

PRACTICE NOTE 4

INSPECTION PLAN

1. The primary reference in relation to Inspection Plans is the **Code of Practice for Inspecting and Certifying Buildings and Works**, current at the time the Inspection Plan is being prepared. **The Assigned Certifier** and other persons nominated to undertake necessary inspections should adopt an appropriate Inspection Plan which takes full account of relevant factors for the building work concerned. **Ancillary Certifiers should notify the Assigned Certifier** of their proposed inspection regime for inclusion in the Overall Inspection Plan, subject to the appropriate professional judgement **and risk assessment**.
2. The Assigned Certifier should, as part of the Inspection Plan and before the commencement of work on site, **agree with the Building Owner and Builder an Inspection Notification Framework (INF)**.
3. As an example for Ancillary Certifiers, a **Template for Targeted Inspections** for Civil and Structural Works, which would be part of an INF, is attached. This should be produced for **Tender Purposes**, where appropriate, to identify generally **the stages or items of work** that the Consultant wishes to be notified of, as and when they are ready for inspection. The actual number of inspections required for each Work Stage element is dependent upon the Builder's Programme, and on the Importance of the Element, the Builder, the Site and the Size and Complexity of the Structure.
4. Multiple inspections may be necessary for each element of the Work Stages listed in the template for Targeted Inspections.
5. On receipt of the Builder's Programme, the **Preliminary Inspection Plan**, produced by the Assigned Certifier in conjunction with the Design Professionals, will be filled in taking into account the construction programme for the works. The Preliminary Inspection Plan will be issued for inclusion with the **Commencement Notice**.



6. The Inspection Plan is a **live document** and is updated on an on-going basis during construction, to reflect the actual conditions and Builder's performance. Two further copies are included to illustrate stages of this development for an **individual Ancillary Certifier**.

7. **Sample Record Sheets** for recording inspections and for notifying the Builder of issues identified during inspections are also attached.

8. It is critical that Inspection Plans are developed using **professional skill and judgement**, taking full account of relevant factors applicable to the **particular Discipline and Project** (Risk Assessment).

9. The provision of any guidance contained in this Practice Note, concerning the use of a particular inspection framework or approach, should not be construed as prohibiting the use of other suitable frameworks or approaches.

10. An example of an Inspection Template for a Detached Non-Complex Dwelling House is included in Table C.1 of the Code of Practice [Sept 2016].

August 2017



<h1>Inspection Report</h1>	Job No:	
Inspection By:		
Date and Time:		
Project:		
People/Involved/Present:		
List of Items Inspected		
Comments		
Number of Targeted Inspections Covered during this Site Visit:		



Non Compliance Report		Job No:	
		NCR No:	
<hr/>			
Issued By:			
Date of Inspection:			
Project:			
NCR Issued to:	Main Contractor -		
NCR Copied to:	Assigned Certifier -		
<hr/>			
By:			
<hr/>			
Provide description of Non Compliance Items/Works with Reference to Drawings and/or Specification			
Response By Contractor			
Provide description of Corrective Actions Taken to Resolve Non Compliance Items/Works noted above with reference to record photographs, test report etc.			
Signed by Contractor:		Date:	

XXXXXXXXXXXXX - TEMPLATE FOR TARGETED INSPECTION FOR CIVIL & STRUCTURAL WORKS (ISSUED FOR TENDER PURPOSES ONLY)

Notes on Template for Targeted Inspections:

- This Template is produced for Tender Purposes to identify generally the stages or items of work that XXXXXXXXXX wish to be notified of, as and when they are ready for inspection. The actual number of inspections required for each Work Stage element is dependent upon the Contractors Programme and Factors A, B, C & D listed in the Inspection Matrix below.
- On receipt of the Contractors Programme, the Preliminary Inspection Plan will be filled in, taking account of the Construction Programme for the works. The Preliminary Inspection Plan will be issued for inclusion with the commencement notice. The inspection plan is a live document and is updated on an on-going basis during construction, to reflect the actual conditions and contractor performance.
- In accordance with the Code of Practice for Inspecting and Certifying Buildings and Works, the Inspection Notification Framework must be agreed with the Building Owner and the Builder before Commencement of the works on-site.
- Multiple inspections may be necessary for each element of the Work Stages listed below. The Contractor's tender price must include for facilitating all necessary inspections by XXXXXXXXXX

SAMPLE INSPECTION MATRIX
(TO BE BASED ON THE CODE OF PRACTICE AND PROFESSIONAL JUDGEMENT)

A	B	C	D
Importance of Element - Note 1	The Contractor - Note 2	The Site	Size and Complexity of Structure - Note 3
- How Critical is Element	- Expertise of Contractor	- Difficult Ground Conditions	- Size of Project
- How Often Repeated	- Previous Experience with Contractor	- Contamination	- Unconventional Construction
- Complex or Unusual	- Performance to Date	- Brown Field Site	- Speed of Construction
- Possibility of Later Inspection	-	-	-
- Consequence of Contravention	-	-	-

Notes:

1	If an element is important because it is complex or will be repeated through a significant part of the building then that element must be inspected during the early course of construction so as to form a view of the contractor's ability to carry out the particular task.
2	Early assessment of the contractor's ability to carry out the work is essential in estimating the number of sample inspections
3	This matrix should be expanded to reflect the scale and complexity of the project and the contractor's programme
4	The inspection regime must be appropriate and must be kept under review as the project proceeds.
5	The timing of inspections must correspond with the work being undertaken on site.
6	The Engineer should normally expect to carry out unannounced inspections .
7	Follow-up procedures are essential to ensure that non-compliance issues identified during inspections are resolved.
8	The Engineer should indicate in his Inspection Plan the tests that he wishes to monitor periodically.
9	Records of inspections must be maintained, sufficient to identify the work inspected and any non-compliance issues noted.

Work Stages as per Contractors Programme

Foundations				
Formation				
Trench Fill Pour below pads on GL A				
Reinforcement				
Concrete Pour				
Ground Slab				
Formation				
Imported Fill incl. on-site testing				
Reinforcement				
Concrete Pour				
Rising Elements				
To Gnd Floor incl. stub cols and edge beams	- Reinforcement - Concrete Pour - Tanking to Lift Pits			
Exposed Concrete				
Gnd - 1st	- Reinforcement - Concrete Pour - Finish**			
1st-2nd	- Reinforcement - Concrete Pour - Finish**			
2nd-3rd	- Reinforcement - Concrete Pour - Finish**			
3rd-Roof	- Reinforcement - Concrete Pour - Finish**			
Roof to Top of Plantroom	- Reinforcement - Concrete Pour - Finish**			
** Snag list created to record surface defects				
Suspended Slabs and Roof				
1st	- Reinforcement incl. Punching Shear Rein. - Pour			
2nd	- Reinforcement incl. Punching Shear Rein. - Pour			
3rd	- Reinforcement incl. Punching Shear Rein. - Pour			
Roof	- Reinforcement - Pour			
Plantroom	- Reinforcement - Pour			
Plant Screen Steelwork				
	- Installation of Steelwork - Grouting of Baseplates			
ESB Substation and Switchroom				
	- Foundations - Block Walls - Concrete Roof Slab			
Main Drainage & Watermain/Firemain				
Sewers & Mains	- Prior to backfilling - Backfilling/Reinstatement			
Manholes & Chambers	- Structure & Benching			
Testing				
Roads, Car Parks & Paved Areas				
	- Formation - Build-Up - Kerbs, Gullies, Markings			
Snagging				
Civil snagging (to reflect staged handover)				
Structural snagging				
Sub-totals				
Overall Total				

XXXXXXXXXXXX - TARGETED INSPECTION FOR CIVIL & STRUCTURAL WORKS - CONSTRUCTION STAGE

SAMPLE INSPECTION MATRIX
(TO BE BASED ON THE CODE OF PRACTICE AND PROFESSIONAL JUDGEMENT)

	A	B	C	D
	Importance of Element - Note 1	The Contractor - Note 2	The Site	Size and Complexity of Structure - Note 3
	- How Critical to Element	- Expertise of Contractor	- Difficult Ground Conditions	- Size of Project
	- How Often Repeated	- Previous Experience with Contract	- Contamination	- Unconventional Construction
	- Complex or Unusual	- Performance to Date	- Shows Field Size	- Speed of Construction
	- Possibility of Later Inspection			
	- Consequence of Contamination			
Work Stages as per Contractors Programme:				
Foundations				
Formation	1	-	2	-
Trench Fill Pour below pads on GL A	1	-	-	-
Reinforcement	1	-	n/a	-
Concrete Pour for Foundations	1	-	n/a	-
Ground Slab				
Formation	1	-	1	-
Imported Fill incl. on-site testing	1	-	-	-
Reinforcement	1	-	n/a	-
Concrete Pour for Ground Slab	1	-	n/a	-
Rising Elements				
To Grnd Floor incl. stub cols and edge beams	1	-	n/a	-
- Reinforcement	1	-	n/a	-
- Tanking to Lift Pits	1	-	n/a	-
Walls & Columns				
Grid - 1st	1	-	n/a	-
- Reinforcement	1	-	n/a	-
1st-2nd	1	-	n/a	-
- Reinforcement	1	-	n/a	-
2nd-3rd	1	-	n/a	-
- Reinforcement	1	-	n/a	-
3rd-Roof	1	-	n/a	-
- Reinforcement	1	-	n/a	-
Roof to Top of Plantroom	1	-	n/a	-
- Reinforcement	1	-	n/a	-
- Concrete Pour for Rising Elements	1	-	n/a	-
Suspended Slabs and Roof				
1st	1	-	n/a	-
- Reinforcement incl. Punching Shear Rein.	1	-	n/a	-
2nd	1	-	n/a	-
- Reinforcement incl. Punching Shear Rein.	1	-	n/a	-
3rd	1	-	n/a	-
- Reinforcement incl. Punching Shear Rein.	1	-	n/a	-
Roof	1	-	n/a	-
- Reinforcement	1	-	n/a	-
Plantroom	1	-	n/a	-
- Reinforcement	1	-	n/a	-
- Concrete Pour for Suspended Slabs	1	-	n/a	-
Plant Screen Steelwork				
- Installation of Steelwork	1	-	n/a	-
ESB Substation and Switchroom				
- Foundations	1	-	-	-
- Block Walls	1	-	n/a	-
- Concrete Roof Slab	1	-	n/a	-
Main Drainage				
Sewers & Mains	1	-	n/a	-
- Prior to backfilling	1	-	n/a	-
- Backfilling/Restatement	1	-	n/a	-
Manholes & Chambers	1	-	n/a	-
- Structure & Benching	1	-	n/a	-
Testing	1	-	n/a	-
Roads, Car Parks & Paved Areas				
- Formation	1	-	-	-
- Build-Up	1	-	n/a	-
- Kerbs, Gullies, Markings	1	-	n/a	-
Foundations of Link Building				
Formation	1	-	-	-
Reinforcement	1	-	n/a	-
Concrete Pour for Foundations	1	-	n/a	-
Ground Slab of Link Building				
Formation	1	-	-	-
Imported Fill incl. on-site testing	1	-	-	-
Reinforcement	1	-	n/a	-
Concrete Pour for Ground Slab	1	-	n/a	-
Rising Elements of Link Building				
To Grnd Floor incl. stub cols and edge beams	1	-	n/a	-
- Reinforcement	1	-	n/a	-
Concrete Rising Walls	1	-	n/a	-
Roof Slab of Link Building				
Roof Slab	1	-	n/a	-
- Reinforcement	1	-	n/a	-
Snagging				
Civil snagging (to reflect staged handover)	1	-	n/a	-
Structural snagging	1	-	n/a	-
Sub-totals	45	0	3	0
Proposed Overall Total of Inspections		48		

Notes:

- If an element is important because it is **complex or will be repeated** through a significant part of the building then that element must be **inspected during the early course** of construction so as to form a view of the contractor's ability to carry out the particular task.
- Early assessment** of the contractor's ability to carry out the work is **essential in estimating the number of sample inspections**.
- This matrix should be expanded to reflect the **scale and complexity** of the project and the contractor's programme.
- The inspection regime must be **appropriate and must be kept under review** as the project proceeds.
- The **timing of inspections** must correspond with the work being undertaken on site.
- The Engineer should normally expect to carry out **unannounced inspections**.
- Follow-up procedures** are essential to ensure that non-compliance issues identified during inspections are resolved.
- The Engineer should indicate in his Inspection Plan **the tests** that he wishes to monitor periodically.
- Records** of inspections must be maintained, sufficient to identify the work inspected and any non-compliance issues noted.

Dates of Inspections

04.06.2015, 09.06.2015, 23.06.2015, 24.06.2015, 24.06.2015
16.06.2015, 01.07.2015
16.06.2015,
23.06.2015

Total

5
2
1
1

04.06.2015, 09.06.2015

2

Actual Overall Total of Inspections