

WEEKLY UPDATE
PROJECT A: STEAM TO NATURAL GAS CONVERSION
Wednesday, April 29, 2020

Overall Status: Project in general is about one week behind the original proposed schedule. Xcel work to install gas lines is complete except for hardscape repairs. After a comprehensive value engineering effort by the design team and GH Phipps the budget is good and we have been able to add some aspects of work back into the project.

Project History:

The State of Colorado General Assembly granted the Auraria Campus's capital renewal funding request to replace the aging campus-wide steam utility infrastructure system. Currently the campus relies on steam to provide all the heating and hot water needs for over 750,000 square feet of space in eight classroom/lab/office buildings. The existing system is over forty years old and deteriorating rapidly with potential worker life safety concerns and dramatic, multiple building, loss of use consequences if there would be a system failure or equipment/steam line failure.

The State of Colorado has provided the \$18.6 million of funding and the campus is moving forward with the steam to natural gas conversion which will result in a much more efficient, reliable, and significantly more cost effective natural gas fueled boiler system. Community College of Denver (CCD), Metropolitan State University of Denver (MSU Denver), University of Colorado Denver (CU Denver), and the Auraria Higher Education Center have all agreed that the cost savings created by this project shall be dedicated to ongoing maintenance, anticipated at **\$950,000 per year, and equating to \$27.5M** with an inflation factor over 20 years.

Happening this week, by Building:

Boulder Creek:

- A. This week:
 - Framing complete and inspected and approved
 - Insulating and dry walling new partitions
 - New exterior openings cut for gas line and fresh air intakes

- B. Upcoming:
 - May 18: Steam shut down for demo of steam equipment.

No Steam / No Heat	No Hot Water	Boiler Delivery	Hot Water Returns	Heating Sys Active	Building Complete
May 18	May 18	June 2	July 9	July 22	Sept. 20

- C. Impacts: Minimal. Construction is confined to the Penthouse and Roof.
- Contractors are to utilize scaffold stair tower on north side of building.
 - No heat and no hot water in building as noted above.

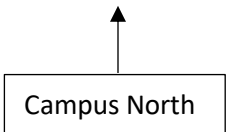
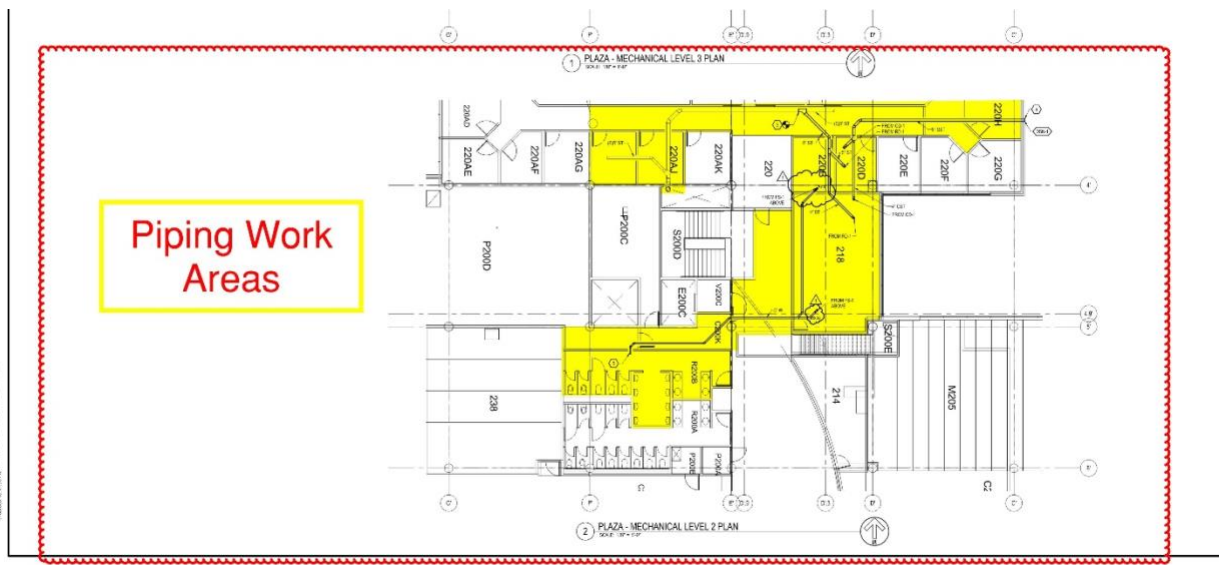
Plaza:

- A. This week:
- o Installation of drain piping 2nd floor
 - o Layout and installation of new ceiling grid
 - o Re-install of fire alarm devices
- B. Upcoming:
- o Structural steel installation starts Monday 5/4/20
 - o May 22: Steam shut down for demo of steam equipment.

No Steam / No Heat	No Hot Water	Boiler Delivery	Hot Water Returns	Heating Sys Active	Building Complete
May 22	May 22	June 5	July 17	July 13	Sept. 18

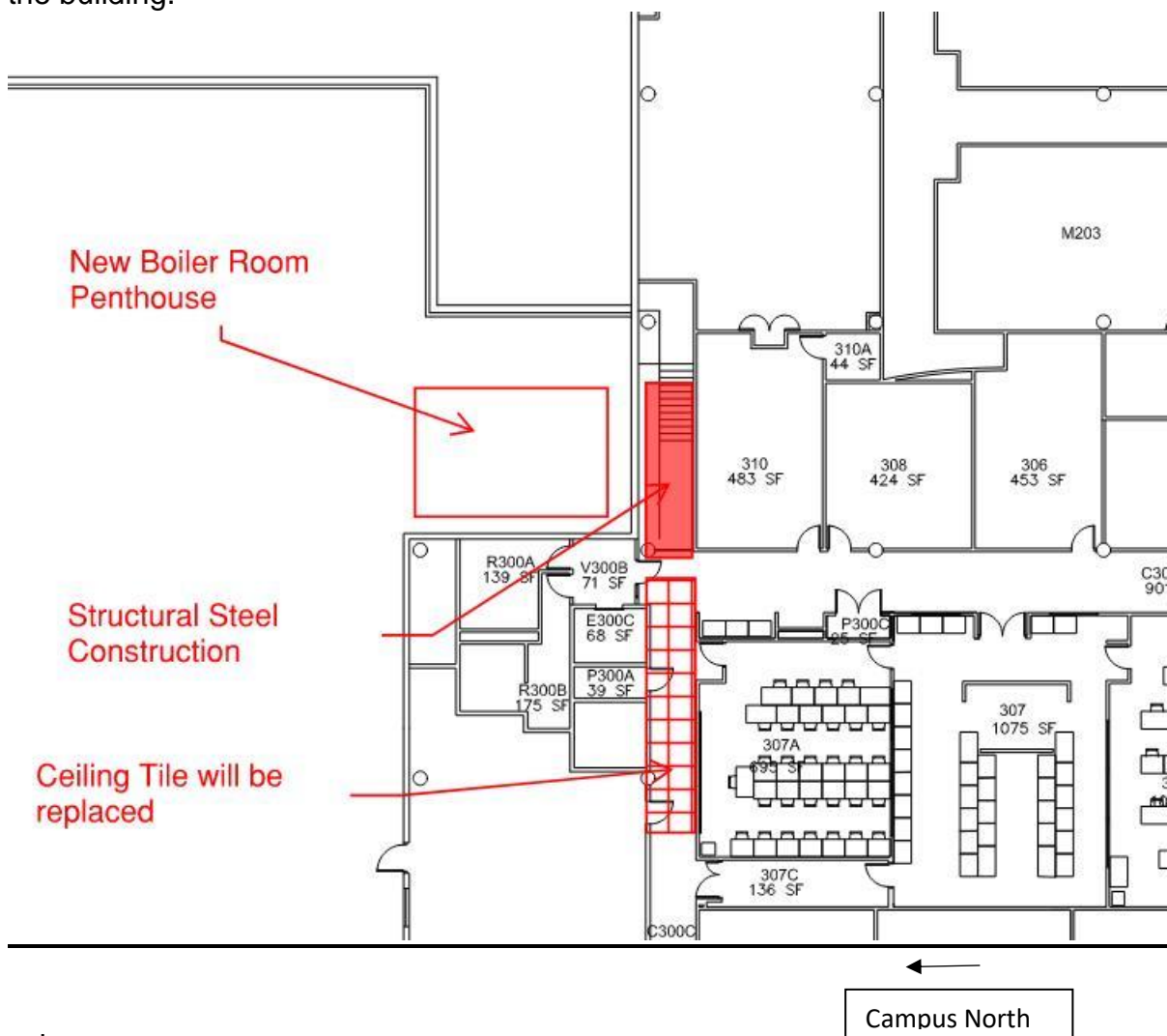
Note: Plaza Health Center has electric hot water heaters and will not experience a hot water outage.

- C. Impacts:
- Contractors are to utilize scaffold stair tower on east side of building for Boiler Penthouse work.
 - No heat and no hot water as noted above.
 - Drain piping is being installed above the ceilings on the second floor.



- d. Work is underway that involves installing structural steel for the penthouse and the access from the new boiler room penthouse into

the building.



PE:

A. This week:

- Work is underway on roof for new Boiler Penthouse.
- Installing gas piping on roof
- Installing piping in existing Mechanical Room.

B. Upcoming:

- Demo of steam equipment in mechanical room
- Start of construction of new penthouse on roof

No Steam / No Heat	No Hot Water	Boiler Delivery	Hot Water Returns	Heating Sys Active	Building Complete
May 18	May 6	June 1	May 22	July 6	Aug. 17

C. Impacts:

- a. To provide a more comfortable working environment in the Mechanical Room steam has been temporarily shut down.

- b. Beginning next week natural gas will be shut down to the building. This means for the next 3 weeks the building will be without hot water. (If hot water is needed during this period, there is a work around that can be done if necessary.)
- c. Contractors are to utilize scaffold stair tower on south side of building for Boiler Penthouse work.
- d. No heat and no hot water as noted above.

Arts:

A. This week

- o Gas line installation on roof on going.

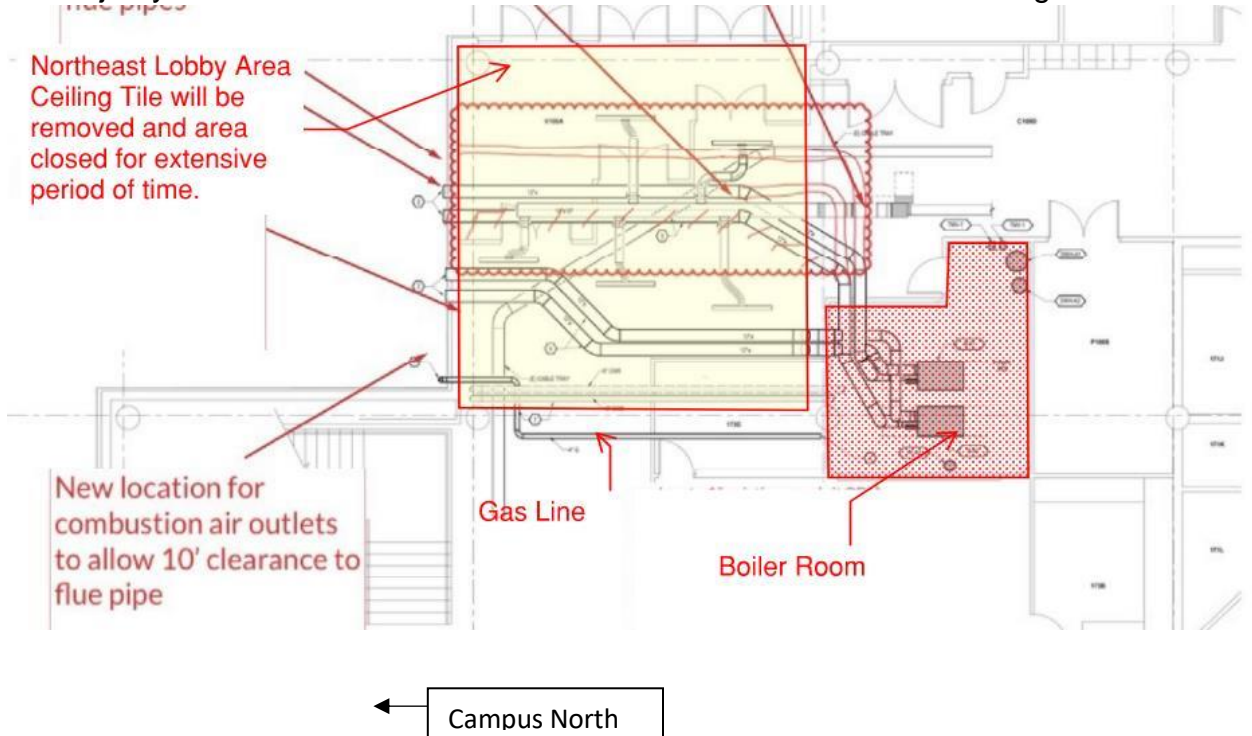
B. Upcoming:

- o Gas line and pipe installation in lobby – no date yet determined

No Steam / No Heat	No Hot Water	Boiler Delivery	Hot Water Returns	Heating Sys Active	Building Complete
May 26	May 26	June 8	July 10	July 24	Sept. 4

C. Impacts:

- a. To provide a more comfortable working environment in the Mechanical Room steam has been temporarily shut down, as a result there is no hot water in the building.
- b. No heat and no hot water as noted above.
- c. Majority of work is concentrated in the north east corner of the building.



Central Classroom:

- A. This week
 - o Doing layout for new boiler room for equipment

- B. Upcoming:
 - o Installation of exterior gas lines up the wall on the east alley side of the building. (Will have 10 day notice prior to work starting.)

No Steam / No Heat	No Hot Water	Boiler Delivery	Hot Water Returns	Heating Sys Active	Building Complete
May 18	May 18	June 1	July 2	July 17	Aug. 28

- C. Impacts:
 - a. To provide a more comfortable working environment in the Mechanical Room steam has been temporarily shut down, as a result there is no hot water in the building.
 - b. During the installation of the vertical gas lines in the alley between St. Elizabeth and Central the food line will need to be relocated for the safety of the folks served by the Church.
 - c. No heat and no hot water as noted above.

West Classroom:

- A. This week:
 - o No work scheduled

B. Upcoming:

No Steam / No Heat	No Hot Water	Boiler Delivery	Hot Water Returns	Heating Sys Active	Building Complete
May 26	May 26	June 8	July 13	July 24	Sept. 4

- C. Impacts:
 - a. To provide a more comfortable working environment in the Mechanical Room steam has been temporarily shut down, as a result there is no hot water in the building.
 - b. No heat and no hot water as noted above.

Cherry Creek:

- A. This week:
 - o Installation of Roof protection

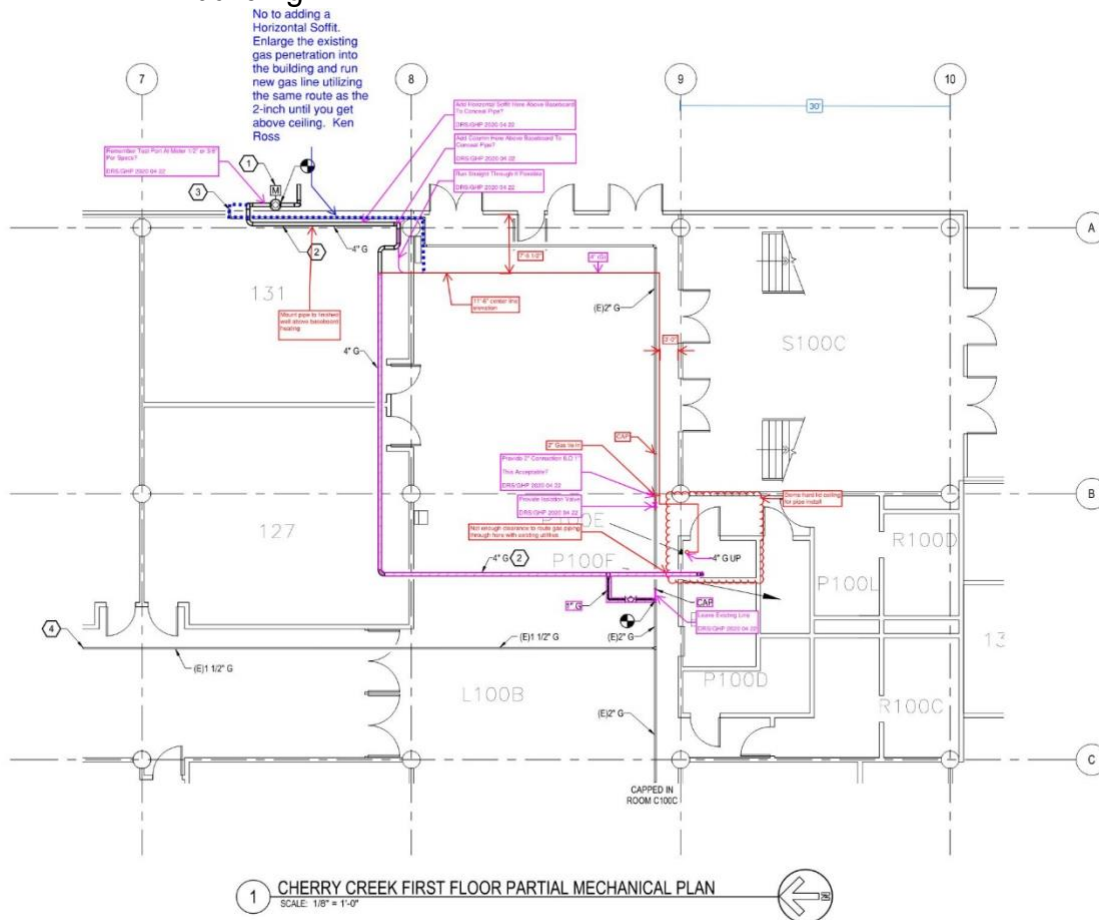
B. Upcoming:

- Install interior gas piping
- Install roof penetrations for flues

No Steam / No Heat	No Hot Water	Boiler Delivery	Hot Water Returns	Heating Sys Active	Building Complete
May 26	May 26	June 3	July 28	Aug. 10	Sept. 22

C. Impacts:

- To provide a more comfortable working environment in the Mechanical Room steam has been temporarily shut down, as a result there is no hot water in the building.
- No heat and no hot water as noted above.
- Gas piping will run from the east side of the building into the center of the building and up from the first floor to the third floor. As a result there will be some work in the main lobby area on the east side of the building.



Science:

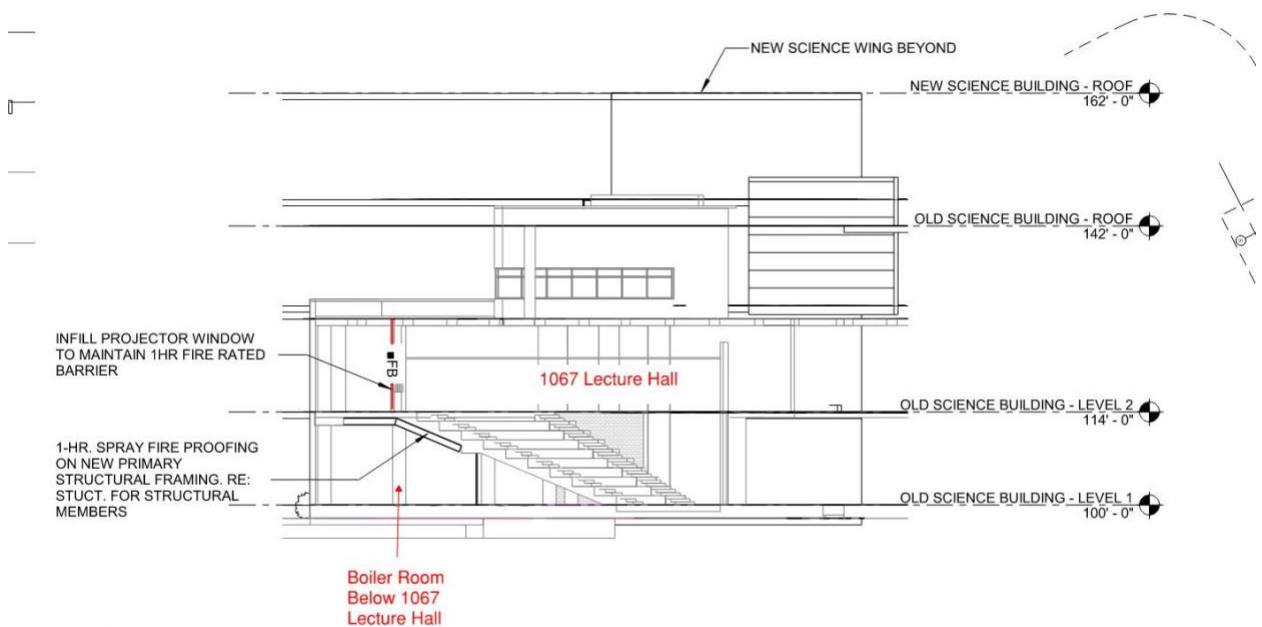
A. This week:

- The Science air handling unit has been shut down that provides tempered air to the 1067 Lecture Hall.
- Floor sink piping is ongoing in the space immediately below 1067.
- There will be ongoing investigations above the ceilings in the west wing of the Science Building to find the best route to the new boiler room below 1067.

B. Upcoming:

No Steam / No Heat	No Hot Water	Boiler Delivery	Hot Water Returns	Heating Sys Active	Building Complete
May 26	May 26	June 5	July 24	July 30	Sept. 22
Note: Will need to address Vivarium need for 180 degree water prior to shutdown.					

- Starting May 11th – Steel work begins in the new boiler room below 1067.



**BUILDING -
COMPLIANCE
EL 01**

5 CODE COMPLIANCE SECTION
1/16" = 1'-0"

ROOM - 1067A / A06:
PROJECTION RM / P
SCOPE:
CONVERT PROJECT
MECHANICAL SHAPE

C. Impacts:

- No heat and no hot water as noted above.
- Old Science hot water piping impacts will be communicated when the optimum route is determined.

- c. Hot water piping from Old Science to New Science will cause the main entrance on the north side of the building to be closed for 4 weeks in June.