



Field Observation Report Number: Morristown, NJ

To:	David Levo	Today's Date:	1/20/2012		
From:	Jian Zhang	Sheet:	1 of 8	Date of Visit:	12/7/10
Project:	WPU Academic Zone Master Plan	Trade:	Plumbing/ Fire Protection		
Project No.:	WPU01000	Site Contact:			

Coach House: Plumbing Systems

1. Storm Drainage System
 - a) The building's storm drainage system consists of the main roof drains. Storm leaders drain by gravity to the campus storm sewer.
 - b) All original building storm piping shows significant signs of aging.
2. Sanitary Drainage System
 - a) The building's sanitary drainage system consists of equipment drains, lavatories, water closets, urinals, floor drains and service sinks. The sanitary sewer drains by gravity via waste stacks. All stacks are connected to a main which exits the building and drains by gravity to the campus sanitary sewer system.
 - b) All original building sanitary piping shows a significant amount of aging.
3. Domestic water system.
 - a) Existing 3" water service with a strainer and pressure-reducing valve. One 3" RPZ shall be installed to the incoming water service.
 - b) The hot water heater is an electric 50 gallon storage residential type heater. One hot water circulating pump has been refurbished or replaced over the years.
 - c) All original building domestic water piping insulation has asbestos insulation.
4. Plumbing fixtures.
 - a) The plumbing fixtures are from the original building. They appear old and not to comply with ADA requirements.

Hunziker Hall: Plumbing Systems

1. Storm Drainage System
 - a) The building's storm drainage system consists of the main roof drains. Storm leaders drain by gravity to the campus storm sewer.



Field Observation Report Number: Morristown, NJ

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Project No.:	WPU01000	Site Contact:		

- b) The storm system below grade is drained to duplex sump pumps in pit. The discharge of one sump is connected to the storm gravity system. Another sump is connected with a leaking hose and spill to a service sink.
- c) All original building storm piping shows a significant amount of aging. The sumps and pit cover are in bad condition.

2. Sanitary Drainage System

- a) The building's sanitary drainage system consists of equipment drains, lavatories, water closets, urinals, floor drains and service sinks. The sanitary sewer drains by gravity via waste stacks. All stacks are interconnected to a main which exits the building and drains by gravity to the campus sanitary sewer system.
- b) The sanitary system below grade is drained to duplex ejector pumps in pit and pump to the gravity sanitary sewer system.
- c) All original building sanitary piping shows a significant amount of aging. One of the ejectors is not working. The ejectors and pit cover are in bad condition.

3. Domestic Water System

- a) Existing 4" water service with a strainer and pressure-reducing valve. One 4" RPZ shall be installed to the water incoming service.
- b) The hot water heater is an electric 50 gallon storage residential type heater. It was replaced in 2009. One hot water circulating pump has been refurbished or replaced over the years. One water to water heat exchanger (heat plate exchanger from the boilers) was installed over the years. It is used only during the winter.
- c) The asbestos insulation is provided to all original building domestic water piping.

5. Plumbing Fixtures

- a) The plumbing fixtures are from the original building. They appear old and not to comply with ADA requirements.

6. Natural Gas System



Field Observation Report Number: Morristown, NJ

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Project No.:	WPU01000	Site Contact:		

- b) The building is supplied with natural gas from an outdoor meter rig. Gas is used in the building for boilers and mechanical equipment. Gas piping surveyed is in good condition with minimal rust.

- 7. Fire protection system.
 - a) The existing fire stand pipe system is off from the domestic water piping. the smoke detectors are fully provided.

Hunziker Wing: Plumbing Systems

- 1. Storm Drainage System
 - a) The building's storm drainage system consists of the main roof drains. Storm leaders drain by gravity to the campus storm sewer.
 - b) All original building storm piping shows aging.

- 2. Sanitary Drainage System
 - a) The building sanitary drainage system consists of equipment drains, lavatories, water closets, urinals, floor drains and service sinks. The sanitary sewer drains by gravity via waste stacks. All stacks are connected to a main which exits the building and drains by gravity to the campus sanitary sewer system.
 - b) All original building sanitary piping shows a significant amount of aging.

- 3. Domestic Water System
 - a) Existing 4" water service with a strainer and pressure-reducing valve. One 4" RPZ shall be installed to the water incoming service.
 - b) The hot water heater is an electric 80 gallon storage residential type heater. It was replaced in 2007. One hot water circulating pump has been refurbished or replaced over the years.
 - c) The asbestos insulation is provided to all original building domestic water piping.

- 4. Plumbing Fixtures



Field Observation Report Number: Morristown, NJ

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Project:	WPU Academic Zone Master Plan	Trade:	Plumbing/ Fire Protection	
Project No.:	WPU01000	Site Contact:		

- c) The plumbing fixtures were replaced 10 years ago. They are not compliant with ADA requirements.
- 5. Natural Gas System
 - a) The building is supplied with natural gas from an outdoor meter rig. Gas is used in the building for boilers and mechanical equipment. Gas piping surveyed is in good condition with minimal rust.
- 6. Fire Protection System
 - a) The existing fire stand pipe system is off from the domestic water piping. Smoke detectors are fully provided.

Raubinger Hall: Plumbing Systems

- 1. Storm Drainage System
 - a) The building's storm drainage system consists of the main roof drains. Storm leaders drain by gravity to the campus storm sewer.
 - b) All original building storm piping shows aging.
- 2. Sanitary Drainage System
 - a) The building's sanitary drainage system consists of equipment drains, lavatories, water closets, urinals, floor drains and service sinks. The sanitary sewer drains by gravity via waste stacks. All stacks are connected to a main which exits the building and drains by gravity to the campus sanitary sewer system.
 - b) All original building sanitary piping shows significant signs of aging.
- 3. Domestic Water System
 - a) Existing 6" water service reduced to 3" with a strainer and pressure-reducing valve. One 3" RPZ shall be installed to the water incoming service.



Field Observation Report Number: Morristown, NJ

To:	David Levo	Today's Date:	1/20/2012	
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Project No.:	WPU01000	Site Contact:		

b) The hot water heater is an electric 50 gallon storage residential type heater. It was replaced in 2010. One hot water circulating pump has been refurbished or replaced over the years. One water to water heat exchanger (Heat Plate exchanger from the boilers) was installed 8 years ago. It is used only during the winter. The water piping within the MER has been replaced over the years and is in a good condition.

c) The asbestos insulation is provided to all original building domestic water piping system.

4. Plumbing Fixtures

a) The plumbing fixtures were replaced 10 years ago. They are not compliant with ADA requirements.

5. Natural Gas System

a) The building is supplied with natural gas from an outdoor meter rig. Gas is used in the building for boilers and mechanical equipment. Gas piping surveyed is in good condition with minimal rust.

6. Fire Protection System

a) The 4" existing fire water is from a 6" fire and domestic water combined water line. The 4" fire piping is rusted and nearing end of service life. One double detector check valve assembly shall be installed.

b) The fire valves are provided to the standpipe risers in each stairway.

c) The file room in the provost area is provided with (4) sprinkler heads but no flow control assembly was found.

Wightman Gym: Plumbing Systems

1. Storm Drainage System

a) The building's storm drainage system consists of the main roof drains. Storm leaders drain by gravity to the campus storm sewer.

b) All original building storm piping shows signs of aging.



Field Observation Report Number: Morristown, NJ

To:	David Levo	Today's Date:	1/20/2012		
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Project:	WPU Academic Zone Master Plan	Trade:	Plumbing/ Fire Protection		
Project No.:	WPU01000	Site Contact:			

2. Sanitary Drainage System

- a) The building's sanitary drainage system consists of equipment drains, lavatories, water closets, urinals, floor drains and service sinks. The sanitary sewer drains by gravity via waste stacks. All stacks are connected to a main which exits the building and drains by gravity to the campus sanitary sewer system.
- b) The black steel drain and circulating piping for the pool are rusted and in poor condition.
- c) All original building sanitary piping shows significant signs of aging.

3. Domestic Water System

- a) Existing 6" water service reduced to 4" with a strainer and pressure-reducing valve. One 4" RPZ shall be installed to the water incoming service. The second water service in the outside pit is supplied for the swimming pool only.
- b) One water-to-water heat exchanger (Heat Plate exchanger from the boilers) was installed 10 years ago. There is no hot water circulating pump in the system.
- c) One water-to-water heat exchanger (Heat Plate exchanger from the boilers) was installed for the swimming pool.
- d) Asbestos insulation exists on all original building domestic water piping.

4. Plumbing Fixtures

- b) The plumbing fixtures are from the original building. The showers in locker rooms are very old and not in good condition. They are not compliant with ADA requirements.

5. Natural Gas System

- b) The building is supplied with natural gas from an outdoor meter rig. Gas is used in the building for boilers and mechanical equipment. Gas piping surveyed is in good condition with minimal rust.



Field Observation Report Number: Morristown, NJ

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Project:	WPU Academic Zone Master Plan	Trade:	Plumbing/ Fire Protection	
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Shea Center for Performing Arts: Plumbing Systems

1. Storm Drainage System
 - a) The building's storm drainage system consists of the main roof drains. Storm leaders drain by gravity to the campus storm sewer.
 - b) All original building storm piping shows signs of aging.

2. Sanitary Drainage System
 - a) The building's sanitary drainage system consists of equipment drains, lavatories, water closets, urinals, floor drains and service sinks. The sanitary sewer drains by gravity via waste stacks. All stacks are connected to a main which exits the building and drains by gravity to the campus sanitary sewer system.
 - b) All original building sanitary piping shows significant signs of aging.

3. Domestic water system.
 - a) Existing 3" water service with a strainer and pressure-reducing valve. One 3" RPZ shall be installed to the incoming water service.
 - b) The hot water heater is an electric 65 gallon storage residential type of heater. It was replaced in 2006. One hot water circulating pump has been refurbished or replaced over the years. One water-to-water heat exchanger (Heat Plate exchanger from the boilers) was installed 8 years ago. It is used only during the winter.
 - c) Asbestos insulation is present on all original building domestic water piping.

4. Plumbing Fixtures
 - a) The plumbing fixtures have been replaced over the years. They are not compliant with ADA requirements. Electrical hard-wired fixtures (hands free) are recommended to replace the existing fixtures in the public toilets.

5. Natural Gas System



Field Observation Report Number: Morristown, NJ

To:	David Levo	Today's Date:	1/20/2012	
From:	Jian Zhang	Sheet:	8 of 8	Date of Visit: 12/7/10
Project:	WPU Academic Zone Master Plan	Trade:	Plumbing/ Fire Protection	
Project No.:	WPU01000	Site Contact:		

- a) The building is supplied with natural gas from an outdoor meter rig. Gas is used in the building for boilers and mechanical equipment. Gas piping surveyed is in good condition with minimal rust.