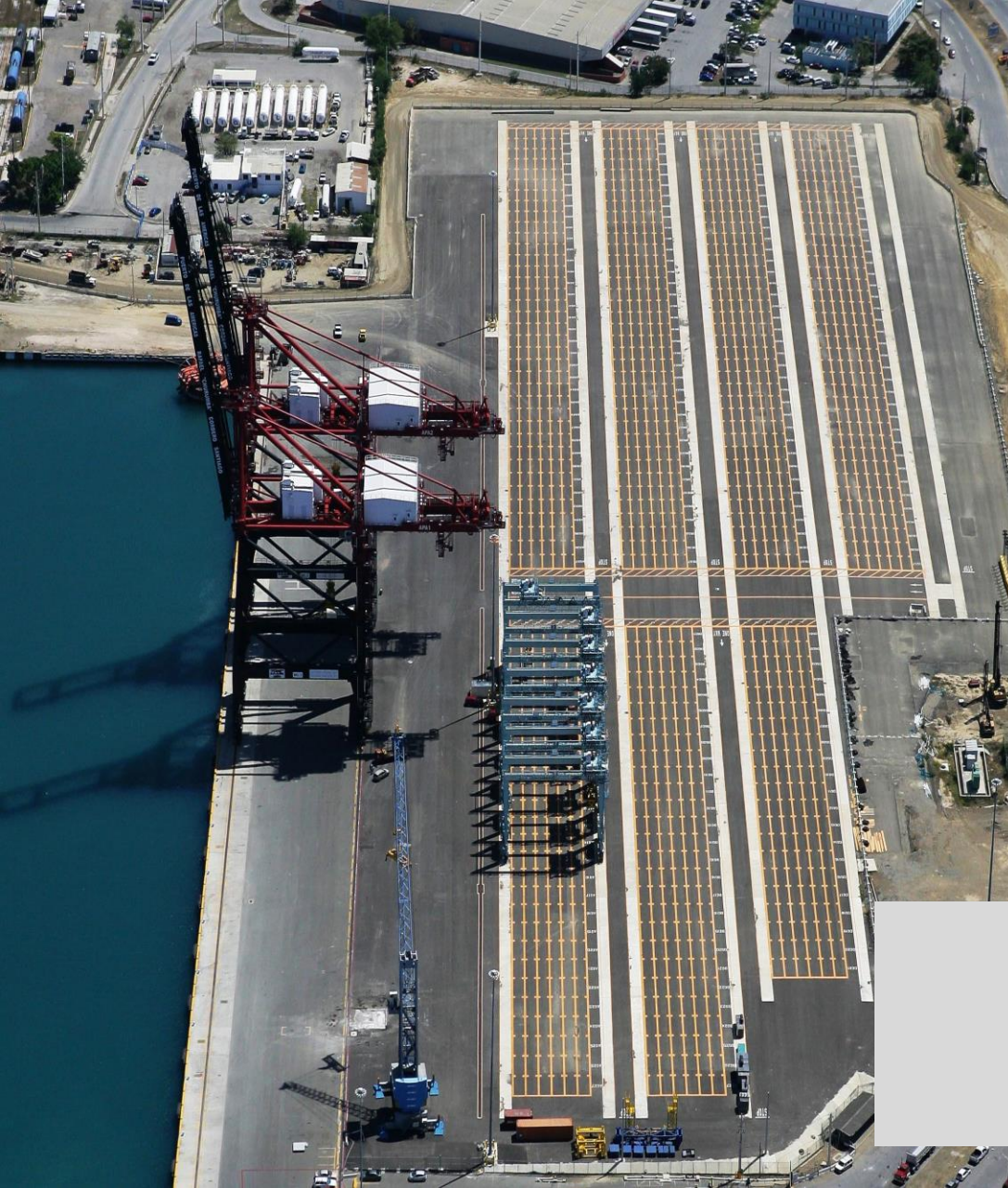




Project Management • Inspection • Construction Management



CMA Architects & Engineers LLC | 1509 F.D Roosevelt Ave. Guaynabo PR 00968-2612 | 787-792-1509 | www.cmapr.com

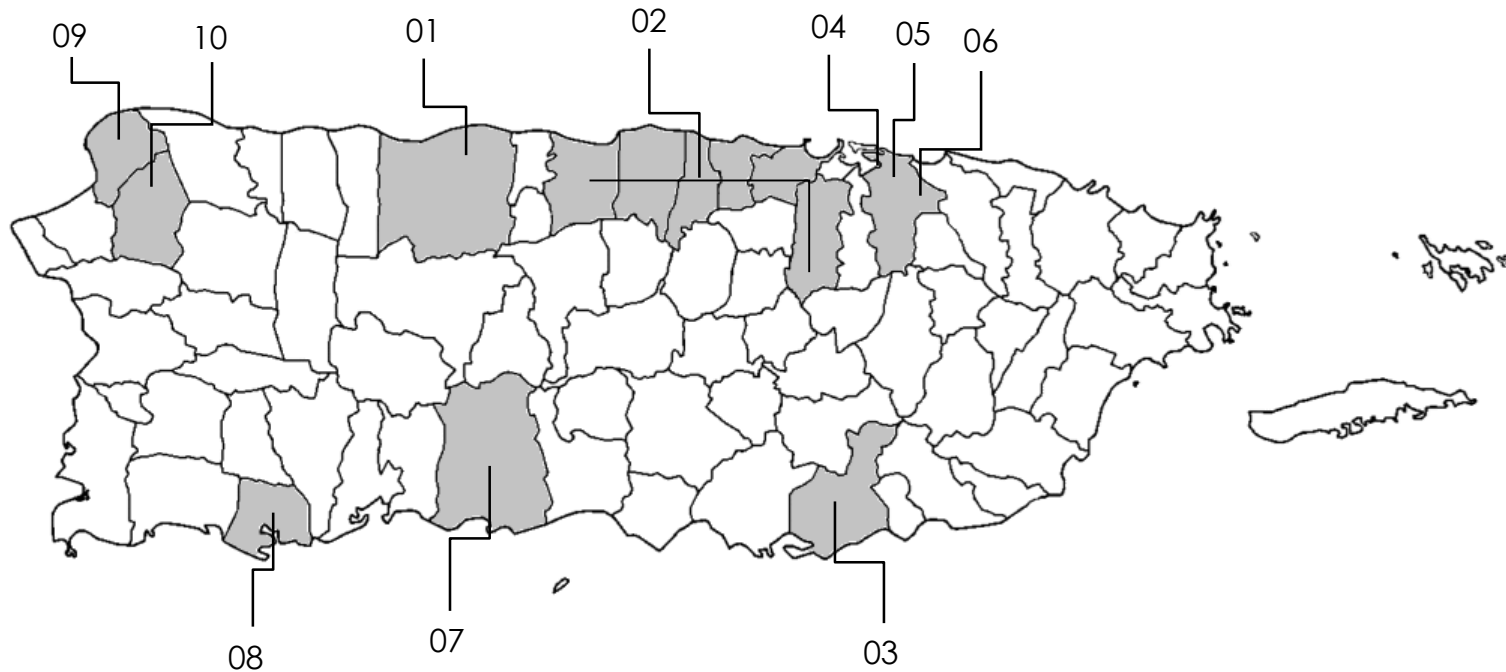


Work:

*Over the past 50 years, CMA has been working
in several major projects in Puerto Rico*

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Relevant Projects:

Infrastructure Rehabilitation & Improvements:

- 01_Metropistas-Pavement Rehabilitation*
- 02_Metropistas-Lighting Upgrade*
- 03_Baxter-Facility Site Security & Access Control System Upgrade*

Government Infrastructure New Construction:

- 04_ACT-Diego Ave. Bridge Replacement*

- 05_ACT-Reemplazo Puente 1 & 86*
- 06_Tunel Tren Urbano*
- 07_AFI-Port of Las Americas*
- 08_PRASA-Sanitary Sewage Laterals*
- 09_Paseo La Real Marina*
- 10_PRIDCO-Las Americas Technology Park*



Infrastructure Projects Rehabilitation & Improvements

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Metropistas – Pavement Rehabilitation Highway PR-22, Arecibo

\$3.2M | 2015

Experience

CMA was responsible for the Construction Management and Inspection at PR-22 Pavement Rehabilitation project. Concrete rehabilitation through segments between km. 64.0 and km. 71.5 was performed. Cleaning, refacing and sealing of existing longitudinal and damaged joints within the projects was performed. Also the shoulder areas with defects were cold milled and repaved.

Location

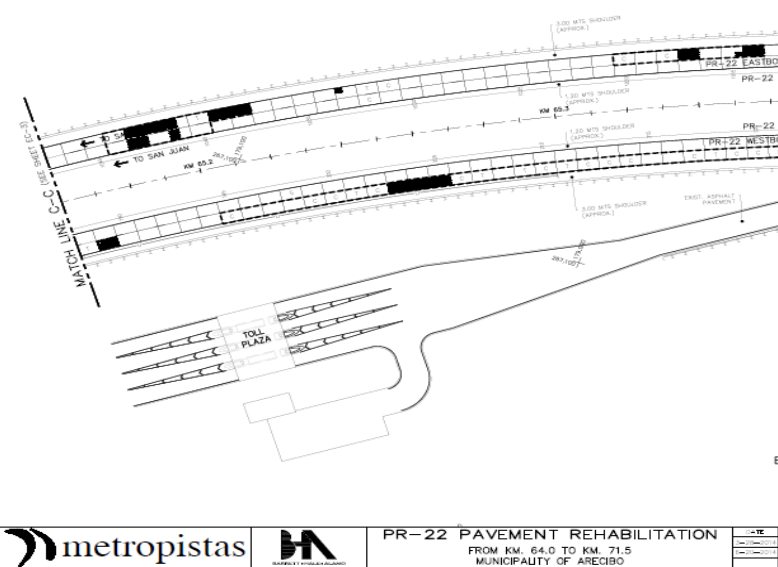
Arecibo, Puerto Rico

Client

Autopistas Metropolitanas de Puerto Rico, LLC

Services

Construction Management and Field Inspection





Metropistas – Lighting Upgrade

\$6.3M | 2012
\$1.7M | 2019

Highway PR-22

Experience

CMA was responsible for the Construction Management and Inspection at PR-22 Lighting Upgrade project. Repair, refurbishing, and maintenance of the existing lighting system installed in the PR 22, De Diego Highway, and PR 5. Phase I repairs at the Diego Highway included segments from San Juan to Hatillo. The repairs at PR 5 comprised from the intersection with PR #174 to the intersection with PR 830 in Bayamón. Phase II repairs included upgrades to the Highway from San Juan to Hatillo.

Location

From San Juan to Hatillo, PR

Client

Autopistas Metropolitanas de Puerto Rico, LLC

Services

Construction Management, Inspection and Design



Baxter – Facilities Site Security & Access

\$2.4M | 2015

Control System Upgrade

Experience

New Baxter Facility North entrance with guardhouse, truck access control, concrete pavement road for heavy truck traffic, solar lighting system and landscape. Existing South main entrance was improved with new pedestrian and vehicles access control, lighting and landscape. Site security included intrusion detection system, CCTV surveillance and perimeter / fence intrusion detection.

Location

Guayama, Puerto Rico

Client

Baxter Healthcare Corp.

Services

Construction Management,
Inspection and Design



Government New Construction Projects

Project Management • Inspection • Construction Management

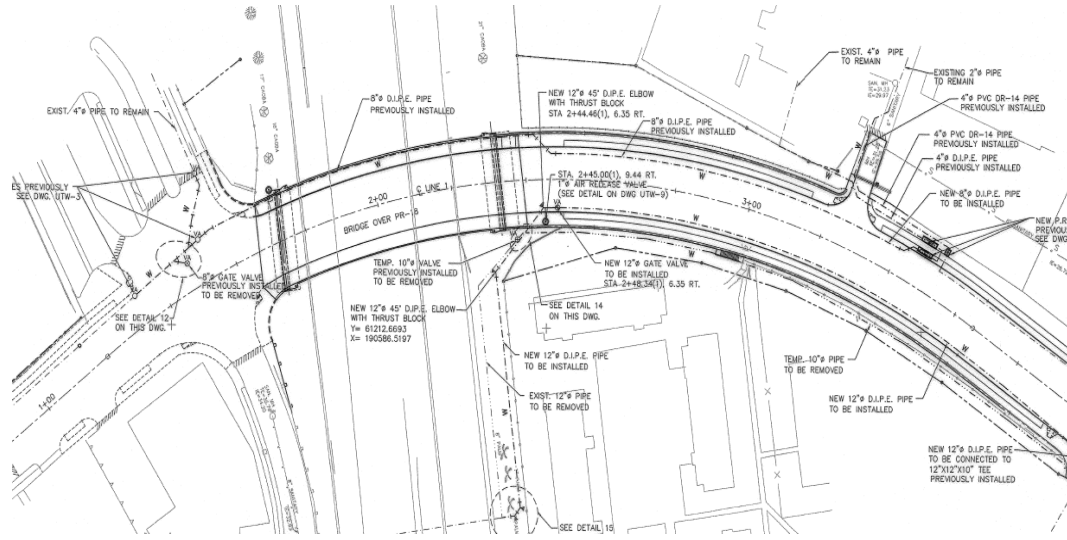
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ACT – De Diego Avenue, Replacement of Bridge No. 956 over PR-18

2004

Experience

CMA was responsible for the Design and Supervision during the construction at Diego Avenue bridge replacement. This project consisted of the replacement of Bridge No. 956 over PR-18. The constructed bridge section consist of 4 travel lanes, 3.00 meters sidewalk on both sides and utilities relocation. The bridge structure is a single spam structure of 185 feet long with steel girders and abutments supported on spread footings.



Location

San Juan, Puerto Rico

Client

Commonwealth of Puerto Rico
Department of Transportation & Public Works

Services

Architect-Engineer On-Site
Representation and Design



ACT – Replacement of Bridges No. 1 and No. 86 over “Caño Esteves” 2002

Experience CMA interacted closely with PRHTA's staff during the planning and design and also provided services during construction. Special attention was given to finishing details providing balconies and luminaries in harmony with the environment and natural resources around the area. These bridges provide access to the historic city of Old San Juan. The San Antonio Channel is the main crossing area between the San Juan islet and the mainland.

Location San Juan, Puerto Rico

Client Commonwealth of Puerto Rico
Department of Transportation
& Public Works

Services Architect-Engineer On-Site
Representation and Design





Urban Train - Tunnel Rio Piedras & Universidad Segment

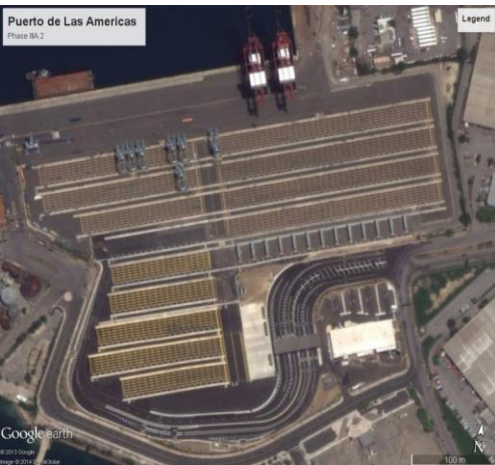
Experience

The Tren Urbano (TU) heavy rail transit system in San Juan includes a 1,500 meter long segment and two stations constructed underground at Rio Piedras. This segment involved several tunneling techniques. One station, Universidad, was built as cut-and-cover. One portion had twin tunnels driven with an Earth Pressure Balance Machine and lined with one-pass precast concrete segments. Another segment had four short tunnel drives at a turnout that was constructed with an initial support of shotcrete and lattice girders. The Río Piedras Station was built as a stacked drift with a total of 15 individual tunnel drifts. After being sequentially excavated and concreted, they formed the arch of the 19 meter wide by 16 meter high cavern station. This structure was excavated in soil with less than 5 meters of cover to overlying historic buildings. TU is in service since June 2005.

Location Rio Piedras, Puerto Rico

Client Department of Transportation & Public Works

Services Inspection and Architect-Engineer
On-Site Representation and Design



AFI – Port of “Las Américas”

\$84M | 2012 Phase III.A.2; Ponce, PR

Experience Project consisted in the expansion to the Port of Las Americas container storage area, construction of the main access to the Port, a new administration building, relocation of a storm sewer channel, relocation of 48-inch diameter sanitary sewer trunk, relocation of 18-inch diameter potable water line, dredging of existing dock and improvements to La Guancha Tourism Complex.

Location Ponce, Puerto Rico

Client Autoridad para el Financiamiento de la Infraestructura

Services Construction Management and Inspection

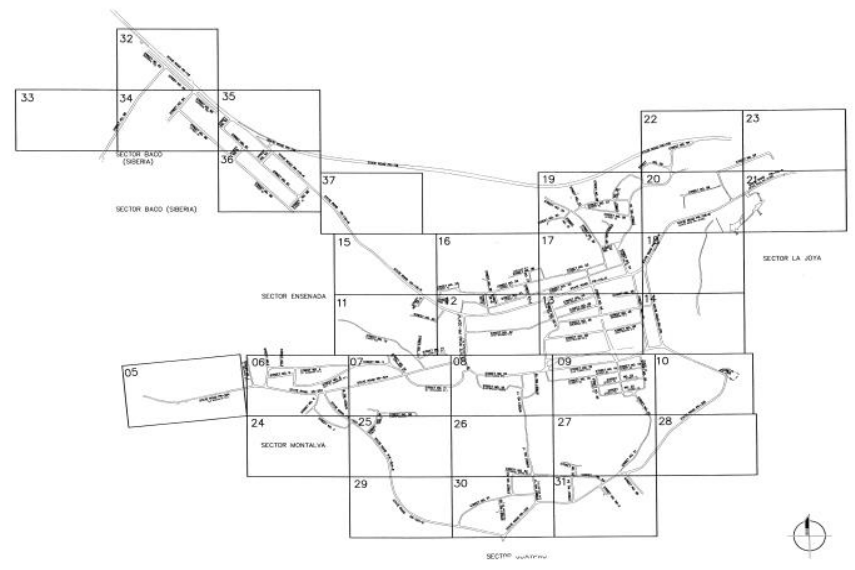
Sanitary Sewer System for Ensenada Community (Phase I) \$10.5M | 2011

Experience The project consisted in the installation of sanitary gravity sewer lines with PVC SDR-35 pipes of 8, 10 and 15 inches in diameter, the installation of sanitary sewer manholes, the installation of a sanitary sewer force line with 8 inch PVC DR-14 pipes, and the construction of a new sanitary sewer pump station. This project services approximately 1,500 families and will provide sanitary sewer infrastructure for future constructions.

Location Guánica, Puerto Rico

Client Puerto Rico Aqueduct and Sewer Authority

Services Construction Management, Inspection and Design



Paseo de La Real Marina

Phase 1: \$12.8M | 2015
Phase 2: \$8.9M | 2018

Experience The project consisted in the Re-construction of improvements to Aguadilla's Waterfront from Cristobal Colón Park to San Carlos Street with a length of 1.74 kilometers on the first phase and the second phase included rehabilitation of 0.8 kilometers. It included the reconstruction of existing streets, sidewalks, coastal protection with stone revetment, drainage, traffic signs and the construction of new recreational facilities such as kiosks and boat ramp.

Location Aguadilla, Puerto Rico
Client Puerto Rico Infrastructure Financing Authority

Services Architect-Engineer On-Site Representation, Design and Permitting with Municipal / Federal Agencies





Las Americas Technology Park Pre-Tenant Development Project

\$7.9M | 2009

Experience

A site new development for an Industrial Park in the Municipalities of Moca and Aguadilla. Work included earthwork, roads, storm & sanitary sewer, fence, landscaping, lighting, underground electrical distribution and an electrical substation.

Location

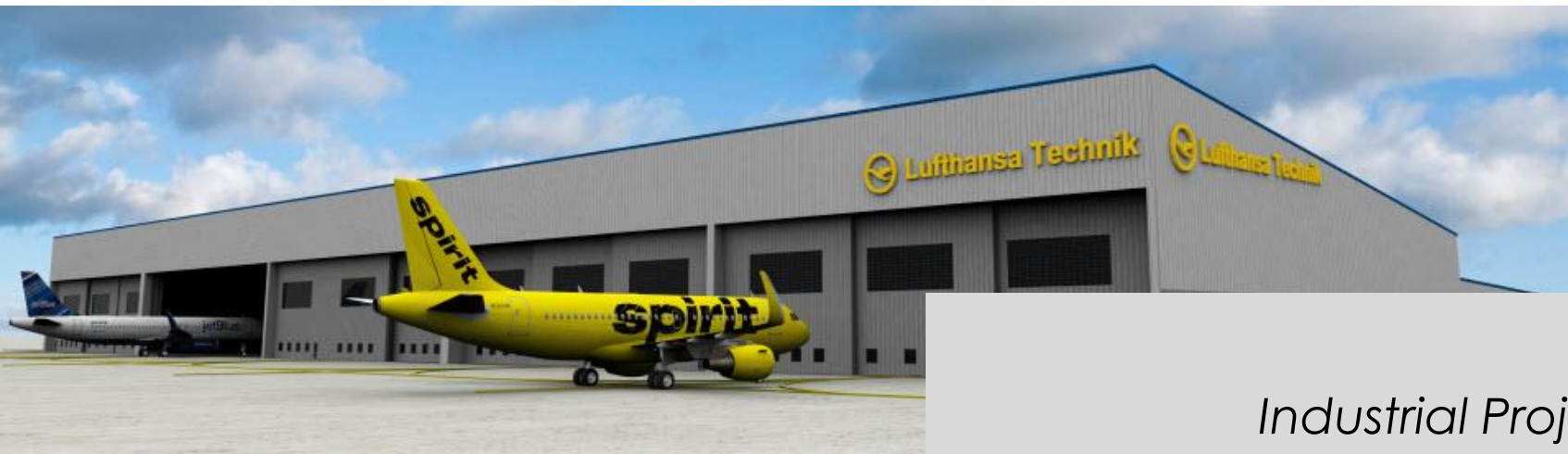
Moca, Puerto Rico

Client

PRIDCO

Services

Construction Management and Inspection



Industrial Projects



USABON Manufacturing Line

\$30M | 2016

Experience

Baxter Healthcare of Puerto Rico (Baxter) is dedicated to the manufacture of pharmaceutical products. Baxter performed several improvements to its plant collectively called the "Usabón Project". As part of these improvements, the manufacturing area was expanded. The existing Manufacturing Building, consisting of three floors with an area of 175,206 square feet was transformed, and an interior expansion of 19,440 square feet was successfully completed on each of the three floors.



Location

Aibonito, Puerto Rico

Client

Baxter Healthcare

Services

Design, Construction
Management and Inspection



AMO Expansion

\$12M | 2014

Experience

Abbott Medical Optics is an industry dedicated to the manufacture of intraocular lenses for human use. AMO renovated part of the existing manufacturing building and expanded operations to accommodate additional manufacturing lines. 18,000 square feet of interior area were remodeled and 31,215 square feet were added. The manufacturing lines were expanded from nine (9) to a total of thirteen (13) in order to meet future expectations of the intraocular lens market.

Location

Añasco, Puerto Rico

Client

Abbott Medical Optics

Services

Design, Construction
Management and Inspection



*Institutional, Commercial,
and Building Projects*

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Sheraton Resort Old

2005 to 2020

Experience

CMA was responsible for the design and construction support for the casino and business meeting rooms retrofit project. Also, CMA has worked in a variety of projects that included mechanical and electrical Support for the building. The Property includes 240 hotel rooms, 10 sq. ft. in retail Space & 10 sq. ft. in meeting space. This building forms part of the bay façade of the colonial city of Old San Juan.

Location

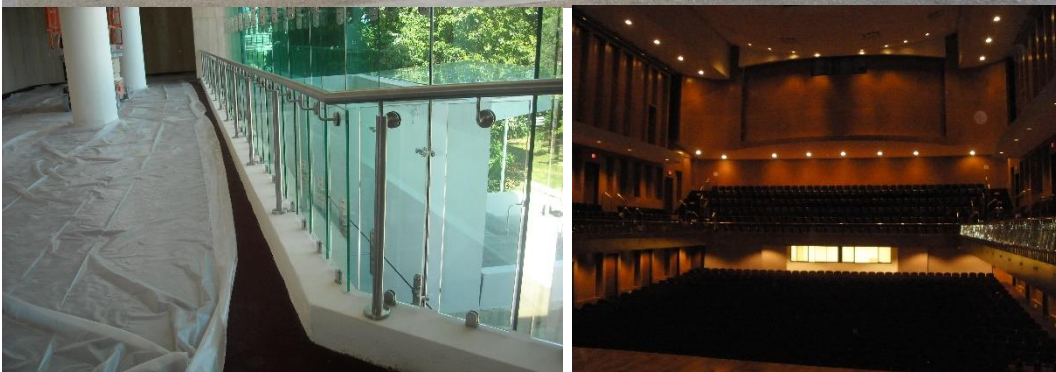
San Juan , Puerto Rico

Client

Tishman Realty & Construction

Services

Inspection, Planning, Environmental, Permitting, Electrical, Architecture, Structure, Civil, Mechanical, Plumbing, Planning and Environmental Permits



Symphony Hall Centro de Bellas Artes

\$40M | 2009

Experience

New Symphony Hall with capacity for 1,300 seats. The project consists of a four level reinforced concrete and structural steel building. It includes:

- Main Concert Hall
- Three lobbies, two bar areas
- Rehearsal Rooms
- Dressing Rooms
- Administrative Offices
- Security Offices
- Meeting and Guest Rooms
- Loading / Unloading Area
- Space for a future Restaurant or Museum

Location San Juan, Puerto Rico

Client Puerto Rico Infrastructure Financing Authority

Services Construction Management, Field Inspection and Project Permitting



Multi Purpose Machine Gun Range Camp Santiago

\$9.4M | 2015

Experience

Construction of state of the art training facility/range for units to train and test on the skills necessary to zero, detect, engage, and defeat infantry targets. This multi purpose machine gun range facility includes structures/infrastructure to facilitate the employment of the of target system from 100 meters to 1,500 meters Facilities includes: Control Tower, firing positions/foxholes/firing berms, lanes and limit markers, emplacements, Wire and Data cable directly related to target operations, site work, and range safety flag pole. Building construction including latrines, operations/storages, bleachers, class room, ammunitions, covered mess.

Location Client

Salinas, Puerto Rico
PR Army National Guard

Services

Construction Management and
Inspection



El San Juan Hotel

\$21.3M | 2017

Experience

CMA was the architect and engineer responsible for the renovation of El San Juan, a landmark hotel since 1958. The redesign and modernization included 388 guestrooms, main public lobby, ballrooms, casino, meeting rooms, exterior public areas, restaurants, and a new gym and spa.

Also, CMA also led mechanical and electrical upgrades, which were vital to the modernization of this iconic hotel.

Location

Carolina, Puerto Rico

Client

PDSI and Leon, Mayer & Co.

Services

Inspection, Architect-Engineer
On-Site Representation, Project
Management, Design and Project
Permitting

Cayo Largo Hotel

\$53.6M | 2020

Experience Currently under construction, CMA is part of the design team for this prominent hotel in Cayo Largo. The project consists of low rise buildings spread out on the beach front property with 140 guestrooms.

Amenities in the site include restaurants, spa, banquet halls, fitness center, magnificent pools and great ocean views.

Location Cayo Largo, Puerto Rico

Client Cayo Largo, LLC

Services Inspection, Architect-Engineer
On-Site Representation, Civil Design
and Project Permitting





Palmas Del Mar

1995 to 2020

Experience

CMA has extensively participated in the development of the Master Plan, Infrastructure, Site Development and Permitting of this property. Palmas del Mar is a tourist, recreational and residential resort community under development with around 10,000 residential condo-hotel units, hotels, 2 golf courses, a private water / wastewater system and other recreational – tourist support facilities, on over 3,500 acres of land.

Location

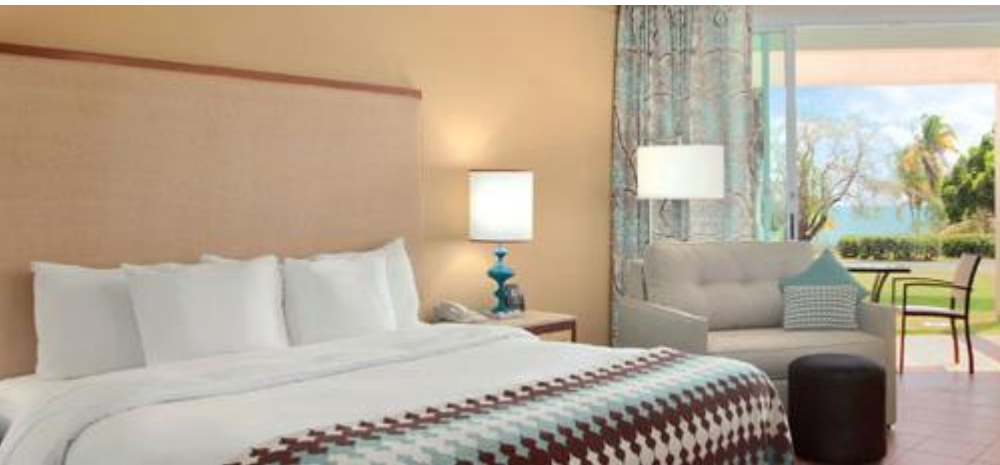
Humacao, Puerto Rico

Client

Palmas del Mar Inc.

Services

Inspection, Architect-Engineer
On-Site Representation,
Environmental, Permitting and
Design



Costa Caribe Resort

2001 to 2003

Experience

CMA was responsible for Master Plan and Site Development, Infrastructure, Civil, Electrical, Mechanical, Structural Engineering, Permitting and Services during Construction. Hotel remodeling (100 additional rooms), Two Golf Courses and 100 Condo-Hotel Units (228 hotel room keys) and 300 villas (more than 100 already constructed and sold; all other currently on construction phases).

Location

Ponce, Puerto Rico

Client

Ponce Hilton

Services

Inspection, Architect-Engineer
On-Site Representation, Design and
Project Permitting

St. Regis at Bahia Beach

2007 to 2020

Experience

CMA was part of the design team for the first five-star hotel in Puerto Rico. The project consists of low rise buildings spread out on the beach front property with a total of 139 keys. Amenities in the site are a Robert Trent Jones Jr. Golf course, Remede Spa, magnificent pools and great ocean views. Several phases of this project continues to this date and CMA take part in the development of the Master Plan.

Location

Rio Grande, Puerto Rico

Client

BBP Partners, LLC

Services

Architect-Engineer On-Site
Representation, Design, Project
Permitting and Planning





Preconstruction Services - Bids

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Comprehensive Evaluation of Bids

Description

CMA was involved in the construction projects bid evaluation process for several clients on the industrial, institutional and commercial sectors. The evaluation and recommendation reports included the following:

- Project Description
 - Bid Process Summary
 - Bid Documents Evaluation
 - Cost Detailed Evaluation
 - Cost Summary
 - Contract Award
- Recommendations





Project Management • Inspection • Construction Management