

D	Project Name BOXBOROUGH ONCOLYTIC VIRAL VECTOR/GENE THERAPY CDMO PI	PEC Activity Diagram
	Industry Code 13 Pharmaceutical & Biotech	Project Type Plant Expansion
	TIV (USD) 75,000,000	
	SIC Code 2836 Biological Products, Except Diagnostic Substances	Sector Final Formulation (Oral, Solid, Parenteral, Topical, etc.)
	SIC Product 2836*0036 Aseptic Fill and Finish - Ampoules, Cartridges, Syringes, Vials	
	Status Active	Last Update 03-Mar-2022
	Environmental Air (A) Water (W)	Initial Release 13-Nov-2020
		Construction Labor Preference Union, Non-Union
		Operations Labor Preference Union, Non-Union
Square Footage	Existing Sq. Ft. 118,000 Sq. Ft.	
	Retrofitted/Renovated Sq. Ft. 75,000 Sq. Ft.	

Plant Owner Vibalogics GmbH	Plant Parent Recipharm AB
Plant Name Boxborough Oncolytic Viral Vector/Gene Therapy CDMO	Unit Name
Plant ID 3436811	
Location 1414 Massachusetts Avenue	Phone +1 781 239 0700
City/State Boxborough, Massachusetts 01719 U.S.A.	Zone/County MA*01, Middlesex

Project Responsibility	Project Company	Project Contact
Project Director	Vibalogics GmbH 55 William Street, Suite 240 Wellesley, Massachusetts 02481 U.S.A.	Tom Hochuli Head of Cell and Gene Therapy Operations [Tel.] +1 781 239 0700 [E-Mail] tom.hochuli@vibalogics.com
Project Executive	Ampersand Capital Partners 55 William Street, Suite 240 Wellesley, Massachusetts 02481 U.S.A.	David Anderson General Partner [Tel.] +1 781 239 0700 [E-Mail] dqa@ampersandcapital.com
A&E	DPS Engineering Limited 959 Concord Street, #100 Framingham, Massachusetts 01701 U.S.A.	John Doring Senior Project Manager [Tel.] +1 774 777 5357 / [Alt.] +1 617 833 1113 [E-Mail] john.doring@dpsgroupglobal.com
C/M	The Cardinal Group 120 Presidential Way, Suite 100 Woburn, Massachusetts 01801 U.S.A.	Michael Sullivan Director of Project Management [Tel.] +1 617 799 6987 [E-Mail] msullivan@cardinalgrouppusa.com

PEC® Timing E2 **PEC® Activity** Preliminary Engineering

Project Probability High (81-99%)

Scope Vibalogics GmbH with Ampersand Capital Partners (Vibalogics' Parent Company), DPS Engineering and the Cardinal Group performs Preliminary Engineering for Oncolytic Viral Vector/Gene Therapy CDMO Plant Expansion (Phase II). DETAILS: Within an approximately 290,000 sqft facility (Co-tenant with Arranta Bio, projects #300677872 and #300678188), as Phase II of an 118,000 sqft (total Vibalogics leased space within building)/\$150MM project, and after completion of Phase I (#300644731), renovate remainder of leased space and equip with modular equipment/production suites for the contract production of oncolytic viruses, viral vector vaccines and viral vector gene therapy products and additional fill/finish capabilities (Possible COVID-19 Fill/Finish for Janssen). REQUIRES: Building Modifications, Temperature and Humidity Controls, Fire and Security System, Modular Cleanrooms (ISO 5-8/Class 100-100,000), Voice/Data/Wireless System, Controls (PLC/DCS), Single-Use Suspension Bioreactors (Up to 2,000 Liter), Fixed-Bed Bioreactors, Aseptic Fill/Finish Equipment (Vials), Water-For-Injection Loops/System (WFI), Aseptic Capping and Sealing Equipment, Lyophilization Equipment, Glove Boxes, Laboratory Stations, Laboratory Automation, Laboratory Information Management System (LIMS), Analytical Equipment, Data Recorders, Centrifuges, Autoclaves, Compressors (Air), Clean Steam Generators, Ultrafiltration Equipment Purification Equipment, Water Purification System, Suspension Tanks, Sterile Filtration Equipment, Aseptic Packaging Equipment, Checkweighers, Bar Coding/Scanning/Labeling Equipment, Visual Inspection System, Conveyors (Belt), Conveyors (Belt), NGF Boiler, Chiller, Industrial Gas Supply and Storage, Refrigeration, Freezers, Laboratory/Hygienic Piping. ENVIRONMENTAL: (A) HEPA Filtration System, Fume Hoods; (W) Pre-Wastewater Treatment System.

Schedule Vibalogics GmbH with Ampersand Capital Partners (Vibalogics' Parent Company), DPS Engineering and The Cardinal Group continues with Preliminary Engineering through 2Q22 (Apr). Vibalogics with The Cardinal Group releases any remaining Equipment RFQs plus Subcontractor Bid Documents 1Q22 (Mar)-3Q22 (Aug). Tentative Construction Kick-Off 2Q22 (Apr). Project Completion 2Q23 (Apr). **NOTE: PHONE NUMBER FOR VIBALOGICS GOES TO AMPERSAND CAPITAL; EMAIL IS BEST FORM OF COMMUNICATION FOR TOM HOCHULI. MODULAR PROCESS SUITES ARE BEING CONSTRUCTED OFFSITE.**

Details Mar-2022 Project is in Preliminary Engineering

Project Milestones	AFE 202201	Sub Bid Doc 202203	Completion 30-Apr-2023	Precision YEAR
	Equip RFQ 202203	Kick-Off 202204	Kickoff Slippage 0 Months	Duration 13 Months
Engineering Contracting	Electrical	Environmental HVAC	Instrumentation	Mechanical Structural General [G/C]
Project Key Needs	Structural	Control Room	Process Equip	
	Instrumentation Electrical	Mechanical HVAC	Storage	
	Piping/Fittings Insulation/Coatings	Environmental	Valves	

Batch
Process

Material Handling

Matter Phase
Energy
Buy
Sell

Liquid

Solid

Plant Standard Contacts

Functional/Actual Title	Contact Name/E-mail	Telephone/On-site	QC Date/LinkedIn ID
Plant Manager	Paul Rodriguez	[Phn.] +1 781 239 0700	Mar-2022
Director of Manufacturing Operations	paul.rodriguez@vibalogics.com	Yes	aul-rodriguez-41568714
Maintenance Manager	Mike Feeney	[Phn.] +1 781 239 0700	Mar-2022
Director of Facilities and Maintenance	mike.feeney@vibalogics.com	Yes	mike-feeney-40985163
Purchasing Manager	Aruna Tikaare	[Phn.] +1 781 239 0700	Mar-2022
Supply Chain Manager	aruna.tikaare@vibalogics.com	Yes	arunartikaare
Engineering Manager	Tim Rossini	[Phn.] +1 781 239 0700	Mar-2022
Engineering Director	tim.rossini@vibalogics.com	Yes	tim-rossini-83575312
Environmental Manager	Cynthia LeFave	[Phn.] +1 781 239 0700	Mar-2022
EHS Manager	cynthia.lefave@vibalogics.com	Yes	cynthialefave
Safety Manager	Cynthia LeFave	[Phn.] +1 781 239 0700	Mar-2022
EHS Manager	cynthia.lefave@vibalogics.com	Yes	cynthialefave
Utilities Manager	Mike Feeney	[Phn.] +1 781 239 0700	Mar-2022
Director of Facilities and Maintenance	mike.feeney@vibalogics.com	Yes	mike-feeney-40985163
Human Resource Manager	Kaylee Strahan	[Phn.] +1 781 239 0700	Mar-2022
Human Resource Director	kaylee.strahan@vibalogics.com	Yes	kaylee-w-strahan

Historical Reports

Project Name	Report Date	TIV	Phase
BOXBOROUGH ONCOLYTIC VIRAL VECTOR/GENE THERAPY CDMO PLANT COVID EXP (PHASE II)	13-Nov-2020	75,000,000 USD	Project Scope (P1 - 03)
BOXBOROUGH ONCOLYTIC VIRAL VECTOR/GENE THERAPY CDMO PLANT COVID EXP (PHASE II)	16-Nov-2020	75,000,000 USD	Project Scope (P1 - 03)
BOXBOROUGH ONCOLYTIC VIRAL VECTOR/GENE THERAPY CDMO PLANT COVID EXP (PHASE II)	10-Mar-2021	75,000,000 USD	Detailed Design (P1 - 09)
BOXBOROUGH ONCOLYTIC VIRAL VECTOR/GENE THERAPY CDMO PLANT COVID EXP (PHASE II)	03-Mar-2022	75,000,000 USD	Preliminary Engineering (E