



CERTIFICATION

This is to certify that the Laboratory Testing Equipment/Apparatus and Supplies tabulated hereunder have been evaluated by this Bureau and found to have passed the technical specifications.

Item Description	Quantity	Unit	Remarks
1. TIN PANEL FOR FLOW TEST 40MM X 60MM X 3.2MM (MOLD FOR FLOW TEST) <ul style="list-style-type: none">• Tin Panel• Brass Steel	1	set	Complied per Evaluation
2. THREE GANG MOLDS (MORTAR CUBE MOLDS) 2" X 2" (50MM X 50MM) <ul style="list-style-type: none">• Made from steel, hardness 55 HRB, it can be also used for soil and other materials	4	pcs	Complied per Evaluation
3. TWO-GANG PRISM MOLD FOR AUTOCLAVE 25MM X 25MM X 250MM COMPLETE WITH CONTACT POINTS, GAUGE LENGTH 250MM <ul style="list-style-type: none">• To produce 25mm x 25mm x 250mm specimens for expansion tests in autoclave• Complete with 4 steel inserts and Contact Points	3	pcs	Complied per Evaluation
4. MOLD COMPACTION, 4" Ø <ul style="list-style-type: none">• Complete with base plate and collar	3	pcs	Complied per Evaluation
5. MOLD COMPACTION, 6" Ø <ul style="list-style-type: none">• Complete with base plate and collar	3	pcs	Complied per Evaluation
6. RAMMER COMPACTION, 10 LBS - 18 DROPS <ul style="list-style-type: none">• Used to compact the soil sample into the mold• Made of steel, plated against corrosion	1	pc	Complied per Evaluation
7. RAMMER COMPACTION, 5.5 LBS – 12 DROPS <ul style="list-style-type: none">• Used to compact the soil sample into the mold• Made of steel, plated against corrosion	1	pc	Complied per Evaluation
8. AUTOMATIC MARSHALL COMPACTOR <ul style="list-style-type: none">• Standard: ASTM D5581• This ruggedly constructed apparatus automatically compacts the Marshall specimens 6" diameter, and stops after the preset number of blows has been completed on the separate automatic digital display counter• The trip mechanism is structured so that the	1	unit	Complied per Evaluation

sliding hammer falls at the same height at every blow • The mould is stationary and the hammer has flat foot Technical Specification: • Weight of Hammer 102054 ± 15g • Free Fall Height 18" ± 0.1" (457, 2 mm) • Blow Rate 64 per minute ± 4			
9. PAVEMENT CORE DRILLING MACHINE • 7.5 HP gasoline engine w/ Fabricated Frame	1	unit	Complied per Evaluation
10. CORE BIT, 4" Ø FOR CONCRETE AND ASPHALT • Designed for making holes and getting cores from hard materials, like concrete, reinforced concrete, rocks, stones, bituminous materials • Diamond segment is 9mm high	2	pcs	Complied per Evaluation
11. CORE BIT, 6" Ø FOR CONCRETE • Designed for making holes and getting cores from hard materials, like concrete, reinforced concrete, rocks, stones, bituminous materials • Diamond segment is 9mm high	1	pc	Complied per Evaluation
12. ELECTRONIC BALANCE, 100KG CAPACITY, 1G SENSITIVITY Specifications: • Digital (AC Powered, 220-240V) • Capacity: 100,000 g or greater • With local Calibration showing Accuracy: 200 g or better and Reproducibility: 200 g or better (to be calibrated after delivery at the Laboratory) • shall be equipped with a suitable suspension apparatus and holder to permit weighing the specimen while suspended from the center of the scale pan of the weighing device	1	unit	Complied per Evaluation
13. HIGH CAPACITY SIEVE SHAKER W/ NOISE REDUCTION CABINET Technical Specification: • Compatible from 200 up to 450 mm Ø • Accommodates 11 Nos. 200 mm / 8" Ø Full Height Sieves plus lid and receiver, 9 Nos. 300 mm / 12" Ø Full Height Sieves plus lid and receiver or 7 Nos. 450mm Ø Full Height Sieves plus lid and pan • Timer 1 - 60 min	1	unit	Complied per Evaluation

<ul style="list-style-type: none"> Unit consists of 2 pairs of Clamping Knobs and Clamping Beam 			
14. THERMOSTATIC OVEN <ul style="list-style-type: none"> Capacity: 220liters Exterior front part is stainless steel made, while interior chamber, grid shelves and external walls are made of zinc coated steel Temperature from ambient to 200 °C is controlled by a digital precision thermoregulator-indicator The ovens are equipped of a power switch industrial type, dual safety thermostat with higher thermic threshold to prevent accidental over temperatures, and a solid-state relay (SSR) to ensure safe working conditions The oven is supplied complete with two grid shelves easily removable which can be positioned at various heights, with pilot light, and exhaust holes for fast cooling 	1	pc	Complied per Evaluation
15. UNIVERSAL EXTRUDER FOR ASPHALT <ul style="list-style-type: none"> Standard: ASTM D698 / D1587 / D1883 Allows the Marshall CBR and proctor sample 4", 6", 100 mm and 150 mm to be easily removed from the mould Technical Specification: <ul style="list-style-type: none"> Dimension, 280mm Ø x 446mm Ram Travel 183mm - 243mm Approx. Weight 28 kg Unit Consists of: <ul style="list-style-type: none"> 1 pc 4" Plunger 1 pc 6" Plunger 1 pc Proctor/Marshall Retaining Disc 1 pc Bottle Hydraulic Jack 	1	unit	Complied per Evaluation
16. BRASS SIEVE, 1" <ul style="list-style-type: none"> Sieve cloth shall have no punctures or obvious defects. The sieve cloth shall be mounted on a frame without distortion, looseness, or waviness. Sieve frames shall be rigid and made of a noncorrosive material such as brass or stainless steel. Sieve frame shall have a 8.000 + 0.030 inch (203.2 + 0.076 mm) inside diameter measured at 0.2 in. (5mm) below the top of the frame. 	1	pc	Complied per Evaluation

<ul style="list-style-type: none"> • Sieve frame shall be 2 inches (50.8 mm) from top of frame to top of sieve cloth. • Frame bottom shall easily slide or nest with any sieve frame, pan and cover of the same diameter. • Includes Sieve certificate(s) from the manufacturer showing conformance to ASTM E11 as Inspection Sieve Type 1" (25 mm); is traceable by the Sieve serial number; include the date, name and signature of the person certifying to the Sieve quality; and shall state at a minimum the value for the average aperture size, separately in both the warp and shute direction of the sieve cloth. 			
<p>17. BRASS SIEVE, 3/4"</p> <ul style="list-style-type: none"> • Sieve cloth shall have no punctures or obvious defects. • The sieve cloth shall be mounted on a frame without distortion, looseness, or waviness. • Sieve frames shall be rigid and made of a noncorrosive material such as brass or stainless steel. • Sieve frame shall have a 8.000 + 0.030 inch (203.2+ 0.076 mm) inside diameter measured at 0.2 in. (5 mm) below the top of the frame. • Sieve frame shall be 2 inches (50.8 mm) from top of frame to top of sieve cloth. • Frame bottom shall easily slide or nest with any sieve frame, pan and cover of the same diameter. • Includes Sieve certificate(s) from the manufacturer showing conformance to ASTM E11 as Inspection Sieve Type 3/4" (19 mm); is traceable by the Sieve serial number; include the date, name and signature of the person certifying to the Sieve quality; and shall state at a minimum the value for the average aperture size, separately in both the warp and shute direction of the sieve cloth. 	3	pcs	Complied per Evaluation
<p>18. BRASS SIEVE, 3/8"</p> <ul style="list-style-type: none"> • Sieve cloth shall have no punctures or obvious defects • The sieve cloth shall be mounted on a frame without distortion, looseness, or waviness • Sieve frames shall be rigid and made of a noncorrosive material such as brass or stainless steel • Sieve frame shall have a 8.000 + 0.030 inch (203.2 + 0.076 mm) inside diameter measured at 	1	pc	Complied per Evaluation

<p>0.2 in. top of the frame</p> <ul style="list-style-type: none"> • Sieve frame shall be 2 inches (50.8 mm) from top of frame to top of sieve cloth. • Frame bottom shall easily slide or nest with any sieve frame, pan and cover of the same diameter • Includes Sieve certificate(s) from the manufacturer showing conformance to ASTM E11 as Sieve Type No. 20 (850 μm); is traceable by the Sieve serial number; include the date, name and person certifying to the Sieve quality; and shall state at a minimum the value for the average separately in both the warp and shute direction of the sieve cloth. 			
<p>19. BRASS SIEVE, NO. 4</p> <ul style="list-style-type: none"> • Sieve cloth shall have no punctures or obvious defects • The sieve cloth shall be mounted on a frame without distortion, looseness or waviness • Sieve frames shall be rigid and made of a noncorrosive material such as brass or stainless steel • Sieve frame shall have a 8.000 + 0.030 inch (203.2 + 0.076 mm) inside diameter measured at 0.2 in. top of the frame • Sieve frame shall be 2 inches (50.8 mm) from top of frame to top of sieve cloth. • Frame bottom shall easily slide or nest with any sieve frame, pan and cover of the same diameter • Includes Sieve certificate(s) from the manufacturer showing conformance to ASTM E11 as Inspection Sieve Type No.14 (1.40 mm); is traceable by the sieve serial number; include the date, name and signature of the person certifying to the sieve quality; and shall state at a minimum the value for the average aperture size, separately in both the warp and shute direction of the sieve cloth 	1	pc	Complied per Evaluation
<p>20. BRASS SIEVE, NO. 10</p> <ul style="list-style-type: none"> • Sieve cloth shall have no punctures or obvious defects • The sieve cloth shall be mounted on a frame without distortion, looseness or waviness • Sieve frames shall be rigid and made of a noncorrosive material such as brass or stainless steel • Sieve frame shall have a 8.000 + 0.030 inch (203.2 + 0.076 mm) inside diameter measured at 	2	pcs	Complied per Evaluation

<p>0.2 in. top of the frame</p> <ul style="list-style-type: none"> • Sieve frame shall be 2 inches (50.8 mm) from top of frame to top of sieve cloth. • Frame bottom shall easily slide or nest with any sieve frame, pan and cover of the same diameter • Includes Sieve certificate(s) from the manufacturer showing conformance to ASTM E11 as Inspection Sieve Type No.14 (1.40 mm); is traceable by the sieve serial number; include the date, name and signature of the person certifying to the sieve quality; and shall state at a minimum the value for the average aperture size, separately in both the warp and shute direction of the sieve cloth 			
<p>21. BRASS SIEVE, NO. 16</p> <ul style="list-style-type: none"> • Sieve cloth shall have no punctures or obvious defects • The sieve cloth shall be mounted on a frame without distortion, looseness or waviness • Sieve frames shall be rigid and made of a noncorrosive material such as brass or stainless steel • Sieve frame shall have a 8.000 + 0.030 inch (203.2 + 0.076 mm) inside diameter measured at 0.2 in. top of the frame • Sieve frame shall be 2 inches (50.8 mm) from top of frame to top of sieve cloth. • Frame bottom shall easily slide or nest with any sieve frame, pan and cover of the same diameter • Includes Sieve certificate(s) from the manufacturer showing conformance to ASTM E11 as Inspection Sieve Type No.14 (1.40 mm); is traceable by the sieve serial number; include the date, name and signature of the person certifying to the sieve quality; and shall state at a minimum the value for the average aperture size, separately in both the warp and shute direction of the sieve cloth 	2	pcs	Complied per Evaluation

<p>22. BRASS SIEVE, NO. 30</p> <ul style="list-style-type: none"> • Sieve cloth shall have no punctures or obvious defects • The sieve cloth shall be mounted on a frame without distortion, looseness or waviness • Sieve frames shall be rigid and made of a noncorrosive material such as brass or stainless steel • Sieve frame shall have a 8.000 + 0.030 inch (203.2 + 0.076 mm) inside diameter measured at 0.2 in. top of the frame • Sieve frame shall be 2 inches (50.8 mm) from top of frame to top of sieve cloth. • Frame bottom shall easily slide or nest with any sieve frame, pan and cover of the same diameter • Includes Sieve certificate(s) from the manufacturer showing conformance to ASTM E11 as Inspection Sieve Type No.14 (1.40 mm); is traceable by the sieve serial number; include the date, name and signature of the person certifying to the sieve quality; and shall state at a minimum the value for the average aperture size, separately in both the warp and shute direction of the sieve cloth 	1	pc	Complied per Evaluation
<p>23. BRASS SIEVE, NO. 40</p> <ul style="list-style-type: none"> • Sieve cloth shall have no punctures or obvious defects • The sieve cloth shall be mounted on a frame without distortion, looseness or waviness • Sieve frames shall be rigid and made of a noncorrosive material such as brass or stainless steel • Sieve frame shall have a 8.000 + 0.030 inch (203.2 + 0.076 mm) inside diameter measured at 0.2 in. top of the frame • Sieve frame shall be 2 inches (50.8 mm) from top of frame to top of sieve cloth. • Frame bottom shall easily slide or nest with any sieve frame, pan and cover of the same diameter • Includes Sieve certificate(s) from the manufacturer showing conformance to ASTM E11 as Inspection Sieve Type No.14 (1.40 mm); is traceable by the sieve serial number; include the date, name and signature of the person certifying to the sieve quality; and shall state at a minimum the 	2	pcs	Complied per Evaluation

value for the average aperture size, separately in both the warp and shute direction of the sieve cloth			
24. BRASS SIEVE, NO. 200 <ul style="list-style-type: none"> • Sieve cloth shall have no punctures or obvious defects • The sieve cloth shall be mounted on a frame without distortion, looseness or waviness • Sieve frames shall be rigid and made of a noncorrosive material such as brass or stainless steel • Sieve frame shall have a 8.000 + 0.030 inch (203.2 + 0.076 mm) inside diameter measured at 0.2 in. top of the frame • Sieve frame shall be 2 inches (50.8 mm) from top of frame to top of sieve cloth. • Frame bottom shall easily slide or nest with any sieve frame, pan and cover of the same diameter • Includes Sieve certificate(s) from the manufacturer showing conformance to ASTM E11 as Inspection Sieve Type No.14 (1.40 mm); is traceable by the sieve serial number; include the date, name and signature of the person certifying to the sieve quality; and shall state at a minimum the value for the average aperture size, separately in both the warp and shute direction of the sieve cloth 	1	pc	Complied per Evaluation
25. BRASS WASH SIEVE, NO. 200 <ul style="list-style-type: none"> • Sieve cloth shall have no punctures or obvious defects • The sieve cloth shall be mounted on a frame without distortion, looseness or waviness • Sieve frames shall be rigid and made of a noncorrosive material such as brass or stainless steel • Sieve frame shall have a 8.000 + 0.030 inch (203.2 + 0.076 mm) inside diameter measured at 0.2 in. top of the frame • Sieve frame shall be 4 inches (100 mm) from top of frame to top of sieve cloth. • Frame bottom shall easily slide or nest with any sieve frame, pan and cover of the same diameter • Includes Sieve certificate(s) from the manufacturer showing conformance to ASTM E11 as 	1	pc	Complied per Evaluation

Inspection Sieve Type No.14 (1.40 mm); is traceable by the sieve serial number; include the date, name and signature of the person certifying to the sieve quality; and shall state at a minimum the value for the average aperture size, separately in both the warp and shute direction of the sieve cloth			
26. PAN W/ COVER <ul style="list-style-type: none"> • Pan and cover shall be rigid and made of a noncorrosive material such as brass or stainless steel. • Pan and cover shall have a 8.000 + 0.030 inch (203.2 + 0.076 mm) inside diameter measured at 0.2 in. (5 mm) below the top of the frame. • Sieve frame shall be 2 inches (50.8 mm) from top of frame to bottom of pan. 	1	pc	Complied per Evaluation
27. CONCRETE BEAM MOLD <ul style="list-style-type: none"> • Steel molds, 6" x 6" x 21" (150mm x 150mm x 525mm) dimensions 	6	pcs	Complied per Evaluation
28. CONCRETE CYLINDER MOLD <ul style="list-style-type: none"> • Steel molds, 6" Ø x 21" (150mm Ø x 300mm) dimensions 	6	pcs	Complied per Evaluation
29. THERMOMETER (ASTM 16C-86) <ul style="list-style-type: none"> • Scale 30 °C - 200 °C , subd. 0.5 °C 	1	pc	Complied per Evaluation
30. THERMOMETER (ASTM 47C-86) <ul style="list-style-type: none"> • Range 58.5 to 61.5 °C 	1	pc	Complied per Evaluation
31. GLASS FUNNEL, 100MM Ø <ul style="list-style-type: none"> • For use in specfic gravity of cement. 	1	pc	Complied per Evaluation
32. SOFT HAIR BRUSH, 3MM Ø <ul style="list-style-type: none"> • For use in specfic gravity of cement. 	1	pc	Complied per Evaluation
33. NO. 14 FILTER PAPER, 150MM Ø <ul style="list-style-type: none"> • For use in California Bearing Ratio Test. 	1	pack	Complied per Evaluation

Issued on October 16, 2024, upon the request of DPWH, Negros Oriental Third District Engineering Office for procurement purposes pursuant to Department Order No. 100, Series of 2018 Re: Guidelines for the Review and Consolidation of the Procurement of Specific Goods and Services.



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Bureau of Research and Standards

14.1.3. ELB/JCR/GAM