

Partners for Pollution Prevention

Allison Transmission, Inc.

June 13, 2017



Environmental Policy Overview

Allison Transmission, Inc. – Indianapolis Operations Environmental Policy

The Allison Transmission
Environmental Policy has been
in place since September 2001.

The policy is based on a
template provided by General
Motors during initial ISO 14001
Certification.

The policy is summarized by
three key points:



As a responsible corporate citizen, Allison Transmission, Inc. is dedicated to protecting human health, natural resources and the local and global environment. This dedication reaches further than compliance with the law to encompass the integration of sound environmental practices into our business decisions. This Policy is based on the integration of risk-based cost-effective management practices into site activities, with the aim of continually improving environmental performance.

Allison Transmission, Inc. is committed to assess the direct and indirect environmental aspects of its activities, products and services to establish appropriate objectives, targets, and environmental management programs.

In particular, Allison Transmission, Inc. will strive to achieve the following objectives through continued execution of our Environmental Management System:

1. Comply with all applicable environmental laws and regulations, and other requirements to which we subscribe.
2. Assign management responsibility for the environmental activities and services provided in all departments and ensure that all employees are aware of their individual responsibilities for acting in accordance with this policy.
3. Practice and promote effective pollution prevention in accordance with a hierarchy giving top priority to waste prevention at the source, elimination or reduction of wasteful practices, and recycling.
4. Maintain good communications with our local community and concerned stakeholders, including legislators, regulators and other organizations with an interest in our environmental performance.

In accordance with our Environmental Management System requirements, the Allison Transmission, Inc. objectives and targets will be reviewed periodically to assess progress toward continuous improvement. This policy statement will be made available to Allison Transmission, Inc. employees and the public.

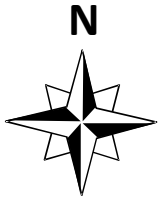
Signed by:


Lawrence E. Dewey, CEO
Allison Transmission, Inc.


Environmental Highlights

- ISO 14001 and EMS
- Environmental Overview
- Pollution Prevention
 - Property Isolation
 - Infrastructure Improvements
 - Fire Loop
 - Waste Water Subsurface Piping upgrades
 - Boiler House
 - Repurposing – Sound Berms
 - Energy Reduction through lighting upgrades in modernization projects
 - Air Emission Reductions through Catalysts
- Chemical usage reduction





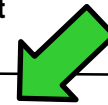
Meridian Street

EAGLE CREEK
TECHNOLOGY CENTER

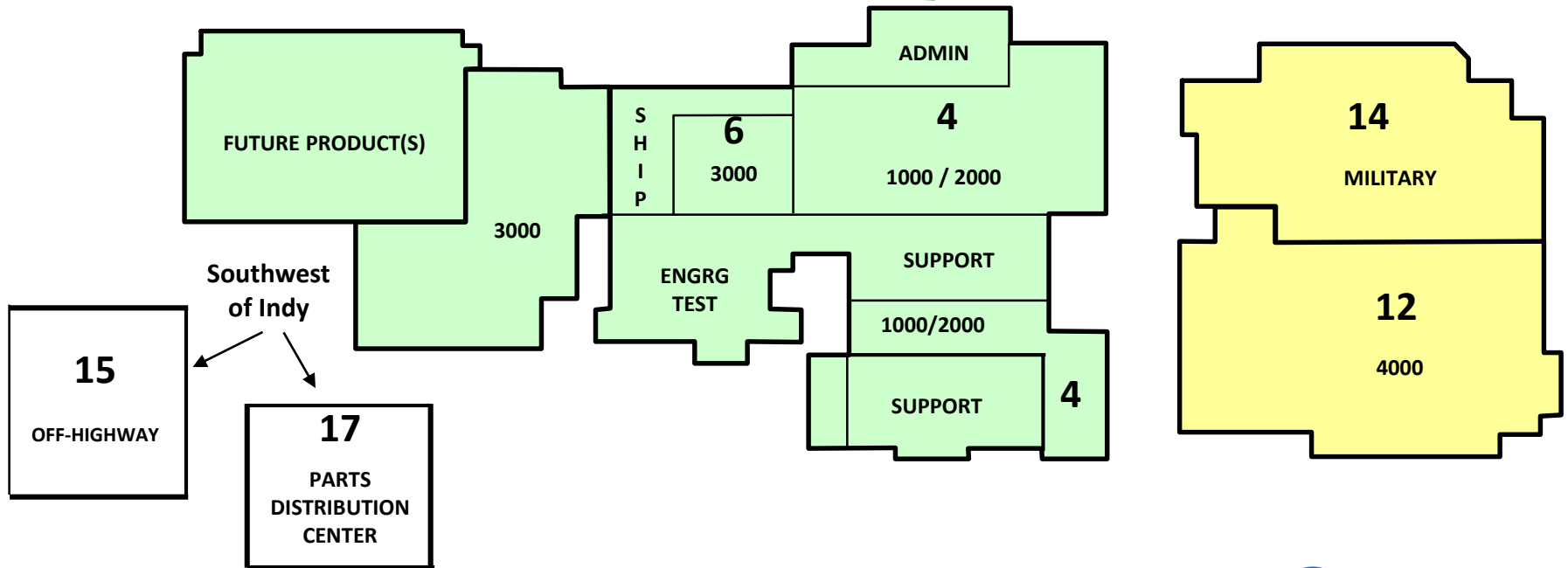


Northwest
Indianapolis

10th Street



The Main Campus contains 3.1
million square feet of floor
space.



Environmental Initiatives

Our EMS helps determine environmental initiatives ATI will undertake.

- Evaluate all business aspects and their environmental impacts
- The impacts are evaluated according to their level of frequency/quantity, severity and management control. All categories are ranked on a 1-5 numbering scheme.
- The numerical values assigned to each category are added to quantify the impact score. The score can range from 3 to 15.
- All impacts with a total score greater than or equal to 12 are considered Significant Impacts
- Any impact with a Severity ranking of 5 is automatically considered a Significant Impact

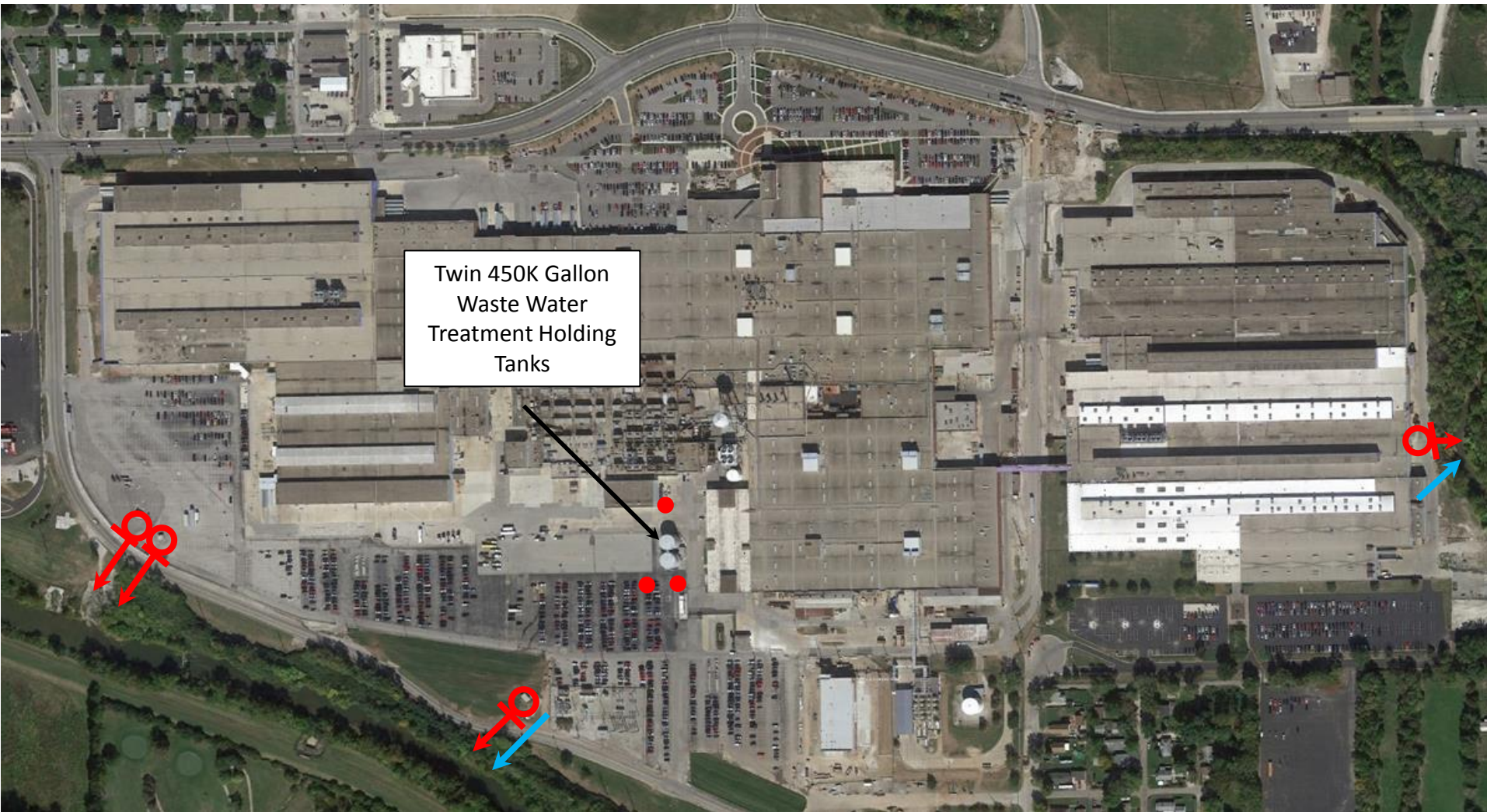


Property Isolation

- Design methods and means to keep materials on ATI property in the event of a spill or release.
- Control of a chemical event so no external reporting, public notices or additional external clean up costs
 - Secondary containment
 - Knife gate valves installed to keep material from entering the creek
- Design strategy creates a Plant Operations issue rather than an uncontrolled release
- Knife Gates to control the release of storm water



Storm Water Management



● Storm Water Drain

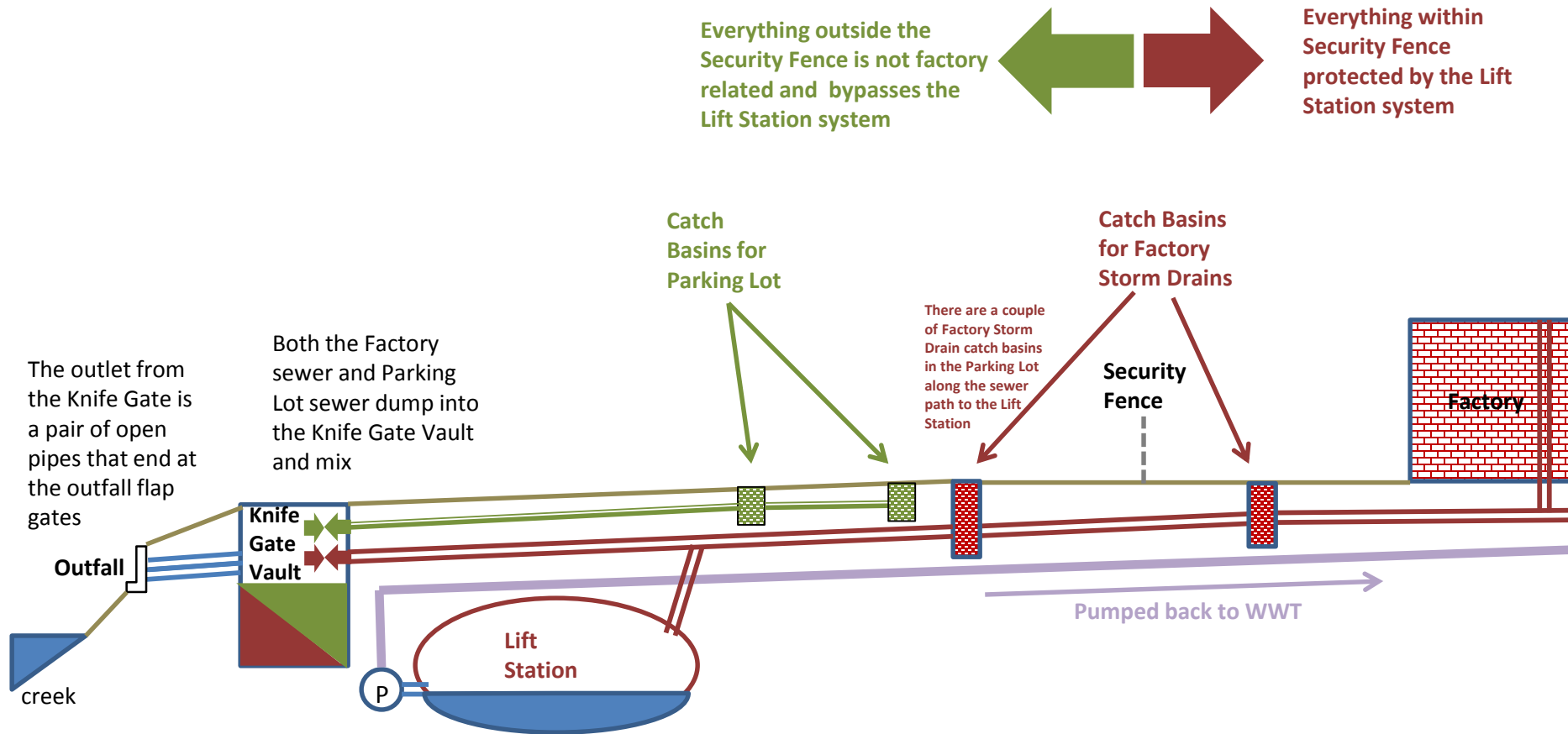
○ Storm Water Lift Station
| Knife Gate

← Lift Station Outfall to Creek

↗ Parking Lot Outfall to Creek



ATI East Lift Station Concept Sketch

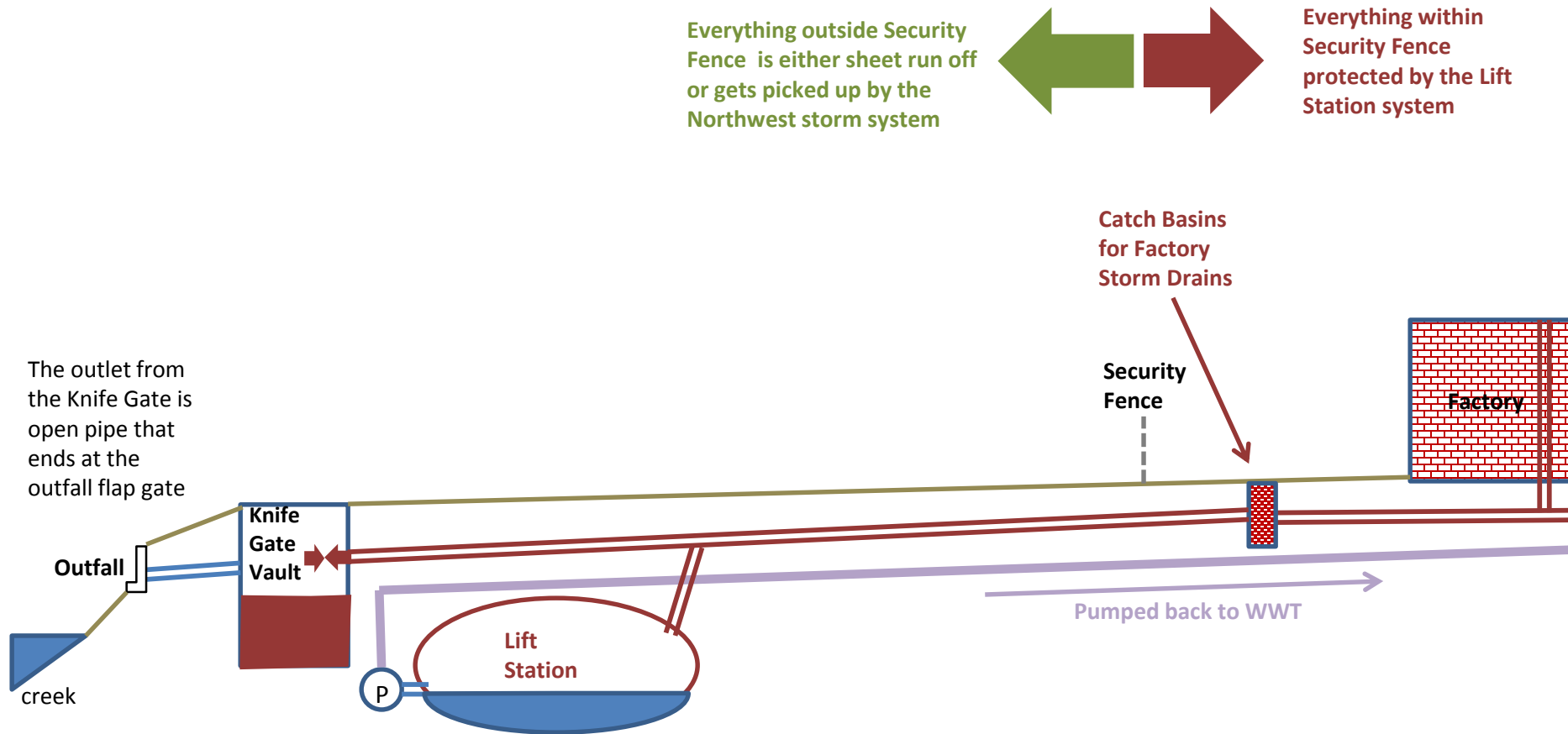


* Includes the areas between Grande Avenue and the 77 column line; includes the Plant 6 south drive storm drains west of the 77 column line.



TJL 3/8/13 Rev 2

ATI West Lift Station Concept Sketch

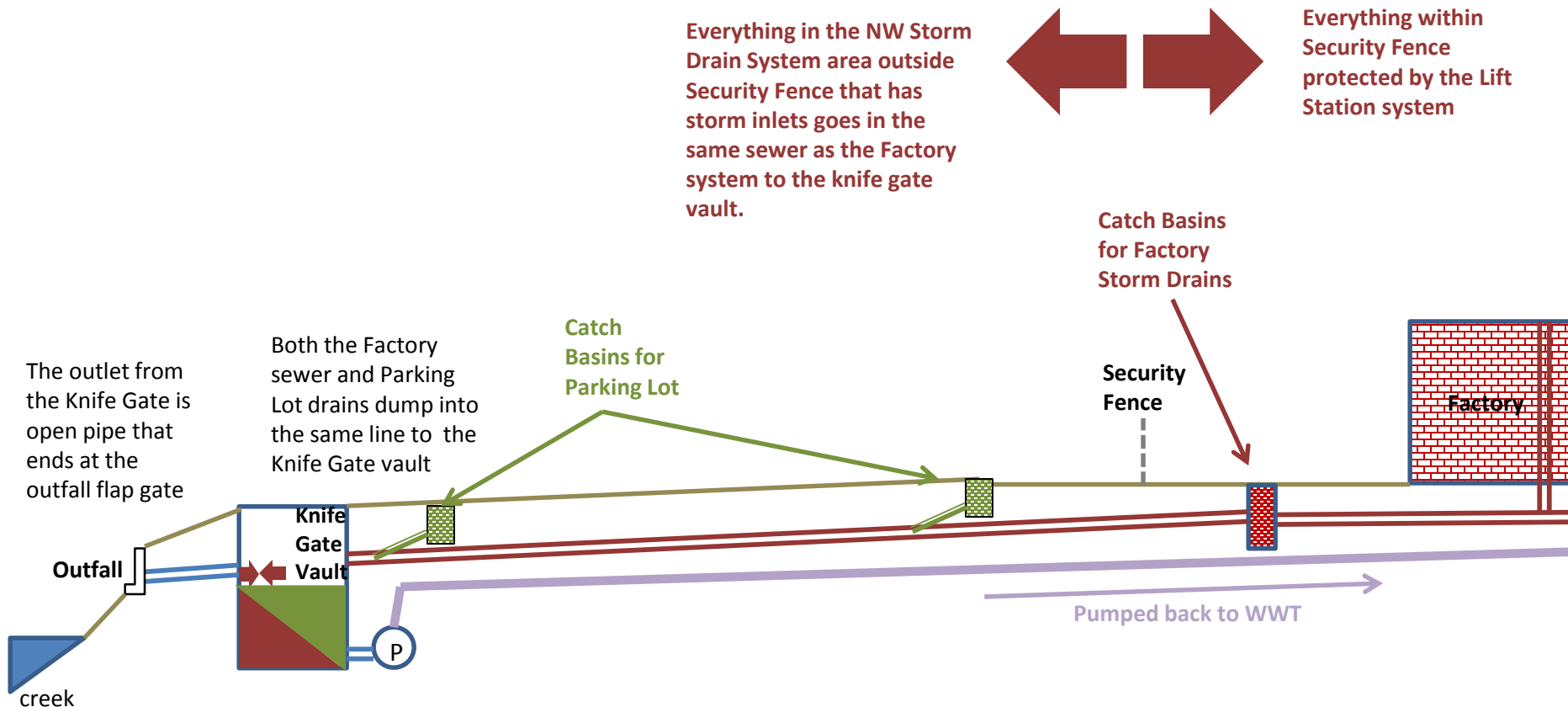


* Includes the areas west of the 77 column line, except the Plant 6 South Drive storm drains



TJL 3/8/13 Rev 3

ATI Northwest Lift Station Concept Sketch



* Includes the areas in Admin Bldg, Plant 4 north of the E aisle, north side parking lot drains, all north side exterior dock areas, and any drains in the western parking lots.

ATI Plant 12 Lift Station Concept Sketch

Everything outside Security Fence is not factory related and bypasses the Lift Station system

Everything within Security Fence protected by the Lift Station system



Catch Basins for Parking Lot

Catch Basins for Factory Storm Drains

Security Fence

Factory

The Knife Gates are at the outfall between the sewer pipes and the flap gates

Outfall

Lift Station

P

Pumped back to WWT

creek

* Includes the areas east of Grande Avenue



TJL 3/13/13 Rev 4

Infrastructure Improvements

Major Fire Loop Project

Replaced approx. 1200-linear feet of 50-year old fire main piping that runs underneath the manufacturing and product area floors in Plants 3,4,and 6.



Powerhouse Systems Upgrades

Wastewater Infrastructure Upgrade



Installed pipe liner inside the 450 Tank's process waste water line going into the Waste Water Treatment Plant.

- Cost to install liner \$133K with a 10-year warranty included took only 2-weeks to complete this project verses Cost to replace piping \$350K and it would take up to 6-weeks to complete the project
- Total cost savings: \$217K



Powerhouse Systems Upgrades

Activity Summary

- New Boiler House Project to be completed in 2018
- Increased efficiency utilizing high-efficiency boilers and compressors
- Natural gas used for fuel source. No underground tanks or piping eliminates risk
- Trench drains installed at all openings to the exterior to catch any liquid releases.
- All drains, other than sanitary go to wastewater pre-treatment
- All wastewater lines are overhead for visual inspection and ease of repair



Global Headquarters Parking and Entry

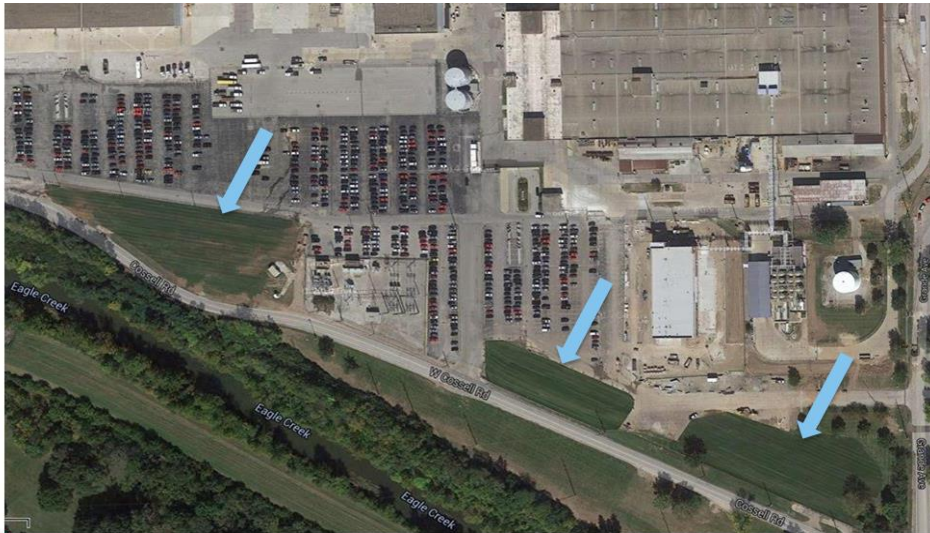
Activity Summary

- Gained possession of old 10th Street
- Converted old Dock 33 area into parking
- Replaced 800-foot of water main
- Regraded in front of the Administration Building to correct the grade and approach to the building
- Added to the storm water sewer system so that new parking lot would drain a 100-year flood event
- Replaced and added pavement for 694 parking spaces
- Created green space along 10th Street
- Created a new focus on the lobby with decorative paving
- Added energy efficient LED lighting with some powered by solar and wind



Environmental – Waste Minimization

Indianapolis Environmental Initiatives



Repurposed excavation spoils from 10th street realignment project and stormwater separation project saved **xx** tons of soil from landfill.

Removal of F006 Hazardous Waste Stream

Reclassification of Waste Water Treatment Sludge (F006) reduced the generation of hazardous waste by 720,000-gallons annually.

Re-milling of asphalt/aggregate for paving projects: test track and south side of plant

Re-milling (removal and reuse in the new paving process) saved **xx** tons from disposal and transportation.



Environmental – Waste Minimization

Landscape Berms



Environmental – Waste Minimization

Landscape Berms



Environmental – Waste Management

ATI Project Management

- All projects are reviewed to determine if there is an environmental impact
- A Waste Management Plan is developed and communicated to project champion and contractors
- Outlines the wastes generated, profile status, container requirements, transportation needs and disposal facilities
- Waste segregation, container management, good communication keys for success
- Updated and revised as needed during the life of the project



Workspace Solution Improvements

Admin Café Remodel



Environmental – Energy Savings

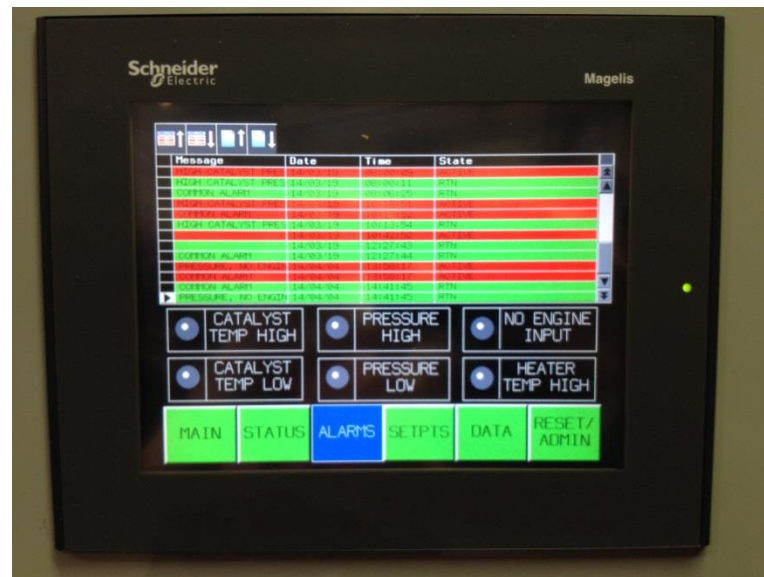
2014 Energy Efforts

- Plant 20 installed one programmable lighting control and 17 (8 was the goal – but the plant installed more) motion sensors.
- Plant 15 and Plant 17 management audits lighting shutdown.
- Admin Café natural lighting and LED lights and motion sensors.
- Admin 3rd floor LED lights and motion sensors.
- General store added occupancy sensors.
- Lighting Audit monthly by energy engineer and weekly by weekend commander.
- **170,000 sq ft (verify)** White reflective roof and added R value (more insulation).
- Dock 120, Dock 34 and Dock36 door weather seals.
- Boiler house natural light



Environmental

Reduction of CO



Reduction in CO up to 99%.
Requirement is 70% reduction.



Plant Support

Plant 14 Emission Project



Plant Support

Plant 15 Emissions



Chemical Reduction

- Prioritize and address leaking machines
- Extend coolant life
- Reduce machine pump outs
- Reduces waste generation
- Reduces the need to purchase unnecessary raw materials



Questions

