

GREENTECH - BioFuels and Renewable Chemicals

# GreenWaste & ZWED Anaerobic Digestion Facility



## OVERVIEW

GreenWaste and Zero Waste Energy Development, plan on construction of the First of its kind in the nation, 270K tons per year, anaerobic dry fermentation facility to process waste-streams and produce compost and biogas. Biogas will be captured and used to power both the new facility and an existing adjacent facility, with surplus sold back to the grid. IES provided the Code and design integration expertise that was required to allow “F” occupancy classification in an otherwise “H” designation. The team worked closely with Eggersmann, LLC, the inventor of the Kompoferm® process and integrated their designs into a ready-for-permit package.

## PROJECT DETAILS

- Brownfield utilization of old waste dump site for new waste stream diversion processing facility
- Designed a 40,000 cfm ventilation system with a SCRAM fan mode to 80,000 cfm upon gas detection
- Classified area lighting and electrical designs
- Off-site waste water pumping capabilities
- Odor management and treatment using biofilters

## IES SOLUTIONS

- Demonstrated safety of facility to operate under an “F” occupancy vs. “H”, providing a significant cost savings
- Increased energy savings through installation of integrated exhaust fan system tied to gas detection to allow lower continuous ventilation rates
- Reduced required heat/energy input through the capture and recirculation of odor laden air and liquid leachates from composting side of operations to maintain biological process chemistries and activity
- Provided extensive cost of ownership models for informed decision making during the design process
- Prepared responses for the CEQA review process

## LOCATION

San Jose, California

## TEAM (PARTNERS)

Architect: DGA Architects  
Structural: SEI  
GC: South Bay Construction

## PROJECT DURATION

Design: 8 months  
Construction: On-Going

## PROJECT VALUATION

\$10,000,000 - \$50,000,000

## ABOUT IES

Integrated Engineering Services (IES) is an established firm providing innovative and cost-effective solutions to meet your complex engineering, design and operational needs.

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