



Fibreoptic Industry Association
DOCUMENT No: FIA/QPT/1/95

FIBRE OPTIC INSTALLATION QUALITY PLAN PRO-FORMA

A complete set of documentation providing an easy-to-use checklist to allow the development of a Quality Plan associated with an Installation Specification

QUALITY PLAN PRO-FORMA

Quality Plan Pro-forma (QPP) has been produced in response to requests from the FIA membership for a form of checklist to aid in the development of an Quality Plan in response to an Installation Specification.

The QPP is used as a checking mechanism to ensure that the Installation Specification contains all the appropriate information and also that the response from the Installer in line with the requirements of the Installation Specification.

The QPP divides the Quality Plan into twelve areas:

| | |
|--------------------|---|
| General: | SITE INFORMATION |
| Section 0: | SYSTEM DESIGN |
| Section 1: | PATHWAY ANALYSIS |
| Section 2: | CIVILS |
| Section 3: | PATHWAY FIXTURES |
| Section 4: | HEALTH, SAFETY, REGULATIONS AND LEGISLATION |
| Section 5: | OPTICAL CABLE SPECIFICATION |
| Section 6: | OPTICAL FIBRE SPECIFICATION |
| Section 7: | INSTALLATION REQUIREMENTS |
| Section 8: | CLOSURES AND TERMINATION |
| Section 9: | TEST SCHEDULE (Stages 1 and 2) |
| Section 10: | DOCUMENTATION |
| Section 11: | PROGRAMME DEFINITION |

The QPP contains eight sheets or templates which relate to these sections and can used as required. The use of these sheets, as with all other associated FIA publications, is intended to assist in the development of smooth running and well specified projects. Their use is in no way mandatory.

SITE INFORMATION

One of these templates may be used per project.

OTHER SHEETS

All of the remaining sheets have the same format. This format allows the Installer to accept the requirements of the Installation Specification to be accepted as they stand (ACCEPT column), seek further information (QUERY column), specify any action required on behalf of the user, installer or a third party (ACTION column) or just to make notes (COMMENTS column).

Quality Plan: Site Information

| Contract Details | |
|-------------------------|--|
| Site Name | |
| Site Address | |
| Site Contact: Name | |
| Site Contact: Phone/Fax | |
| Installer Name | |
| Installer Bid Contact | |

| | |
|---------------------|--|
| Quotation Reference | |
| Order Reference | |
| Contract File | |
| Contract Reference | |
| Delivery Site | |
| Delivery Address | |

| Tender / Scope Details | |
|------------------------|--|
| Tender Date | |
| Adjudication Date | |
| Commence Date | |
| Completion Date | |

| | |
|-------------------------------|--|
| IEE Model Form 1 | |
| JTC 80 | |
| Specific Terms and Conditions | |
| Indemnities | |
| Insurance's | |
| Defects liability | |
| Financing Required | |
| Liabilities | |

| | |
|--------------------|--|
| Installation Grade | |
| Testing Grade | |

| Design Information | |
|--------------------|--|
| Topology | |
| Nodal Positions | |
| Nodal Access | |
| Expansion | |
| Resilience | |

| | |
|------------------------|--|
| Operational Lifetime | |
| Applications Supported | |
| Maintenance Policy | |

Quality Plan Section 0: System Design

| | Accept | Query | Action | Comments |
|----------------------|--------|-------|--------|----------|
| Topology | | | | |
| Optical Loss Budgets | | | | |
| Application Support | | | | |
| Hazards | | | | |
| Programme | | | | |
| Resource Allocation | | | | |
| Scope of Works | | | | |
| Terms and Conditions | | | | |

Quality Plan Section 1: Pathway Analysis

| | Accept | Query | Action | Comments |
|---|--------|-------|--------|----------|
| Nodal Locations | | | | |
| Pre-installed Pathways | | | | |
| Pathway Hazards | | | | |
| Pathway Environments | | | | |
| Pathway Availability against Programme | | | | |
| Safety Measures | | | | |
| Site Training and Procedures in Operation | | | | |

Quality Plan Section 2: Civils

| | Accept | Query | Action | Comments |
|---|--------|-------|--------|----------|
| Correct Design | | | | |
| Components | | | | |
| Size | | | | |
| Finish | | | | |
| Complete | | | | |
| Made Good with Reinstatement | | | | |
| Seals & Barriers Reinstated | | | | |
| Available and Accessible for Cabling | | | | |
| Guarding / Warning, Health & Safety Compliance | | | | |

Quality Plan Section 3: Pathway Fixtures

| | Accept | Query | Action | Comments |
|---|--------|-------|--------|----------|
| Correct Design | | | | |
| Components | | | | |
| Size | | | | |
| Finish | | | | |
| Complete | | | | |
| Earthing and Bonding | | | | |
| Available and Accessible for Cabling | | | | |
| Security, Protection & Administration as specified | | | | |

Quality Plan

Section 4: Health, Safety, Regulations and Legislation

| | Accept | Query | Action | Comments |
|---|--------|-------|--------|----------|
| Hazards | | | | |
| Compliance with H&S | | | | |
| Control of Hazardous Substances | | | | |
| Use of Gas Detection Equipment | | | | |
| Guarding & Signing | | | | |
| Notification to Affected Parties | | | | |
| Reinstatement in Accordance with Regulations | | | | |

Quality Plan

Sections 5 and 6: Optical Cable and Optical Fibre Specification

| | Accept | Query | Action | Comments |
|--------------------------------------|--------|-------|--------|----------|
| Design | | | | |
| Physical Specification | | | | |
| Performance Specification | | | | |
| OTDR Tests | | | | |
| Type, No./AQL% | | | | |
| Documentation | | | | |
| Compatibility | | | | |
| Installation Technique | | | | |
| Operational Environment | | | | |
| Storage and Material Handling | | | | |
| Component Compatibility | | | | |
| Certificates of Conformance | | | | |
| Storage | | | | |

Quality Plan

Section 7: Installation Requirements

| | Accept | Query | Action | Comments |
|--|--------|-------|--------|----------|
| Locations | | | | |
| Drums | | | | |
| Pulling | | | | |
| Fleeting | | | | |
| Installation Techniques | | | | |
| Installation Equipment | | | | |
| Installation Plant | | | | |
| H&S, Guarding & Warnings | | | | |
| Reinstatement of Pathways | | | | |
| Reinstatement of Seals and Barriers | | | | |
| Earthing and Bonding | | | | |
| Service Loop Lengths | | | | |
| Administration/Labelling | | | | |
| Sheath Gaps (where appropriate) | | | | |

Quality Plan

Section 8: Closures and Termination

| | Accept | Query | Action | Comments |
|---------------------------------------|--------|-------|--------|----------|
| Location of Closures | | | | |
| Layout of Closures | | | | |
| Cables/Closures Allocation | | | | |
| Cable Dressing | | | | |
| Cable Administration/Labelling | | | | |
| Closure Design | | | | |
| Components | | | | |
| Size | | | | |
| Finish | | | | |
| Compatibility | | | | |
| Environment | | | | |
| Security | | | | |
| Termination/Splicing Component Design | | | | |
| Physical | | | | |
| Performance Tests and Criteria | | | | |
| Type, No./AQL% | | | | |
| Documentation | | | | |
| Component Compatibility | | | | |
| Termination/Splicing Procedures | | | | |
| Optical Fibre/Optical Port Allocation | | | | |
| Optical Fibre Management | | | | |
| Labelling | | | | |
| Optical Fibres | | | | |
| Optical Ports | | | | |
| Optical Safety | | | | |
| Reinstatement of Seals | | | | |
| Earthing and Bonding | | | | |

Quality Plan

Section 9: Test Schedule

| | Accept | Query | Action | Comments |
|---|--------|-------|--------|----------|
| Free Issue Materials | | | | |
| Component Compatibility | | | | |
| Stage 1: Unterminated Cabling (Installed) | | | | |
| Performance OTDR Tests Type, No./AQL% Documentation | | | | |
| Acceptance Criteria | | | | |
| Remedial Action Procedures | | | | |
| Result Documentation | | | | |
| Stage 2: Terminated Cabling | | | | |
| OTDR Tests Type, No./AQL% Documentation | | | | |
| Power Meter Measurements Wavelength Correction | | | | |
| Wavelength, Test Type A, B or C Single Direction Both Directions No./AQL% | | | | |
| Acceptance Criteria | | | | |
| Remedial Action Procedures | | | | |
| Result Documentation | | | | |

Quality Plan Section 10: Programme Definition

| | Accept | Query | Action | Comments |
|---|--------|-------|--------|----------|
| Daily Log | | | | |
| Change Control System | | | | |
| Variation Control System | | | | |
| Notification System | | | | |
| Interim Certificates supported with test & acceptance documentation | | | | |
| Hand Over Certificates | | | | |

Quality Plan Section 11: Documentation

| | Accept | Query | Action | Comments |
|---|--------|-------|--------|----------|
| Existing Cabling Documentation (for modification) | | | | |
| Installation Specification | | | | |
| Free-issue Material Compliance Documentation | | | | |
| Certificates of Compliance | | | | |
| Test Schedule Results | | | | |
| As-built documents | | | | |
| Certificates and Warranty | | | | |
| System Administration/Labelling | | | | |