. DO NOT WRENCH ON ANY OTHER PART OF THE SPRINKLER/CUP ASSEMBLY. Install the cover plate by hand turning the cover in the clockwise direction until it is tight against the ceiling.

A protective cap is provided to protect the drop-down sprinkler deflector from damage which could occur during construction before the cover plate is installed. The cap is factory installed inside the sprinkler cup. Remove cap to install sprinkler, then re-install cap until the cover plate is installed.

Maintenance

The Model G4A Concealer® should be inspected quarterly and the sprinkler system maintained in accordance with NFPA 25. Do not clean sprinklers with soap and water, ammonia or any other cleaning fluids. Remove any sprinkler that has been painted (other than factory applied) or damaged in any way. A stock of spare sprinklers should be maintained to allow quick replacement of damaged or operated sprinklers. Prior to installation, sprinklers should be maintained in the original cartons and packaging to minimize the potential for damage to sprinklers that would cause improper operation or non-operation.

Ordering Information

1. Sprinkler Model
2. Nominal Orifice
3. Flat Cover Plate Assembly Finish
4. Inlet Type

Cover Plate Finishes[1]

Standard Finishes
Bronze
Chrome
White Paint
Special Application Finishes
Bright Brass
Black Plating
Black Paint
Off White
Satin Chrome

[1] Other finishes and colors are available on special order. Consult factory for details.



Model G4 Sprinkler Wrench

UL Listing Category

Sprinklers, Automatic and Open
Quick Response Sprinkler

UL Guide Number

VNIV

Temperature Rating

Classification	Sprinkler	Cover Plate	Max. Ambient Temp.
Ordinary	165°F/74°C	135°F/57°C	100°F/38°C
Intermediate	212°F/100°C	165°F/74°C	150°F/66°C

Technical Data

Sprinkler Inlet	Total Adjustment	Nominal Orifice	Nominal K Factor US	Nominal K Factor Metric	Thread	Approvals	Sprinkler Identifcation (SIN)
Non Adjustable	½" (13mm)	½" (15mm)	5.6	80	½" NPT (R½)	1,2,3,4	R5415
Non Adjustable	½" (13mm)	7/16" (11mm)	4.2	60	½ "NPT (R½)	1,2,4	R5413
Non Adjustable	½" (13mm)	3/8" (10mm)	2.8	40	½ "NPT (R½)	1,2,3,4	R5411
Adjustable	1½" (38mm)	½" (15mm)	5.6	80	1" NPT Male or Female	1,2,4	R5418
Adjustable	1½" (38mm)	7/16" (11mm)	4.2	60	1" NPT Male or Female	1,2,4	R5413
Adjustable	1½" (38mm)	3/8" (10mm)	2.8	40	1" NPT Male or Female	1,2,4	R5412

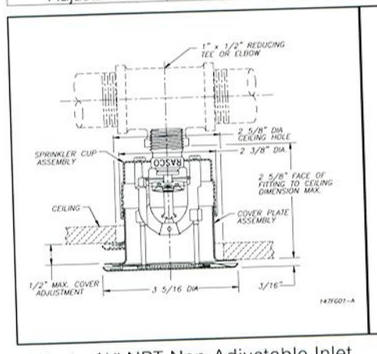


Fig.1 - ½" NPT Non-Adjustable Inlet

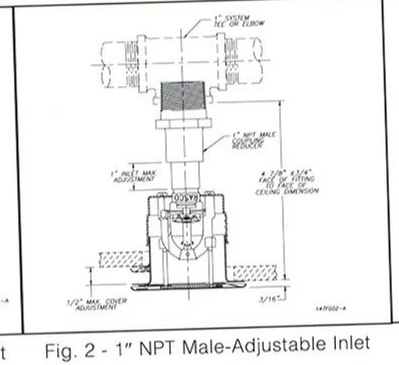


Fig. 2 - 1" NPT Male-Adjustable Inlet

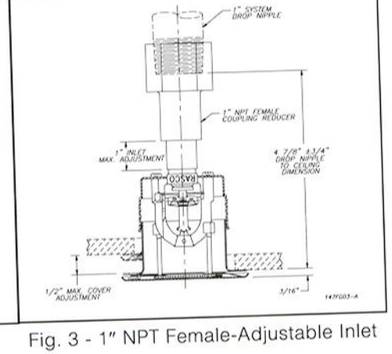


Fig. 3 - 1" NPT Female-Adjustable Inlet

The equipment presented in this bulletin is to be installed in accordance with the latest published Standards of the National Fire Protection Association, Factory Mutual Research Corporation, or other similar organizations and also with the provisions of governmental codes or ordinances whenever applicable. Products manufactured and distributed by Reliable have been protecting life and property for over 80 years, and are installed and serviced by the most highly qualified and reputable sprinkler contractors located throughout the United States, Canada and foreign countries.

Recycled Paper

Manufactured by
Reliable®

The Reliable Automatic Sprinkler Co., Inc.
(800) 431-1588 Sales Offices
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