

EXISTING SITE UTILITIES

Description / Observation:

- OSU recently designed/constructed separate storm and/or sanitary sewers in order to eliminate the existing combined sewer system in the South Dorms area. The proposed utility improvements for any chillers will need to be coordinated with those and any other planned utility improvements.
- OSU Electrical feeds supplied by AEP serve the area from both the north and south.
- The existing utility tunnel running generally east-west can be accessed between Hale Hall and Stradley Hall and south of Baker Hall west of the northern end of Smith Hall.

Evaluations

- The current electrical feeds in the area are not sufficient for the addition of chiller equipment. OSU may either add a third feeder in existing duct banks to serve the area or add a new feeder pair.
- Gas is provided via a Columbia Gas service line and is insufficient for any proposed generators or other equipment. At temperatures below 18 degrees F, the existing gas line pressure drops to a point that requires McCracken Power Plant to switch to fuel oil for its boilers.
- The segment of the existing utility tunnel between Stradley Hall and Park Hall is very congested with existing utilities. The addition of any future utilities in this area would be nearly impossible without the removal of some of the existing utilities.

Recommendations

- If needed, the use of Diesel powered emergency generators will eliminate the need for costly gas service upgrades.
- Future loads should be considered when bringing new electrical feeds to the area.
- Extension of the existing utility tunnel can provide utility service for chillers placed west of Stradley Hall. The proposed tunnel could tee into the existing tunnel at the intersection of the north-south sidewalk just west of Stradley Hall and continue under the existing sidewalk to the proposed chiller location.
- For Chillers placed south of 11th Avenue between Highland Avenue and Hunter Avenue, the existing utility tunnel south of Baker Hall west of the northern end of Smith Hall can be extended from its 90-degree bend northwest of Smith Hall and continue south beneath the sidewalk west of Smith Hall. The proposed tunnel can either angle to the southwest or continue in a southerly direction beneath the existing walks to cross 11th Avenue to the proposed Chiller location.
- The existing utility tunnels are very congested between Stradley Hall and Park Hall. A possible connector building between these two buildings could allow this portion of the tunnel to be bypassed for future utilities such as chilled water by utilizing the existing basements / sub-basements of Stradley and Park to connect to a chiller plant located in the basement of the new connector building. A small segment of tunnel or trench box would be required to connect from Stradley back to the existing tunnel.