GRUPO AEROPORTUARIO
DE LA CIUDAD DE MÉXICO

Report 8

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Mexico City Airport Trust
NAIM Green Bond Reporting

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NAIM
AIRPORT PROGRAM
PARSONS PROJECT MANAGEMENT OFFICE

1. Introduction

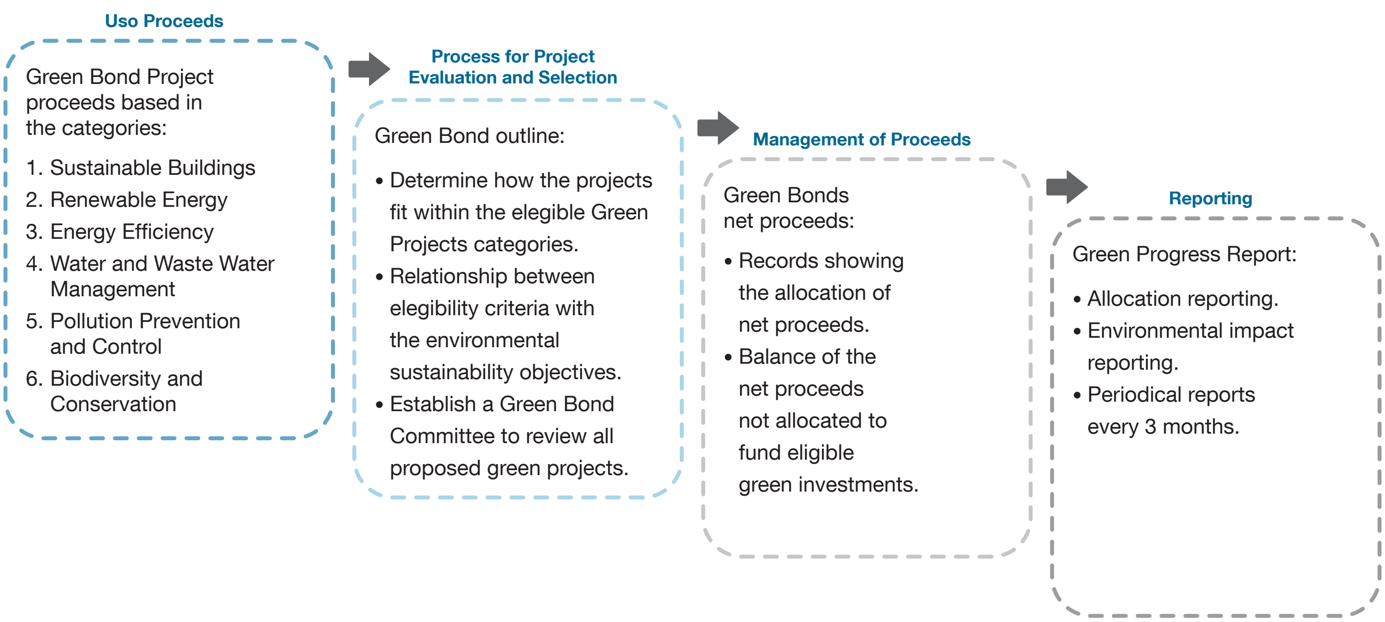
Grupo Aeroportuario de la Ciudad de México, S.A. de C.V. (GACM) is responsible for the preparation and providing a fair representation of this Green Bond Framework as of September, 6th 2016, which will cover the issuance of Green Bond from Mexico City Airport Trust.

For each Green Bond issued by the Mexico City Airport Trust, GACM management asserts that it will adopt the use of the proceeds eligibility criteria and processes and policies as set out in the Mexico City New International Airport (NAIM by its Spanish acronym) Green Bond Framework as outlined in Figure 1.

This report describes an outline of the green works that are currently underway for the Airport program development paying particular attention to currently designed elements and the initial construction and site preparation activities.

This report will be updated quarterly to report on specific activities which have occurred in the report time-frame and to show development of the performance indicators.

Figure 1 - NAIM Green Bond Framework



2. Green Bond Eligibility Categories

The eligibility categories are focused in the planning, design and construction of the NAIM project according to green building & environmental best practices standards.

Six categories were selected to describe the different areas of sustainability focus for the project scope. These are described below:

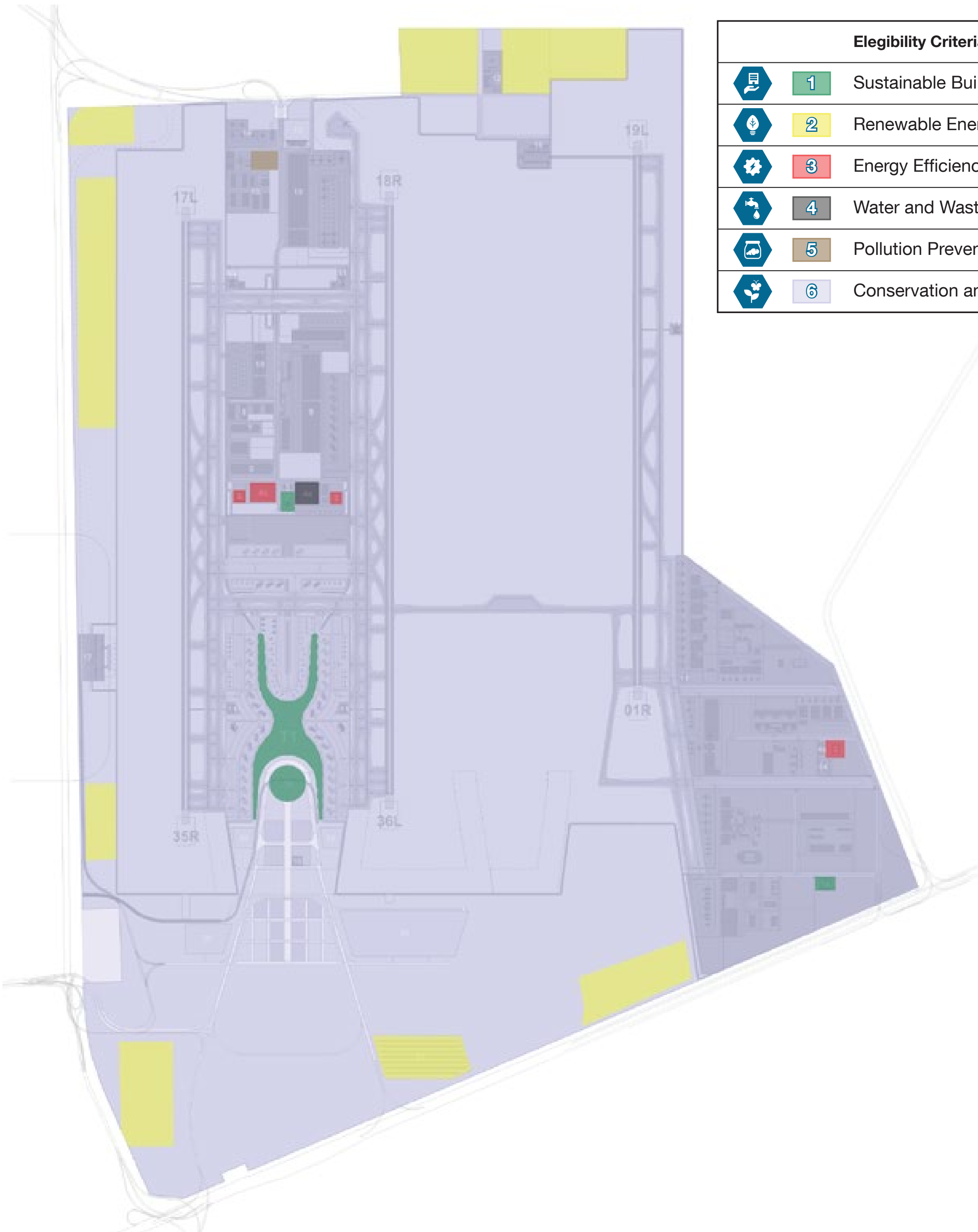
- **Eligibility Categories**

1. Sustainable Buildings
2. Renewable Energy
3. Energy Efficiency
4. Water and Wastewater Management
5. Pollution Prevention and Control
6. Conservation and Biodiversity

The project is utilizing the rating system Leadership in Energy and Environmental Design version 4 (LEED v4). The rating system seeks to enhance architectural and engineering designs and construction processes to reduce the environmental impacts of the building and its occupants, improve the indoor environmental quality and minimize changes to natural systems. Four of the airport buildings on the site are being designed and constructed to meet these LEED requirements, in particular the 743,000 m^2 Passenger Terminal Building.

The project undertook Environmental Impact Assessment, commonly known in Spanish as *Manifestación de Impacto Ambiental* (MIA-R), as it is required for all new major projects in line with SEMARNAT (*Secretaría del Medio Ambiente y Recursos Naturales*) requirements. The MIA is an instrument of environmental policy that is required to present all information about the environmental conditions of the site and analyze and outline requirements for the works and activities that could cause environmental or ecological imbalance.

Figure 2 - Site polygon showing location of main program elements per eligibility criteria.



	Elegibility Criteria
1	Sustainable Building
2	Renewable Energy
3	Energy Efficiency
4	Water and Waste Management
5	Pollution Prevention and Control
6	Conservation and Biodiversity

2.1. Categories Description

The project must meet one or more of the following eligibility criteria:

1. Sustainable Buildings:

Any project for an existing or new building;

(i) that has received, or expects to receive based on its design, construction and operational plans, rating according to third party verified green building standards such as LEED Silver or higher, or an equivalent rating scheme; and

(ii) that has achieved, based on third-party assessment, a reduction in energy consumption of at least 15% relative to industry standards and benchmarks such as ASHRAE 90.1 or equivalent.

2. Renewable Energy:

Development, construction, installation, operation and upgrades of;

(i) equipment or facilities wholly dedicated to renewable energy generation; or

(ii) wholly dedicated transmission infrastructure for renewable energy generation sources.

The projects must meet the definitions of renewable energy outlined in Mexico's Energy Transition Law (Ley de Transición Energética) and may include wind, solar, tidal, geothermal, biomass and run-of-river hydro projects.

3. Energy Efficiency:

Development, construction, installation, operations and upgrades of any projects (products or technology) that reduce energy consumption or improve resource efficiency in airport management and operations, including but not limited to;

(i) projects that enable energy performance monitoring and modelling such as design and installation of computer controls, sensors, or building information systems; or

(ii) projects that optimize the amount and timing of energy consumption and minimize peak loads such as design and installation of metering, peak load shedding, or fuel switching systems;

(iii) projects that involve installation, maintenance or replacement of energy efficient heating, ventilation, air-conditioning, cooling, lighting and electrical equipment.

4. Manejo de Aguas y Residuos:

Desarrollo, construcción, instalación, operación y mejoras de cualquier proyecto (producto o tecnología) que reduzca el consumo de agua o mejore la eficiencia de los recursos en la gestión y operación del aeropuerto, incluyendo pero no limitado a;

(i) instalaciones nuevas o existentes que sean usadas para recolectar, tratar, reciclar o reusar el agua, agua de lluvia o aguas residuales;

(ii) infraestructura para la prevención y protección de inundaciones, manejo de aguas pluviales como humedales, bermas de retención, embalses, lagunas, sistemas de drenaje, túneles y canales.

5. Prevención y Control de Contaminación:

Desarrollo, construcción, instalación, operación y mejoras de cualquier proyecto (producto o tecnología) que reduzca y maneje los residuos generados en la gestión y operación del aeropuerto, incluyendo pero no limitado a;

(i) instalaciones nuevas o existente, sistemas y equipo que sean usados para recolectar, tratar, reusar o reciclar desechos sólidos, residuos peligrosos o suelo contaminado; o

(ii) instalaciones nuevas o existentes, sistemas y equipo que se utilicen para evitar el depósito de residuos en tiraderos y reducir las emisiones por transporte de residuos.

6. Biodiversidad y Conservación:

Cualquier proyecto para;

(i) reforestación y restauración ecológica; o

(ii) creación y protección de bosques y humedales; o

(iii) monitoreo y mitigación de impactos adversos en la flora y fauna, tales como impactos potenciales por la contaminación del ruido y la construcción.

3. Use of Proceeds Summary

Description	Amount USD
Net Proceeds from Green Bonds	$5,764,394,697.00

Allocated Amount to each Eligible Category (USD)						
Category	1	2	3	4	5	6
USD	Sustainable Buildings	Renewable Energy	Energy Efficiency	Water and Waste Water Management	Pollution Prevention and Control	Conservation and Biodiversity
Disburse Amount	$793,075,884.96	$420,133.53	$13,264.49	$23,959,026.56	$47,159,113.83	$31,930,279.87
Total	$896,557,703.24					

Description	Amount
Amount Available for Allocation	$4,867,836,993.76

Note: Values are shown in dollars. The exchange rate used from MXN to USD is the applicable rate at the time for each disbursement being paid.

4. Optimization of the Passenger Terminal Building's Structure and Envelope

4.1. Introduction

The Passenger Terminal Building (PTB) is designed to be a project with an environmentally conscious life-cycle, this is often referred to as the Cradle to Cradle assessment. One of the key environmental goals of NAIM is reducing energy-use and greenhouse gases by using an integrated design approach, energy-efficient equipment, and with the generation of energy through renewable technologies etc. The long term goal for NAIM is to become a Net-Zero-Energy building and have a Neutral Carbon-Footprint, thus the PTB design incorporates not only energy efficiency strategies to reduce Carbon emissions in operation but also to reduce the embodied energy to construct the facility. The analysis used for this is a Life-Cycle Assessment (LCA) of a building.

Aiming to evaluate and reduce environmental impacts associated with the construction of the structure and envelope of the Passenger Terminal Building (PTB), it was decided to conduct an LCA during design to quantify the benefits. An LCA is one of the strategies used to attain LEED Certification for the PTB. This work is eligible for the Green Bond framework, category (1) *Sustainable Buildings*.

This section describes the background, methodology and results obtained from the LCA of the PTB.

4.2. Net-Zero-Energy and Neutral Carbon Footprint of the LCA

There are different definitions for Net-Zero-Energy-Buildings and furthermore for those which have a neutral carbon footprint. This is often just considered for operation with the use of renewable energy resources for instance. Even though operation is the highest energy-consuming period in the overall life of a building, it is important to consider the energy associated with the construction materials used and the design implemented. For example, the energy or processes used in extraction, manufacturing and transportation activities.

Different types of analyses are used to identify design or resource improvements to help reduce Carbon emissions among which we find the Life-Cycle Assessment (LCA) approach. The purpose of an LCA is identifying the environmental impacts related to a buildings' construction processes, from the use of energy for extraction of raw materials and manufacturing, through upkeep and renovation of the facility. While evaluating these environmental impacts associated with the construction processes, an LCA allows designers and constructors to optimize their decisions during the design to minimize the environmental footprint of a project.

4.3. What is LCA? What is it used for?

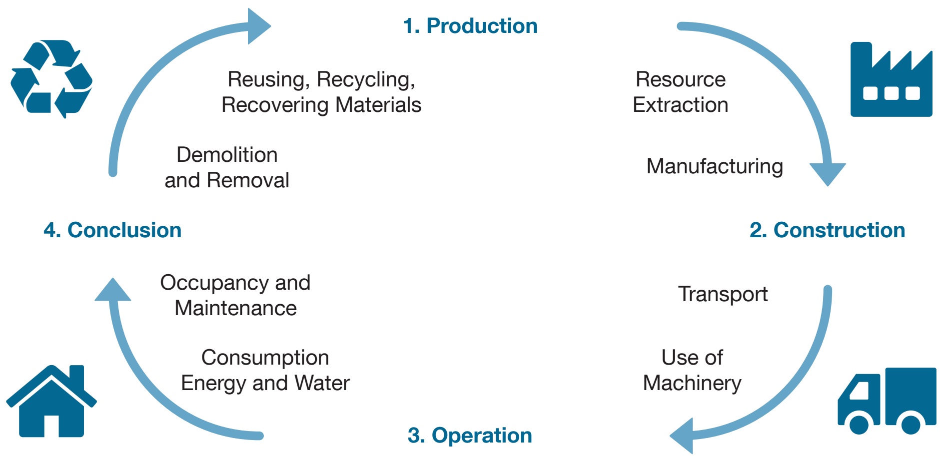
The LCA is a tool developed to assist designer's scientists and other professionals involved in the construction industry, to analyze impacts caused by works and activities associated with construction. The tool is intended to provide professionals with a set of guiding principles for the decision making to reduce impacts associated with:

- Use of Energy
- Global Warming
- Habitat Destruction
- Depletion of Resources
- Toxic Emissions

The life-cycle concept is an approach to encourage best practices in terms of sustainable design and construction. Based on an LCA, decision-makers can analyze the materials produced through construction processes from cradle to cradle, and select those that are more aligned with environmentally and sustainable practices, as well as forecasting future likely investment needs, and estimating the overall life-cycle costs of the building and materials reuse or disposal paths.

Figure 3 represents the stages conforming the life-cycle: 1) *Production* – This is the use of energy for the extraction and transport of raw materials to manufacturing facilities; 2) *Construction* - this is the energy used to transport materials to the site and the use of machinery to allow construction, as well as the waste generated during construction; 3) *Operation* - this is the consumption during the life-cycle of building on account of lighting, heating, water consumption and minerals used for maintenance, repairs and replacement. Finally, stage 4) *Conclusion* – this is the demolition and removal of the building, as well as the processing of waste for reuse, recycling and/or materials recovery, energy or water from the project.

Figure 3 - Building Life Cycle



It is also necessary to consider the multiple sources of energy involved in the building process, such as: electricity, diesel, natural gas, gasoline or the possible forms of renewable energy, for example, solar energy, geothermal energy or hydroelectric energy.

4.3.1. Reference Framework

The LCA process is governed by the Standard ISO 14000 and a series of other international standards, among which is ISO 14040, which establishes the principles agreed for LCA studies. These principles seek to provide requirements and guidelines to carry through with the LCA, by means of the following objectives:

- Identify opportunities to improve environmental performance of the products in the different stages of the life-cycle;
- Facilitate decision-making in the industry to plan and establish priorities, as well as set design strategies in relation to product-use;
- Choose environmental key performance indicators and develop technical measures;
- Commercialize products through the eco-labeling schemes or environmental product disclosure statements.

The use of computer software is crucial to process all the collected data, since these tools need to be linked to extensive databases of products and processes required to complete the inventory analysis. It is common that there are significant variations from region to region. This is because the combination of energy-use, fuel-type and production methods will differ significantly based on location and sourcing of goods. Currently, different organizations and developers have generated tools and databases to build these requirements though they are sometimes geo-physically limited to more common products and better documented supply chain resources.

4.3.2. Requirements for LCA

There are different LCA methods to evaluate the environmental performance of a building, however, the process to carry out the LCA generally consists of four phases: 1) Definition of goals and scope, 2) Inventory analysis, 3) Evaluation of environmental impacts, 4) Interpretation.

After having analyzed, in phase 1, the objectives, functional units and the life-cycle process stage that will be analyzed, the next step is to gather specific and general information in relation to the products for the development of an inventory to build the simulation model (see figure 4).

Figure 4 - Required Information

Specific Information

- Type of material or product.
- Estimated amount of material (units).
- Life-cycle of materials (if applicable).
- Life-cycle stage of the materials used.
- Quantify flows to/from the environment: raw material, use of energy, solid residues, atmospheric emissions, waterborne emissions.

General Information

- Procedures and type of extraction techniques.
- Machinery, equipment and processes for fabrication.
- Geographical boundaries, and technology used in the region.
- Regulation frameworks to which the product is subject.
- Transportation and dismounting of materials.

The third phase consists of the evaluation of impacts. This is done through the analysis of quantitative results generated by the LCA tool. The environmental modeling software develops and presents two types of results: 1) *life-cycle inventory* and 2) *life-cycle impact assessment* (see figure 5).

Figura 5 - Types of Results

1) Life-cycle Inventory

It constitutes the base of the analysis, in which the categories of potential environmental impacts of the system and modeling are classified and evaluated. This inventory chart provides data for the quantitative evaluation of environmental impacts.

2) Life-Cycle Impact Assessment

It estimates environmental impacts established and standardized for the LCA:

- Global warming potential.
- Ozone depletion potential.
- Eutrophication potential.
- Acidification potential.
- Smog formation potential.

In the last phase, results' details are interpreted, and different scenarios can be created to identify potential changes to the life-cycle of products such as:

- Composition of materials.
- Weight and quantity of materials.
- Changes to the process.
- Transportation distances.
- Geographic location.
- Administration at the end of its life-cycle.

4.3.3. Suitable Selections of Materials and Products

The selection of environmentally friendly materials is crucial to improve general performance of a building. Suitable selections can improve the wellbeing of occupants and mitigate environmental impacts, caused by the release of volatile organic compounds (VOCs) or other chemical substances coming from products used during manufacturing. Furthermore, at the end of the building's life, the materials, treatments and coatings that are reusable, recyclable and biodegradable will prevent the release of pollutants into landfills where their final disposal would have traditionally occured.

Materials with low embodied energy due to the use of efficient or appropriate technology use report lower emissions of Green House Gases can qualify and certify for an Environmental Product Declaration (EPD). The EPD certification provides information about the materials and processes used in production through the assessment of environmental and sustainable impacts. Specifically, the EPD contains the necessary data which can be used within a lifecycle assessment for the proposed construction materials and products that may be used in of the development of architectural projects.

Hence, an LCA tool helps identify which materials offer efficient use of natural resources and energy in manufacturing processes, as well as low-emitting materials that improves indoor environmental quality. Because of this, different international programs focus on improving the supply chain for the design and construction of sustainable buildings can now include the use of LCAs as a requirement to help attain certification. Among these system is LEED certification. As part of the *Materials and Resources* category they have different credits focused on this area including *Reduction of life-cycle impacts of buildings*.

4.4. Life-Cycle Assessment of the PTB

Aiming to reach the environmental goals established in the NAICM project, since the beginning, it was suggested to pursue the LEED Platinum Certification for the PTB and using the Version 4, the latest update of the rating system which seeks to advance the improved use and understanding of less environmentally impacting materials and products significantly over previous versions of the system.

Certain points are gained as design Credits, and others to construction. Among the design credits we find *Reduction of life cycle impacts of buildings*, which allows different options to optimize the sustainable selection of materials and products, with the intent of reducing environmental effects in decision-making at the beginning of the project, or through life-cycle evaluation.

The PTB project uses an option for new construction, which consists of an initial life-cycle assessment of the building's structure and envelope, or façade to demonstrate a reduction in environmental impacts compared to a reference or typical building. The following elements are assessed:

- Global warming potential (greenhouse gases), in CO2e;
- Depletion of the stratospheric ozone layer, in kg CFC-11;
- Acidification of land and water sources, in moles H+ or kg SO2;
- Eutrophication, in kg nitrogen or kg phosphate;
- Formation of tropospheric ozone, in kg NOx or kg ethene; and
- Depletion of nonrenewable energy resources, in MJ.

To achieve 3 points within this option, the proposed building must show the following criteria:

- At least a 10% reduction in the global-warming potential.
- A 10% reduction in two of the other impacts within the rating system.
- It must not increase any of the other measures by more than 5%.

4.4.1. Methodology used for the PTB

The tool *Impact Estimator for Buildings 5.3 (IEB)* developed by the Athena Sustainable Materials Institute was used to build the LCA model for the PTB. Athena Institute is a specialized entity in the development of software for the execution of an LCA, and has an extensive database. The *Impact Estimation* software allows modeling the entire structure and envelope of the building to meet the requirements outlined in LEEDv4 for Option 4. These are as follows:

- The scope of the analysis covers a cradle-to-grave assessment. It should include the environmental impacts with all the stages for the building structure and enclosure such as resource extraction, product manufacturing, construction, maintenance and replacement, and demolition and disposal over an assumed 60-yearservice life. In particular it should address:

1) **Products:** The complete building envelope and structural elements should be included such as the foundations, structural framing, wall and roof assemblies, structural floors and ceilings. The following applies:

   a) Floor and ceiling products are excluded.
   b) Mechanical and electrical systems are excluded.
   c) Site development and excavation is excluded.
   d) Parking structures are included as part of the building.
   e) The team may decide to include other built elements, such as interior walls or finishes, however these earn no additional credit.

2) **Functional Equivalence:** the designed and baseline buildings must serve the same functions and have the same floor area, orientation, and operational energy usage.
3) **Service Life:** the entire building structure and enclosure must be included, from design to demolition for an assumed 60-year service life.
4) **System Boundary:** the analysis included cradle-to-grave environmental impacts associated with all the stages for the building structure and enclosure as defined in iso 21930 sections a-1 thru a-4, B-1 thru B-7, and c-1 thru c-4.

The software includes generally Canadian and American products database for North America, as the *Estimation of Impacts for Buildings* version does not present data sheet for Mexico City. Aiming to improve the available information, the project requested Athena Institute to gather data for the Mexico City region. Below is an example of data collated and developed for Mexico City:

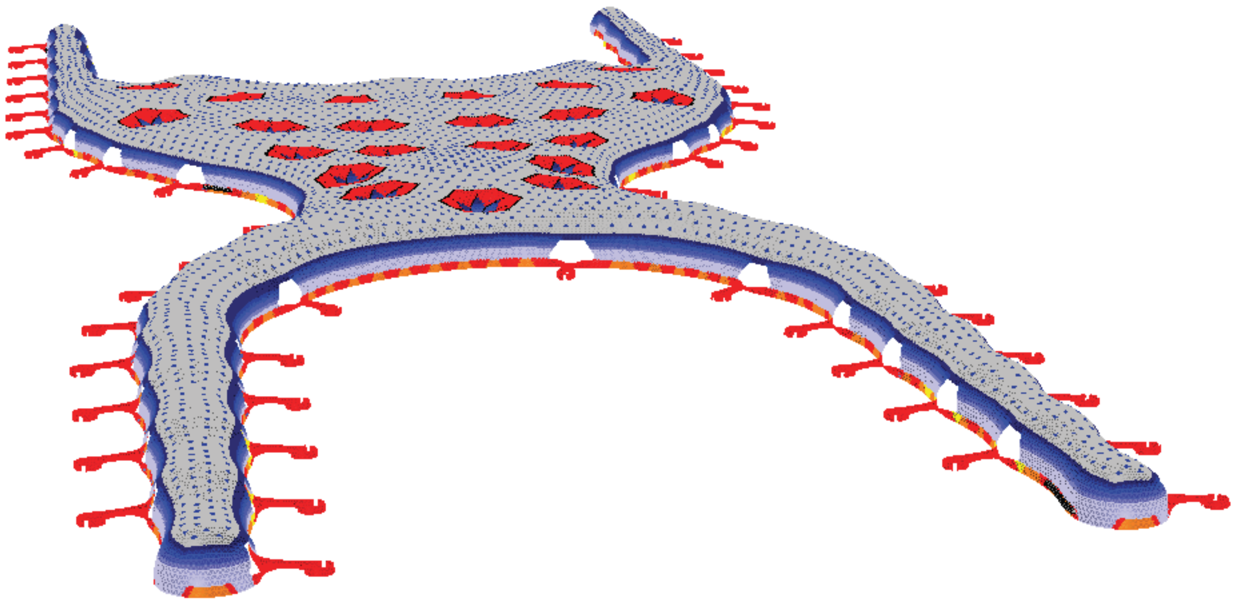
Table 1 - Environmental Impacts Measurements

LCA Measures	Unit	Sub-base Fill Per m^3	5000 psi Per m^3	6000 psi Per m^3	726 psi Per m^3
Global Warming Potential	1.63E+01	5.72E+02	6.03E+02	7.24E+02	6.79E+02
Acidification Potential	1.63E+01	1.73E+00	1.81E+00	2.10+00	1.94E+00
HH Particulate	3.00E+02	1.29E-01	1.36E-01	1.59E-01	1.50E-01
Eutrophication Potential	9.74E+03	5.07E-01	5.35E-01	6.48E-01	6.06E-01
Ozone Depletion Potential	5.70E-10	8.03E-06	8.47E-06	1.05E-05	9.72E-06
Smog Potential	4.98E+00	4.46E+01	4.67E+01	5.08E+01	4.93E+01
Total Primary Energy	2.40E+02	4.35E+03	4.58E+03	5.36E+03	5.06E+03
Non Renewable Energy	2.39E+02	4.26E+03	4.48E+03	5.24E+03	4.95E+03
Fossil Fuel Consumption	2.38E+02	4.18E+03	4.39E+03	5.13E+03	4.85E+03

4.4.2 Analysis

The envelope of the PTB is a large space-frame structure which forms the roof and walls. Large triangular glazed panels form the walls and spandrel panels form with upstanding metal seam roof. The space frame and envelope meet at the at the building's edge at grade or internally at the funnel columns. The space frame envelope is separate from the internal superstructure used to create the internal floors and spaces.

Figure 6 - PTB Envelope



A building archetype approach was used for defining the baseline building where the baseline building uses data that represents more standard industry practice than the proposed model.

The baseline and proposed buildings were modelled identically except for the following two design optimizing elements:

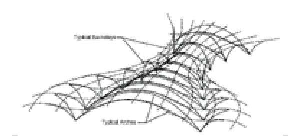
1) The baseline building's space frame is a more typical space frame weight for comparable airport roof spans.
2) The concrete mixtures of the baseline building use industry average default mixes.

These improvements in the design were the key factors to help reduce the over impact factors and are described below:

1) The space frame design is highly efficient when compared with other international airport roofs of similar spans. Similar roof structures ranged from 106-244 kg/m^2 whereas the NAIM PTB envelope structure is 54 kg/m^2.

The table below summarizes this research.

Table 2 - Comparative Analysis

Airport	Structure Type	Space Type	Structural Efficiency	Diagram
NAIM MEX	Space Frame to Ground	Terminal + Concourse	42 - 54 kg / m^2 Sum of Space Frame and Funnels per “Design Basis Roof Quantities Overview”	
King Abdulaziz International Airport (KAIA)	Space Frame on Columns	Terminal – Post - Security International Hub	106 kg / m^2	
Beijing Capital International Airport Terminal 3	Space Frame on Columns	Terminal – Passenger Processor (Typical Bay)	130 kg / m^2	
Abu Dhabi International Airport (ADIA)	Space Frame on Columns	Terminal – Passenger Processor	244 kg / m^2	

2) Within raft foundation of the proposed design’s concrete mix a substantial amount of added cementitious material is used and compared to the default mix of same strength, a significant reduction in the environmental impacts is observed. For example, there is a 25% reduction in the global warming potential. This is especially important for the PTB project where the raft foundation represents 70% of the concrete volume on the project and is thus the largest factor in reducing the environmental impacts. The GWPs of the different concrete mixes used are as follows.

Table 3 - Structural Elements

Mix Type	For Elements	Baseline Athena GWP (kg/kg)	Proposed Athena GWP (kg/kg)
C1	Piles	0.252	0.206
C1	Raft and Perimeter Wall	0.252	0.187
C2	Upper Floors	0.249	0.221
C2	APM cols and Ramps	0.249	0.208
C3	Colum Fill	0.283	0.248
C4	LWC	- - -	0.423
C5	Blinding Slab below Raft	0.249	0.208
C5	Mass Concrete Fill	0.249	0.205

It was noted that one of the early submissions for the concrete mix did not meet the specified portion and was rejected, in part, for not meeting the sustainability goals of the project.

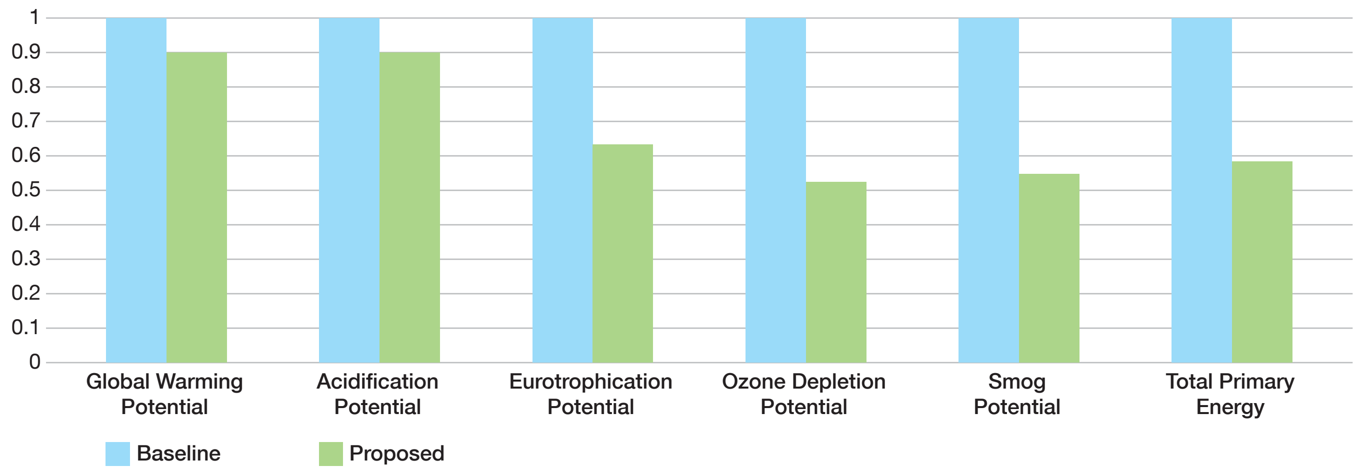
4.4.3. Results

Reductions were seen across Environmental Impact measures following the completed analysis. The table and chart below display overall results from the analysis.

Table 4 - Environmental Impact Results

LCA Measures	Unit	Baseline	Proposed	% Reduction
Global Warming Potential	kg CO2 eq	1,248,508,339	1,118,130,316	10%
Acidification Potential	kg SO2 eq	6,368,443	5,896,240	7%
Eutrophication Potential	kg N eq	592,012	374,885	37%
Ozone Depletion Potential	kg CFC-11 eq	13.1	6.8	48%
Smog Potential	kg O3 eq	121,100,526	66,869,847	45%
Non-Renewable Energy	MJ	16,090,565,763	9,379,976,693	42%

Chart 1 - PTB Structure and Envelope



4.4. Conclusion

The design allowed for and showed a reduction in the Environmental Impacts to help achieve the 3 points sought for the LEEDv4 Credit. The modeling was a challenge for the team due to limited information available in Mexico which needed to be developed for the project specifically. However the results show that the design decisions made for the most impactful elements will show the life style benefits to meet the sustainable target of the Terminal and overall airport Program.

LCA analysis is best done early in a project to understand the different options available to optimize the projects life-cycle environmental impacts and this can help realize the best possible savings. However this is only possible when there is a good data base of information to allow such comparisons. This does not exist for Mexico City area, so the possible analysis is more limited and there may be further savings in some areas which cannot be foreseen.

It is also a challenge to procure certified products and materials with certifications in Mexico. GACM has been working with the different entities to help show these overall benefits.

Finally, the analysis assumes the same mechanical and electrical systems in both buildings. Since the building and the associated Central Utility Plant and renewable energy generation are seeking to have a large saving in these systems. The true overall Whole Building Life Cyle Savings will likely be higher.

- The structure and envelope design of the PTB show reduced environmental impacts compared to a baseline building.
- To ensure the benefits are realized it is important that the speculations are carefully checked in contractor submissions.
- Further benefits may have been realized with a more extensive Mexican Database being available.
- The Mexican supply chain for sustainable products is in its infancy and by utilizing careful certification programs this market can grow and offer future benefits to other projects.

5. Performance Indicators

Specific performance indicators are being developed for tracking through the on-going reporting in line with the Green Bonds framework.

5.1. Eligible Buildings

The Airport program is currently developing designs for LEED v4 ratings for the following buildings.

Table 5 - LEED ratings for NAIM buildings

Building	LEED v4 Rating Target
Passenger Terminal Building	Platinum
Ground Transportation Center	Gold
Air Traffic Control Center	Gold
Area Control Center	Gold

\In addition to the specific buildings undergoing the LEED rating process, there are impacts for other ancillary buildings and systems to achieve these targets.

The Central Utility Plants A & B (CUPs) are located in the West airfield and supply chilled water for cooling the Passenger Terminal Building (PTB) and Air Traffic Control Tower (ATCT), as well as facilities to the North within the Midfield area. The cooling systems are being designed to a high level of energy efficient performance.

The Ground Transportation Center will include a bus station and a metro rail station. A further bus station will be located to the North of the site for employees of the Midfield areas. Connectivity for the airport workers as well as passengers is critical for successful opening of the project and reducing car travel.

The project includes a dedicated Waste Water Treatment Plant. All black water from the initial phase of development will be treated to a high level to meet California Building Code requirements to provide a supply of treated water to airport buildings for lavatory flushing, irrigation and cleaning needs.

5.2. Energy and Water Consumption and Reduction Strategies

The MIA reviewed the currently observed values of water and energy consumption at the existing airport; based on these usages the new airport is targeting a reduction of around 70% in its use of potable water and 40% for energy usage.

All the buildings seeking a LEED rating are currently targeting a 50% energy cost reduction to meet the full points available. This 50% cost reduction is being designed through the following strategies:

- Implementation of Energy Conservation Measures (ECM's) within the building.
- Connection to a High Efficiency Campus Central Utility Plant.
- Power sourced from renewable energy sources.

Water consumption is being reduced through the following strategies:

- Dedicated on-site Waste Water Treatment Plant to provide a supply of treated water.
- Use of low flow fixtures for toilet flushing using treated water in buildings seeking a LEED rating.
- Use of low flow fixtures for lavatory fixtures using potable water in buildings seeking a LEED rating.

5.3. Greenhouse Gas Emissions

As laid out in the MIA the proposed building designs, boilers and power plants will reduce the Greenhous Gas emission by 50% compared to the current Mexico City Airport.

Reduction in Greenhouse Gas emissions aligns with the energy reduction strategies noted above for energy consumption.

Other opportunities which are being implemented or investigated at this time are as follows:

- Use of photovoltaic panels to provide site lighting and perimeter protection during construction.
- Provision of sufficient infrastructure to allow electric Ground Source Equipment (eGSE) for airlines and ground handlers to reduce non-aircraft airside air pollution.
- Identification of locations of natural resources and products to reduce pollution from transportation to the site.

5.4. Waste Reduction and Diversion from Landfill

LThe MIA outlines a range of reduction and recycling targets. Overall the new airport seeks a reduction of 10% to 30% in waste generation and an improvement of 10 to 30% in the amount to waste diverted to recycling facilities.

5.5. Energy Purchased or Generated On-site from Renewable Energies

The use of photovoltaics is currently being utilized for site lighting.

An extensive feasibility study is also currently in progress. This is to determine the best cost solution to meet the LEED demands of the project.

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