

Republic of the Philippines
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
CEBU 3RD
DISTRICT ENGINEERING OFFICE
REGIONAL OFFICE VII
Ibo, Toledo City, Cebu

Name of Procuring Entity: **DPWH Cebu 3rd DEO** Request for Quotation (P.R. No.): **2024-06-0061**

Revised on: RFQ Date: **06/07/2024**

Standard Form/Title: **REQUEST FOR QUOTATION** Office/End-User: **Maintenance Section**

COMPANY NAME:

ADDRESS:

TEL. NO./FAX No.:

TIN:

Please **quote your lowest price** on the item(s) listed, subject to the **Terms and Conditions** stated below and **submit** your quotation duly signed by your representative not later than **10:00 A.M. of June 11, 2024** in a sealed envelope to the BAC Secretariat, Cebu 3rd DEO, Toledo City, Cebu. Quotations submitted through Electronic/Courier Mails **will not be accepted**. **Opening of Bids** is at **10:30 A.M., June 11, 2024**. The procurement of goods listed below - are intended for application along the National Roads within Cebu 3rd DEO Jurisdiction under **SARO No.: SR2024-05-016731**.

D.O. 34 series of 2020 Basic Hygiene, Workplace Sanitation and Social Distancing Measures to be Observed in the Workplace requires visitors must have **confirmed appointments** in the Procurement Unit, advising interested suppliers to fill out the DPWH Cebu 3rd Visitor Health Declaration Form at <https://forms.gle/pEBZ6BraMPcSfa8VA> one day before the appointment date.

Supply transaction of said goods will be in coordination with the Supply Unit and/or End User of this office.

TERMS and CONDITIONS:

1. All entries must be typewritten or legibly written.
2. Delivery period within **20 calendar days** upon receipt of the approved funded Purchase Order (P.O.). Administrative penalties pursuant to Sec. 69 of the Revised IRR-RA 9184 shall be imposed for non-delivery without valid reason.
3. Warranty shall be for a minimum of three (3) months for supplies & materials; one (1) year for equipment; three (3) years for IT Equipment from date of acceptance by the end-user.
4. Price validity shall be for a period of One Hundred Twenty (120) calendar days.
5. Bidders shall submit the Original copy of PhilGEPS Registration Number, Mayor's /Business Permit, Latest Income/Business Tax Return & Omnibus Sworn Statement for authentication and the Certified True Copies of these documents shall be attached upon submission of the quotation.
6. Bidders shall submit original brochures showing certifications of the product.
7. Please indicate the brand for each items being offered.
8. The total approved budget ceiling for this procurement is **Php 999,000.00**


REYNALDO V. NAVALES, D.P.A., ASEAN Eng.
BAC Chairman

| Item No. | ITEM & DESCRIPTION | QTY | UNIT | UNIT PRICE | TOTAL PRICE |
|--------------|---|-------|-------|------------|-------------|
| 1 | Reflectorized Thermoplastic Pavement Markings Specifications: Color = White Centerline: Thickness = 3.20mm - 4.80mm Rumble Strip: Thickness = 4mm - 13mm Compliance to Item 612 (Centerline) Compliance to Item 618 (Rumble Strip) | 1,000 | sq.m. | | |
| | xxxxxxxxxxxxxxxx Nothing Follows xxxxxxxxxxxxxxxxxxxx | | | | |
| TOTAL | | | | | |

The awarding for this RFQ will be on a lump-sum basis.
Prospective Suppliers must quote for all of the items.
Otherwise they will be subjected for disqualification.

APPROVED FOR POSTING:


ALAN A. ALLOSO
District Public Information Officer

Brand and Model : _____ Warranty : _____
Delivery Period : _____ Price Validity : _____

After having carefully read and accepted your General Conditions, I/ We quote you on the item(s) at prices note above. If the space for Delivery Period, Warranty and Price Validity are left blank, it means that I/we concur with the Terms and Conditions specified by DPWH.

Printed Name of Authorized Representative / Signature / Date

ITEM 612 -- REFLECTIVE THERMOPLASTIC STRIPING MATERIAL (SOLID FORM)

612.1 Description

This standard specifies the requirement for reflectorized thermoplastic pavement striping material conforming to AASHTO M 249 that is applied to the road surface in a molten state by mechanical means with surface application of glass beads at a rate of not less than 350 g/L of glass beads having a size range of drop-in type and will produce an adherent reflectorized stripe of specified thickness and width capable of resisting deformation by traffic.

612.2 Materials Requirements

1. Reflectorized Thermoplastic Pavement Material shall be homogeneously composed of pigment, filler, resins and glass reflectorizing spheres.

The thermoplastic material shall be available to both white and yellow.

2. Glass Beads (Pre-Mix) shall be uncoated and shall comply with the following requirements:

Refractive Index, min. - 1.50
Spheres, Percent, min. - 90

Gradation:

| Sieve, mm | Mass Percent Passing |
|-----------|----------------------|
| 0.850 | 100 |
| 0.600 | 75-95 |
| 0.425 | - |
| 0.300 | 15-35 |
| 0.180 | - |
| 0.150 | 0-5 |

612.3 General Requirements

612.3.1 Composition

The pigment, beads and filler shall be uniformly dispersed in the resin. The material shall be free from all skins, dirt and foreign objects and shall comply with the requirements as specified in Table 612.1.

Table 612.1 – Composition Requirements

| Component | White | Yellow |
|---|-------|--------|
| Binder, min. | 18.0 | 18.0 |
| Glass Beads: | | |
| min. | 30.0 | 30.0 |
| max. | 40.0 | 40.0 |
| Titanium | | |
| Dioxide, min. | 10.0 | |
| Chrome Yellow, Medium, min. | | 10.0 |
| Calcium Carbonate And Inert Fillers, Max. | 42.0 | 42.0 |

612.3.2 Qualitative

The material shall conform to the qualitative requirements as specified in Table 612.2.

Table 612.2 – Qualitative Requirements

| Property | Requirements | |
|--|--------------|-----------|
| | White | Yellow |
| Specific Gravity, max. | | 2.15 |
| Drying Time, minutes, max. | | 10.00 |
| Bond Strength to portland cement concrete after heating for four (4) hours ±5 min. @ 218°C, MPa, max. | | 1.24 |
| Cracking Resistance @ low temp. after heating for four (4) hours ±5 min. @ 218 ±2°C. | | No cracks |

| | | |
|---|-------------------------------|-------|
| Impact Resistance after heating for four (4) hours ± 5 min. @ $218 \pm 2^\circ\text{C}$ and forming test specimens, mm/kg, min. | 115.00 | |
| Softening Point after heating for four (4) hours ± 5 min. @ $218 \pm 2^\circ\text{C}$. | $102.5 \pm 9.5^\circ\text{C}$ | |
| Daylight reflectant @ 45 Degrees – 0 degrees, % min. | 75.00 | 45.00 |

612.4 Application Properties

The material shall readily extrude at a temperature of $211 \pm 7^\circ\text{C}$, from approved equipment to produce a line 3.2 to 4.8 mm thick which shall be continuous and uniform in shape having clear and sharp dimensions.

The material shall not exude fumes which are toxic, obnoxious or injurious to persons or property when heated during applications.

The application of additional glass beads by drop-in methods shall be at a rate of not less than 350 g/L of glass beads having a size range for drop-in type. The typical size range of spheres of drop-in type paints is as follows.

| | |
|--|----------|
| Passing 850 μm (#20) sieve and retained on 250 μm (#60) sieve, % | 80 – 100 |
|--|----------|

a) Preparation of Road Surface – the materials should be applied only on the surface which is clean and dry. It shall not be laid into loose detritus, mud or similar extraneous matter, or over an old paint markings, or over an old thermoplastic marking which is faulty. In the case of smooth, polished surface stones such as smooth concrete, old asphalt surfacing with smooth polished surface stones and/or where the method of application of the manufacturer of the thermoplastic materials shall be recommended, and with the approval of the Engineer.

b) Preparation of Thermoplastic Materials – The materials shall be melted in accordance with the manufacturer's instruction in a heater fitted with a mechanical stirrer to give a smooth consistency to the thermoplastic and such the local overheating shall be avoided. The temperature of the mass shall be within the range specified by the manufacturer and shall on no account be allowed to exceed the maximum temperature stated by the manufacturer. The molten material shall be used as expeditiously as possible and for thermoplastics which have natural resin binders or otherwise sensitive to prolonged heating, the materials shall not be maintained in a molten condition for more than 4 hours.

c) Laying – Center lines, lane lines and edges lines shall be applied by approved mechanical means and shall be laid in regular alignment. Other markings may be applied by hand – screed, hand propelled machine or by self-propelled machine approved or directed by the Engineer. After transfer to the laying apparatus the materials shall be maintained within the temperature range specified by the manufacturer and stirred to maintain the right consistency for laying.

In the case of screen application, the material shall be laid to a thickness of not less than 3 mm or more than 6 mm unless authorized by the Engineer when laid over an existing markings. In the case of sprayed application the material shall be laid to thickness of not less than 1.5 mm unless authorized by the Engineer. In all cases the surface produced shall be uniform and appreciably free from bubbles and streaks. Where the Contract Documents require or the Engineer direct that ballotini shall be applied to the surface of the markings, these shall be applied uniformly to the surface of hot thermoplastic immediately after laying such that the quality of ballotini firmly embedded and retained in the surface after completion complies with the requirements of Sub-section 606.2.2, Material Requirements.

Road markings of a repetitive nature, other center lines, lane lines, etc., shall unless otherwise directed by the Engineer be set out with stencils which comply with the size and spacing requirements shown on the Plans.

d) Re-use of Thermoplastic Materials – At the end of day's work as much as possible the material remaining in the heater and/or laying apparatus shall be removed. This may be broken and used again provided that the maximum heating temperature has not been exceeded and that the total time during which it is a molten condition does not exceed the requirements of Sub-section 606.2.3, Construction Requirements.

612.4.1 Defective Materials or Workmanship

Materials which are defective or have been applied in an unsatisfactory manner or to incorrect dimensions or in a wrong location shall be removed, the road pavement shall be made good and materials replaced, reconstructed and/or properly located, all at the Contractor's expenses and to the satisfaction of the Engineer.

612.4.2 Protection of the Traffic

The Contractor shall protect pedestrians, vehicles and other traffic adjacent to the working area against damage or disfigurement by construction equipment, tools and materials or by spatters, splashes and smirches or paint or other construction materials and during the course of the work, provide and maintain adequate signs and signals for the warning and guidance of traffic.

612.5 Sampling

A minimum weight of 10 kg. of Reflectorized Thermoplastic paint shall be taken for every 100 bags or fraction thereof.

612.6 Testing

The material shall be tested in accordance with AASHTO T 250 or with the appropriate method in ASTM designation.

612.7 Packing and Marking

The material shall be packaged in a suitable containers to which it will not adhere during shipment and storage. The blocks of cast thermoplastic material shall be approximately 300 x 915 by 51 mm and shall weigh approximately 23 kg. Each container label shall designate the color, manufacturer's name, batch number and date of manufacture. Each batch manufactured shall have its own separate number. The label shall warn the user that the material shall be heated to $211 \pm 7^{\circ}\text{C}$ during application.

612.8 Method of Measurement

The quantity of pavement markings to be paid for shall be the area as shown on the Plans of painted traffic line of the stated width and the area as shown on the plans of symbols, lettering, hatching and the like, completed and accepted.

The quantity shown in the Bill of Quantities represents the approximate quantity in square meter of pavement markings, with width as shown applied at the centerline of the road pavements to which may be increased or decreased depending on the Engineer's decision whether to require additional markings or delete parts of it. Other markings representing symbols, lettering, hatching and others in locations where they maybe required by the Engineer shall, likewise, be implemented by the Contractor using reflectorized thermoplastic pavement markings as approved and directed.

612.9 Basis of Payment

The quantities measured as determined in Section 612.8, Method of Measurement, shall be paid for at the appropriate contract unit price for the Pay Items shown in the Bid Schedule which price and payment shall constitute full compensation for furnishing and placing all materials, sampling and packing, for the preparation of the surface, and for all labor, equipment, tools and incidentals necessary to complete the Item.

Payment will be made under:

| Pay Item Number | Description | Unit of Measurement |
|-----------------|--|---------------------|
| 612(1) | Reflectorized Thermoplastic Pavement Markings (White) | Square Meter |
| 612(2) | Reflectorized Thermoplastic Pavement Markings (Yellow) | Square Meter |

ITEM 613 - CONCRETE JOINT SEALANT (HOT-POURED ELASTIC AND COLD-APPLIED TYPES)

613.1 Description

This item shall consist of furnishing and placing joint sealant, composed of a mixture of materials that will form a resilient and adhesive compound capable of effectively sealing joints and cracks applied either hot or cold in concrete pavements, bridges and other structures, in accordance with this Specification and to the details shown on the Plans, or as directed by the Engineer.

Classification

This specification applies to the following types of concrete joint sealant:

- a. Concrete Joint Sealant Hot-Poured Elastic Type
- b. Concrete Joint Sealant Cold-Applied Type

613.2 Materials Requirements

613.2.1 Sealing Compound

Concrete joint sealant materials shall be homogeneously composed of one substance, or of two or more substances that are to be mixed prior to application. The substance shall be of such a character that a homogeneous preparation can readily be obtained by combining the separate components, when so supplied, by mechanical or manual stirring without heating the blended material above a temperature of 38°C. The sealing compound, after curing, shall be a resilient and adhesive material that is capable of sealing joints in concrete.

| Pay Item | Pay Unit |
|--------------------------------|----------|
| 614-1 waterstop, ____mm. width | Meter |
| 614-2 waterstop | Lump sum |

ITEM 618 - REFLECTORIZED THERMOPLASTIC RUMBLE STRIPS

618.1 Description

618.1.1 Scope

This Item shall consist of furnishing and applying reflectORIZED thermoplastic rumble strips on the surface of the pavement in accordance with this Specification and at the locations shown on the Plans, or as required by the Engineer.

618.1.2 Uses of ReflectORIZED Thermoplastic Rumble Strips

ReflectORIZED thermoplastic rumble strips shall be bonded to typical asphalt or concrete surfaces to provide the following traffic controls:

- a. Warn/alert drivers of upcoming roadway condition such as intersections, sharp horizontal curves, narrow bridge approaches, toll plazas/gates, and tunnels.
- b. Use as complementary/enhancement to advance warning signs such as the Stop Ahead or the various Curve signs.
- c. Use to prevent/lessen the effect of drowsiness during long drive, inattention and highway hypnosis.

618.2 Material Requirements

618.2.1 ReflectORIZED Thermoplastic Pavement Material and Glass Beads (Pre-Mix)

Both materials shall conform to their respective requirements of Section 612.2, Materials requirements, Item 612 – Reflective Thermoplastic Stripping Materials (Solid Form).

618.3 General Requirements

618.3.1 Design

618.3.1.1 General

Reflectorized thermoplastic rumble strips shall have the following dimension:

| | | |
|---------|---|------------------|
| Height | : | 4.0 mm to 13 mm |
| Width | : | 50 mm to 100 mm |
| Spacing | : | 200 mm to 500 mm |

As much as possible, placement of reflectorized thermoplastic rumble strips shall be limited to rural locations and shall not be installed near residential areas because of the noise it can generate. It should not be placed through pedestrian crossings or on bicycle routes.

The recommended length of road section where reflectorized thermoplastic rumble strips are to be installed shall be from 20 m to 30 m depending on the advisory speed limit of the road section.

The color of reflectorized thermoplastic rumble strips shall be either white or yellow.

Reflectorized thermoplastic rumble strips placed in the travelled way should not be overused. If used at too many locations, reflectorized thermoplastic rumble strips may lose their ability to gain the motorist's attention.

618.3.1.2 Pattern

The Contractor shall lay out a reflectorized thermoplastic rumble strips test pattern prior to the start of construction for approval by the Engineer. Pattern shall be balanced to provide adequate warning to drivers without being so severe that they startle drivers or upset motorcycles.

The pattern of reflectorized thermoplastic rumble strips shall finish within 50 m of any hazard it is associated with.

618.3.2 Composition

It shall conform to the requirements of Subsection 612.3.1, Composition, Item 612 – Reflective Thermoplastic Stripping Materials (Solid Form).

618.3.3 Qualitative

It shall conform to the requirements of Subsection 612.3.2, Qualitative, Item 612 – Reflective Thermoplastic Stripping Materials (Solid Form).

618.4 Application Properties

It shall conform to the applicable requirements of Section 612.4, Application Properties, Item 612 – Reflective Thermoplastic Stripping Materials (Solid Form).

Reflectorized thermoplastic rumble strips shall be placed transverse to motor vehicle traffic movement. It shall not adversely affect overall pavement skid resistance under wet or dry conditions and shall not be placed on sharp horizontal or vertical curves. It shall not be applied over deteriorating existing reflectorized thermoplastic rumble strips or pavement surface.

A sign warning the drivers of the onset of reflectorized thermoplastic rumble strips may be placed in advanced of rumble strips installation.

618.5 Sampling

It shall conform to the requirements of Section 612.5, Sampling, Item 612 – Reflective Thermoplastic Stripping Materials (Solid Form).

618.6 Testing

It shall conform to the requirements of Section 612.6, Testing, Item 612 – Reflective Thermoplastic Stripping Materials (Solid Form).

618.7 Packing and Marking

It shall conform to the requirements of Section 612.7, Packing and Marking, Item 612 – Reflective Thermoplastic Stripping Materials (Solid Form).

618.8 Method of Measurement

The area to be paid for under this Item shall be the number of square meters (m^2) of reflectorized thermoplastic rumble strips applied and accepted.

618.9 Basis of Payment

Payment shall constitute full compensation for furnishing and application of reflectorized thermoplastic rumble strips including all labor, equipment, tools and incidentals necessary to complete the Item.

Payment will be made under:

| Pay Item Number | Description | Unit of Measurement |
|-----------------|---|--------------------------------|
| 618 | Reflectorized Thermoplastic Rumble Strips | Square meter (m ²) |

ITEM 620 -- CHEVRON SIGNS

620.1 Description

This Item shall consist of furnishing and installing chevron signs in accordance with this Specification and to the details shown on the Plans, or as required by the Engineer.

620.2 General

620.2.1 Function

The chevron signs shall be used to guide drivers through a change in horizontal alignment of the road such as curves and less than sharp turns. Chevron signs shall also be used to supplement any of the advance warning signs, the horizontal alignment signs (W-types) or the standard guide posts and delineators.

620.2.2 Design

The chevron sign shall be a vertical rectangle. No border shall be used on the chevron sign.

The point of the arrow or chevron shall indicate the direction of travel. They shall be visible for at least 150 m to provide the road user with adequate time to react to the change in alignment. The minimum lateral offset of the chevron sign shall be 1.8 m from the edge of pavement.

The chevron signs shall be installed on the outside of the curve, set up aligned with the approaching traffic at right angle to a driver's line of sight. Two-sided chevron