

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**AIR AND RADIATION ADMINISTRATION
APPLICATION FOR A PERMIT TO CONSTRUCT**

DOCKET # 13-24

COMPANY: Gold Bond Building Products, LLC
LOCATION: 2301 S. Newkirk St., Highlandtown, MD 21224
APPLICATION: One (1) wallboard reclaim system screener.

<u>ITEM</u>	<u>DESCRIPTION</u>
1	Notice of Application and Informational Meeting
2	Environmental Justice (EJ) Information - EJ Fact Sheet and MDE Score and Screening Report
3	Permit to Construct Application Forms and Layout Drawings
4	Zoning

**MARYLAND DEPARTMENT OF THE ENVIRONMENT
AIR AND RADIATION ADMINISTRATION**

NOTICE OF APPLICATION AND INFORMATIONAL MEETING

The Maryland Department of the Environment, Air and Radiation Administration (ARA) received a permit-to-construct application from Gold Bond Building Products, LLC on November 15, 2023 for one (1) wallboard reclaim system screener. The proposed installation will be located at 2301 S. Newkirk St., Highlandtown, MD 21224.

In accordance with HB 1200/Ch. 588 of 2022, the applicant provided an environmental justice (EJ) Score for the census tract in which the project is located using the Maryland EJ Screening Tool. The EJ Score, expressed as a statewide percentile, was shown to be 95 which the Department has verified. This score considers three demographic indicators – minority population above 50%, poverty rate above 25% and limited English proficiency above 15%. Multiple environmental health indicators are used to identify overburdened communities.

Copies of the application, the MDE EJ Screening Tool Report (which includes the score), and other supporting documents are available for public inspection on the Department's website at <https://mde.maryland.gov/programs/Permits/AirManagementPermits/Pages/index.aspx> (click on Docket Number 13-24). Any applicant-provided information regarding a description of the environmental and socioeconomic indicators contributing to that EJ score can also be found at the listed website. Such information has not yet been reviewed by the Department. A review of the submitted information will be conducted when the Department undertakes its technical review of all documents included in the application.

Pursuant to the Environment Article, Section 1-603, Annotated Code of Maryland, an Informational Meeting has been scheduled so that citizens can discuss the application and the permit review process with the applicant and the Department.

An Informational Meeting will be held on December 16, 2024 at 6:00 PM at the Enoch Pratt Southeast Anchor Library, located at 3601 Eastern Avenue, Baltimore MD 21224.

In case of inclement weather, the meeting will be held on January 6, 2025.

The Department will provide an interpreter for deaf and hearing impaired persons provided that a request is made for such service at least ten (10) days prior to the meeting. Further information may be obtained by calling Ms. Shannon Heafey at 410-537-4433.

Christopher R. Hoagland, Director
Air and Radiation Administration



The Applicant's Guide to Environmental Justice and Permitting

What You Need to Know

This fact sheet is designed to provide guidance to applicants on incorporating environmental justice screening requirements pursuant to House Bill 1200, effective October 1, 2022.

What is Environmental Justice?

The concept behind the term environmental justice (EJ) is that regardless of race, color, national origin, or income, all Maryland residents and communities should have an equal opportunity to enjoy an enhanced quality of life. How to assess whether equal protection is being applied is the challenge.

Communities surrounded by a disproportionate number of polluting facilities puts residents at a higher risk for health problems from environmental exposures. It is important that residents who may be adversely affected by a proposed source be aware of the current environmental issues in their community in order to have meaningful involvement in the permitting process. Resources may be available from government and private entities to ensure that community health is not negatively impacted by a new source located in the community.

Extensive research has documented that health disparities exist between demographic groups in the United States, such as differences in mortality and morbidity associated with factors that include race/ethnicity, income, and educational attainment. House Bill 1200 adds to MDE's work incorporating diversity, equity and inclusion into our mission to help overburdened and underserved communities with environmental issues.

What is House Bill 1200 and what does it require?

Effective October 1, 2022, House Bill 1200 requires a person applying for a permit from the Department under §1-601 of the Environment Article of the Annotated Code of Maryland or any permit requiring public notice and participation to include in the application an EJ Score for the census tract where the applicant is seeking the permit; requiring the Department, on receiving a certain permit application to review the EJ Score; and requiring notices to include information related to EJ Scores and generally relating to environmental permits and environmental justice screenings.

What is a "Maryland EJ Tool"?

The term "Maryland EJ Tool" means a publicly available state mapping tool that allows users to: (1) explore layers of environmental justice concern; (2) determine an overall EJ score for census tracts in the state; and (3) view additional context layers relevant to an area. The MDE EJ Screening Tool is considered a Maryland EJ Tool.

What is an "EJ Score"?

The term "EJ Score" means an overall evaluation of an area's environment and environmental justice indicators, as defined by MDE in regulation, including: (1) pollution burden exposure; (2) pollution burden environmental effects; (3) sensitive populations; and (4) socioeconomic factors.

The MDE EJ Screening Tool considers three demographic indicators, minority population above 50%, poverty rate above 25% and limited English proficiency above 15%, to identify underserved communities, and multiple environmental health indicators to identify overburdened communities. The tool uses these indicators to calculate a



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The Applicant's Guide to Environmental Justice and Permitting

What You Need to Know

Final EJ Score Percentile, statewide. It is that score, linked to the census tract where the project is to be located, that needs to be reported to MDE as part of your permit application.

What does the application require?

The link for the MDE EJ Screening Tool is located on the Department's website, www.mde.maryland.gov. Click on the Environmental Justice header at the top of the Department's home page, then select EJ Screening Tool from the menu on the left. Click on Launch the EJ Screening Tool. After you open the tool, click okay on the opening screen. At the top right, please click the first button for the MDE Screening Report. Input the address of the proposed installation in the address bar. Click on the Report button. Once the report has been generated select the print icon and save it in a .pdf format.

The applicant needs to include the MDE Screening Report with the EJ Score from the MDE EJ Screening Tool as part of the permit application upon submission. An application will not be considered complete without the report.

The applicant is encouraged to provide the Department with a discussion about the environmental exposures in the community. This will provide pertinent information about how the applicant should proceed with engaging with the community. Residents of a community with a high indicator score and a high degree of environmental exposure should be afforded broader opportunities to participate in the permit process and understand the impacts a project seeking permit approval may have on them.

Questions

For air quality permits, please call 410-537-3230.

For water permits, please call 410-537-4145.

For land permits pertaining to Solid Waste, please call 410-537-3098. For land permits pertaining to Oil Control, please call 410-537-3483.

For land permits pertaining to Animal Feeding Operations, please call 410-537-4423.

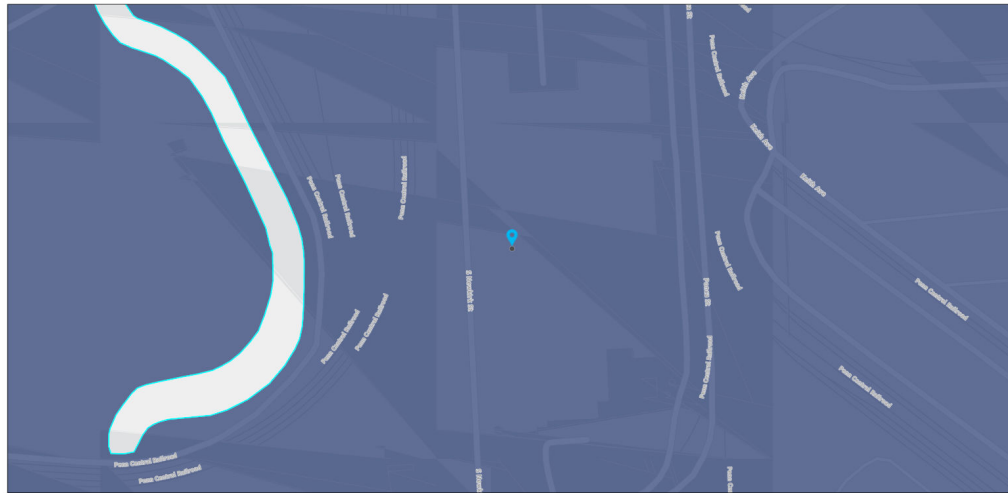
For land permits pertaining to Biosolids, please call 410-537-3403.



MDE Screening Report

Area of Interest (AOI) Information

Jan 12 2024 10:59:56 Eastern Standard Time



MDE Final EJ Score (%ile score)

- 0% - 24.9th %ile
- 25% - 49.9th %ile
- 50% - 74.9th %ile
- 75% - 100th %ile



MDE, US, OMT, Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

Summary

Name	Count	Area(mi²)	Length(mi)
MDE Final EJ Score (%ile score)	1	N/A	N/A
Overburdened Communities Combined Score	1	N/A	N/A
Overburdened Pollution Environmental Score (%ile score)	1	N/A	N/A
Overburdened Exposure Score (%ile score)	1	N/A	N/A
Overburdened Sensitive Population (%ile score)	1	N/A	N/A
Socioeconomic/Demographic Score 2020 (Percentile score) (Underserved Community)	1	N/A	N/A
Air Emissions Facilities	1	N/A	N/A
Sulfur Dioxide (2010)	0	N/A	N/A
Ozone (2015)	1	N/A	N/A
Fine Particles (2012)	1	N/A	N/A
Biosolids FY 2020 and Current Permit Details	0	N/A	N/A
Biosolids FY2010 - 2014 Permit Details	0	N/A	N/A
Biosolids FY2009 Expired Permit Details	0	N/A	N/A
Biosolids FY 2020 and Current Permits Distribution By Acreage	0	N/A	N/A
Biosolids FY2015 - 2019 Permits Distribution By Acreage	1	N/A	N/A
Biosolids FY2010 - 2014 Permits Distribution By Acreage	1	N/A	N/A
Biosolids FY2009 Permits Expired Distribution By Acreage	1	N/A	N/A
Biosolids FY 2020 and Current Permit Distribution By Percent Coverage	1	N/A	N/A
Biosolids FY2015 - 2019 Permit Distribution By Percent Coverage	1	N/A	N/A
Biosolids FY2010 - 2014 Permit Distribution By Percent Coverage	1	N/A	N/A
Biosolids FY2009 Expired Permit Distribution By Percent Coverage	1	N/A	N/A
Concentrated Animal Feeding Operations (CAFOs)	0	N/A	N/A
Composting Facilities	0	N/A	N/A
Food Scrap Acceptors	0	N/A	N/A
Landfills	0	N/A	N/A
Correctional Facilities	0	N/A	N/A
Industrial Food Suppliers	0	N/A	N/A
Residential Colleges	0	N/A	N/A
Non-Residential Colleges	0	N/A	N/A
Hospitals	0	N/A	N/A
High Schools	0	N/A	N/A
Grocery Stores	0	N/A	N/A
10 Miles from Landfill	15	N/A	N/A
10 Miles from Composting Facility	0	N/A	N/A
General Composting Facilities Tier 2 (MD)	0	N/A	N/A
Commercial Anaerobic Digester (MD)	0	N/A	N/A
Out of State Facilities	0	N/A	N/A
30 mile buffer (Maryland)	3	N/A	N/A
30 Mile Buffer (Out of State)	0	N/A	N/A
Land Restoration Facilities	0	N/A	N/A
Determinations (points)	0	N/A	N/A
Determinations (areas)	0	N/A	N/A
Entities	0	N/A	N/A
Active Coal Mine Sites	0	N/A	N/A
Historic Mine Facilities	0	N/A	N/A

All Permitted Solid Waste Acceptance Facilities	0	N/A	N/A
Municipal Solid Waste Acceptance Facilities	0	N/A	N/A
Maryland Dam Locations	0	N/A	N/A
Maryland Pond Locations	0	N/A	N/A
Surface Water Intakes	0	N/A	N/A
Wastewater Discharge Facilities	0	N/A	N/A
Drinking Water	0	N/A	N/A
Clean Water	0	N/A	N/A

MDE Final EJ Score (%ile score)

#	Census tract identifier	Geographic Area Name	Total Population	Final EJ Score Percent (for this tract)	Final EJ Score Percentile (Distribution across Maryland)	Area(mi²)
1	24510260605	Census Tract 2606.05, Baltimore city, Maryland	5980	42.51	94.74	N/A

Overburdened Communities Combined Score

#	GEOID20	Geographic_Area_Name	TotalPop	Overburd_Exposure_Percent	Overburd_Exposure_Percentile	Overburd_Poll_Environment_Percent	Overburd_Poll_Environment_Percentile	Sensitive_Population_Percent
1	24510260605	Census Tract 2606.05, Baltimore city, Maryland	5,980	62.43	99.86	31.63	99.79	56.74

#	Sensitive_Population_Percentile	OverburdenedAllPercent	OverburdenedAllPercentile	Area(mi²)
1	43.13	97.33	99.38	N/A

Overburdened Pollution Environmental Score (%ile score)

#	GEOID20	Geographic_Area_Name	RentalsOccupiedPer79Percent	Percentile	PercentRMP	PercentRMPEJ	PercentHazWaste	PercentHazWaste EJ
1	24510260605	Census Tract 2606.05, Baltimore city, Maryland	25.38	81.20	69.24	60.13	44.77	57.41

#	PercentSuperFund NPL	PercentSuperFund NPLEJ	PercentHazWW	PercentHazWWEJ	BrownFPercent	Percentile_1	PercentPowerPlants	Percentile_12
1	47.80	62.30	96.21	92.24	1.27	98.56	0.00	0.00

#	PercentCAFOS	Percentile_12_13	PercentActiveMines	Percentile_12_13_14	PollutionEnvironmentalPercent	PollInEnvironmentalPercentile	Area(mi²)
1	0.00	0.00	0.00	0.00	31.63	99.79	N/A

Overburdened Exposure Score (%ile score)

#	GEOID20	Geographic_Area_Name	Total_Pop	PercentNATA_Cancer	Percentile_NATA_Cancer	PercentNATA_Res p_HI	Percentile_NATA_Res p_HI	PercentNATA_Diesel
1	24510260605	Census Tract 2606.05, Baltimore city, Maryland	5,980.00	60.00	51.28	80.00	57.19	51.52

#	Percentile_NATA_Diesel	PercentNATA_PM25	PercentileNATA_PM25	PercentOzone	PercentileOzone	PercentTraffic	PercentileTraffic	PercentTRI
1	58.22	98.07	52.66	99.24	56.88	15.01	54.65	78.95

#	PercentileTRI	PercentHazWasteLF	Percentile_HazWasteLF	PollutionExposurePercent	PollutionExposurePercentile	Area(mi²)
1	99.86	16.67	95.49	62.43	99.86	N/A

Overburdened Sensitive Population (%ile score)

#	GEOID20	Geographic_Area_Name	PerAsthma	PercentileAst	PerMyo	PercentileMyo	PerLow	PercentileLow
1	24510260605	Census Tract 2606.05, Baltimore city, Maryland	58.20	79.77	61.30	79.90	24.20	40.60

#	PercentBroad	PercentileBroad	PercentSens	PercentileSens	Area(mi²)
1	16.75	87.42	40.11	71.92	N/A

Socioeconomic/Demographic Score 2020 (Percentile score) (Underserved Community)

#	Census tract identifier	Geographic Area Name	Total Population	Percent Poverty	Percent Minority	Percent Limited English Proficiency	Demographic Score (Percent for this tract)	Demographic Score (Percentile Distribution across Maryland)	Area(mi²)
1	24510260605	Census Tract 2606.05, Baltimore city, Maryland	5,980	57.71	46.12	3.72	35.85	74.30	N/A

Air Emissions Facilities

#	Agency Interest ID	Facility Name	Agency Interest Alt Name	Premises ID	Emission Year	Air Code	NAIC Code	NAIC Description
1	16681	National Gypsum Company	National Gypsum Company-16681	510-0233	2021	Title V	327,420	Gypsum Product Manufacturing

#	Physical Address	Physical City	Physical State	Physical Zip Code	County	Carbon Monoxide (CO)	Nitrous Oxide	Particulate Matter (PT)
1	2301 S Newkirk St	Highlandtown	MD	21,224	Baltimore City	537.15	235.32	209.88

#	Particulate Matter (10 Filterable)	Particulate Matter (2.5 Filterable)	PM Condensables	Volatile Organic Compounds (VOC)	Sulphur Dioxide (SOx)	Carbon Dioxide	Mercury	Methane
1	160.42	160.42	63.34	128.81	75.08	767,279.16	0.00	14.73

#	Billable Criteria Pollutants (BCRI)	Billable Hazardous Pollutants (BHAP)	Total Billable and Non-Billable Hazardous Air Pollutant Emissions (HAPS)	Count
1	662.97	0.00	24.39	1

Ozone (2015)

#	STATEFP10	COUNTYFP10	COUNTYNS10	GEOID10	NAME10	Ozone NAA Area	8-Hr Ozone (2015) Designation	8-HR Ozone (2015) Classification	8-Hr Ozone (2015) Status	Area(mi²)
1	24	510	01702381	24510	Baltimore	Baltimore, MD	Nonattainment	Moderate	No Data	N/A

Fine Particles (2012)

#	STATEFP10	COUNTYFP10	COUNTYNS10	GEOID10	NAME10	PM2.5 (2012) Status	Area(mi²)
1	24	510	01702381	24510	Baltimore	Attainment/Unclassifiable	N/A

Biosolids FY2015 - 2019 Permits Distribution By Acreage

#	County Name	FY2015to2019	Area(mi²)
1	Baltimore City	No Data	N/A

Biosolids FY2010 - 2014 Permits Distribution By Acreage

#	County Name	FY2010to2014	Area(mi²)
1	Baltimore City	No Data	N/A

Biosolids FY2009 Permits Expired Distribution By Acreage

#	County Name	FY2009	Area(mi²)
1	Baltimore City	No Data	N/A

Biosolids FY 2020 and Current Permit Distribution By Percent Coverage

#	County Name	FY2020andAfter	Area(mi²)
1	Baltimore City	No Data	N/A

Biosolids FY2015 - 2019 Permit Distribution By Percent Coverage

#	County Name	FY2015to2019	Area(mi²)
1	Baltimore City	No Data	N/A

Biosolids FY2010 - 2014 Permit Distribution By Percent Coverage

#	County Name	FY2010to2014	Area(mi²)
1	Baltimore City	No Data	N/A

Biosolids FY2009 Expired Permit Distribution By Percent Coverage

#	County Name	FY2009	Area(mi²)
1	Baltimore City	No Data	N/A

10 Miles from Landfill

#	County	Type	Facility_N	ADDRESS	FILL	SITE__ACRE	AI_No_	Owner_Type
1	ANNEARUNDEL	WPT	Curtis Creek PF & TS	23 Stahl Point Road, Baltimore MD 21226.	-	12.80	23,330.00	PRI
2	BALTIMORE	WPF	Recovermat Mid-Atlantic, LLC PF	2202 Halethorpe Farm Road, Halethorpe MD 21227.	-	8.50	18,296.00	PRI
3	BALTIMORE	WTS	Western Acceptance Facility TS	3310 Transway Road, Halethorpe MD 21227.	6	6.00	10,889.00	CTY
4	BALTIMORECITY	WPT	Baltimore Processing & Transfer Cntr.	5800 Chemical Road, Baltimore MD 21226.	-	15.60	10,299.00	PRI
5	BALTIMORECITY	WPT	Baltimore Recycling Center PF & TS	1030 Edison Highway, Baltimore MD 21213.	-	12.50	63,585.00	PRI
6	BALTIMORECITY	WMI	Baltimore Regional MWI	3200 Hawkins Point Road, Baltimore MD 21226	-	4.00	439.00	PRI
7	BALTIMORECITY	WPT	Daniels Sharp smart PF & TS	6611 Chandlery Street, Baltimore MD 21224	-	1.00	63,950.00	PRI
8	BALTIMORECITY	WIF	Fort Armistead Road-Lot 15 LF	3601 Fort Armistead Road, Baltimore MD 21226.	32	65.00	100,995.00	PRI
9	BALTIMORECITY	WIF	Hawkins Pt. Plant Industrial Waste LF	3901 Fort Armistead Road, Baltimore MD 21226.	30	30.00	22,198.00	PRI
10	BALTIMORECITY	WPF	L & J Processing Facility	222 North Calverton Road, Baltimore MD 21223.	-	1.00	64,649.00	PRI
11	BALTIMORECITY	WTS	Northwest Transfer Station	5030 Reisterstown Road, Baltimore MD 21215.	-	6.60	23,220.00	MUN
12	BALTIMORECITY	WMF	Quarantine Road Municipal LF	6100 Quarantine Road, Baltimore MD 21226.	126	153.00	13,670.00	MUN
13	BALTIMORECITY	WTE	Southwest Resource Recovery	1801 Annapolis Road, Baltimore MD 21230.	-	15.00	472.00	PRI
14	BALTIMORECITY	WPT	Stericycle Medical Waste PF & TS	5901 Chemical Road, Baltimore MD 21226.	-	2.40	8,713.00	PRI
15	BALTIMORECITY	WIF	W.R. Grace & Co. - Conn.	5500 Chemical Road, Baltimore MD 21226.	10.7	157.00	2,102.00	PRI

#	MD_GRID__E	PERMITNUMB	EXPIRATION	Area(mi²)
1	917 /500	2013-WPT-0539	12/18/2018, 7:00 PM	N/A
2	888 /506	2010-WPF-0341	12/25/2015, 7:00 PM	N/A
3	905 /510	2015-WTS-0599	5/10/2020, 8:00 PM	N/A
4	921 /499	2013-WPT-0627	2/23/2019, 7:00 PM	N/A
5	920 /535	2014-WPT-0631	12/27/2019, 7:00 PM	N/A
6	926 /568	2011-WIN-0036	3/7/2017, 7:00 PM	N/A
7	950 /525	2015-WPT-0633	2/8/2020, 7:00 PM	N/A
8	927/500	2011-WIF-0653	9/25/2018, 8:00 PM	N/A
9	925 /501	2005-WIF-0527A	1/3/2016, 7:00 PM	N/A
10	896/531	2008-WPF-0634	6/28/2016, 8:00 PM	N/A
11	855 /550	2010-WTS-0038	1/16/2016, 7:00 PM	N/A
12	922 /502	2014-WMF-0325	11/8/2019, 7:00 PM	N/A
13	904 /523	2011-WTE-0030	10/5/2016, 8:00 PM	N/A
14	921 /501	2014-WPT-0591	12/9/2019, 7:00 PM	N/A
15	921 /500	2012-WIF-0613	1/29/2017, 7:00 PM	N/A

30 mile buffer (Maryland)

#	Facility_Name_1	Facility_Contact_1	Contact_Phone	Contact_Email_1	Contact_2	Contact_2_Phone	Contact_2_Email	URL	Area(mi²)
1	Bioenergy DEVCO - Maryland Organics Recycling Facility	Vinnie Bevivino	(202) 360-1805	Vbevivino@bioenergydevco.com	Mike Manna	(609) 744-2819	mmanna@bioenergydevco.com	https://www.bioenergydevco.com/maryland-organics-recycling-facility/	N/A
2	Veteran Compost - Aberdeen	Justen Garrity	(443) 584-3478	info@veterancompost.com	No Data	No Data	No Data	https://www.veterancompost.com/	N/A
3	Composting Facility at Alpha Ridge Landfill	Bureau of Environmental Services	(410) 313-6444	No Data	No Data	No Data	No Data	https://www.howardcountymd.gov/public-works/composting-facility	N/A

Gold Bond Building Products, LLC

Application for Construction Permit – Reclaim Screen

Supporting Documentation

November 6, 2023

Application for Construction Permit - Reclaim Screen

Supporting Documentation

October 18, 2023

Prepared By:

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Prepared For:

Gold Bond Building Products, LLC
2301 Newkirk St., South
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Bridget H. Antczak
Certified Project Manager

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Appendices

- Appendix A. Application Forms
- Appendix B. Supporting Calculations
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1 Introduction

Gold Bond Building Products, Inc. (GBB) operates a gypsum wallboard manufacturing facility at 2301 South Newkirk Street, Baltimore, MD. Air emissions from the facility are permitted through the facility's Part 70 Operating Permit number 24-510-00233. NGC is proposing to install:

- A reclaim screen with a collection cyclone to separate paper backing from the off-spec wallboard

GBB is applying to the Maryland Department of the Environment (MDE) for a construction permit for the new process. The only pollutant that will be emitted from the proposed project is in the form of particulate matter (PM-10). The estimated uncontrolled emissions of particulate matter less than 10 micron (PM-10) are greater than one (1) ton per year (tpy). However, most of the operations are located within an enclosure and a baghouse dust collector is used to control some of the process emissions. Potential controlled PM-10 emissions are estimated to be 0.49 tpy. In addition, the facility is considered a non-metallic mineral processing plant and is therefore subject to New Source Performance Standards (NSPS) 40 CFR 60 Subpart OOO. Under COMAR 26.11.02.10(X), sources with an applicable federal regulation or sources with expected uncontrolled emissions greater than 1 tpy are required to obtain a permit to construct from MDE prior to construction. This document provides the required information for a construction permit application.

As mentioned above, GBB is an existing major source and air permitting at the facility are permitted through their Part 70 Operating Permit. While the current permit expired on July 1, 2022, the pending renewal application was deemed administratively complete on April 15, 2021.

The construction permit application is divided into four sections. Section 2 provides a detailed description of the proposed project, including a general process description. Section 3 provides emission rate estimates for the new process. Section 4 provides a regulatory review for the proposed project. Appendix A of this application contains the required forms for the construction permit application. Support calculations are provided in Appendix B. Other supporting documentation such as process flow diagrams and vendor information is provided in Appendix C.

2 Process Description

The GBB facility is located in an industrialized corridor along the Patapsco River in Baltimore, Maryland. The manufacturing facility processes raw materials into building products, such as wallboard. The facility began operating in 1947, with significant upgrades in 1978 and 1999.

Generally, the manufacture of wallboard involves combining several raw materials, gypsum being the primary component, charging these materials between two layers of paper to form a board, and drying the board in an oven. The process can use natural gypsum ore or synthetic gypsum. The gypsum ore is initially crushed off-site and then delivered to the site for stockpiling. Once on-site, the natural gypsum is further crushed and screened prior to use in the process. Synthetic gypsum is a sulfate material that results from the flue gas desulfurization (FGD) process at coal-fired power plants.

The gypsum is processed in impact mills and calciners to remove water and form land plaster and stucco. The processed gypsum or stucco is mixed with a variety of additives that define the properties of the product wallboard. The additives are mixed to form a slurry that is spread between two sheets that serve as a mold. The wet board travels the length of a conveying line where the calcium sulfate hemihydrate combines with water to form solid calcium sulfate dihydrate or gypsum, resulting in a rigid board. This board travels through a series of

board driers or kilns where the associated water is driven from the gypsum as a vapor. The dried board is conveyed to the board end sawing area and trimmed and bundled for shipment.

2.1 Reclaim Screen

The new process will be comprised of a screen, cyclone collector and ancillary equipment to separate the paper backing from the off-spec wallboard after the off-spec wall board goes the Reclaim crusher. Most of the operations will occur in an enclosure. Only the cyclone collector is located outside. However, the cyclone paper collector is ducted to a baghouse dust collector which exhausts inside the building. As such, the system is designed to minimize the generation of dust emissions. There are no combustion sources associated with this proposed project. The only anticipated emissions from the new process is gypsum, in the form of particulate.

3 Emission Calculations

The emissions from the reclaim screen are calculated using AP-42 Emission Factors and are described below.

3.1 Reclaim Screen

No stationary combustion sources are associated with the proposed materials transfer system. As such, the only pollutant emitted from the process is particulate matter from gypsum. Emissions from the process will be generated during material handling operations and at the transfer points.

The following process parameters and assumptions were used in the emission estimates:

- The maximum hourly throughput is 12 tons per hour
- Maximum annual throughput is 105,120 tons per year
- The cyclone paper collector is controlled by a baghouse with a 99.5% control efficiency
- All operations, except the cyclone paper collector, take place within an enclosure. The enclosure provides 90% control of particulate.

Table 3-1 presents the potential emissions of Total Suspended Particulate (TSP), PM-10 and PM2.5 for the proposed process controlled by the baghouse dust collector. Supporting calculations are presented in Appendix B.

Table 3-1 Estimated Potential Emissions of Particulate from Proposed Reclaim Screen

Process Operation	TSP Uncontrolled Emissions (lbs/yr)	PM-10/PM2.5 Uncontrolled Emissions (lbs/yr)	TSP Controlled Emissions (lbs/yr)	PM-10/PM2.5 Controlled Emissions (lbs/yr)
Screen	31,540	7,560	3,160	760
Transfer Points	680	260	60	20
Total	32,220	7,820	3,220	780
Total (tpy)	16.11	3.91	1.61	0.39

4 Regulatory Review

4.1 Permitting Requirements

The GBB facility in Baltimore, MD is a major source of nitrogen oxides (NO_x) and has an existing Part 70 Operating Permit (Permit No. 24-510-000233). The facility is not a major source of any other criteria pollutants. The facility also holds a variety of MDE construction permits and equipment registrations for individual sources that are included in the Part 70 Operating Permit.

As mentioned previously, the facility is proposing to install a reclaim screen to separate the paper backing from the off-spec wallboard after the wallboard is crushed by the reclaim crusher.

As presented in Section 3.0, the potential to emit of particulate matter from the reclaim screen is calculated to be 0.39 tpy of PM-10/PM2.5. The facility-wide total emissions will remain below the major source threshold for PM-10/PM2.5. In addition, the potential emissions increase would not be considered "Significant" under federal and state regulations. As such, the proposed project is not a Title I modification and does not trigger non-attainment new source review provisions. However, under COMAR 26.11.02.10(X), sources with an applicable Federal regulation or sources with expected uncontrolled emissions greater than 1 tpy are required to obtain a permit to construct from MDE prior to construction. In addition, the facility's Part 70 operating permit will need to be modified to include the proposed source. The regulatory requirements for a permit to construct are discussed in greater detail below.

4.2 MDE Regulatory Requirements

COMAR 26.11.02 outlines MDE's requirements for obtaining a permit to construct. Under these regulations, sources that have an applicable Federal standard or "expected uncontrolled emissions" greater than 1 tpy are required to obtain a permit to construct. Estimated emissions from the proposed project without an annual restriction on throughput, are greater than 1 tpy. In addition, the project is subject to a New Source performance Standard (NSPS). As such, GBB is required to obtain a permit to construct for the new system.

COMAR 26.11.15 outlines the requirements for sources that will emit a Toxic Air Pollutant (TAP). Emission sources that emit Class I and/or Class II TAPs are required to comply with the provisions of this regulation which include a Toxics Best Available Control Technology (T-BACT) Analysis and air dispersion modeling to demonstrate compliance with the risk-based allowable concentrations. The proposed material handling system will only be emitting gypsum in the form of particulate. Gypsum is not a Class I or Class II TAP. As such, this project is not subject to the provisions of this regulation.

COMAR 26.11.06.03 provides the requirements for controlling particulate emissions from new and existing sources. Specifically, Section D outlines the requirements for materials handling and construction operations. Under this regulation, a person may not cause or permit any material to be handled, transported, or stored without implementing reasonable precautions. As described previously, the new reclaim screen has several elements, including a baghouse dust collector that are designed to minimize particulate emissions.

COMAR 26.11.03 provides the requirements for sources with Part 70 operating permits. As mentioned above, this GBB facility has a part 70 operating permit that will need to be modified to include the new reclaim screen. There are three types of modifications to a Part 70 permit: administrative, minor or significant. The addition of this new

emission source would be considered a minor modification because it is not considered a Title I significant modification and it will not be removing or lessening any existing requirements.

4.3 Federal Requirements

40 CFR 60 New Source Performance Standards (NSPS) – The NSPS for nonmetallic mineral processing plants (Subpart OOO) applies to the reclaim screen and ancillary equipment. Under this NSPS, a nonmetallic processing plant includes screening operations and conveyors for nonmetallic minerals. For affected facilities constructed after April 22, 2008 that do not have a capture system and exhaust through building openings (not vents), this NSPS requires the following:

- Fugitive emissions from any screening operations or transfer point on belt conveyors shall not exceed 7 percent opacity.
- An initial performance test completed in accordance with §60.675(c)(1), which includes a Method 9 test.
- Periodic performance tests (at least every 5 years) in accordance with §60.675(c)(1).
- An initial notification to the NSPS delegated authority within 15 days of equipment start-up.

40 CFR 63 National Emission Standards for Hazardous Air Pollutants (NESHAP) – There are no NESHAPS that are applicable to the proposed project.

Appendix A

MDE Application Forms



AIR QUALITY PERMIT TO CONSTRUCT APPLICATION CHECKLIST

OWNER OF EQUIPMENT/PROCESS	
COMPANY NAME:	Gold Bond Building Products, LLC
COMPANY ADDRESS:	2301 S. Newkirk St., Baltimore, MD 21224
LOCATION OF EQUIPMENT/PROCESS	
PREMISES NAME:	Gold Bond Building Products, LLC
PREMISES ADDRESS:	2301 Newkirk Street, South, Baltimore, Maryland 21224
CONTACT INFORMATION FOR THIS PERMIT APPLICATION	
CONTACT NAME:	James Phipps
JOB TITLE:	Director Environmental Affairs - NGC Corporate, LLC
PHONE NUMBER:	704-365-7426
EMAIL ADDRESS:	jfhipps@nationalgypsum.com
DESCRIPTION OF EQUIPMENT OR PROCESS	
Reclaim Wallboard Screen	

Application is hereby made to the Department of the Environment for a Permit to Construct for the following equipment or process as required by the State of Maryland Air Quality Regulation, COMAR 26.11.02.09.

Check each item that you have submitted as part of your application package.

- ☒ Application package cover letter describing the proposed project
- ☒ Complete application forms (Note the number of forms included or NA if not applicable.)

No. <u>1</u>	Form 5	No. <u>NA</u>	Form 11
No. <u>NA</u>	Form 5T	No. <u>NA</u>	Form 41
No. <u>NA</u>	Form 5EP	No. <u>NA</u>	Form 42
No. <u>1</u>	Form 6	No. <u>NA</u>	Form 44
No. <u>NA</u>	Form 10		
- ☒ Vendor/manufacturer specifications/guarantees
- ☐ Evidence of Workman's Compensation Insurance
- ☒ Process flow diagrams with emission points
- ☐ Site plan including the location of the proposed source and property boundary
- ☒ Material balance data and all emissions calculations
- ☐ Material Safety Data Sheets (MSDS) or equivalent information for materials processed and manufactured.
- ☐ Certificate of Public Convenience and Necessity (CPCN) waiver documentation from the Public Service Commission ⁽¹⁾
- ☐ Documentation that the proposed installation complies with local zoning and land use requirements ⁽²⁾

⁽¹⁾ Required for emergency and non-emergency generators installed on or after October 1, 2001 and rated at 2001 kW or more.

⁽²⁾ Required for applications subject to Expanded Public Participation Requirements.

APPLICATION FOR FUEL BURNING EQUIPMENT

Information Regarding Public Outreach

For Air Quality Permit to Construct applications subject to public review, applicants should consider the following information in the initial stages of preparing a permit application.

If you are not sure at the time you are applying for a permit whether public review of your application is required or for information on steps you can take to engage the surrounding community where your planned project will be located, please contact the Air Quality Permits Program at 410-537-3225 and seek their advice.

Communicating and engaging the local community as early as possible in your planning and development process is an important aspect of your project and should be considered a priority. Environmental Justice or "EJ" is a movement to inform, involve, and engage communities impacted by potential and planned environmental projects by affording citizens opportunities to learn about projects and discuss any concerns regarding impacts.

Although some permit applications are subject to a formal public review process prescribed by statute, the Department strongly encourages you to engage neighboring communities separate from and well ahead of the formal permitting process. Sharing your plans by way of community meetings, informational outreach at local gatherings or through local faith-based organizations can initiate a rewarding and productive dialogue that will reduce anxiety and establish a permanent link with your neighbors in the community.

All parties benefit when there is good communication. The Department can assist applicants in developing an outreach plan that fits the needs of both the company and the public.

MARYLAND DEPARTMENT OF THE ENVIRONMENT

1800 Washington Blvd • Baltimore, Maryland 21230
(410) 537-3230 • 1-800-633-6101 • www.mde.state.md.us

Air and Radiation Management Administration • Air Quality Permits Program

APPLICATION FOR PROCESSING/MANUFACTURING EQUIPMENT

Permit to Construct ☒

Registration Update ☐

Initial Registration ☐

1A. Owner of Equipment/Company Name

Gold Bond Building Products, LLC

Mailing Address

2301 S. Newkirk St.

Street Address

Baltimore MD 21224
City State Zip

Telephone Number

(410) 631-4959

Signature

Todd Broud

Todd Broud, VP of Manufacturing Operations and Engineering

Print Name and Title

DO NOT WRITE IN THIS BLOCK 2. REGISTRATION NUMBER

County No.

Premises No.

1	2
---	---

3	4	5	6
---	---	---	---

1-2

3-6

Registration Class

Equipment No.

7

8	9	10	11
---	---	----	----

Date Year

8-11

12	13
----	----

12-13

Application Date

11/6/23
Date

1B. Equipment Location and Telephone Number (if different from above)

2301 South Newkirk Road

Street Number and Street Name

Baltimore MD 21244 (410) 631-4900
City/Town State Zip Telephone Number

Premises Name (if different from above)

3. Status (A= New, B= Modification to Existing Equipment, C= Existing Equipment)

Status

A

15

New Construction

Beaun (MM/YY)

1	1	2	3
---	---	---	---

16-19

New Construction

Completed (MM/YY)

0	1	2	4
---	---	---	---

20-23

Existing Initial

Operation (MM/YY)

--	--	--	--

20-23

4. Describe this Equipment: Make, Model, Features, Manufacturer (include Maximum Hourly Input Rate, etc.)

AEI Bivitec Screen, 12 tons per hour throughput

5. Workmen's Compensation Coverage WLR C 44 3481

Binder/Policy Number

Expiration Date

Company

NOTE: Before a Permit to Construct may be issued by the Department, the applicant must provide the Department with proof of worker's compensation coverage as required under Section 1-202 of the Worker's Compensation Act.

6A. Number of Pieces of Identical Equipment Units to be Registered/Permitted at this Time 1

6B. Number of Stack/Emission Points Associated with this Equipment None - Fugitive



7. Person Installing this Equipment (if different from Number 1 on Page 1)

Name _____ Title _____
Company _____
Mailing Address/Street _____
City/Town _____ State _____ Telephone (____) _____

8. Major Activity, Product or Service of Company at this Location

Gypsum Wallboard Manufacturing

9. Control Devices Associated with this Equipment

None

☐

24-0

Simple/Multiple
Cyclone

☐

24-1

Spray/Adsorb
Tower

☐

24-2

Venturi
Scrubber

☐

24-3

Carbon
Adsorber

☐

24-4

Electrostatic
Precipitator

☐

24-5

Baghouse

☒

24-6

Thermal/Catalytic
Afterburner

☐

24-7

Dry
Scrubber

☐

24-8

Other

☐

Describe _____

24-9

10. Annual Fuel Consumption for this Equipment

N/A

OIL-1000 GALLONS

26-31

SULFUR %

32-33

GRADE

34

NATURAL GAS-1000 FT³

35-41

LP GAS-100 GALLONS

42-45

COAL- TONS

46-52

SULFUR %

53-55

ASH%

56-58

WOOD-TONS

59-63

MOISTURE %

64-65

OTHER FUELS

ANNUAL AMOUNT CONSUMED

(Specify Type)

66-1

OTHER FUEL

ANNUAL AMOUNT CONSUMED

(Specify Type)

66-2

(Specify Units of Measure)

1= Coke 2= COG 3=BFG 4=Other

11. Operating Schedule (for this Equipment)

Continuous Operation

☒

67-1

Batch Process

☐

67-2

Hours per Batch

68-69

Batch per Week

Hours per Day

70-71

Days Per Week

72

Days per Year

73-75

Seasonal Variation in Operation:

No Variation

☒

76

Winter Percent

77-78

Spring Percent

79-80

Summer Percent

81-82

Fall Percent

83-84

(Total Seasons= 100%)



12. Equivalent Stack Information- is Exhaust through Doors, Windows, etc. Only? (Y/N)

☒ Y

85

If not, then

Height Above Ground (FT)

--	--	--

86-88

Inside Diameter at Top

--	--	--

89-91

Exit Temperature (°F)

--	--	--	--

92-95

Exit Velocity (FT/SEC)

--	--	--

96-98

NOTE:

Attach a block diagram of process/process line, indicating new equipment as reported on this form and all existing equipment, including control devices and emission points.

13. Input Materials (for this equipment only)

Is any of this data to be considered confidential? ☒ N (Y or N)

INPUT RATE

NAME	CAS NO. (IF APPLICABLE)	PER HOUR	UNITS	PER YEAR	UNITS
1. Off-spec Wallboard		12	tons		
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					

TOTAL

**14. Output Materials (for this equipment)
Process/Product Stream**

OUTPUT RATE

NAME	CAS NO. (IF APPLICABLE)	PER HOUR	UNITS	PER YEAR	UNITS
1. Wallboard Waste Material (w/o paper backing)		12	tons		
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					

TOTAL

15. Waste Streams- Solid and Liquid

OUTPUT RATE

NAME	CAS NO. (IF APPLICABLE)	PER HOUR	UNITS	PER YEAR	UNITS
1. Paper backing (solid)		< 1	ton		
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					

TOTAL



16. Total Stack Emissions (for this equipment only) in Pounds Per Operating Day

Particulate Matter					

99-104

Oxides of Sulfur					

105-110

Oxides of Nitrogen					

111-116

Carbon Monoxide					

177-122

Volatile Organic Compounds					

123-128

PM-10					

129-134

17. Total Fugitive Emissions (for this equipment only) in Pounds Per Operating Day

Particulate Matter					
		1	.6	1	

135-139

Oxides of Sulfur					

140-144

Oxides of Nitrogen					

145-149

Carbon Monoxide					

150-154

Volatile Organic Compounds					

155-159

PM-10					
		0	.3	9	

160-164

Method Used to Determine Emissions (1= Estimate 2= Emission Factor 3= Stack Test 4= Other)

TSP
2

165

SOX

166

NOX

167

CO

168

VOC

169

PM10
2

170

AIR AND RADIATION MANAGEMENT ADMINISTRATION USE ONLY**18. Date Rec'd. Local****Date Rec'd. State****Return to Local Jurisdiction**

Date _____ By _____

Reviewed by Local Jurisdiction

Date _____ By _____

Reviewed by State

Date _____ By _____

19. Inventory Date**Month/Year**

--	--	--	--

171-174

Equipment Code

--	--	--

175-177

SCC Code

--	--	--	--	--	--	--	--

178-185

20.**Annual
Operating Rate**

--	--	--	--	--	--	--

186-192

**Maximum Design
Hourly Rate**

--	--	--	--	--	--	--

193-199

**Permit to Operate
Month**

--	--

200-201

**Transaction Date
(MM/DD/YR)**

--	--	--	--	--	--	--

202-207

Staff Code

--	--	--

208-210

VOC Code

--	--

211 212

SIP Code

--	--

213 214

Regulation Code

--	--	--	--

215-218

Confidentiality

--

219

Point Description

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

220-238

Action

--

239

A: Add
C: Change

MARYLAND DEPARTMENT OF THE ENVIRONMENT

1800 Washington Blvd ▪ Baltimore, Maryland 21230
(410) 537-3230 ▪ 1-800-633-6101 ▪ www.mde.state.md.us

Air and Radiation Management Administration ▪ Air Quality Permits Program**APPLICATION FOR PERMIT TO CONSTRUCT
GAS CLEANING OR EMISSION CONTROL EQUIPMENT**

1. Owner of Installation Gold Bond Building Products, LLC	Telephone No. (410) 631-4959	Date of Application	
2. Mailing Address 2301 S. Newkirk St.,	City Baltimore	Zip Code 21244	County Baltimore
3. Equipment Location 2301 S. Newkirk St.,	City/Town or P.O. Baltimore	County Baltimore	
4. Signature of Owner or Operator	Title VP of Manufacturing Operations and Engineering	Print or Type Name Todd Broud	
5. Application Type:	Alteration <input type="checkbox"/>	New Construction <input checked="" type="checkbox"/>	
6. Date Construction is to Start: 11/23		Completion Date (Estimate): 01/24	
7. Type of Gas Cleaning or Emission Control Equipment: Simple Cyclone <input type="checkbox"/> Multiple Cyclone <input type="checkbox"/> Afterburner <input type="checkbox"/> Electrostatic Precipitator <input type="checkbox"/> Scrubber <input type="checkbox"/> _____ (type) Other <input checked="" type="checkbox"/> Baghouse Dust Collector _____ (type)			
8. Gas Cleaning Equipment Manufacturer Entecco	Model No. JDR 0705-4500-01-16-SV	Collection Efficiency (Design Criteria) 100%	
9. Type of Equipment which Control Equipment is to Service: Cyclone paper collector			
10. Stack Test to be Conducted: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> _____ (Stack Test to be Conducted By) _____ (Date)			
11. Cost of Equipment \$250,000 Estimated Erection Cost _____			



12. The Following Shall Be Design Criteria:

	<u>INLET</u>		<u>OUTLET</u>
Gas Flow Rate	4,000	ACFM*	4,000 ACFM*
Gas Temperature	50	°F	100 °F
Gas Pressure	N/A	INCHES W.G.	N/A INCHES W.G.
		PRESSURE DROP	8 - 16 in. W.C.
Dust Loading	N/A	GRAINS/ACFD**	0.014 (based on NSPS) GRAINS/ACFD**
Moisture Content	6	%	6 %
OR			
Wet Bulb Temperature	N/A	°F	N/A °F
Liquid Flow Rate (Wet Scrubber)	N/A	GALLONS/MINUTE	
(WHEN SCRUBBER LIQUID OTHER THAN WATER INDICATE COMPOSITION OF SCRUBBING MEDIUM IN WEIGHT %)			
*= ACTUAL CUBIC FEET PER MINUTE		**= ACTUAL CUBIC FEET DRY	

WHEN APPLICATION INVOLVES THE REDUCTION OF GASEOUS POLLUTANTS, PROVIDE THE CONCENTRATION OF EACH POLLUTANT IN THE GAS STREAM IN VOLUME PERCENT. INCLUDE THE COMPOSITION OF THE GASES ENTERING THE CLEANING DEVICE AND THE COMPOSITION OF EXHAUSTED GASES BEING DISCHARGED INTO THE ATMOSPHERE. USE AVAILABLE SPACE IN ITEM 15 ON PAGE 3.

13. Particle Size Analysis N/A

<u>Size of Dust Particles Entering Cleaning Unit</u>	<u>% of Total Dust</u>	<u>% to be Collected</u>
0 to 10 Microns	_____	_____
10 to 44 Microns	_____	_____
Larger than 44 Microns	_____	_____

14. For Afterburner Construction Only:

Volume of Contaminated Air _____ CFM (DO NOT INCLUDE COMBUSTION AIR)

Gas Inlet Temperature _____ °F

Capacity of Afterburner _____ BTU/HR

Diameter (or area) of Afterburner Throat _____

Combustion Chamber _____ (diameter) _____ (length) Operating Temperature at Afterburner _____ °F

Retention Time of Gases _____



15. Show Location of Dust Cleaning Equipment in the System. Draw or Sketch Flow Diagram Showing Emission Path from Source to Exhaust Point to Atmosphere.

Please see drawings included in the Appendix of this application.

Date Received: Local _____ State _____

Acknowledgement Date: _____

By _____

Reviewed By:

Local _____

State _____

Returned to Local:

Date _____

By _____

Application Returned to Applicant:

Date _____

By _____

REGISTRATION NUMBER OF ASSOCIATED EQUIPMENT:

--	--	--	--	--

PREMISES NUMBER:

--	--

--	--	--	--

Emission Calculations Revised By _____ Date _____



Appendix B

Supporting Calculations

Table B-1

Gold Bond Building Products Baltimore, Maryland
Proposed Reclaim Screen Process
Screening Emission Calculations (Uncontrolled)

Uncontrolled Hourly Emissions	Production (tons/hour)	TSP (lb/hr)	PM10 (lb/hr)	PM2.5 (lb/hour)
Screen	12	3.60	0.86	0.86
Transfer Point (from existing Belt Conveyor to Screen)	12	0.04	0.01	0.01
Transfer Point (from Screen to existing FGD Belt Conveyor)	11.4	0.03	0.01	0.01
Transfer Point (from Screen to Cyclone Chute)	0.61	0.002	0.001	0.001
Transfer Point (from Cyclone Chute to Cyclone)	0.61	0.002	0.001	0.001
Transfer Point (from Cyclone to Paper Dumpster)	0.61	0.002	0.001	0.001
Transfer Point (from Dust Collector to existing FGB Belt Conveyor)	0.61	0.002	0.001	0.001
Total Hourly Emissions		3.68	0.89	0.89

Annual Emissions	Production (tons/year)	TSP (tons/year)	PM10 (tons/year)	PM2.5 (tons/year)
Screen	105,120	15.77	3.78	3.78
Transfer Point (from existing Belt Conveyor to Screen)	105,120	0.16	0.06	0.06
Transfer Point (from Screen to existing FGD Belt Conveyor)	99,864	0.15	0.05	0.05
Transfer Point (from Screen to Cyclone Chute)	5,344	0.01	0.003	0.003
Transfer Point (from Cyclone Chute to Cyclone)	5,344	0.01	0.003	0.003
Transfer Point (from Cyclone to Paper Dumpster)	5,344	0.01	0.003	0.003
Transfer Point (from Dust Collector to existing FGB Belt Conveyor)	5,344	0.01	0.003	0.003
Total Annual Potential to Emit		16.11	3.91	3.91

Emission Factors (Uncontrolled)		TSP	PM10	PM2.5
Fines Screening	lb/ton	0.3	0.072	0.072
Transfer Point	lb/ton	0.003	0.0011	0.0011

Emission Factors are from AP-42 Section 11.19.2-2

Gold Bond Building Products Baltimore, Maryland
Proposed Reclaim Screen Process
Screening Emission Calculations (Controlled with Enclosure and/or Baghouse Dust Collector)

Hourly Emissions	Production (tons/hour)	TSP (lb/hr)	PM10 (lb/hr)	PM2.5 (lb/hour)
Screen	12	0.36	0.09	0.09
Transfer Point (from existing Belt Conveyor to Screen)	12	0.004	0.001	0.001
Transfer Point (from Screen to existing FGD Belt Conveyor)	11.4	0.003	0.001	0.001
Transfer Point (from Screen to Cyclone Chute)	0.61	0.0002	0.0002	0.0002
Transfer Point (from Cyclone Chute to Cyclone)	0.61	0.0000	0.0000	0.0000
Transfer Point (from Cyclone to Paper Dumpster)	0.61	0.0000	0.0000	0.0000
Transfer Point (from Dust Collector to existing FGB Belt Conveyor)	0.61	0.0002	0.0001	0.0001
Total Hourly Emissions		0.37	0.09	0.09
Total Daily Emissions (lbs/day)		8.82	2.14	2.14

Annual Emissions	Production (tons/year)	TSP (tons/year)	PM10 (tons/year)	PM2.5 (tons/year)
Screen	105,120	1.58	0.38	0.38
Transfer Point (from existing Belt Conveyor to Screen)	105,120	0.02	0.01	0.01
Transfer Point (from Screen to existing FGD Belt Conveyor)	99,864	0.01	0.01	0.01
Transfer Point (from Screen to Cyclone Chute)	5,344	0.0008	0.0008	0.0008
Transfer Point (from Cyclone Chute to Cyclone)	5,344	0.0000	0.0000	0.0000
Transfer Point (from Cyclone to Paper Dumpster)	5,344	0.0000	0.0000	0.0000
Transfer Point (from Dust Collector to existing FGB Belt Conveyor)	5,344	0.0008	0.0003	0.0003
Total Annual Potential to Emit		1.61	0.39	0.39

Emission Factors (Controlled - 90% - Building Enclosure)		TSP	PM10	PM2.5
Screening	lb/ton	0.03	0.0072	0.0072
Transfer Point	lb/ton	0.0003	0.00011	0.00011

Emission Factors are from AP-42 Section 11.19.2-2

Assumption : 90% Control from Enclosure (all sources except transfer point from cyclone to paper dumpster)

Assumption : 99.5% Control from baghouse dust collector for transfer points from cyclone chute to cyclone and cyclone to paper dumpster

Appendix C

Supporting Documentation



AGGREGATES EQUIPMENT, INC.

**9 Horseshoe Road
P. O. Box 39
Leola, PA 17540-0039**

Phone No. 717-656-2131

Fax No. 717-656-6686

Email: david@AEIscreens.com

September 6, 2023
AEI Proposal #23-2604
Revision #2

VIA E-MAIL
jlphillips@nationalgypsum.com

National Gypsum

ATT: John Phillips

REF: Quotation for AEI BIVITEC screen, screen structure, and Entecco Air Handling Equipment as depicted on sales layout S-2488.

Dear John:

In accordance with your request, we are pleased to offer the following equipment:

100 AEI BIVITEC Screen KRL/ED 1000x3 OX

Quantity: **1 pcs**

patented double oscillation screen inclined to 12 degrees

two-bearing vibrating mechanism located above the deck with heavy duty screen roller bearings

complete drive units consisting of a Cardan line shaft drive, drive guard, 10 HP, 1800 RPM, TEFC, 230/460 volt, 3 phase electric motor, fixed motor mount located on right hand side

heavy duty screen basket with patented Ox-horn sealing system

floating frame mounted on rubber isolation blocks

precision construction steel Ox-Horn panel supports

long life polyurethane screen panels and patented wedge fastening system

base mounted on rubber springs for smoother performance

single side plate design

inspection port above deck

overhead drive arrangement

suction port at screen cover

prime and finish painted

Weighing approximately 5,200 lbs.

SELLING PRICE FOR BIVITEC SCREEN, F.O.B. LEOLA, PA.....

XXXXXX

105 AEI Heavy Duty Screen Support Structure

Quantity: **1 pcs**

Approx. 11' to top of BIVITEC feed box
under-screen hopper to feed 30' wide belt below
overs chute to direct paper to Air Handling Equipment

SELLING PRICE FOR SCREEN STRUCTURE, F.O.B. LEOLA, PA..... ~~XXXXXX~~

Initial Situation / Requirements:

- The airstream will mainly consist of up to 1,200 pph of paper and gypsum paper with a particle size of 1" minus and bulk density ranging from 6 – 8 pcf.
- Process Airflow Rate: 2,000 acfm at 100 deg F for screen discharge pneumatic pickup
- Screen Collection Airflow: 2,000 acfm at 100 deg F
- The majority of the paper will be discharged by the cyclone and the remainder of gypsum and dust collected in the bag house.
- The bag house will be located back in the process building near the screen and discharge dust back into the gypsum conveying system.

200 Entecco Pneumatic Pickup

Quantity: **1 pcs**

8" - 10" Diameter
Funnel and Chute work to receive material from AEI screen
Air Flow Switch to detect possible plugs

206 Entecco Cyclone OCS-4K

Quantity: **1 pcs**

One (1) set, Single Cyclone Collector Assembly, Model OCS-4K. The collector system will be designed to achieve approximately eight (8) inches of water column at 4,000 acfm for efficient particulate collection. The Collectors consist of one (1) cyclone collector with welded steel cylinder and cone, dirty air inlet, deflector plate, clean air outlet tube and discharge air plenum. The cyclone will be approximately 30" diameter x 11' tall constructed from 10GA thick ASTM A36 carbon steel plate. The rotary airlock will be flange-mounted to the material hopper. Cyclone Collector Assembly will be painted structural gray (RAL 4031). Collector Assembly will be equipped with welded support brackets to hold collector in a structural support frame. Particulate grade collection efficiency estimated at 99.95%. Cyclone Collector Assembly will also be equipped with service access door in discharge air plenum.

• Cyclone Collector Support structure, A-36 construction consisting of standard structural members. Structural support to be painted structural gray (RAL 4031).

• One (1) Rotary Airlock, 10x10, flex-tip, ASTM A36 construction and painted, complete with 1.5 HP motor and drive assembly.

210 Entecco Jet pulse baghouse filter JDR 0705-4500-01-16-SV

Quantity: **1 pcs**

Type: **JDR 0705-4500-01-16-SV**

Baghouse filter with vertically installed filter elements cleaned with compressed air, industrial design. Extremely high filter quality with constant, high suction power. Controlled on-line cleaning with lowest compressed air consumption with compressed air jet pulse per LHS standard with flow-through valves in filter head. Panel filter with inspection cover in filter head for installation and removal of filter elements on clean gas side.

Technical data:

Flow:	4,000acfm at 100 Degrees F
Temperature design:	max. 80°C
ATEX zone in filter:	No zone
ATEX zone filter environment:	No zone
Operating mode:	Suction system
Dust type:	Gypsum and Paper
Clean gas value:	< 10 mg/m ³

Filter medium:	PTFE
Filter medium length:	177 in
Filter medium diameter:	6.3 in
Number of filter elements:	35 units
Filter area:	878 ft ² (81.6 m ²)
Air to Cloth Ratio:	4.55 : 1

Compressed air demand:	max. 4 acfm
Compressed air pressure:	80 psi
Filter housing design:	11 Ga.
Positive / negative pressure:	max. ± 5,000 Pa

Filter accessories:

Filter control unit:	Continuous time-controlled or differential pressure-controlled cleaning, LCD display, 4-20 mA output signal, IP65
Compressed air combination:	Compressed air control valve with pressure switch and safety valve, IP65
Ladder:	Ladder with protective cage, height mm
Protective railings:	Railing in sectional steel on the filter head with handrail, knee and foot bars
Noise suppressing hoods:	Galvanized hoods with noise suppressing cladding on the compressed air tank



215 Entecco Dust collection hopper

Quantity: **1 pcs**
Type: **JDR 0705-01**

Dust collection hopper for collecting the separated dust, in weather-proof design with maintenance opening for inspection.

Design:

Dust collection hopper:	11 Ga. bolted sheet steel, precision laser cut and folded
Hopper angle:	60°
Hopper height:	43 in.

220 Entecco Filter support structure

Quantity: **1 pcs**
Type: **JDR 0705-01**

Galvanized filter support structure, dimensioned for medium loads.
Structural calculations carried out without earthquake factor, support height: 138 in.

225 Entecco Maintenance platform

Quantity: **1 pcs**
Type: **JDR 01**

Maintenance platform with grating and protective railings incl. handrail, knee and foot bars and ladder with safety cage, height 138 in

230 Entecco Ladder with protective cage

Quantity: **1 pcs**

Ladder with protective cage, height 138 in.

235 Entecco Connection shaft for raw gas channel

Quantity: **1 pcs**
Type: **JDR**

Welded connection shaft for the raw gas channel with flanges on the interfaces.

Design:

Connection shaft:	8 Ga welded sheet steel, precision laser cut and folded
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240 Entecco Clean gas outlet hoods

Quantity: **1 pcs**
Type: **JDR**

Galvanized clean gas outlet hoods with connection flange to the filter.
Direct blasting out the clean gas into the environment.

245 Entecco Baffle plate HARDOX

Quantity: **1 pcs**

Type: **JDR**

¼ in HARDOX baffle plate at raw gas entry to protect the filter bags.

250 Entecco TROUGH SCREW CONVEYOR

Quantity: **1 pcs**

Arranged underneath the dust collecting hopper

For conveying of separated dust to discharge conveyor down stream

Current length is estimated to be 30 feet long.

Technical data:

- in welded mild steel design (no. 1.0038)
- with connection flanges to neighboring components
- incl. gear motor 1.5 - 5.5 KW
- incl. separating plate

255 Entecco 30 HP Fan

Quantity: **1 pcs**

30hp Fan

Motor (Premium Eff, 30hp, 3600rpm, 460/60/3, TEFC)

Airstream Material: Carbon Steel

Wheel Material: Carbon Steel

Silencer/Filter (Outlet Silencer)

Fan radiated noise level may still exceed 85dBA @ 3ft even with the silencer included. Check the quote sound options for Fully Ducted conditions at 3ft to make sure the radiated noise will be less than 85dBA @ 3ft. If not, you may need to add sound insulation options around the fan housing to reduce radiated noise levels.

260 Entecco Lot of Ducting

Quantity: **1 pcs**

800 Feet of 8" Diameter Ducting

QTY (15) 90 Degree Elbows

Gripple Hangers to hang from existing structures.

265 Entecco Controls

Quantity: **1 pcs**

Panel, Starters, VFD's and PLC provided. This will control all the equipment in the scope and provide communication with the existing system in regards to alarms, running, startup and shutdown procedures

300 Entecco Startup and Commissioning

Quantity: **1 pcs**

- Initial Site visit to confirm dimensions and review project, up to 2 man-days.
- Equipment installation instruction for Customer's installation contractors.
- Operation and Maintenance Manuals.
- Installation Supervision and Start Up Assistance, up to 4 man-days.

400 Entecco Mechanical Installation

Quantity: **1 pcs**

Scope of Work:

The scope of work for dismantling, modifications, and mechanical Installation of the equipment for the project includes all necessary personnel to complete the project, lifting and rigging equipment, tools, consumables, travel, accommodations, personnel transportation, per diem, and PPE. All applicable equipment will be unloaded, staged, and installed in a sequence provided by Entecco / AEI in cooperation with Midwest. The scope of work is based on equipment AEI drawing S-2488, and associated equipment list.

Pricing includes base plate shimming, touch up paint, and support for initial dry commissioning if completed at time of installation completion.

Not included in pricing is cost of vulcanized belt splicing or base plate installation with epoxy anchors. Midwest can offer time and material pricing at rate of \$150 per hour per employee for labor and cost plus 15% on materials for these items.

We recommend the plant be available with free and clear access during the installation. Open pits or any other potential areas with fall hazard/s greater than four (4) feet must be barricaded in accordance with local, state, and federal regulations for worker safety.

Conveyors:

Removal, and modifications of all conveyors, supports, transitions, sidewalls, etc. and the final fastening of installed mechanical splices for each belt shipped in sections without conveyor belts already installed, as depicted in referenced system drawing listed in above scope of work.

Structure and Access:

Removal, modifications, and installation of support structures as depicted in referenced system drawing and listed in above scope of work.

Processing Equipment:

Mechanical Installation of all processing equipment pneumatic and dust collections systems including the cyclone, structures, ducting, dust collector, process fan and screw conveyor to discharge dust from collector to existing down stream conveyor.

Note: All Labor rates for pricing are calculated based on working ten (10) hour days, six (6) days per week, with the use of non-union non-prevailing wage labor.

Time frame: Estimated single shift working 7 / 10hr days and a shutdown consisting of 2 / 10hr shifts for 2 days.

The installation is based on non-union labor and not using prevailing wage.

- 1) Local EPA permits, i.e. EPA & Planning and/or construction are not included.
- 2) Mechanical installation permits are not included.
- 3) Price reflects the use of non-union labor for equipment installation. Pricing will be revised if union labor is required
- 4) Price also reflects that our crew can operate the machinery necessary to perform the installation work. In the event that local requirement does not allow and a local operator (Union or not) is necessary, pricing will be revised accordingly
- 5) Installation cost will also be adjusted if prevailing wage apply.
- 6) Customer is responsible for adequate lighting for a safe work environment if needed due to no power on the facility.
- 7) Installation price reflects the use of Wedge anchor bolts.
- 8) All system components are "floor/system bearing". Any attachment to the building must be defined and approved in advance during the design phase. Any approved building attachments must be bolted in place and not welded unless approved otherwise.
- 9) Price is based on standard service. Upon review of site, if obstacles, low ceilings, uneven floor, no ground access or other interferences existing price will be adjusted accordingly.
- 10) All work must be completed consecutively during one trip to prevent additional travel, or wait time which will results in extra charges, with the exceptions of the Holiday Seasons.
- 11) Access to building and facilities for installation employees 12 to 24 hours per day, 7 days per week including weekend and holidays
- 12) Fully charge water hose and adequate fire suppression in work area for safety. Hot work permit for full time – prepared prior to arrival of crew
- 13) Clean, accessible working area around equipment and clear path for equipment service. Pits, equipment and enclosed areas to be cleaned of all hazards (including fire hazards) prior arrival of MRSS crew.
- 14) Prepare foundations, pits, any other construction, existing building modification and/or new building expansion work as per related manufactures specifications (complete prior to arrival of crew)
- 15) Fabrication/installation of additional supports, guards, transitions, etc. to be billed at time and material.
- 16) We are not responsible for the procurement and expense for the inspection of welding, anchor and structure bolts.
- 17) If equipment is not delivered upon scheduled sequence of installation we reserves the right to charge for loss time @ \$150.00 per man per hour plus equipment rental if the project is extended as a result of this...

PRICE COMPILATION

Item	Qty.	Designation	Unit price
100	1	BIVITEC Screen	\$72,480
105	1	Screen Structure	\$27,200
200	1	Pneumatic Pickup	
205	1	Cyclone OCS-4K	
210	1	Jet pulse baghouse filter JDR 0705-4500-01-16-SV	
215	1	Dust collection hopper	
220	1	Filter support structure	
225	1	Maintenance platform	
230	1	Ladder with protective cage	
235	1	Connection shaft for raw gas channel	
240	1	Clean gas outlet hoods	
245	1	Baffle plate HARDOX	
250	1	TROUGH SCREW CONVEYOR	
255	1	30hp Fan	
260	1	Lot of Ducting	
265	1	Controls	
300	1	Startup and Commissioning	
400	1	Mechanical Installation	
Total (net without Freight to Site):			\$184,680

Services by AEI:

- Furnish parts books and instruction manuals for AEI equipment
- All AEI manufactured equipment painted orange enamel

Equipment and services provided by customer

Excluded from our delivery are all parts and services not mentioned, in particular the following:

- any necessary modifications at existing buildings and equipment (**See above scope for existing conveyor changes**)
- all excavation-, building- and foundation work
- foundation ground connection for lightning protection
- power supply to switchgear cabinet incl. connection to the terminals in the cabinet
- energy and water supply in the required capacity with connecting points in the site area
- provision of social facilities, locker-, wash- and recreation rooms as well as sanitary facilities for the assembly staff
- welding gas from the customer's stock
- storage area near to installation site
- storage fees if product has to sit in storage before it can be installed
- transportation of equipment from storage area to job site

- fire protection equipment
 - dust container
 - Pre-Coating of the filter bags
 - condensate and rain water drainage, incl. piping
 - ductwork supports for process ducting (All ducting to be supported from existing building and structure by gripple hangers. If additional structure supports are necessary we will review and advise of cost changes)
 - casing and covering in the entire plant area
 - provision and installation of the necessary cables, cable ducts, cable raceways or cable trays
 - scaffolding for insulation works
 - hydraulic cylinders and valves etc. including the assembly of same
 - all platforms, ladders, stairs and accesses in the existing building
 - lighting of the installation site
 - fitters, electricians and helper for assembly
 - Thermal or sound insulation if required
 - necessary protection buffer for steel constructions
 - new static calculations for steel constructions by deviations from the quoted standard steel constructions
 - air conditioning for the electrical control system
 - all permits and licenses
 - Disposal of all removed materials from the plant property if required.
 - Tax Exempt Certificate at time of order placement.
 - Disconnects, conduit, wire or electrical installation labor for removal of existing electrical equipment
 - Electrical installation and wiring.
 - Engineered stamped drawings
-

SAFETY NOTICE

Although safety engineering is an important aspect of all Aggregates Equipment, Inc. products, compliance with safety standards, including MSHA, OSHA and other Federal, State and Local Codes or regulations is the responsibility of the user. Placement of guards and other safety equipment is often dependent upon the area, use of the equipment and operation and maintenance procedures. Additional guard and warning signs over and above those provided are the responsibility of the user.

Payment:

30% due upon receipt of order confirmation
30% due upon signed drawings
30% due prior to shipment
10% due upon completion of installation

Terms of payment:

Due upon receipt

Delivery:

AEI: F.O.B. Leola PA
Entecco: Ex Works High Point, NC

Quotation validity:

30 Days

Delivery time:

Based on current production schedule, delivery can be made in approximately 24-26 weeks from receipt of order, down payment and completed technical and commercial clarification (with regard to the main components)

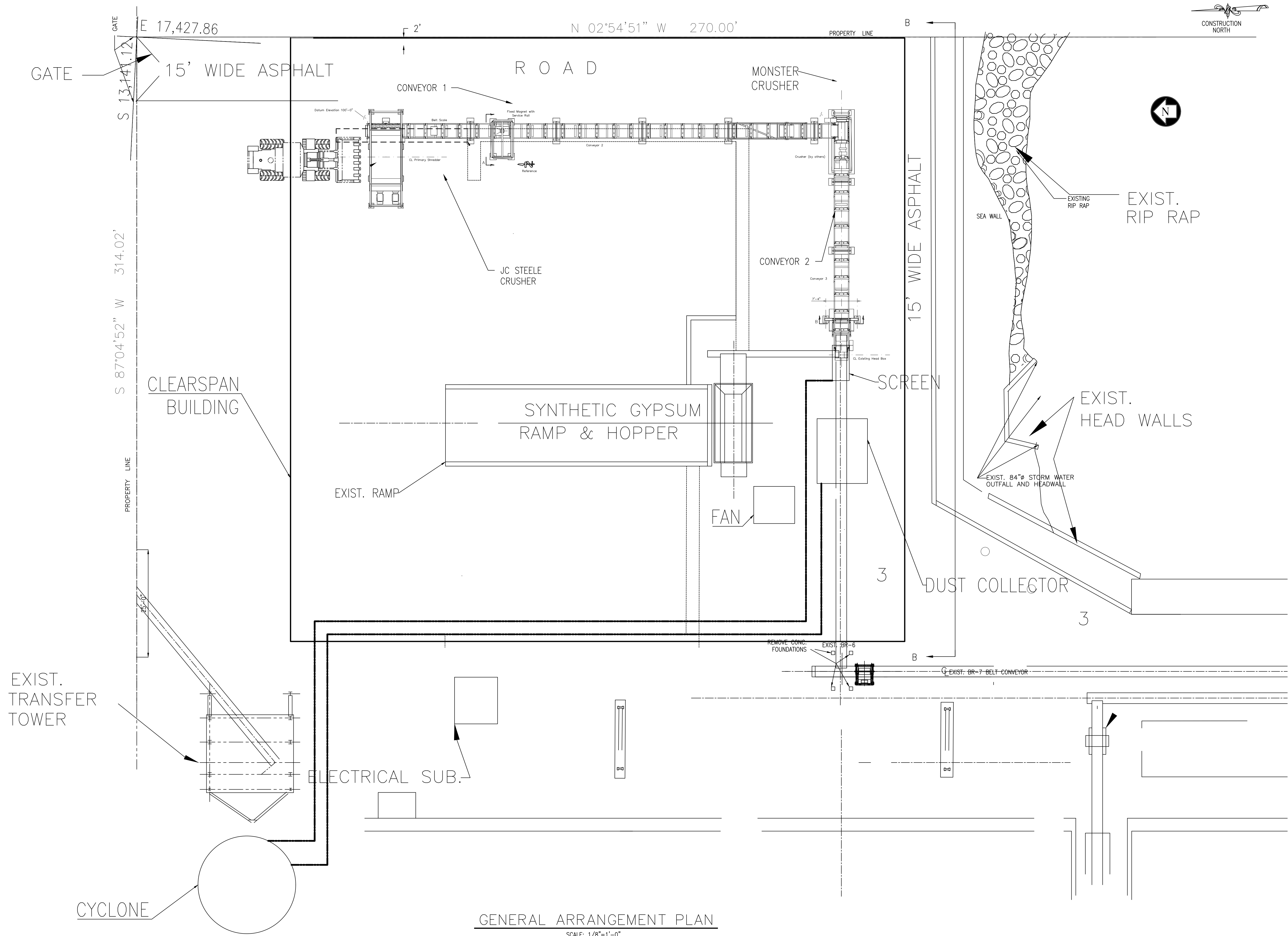
- Prices are based on the current calculation base. The seller reserves the right to pass price changes on to the buyer up to the point when an order is placed. In particular, in the event of changes in the commercial or technical aspects of the stipulated parameters.
- The seller reserves the right to implement changes in the design within the course of process and design in the sense of further technical development and/or improvement of the system and parts thereof, insofar as these do not influence the scope of deliveries and services. An acceptance of order is subject to and dependent upon the agreement of the seller's credit protection insurance carrier.
- The illustrations in this quotation are exemplary and do not necessarily represent the system components quoted. The dimensions stipulated in the item text are guide values and shall not be considered binding.

Thank you for the opportunity to quote. We look forward to working with you on this and future projects.

Sincerely,

AGGREGATES EQUIPMENT, INC.

David Stairs
President



GENERAL ARRANGEMENT PLAN
SCALE: 1/8"=1'-0"

FGD STORAGE FACILITY
FOR
National Gypsum
COMPANY
BALTIMORE, MARYLAND

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SEAL

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE
DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I
AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS
OF THE STATE OF MARYLAND, LICENSE NO. 37393, EXPIRATION
DATE: 06-31-2011.

REV	DATE	DRAWN	DESCRIPTION
A	7/19/09	LAO	PRELIMINARY ISSUE
0	11/20/09	LAO	ISSUED FOR CONSTRUCTION

THIS DOCUMENT HAS BEEN ISSUED SOLELY FOR THE
PURPOSE(S) NOTED IN THE REVISION BLOCK. UNTIL THIS
SHEET HAS BEEN SPECIFICALLY ISSUED FOR CONSTRUCTION,
FINAL PROJECT COORDINATION IS INCOMPLETE AND THE
INFORMATION SHOWN HERE IS SUBJECT TO REVISION.

SHEET TITLE
GENERAL ARRANGEMENT
PLAN

DRAWN: LAO	
CHECKED: DDW	SHEET SIZE: SIZE
APPROVED: DDW	PLOT FACTOR: PAPER
PROJECT: 09-64	DATE: 7/15/09
CAD NAME: 09-64	SCALE: AS NOTED

DRAWING NUMBER
B1

Arcadis U.S., Inc.
One Harvard Way, Suite 5
Hillsborough
New Jersey 08844
Phone: 908 526 1000
www.arcadis.com



BALTIMORE CITY
DEPARTMENT OF HOUSING &
COMMUNITY DEVELOPMENT

April 9, 2024

Gold Bond Building Products, LLC
2301 South Newkirk Street
Baltimore MD 21224

Re: Zoning Verification request – 2301 South Newkirk Street

To Whom It May Concern:

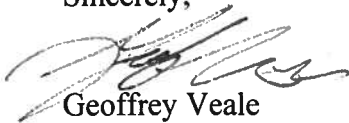
This is in response to your request for zoning verification concerning the above-referenced property.

The subject property is located in an MI Maritime Industrial District. Our records show the property is authorized for warehousing light manufacturing and storage uses, in compliance with all applicable zoning regulations. Your proposal to install a screening system, cyclone collector and ancillary equipment on the site would be permitted, subject to required permitting and in compliance with all applicable zoning, flood plain, and critical area requirements.

Our records reflect no current or pending zoning violations with respect to this property.

Should you have any additional questions regarding this matter, please contact the Office of the Zoning Administrator at (410) 396-4126.

Sincerely,



Geoffrey Veale
Zoning Administrator