

## 2. Quality Control Tests of Samples

Testing for aggregates and other construction materials necessary to assure quality output of infrastructure projects.

<b>Office or Division:</b>	Provincial Engineer's Office (PEO) - Quality Assurance and Control (QAC) Division	
<b>Classification:</b>	High Technical	
<b>Type of Transaction:</b>	G2B - Government-to-Business, G2C - Government-to-Client	
<b>Who may avail:</b>	All	
<b>CHECKLIST OF REQUIREMENTS</b>	<b>WHERE TO SECURE</b>	
<p>Materials/samples to be tested</p> <ol style="list-style-type: none"> <li>1. Soil and Soil Aggregates               <ol style="list-style-type: none"> <li>a. Sieve Analysis - 3 kg.</li> <li>b. Liquid Limit - 1 kg.</li> <li>c. Plastic Limit - 1 kg.</li> <li>d. Compaction (Laboratory) - 7 kg.</li> <li>e. Field Density Test/Hole - Min. of 3 Holes</li> <li>f. Abrasion - 10 kg.</li> <li>g. California Bearing Ratio - 7 kg.</li> <li>h. Penetration (CBR), per molded specimen - 7 kg.</li> <li>i. Swell (CBR) per molded specimen - 7 kg.</li> <li>j. Specific Gravity - 2 kg.</li> <li>k. Moisture Content - 1 kg.</li> </ol> </li> <li>2. Coarse Aggregates               <ol style="list-style-type: none"> <li>a. Sieve Analysis/Grading - 5 kg.</li> <li>b. Wash Loss on No.200 Sieve Materials Finer than No.200 Mesh - 5 kg.</li> <li>c. Specific Gravity - 5 kg.</li> <li>d. Moisture Content - 1 kg.</li> <li>e. Soundness, % Loss - 10 kg.</li> <li>f. Unit Weight, Loss &amp; Rodded - 5 kg.</li> <li>g. Clay Lumps - 3 kg.</li> <li>h. Abrasion Loss - 10 kg.</li> </ol> </li> </ol>	<p>Project site/warehouse of citizen or client</p>	

CHECKLIST OF REQUIREMENTS	WHERE TO SECURE
<p>3. Fine Aggregates</p> <ul style="list-style-type: none"> <li>a. Sieve Analysis/Grading - 3 kg.</li> <li>b. Wash Loss on No.200 Sieve Materials Finer than No.200 Mesh - 3 kg.</li> <li>c. Specific Gravity - 2 kg.</li> <li>d. Moisture Content - 1 kg.</li> <li>e. Soundness, % Loss - 2 kg.</li> <li>f. Unit Weight, Loss &amp; Rodded - 5 kg.</li> <li>g. Mortar Strength, 7 days - 3 kg.</li> <li>h. Clay Lumps - 1 kg.</li> <li>i. Organic Impurities - 1 kg.</li> </ul> <p>4. Molded Concrete Samples</p> <ul style="list-style-type: none"> <li>a. Compressive Strength (Concrete Cylinder) - 1 cylinder</li> <li>b. Flexural Strength (Concrete Beam) - 1 cylinder</li> </ul> <p>5. Miscellaneous Services</p> <ul style="list-style-type: none"> <li>a. Concrete Core Drilling (per core drilled) - Min. of 3 Holes</li> <li>b. Cutting of Concrete Sample to Standard Size for Strength Determination - 1 sample</li> <li>c. Dimension Measurement - 1 sample</li> </ul> <p>6. Concrete Hollow Block - 1 block</p> <ul style="list-style-type: none"> <li>a. Compressive Strength</li> <li>b. Moisture Content</li> <li>c. Water Absorption and Moisture Content</li> <li>d. Water Absorption and Coefficient Saturation</li> <li>e. Dimension Measure</li> </ul>	

CHECKLIST OF REQUIREMENTS		WHERE TO SECURE		
7. Steel Bars for Complete Reinforcement - 1 meter per sample a. Tensile Properties b. Bending Properties c. Deformation Measurement d. Variation in Weight				
CLIENT STEPS	AGENCY ACTION	FEES TO BE PAID	PROCESSING TIME	PERSON RESPONSIBLE
1. Fill-up sample card and submit materials/samples to be tested.	1.1. Check filled-up sample card, receive materials/samples, identify the test to be conducted and issue Order of Payment.	None	5 Minutes	<i>Admin. Aide IV</i> PEO - Quality Assurance and Control Division (QACD)
2. Present the Order of Payment and pay to Cashier.	2.1. Process payment and issue Official Receipt.	1. Soil and Soil Aggregates a. Sieve Analysis - PHP 240.00 b. Liquid Limit - PHP 140.00 c. Plastic Limit - PHP 140.00 d. Compaction (Laboratory) - PHP 680.00 e. Field Density Test/Hole - PHP 400.00 f. Abrasion - PHP 500.00 g. California Bearing Ratio - PHP 1,390.00	10 Minutes	<i>Cashier</i> Window 1 - Provincial Treasurer's Office

CLIENT STEPS	AGENCY ACTION	FEES TO BE PAID	PROCESSING TIME	PERSON RESPONSIBLE
		<ul style="list-style-type: none"> <li>h. Penetration (CBR), per molded specimen               <ul style="list-style-type: none"> <li>- PHP 110.00</li> </ul> </li> <li>i. Swell (CBR) per molded specimen               <ul style="list-style-type: none"> <li>- PHP 110.00</li> </ul> </li> <li>j. Specific Gravity               <ul style="list-style-type: none"> <li>- PHP 190.00</li> </ul> </li> <li>k. Moisture Content               <ul style="list-style-type: none"> <li>- PHP 110.00</li> </ul> </li> <li>2. Coarse Aggregates               <ul style="list-style-type: none"> <li>a. Sieve Analysis/Grading                   <ul style="list-style-type: none"> <li>- PHP 240.00</li> </ul> </li> <li>b. Wash Loss on No.200 Sieve Materials Finer than No.200 Mesh                   <ul style="list-style-type: none"> <li>- PHP 200.00</li> </ul> </li> <li>c. Specific Gravity                   <ul style="list-style-type: none"> <li>- PHP 240.00</li> </ul> </li> <li>d. Moisture Content                   <ul style="list-style-type: none"> <li>- PHP 110.00</li> </ul> </li> <li>e. Soundness, % Loss                   <ul style="list-style-type: none"> <li>- PHP 415.00</li> </ul> </li> <li>f. Unit Weight, Loss &amp; Rodded                   <ul style="list-style-type: none"> <li>- PHP 175.00</li> </ul> </li> <li>g. Clay Lumps                   <ul style="list-style-type: none"> <li>- PHP 120.00</li> </ul> </li> <li>h. Abrasion Loss                   <ul style="list-style-type: none"> <li>- PHP 500.00</li> </ul> </li> </ul> </li> <li>3. Fine Aggregates               <ul style="list-style-type: none"> <li>a. Sieve Analysis/Grading                   <ul style="list-style-type: none"> <li>- PHP 240.00</li> </ul> </li> </ul> </li> </ul>		

CLIENT STEPS	AGENCY ACTION	FEES TO BE PAID	PROCESSING TIME	PERSON RESPONSIBLE
		b. Wash Loss on No.200 Sieve Materials Finer than No.200 Mesh - PHP 200.00 c. Specific Gravity - PHP 240.00 d. Moisture Content - PHP 110.00 e. Soundness, % Loss - PHP 415.00 f. Unit Weight, Loss & Rodded - PHP 175.00 g. Mortar Strength, 7 days - PHP 240.00 h. Clay Lumps - PHP 120.00 i. Organic Impurities - PHP 290.00 4. Molded Concrete Samples a. Compressive Strength (Concrete Cylinder) - PHP 120.00 b. Flexural Strength (Concrete Beam) - PHP 140.00 5. Miscellaneous Services a. Concrete Core Drilling (per core drilled) - PHP 1,140.00		

CLIENT STEPS	AGENCY ACTION	FEES TO BE PAID	PROCESSING TIME	PERSON RESPONSIBLE
		b. Cutting of Concrete Sample to Standard Size for Strength Determination - PHP 380.00 c. Dimension Measurement - PHP 110.00 6. Concrete Hollow Block - 1 block a. Compressive Strength - PHP 140.00 b. Moisture Content - PHP 180.00 c. Water Absorption and Moisture Content - PHP 180.00 d. Water Absorption and Coefficient Saturation - PHP 240.00 e. Dimension Measure - PHP 110.00 7. Steel Bars for Complete Reinforcement - 1 meter per sample a. Tensile Properties - PHP 200.00 b. Bending Properties - PHP 120.00 c. Deformation Measurement - PHP 120.00 d. Variation in Weight - PHP 110.00		

CLIENT STEPS	AGENCY ACTION	FEES TO BE PAID	PROCESSING TIME	PERSON RESPONSIBLE
3. Present Official Receipt.	3.1. Conduct the necessary procedures for testing of material/sample.	None	1. Soil and Soil Aggregates <ul style="list-style-type: none"> <li>a. Sieve Analysis - 3 Days</li> <li>b. Liquid Limit - 2 Days</li> <li>c. Plastic Limit - 2 Days</li> <li>d. Compaction (Laboratory) - 3 Days</li> <li>e. Field Density Test/Hole - 30 Minutes/hole</li> <li>f. Abrasion - 2 Days</li> <li>g. California Bearing Ratio - 7 Days</li> <li>h. Penetration (CBR), per molded specimen - 7 Days</li> <li>i. Swell (CBR) per molded specimen - 7 Days</li> <li>j. Specific Gravity - 3 Days</li> <li>k. Moisture Content - 1 Day</li> </ul> 2. Coarse Aggregates <ul style="list-style-type: none"> <li>a. Sieve Analysis/Grading - 3 Days</li> </ul>	Laboratory Technician PEO - QACD

CLIENT STEPS	AGENCY ACTION	FEES TO BE PAID	PROCESSING TIME	PERSON RESPONSIBLE
			b. Wash Loss on No.200 Sieve Materials Finer than No.200 Mesh - 3 Days c. Specific Gravity - 3 Days d. Moisture Content - 1 Day e. Soundness, % Loss - 7 Days f. Unit Weight, Loss & Rodded - 3 Days g. Clay Lumps - 2 Days h. Abrasion Loss - 2 Days 3. Fine Aggregates a. Sieve Analysis/Grading - 3 Days b. Wash Loss on No.200 Sieve Materials Finer than No.200 Mesh - 3 Days c. Specific Gravity - 3 Days d. Moisture Content - 1 Day	



CLIENT STEPS	AGENCY ACTION	FEES TO BE PAID	PROCESSING TIME	PERSON RESPONSIBLE
			e. Soundness, % Loss - 7 Days f. Unit Weight, Loss & Rodded - 3 Days g. Mortar Strength, 7 days – 10 Days h. Clay Lumps - 2Days i. Organic Impurities - 2 Days 4. Molded Concrete Samples a. Compressive Strength (Concrete Cylinder) - 30 Minutes/sampl e b. Flexural Strength (Concrete Beam) - 30 Minutes/sample 5. Miscellaneous Services a. Concrete Core Drilling (per core drilled) - 2 Hours	

CLIENT STEPS	AGENCY ACTION	FEES TO BE PAID	PROCESSING TIME	PERSON RESPONSIBLE
			b. Cutting of Concrete Sample to Standard Size for Strength Determination - 2 Hours/sample c. Dimension Measurement - 30 Minutes/sample 6. Concrete Hollow Block a. Compressive Strength - 30 Minutes/sample b. Moisture Content - 2 Days c. Water Absorption and Moisture Content - 3 Days d. Water Absorption and Coefficient Saturation – 3 Days e. Dimension Measure – 1 Day 7. Steel Bars for Complete Reinforcement a. Tensile Properties – 1 Day	

CLIENT STEPS	AGENCY ACTION	FEES TO BE PAID	PROCESSING TIME	PERSON RESPONSIBLE
			b. Bending Properties – 1 Day c. Deformation Measurement - 1 Day d. Variation in Weight - 1 Day	
	3.2. Prepare test result.	None	15 Minutes	Laboratory Technician PEO - QACD
4. Receive result.				Admin. Aide IV PEO - QACD
	<b>TOTAL:</b>	<b>1. Soil and Soil Aggregates</b> <b>a. Sieve Analysis - PHP 240.00</b> <b>b. Liquid Limit - PHP 140.00</b> <b>c. Plastic Limit - PHP 140.00</b> <b>d. Compaction (Laboratory) - PHP 680.00</b> <b>e. Field Density Test/Hole - PHP 400.00</b> <b>f. Abrasion - PHP 500.00</b> <b>g. California Bearing Ratio - PHP 1,390.00</b> <b>h. Penetration (CBR), per molded specimen - PHP 110.00</b> <b>i. Swell (CBR) per molded specimen - PHP 110.00</b> <b>j. Specific Gravity - PHP 190.00</b>	<b>1. Soil and Soil Aggregates</b> <b>a. Sieve Analysis - 3 Days, 30 Minutes</b> <b>b. Liquid Limit - 2 Days, 30 Minutes</b> <b>c. Plastic Limit - 2 Days, 30 Minutes</b> <b>d. Compaction (Laboratory) - 3 Days, 30 Minutes</b> <b>e. Field Density Test/Hole - 1 Hour/sample</b> <b>f. Abrasion - 2 Days, 30 Minutes</b> <b>g. California Bearing Ratio - 7 Days, 30 Minutes</b>	

CLIENT STEPS	AGENCY ACTION	FEES TO BE PAID	PROCESSING TIME	PERSON RESPONSIBLE
	<b>TOTAL:</b>	k. Moisture Content - PHP 110.00 2. Coarse Aggregates a. Sieve Analysis/Grading - PHP 240.00 b. Wash Loss on No.200 Sieve Materials Finer than No.200 Mesh - PHP 200.00 c. Specific Gravity - PHP 240.00 d. Moisture Content - PHP 110.00 e. Soundness, % Loss - PHP 415.00 f. Unit Weight, Loss & Rodded - PHP 175.00 g. Clay Lumps - PHP 120.00 h. Abrasion Loss - PHP 500.00 3. Fine Aggregates a. Sieve Analysis/Grading - PHP 240.00 b. Wash Loss on No.200 Sieve Materials Finer than No.200 Mesh - PHP 200.00 c. Specific Gravity - PHP 240.00 d. Moisture Content - PHP 110.00 e. Soundness, % Loss - PHP 415.00	h. Penetration (CBR), per molded specimen - 7 Days, 30 Minutes i. Swell (CBR) per molded specimen - 7 Days, 30 Minutes j. Specific Gravity - 3 Days, 30 Minutes k. Moisture Content - 1 Day, 30 Minutes 2. Coarse Aggregates a. Sieve Analysis/Grad ing - 3 Days, 30 Minutes b. Wash Loss on No.200 Sieve Materials Finer than No.200 Mesh - 3 Days, 30 Minutes c. Specific Gravity - 3 Days, 30 Minutes	

CLIENT STEPS	AGENCY ACTION	FEES TO BE PAID	PROCESSING TIME	PERSON RESPONSIBLE
	<b>TOTAL:</b>	f. Unit Weight, Loss & Rodded - PHP 175.00 g. Mortar Strength, 7 days - PHP 240.00 h. Clay Lumps - PHP 120.00 i. Organic Impurities - PHP 290.00 4. Molded Concrete Samples a. Compressive Strength (Concrete Cylinder) - PHP 120.00 b. Flexural Strength (Concrete Beam) - PHP 140.00 5. Miscellaneous Services a. Concrete Core Drilling (per core drilled) - PHP 1,140.00 b. Cutting of Concrete Sample to Standard Size for Strength Determination - PHP 380.00 c. Dimension Measurement - PHP 110.00 6. Concrete Hollow Block - 1 block a. Compressive Strength - PHP 140.00 b. Moisture Content - PHP 180.00	d. Moisture Content - 1 Day, 30 Minutes e. Soundness, % Loss - 7 Days, 30 Minutes f. Unit Weight, Loss & Rodded - 3 Days, 30 Minutes g. Clay Lumps - 2 Days, 30 Minutes h. Abrasion Loss - 2 Days, 30 Minutes 3. Fine Aggregates a. Sieve Analysis/Grading - 3 Days, 30 Minutes b. Wash Loss on No.200 Sieve Materials Finer than No.200 Mesh - 3 Days, 30 Minutes c. Specific Gravity - 3 Days, 30 Minutes d. Moisture Content - 1 Day, 30 Minutes	

CLIENT STEPS	AGENCY ACTION	FEES TO BE PAID	PROCESSING TIME	PERSON RESPONSIBLE
	<b>TOTAL:</b>	c. Water Absorption and Moisture Content - PHP 180.00 d. Water Absorption and Coefficient Saturation - PHP 240.00 e. Dimension Measure - PHP 110.00 7. Steel Bars for Complete Reinforcement - 1 meter per sample a. Tensile Properties - PHP 200.00 b. Bending Properties - PHP 120.00 c. Deformation Measurement - PHP 120.00 d. Variation in Weight - PHP 110.00	e. Soundness, % Loss - 7 Days, 30 Minutes f. Unit Weight, Loss & Rodded - 3 Days, 30 Minutes g. Clay Lumps - 2 Days, 30 Minutes h. Abrasion Loss - 2 Days, 30 Minutes 3. Fine Aggregates a. Sieve Analysis/Grading - 3 Days, 30 Minutes b. Wash Loss on No.200 Sieve Materials Finer than No.200 Mesh - 3 Days, 30 Minutes c. Specific Gravity - 3 Days, 30 Minutes d. Moisture Content - 1 Day, 30 Minutes e. Soundness, % Loss - 7 Days, 30 Minutes	

CLIENT STEPS	AGENCY ACTION	FEES TO BE PAID	PROCESSING TIME	PERSON RESPONSIBLE
			f. Unit Weight, Loss & Rodded - 3 Days, 30 Minutes g. Mortar Strength, 7 days - 10 Days, 30 Minutes h. Clay Lumps - 2 Days, 30 Minutes i. Organic Impurities - 2 Days, 30 Minutes 4. Molded Concrete Samples a. Compressive Strength (Concrete Cylinder) - 1 Hour/sample b. Flexural Strength (Concrete Beam) - 1 Hour/sample 5. Miscellaneous Services a. Concrete Core Drilling (per core drilled) - 2 Hours, 30 Minutes	
	<b>TOTAL:</b>			

CLIENT STEPS	AGENCY ACTION	FEES TO BE PAID	PROCESSING TIME	PERSON RESPONSIBLE
			b. Cutting of Concrete Sample to Standard Size for Strength Determination - 2 Hours, 30 Minutes c. Dimension Measurement - 1 Hour/sample 6. Concrete Hollow Block a. Compressive Strength - 1 Hour/sample b. Moisture Content - 2 Days, 30 Minutes c. Water Absorption and Moisture Content - 3 Days, 30 Minutes d. Water Absorption and Coefficient Saturation - 3 Days, 30 Minutes e. Dimension Measure - 1 Day, 30 Minutes 7. Steel Bars for Complete Reinforcement a. Tensile Properties - 1 Day, 30 Minutes	
	<b>TOTAL:</b>			



CLIENT STEPS	AGENCY ACTION	FEES TO BE PAID	PROCESSING TIME	PERSON RESPONSIBLE
	<b>TOTAL:</b>		<b>b. Bending Properties - 1 Day, 30 Minutes</b> <b>c. Deformation Measurement - 1 Day, 30 Minutes</b> <b>d. Variation in Weight - 1 Day, 30 Minutes</b>	