



# SUSDEX<sup>®</sup> PROPERTY DEVELOPMENT (v5.0)

GENERIC INFO DECK

As at **31 July 2020**

MEMBER OF  
**Dow Jones  
Sustainability Indices**



In collaboration with a RobecoSAM brand



**Property**

# **WHY GUIDE & MEASURE SUSTAINABILITY PERFORMANCE?**



# THE ANSWER

- What can't be measured, cannot be managed
- To prepare Townships for green certification (if they choose to pursue)
- To optimise the company's business activity impacts
- To collect data for sustainability disclosure
- To identify and quantify potential risks, mitigation and opportunities

# SUSDEX® PROPERTY DEVELOPMENT - DOCUMENTATION REVIEW STRUCTURE



Version 5.0

## Development Life Span

Applicable for Township starting from vision plan to hand-over.

## OD/MD RATINGS

- 50% – 65% : SUSDEX-rated
- >65 – 75% : Silver-rated
- >75% - 85%: Gold-rated
- >85% : Platinum-rated

## FRAMEWORK

- Based on GRI, GBI, LEED, Greenmark, CPTED & SDP 2030 Sustainability Goals.
- 3 spheres, 12 categories, 37 aspects, 90 indicators. Breakdown:

*Prosperity – 33 indicators*  
*Planet – 26 indicators*  
*People – 31 indicators*

## ND RATINGS

- 50% – 65% : Provisional SUSDEX-rated
- >65 – 75% : Provisional Silver-rated
- >75% - 85%: Provisional Gold-rated
- >85% : Provisional Platinum-rated

*Note: ND Townships will be given an actual and a forecast score.*

Out of 100% weightage:

- 70% from Documentation Review
- 30% from Calibration Site Visit (refer slide 109 onwards)

### LEGEND:

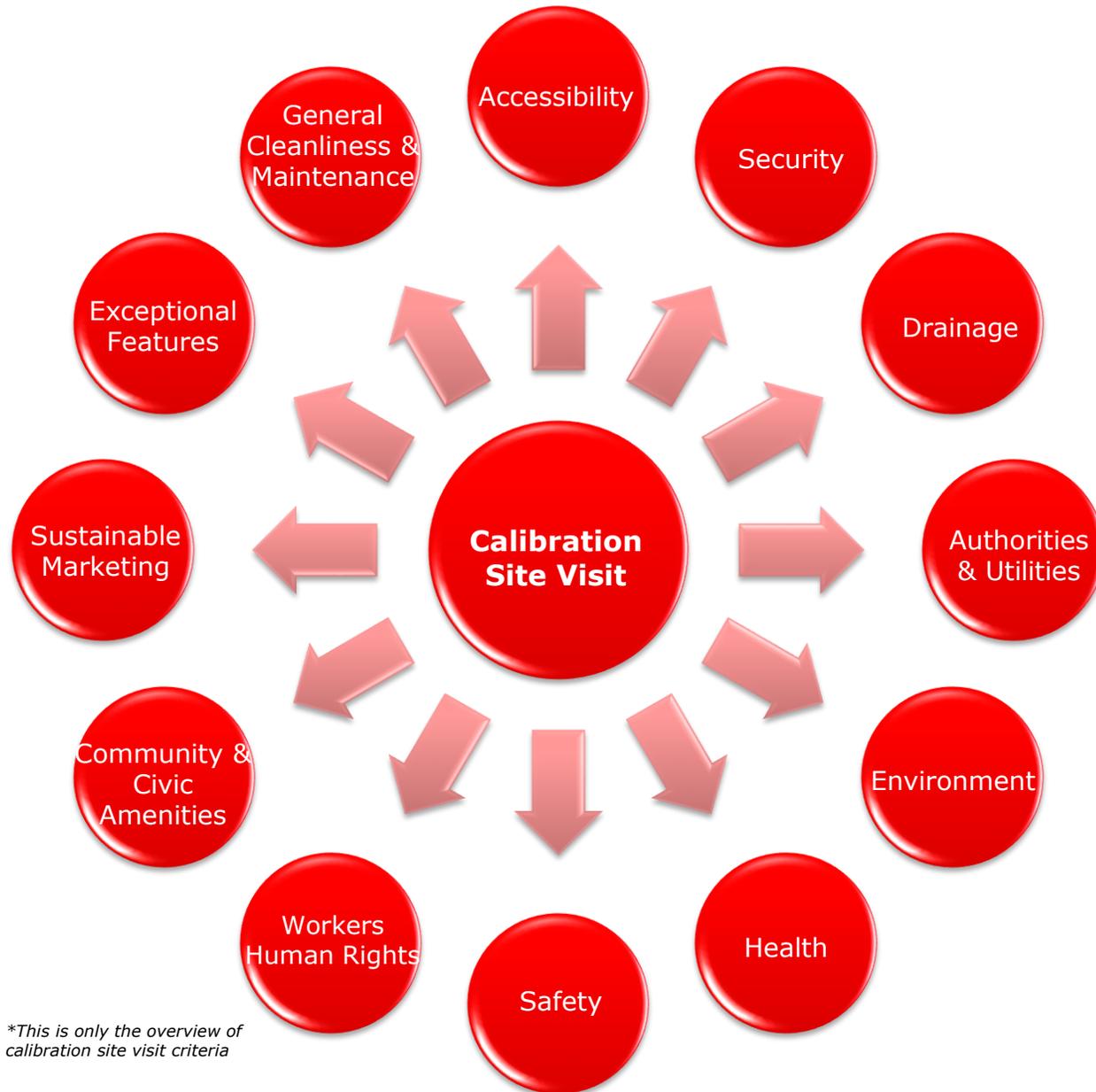
CATEGORY

PILLAR

# SDP 2030 SUSTAINABILITY GOALS – MAPPING WITH SUSDEX INDICATORS

Goals	SUSDEX Indicator	Goals	SUSDEX Indicator	Goals	SUSDEX Indicator
<b>GOAL 1</b> <b>Supporting Local Business</b> 90% Local Companies/ Vendors	EC14, EN5	<b>GOAL 7</b> <b>Volunteer Hours</b> 10,000 hours	SO16	<b>GOAL 13</b> <b>Water Saving Fittings</b> 30,000 Residential Units	EN11
<b>GOAL 2</b> <b>Economic Injection</b> RM10 Billion	EC19	<b>GOAL 8</b> <b>Cycling &amp; Jogging Tracks</b> 300km	EC17	<b>GOAL 14</b> <b>Community Recycling</b> 6,570,000 kg/ 6570 tonnes	EN18
<b>GOAL 3</b> <b>Product Quality</b> 85% QCLASSIC Score	EC33	<b>GOAL 9</b> <b>Human Rights</b> All Vendors/Supply Chain Partners have clear commitment to Human Rights	EC28, SO27, SO30, SO31	<b>GOAL 15</b> <b>Biodiversity (IUCN Trees)</b> 50,000 trees	EN14
<b>GOAL 4</b> <b>Building Technology</b> IBS Score 80 Points	EC9	<b>GOAL 10</b> <b>Occupational Safety &amp; Health</b> Zero workplace accident-related fatalities	EC28, SO5 – SO8	<b>GOAL 16</b> <b>Carbon Sequestration</b> 4,000 tonnes (from 160,000 trees)	EN14
<b>GOAL 5</b> <b>Job Creation</b> 100,000 Jobs	EC19	<b>GOAL 11</b> <b>Urban Farming</b> Minimum 1 urban farm per township	EC17	<b>GOAL 17</b> <b>Energy Efficient Homes</b> 10,000 homes	EN7
<b>GOAL 6</b> <b>Affordable Homes</b> 15,000 Units Below RM600,000	EC20	<b>GOAL 12</b> <b>Renewable Energy</b> 12,600 MWh annually	EN7	<b>GOAL 18</b> <b>Operational Eco-efficiency</b> 30% intensity reduction in operational carbon, water & waste; 30% intensity increase in operational recycling	EC28, EN2, EN6, EN10, EN7

# CALIBRATION SITE VISIT (30% OF OVERALL SCORE)



*\*This is only the overview of calibration site visit criteria*

## FRAMEWORK

- Method: On-site inspection
- Half-day assessment
- Range of score: 0 - 3
- 12 categories, 45 indicators.
- Covers whole Township e.g. select completed phases (handed over) & construction phases.
- A necessary check and balance to verify documentation review findings.
- Only applies to OD & MD townships. ND score fully based on documentation review.
- Sample size – 50% of total Township on-going construction site (building, infra and/or landscape).

# GREEN-RATED SUSTAINABLE TOWNSHIPS

Outcome

## PROSPERITY

- Economic Value Generated
- Innovative Design & Connectivity
- Risk Management
- Local Economic Impact
- Business Excellence
- Product & Responsibility

## PLANET

- Green Design & Construction
- Managing Environmental Impact

## PEOPLE

- Labour Practice & Decent Work
- Society & Security
- Human Rights

Categories

32 indicators

- GDV & PBIT
- Integrated Building System (IBS) Score
- Continuous Improvement
- Take-up Rates
- QLASSIC Score
- Customer Satisfaction Index (CSI)

25 indicators

- Renewable & Recyclable Materials
- Energy Efficient Products
- Water Efficient Products
- Tree-to-Tree Data
- CFP
- Water Baseline
- Waste Baseline
- Environmental Pollutant Index

29 indicators

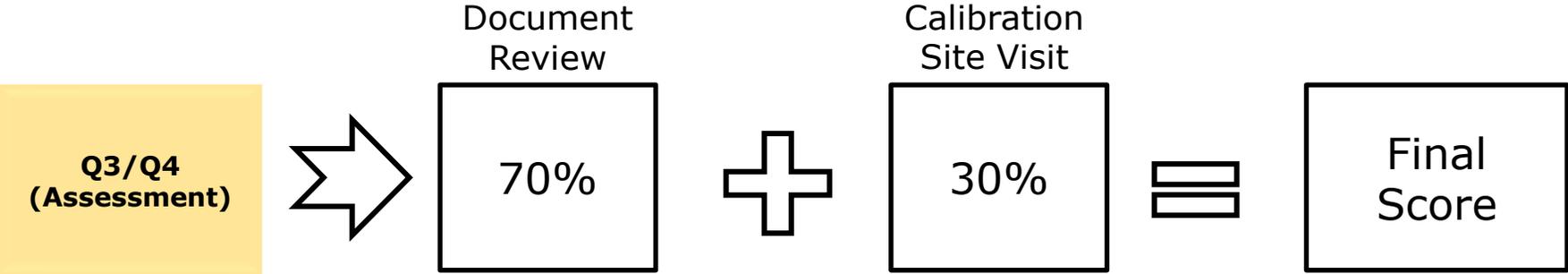
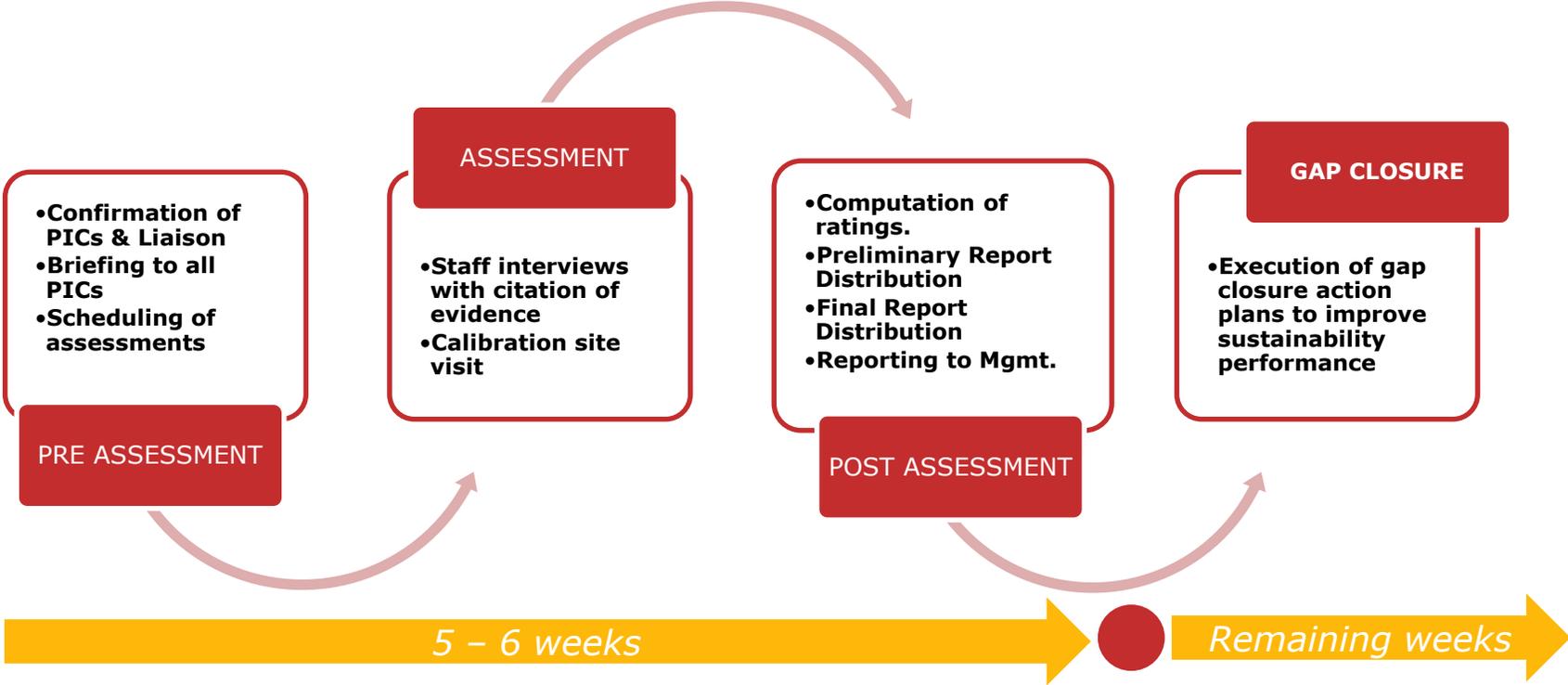
- Employee Turnover Rates
- Safety & Health Points
- \*SHASSIC Score
- CSR
- Township Security
- Human Rights Elements

Sample Indicators

Note: Good performance at indicator level is a good foundation for sustainable township outcomes.

SUSDEX Framework

# ASSESSMENT METHODOLOGY



# **SUSDEX INDICATOR EXAMPLES & CALCULATION METHOD**



# SCORING GUIDELINE

PROSPERITY

Category

Innovative Design & Connectivity

Aspect

Monetary Benefits

CODE	INDICATOR	TYPE	SCORE 1	SCORE 2	SCORE 3
EC8	Leverage on existing infrastructure/ geographical attributes	ND, OD & MD	Leverage on 1 element/ MLP	Leverage on 2 elements/ MLP	Leverage on 3 elements/ MLP

## **Indicator's Intent**

This indicator assesses if the township plans to develop on a site that is infill, connected to existing infrastructure, or served by transit and neighbourhood amenities as it would imply reduced costs for development. Existing infrastructure may refer to water, sewage, electrical and road infrastructure that are already found at or adjacent to the development site.

## **Submitter**

Township

## **Potential Evidence**

Master Layout Plan

## **Element Examples**

1. Sharing of existing main access, interchange, vbc, bridge etc.
2. Leveraging on structure plan/ existing building e.g., manager bungalow
3. Leveraging on existing water supply without necessary to lay new mains water supply pipes and establishment of reservoirs off-site.
4. Levering on electricity supply without necessary to lay new mains 33kV cables and/or build new mains distribution station
5. Leveraging on existing sewerage without necessary to develop new treatment plant at the site or off-site.
6. Leveraging on existing telecom ducts
7. Leveraging and optimising on adjacent natural/environmental resources

# SCORING GUIDELINE

## Category

## Aspect

### Risk Management

### Economic, Environmental & Social Risk

CODE	INDICATOR	TYPE	SCORE 1	SCORE 2	SCORE 3
EC10	Risk control on environmental or climate change, social and economic	ND, OD & MD	1) Identification of risk (risk register) cited 2) AND Mitigation plan cited and/or controls effectiveness	1) Identification of risk (risk register) cited 2) AND Mitigation plan cited and/or controls effectiveness 3) AND >50% of key risks achieved target rating	1) Identification of risk (risk register) cited 2) AND Mitigation plan cited and/or controls effectiveness 3) AND >80% of key risks achieved target rating 4) AND Action plan for key risk on schedule

#### **Indicator's Intent**

This indicator assesses if the risks and opportunities posed by EES that have the potential to generate substantive changes in operations, revenue or expenditure for the organization have been identified. Organizations may face physical risks and opportunities due to changes in the climate system and weather patterns. For examples:

#### Environmental/ Climate Change

- The impact of more frequent and intense storms, flood, landslide etc.
- Changes in temperature, and water availability (water rationing)
- Haze

#### Economic

- Inability in reaching agreement from infrastructure authorities to improve township accessibility due to unfavourable requirement imposed resulting in limited accessibility in the development area
- Product are developed/launched without a strong market brand & positioning
- Invalid & inaccurate financial model
- Inability to secure funding due to project not being perceived as viable to the financial institution
- Poor take-up rate and marketability during launching
- The overall performance of the property market declines
- Prolong serving of interest on external funding
- Significantly high infrastructure cost
- Inadequate project management

#### Social

- Relocation of estate workers
- Relocation of place of worship (surau, masjid, temple, shrine etc.)
- Illegal workers hired by Contractors
- Increase in crime rate due to contractors workers
- Any social impact to surrounding/ existing community or resident due to development
- Existing stakeholders and NGOs
- Breach of human rights

#### **Submitter**

Township

#### **Potential Evidence**

- Review and approved Risk Register/ Risk Management System
- Environmental Aspect & Impact (EA&I)

#### **Scoring Criteria**

As stated in table above.



# SCORING GUIDELINE

Category

Sustainable Design & Construction

Aspect

Carbon and Energy Factors

PLANET

SDP 2030  
SUSTAINABILITY GOALS

CODE	INDICATOR	TYPE	SCORE 1	SCORE 2	SCORE 3
EN6	Carbon and Energy Management	ND	1) Sustainability strategy for carbon and energy management cited cover operational and non-operational 2) Evidence on engagement with vendors to roll-out carbon and energy management	1) Sustainability strategy for carbon and energy management cited cover operational and non-operational 2) Evidence on engagement with vendors to roll-out carbon and energy management 2) Draft contract documents include clauses for provision of carbon data for carbon disclosure	1) Sustainability strategy for carbon and energy management cited cover operational and non-operational 2) Evidence on engagement with vendors to roll-out carbon and energy management 2) AND Final contract/tender documents include clauses for provision of carbon data for carbon disclosure
		OD & MD	1) Submission of accurate and on-time CFP data 2) AND Supporting documents submitted	1) Submission of accurate and on-time CFP data 2) AND Supporting documents submitted 3) AND All main and sub-contracts as relevant have clauses for the provision of carbon data for carbon disclosure 4) AND A plan for reducing operational carbon and energy intensity cited	1) Submission of accurate and on-time CFP data 2) AND Supporting documents submitted 3) AND All main and sub-contracts as relevant have clauses for the provision of carbon data for carbon disclosure 4) AND A plan for reducing operational carbon and energy intensity cited 6) AND Previous year carbon intensity reduction achieved

**Indicator’s Intent**

Energy intensity expresses the energy required per unit of activity, output, or any other organization-specific metric. An organization’s ability to use energy efficiently can be revealed by its reductions in energy consumption. Energy consumption has a direct effect on the environmental footprint of the organization, its operational costs, and exposure to fluctuations in energy supply and prices.

**Submitter**

Township

**Potential Evidence**

1. Carbon footprint data & relevant supporting evidence
2. Contract documents
3. List of action plans to reduce carbon and energy intensity

**Scoring Criteria**

As stated in table above

**GOAL 18**  
Operational Eco-efficiency  
30% intensity reduction in operational carbon, water & waste; 30% intensity increase in operational recycling



# SCORING GUIDELINE

PEOPLE

Category

Society & Security

Aspect

Crime Prevention Through Environmental Design

CODE	INDICATOR	TYPE	SCORE 1	SCORE 2	SCORE 3
SO22	CPTED elements in layout planning, technology & management in private area	ND, OD & MD	Adoption of 2 CPTED elements / active phase	Adoption of 4 CPTED elements / active phase	Adoption of 6 CPTED elements / active phase

## Indicator's Intent

This indicator assesses the layout design of the product to ensure crime prevention has been taken into account in the design. CPTED should be incorporated in planning, technology and management.

## Submitter

Township

## Potential Evidence

In-phase layout plan

## Element Examples

### A. Planning

1. Promote passive surveillance by siting buildings to have their active habitable zones facing the public domain (streets, public open spaces, etc.).
2. Where possible, activate rear lanes by providing usable rear yards / open spaces to ensure passive surveillance.
3. Maximize visibility within building setback zones to promote passive surveillance.
4. Maximize passive surveillance by ensuring entry is visible and landscape design and fences do not obstruct visibility between private and public domains.
5. Allow for privacy between dwellings and public footpaths, while not obstructing views of the building façade or compromising street surveillance
6. Maximize visibility and passive surveillance by avoiding protruding walls or elements that may obscure sight lines
7. Avoid blind corners and dark, non-visible areas
8. Ensure that screening does not impact on passive surveillance.
9. Ensure visibility of driveways by minimizing heavy landscaping or hedges that create blind corners or provide places for intruders to hide. Ensure that the house perimeter/compound is safe and secure despite the openings provided.
10. Security at critical areas of the home such as main entrances is ensured by using durable materials and fittings.

### **Scoring Criteria (Continue)**

Score(s) is awarded for incorporation of ANY following element(s) below:

#### **B. Technology**

1. Panic button
2. Smoke detector
3. CCTV
4. Motion sensor
5. Magnetic contact points to external doors & windows
6. Security alarm system
7. Electric fence
8. Motion sensor (photo beam) perimeter fence

#### **C. Management**

1. Security guards
2. Boom gate
3. CCTV monitoring
4. Access card / RFID system
5. Perimeter fence
6. Intercom
7. Connectivity to police station
8. Connectivity to security provider company
9. Community "rukun-tetangga" setup

### **Interpretation**

An assessor best judgment shall be applied when a township is claiming the same set of elements for the score year after year, and where the assessor feels and can justify that the maintenance of CPTED elements provided are not being continued or where the assessor feels and can justify that the township geographical growth is not being matched with the current CPTED elements then the set of elements may not be considered.

Computation Flow

Documentation Review: Sample Calculation (70% max)				
Indicator Example	Scoring Range	Sample Score	Calculation	Unweighted Score
EC8 (Low Weightage Indicator)	0 to 3	2	$2/3 \times 0.7\%$	0.47%
EC10 (High Weightage Indicator)	0 to 3	3	$3/3 \times 1.5\%$	1.5%

**Sample Weighted Score: 53.7%**

Calibration Site Visit: Sample Calculation (30% max)						
Township	Accessibility	Security	Drainage	Authorities & Utility Companies	Environment	Health
Township X	<u>12</u> 15	<u>14</u> 18	<u>4</u> 6	<u>7</u> 9	<u>17</u> 27	<u>11</u> 12
	Safety	Workers Human Rights	Community Civic Amenities	Exceptional Features	General Cleanliness & Maintenance	
	<u>10</u> 12	<u>3</u> 6	<u>12</u> 12	<u>2</u> 6	<u>4</u> 6	

**Legend:**  
 X -> Actual score  
 Y -> Max Score

Score Achieved	Maximum Score	Weighted Score (%)
96	129	22.1

<b>Document Review Assessment (Weighted)</b>	<b>53.7%</b>
<b>Calibration Site Visit Assessment (Weighted)</b>	<b>22.1%</b>
<b>Final Result</b>	<b>75.8%</b>

