

Republic of the Philippines  
DEPARTMENT OF NATIONAL DEFENSE  
GOVERNMENT ARSENAL  
Camp General Antonio Luna  
Lima, Bataan

JULY 10, 2023

DWG. NO: CMS 2023-006

# IMPROVEMENT OF CBD MRM WAREHOUSE

LOCATION: CBD MRM WAREHOUSE

END USER: PLANNING AND LOGISTICS DIVISION (PLD)

ESTIMATED PROJECT COST: Php 1,523,000.00

## ATTACHMENT:

### 1. PROGRAM OF WORKS:

ARTICLE I: STATEMENT OF WORK  
ARTICLE II: SCOPE OF WORKS  
ARTICLE III: SPECIFICATIONS  
ARTICLE IV: COMPLETION

### 2. BILL OF QUANTITIES

### 3. DETAILED ESTIMATE

### 4. APPROVED BUDGET FOR CONTRACT ( ABC )

### 5. WORKING DRAWINGS

Republic of the Philippines  
DEPARTMENT OF NATIONAL DEFENSE  
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## IMPROVEMENT OF CBD MRM WAREHOUSE

### ARTICLE I – STATEMENT OF WORK

- A. The work covered by this specification consists of the supply of labor, materials, consumables, tools/instruments, equipment, supervision and other services required to complete the IMPROVEMENT OF CBD MRM WAREHOUSE project, all in accordance with Articles I, II, III and IV of this Job Specification.
- B. The work shall be undertaken at Government Arsenal, Camp General Antonio Luna, Lamao, Lima, Bataan.

### ARTICLE II – SCOPE OF WORK

- A. The scope of work for this Job Specification and Contract Agreement encompasses all effort necessary to complete the construction and commissioning of facilities for the IMPROVEMENT OF CBD MRM WAREHOUSE project. The Contractor shall provide all materials and consumables, labor, tools/instruments, equipment, supervision and other services required and perform all work necessary for the complete execution of all the work.
- B. The work and specifications shall include but not limited to the following:

<b>I</b>	<b>GENERAL REQUIREMENTS</b>	<b>1 lot</b>
1	Mobilization/Demobilization	1 lot
2	Provision for safety and health program	1 lot
3	Permits and others	1 lot
4	Construction of temporary facilities and layout	1 lot
<b>II</b>	<b>EARTHWORKS</b>	<b>21 cu m</b>
5	Excavation for footings	9 cu m
6	Backfill	4.5 cu m
<b>III</b>	<b>FORMWORKS</b>	<b>4 cu m</b>
7	Formworks for beams and columns	16 sets
8	Scaffolds and staging	1 lot
<b>IV</b>	<b>REBARWORKS</b>	<b>92.1 sq mtrs</b>
9	Rebar works at footings, pedestals and corbels	92.1 sq mtrs
<b>V</b>	<b>CONCRETE WORKS</b>	<b>92.1 sq mtrs</b>
10	Concreting of footings, corbels and column pedestal	14 cu m
<b>VI</b>	<b>INSTALLATION OF I BEAM FRAME</b>	<b>92.1 sq mtrs</b>
11	Welding and fabrication of steel columns and beams to include steel joist	2512 kgs

12	Welding and Fabrication of steel railings, steel mattings and Steel stairs	92.1	sq mtrs
13	Fabrication and installation of safety steel mattings on mezanine perimeter	38.5	lm
<b>VII</b>	<b>PAINTING WORKS</b>	<b>92.1</b>	<b>sq mtrs</b>
14	Painting of steel members	92.1	sq mtrs
<b>VIII</b>	<b>ELECTRICAL WORKS</b>	<b>1</b>	<b>lot</b>
15	Re-orientation of existing electrical lights	92.1	sq mtrs
<b>IX</b>	<b>CLEAN UP</b>	<b>1</b>	<b>lot</b>
	a. Hauling of excess materials, scraps (Inside GA)	1	lot
	b. Hauling and Disposal of waste materials with no scrap value (Outside GA)	1	lot

C. The Contractor shall furnish other work not explicitly cited in the drawings and specifications but is reasonably implied and required for the completion of the work under the Job Specification such as housekeeping/clean-up of work site at all times, restoration of damaged facilities and equipment affected during the performance of the above work.

### ARTICLE III – SPECIFICATIONS

1. Angle Bar, Wide Flange Members and Base Plate - Shall conform to ASTM A-36 standards, free from rust and dirt
2. C-Purlins – Shall Be 2.5mm thick Galvanized and Free From Rust and Dirt
3. Paints - Shall be Epoxy primer grey for steel members and QDE yellow/black for traffic paint
4. Concrete – Shall be Ready mixed Concrete with a design of 3000 psi @ 14 days
5. Forms – Shall Be Phenolic Board, 1-2 times use only
6. Steel Grating for Steel deck – Shall be 1" thick welded steel grating with a bearing size of 2 - 1/4" X 3/16" , pitch: 1 - 3/16" , cross bar pitch: 2"

### ARTICLE IV – COMPLETION

The project shall be completed not more than 120 CALENDAR days

Prepared by:

ENGR. JOSE MARIB, MANDIGMA, CE  
Chief, Design Group CMS

Recommend Approval:

ENGR. ABELARDO GERRARD P. MENDOZA III  
Superintendent. Engineering Division

Checked by:

ENGR. RYAN RAYM SANTOS, CE  
Chief, CMS

Concur / Not Concur.

ARNOLD RAFAEL Y DEPAKAKIBO  
Assistant Director

Approved by:

GERRY P AMANTE  
Director

Republic of the Philippines  
ARSENAL, DND  
Camp General Antonio Luna  
Lamao, Limay, Bataan

JULY 10, 2023

**BILL OF QUANTITIES**  
**IMPROVEMENT OF CBD MRM WAREHOUSE**

ITEM NO.	SCOPE OF WORK & SPECIFICATIONS	QTY	UNIT	UNIT COST	TOTAL COST
I	<b>GENERAL REQUIREMENTS</b>	1 lot			
1	Mobilization/Demobilization	1 lot			10,000.00
2	Provision for safety and health program	1 lot			10,000.00
3	Permits and others	1 lot			5,000.00
4	Construction of temfacil and layout	1 lot			10,000.00
II	<b>EARTHWORKS</b>	21 cu m			
5	Excavation for footings	9 cu m			5,850.00
6	Backfill	4.5 cu m			2,250.00
III	<b>FORMWORKS</b>	4 cu m			
7	Formworks for beams and columns	16 sets			68,458.00
8	Scaffolds and staging	1 lot			13,000.00
IV	<b>REBARWORKS</b>	92.1 sq mtrs			
9	Rebar works at footings, pedestals and corbell	92.1 sq mtrs			64,376.00
V	<b>CONCRETE WORKS</b>	92.1 sq mtrs			
10	Concreting of footings, corbells and column pedestal	14 cu m			69,420.00
VI	<b>INSTALLATION OF I BEAM FRAME</b>	92.1 sq mtrs			
11	Welding and fabrication of steel columns and beams to include steel joist	2512 kgs			356,142.80
12	Welding and Fabrication of steel railings, steel mattings and Steel stairs	92.1 sq mtrs			464,646.00
13	Fabrication and installation of safety steel mattings on mezanine perimeter	38.5 lm			47,970.00
VII	<b>PAINTING WORKS</b>	92.1 sq mtrs			
14	Painting of steel members	92.1 sq mtrs			49,140.00
VIII	<b>ELECTRICAL WORKS</b>	1 lot			
15	Re-orientation of existing electrical lights	92.1 sq mtrs			13,170.30
IX	<b>CLEAN UP</b>	1 lot			
a.	Hauling of excess materials, scraps (Inside GA)	1 lot			13,100.00
b.	Hauling and Disposal of waste materials with no scrap value (Outside GA)	1 lot			13,100.00
<b>(I) TOTAL DIRECT COST</b>					1,180,623.10
<b>TOTAL INDIRECT COST</b>					
<b>(II) MARK-UP ( 12% PROFIT + 8% OCM )</b>					236,124.62
<b>(III) TAX/EVAT ( 5% OF I+II )</b>					70,837.39
<b>(IV) GENERAL REQUIREMENTS</b>					35,000.00
<b>TOTAL PROJECT COST</b>					1,522,585.11
<b>SAY</b>					<b>1,523,000.00</b>

Prepared by:

ENGR. JOSE MARIN B. MANDIGMA, CE  
Chief, Design Group, CMS

Checked by:

ENGR. RYAN RAY M SANTOS, CE  
Section Chief, CMS

Submitted by:

ENGR. ABELARDO GERRARD P. MENDOZA III  
Superintendent, ED

Concur / Not Concur:

ARNOLD RAFAEL Y. DEPAKAKIBO  
Assistant Director

Approved by:

GERRY P AMANTE  
Director



Republic of the Philippines  
ARSENAL, DND  
Camp General Antonio Luna  
Lamiao, Limay, Bataan

JULY 10, 2023

**BILL OF QUANTITIES**  
**IMPROVEMENT OF CBD MRM WAREHOUSE**

ITEM NO.	SCOPE OF WORK & SPECIFICATIONS	QTY	UNIT	UNIT COST	TOTAL COST
I	<b>GENERAL REQUIREMENTS</b>		1 lot		
	1 Mobilization/Demobilization		1 lot		
	2 Provision for safety and health program		1 lot		
	3 Permits and others		1 lot		
	4 Construction of temfacil and layout		1 lot		
II	<b>EARTHWORKS</b>		21 cu m		
	5 Excavation for footings		9 cu m		
	6 Backfill		4.5 cu m		
III	<b>FORMWORKS</b>		4 cu m		
	7 Formworks for beams and columns		16 sets		
	8 Scaffolds and staggering		1 lot		
IV	<b>REBARWORKS</b>		92.1 sq mtrs		
	9 Rebar works at footings, pedestals and corbell		92.1 sq mtrs		
V	<b>CONCRETE WORKS</b>		92.1 sq mtrs		
	10 Concreting of footings, corbells and column pedestal		14 cu m		
VI	<b>INSTALLATION OF I BEAM FRAME</b>		92.1 sq mtrs		
	11 Welding and fabrication of steel columns and beams to include steel joist		2512 kgs		
	12 Welding and Fabrication of steel railings, steel mattings and Steel stairs		92.1 sq mtrs		
	13 Fabrication and installation of safety steel mattings on mezanine perimeter		38.5 lm		
VII	<b>PAINTING WORKS</b>		92.1 sq mtrs		
	14 Painting of steel members		92.1 sq mtrs		
VIII	<b>ELECTRICAL WORKS</b>		1 lot		
	15 Re-orientation of existing electrical lights		92.1 sq mtrs		
IX	<b>CLEAN UP</b>		1 lot		
	a. Hauling of excess materials, scraps (Inside GA)		1 lot		
	b. Hauling and Disposal of waste materials with no scrap value (Outside GA)		1 lot		

Prepared by:

ENGR. JOSE MARI B. MANDIGMA, CE  
Chief, Design Group, CMS

Submitted by:

ENGR. ABELARDO GERRARD P. MENDOZA III  
Superintendent, ED

Checked by:

ENGR. RYAN RAYMUNTO SANTOS, CE  
Section Chief, CMS

Concur / Not Concur:

ARNOLD RAFAEL Y. DEPAKAKIBO  
Assistant Director

Approved by:

GERRY P. AMANTE  
Director

JULY 10, 2023

DETAILED ESTIMATE  
IMPROVEMENT OF CBD MRM WAREHOUSE

ITEM NO.	SCOPE OF WORK & SPECIFICATIONS	QTY	UNIT	MATERIAL COST		LABOR COST		EQUIPMENT COST	
				UNIT COST	TOTAL COST	UNIT COST	TOTAL COST	UNIT COST	TOTAL COST
I	GENERAL REQUIREMENTS	1	lot						
1	Mobilization/Demobilization	1	lot	10,000.00	10,000.00				
2	Provision for safety and health program	1	lot	10,000.00	10,000.00				
3	Permits and others	1	lot	5,000.00	5,000.00				
4	Construction of temporary and layout	1	lot	5,000.00	5,000.00	5,000.00	5,000.00		
	Sub Total				30,000.00				
II	EARTHWORKS	21	cu m						
5	Excavation for footings	9	cu m			650.00	5,850.00		
6	Backfill	4.5	cu m			500.00	2,250.00		
	Sub Total						8,100.00		
III	FORMWORKS	4	cu m						
7	Formworks for beams and columns	16	sets						
	1/2" thick Phenolic board	16	pcs	900.00	14,400.00				
	2"x3"x12" Good lumber	64	pcs	590.00	37,760.00				
	CWN 3"	5	kgs	100.00	500.00				
	Sub Total				52,660.00		15,798.00		
8	Scaffolds and staging	1	lot	10,000.00	10,000.00				
	Sub Total				10,000.00		3,000.00		
IV	REBARWORKS	92.10	sq mtrs						
9	Rebar works at footings, pedestals and corbell	92.10	sq mtrs						
	16 mm dia. Deformed bar	44	pcs	450.00	19,800				
	12 mm dia. Deformed bar	16	pcs	270.00	4,320				
	10 mm dia. Deformed bar	80	pcs	200.00	16,000				
	G.I Tie wire #16	2	roll	4,700.00	9,400				
	Sub Total				49,520.00		14,856.00		
V	CONCRETE WORKS	92.10	sq mtrs						
10	Concreting of footings, corbells and column pedestal	14.00	cu m						
	Ready Mixed Concrete, 3000 psi @ 14 Days	8	cu m	5,700.00	45,600				
	Crushed Gravel G1 for gravel Bedding	6	cu m	1,300.00	7,800				
	Sub Total				53,400.00		16,020.00		
VI	INSTALLATION OF I BEAM FRAME	92.10	sq mtrs						

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IMPROVEMENT OF CBD MRM WAREHOUSE

ITEM NO.	SCOPE OF WORK & SPECIFICATIONS	QTY	UNIT	MATERIAL COST		LABOR COST		EQUIPMENT COST	
				UNIT COST	TOTAL COST	UNIT COST	TOTAL COST	UNIT COST	TOTAL COST
11	Welding and fabrication of steel columns and beams to include	2512	kg						
	steel joist								
	12 mm thick MS plate	1	pcs	12,000.00	12,000.00				
	W8x18 (x 4.050 mtrs)	2	pcs	6,643.00	13,286.00				
	W8x18 (x 4.920 mtrs)	2	pcs	6,112.00	12,224.00				
	W8x18 (x 3.631 mtrs)	5	pcs	5,360.00	26,800.00				
	W8x18 (x 3.000 mtrs)	2	pcs	4,428.00	8,856.00				
	W10x39 (x3.4 mtrs)	6	pcs	10,840.00	65,040.00				
	2"x6"x2.5mm thick C-Purlins	81	pcs	1,500.00	121,500.00				
	Welding rod 6013	45	kg	200.00	9,000.00				
	Cutting Disk 4"	75	pcs	70.00	5,250.00				
	<b>Sub Total</b>				<b>273,956.00</b>		<b>82,186.80</b>		
12	Welding and Fabrication of steel railings, steel matings and	92.10	sq mtrs						
	Steel stairs								
	1" thick pre- fabricated steel Grating (BEARING SIZE 2 - 1/4" X 3/16" , PITCH: 1 - 3/16" , CROSS BAR PITCH: 2"	175	pcs	1,800.00	315,000.00				
	10 mm thick MS Plate	1	pc	12,000.00	12,000.00				
	2 - 25mm Ø ASTM A-325 ANCHOR BOLT	12	pcs	285.00	3,420.00				
	1-1/2" Dia. G.I pipe Schedule 40	3	pcs	1,500.00	4,500.00				
	2"x2"x1/4" Thick Angle Bar	6	pcs	1,500.00	9,000.00				
	Cutting Disk 4"	50	pcs	70.00	3,500.00				
	Acetylene set for steel cutting	1	sets	10,000.00	10,000.00				
	<b>Sub Total</b>				<b>357,420.00</b>		<b>107,226.00</b>		
13	Fabrication and installation of safety steel matings on	38.5	lm						
	mezanine perimeter								
	1" thick pre- fabricated steel Grating (BEARING SIZE 2 - 1/4" X 3/16" , PITCH: 1 - 3/16" , CROSS BAR PITCH: 2"	18	pcs	1,800.00	32,400.00				
	2"x2"x1/4" Thick Angle Bar	3	pcs	1,500.00	4,500.00				
	<b>Sub Total</b>				<b>36,900.00</b>		<b>11,070.00</b>		

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IMPROVEMENT OF CBD MRM WAREHOUSE

ITEM NO.	SCOPE OF WORK & SPECIFICATIONS	QTY	UNIT	MATERIAL COST		LABOR COST		EQUIPMENT COST	
				UNIT COST	TOTAL COST	UNIT COST	TOTAL COST	UNIT COST	TOTAL COST
VII	PAINTING WORKS								
	92.10 sq mtrs								
14	Painting of steel members	92.10	sq mtrs						
	Epoxy primer with Catalyst	20	gals	990.00	19,800.00				
	QDE Traffic yellow	5	gals	800.00	4,000.00				
	QDE Black	5	gals	800.00	4,000.00				
	Assorted Paintbrush	1	ls	10,000.00	10,000.00				
	Sub Total				37,800.00		11,340.00		
VIII	ELECTRICAL WORKS								
	15 Re-orientation of existing electrical lights	92.10	sq mtrs	110.00	10,131.00				
	Sub Total				10,131.00		3,039.30		
IX	CLEAN UP								
	a. Hauling of excess materials, scraps (Inside GA)	1	lot	10,000.00	10,000.00		3,100.00		
	b. Hauling and Disposal of waste materials with no scrap value (Outside GA)	1	lot	10,000.00	10,000.00		3,100.00		
	Sub Total				20,000.00		6,200.00		
	GRAND TOTAL				901,787.00		278,836.10		
	(I) TOTAL DIRECT COST								1,180,623.10
	TOTAL INDIRECT COST								
	(II) MARK-UP ( 12% PROFIT + 8% OCM )								236,124.62
	(III) TAX/EVAT ( 5% OF I-II )								70,837.39
	(IV) GENERAL REQUIREMENTS								35,000.00
	TOTAL PROJECT COST						SAY		1,522,585.11
									1,523,000.00

Prepared by:

ENGR. JOSE MARI B. MANDIGMA, CE  
Chief, Design Group, CMS

Checked by:

ENGR. RYAN RAY M SANTOS, CE  
Section Chief, CMS

Submitted by:

ENGR. ABELARDO GERRARD P. MENDOZA III  
Superintendent, ED

Concurred Not Concur:

ARNOLD RAFAEL Y. DEPAKARIBO  
Assistant Director

Approved by:

GERRARD P. AMANTE  
Director





Republic of the Philippines  
ARSENAL, DND  
Camp General Antonio Luna  
Lamiao, Limay, Bataan

**APPROVED BUDGET FOR THE CONTRACT**

**IMPROVEMENT OF CBD MRM WAREHOUSE**

Project Name and Location

PREPARED BY:

ENGR JOSE MARI B MANDIGMA, CE  
Chief, Design Group, CMS

CONCUR / NOT CONCUR:

ARNOLD RAFAEL Y DEPAKAKIBO  
Assistant Director

CHECKED BY:

ENGR RYAN RAY M SANTOS, CE  
Chief, CMS

APPROVED:

GERRARD P AMANTE  
Director

RECOMMEND APPROVAL:

ENGR ABELARDO GERRARD P MENDOZA III, ME  
Supt., Eng'g. Div.

<sup>1</sup> OCM = Overhead, Contingencies and Miscellaneous  
<sup>2</sup> VAT = Value Added Tax