

Republika ng Pilipinas **Lungsod Quezon**



BIDS AND AWARDS COMMITTEE FOR INFRASTRUCTURE & CONSULTANCY Great Green Growing

2nd Floor, Finance Building, Procurement Department, Quezon City Hall Complex, Elliptical Road, Quezon City

REQUEST FOR QUOTATION / PROPOSAL

(Negotiated Procurement 53.9)

The Quezon City Government through its Bids and Awards Committee - Infra and Consultancy undertake an Small Value Procurement for the PROPOSED REHABILITATION (SURFACE IMPROVEMENT) OF EMERALD STREET (NELSONVILLE SUBDIVISION), Barangay Batasan Hills, Quezon City (Project No. 21-007N) in accordance with Section 53.9 of the Revised Implementing Rules and Regulations of Republic Act No. 9184.

Name of Project:

PROPOSED REHABILITATION (SURFACE IMPROVEMENT) OF EMERALD STREET (NELSONVILLE SUBDIVISION), Barangay Batasan Hills, Quezon City (Project No. 21-

007N)

Approved Budget:

SEVEN HUNDRED FORTY FIVE THOUSAND NINE HUNDRED SIXTY PESOS & 13/100

CTVS.

for the Contract

(Php 745,960.13)

Description

Program of Work

General Requirements Ι.

Civil / Structural Works II.

Completion of the Works is required within Ten (10) calendar days from receipt of Notice to Proceed.

Please see attached: **Detailed Proposal Form**

Technical Specification

Please quote your best offer for the project/s described below, subject to the Terms and Conditions provided. Submit your proposal/price quotation duly signed by you or your duly authorized representative not later than 7 May 2021 on or before 1:00 P.M., Philippine Standard Time, together with the following documents:

- 1. PhilGEPS Platinum Certificate
- 2. DTI or SEC Registration Certificate
- 3. Mayor's Permit
- 4. Tax Clearance
- 5. PCAB License (Bidders with valid Philippine Contractors Accreditation Board (PCAB) Roads-
- 6. Audited Financial Statements
- 7. Net Financial Contracting Capacity (NFCC)
- 8. Income/Business Tax Returns
- 9. Omnibus Sworn Statement prescribed by the Government Procurement Policy Board (GPPB) duly notarized with attached Secretary's Certificate (If a partnership, corporation, cooperative, or joint venture). The authorized representative as identified in the Omnibus Sworn Statement shall be the signatory in the proposal/price quotation form.

Opening of Quotations/Proposals will be on 7 May 2021 at exactly 2:00 P.M.

in a **SEALED LONG BROWN ENVELOPE** shall:

- Contain the Name of Project of the contract to be quoted in capital letters;
- Bear the name and address of the Contractor in capital letters;

Be addressed to the Procuring Entity's BAC.

Name of Project. Proposed Rehabilitation (Surface Improvement) of Emerald Street (Nelsonville Subdivision), Barangay Batasan Hills, District 2, Quezon City (Project No. 21-007N)

Quezon City Local Government BIDS AND AWARDS COMMITTEE (INFRA & CONSULTANCY)

2/F Procurement Department, Finance Building Quezon City Hall Compound

For any clarification you may contact us at 89884242 loc. 8505/8709.

ATTY. MARK ÞALE DIAMOND P. PERRAL

Chairman, BAC Infra and Consultancy

TERMS AND CONDITIONS

- 1. Contractor shall provide correct and accurate information required in this form.
- 2. Price quotation/proposal must be valid for a period of thirty (30) calendar days from the date of submission.
- 3. Price quotation/proposal, to be denominated in Philippine Peso shall include all taxes, duties and/or levies payable.
- 4. Quotation/Proposal exceeding the Approved Budget for the Contract (ABC) shall be rejected.
- 5. Award of contract shall be made to the lowest quotation/proposal (for infra) which complies with the minimum technical specifications and other terms and conditions stated herein.
- 6. Any interlineations, erasures or overwriting shall be valid only if they are signed or initialed by the contractor or his/her duly authorized representative/s.
- 7. The Engineering Department shall have the right to inspect and monitor the construction projects
- 8. Non-submission of eligibility documents shall mean disqualification of Quotation/Proposal.
- 9. Liquidated damages equivalent to one tenth (1/10) of one percent (1%) of the cost of the unperformed portion for every day of delay, Engineering Department shall rescind the contract once the cumulative amount of liquidated damages reaches ten percent (10%) of the amount of the contract, without prejudice to other courses of action and remedies open to it.
- 10. Failure to follow these instructions will disqualify your entire quotation/proposal.

ATTY. MARK DALE DIAMOND P. PERRAL Chairman, BAC Infra and Consultancy

PROJECT TITLE	PROPOSED REHABILITATION (SURFACE IMPROVEMENT) OF EMERALD STREET (NELSONVILLE SUBDIVISION)
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LOCATION : Barangay Batasan Hills, District 2, Quezon City

PROJECT NO. : 21 - 007N

DURATION : Ten (10) Calendar Days

BREAKDOWN OF COST

ITEM NO.	WORK DESCRIPTION AND SCOPE OF WORKS	DIRECT COST	INDIRECT COST	AMOUNT
1	GENERAL REQUIREMENTS	P	P	P
II	CIVIL / STRUCTURAL WORKS			

	TOTAL COST P	
LUMP SUM BID IN WORDS :		
Contractor :		

Bid Form Page 3 of 3

BILL OF QUANTITIES

(Road Construction/Rehabilitation Project)

PROJECT TITLE PROPOSED REHABILITATION (SURFACE IMPROVEMENT) OF EMERALD STREET

(NELSONVILLE SUBDIVISION)

LOCATION : Barangay Batasan Hills, District 2, Quezon City

PROJECT NO. : 21 - 007N

DURATION : Ten (10) Calendar Days

Road Details:

NAME	TYPE	LENGTH	WIDTH	LIMITS
Emerald Street	ASPHALT	86.50 M	5.20 M	Diamond St - Sta.0+86.50 M

Scope of Works:

1 General Requirements including billboard, barricades and construction safety and health

Spraying of Bituminous Prime Coat, Sectional Squarring, Asphalt Patching, Asphalt Overlaying and provision of thermoplastic lane markings

ITEM NO.	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	AMOUNT
I	GENERAL REQUIREMENTS				
SPL7	Billboard	2	unit		
SPL12	Construction Safety and Health	1	unit		
SPL 13b	Steel Barricade	2	unit		
SPL 13c	Traffic Cone (rental)	9	unit		
				DIRECT COST I	P
II	CIVIL / STRUCTURAL WORKS				
A.	Laying of Asphalt Pavement				
302	Bituminous Prime Coat	0.6	m.t.	P	P
310	Bituminous Concrete Surface Course	53	m.t.		
SPL3	Sectional Squaring and Asphalt Patching	90	sq.m.		
SPL 14	Asphalt Pavement / Approach	8	sq.m.		
B.	Painting Works				
SPL 10a	Thermoplastic Markings White	33	sq.m.		
				DIRECT COST II	P

TOTAL DIRECT COST P

ITEM NO.	WORK DESCRIPTION AND SCOPE OF WORKS	QTY	UNIT	UNIT COST	AMOUNT
	Overhead, Contingencies	and Mis	cellaneou	is Expenses (OCM)	
				Profit	
				VAT	
			TOTAL E	STIMATED COST	₽

Omnibus Sworn Statement (Revised)

[shall be submitted with the Bid]

REPUBLIC OF THE PHILIPPINES	S)
CITY/MUNICIPALITY OF) S.S.

AFFIDAVIT

- I, [Name of Affiant], of legal age, [Civil Status], [Nationality], and residing at [Address of Affiant], after having been duly sworn in accordance with law, do hereby depose and state that:
- 1. [Select one, delete the other:]

[If a sole proprietorship:] I am the sole proprietor or authorized representative of [Name of Bidder] with office address at [address of Bidder];

[If a partnership, corporation, cooperative, or joint venture:] I am the duly authorized and designated representative of [Name of Bidder] with office address at [address of Bidder];

2. [Select one, delete the other:]

[If a sole proprietorship:] As the owner and sole proprietor, or authorized representative of [Name of Bidder], I have full power and authority to do, execute and perform any and all acts necessary to participate, submit the bid, and to sign and execute the ensuing contract for [Name of the Project] of the [Name of the Procuring Entity], as shown in the attached duly notarized Special Power of Attorney;

[If a partnership, corporation, cooperative, or joint venture:] I am granted full power and authority to do, execute and perform any and all acts necessary to participate, submit the bid, and to sign and execute the ensuing contract for [Name of the Project] of the [Name of the Procuring Entity], as shown in the attached [state title of attached document showing proof of authorization (e.g., duly notarized Secretary's Certificate, Board/Partnership Resolution, or Special Power of Attorney, whichever is applicable;)];

- 3. [Name of Bidder] is not "blacklisted" or barred from bidding by the Government of the Philippines or any of its agencies, offices, corporations, or Local Government Units, foreign government/foreign or international financing institution whose blacklisting rules have been recognized by the Government Procurement Policy Board, by itself or by relation, membership, association, affiliation, or controlling interest with another blacklisted person or entity as defined and provided for in the Uniform Guidelines on Blacklisting;
- 4. Each of the documents submitted in satisfaction of the bidding requirements is an authentic copy of the original, complete, and all statements and information provided therein are true and correct;
- 5. [Name of Bidder] is authorizing the Head of the Procuring Entity or its duly authorized representative(s) to verify all the documents submitted;
- 6. [Select one, delete the rest:]

[If a sole proprietorship:] The owner or sole proprietor is not related to the Head of the Procuring Entity, members of the Bids and Awards Committee (BAC), the Technical

Working Group, and the BAC Secretariat, the head of the Project Management Office or the end-user unit, and the project consultants by consanguinity or affinity up to the third civil degree;

[If a partnership or cooperative:] None of the officers and members of [Name of Bidder] is related to the Head of the Procuring Entity, members of the Bids and Awards Committee (BAC), the Technical Working Group, and the BAC Secretariat, the head of the Project Management Office or the end-user unit, and the project consultants by consanguinity or affinity up to the third civil degree;

[If a corporation or joint venture:] None of the officers, directors, and controlling stockholders of [Name of Bidder] is related to the Head of the Procuring Entity, members of the Bids and Awards Committee (BAC), the Technical Working Group, and the BAC Secretariat, the head of the Project Management Office or the end-user unit, and the project consultants by consanguinity or affinity up to the third civil degree;

- 7. [Name of Bidder] complies with existing labor laws and standards; and
- 8. [Name of Bidder] is aware of and has undertaken the responsibilities as a Bidder in compliance with the Philippine Bidding Documents, which includes:
 - a. Carefully examining all of the Bidding Documents;
 - b. Acknowledging all conditions, local or otherwise, affecting the implementation of the Contract;
 - Making an estimate of the facilities available and needed for the contract to be bid, if any; and
 - d. Inquiring or securing Supplemental/Bid Bulletin(s) issued for the [Name of the Project].
- 9. [Name of Bidder] did not give or pay directly or indirectly, any commission, amount, fee, or any form of consideration, pecuniary or otherwise, to any person or official, personnel or representative of the government in relation to any procurement project or activity.
- 10. In case advance payment was made or given, failure to perform or deliver any of the obligations and undertakings in the contract shall be sufficient grounds to constitute criminal liability for Swindling (Estafa) or the commission of fraud with unfaithfulness or abuse of confidence through misappropriating or converting any payment received by a person or entity under an obligation involving the duty to deliver certain goods or services, to the prejudice of the public and the government of the Philippines pursuant to Article 315 of Act No. 3815 s. 1930, as amended, or the Revised Penal Code.

IN	WITNESS	WHEREOF, I	have	hereunto	set	my	hand	this	 day	of	,	20	at
		_, Philippines.											

[Insert NAME OF BIDDER OR ITS AUTHORIZED REPRESENTATIVE]
[Insert signatory's legal capacity]
Affiant

[Jurat]

[Format shall be based on the latest Rules on Notarial Practice]



Republika ng Pilipinas Lungsod ng Quezon

CITY ENGINEERING DEPARTMENT



5th,6th ,7th Floors, QC Civic Center Building "B" Telephone Nos. 8988-4242 Local 8538

Project Name

PROPOSED REHABILITATION (SURFACE IMPROVEMENT) OF EMERALD STREET (NELSONVILLE

SUBDIVISION)

Location

: Barangay Batasan Hills, District 2, Quezon City

21 - 007N

LIST OF MANPOWER

	Manpower	No.
1	Project Engineer	11
2	Materials Engineer	1
3	Safety Practitioner/Officer	Refer to DOLE Requirements
4	Surveyor	As Needed
5	Procurement Officer	1
6	Equipment Operator	5
7	General Foreman	1
8	Laborer	3

Note: 1 Operator: 1 Major Equipment

Prepared by:

Checked by:

MARILEN F. COMENDADOR
Planning and Programming Division



Republika ng Pilipinas Lungsod ng Quezon

CITY ENGINEERING DEPARTMENT



5th,6th ,7th Floors, QC Civic Center Building "B" Telephone Nos. 8988-4242 Local 8538

Project Name

PROPOSED REHABILITATION (SURFACE IMPROVEMENT) OF EMERALD STREET

(NELSONVILLE SUBDIVISION)

Location

: Barangay Batasan Hills, District 2, Quezon City

21-007N

LIST OF EQUIPMENT

	NAME OF EQUIPMENT	NO. OF UNIT
1	Bituminous Prime Coat Truck Sprayer	1
2	Broom Truck	1
3	Dumptruck	1
4	Pneumatic Roller	1
5	Truck Paver	1

Note: 1 Operator: 1 Major Equipment

Prepared by:

Checked by:

AURELIO B. FULGENCIO
Planning and Programming Division

MARKEN F. COMENDADOR

Planning and Programming Division



REPLUBLIKA NG PILIPINAS LUNGSOD QUEZON

CITY ENGINEERING DEPARTMENT

5TH 6TH 7TH Floors, QC Civic Center Building "B" Telephone Nos. 8988-4242 Local 8538



NAME OF PROJECT: PROPOSED REHABILITATION (SURFACE IMPROVEMENT) OF EMERALD STREET

(NELSONVILLE SUBDIVISION)

LOCATION : BARANGAY BATASAN HILLS, DISTRICT 2, QUEZON CITY

21 - 007N

TECHNICAL SPECIFICATIONS

I. GENERAL REQUIREMENTS

ITEM SPL 7 - BILLBOARD

DESCRIPTION

This item shall consist of installation of Billboards on locations as established by the Engineer-In-Charge in conformity with the standard size, design, layout and dimension as shown in the Plans.

MATERIAL REQUIREMENTS

Based on the standard design approved by and material requirement of the implementing agency.

ITEM SPL 12 CONSTRUCTION SAFETY AND HEALTH DESCRIPTION

This item shall include necessary provision of construction safety and health gear such as safety vest, Safety helmet, First Aid Kit, Safety Boots and Gloves. All materials delivered and utilized for the project shall be turned-over to the Implementing agency after the completion of the project.

MATERIAL REQUIREMENTS

Based on the standard design and specifications approved by and material requirement of the implementing agency.

ITEM SPL 13b STEEL BARRICADE

DESCRIPTION

This item shall consist of fabrication of steel barricades in accordance with the Standard Specifications for Public Works and Highways and in reasonably close conformity shown on the plans or as established by the Engineer-In-Charge.

MATERIAL REQUIREMENTS

STEEL BARRICADES

Metal units shall conform to the plan dimensions and to the following specification requirements for the designated materials. Metal gratings and covers which are to rest on frames shall bear on them evenly. They shall be assembled before shipment and so marked that the same pieces may be reassembled readily in the same position when installed. Inaccuracy of bearings shall be corrected by machining, if necessary. A frame and a grating or cover to be used with it shall constitute one pair.

All castings shall be uniformly coated with asphalt-based emulsion meeting the requirements of ASTM D 1187, Asphalt-base Emulsion for use as Protective Coating for Metal. Samples of the material in casting shall be taken during the casting of the units and shall be separate casting poured from the same material as the casting they represent

Structural steel	AASHTO M 183	
Galvanizing, where specified for these units, shall conform to the requirements of	AASHTO M 111	
Reinforcing Steel	AASHTO M 31	

ITEM SPL 13c TRAFFIC CONE

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DESCRIPTION

This item shall consist of installation of steel barriers / traffic cone on locations as established by the Engineer-In-Charge in conformity with the Standard size, design, layout and dimension as shown in the Plans.

MATERIAL REQUIREMENTS

Based on the standard design approved by and material requirement of the implementing agency.

II. CIVIL / STRUCTURAL WORKS

ITEM 302 - BITUMINOUS PRIME COAT

DESCRIPTION

This Item shall consist of preparing and treating an aggregate base course with material in accordance with the Plans and Specifications, preparatory to the construction of a bituminous surface course.

MATERIAL REQUIREMENTS

Bituminous material shall be either Rapid Curing (RC) or Medium Curing (MC) Cut-back Asphalt, whichever is called for in the Bill of Quantities. It shall conform to the requirements of Item 702, Bituminous Materials. The type and grade shall be specified in the Special Provisions.

ITEM 310 - BITUMINOUS CONCRETE SURFACE COURSE, HOT LAID DESCRIPTION

This Item shall consist of constructing a bituminous concrete surface course composed of aggregates, mineral filler, and bituminous material mixed in a central plant, constructed and laid hot on the prepared base in accordance with this Specification and in conformity with lines, grades, thickness and typical cross-section shown on the Plans.

MATERIAL REQUIREMENTS

COMPOSITION AND QUALITY OF BITUMINOUS MIXTURE (Job-Mix Formula)

The bituminous mixture shall be composed of aggregate, mineral filler, hydrated lime, and bituminous material. At least three weeks prior to production, the Contractor shall submit in writing a job-mix formula for each mixture supported by laboratory test data along with samples and sources of the components and viscosity-temperature relationships information to the Engineer for testing and approval.

Each job-mix formula submitted shall propose definite single values for:

- 1. The percentage of aggregate passing each specified sieve size.
- 2. The percentage of bituminous material to be added.
- 3. The temperature of the mixture delivered on the road.
- 4. The kind and percentage of additive to be used.
- 5. The kind and percentage of mineral filler to be used.

After the job-mix is established, all mixture furnished for the project shall conform thereto within the following ranges of tolerances:

Passing No. 4 and larger sieves

7 percent

Passing No. 8 to No. 100 sieves (inclusive) ± 4 percent
Passing No. 200 sieve ± 2 percent

Bituminous Material ± 0.4 percent

Temperature of Mixture ± 10 °C

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Should a change in source of material be proposed or should a job-mix formula prove unsatisfactory, a new job-mix formula shall be submitted by the Contractor in writing and be approved by the Engineer prior to production. Approval of a new job mix formula may require laboratory testing and verification. The mixture shall have a minimum compressive strength of 1.4 MPa (200 psi). The mixture shall have a mass percent air voids with the range of 3 to 5. The mixture shall also have an index of retained strength of not less than

70 when tested by AASHTO T 165. For aggregates having maximum sizes over 25 mm (1 inch), AASHTO T 165 will be modified to use 150 mm x 150 mm (6 x 6 inches) cylindrical specimens. The 150 mm (6 inches' cylinders will be compacted by the procedures outlined in AASHTO T 167 modified to employ 10 repetitions of a molding load of 9.6 MPa (1400 psi), with no appreciable holding time after each application of the full load.

BITUMINOUS MATERIAL

It shall be Penetration Grade Asphalt Cement. Asphalt cement shall conform to the requirements of AASHTO M 226.

AGGREGATES

It shall be uniformly graded from coarse to fine. Target value for the intermediate sieve sizes shall be established within the limits shown in table 703.1. The contractor shall submit the proposed target value in writing to the Engineer-In-Charge for approval. The target gradation is subject to confirmation testing in accordance with section 307.2 before approval by the engineer. Any changes in the target gradation are subject to confirmation testing in accordance with section 307.2., unless otherwise approved in writing by the engineer. No target gradation adjustment will be permitted during the span of a lot.

TABLE 703.1 - Range of Gradation Target Values

Sieve Designation, mm	Mass percent passing square mesh sieves,
	AASHTO T 11 and T 27, exclusive of mineral filler
	Range:
25 (1")	100
19 (3/4")	100
4.75 (No. 4)	50 – 60
2.36 (No. 8)	38 – 48
0.075 (No. 200)	3-7
,	The minimum for Sand Equivalent is 35

No intermediate size of aggregate shall be removed for other purposes without written consent of the engineer. If crushed gravel is used, not less than 50 mass percent of the material retained on the 4.75 mm (No. 4) sieve shall be particles having at least one fractured face. That portion of the composite material passing a 4.75 mm (No. 4) sieve shall have a sand equivalent of not less than 35, as determined by AASHTO T 176, Alternate Method No. 2. The aggregate shall show a durability index not less than 35 (coarse and fine) as determined by AASHTO T 210. The material shall be free of clay balls and adherent films of clay or other matter that would prevent thorough coating with the bituminous material.

MINERAL FILLER

Filler material for bituminous bases or pavements shall meet the requirements of AASHTO M 17, Mineral Filler for Bituminous Paving Mixtures.

Mineral filler shall be graded within the following limits:

Sieve	Maximum Perfect Passing	
0.600 mm (No. 30)	100	
0.300 mm (No. 50)	95 – 100	
0.075 mm (No. 200)	70 – 100	

The mineral filler shall have a plasticity index not greater than 4. Plasticity Index limits are not appropriate for hydraulic lime and cement.

HYDRATED LIME

Hydrated lime shall conform to the requirements of PHILSA I-1-68 or ASTM C 207-76 and shall be of the

following type:

Type N - Normal hydrated lime for masonry purposes.

Type S - Special hydrated lime for masonry purposes.

Type NA - Normal air-entraining hydrated lime for masonry purposes.

Type SA - Special air-entraining hydrated lime for masonry purposes.

Type N and S are suitable for use in mortar, in scratch and brown coats of cement plaster, for stucco and for addition to Portland Cement concrete. Type NA and SA are air-entrained hydrated limes that are suitable for use in any of the above uses where air-entrainment are desired. Type S and SA hydrated lime develop high, early plasticity and higher water retentivity and by a limitation on their unhydrated oxide content. It is the intent of this Specification to use either the Type N or S for soil stabilization and as filler requirement to bituminous plant mixtures. It is expected to provide pavements with greater resistance to the detrimental effects of water, especially flooding during the rainy season.

PROPORTIONING OF MIXTURES

The proportion of bituminous material on the basis of total dry aggregate shall be from 5.0 to 8.0 mass percent. The exact percentage to be used shall be fixed by the Engineer in accordance with the job-mix formula and the other quality control requirements. During the mixing operation, one-half to one (0.5 to 1.0) mass percent of hydrated lime, dry aggregate basis, shall be added to the mixture. The lower percentage limit is applicable to aggregates which are predominantly calcareous.

ITEM SPL 3 - SECTIONAL SQUARING AND ASPHALT PATCHING DESCRIPTION

This item shall consist of preparing and treating an existing base, asphalt pavement and existing concrete pavement with material in accordance with the Plans and Specifications preparatory to the construction of a bituminous surface course. This item shall consist of constructing a bituminous concrete surface course composed of aggregates, mineral filler and bituminous material mixed in a central plant, constructed and laid hot on the prepared base in accordance with this Specification and in conformity with the lines, grades, thickness and cross-section shown on the Plans.

MATERIAL REQUIREMENTS

Bituminous material shall be either Rapid Curing (RC) Cut-back or Emulsified Asphalt, whichever is called for in the Bill of Quantities. It shall conform to the requirements of Item 702, Bituminous Materials. The type and grade will be specified in the Special Provisions.

COMPOSITION AND QUALITY OF BITUMINOUS MIXTURE (JOB-MIX FORMULA)

The bituminous mixture shall be composed of aggregate, mineral filler, hydrated lime, and bituminous material. At least three weeks prior to production, the Contractor shall submit in writing a job-mix formula for each mixture supported by laboratory test data along with samples and sources of the components and viscosity-temperature relationships information to the Engineer for testing and approval.

Each job-mix formula submitted shall propose definite single values for:

- 1. The percentage of aggregate passing each specified sieve size.
- 2. The percentage of bituminous material to be added.
- 3. The temperature of the mixture delivered on the road.
- 4. The kind and percentage of additive to be used.
- 5. The kind and percentage of mineral filler to be used.

After the job-mix is established, all mixture furnished for the project shall conform thereto within the following ranges of tolerances:

Passing No. 4 and larger sieves ± 7 percent
Passing No. 8 to No. 100 sieves (inclusive) ± 4 percent
Passing No. 200 sieve ± 2 percent
Bituminous Material ± 0.4 percent
Temperature of Mixture ± 10 °C

Should a change in source of material be proposed or should a job-mix formula prove unsatisfactory, a

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new job-mix formula shall be submitted by the Contractor in writing and be approved by the Engineer prior to production. Approval of a new job mix formula may require laboratory testing and verification. The mixture shall have a minimum compressive strength of 1.4 MPa (200 psi). The mixture shall have a mass percent air voids with the range of 3 to 5. The mixture shall also have an index of retained strength of not less than

70 when tested by AASHTO T 165. For aggregates having maximum sizes over 25 mm (1 inch), AASHTO T 165 will be modified to use 150 mm x 150 mm (6 x 6 inches) cylindrical specimens. The 150 mm (6 inches' cylinders will be compacted by the procedures outlined in AASHTO T 167 modified to employ 10 repetitions of a molding load of 9.6 MPa (1400 psi), with no appreciable holding time after each application of the full load.

BITUMINOUS MATERIAL

It shall be Penetration Grade Asphalt Cement. Asphalt cement shall conform to the requirements of AASHTO M 226.

AGGREGATES

It shall be uniformly graded from coarse to fine. Target value for the intermediate sieve sizes shall be established within the limits shown in table 703.1. The contractor shall submit the proposed target value in writing to the Engineer-In-Charge for approval. The target gradation is subject to confirmation testing in accordance with section 307.2 before approval by the engineer. Any changes in the target gradation are subject to confirmation testing in accordance with section 307.2., unless otherwise approved in writing by the engineer. No target gradation adjustment will be permitted during the span of a lot.

ITEM SPL 10a/10b - THERMOPLASTIC MARKINGS (WHITE)

MATERIAL REQUIREMENTS

Reflectorized thermoplastic pavement material shall be homogeneously composed of pigment, filler, resins, and glass reflectorizing spheres.

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

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

Refractive Index, min. - 1.5

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

NOTES:

All other item of works not covered by this listed TECHNICAL SPECIFICATIONS shall be ISSUED with supplemental specifications by the Implementing Agency based on the Program of Work and Approved Plan(s) for the proposed project.

PREPARED BY:

Planning and Programming Division

CHECKED BY:

MARILEN F. COMENDADOR
Planning and Programming Division





