

# Groot Industries, Inc. Lake Transfer Station

## LAKE TRANSFER STATION LOCAL SITING HEARING



# Groot Industries, Inc. Lake Transfer Station

## **DEVIN A. MOOSE, P.E., DEE**

- National Director of Solid Waste Consulting for Shaw Environmental, Inc., a CB&I Company
- Civil Engineering Degree from University of Missouri – Rolla
- Registered Professional Engineer in 9 States, including Illinois
- Diplomat of the American Academy of Environmental Engineers
- Approximately 30 years of experience in all aspects of solid waste
- Lead engineer for 17 Illinois transfer station siting proceedings, representing both the public and private sectors
- Reviewing engineer for 9 Illinois transfer station siting applications
- Permitted 22 transfer stations within the State of Illinois

# Groot Industries, Inc. Lake Transfer Station

## TRANSFER STATION DEVELOPMENT PROCESS

- **Local Siting Approval**
- IEPA Development Permit
- Local Building Permits
- IDOT Review and Approval
- Construction
- IEPA Operating Permit



## LOCAL SITING APPROVAL

- Need to demonstrate that the proposed facility meets the requirements of Section 39.2 of the Illinois Environmental Protection Act:
  1. Need
  2. Location, Design, Operation
  3. Land Use and Real Estate
  4. Floodplain
  5. Health and Safety
  6. Traffic
  7. Hazardous Waste
  8. Solid Waste Plan Consistency
  9. Regulated Recharge

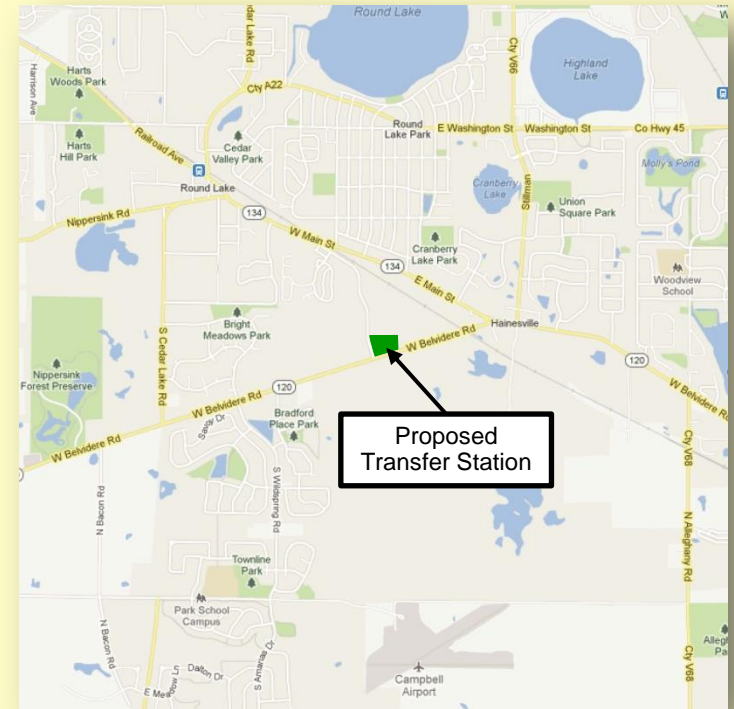
## **SITING CRITERIA ADDRESSED IN THIS PRESENTATION**

- CRITERION 2     *"The Facility is so designed, located and proposed to be operated that the public health, safety and welfare will be protected."*
- CRITERION 4     *"The Facility is located outside the boundary of the 100-year floodplain."*
- CRITERION 5     *"The plan of operations for the Facility is designed to minimize the danger to the surrounding area from fire, spills, or other operational accidents."*
- CRITERION 7     *"The Facility will NOT be treating, storing, or disposing of hazardous waste."*
- CRITERION 9     *"The Facility is NOT located within a regulated recharge area."*

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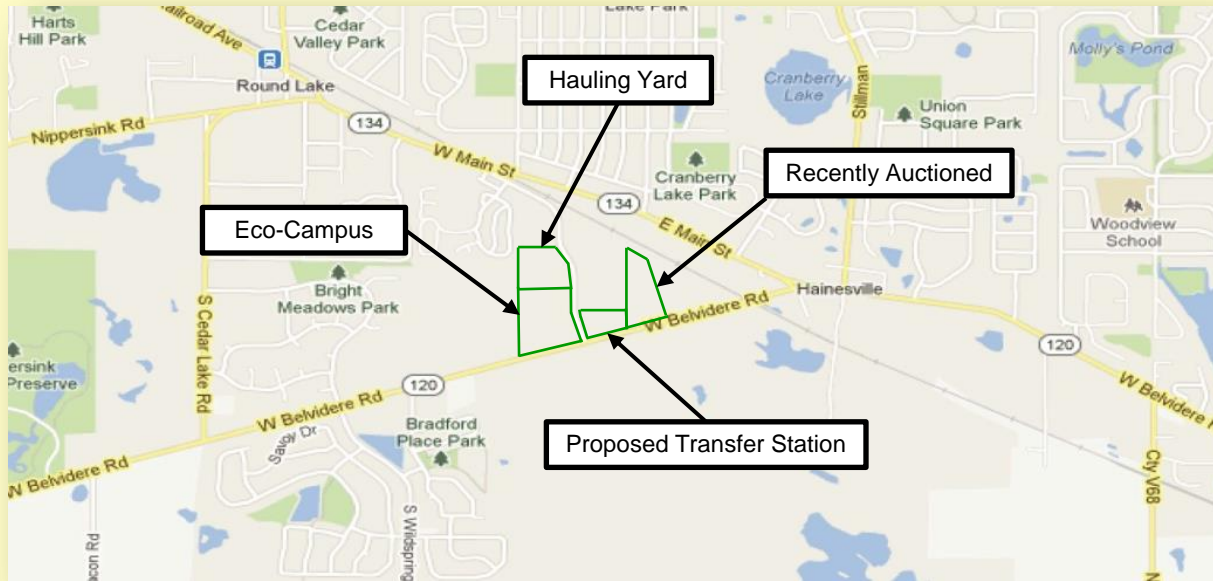
## BASIC SITE INFORMATION

- Property Location: 201 Porter Drive, in the northeast corner of Illinois Route 120 (Belvidere Road) and Porter Drive within the corporate limits of the Village of Round Lake Park
- Proposed Facility Size: 3.9 acres
- Anticipated Throughput: Approximately 750 tons per day of municipal waste, landscape waste, and/or recyclables
- Existing Zoning Designation: I-1 Industrial



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## SITE LOCATION



## BASIC BUILDING INFORMATION

- Transfer Building
  - 27,800 square foot concrete and steel structure with an eave height of approximately 40 feet.
  - 16-foot high, 18-inch thick reinforced concrete push-walls
  - 21,960 square foot, 12-inch thick reinforced concrete tipping floor
  - Loading bays and tarping station along the northern wall
- Tipping Floor
  - Gently sloped to series of trench drains to collect incidental liquids.
  - Drains will be routed to a triple-trap oil/water/grit separator prior to discharge to sanitary sewer (or holding tank)





## **SECTION 39.2 CRITERION 2 DESIGN, LOCATION, AND OPERATION**

*“The facility is so designed, located and proposed to be operated that the public health, safety and welfare will be protected.”*

## LOCATION STANDARDS

- Residential Setback
- Wetlands
- Archaeologic and Historic Sites
- Endangered Species
- Wild or Scenic Rivers
- Proximity to Airports
- Floodplain (Criterion 4)
- Regulated Recharge (Criterion 9)

# Groot Industries, Inc. Lake Transfer Station

## DISTANCE FROM RESIDENTIAL AREAS

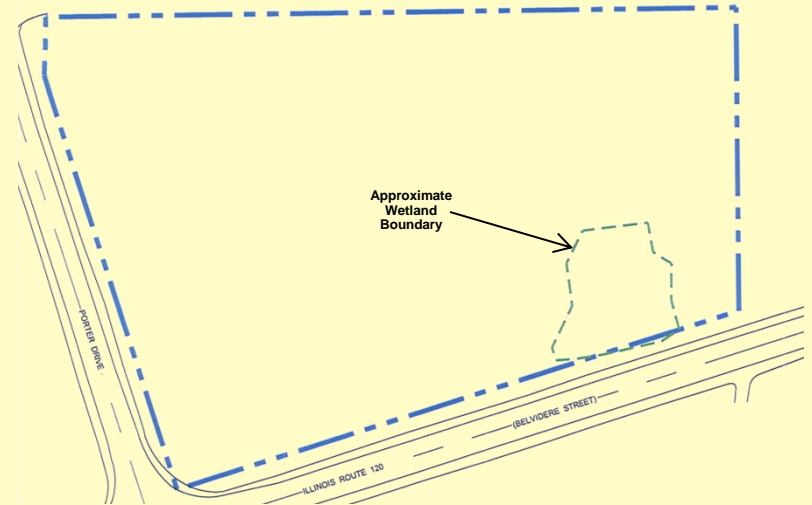
- Section 22.14 of the Illinois Environmental Protection Act does not allow a transfer station to be established within 1,000 feet of the nearest property zoned primarily for residential uses or within 1,000 feet of any dwelling.
  - The nearest residentially zoned property is located more than 1,500 feet to the northeast of the proposed transfer station in Hainesville.
  - The nearest dwelling is located over 1,000 feet west of the proposed transfer station.
  - The site complies with Section 22.14 of the Illinois Environmental Protection Act.



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## WETLANDS

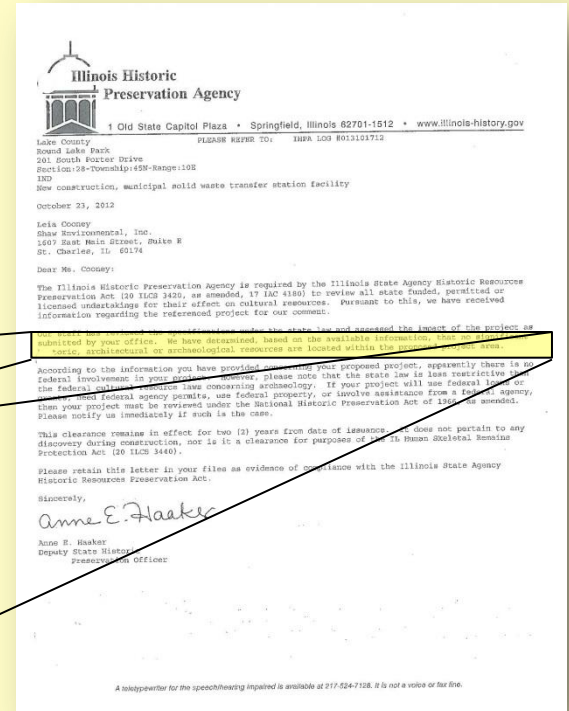
- One 0.25 acre wetland was delineated.
- Anticipated disturbance of 0.16 acre with transfer station development.
- Jurisdictional determination by Lake County Stormwater Management Commission and United States Army Corps of Engineers is an Isolated Water of Lake County.
- A Watershed Development Permit will be obtained from the Lake County Stormwater Management Commission prior to filling.
- Will be mitigated at a 1.5:1 ratio resulting in a replacement of approximately 0.24 acre.



## ARCHAEOLOGIC OR HISTORIC SITES

- The Illinois Historic Preservation Agency determined that no significant archaeological or historic sites located within the area of the proposed transfer station.

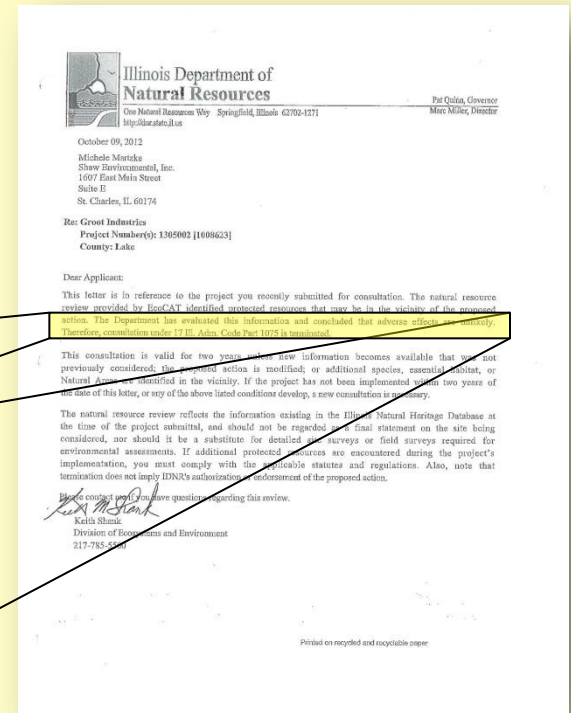
“We have determined that no significant historic, architectural, or archaeological resources are located within the proposed project area.”



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## ENDANGERED SPECIES

- The Illinois Nature Preserves Commission determined that there are no endangered or threatened species, INAI sites, or dedicated nature preserves present in the area that would be negatively impacted by development of the transfer station.



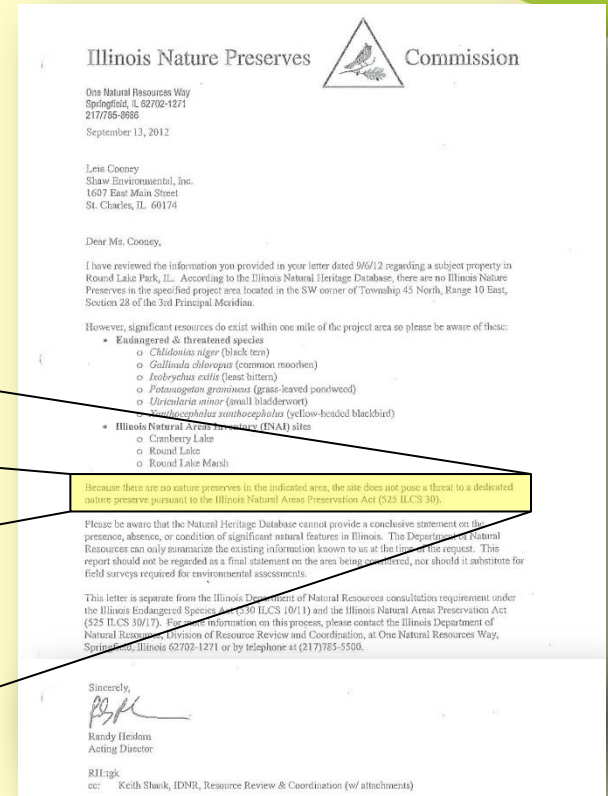
“The Department has evaluated this information and concluded that adverse effects are unlikely. Therefore, consultation under 17 Ill. Adm. Code Part 1075 is terminated.”

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## NATURE PRESERVES

- The Illinois Department of Natural Resources has also reviewed the site and has indicated that adverse effects to protected resources from project development are unlikely.

“Because there are no nature preserves in the indicated area, the site does not pose a threat to a dedicated nature preserve pursuant to the Illinois Natural Areas Preservation Act (525 ILCS 30).”



## WILD AND SCENIC RIVERS

- There are no rivers designated for protection under the National Wild and Scenic Rivers Act within the proposed facility watershed.
- The only river in Illinois that is designated for protection is the Vermillion River (Middle Fork) as shown in the adjacent photograph.

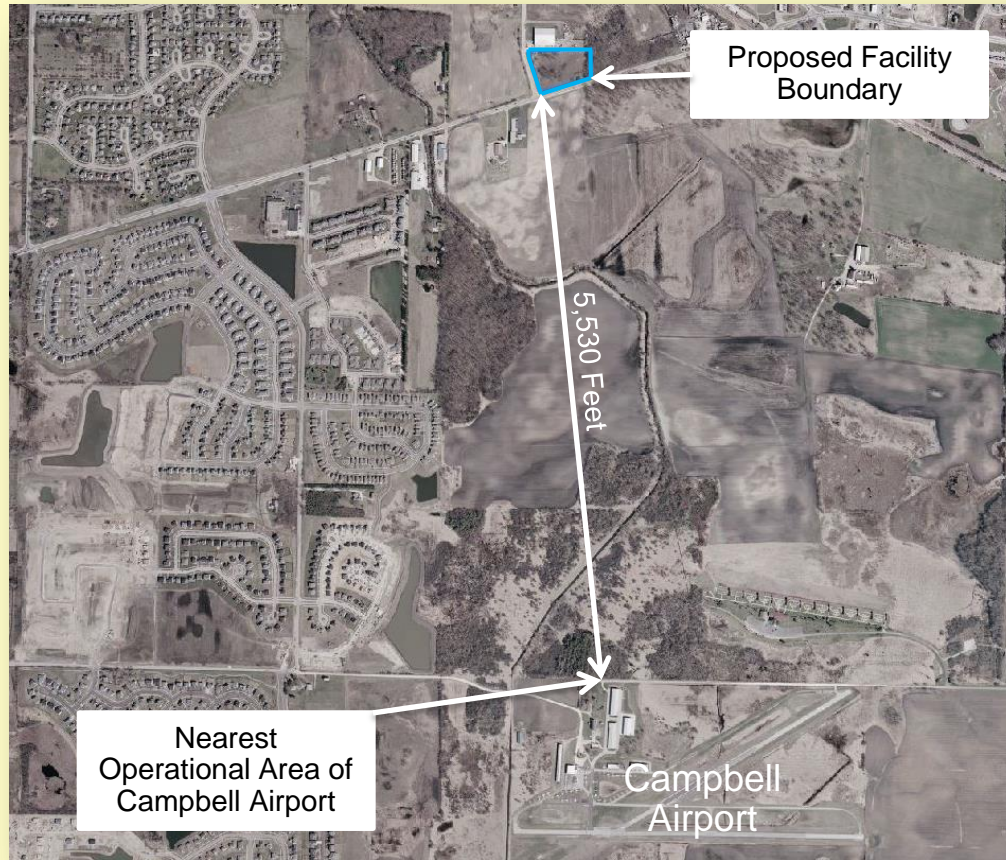




## PROXIMITY TO AIRPORTS

- The proposed transfer station will be located more than 5,500 feet from Campbell Airport and is located outside of the Runway Protection Zone of this airport.
- As the proposed transfer station is located outside of the 5,000 foot separation recommended by the Federal Aviation Administration (FAA) for airports serving piston-powered aircraft (Campbell Airport) and will be an indoor waste handling facility, the proposed transfer station is not considered incompatible with safe operation of Campbell Airport in accordance with FAA advisory guidance.
- Prior to commencing operations, Campbell Airport, the FAA, and the Illinois Department of Aviation will be notified.

## PROXIMITY TO CAMPBELL AIRPORT



## **SECTION 39.2 CRITERION 4 FLOODPLAIN**

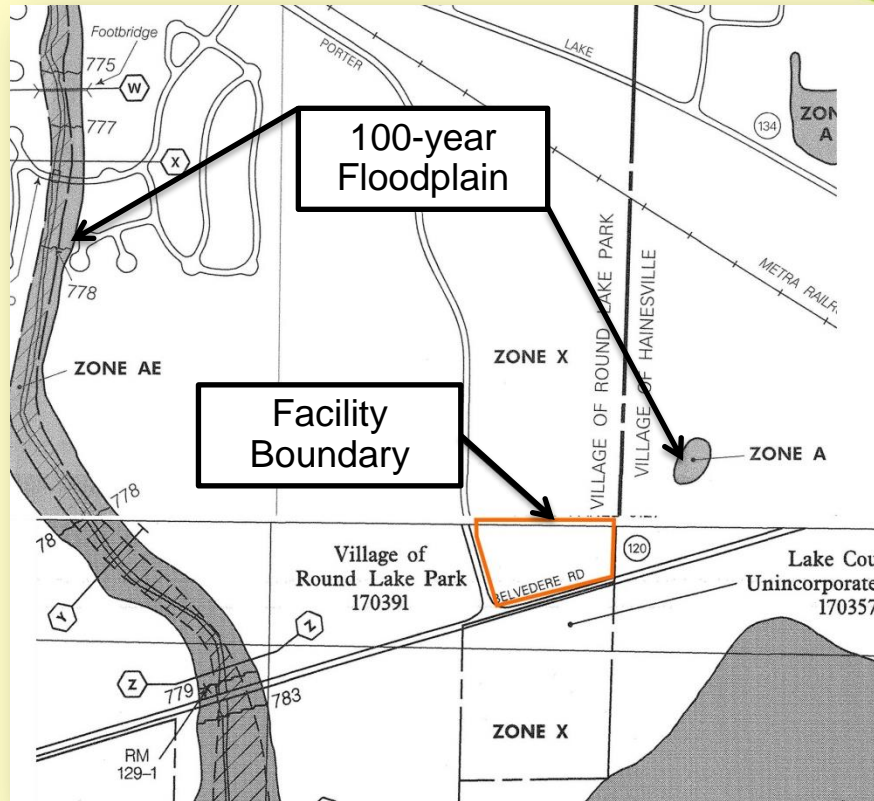
*" The facility shall be located outside the boundary of the 100-year floodplain, or if the facility is a facility described in subsection (b) of Section 22.19 (a), the site is flood-proofed."*

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## SECTION 39.2 CRITERION 4 - FLOODPLAIN

### Key Finding

The Facility is not located within a 100-Year Floodplain, as defined by the Federal Emergency Management Agency (FEMA).



## **OPINION**

It is my professional opinion that the facility is located outside the boundary of the 100-year floodplain.

## **SECTION 39.2 CRITERION 9 REGULATED RECHARGE**

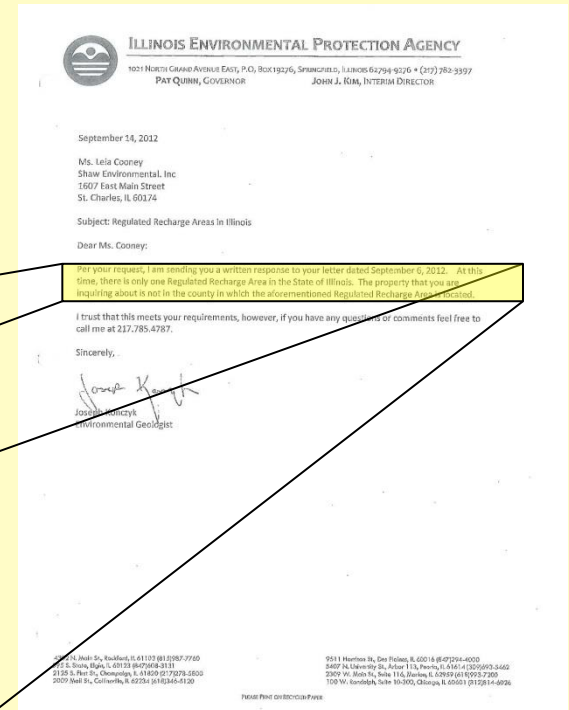
*"If the Facility will be located within a Regulated Recharge Area, all applicable requirements specified by the Pollution Control Board and established by the Illinois Environmental Protection Act (Board) for such area shall be met."*

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## REGULATED RECHARGE AREA FINDINGS

- The proposed Groot Industries Lake Transfer Station will not be located within a Regulated Recharge Area.
- Pursuant to Sections 17.3 and 17.4 of the Act, the only regulated recharge area designated in Illinois is located in Peoria County.

“At this time, there is only one Regulated Recharge Area in the State of Illinois. The property that you are inquiring about is not located in the county in which the aforementioned Regulated Recharge Area is located.”



## **OPINION**

It is my professional opinion that the Facility is NOT located within a Regulated Recharge Area.

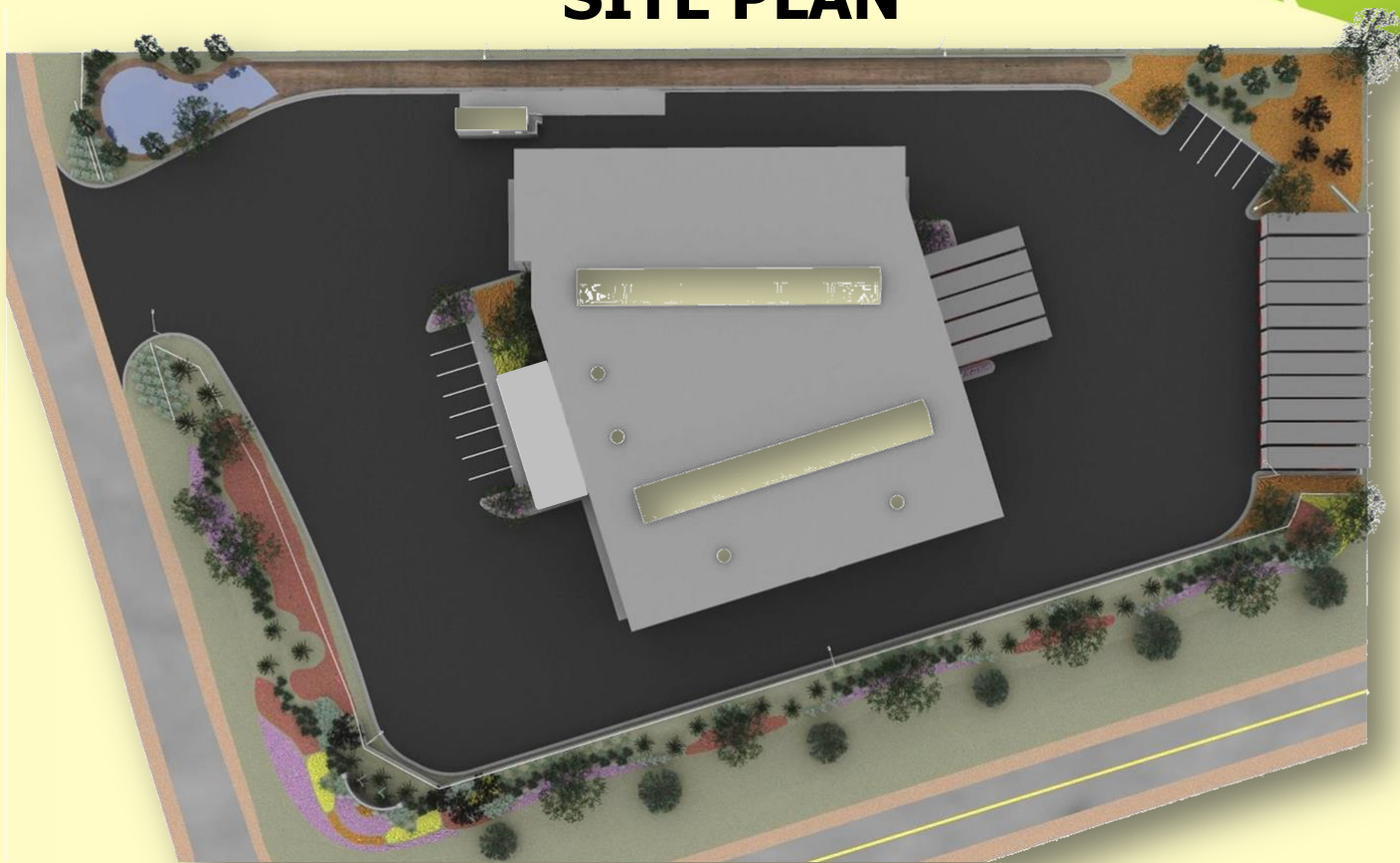


## PROPOSED SITE IMPROVEMENTS

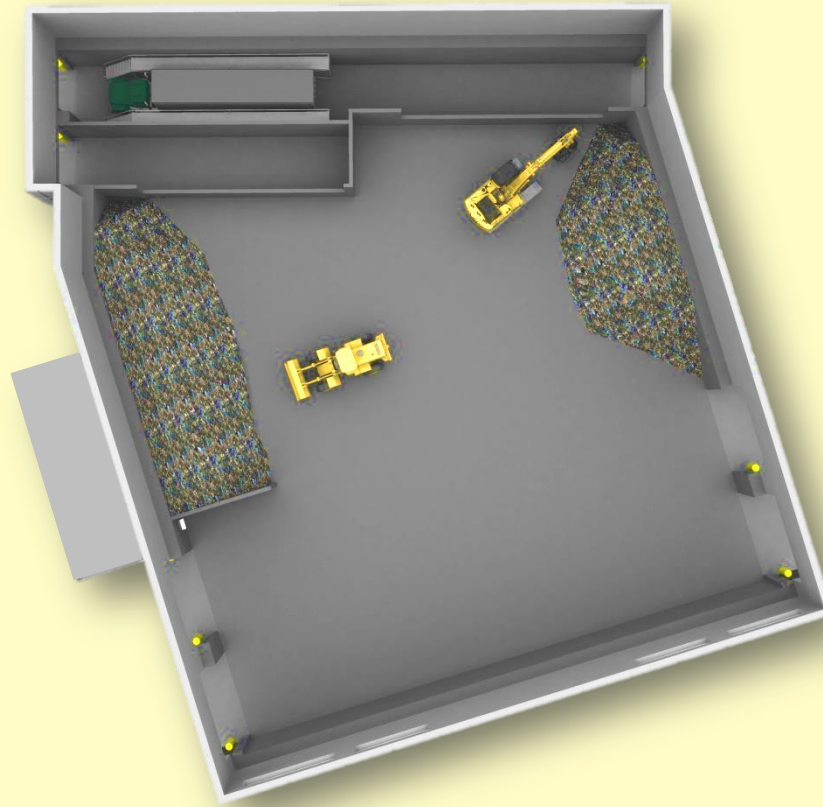
- Construction of an approximately 27,800 square foot concrete and steel transfer station building
- Construction of an approximately 270 square foot scalehouse and installation of a facility scale
- Paving of all access drives and interior circulation routes
- Construction of a stormwater bio-swale and stilling basin to pre-treat stormwater and promote sedimentation
- Development of screening along Porter Drive and Route 120 with the construction of berms and the use of landscape plantings

# Groot Industries, Inc. Lake Transfer Station

## SITE PLAN

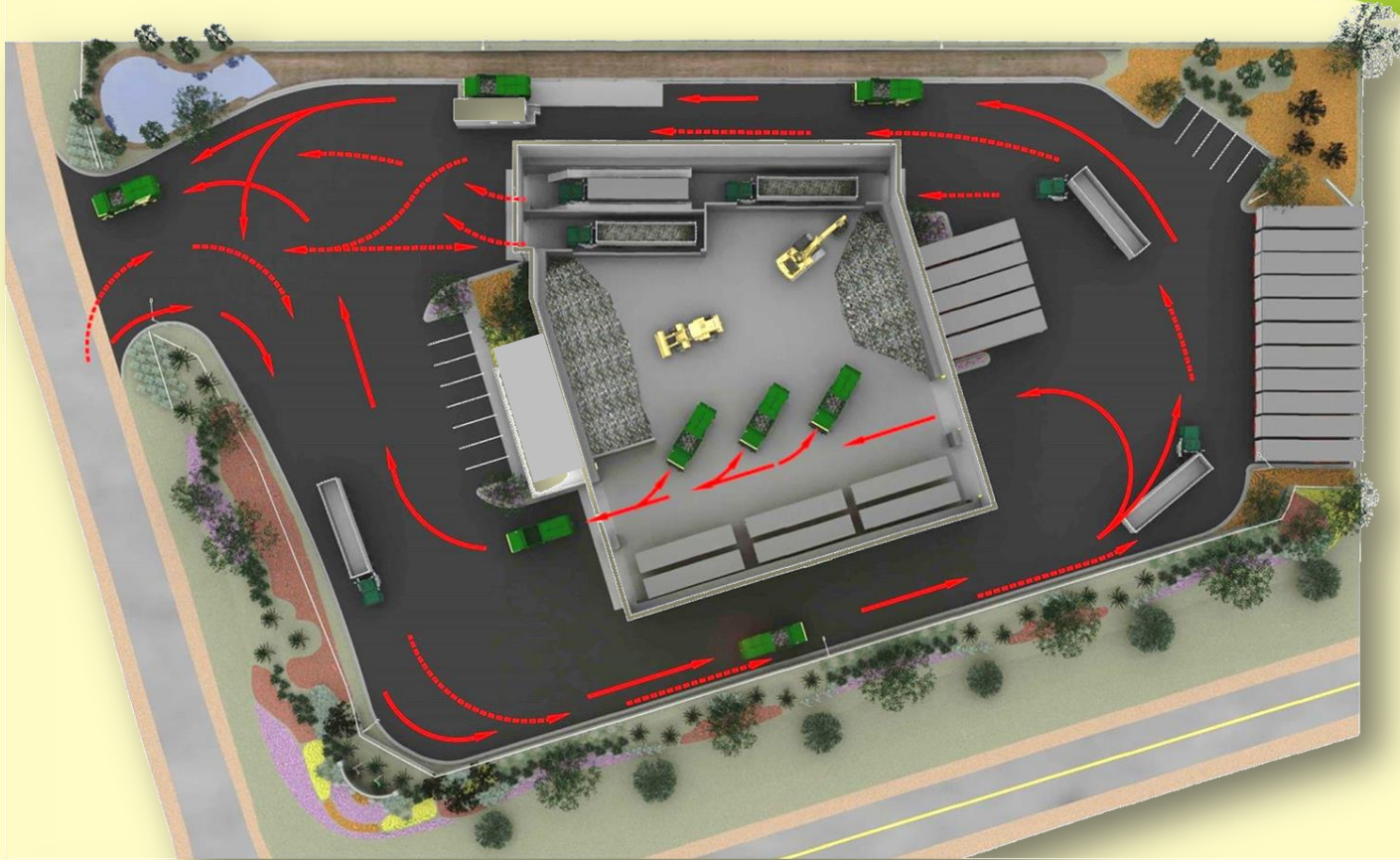


## FLOOR PLAN

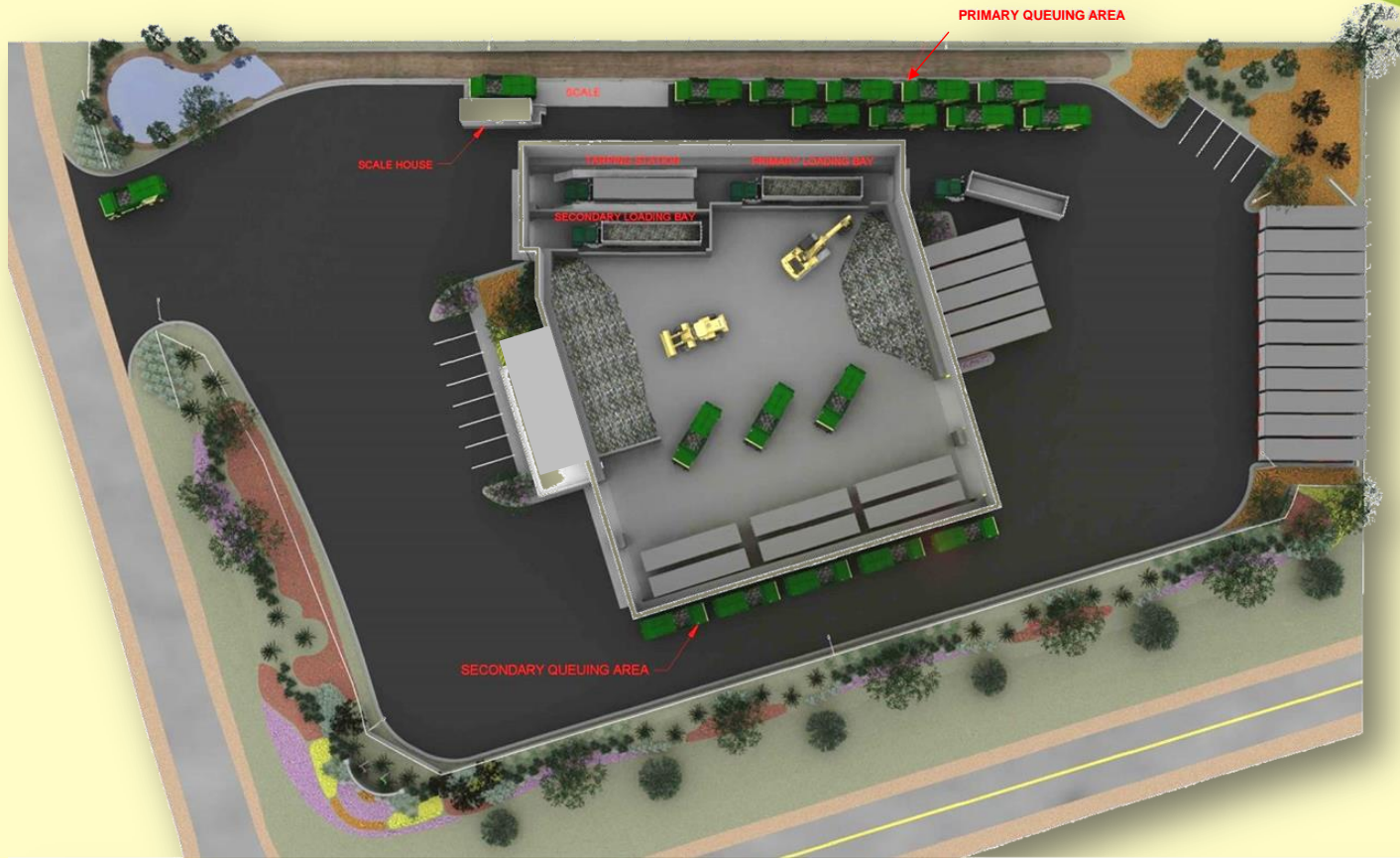


# Groot Industries, Inc. Lake Transfer Station

## TRAFFIC FLOW



## VEHICLE QUEUING



# Groot Industries, Inc. Lake Transfer Station

## VIDEO ANIMATION OF FACILITY OPERATION



## HOURS OF OPERATION

- Requesting ability to operate 24 hours per day, 7 days per week in order to provide operational flexibility to accommodate overnight deliveries of waste, if necessary.
- It is anticipated that the facility will typically receive and transfer the majority of incoming waste from 4:00 AM to 8:00 PM Monday through Friday, and 4:00 AM to 12:00 PM Saturday.
- It will typically be closed on Sundays and holidays.



**SECTION 39.2  
CRITERION 7  
HAZARDOUS WASTE PRECLUSION**

*"The Facility will NOT be treating, storing, or disposing of hazardous wastes."*



## AUTHORIZED WASTES

- The proposed transfer station will accept non-hazardous municipal waste, landscape waste, and source separated recyclables, including office paper, newspaper, cardboard, aluminum, glass and plastics.



## UNAUTHORIZED WASTE

The following materials are considered unauthorized waste and will not be accepted at the proposed transfer station:

- Regulated hazardous wastes
- Regulated and manifested special wastes
- Soils
- Industrial process wastes
- Sludge
- Used motor oil
- Pollution control wastes
- Regulated PCB wastes
- Potentially infectious medical wastes (as defined by Section 3.360 of the Act)
- Liquid wastes (including bulk liquids)
- Universal wastes (as defined by 35 Ill. Admin. Code 733)
- Regulated asbestos-containing materials
- Source, special or by-product nuclear materials
- Radioactive wastes (both high and low level)
- Transuranic wastes
- Lead-acid (automotive) batteries
- White goods
- Bulk loads of whole tires (incidental tires received at the proposed transfer station will be segregated and stored for pickup by an off-site recycler)



## **OPINION**

The Facility will NOT be treating, storing, or disposing of hazardous wastes.

## OTHER COMMON OPERATION CONCERNS

- Litter      This transfer station is designed and proposed to be operated to minimize impact on neighboring property.
- Odor
- Pests
- Noise      The proposed transfer station has a comprehensive Operating Plan that details waste acceptance and handling procedures, nuisance control procedures, staffing and equipment requirements, and cleaning procedures.
- Dust

## LITTER

- Collection vehicles will be required to be fully enclosed, covered, or use other means to prevent litter from being blown from the vehicles during travel.
- All inbound waste collection vehicles will be required to remain fully enclosed or covered until positioned within the building and all transfer operations will occur completely within the transfer station building.
- Groot will routinely patrol and remove litter from the facility, all public roadway rights-of-way within 1,500 feet of the facility, and from private property within 500 feet of these roads with the permission of the property owners.

## ODOR

- All waste transfer operations will be conducted within the building.
- The host agreements require no noticeable odors at the facility boundary.
- The tipping floor will be cleared of waste on a daily basis and the transfer building and tipping floor will routinely be cleaned.
- Waste materials will be continually transferred throughout the operating day on a first-in, first-out basis.
- Incoming waste which exhibits an unusually strong odor will be immediately transferred from the proposed transfer station.
- Customers found to habitually deliver wastes with unusually strong odors will be denied access to the proposed transfer station.
- Non-toxic odor neutralizers will be provided in the facility misting system as necessary.

## PESTS

- All exposed waste will be contained within the transfer station building.
- Waste will be transferred on a first-in, first-out basis.
- The tipping floor will be free of waste materials on a daily basis.
- Loaded transfer trailers that are stored overnight at the proposed transfer station will be fully tarped, parked within the transfer station building, and will be removed from the proposed transfer station at the start of the following operating day.
- A professional exterminator will inspect the proposed transfer station on a monthly basis, at a minimum, and will employ exterminating measures if needed.

## NOISE

- The proposed transfer station is located within an industrially zoned area.
- The waste tipping and transferring operations will be conducted within the transfer station building.
- All on-site equipment will be equipped with mufflers and other sound-suppressing devices, as required.
- Industrial buffer exists to the north and west, by a forested area to the east, and by State Highway 120 and open space to the south.
- All transfer of materials will take place within the building. The transfer station will be equipped with high performance rubber doors that will automatically open and close as collection and transfer vehicles enter and leave the building between the hours of 4:00 and 8:00 AM.



## DUST

- All access drives, parking areas, storage areas and vehicle-maneuvering areas within the facility will be paved.
- Mud and dust tracked onto the property will be removed with a street sweeper on a routine basis.
- All public roads and right-of-ways within, at a minimum, one thousand feet will be swept at least once daily.
- A misting system will be provided to help mitigate dust inside the transfer building.

## **OPINION**

It is my professional opinion that the facility is so designed, located and proposed to be operated that the public health, safety and welfare will be protected.

## **SECTION 39.2 CRITERION 5**

### **MINIMIZE DANGER TO THE SURROUNDING AREA FROM FIRE, SPILLS, OR OTHER OPERATIONAL ACCIDENTS**

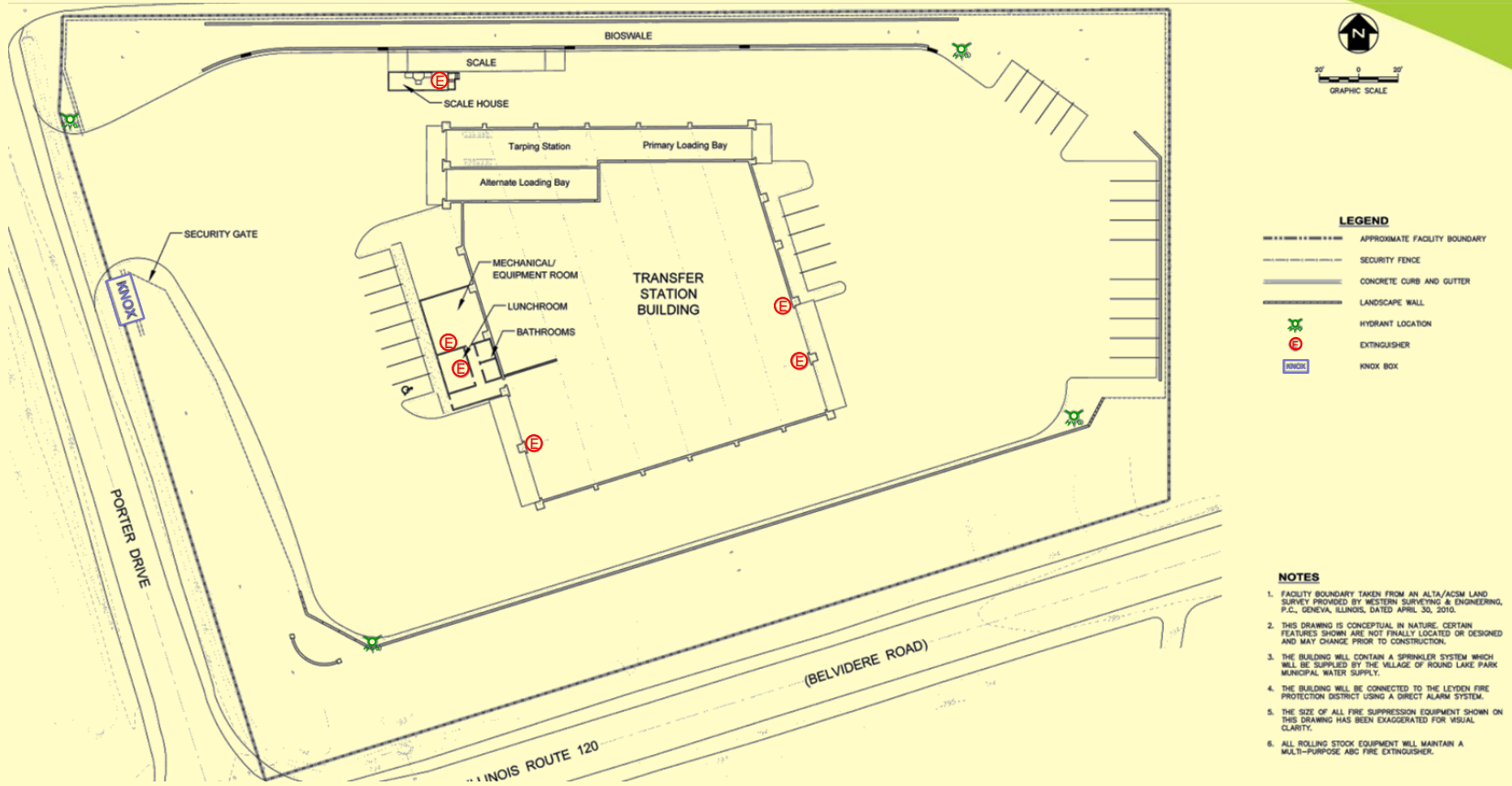
*"The plan of operations for the facility is designed to minimize the danger to the surrounding area from fire, spills, or other operational accidents."*

## FIRE CONTROL

- The transfer station will be serviced by the municipal water supply and the Greater Round Lake Fire Protection District;
- The transfer station building and scale house will be constructed of concrete and steel and will be equipped with a sprinkler system and will be directly connected to the Greater Round Lake Fire Protection District;
- A Knox Box located near the entrance will contain all keys necessary for property access;
- Fire hydrants are located strategically around the facility;
- Fire extinguishers will be on all mobile equipment and at various locations in the building;
- The transfer station building is accessible from maneuvering areas present on all sides;
- Heavy equipment will be fitted with heat shields to minimize the threat of fire; and
- Employees will be trained in fire response measures as detailed in the Health and Safety Plan and emergency phone numbers will be located at the Facility telephones.

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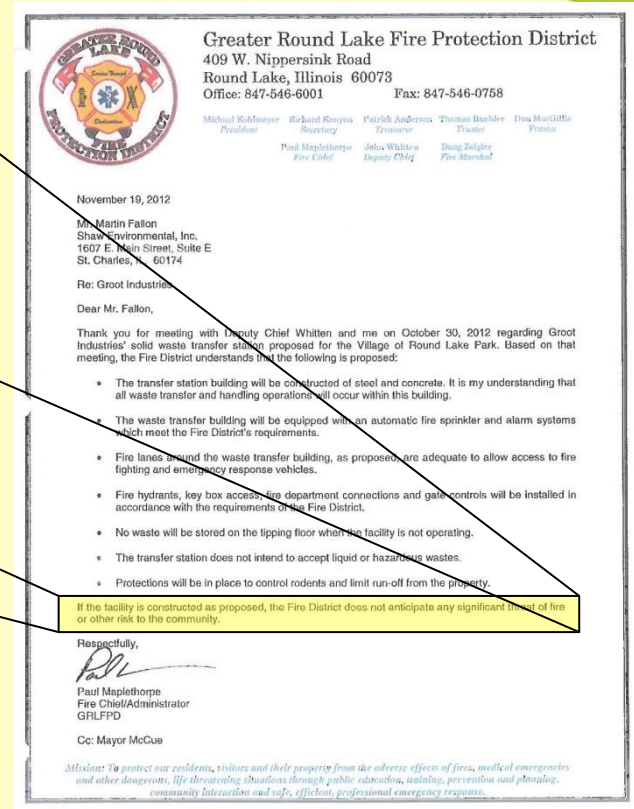
## FIRE PROTECTION



# Groot Industries, Inc. Lake Transfer Station

## FIRE PROTECTION DISTRICT REVIEW

“If the facility is constructed as proposed, the Fire District does not anticipate any significant threat or other risk to the community.”



## SPILL CONTROL

- The facility will not accept liquid, special or hazardous wastes;
- Most likely nature of any spills would be during equipment fueling or incidental liquids from waste materials unloaded on the tipping floor;
- Equipment fueling will follow the procedures detailed in the Health and Safety Plan;
- Incidental liquids on the tipping floor will be absorbed by waste or captured by the wastewater collection system;
- A sluice gate will be installed at the outlet of the stormwater management system;
- On-site staff will be trained in spill response procedures as outlined in the Health and Safety Plan; and
- A spill response contractor will be retained to provide rapid emergency response, if necessary.

## SAFETY TRAINING

- All operations personnel will receive regular training, at a minimum, in the following areas to ensure that the facility is operated in accordance with regulations and in a safe and environmentally sound manner:
  - Operational procedures,
  - Health and safety procedures,
  - Lockout-tagout procedures,
  - Fire control and prevention,
  - Emergency first aid,
  - Detection, identification and handling of any
  - unauthorized wastes, and
  - Emergency evacuation.





## **OPINION**

It is my professional opinion that the plan of operations for the facility is designed to minimize the danger to the surrounding area from fire, spills, or other operational accidents.

## SUMMARY OF OPINIONS

- CRITERION 2      The Facility is so designed, located and proposed to be operated that the public health, safety and welfare will be protected.
- CRITERION 4      The Facility is located outside the boundary of the 100-year floodplain.
- CRITERION 5      The plan of operations for the Facility is designed to minimize the danger to the surrounding area from fire, spills, or other operational accidents.
- CRITERION 7      The Facility will NOT be treating, storing, or disposing of hazardous waste.
- CRITERION 9      The Facility is NOT located within a regulated recharge area.