

[CompanyName]

Electrical Construction

Quality Assurance/Quality Control Plan

[ProjectName]
[ProjectNumber]

Management acceptance

This Construction Quality Assurance/Quality Control Plan has been reviewed and accepted.

Endorsed By: (Name / Title)	[QualityManagerName], Quality Manager		
Signature:	<i>[QualityManagerName]</i>	Date:	[Date]
Version	1.0	Notes	Initial Issue

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SIGNATURE SHEET

Plan Preparer

This [CompanyName] Project Quality Assurance/Quality Control Plan was prepared in accordance with the contract specifications and requirements of the [CompanyName] quality system and approved by:

[QualityManagerName] / [Date]

[QualityManagerName], Quality Manager /Date

Approval by Company Officer

This [CompanyName] Project Quality Assurance/Quality Control Plan is approved by:

[PresidentName] / [Date]

[PresidentName] President /Date

Plan Concurrence

[CompanyName] Project Quality Assurance/Quality Control Plan concurrence by:

[ProjectManagerName] / [Date]

[ProjectManagerName], Project Manager /Date

[SuperintendentName] / [Date]

[SuperintendentName], Superintendent /Date

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SECTION 1: PROJECT-SPECIFIC ELECTRICAL QUALITY PLAN

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BACKGROUND INFORMATION

CUSTOMER

[CustomerName]

PROJECT NAME

[ProjectName]

PROJECT NUMBER

[ProjectNumber]

PROJECT LOCATION

[Insert Location of Project Work Here]

OVERALL PROJECT DESCRIPTION

[Insert Overall Project Description Here]

[COMPANYNAME] SCOPE OF WORK

[Insert Scope of Work for This Contract Here]

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F. DUTIES, RESPONSIBILITIES, AND AUTHORITY OF QC PERSONNEL

QC personnel assigned to this project have the duties, responsibilities and authority defined by their job position.

Each appointment is recorded on a Letter of Appointment. The project-specific Letter of Appointment exhibits are included as exhibits in this subsection. Key project personnel have accepted their appointments and declared their ability to carry out the appointments as indicated by their signature.

VICE PRESIDENT: QUALITY DUTIES, RESPONSIBILITIES, AND AUTHORITY

The Vice President is responsible for ensuring company-wide effectiveness of the Quality System. Regardless of other duties, the Vice President is responsible for:

- Fully implementing all provisions of the [CompanyName] Quality System and related documents.
- Manage the operation of the [CompanyName] Quality System
- Implement and manage all phases of quality control
- Ensuring that the Quality System is established and implemented by persons doing work that impacts quality
- Ensuring that the Quality System is maintained
- Acting as [CompanyName] liaison with parties outside the company on matters relating to quality
- Review and approval of all Quality System documents

QUALITY MANAGER: QUALITY DUTIES, RESPONSIBILITIES, AND AUTHORITY

The Quality Manager is responsible for ensuring the overall effectiveness of the Quality System for a specific project. Regardless of other duties, the Quality Manager is responsible for:

- Planning project quality controls required by the [CompanyName] quality systems and contract requirements
- Fully implementing all provisions of the [CompanyName] Quality System and related documents on the project.
- Manage the operation of the [CompanyName] Quality System on the project.
- Implement and manage all phases of quality control
- Communicating project-specific quality requirements to all affected departments, subcontractors and suppliers, and customers
- Ensuring that the Quality System is established and implemented by persons doing work that impacts quality

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- review and approval of all project quality system records
- Review and approval of project quality-related contract submittals
- Managing all project inspection and quality control activities
- Controlling corrective actions
- Resolving quality nonconformances

The Quality Manager has the authority to:

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- Stop work when continuing work may adversely affect quality or cover up a defect
- Prevent the use of equipment or materials that may adversely affect quality or cover up a defect
- To direct the removal and replacement of any non-conforming work, equipment, or material by [CompanyName], any subcontractor, or any supplier.
- Suspend work and/or supply of materials by any staff member, subcontractor personnel, or supplier as deemed necessary to assure quality results.

Alternate Quality Managers acting in the role of the project Quality Manager has the same quality duties, responsibilities and authority as the project Quality Manager.

SUPERINTENDENT: QUALITY DUTIES, RESPONSIBILITIES, AND AUTHORITY

A Superintendent verifies that work performed by subcontractors and suppliers and [CompanyName] work crews conforms to [CompanyName] quality standards. The Vice President appoints one or more Superintendents for each project.

A Superintendent has specific responsibilities for:

- Ensuring that work meets government regulatory and code requirements, customer requirements, contract requirements, contract technical specifications, contract drawings, approved contract submittals, and company quality standards and specifications
- Ensuring that subcontractors and suppliers begin work in accordance with [CompanyName] start-work policies
- Ensuring that subcontractors and suppliers receive a notice to work only when conditions will not adversely affect quality results
- Conducting quality inspections, tests, and recording findings
- Accurately assessing subcontractor quality and on-time performance
- Ensuring that quality standards are achieved before approving subcontractor or work crew completion of work

The Superintendent has the authority to:

- Stop work when continuing work may adversely affect quality or cover up a defect
- Prevent the use of equipment or materials that may adversely affect quality
- Direct the removal or replacement of any non-conforming work, equipment, or material
- Suspend work and/or supply of materials as deemed necessary to assure quality results

Alternate Superintendent has the same quality duties, responsibilities and authority as the Superintendent. Multiple Superintendents may be assigned to the project.

PROJECT MANAGER: QUALITY DUTIES, RESPONSIBILITIES, AND AUTHORITY

The Project Manager is the one person responsible for management of a specific project. Regardless of other duties, the Project Manager is responsible for:

- Demonstrating commitment to the [CompanyName] Quality System and its integrity
- Ensuring achievement of project quality objectives

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- Conducting management reviews of the [CompanyName] Quality System
- Ensuring the availability of necessary resources and information for effective operation of the [CompanyName] Quality System

The Project Manager has authority to:

- Stop work when continuing work adversely affects quality or covers up a defect
- Prevent the use of equipment or materials that would adversely affect quality or cover up a defect

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- Conformance to project quality requirements
- Compliance with the project quality plan
- Meeting or exceeding all applicable regulations, codes, industry standards, and manufacturer specifications as well as meeting or exceeding our customers' contract and individual requirements.
- Fully implementing and complying with all provisions of the [CompanyName] Quality Manual.

All employees have the authority to:

- Stop work when continuing work may adversely affect quality or cover up a defect
- Prevent the use of equipment or materials that may adversely affect quality

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K. MATERIAL INSPECTION TRACEABILITY AND QUALITY CONTROLS

Products and materials are controlled to assure the use of only correct and acceptable items. Controls include identification of the inspection status. Materials that require lot control traceability and the method of traceability are listed on the Controlled Materials form included as an exhibit in this subsection.

IDENTIFICATION OF LOT CONTROLLED MATERIALS

The Quality Manager determines types of project materials that require quality controls.

For each type of quality-controlled material, the Quality Manager determines lot control traceability requirements, if any, and specifies the means of lot identification. Identification methods may include physical labels, tags, markings and/or attached certification documents.

When lot-controlled materials are received, the Superintendent verifies that materials have the specified lot identifications.

The Superintendent maintains lot identification at all production phases from receipt, through production, installation, or assembly, to final completion. Acceptable methods for preserving lot identification include physically preserving observable lot identifications, recording the lot identification on a work task quality inspection form or other work record, or collecting the physical lot identifier as a record along with supplemented with location.

If lot-controlled materials are without lot identification, the Superintendent deems the materials as nonconforming and segregates them and/or clearly marks them to prevent inadvertent use. The Superintendent treats the material according to the company policy for nonconformances. Only the Quality Manager can re-identify or re-certify the materials.

MATERIAL RECEIVING AND INSPECTION

When lot-controlled materials are received, the Operations Manager inspects the materials and verifies that materials have the specified lot identifications. Received materials are listed on the Material Receiving and Inspection Report form or Metals Materials Receiving, and Inspection form included as an exhibit in this subsection.

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The Superintendent ensures that each work task that uses the source inspected materials proceed only after the material has been accepted by the material quality inspection or test.

[CompanyName] Metals Material Receiving Inspection Report <small>Version 1.0/ [Date]</small>				
Project ID	Project Name	P.O.#	Supplier	Receipt Date
[ProjectNumber]	[ProjectName]			
Type of Material (i.e., steel plate)	Material Description (Nominal dimensions)	Heat Number/ Serial Number/Markings	Condition / Damage	Color Code Marking
Receiving Inspector Approval Signature / Date		Government Representative Name/Approval Date		
				<input type="checkbox"/> Material Receiving Inspection Passed

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L. ELECTRICAL INSPECTION AND TEST PLAN

The Quality Inspection and Test Plan form lists inspections and tests (other than work task inspections) that will be performed on this project.

Results of inspections and tests will be recorded on the Inspection and Test Form.

Form exhibits are included as an exhibit in this subsection.

INSPECTION AND TESTING ELECTRICAL STANDARDS

Inspection and testing standards that may apply to this project include those listed below.

Description	Reference Standard No.	Reference Standard Title
Direct-current high-potential test for conductors	IEEE 400.2	Guide for Field Testing of Shielded Power Cable Systems Using Very Low Frequency (VLF)
Visual and mechanical inspections and electrical tests	NETA ATS	Standard for Acceptance Testing Specifications for Electrical Power Equipment and Systems
Ground rod resistance to ground	IEEE 81	Guide for Measuring Earth Resistivity, Ground Impedance, and Earth Surface Potentials of a Ground System
Telecommunications cabling inspection, verification, and performance tests	TIA-568-C.1	Commercial Building Telecommunications Cabling Standard
Optical fiber end-to-end attenuation tests	TIA-568-C.3	Optical Fiber Cabling Components Standard
Fiber optic cables power budget and bandwidth	TIA-455-78-B	FOTP-78 Optical Fibres - Part 1-40: Measurement Methods and Test Procedures – Attenuation
Intercommunication system intelligibility test	ASA S3.2	Method for Measuring the Intelligibility of Speech Over Communication Systems
Optical time domain reflectometer tests	TIA-455-78-B	FOTP-78 Optical Fibres - Part 1-40: Measurement Methods and Test Procedures - Attenuation
Ground resistance testing	IEEE 81	Guide for Measuring Earth Resistivity, Ground Impedance, and Earth Surface Potentials of a Ground System
Preliminary and acceptance testing	NFPA 72	National Fire Alarm and Signaling Code
Carbon monoxide detector testing	UL 2034	Single and Multiple Station Carbon Monoxide Alarms
Testing of duct smoke detectors	NFPA 72	National Fire Alarm and Signaling Code
Combustible gas detector preliminary and acceptance testing	ANSI/ISA 12.13.01	Performance Requirements for Combustible Gas Detectors

CALIBRATION OF INSPECTION, MEASURING, AND TEST EQUIPMENT

The Quality Manager determines inspection, measuring, and test equipment that will be controlled, calibrated, and maintained.

Records of calibrations will be maintained including calibration certificates documenting of traceability to national standards.

A list of controlled and calibrated test equipment is listed on the Test Equipment Calibration Plan and Log included as an exhibit in this subsection.

The Quality Manager evaluates the project requirements and determines if there are measuring devices that require controls to assure quality results.

For each type of device, the Quality Manager identifies:

- Restrictions for selection
- Limitations on use.
- Calibration requirements including the frequency of calibration. All calibrations must be traceable to national measurement standards.

When a measurement device is found not to conform to operating tolerances, the Quality Manager validates the accuracy of previous measurements.

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[CompanyName]
Inspection and Test Plan and Log

Version 1.0/ [Date]

Project Number	Project Name	
[ProjectNumber]	[Project Name]	

Item	Spec #	Specifications Section	Subsection	Inspections & Tests Required	Frequency	Inspection-Test By <small>(All tests verified by Superintendent and/or QC Manager)</small>	Date Completed	Date Forwarded to Client.	Remarks
1.									
2.									
3.									
4.									
5.									
6.									
7.									
8.									
9.									
10.									
11.									
12.									
13.									
14.									
15.									
16.									

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N. CONTROL OF CORRECTIONS AND NONCONFORMANCES

Should a problem occur in the quality of work, we systematically contain the issue and quickly make corrections. Our first action is to clearly mark the item by tape, tag, or other easily observable signal to prevent inadvertent cover-up.

Then we expedite a corrective action that brings the workmanship or material issue into conformance by repair, replacement, or rework. Previously completed work is reinspected for similar nonconformances. If we cannot correct the item to meet contract specifications, the customer will be notified, and customer approval of corrective actions is required before proceeding.

Fixing problems found is not sufficient. [CompanyName] systematically prevents recurrences to improve quality. First enhanced controls and management monitoring are put into place to assure work proceeds without incident. Then using a structured problem-solving process, [CompanyName] identifies root causes and initiates solutions. Solutions may involve a combination of enhanced process controls, training, upgrading of personnel qualifications, improved processes, and/or the use of higher-grade materials. Follow-up ensures that a problem is completely resolved. If problems remain, the process is repeated.

Nonconformances and their resolution are recorded on a Nonconformance Report form. A Nonconformance Report form exhibit is included in this subsection.

MARKING OF NONCONFORMANCES AND OBSERVATIONS

When the Quality Manager, Superintendent, inspector, or customer identifies a nonconformance or an observation, the item is quickly and clearly marked by tape, tag, or other easily observable signal to prevent inadvertent cover-up.

CONTROL THE CONTINUATION OF WORK

After the item is marked, the Superintendent determines if work can continue in the affected area:

CONTINUE WORK: When continuing work does not adversely affect quality or hide the defect, work may continue in the affected area while the disposition of the item is resolved. The Superintendent may place limitations on the continuation of work.

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RECORDING OF NONCONFORMANCES

If nonconformances or observed items exist by the work task completion inspection, the Superintendent or inspector records the nonconformances on a nonconformance report.

The Superintendent sends the nonconformance report to the Quality Manager.

QUALITY MANAGER DISPOSITION OF NONCONFORMANCE REPORTS

When the Quality Manager receives a Nonconformance Report, he or she assesses the affect the reported nonconformance has on form, fit, and function. The Quality Manager may assign a disposition of either:

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REWORK: The nonconformance can be made acceptable for its intended use, even though it is not restored to a condition that meets all specification requirements. The Quality Manager may specify standards that apply to the completion of rework. Rework nonconformances must be approved by the customer.

USE AS-IS: When the nonconforming item is satisfactory for its intended use. Any use as-is items that do not meet all specification requirements must be approved by the customer.

CORRECTIVE ACTIONS

The Superintendent verifies that corrective actions eliminate the nonconformance to the requirements of the original specifications or as instructed by the disposition of the nonconformance report, and then removes, obliterates, or covers the nonconformance marker.

Furthermore, the Superintendent ensures that previously completed work is reinspected for similar nonconformances and corrective actions are taken to avert future occurrences (see section 9.3 Corrective Actions).

CONTROL OF CORRECTIVE ACTIONS

When a nonconformance is found, the Superintendent ensures that:

- Previously completed work is reinspected for similar nonconformances
- Corrective actions are taken to avert future occurrences

The Quality Manager identifies requirements for corrective actions with respect to frequency, severity, and detectability of quality nonconformances items found during and after completion of work activities.

When a solution requires changes to [CompanyName] quality standards, the Quality Manager makes modifications as necessary by making changes to:

- Material specifications
- Personnel qualifications
- Subcontractor and Supplier qualifications
- Company standards
- Inspection processes

CORRECTIVE ACTION TRAINING

The Superintendent initiates corrective action training to address quality nonconformances. Personnel and subcontractors and suppliers performing or inspecting work participate in the training.

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Heightened awareness during quality inspections verifies and documents compliance with the corrective action improvement items. A qualified Superintendent inspects corrective actions during regular quality inspections and records observations on the quality inspection form.

The Superintendent notifies affected subcontractors and suppliers of selected preventive action training requirements.

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preventive action.

NONCONFORMANCE PREVENTIVE ACTIONS

Fixing problems found during quality inspections is not sufficient. Systematic prevention of recurrences is essential for improving quality.

[CompanyName] makes changes to solve the problem. Solutions may involve a combination of enhanced process controls, training, upgrade personnel qualifications, improved processes, or use of higher-grade materials.

Follow-up ensures that a problem is completely resolved. If problems remain, the process is repeated.

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[CompanyName] Nonconformance Report <small>Version 1.0/ [Date]</small>		
Nonconformance Report Control ID	Project ID	Project Name
	[ProjectNumber]	[ProjectName]
Preparer Signature/ Submit Date	Quality Manager Signature / Disposition Date	
Description of the requirement or specification		
Description of the nonconformance, location, affected area, and marking		
Disposition	<input type="checkbox"/> Replace <input type="checkbox"/> Repair <input type="checkbox"/> Rework <input type="checkbox"/> Use As-is	
	Approval of disposition required by customer representative? Yes <input type="checkbox"/> No <input type="checkbox"/>	
	Customer approval signature /date: _____	
Corrective Actions	<input type="checkbox"/> Corrective actions completed Name/Date: _____ Customer acceptance of corrective actions required? Yes <input type="checkbox"/> No <input type="checkbox"/> Name/Date: _____	
Preventive Actions	<input type="checkbox"/> Preventive actions completed Name/Date: _____	

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ELECTRICAL INSPECTION CHECKLIST

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Communications - Cable Trays for Communications Systems 27.05.36
Communications - Structured Cabling 27.10.00
Communications - Communications Equipment Room Fittings 27.11.00
Communications - Communications Backbone Cabling 27.13.00
Communications - Audio-Video Communications 27.40.00
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Electrical - Electrical and Cathodic Protection 26.40.00
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Electrical - Exterior Lighting 26.56.00
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Electrical - Identification for Electrical Systems 26.05.53
Electrical - Interior Lighting 26.51.00
Electrical - Low-Voltage Circuit Protective Devices 26.28.00
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Electronic Safety and Security - Conductors and Cables for Electronic Safety and Security 28.05.13
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Electronic Safety and Security - Electronic Surveillance 28.20.00
Electronic Safety and Security - Fire Detection and Alarm 28.31.00
Electronic Safety and Security - Mass Notification Systems 28.39.00
Electronic Safety and Security - Pathways for Electronic Safety and Security 28.05.28

Electrical - Conduit for Electrical Systems 26.05.33.13

Project:	Phase:	Contract#:	Subcontractor:	Crew:
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<u>Compliance Verification</u>	<u>YES NO Heightened Awareness Checkpoints</u>
<input type="checkbox"/> Compliance with initial job-ready requirements	<input type="checkbox"/> <input type="checkbox"/> Cuts for Conduits in structural members approved by ENGINEER
<input type="checkbox"/> Compliance with material inspection and tests	<input type="checkbox"/> <input type="checkbox"/> Firestops installed at penetrations through fire partitions// fire walls// smoke partitions// or floors
<input type="checkbox"/> Compliance with work in process first article inspection requirements	<input type="checkbox"/> <input type="checkbox"/> Penetrations through floor// exterior wall and roof sealed and made watertight
<input type="checkbox"/> Compliance with work in process inspection requirements	<input type="checkbox"/> <input type="checkbox"/> Excess wiring// insulation// ties// etc. removed from Conduits
<input type="checkbox"/> Compliance with Task completion inspection requirements	<input type="checkbox"/> <input type="checkbox"/> Conduits secured to prevent movement and chafe
<input type="checkbox"/> Compliance with inspection and test plan	<input type="checkbox"/> <input type="checkbox"/> Remaining snake lines labeled at both ends
<input type="checkbox"/> Compliance with safety policies and procedures	<input type="checkbox"/> <input type="checkbox"/> Conduit bends do not exceed minimum for size of Conduit used and are even
Reported Nonconformances and incomplete items:	<input type="checkbox"/> <input type="checkbox"/> Metal Conduits bonded and grounded
	<input type="checkbox"/> <input type="checkbox"/> Conduits are mechanically continuous
	<input type="checkbox"/> <input type="checkbox"/> Flexible connections to equipment subject to vibrations

FTQ Scores and Completion Sign-off

Field Mgmt.-91.45.01

Quality 5 4 3 2 1 *Notes:*

On-Time 5 4 3 2 1 *Notes:*

Safety 5 4 3 2 1 *Notes:*

Sign and date*: Cell # / ID #: _____ Signed: _____ Date: _____

Task has been verified complete and in compliance with contract drawings and specifications except for non-conformances and incomplete items reported above.

Quality Score	5 = 100% NO problems	4 = 1 minor problem	3 = Hotspot or 2-3 minor	2 = 6+ or major problems	1 = Excessive problems
On-Time Score	5 = On Time	4 = Late	3 = Late by 1 day	2 = Late by 2 days	1 = Late more than 2 days
Safety Score	5 = 100% NO problems	4 = 1 minor problem	3 = Hotspot or 2-3 minor	2 = 4+ or major problem	1 = Injury

Electrical - Electrical and Cathodic Protection 26.40.00

Project:	Phase:	Contract#:	Subcontractor:	Crew:
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<p><u>Compliance Verification</u></p> <p><input type="checkbox"/> Compliance with initial job-ready requirements</p> <p><input type="checkbox"/> Compliance with material inspection and tests</p> <p><input type="checkbox"/> Compliance with work in process first article inspection requirements</p> <p><input type="checkbox"/> Compliance with work in process inspection requirements</p> <p><input type="checkbox"/> Compliance with Task completion inspection requirements</p> <p><input type="checkbox"/> Compliance with inspection and test plan</p> <p><input type="checkbox"/> Compliance with safety policies and procedures</p> <p>Reported Nonconformances and incomplete items:</p>	<p style="text-align: center;">YES NO <u>Heightened Awareness Checkpoints</u></p> <p><input type="checkbox"/> <input type="checkbox"/> Anti-oxidant paste applied to connections of dissimilar metals</p> <p><input type="checkbox"/> <input type="checkbox"/> Connections tight and free of corrosion// paint// and other non-conductive materials</p> <p><input type="checkbox"/> <input type="checkbox"/> Ground rods / plates not located in rock or stone fill</p> <p><input type="checkbox"/> <input type="checkbox"/> Conductors secured to prevent movement and chafe</p> <p><input type="checkbox"/> <input type="checkbox"/> Multi-strand wire or strap connectors utilized on movable connections</p> <p><input type="checkbox"/> <input type="checkbox"/> System tested for continuity</p> <p><input type="checkbox"/> <input type="checkbox"/> Grounding conductors routed in most direct path possible</p> <p><input type="checkbox"/> <input type="checkbox"/> No sharp bends or turns in conductors</p> <p><input type="checkbox"/> <input type="checkbox"/> Underground and submerged splices made waterproof</p> <p><input type="checkbox"/> <input type="checkbox"/> Anodes not supported by lead wiring</p> <p><input type="checkbox"/> <input type="checkbox"/> Anodes not located in rock or stone fill</p>
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FTQ Scores and Completion Sign-off

Quality	5	4	3	2	1	Notes:
<hr style="border-top: 1px dashed black;"/>						
On-Time	5	4	3	2	1	Notes:
<hr style="border-top: 1px dashed black;"/>						
Safety	5	4	3	2	1	Notes:
<hr style="border-top: 1px dashed black;"/>						

Sign and date*: Cell # / ID #: _____ Signed: _____ Date: _____

Task has been verified complete and in compliance with contract drawings and specifications except for non-conformances and incomplete items reported above.

<u>Quality Score</u>	5 = 100% NO problems	4 = 1 minor problem	3 = Hotspot or 2-3 minor	2 = 6+ or major problems	1 = Excessive problems
<u>On-Time Score</u>	5 = On Time	4 = Late	3 = Late by 1 day	2 = Late by 2 days	1 = Late more than 2 days
<u>Safety Score</u>	5 = 100% NO problems	4 = 1 minor problem	3 = Hotspot or 2-3 minor	2 = 4+ or major problem	1 = Injury

Electrical - Enclosed Bus Assemblies 26.25.00

Project:	Phase:	Contract#:	Subcontractor:	Crew:
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<p><u>Compliance Verification</u></p> <p><input type="checkbox"/> Compliance with initial job-ready requirements</p> <p><input type="checkbox"/> Compliance with material inspection and tests</p> <p><input type="checkbox"/> Compliance with work in process first article inspection requirements</p> <p><input type="checkbox"/> Compliance with work in process inspection requirements</p> <p><input type="checkbox"/> Compliance with Task completion inspection requirements</p> <p><input type="checkbox"/> Compliance with inspection and test plan</p> <p><input type="checkbox"/> Compliance with safety policies and procedures</p> <p>Reported Nonconformances and incomplete items:</p>	<p style="text-align: center;">YES NO <u>Heightened Awareness Checkpoints</u></p> <p><input type="checkbox"/> <input type="checkbox"/> All sections of metal Busway grounded and bonded</p> <p><input type="checkbox"/> <input type="checkbox"/> Busway expansion joints installed where building expansion joints are traversed</p> <p><input type="checkbox"/> <input type="checkbox"/> Firestops installed at penetrations through fire partitions// fire walls// smoke partitions// or floors</p> <p><input type="checkbox"/> <input type="checkbox"/> Penetrations through exterior wall and roof sealed and made watertight</p> <p><input type="checkbox"/> <input type="checkbox"/> Busway run level and plumb</p> <p><input type="checkbox"/> <input type="checkbox"/> Busway mounted securely to structural members and free of sway / rotation</p> <p><input type="checkbox"/> <input type="checkbox"/> Busway sections// joint covers// bends// transitions// plug-ins// end caps// etc. securely connected</p> <p><input type="checkbox"/> <input type="checkbox"/> All joints accessible (not within wall or floor penetrations)</p> <p><input type="checkbox"/> <input type="checkbox"/> Minimum clearances observed</p> <p><input type="checkbox"/> <input type="checkbox"/> Busway megger tested prior to energizing</p>
---	---

FTQ Scores and Completion Sign-off

Field Mgmt.-91.45.01

Quality 5 4 3 2 1 *Notes:*

On-Time 5 4 3 2 1 *Notes:*

Safety 5 4 3 2 1 *Notes:*

Sign and date*: Cell # / ID #: _____ Signed: _____ Date: _____

Task has been verified complete and in compliance with contract drawings and specifications except for non-conformances and incomplete items reported above.

<u>Quality Score</u>	5 = 100% NO problems	4 = 1 minor problem	3 = Hotspot or 2-3 minor	2 = 6+ or major problems	1 = Excessive problems
<u>On-Time Score</u>	5 = On Time	4 = Late	3 = Late by 1 day	2 = Late by 2 days	1 = Late more than 2 days
<u>Safety Score</u>	5 = 100% NO problems	4 = 1 minor problem	3 = Hotspot or 2-3 minor	2 = 4+ or major problem	1 = Injury

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Electrical - Identification for Electrical Systems 26.05.53

Project:	Phase:	Contract#:	Subcontractor:	Crew:
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<p><u>Compliance Verification</u></p> <p><input type="checkbox"/> Compliance with initial job-ready requirements</p> <p><input type="checkbox"/> Compliance with material inspection and tests</p> <p><input type="checkbox"/> Compliance with work in process first article inspection requirements</p> <p><input type="checkbox"/> Compliance with work in process inspection requirements</p> <p><input type="checkbox"/> Compliance with Task completion inspection requirements</p> <p><input type="checkbox"/> Compliance with inspection and test plan</p> <p><input type="checkbox"/> Compliance with safety policies and procedures</p> <p>Reported Nonconformances and incomplete items:</p>	<p style="text-align: center;">YES NO <u>Heightened Awareness Checkpoints</u></p> <p><input type="checkbox"/> <input type="checkbox"/> Labels and markers are permanent</p> <p><input type="checkbox"/> <input type="checkbox"/> Labels are securely mounted or attached</p> <p><input type="checkbox"/> <input type="checkbox"/> Cabling and wiring labeled on both ends</p> <p><input type="checkbox"/> <input type="checkbox"/> Label material compatible with operational environment</p> <p><input type="checkbox"/> <input type="checkbox"/> Names of rooms approved by OWNER before labels are purchased or mounted</p> <p><input type="checkbox"/> <input type="checkbox"/> Instruction and warning signs are clearly located</p> <p><input type="checkbox"/> <input type="checkbox"/> Panel circuit schedules complete and accurate</p> <p><input type="checkbox"/> <input type="checkbox"/> Wiring schematics supplied to the OWNER</p>
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FTQ Scores and Completion Sign-off

Quality	5	4	3	2	1	Notes:
On-Time	5	4	3	2	1	Notes:
Safety	5	4	3	2	1	Notes:

Sign and date*: Cell # / ID #: _____ Signed: _____ Date: _____

Task has been verified complete and in compliance with contract drawings and specifications except for non-conformances and incomplete items reported above.

<u>Quality Score</u>	5 = 100% NO problems	4 = 1 minor problem	3 = Hotspot or 2-3 minor	2 = 6+ or major problems	1 = Excessive problems
<u>On-Time Score</u>	5 = On Time	4 = Late	3 = Late by 1 day	2 = Late by 2 days	1 = Late more than 2 days
<u>Safety Score</u>	5 = 100% NO problems	4 = 1 minor problem	3 = Hotspot or 2-3 minor	2 = 4+ or major problem	1 = Injury

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