# **1 - OBSERVATION OF ACTIVITIES OF WORKSITE MANAGERS AND TEAM LEADERS IN A RENOVATION COMPANY**

Company: G.G. COSTRUZIONI S.R.L.

Activity: …………………………………….………………………………………………..….

Contact person: FILOMENA GIACQUINTO Function: TECHNICAL MANAGER

Tel.: 0825523588 Email: gg@giaquintocostruzioni.com

Construction site located at Sant’Agata di Solofra, via Cortine, 53 – 83029 Solofra (Avellino)

Description of the works carried out: Demolition and Construction of a School Building

Total number of workers at the construction worksite: ……8……, incl. in-house workers ……….., sub-contracting labour force: ………0………...

STATE OF THE ART

Renovation work achieved: Application of insulated sheets on roof and site installation for gymnasium construction

Renovation work to be achieved in the forthcoming weeks: Scaffolding disassembly.

Other information: Application of insulated sheets on the roof and excavation for foundations

**Guidelines for each axis of observation**

**Environment:** Describe the type of building (or of a piece of building) to be renovated: private house, apartment building, commercial premises, offices, monument, etc.; its condition and its immediate environment (located in a small street, isolated on a plot of land, near a high-voltage line, etc.). All these elements have an influence on the life of the future renovation site (supply of materials and equipment, precautions to be taken, waste evacuation methods, etc.). They will allow to feed the teaching sequences with relevant elements of reflection for the learners.

demolition and reconstruction of a 3-storey school building (1 basement) and attached gymnasium

Location: Sant’Agata di Solofra, via Cortine, 53 – 83029 Solofra (Avellino)

Description of the location: Urban area (via Cortine - Solofra (Avellino). The construction site is located on a sloping road (approximately 15%). The difficulties of access are represented by this slope, the houses that are close to the construction site and a level crossing located to the north of the construction site. The roof on which the insulated sheets are being installed is made of concrete and has a slope of 4%.

Nature of work:

* Actions to be carried out on the roof (without modification of load-bearing or structural elements):
* demolition and construction of a school building with an adjoining gymnasium
* Actions to be carried out on the interior north façade (without modification of enclosure elements):
* Roof insulation with insulating sheets
* Preparation of area for construction of gymnasium (building separate from school building)

**Methods:** Identify and describe the techniques, processes or operating modes used on the renovation site. Note any elements that seem useful or relevant.

* reinforced concrete roof inspection
* tower crane installation
* parallel execution of the gymnasium with installation of a construction site within the main construction site

**Equipment:** Identify and describe the tools, measuring instruments, machines or equipment etc. used during the intervention. If necessary, note the materials used.

* Materials and tools : insulated metal sheets
* Auxiliary elements: scaffolding, CDW containers
* Technological equipment: tower cranes, telehandlers, pallet trucks,

**Workforce (Human Resources)** : Indicate the number and profile of the people involved in the production process observed, and their qualifications and specialisation.

* 1 team leader/site manager
* 7 workers
* 1 activity manager

**Documents:** Identify the different documents (technical instructions, plans, BIM, sketches) used by the teams. If possible, collect these documents to be able to work from them during future learning sequences.

* project work
* demolition plan
* POS (Operational Safety Plan)
* PIMUS (scaffolding assembly and dismantling plan)
* DUVRI (Document for the Evaluation of Interfering Risks)

Grid 1 for the Observation of work situations in renovation companies experienced by worksite managers

### BLOCK 1: Preparing a renovation site

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| THE TEACHER OR TRAINER OBSERVES AND NOTES: | | | Environment  Type of building, geographical location, condition, access, etc. | Documents  Identify and collect the different documents used. | Methods  Techniques, processes, and operating modes used. | Equipment  Tools, instruments, machines, equipment, and materials used. | Workforce (Human Resources)  Number of people, qualification and role in the process observed | Others |
| BLOCK 1 | Component 1.1: Literature review of the renovation project components | * Identify and collect documents specifically related to renovation projects | installation of site area for the construction of the gymnasium | POS for work and interference management  DUVRI for interference management |  | tower cranes | 2 workers + Site manager/team leader |  |
| * Analyse data and identify critical points |
| * Report back and propose improvements, changes, or solutions if necessary |
| Component 1.2. Diagnostic methods for existing buildings and premises prior to intervention | * Identify the different diagnostic procedures/methods/techniques possible in renovation projects |  |  |  |  |  |  |
| * Determine / select appropriate diagnostic method(s) |
| Component 1.3. Visit to the site of the future renovation: Preparation, observation methods and analysis of the observed elements | * Identify, list, and locate elements to be observed during the visit |  |  |  |  |  | the site manager/team leader did not inspect the site before the start of work, only the activity manager together with the construction manager did so |
| * Determine the diagnostic methods to be used and the possible contributors or materials required |
| * Carry out the visit, identify and notify critical points |
| * Analyse the critical points and propose the necessary solutions or adjustments |
| Component 1.4. Preparation of the renovation site plan and its layout (marking out, fencing and preparation of the site area) | * Identify/characterise specific elements of renovation sites | site area for the construction of the gymnasium | POS for work and interference management  DUVRI for interference management |  | tower cranes  trans pallet | 2 workers + Site manager/team leader |  |
| * Integrate the specific elements of renovation into the design and layout of intervention sites. |
| Component 1.5. Planning and phasing of the team's work on renovation sites | * Identify/characterise specific elements of renovation sites |  |  |  |  |  |  |
| * Integrate the specific elements of renovation into the planning, procedures, and phasing of interventions |

### BLOCK 2: Managing communication and relations on a renovation site

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| THE TEACHER OR TRAINER OBSERVES AND NOTES: | | | Environment  Type of building, geographical location, condition, access, etc. | Documents  Identify and collect the different documents used. | Methods  Techniques, processes, and operating modes used. | Equipment  Tools, instruments, machines, equipment, and materials used. | Workforce (Human Resources)  Number of people, qualification and role in the process observed | Others |
| BLOCK 2 | Component 2.1. Management of teams on renovation sites: Monitoring of assignments and tasks and anticipation of complex and potentially conflictual situations with internal staff and subcontractors. | * Identify and characterise critical situations or problems specific to renovation sites | installation of insulated sheets on the roof with a 4% slope | Project plan  POS for work and interference management  DUVRI for interference management | he suggests putting sheathing on the sheet-metal fixing screws before putting on the end caps | PPE  tower cranes  telescopic hoist  scaffolding  sheathing torch | 2 workers (gymnasium)  5 workers (laying insulated sheets on roof) |  |
| * Anticipate, develop and propose solutions |
| * Informing team leaders |
| Component 2.2. Development and implementation of procedures for the proper execution of operations (e.g. adaptation to site constraints, verification and monitoring of material supplies, verification of delivery times, consideration of energy efficiency, final efficiency, etc.). | * Identify and characterise the different types of constraints or problems specific to renovation projects |  |  |  |  |  |  |
| * Anticipate, develop, and propose solutions and inform team leaders |
| Component 2.3. Follow-up of relations with the client, the company manager, the architect, the design office & the CSS (health and safety coordinator). | * Characterise the specificities of the different protagonists of a renovation project | site installation for the construction of the gymnasium  installation of insulated sheets on the roof | POS for work and interference management  DUVRI for interference management | He contacts the safety coordinator for any unforeseen work interference. He contacts the activity manager to propose alternative solutions at least twice a week |  | safety coordinator - activity manager |  |
| * Integrate these specificities in the exchanges/procedures between stakeholders |
| Component 2.4. Mental management of workload, including management of stress and tension at work. | * Identify the particularities and specificities of the tensions linked to renovation projects | installation of insulated sheets on the roof |  | he arranged for a 20-minute break every 1.5 hours of work or whenever the workers considered it appropriate to cool down due to the excessively high temperatures (around 36°C) |  | 5 workers (laying insulated sheets on roof) |  |
| * Develop facilitative or anticipatory strategies |

### BLOCK 3: Management of technical and organisational aspects of the renovation site

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| THE TEACHER OR TRAINER OBSERVES AND NOTES: | | | Environment  Type of building, geographical location, condition, access, etc. | Documents  Identify and collect the different documents used. | Methods  Techniques, processes, and operating modes used. | Equipment  Tools, instruments, machines, equipment, and materials used. | Workforce (Human Resources)  Number of people, qualification and role in the process observed | Others |
| BLOCK 3 | Component 3.1. Administrative, financial, and legal management of a renovation project. | * Identify and collect administrative, financial, and legal documents specifically related to renovation projects | installation of insulated sheets on the roof | transport note | he checks the materials and any differences in the order placed |  | activity manager | he reports only any deviations by telephone without filling in any documentation |
| * Integrate these specificities in the management of the site |
| Component 3.2. Management and control of on-site protection of workers and buildings, including erection/dismantling of scaffolding, work at height, difficult access and use of hazardous materials on renovation sites. | * Identify specific and critical situations | installation of insulated sheets on the roof | POS for work and interference management  DUVRI for interference management  PIMUS (scaffolding assembly and dismantling plan) | He checks that the workers are working safely because of the work at height and the high temperatures. he ensures that the scaffolding has not been tampered with and that manoeuvres in and out of the construction site are carried out safely because of the uphill access road, houses too close to the construction site and the level crossing |  | 5 workers |  |
| * Identify the current standards or regulations |
| * Develop and propose resolution strategies |
| * Informing team leaders |
| Component 3.3. Waste management on renovation sites: planning and management of waste bins, sorting and recycling.  operations (circular economy), and the use of appropriate monitoring tools. | * Identify specific situations | installation of insulated sheets on the roof | waste management plan | he sorts the various wastes into the right containers | remains insulated sheets  iron pieces  CDW containers | 5 workers |  |
| * Identify the current standards or regulations |
| * Develop and propose resolution strategies |
| * Informing team leaders |
| Component 3.4: Integration of energy saving standards in renovation projects and use of appropriate monitoring tools. | * Identify specific situations |  |  |  |  |  |  |
| * Identify the current standards or regulations |
| * Develop and propose resolution strategies |
| * Informing team leaders |
| Component 3.5. Continuous quality control of renovation sites: quality of intermediate phases and quality of finished works. | * Identify the critical points to be taken into account | installation of insulated sheets on the roof | project work | Checking the laying of insulated sheets and laying of sheathing on the fixing screws before putting on the end caps | PPE  Sheath  blowpipe  electric drill | 5 workers |  |
| * Identify quality criteria and develop specific control procedures |

### BLOCK 4: Acceptance of renovation work and quality control

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| THE TEACHER OR TRAINER OBSERVES AND NOTES: | | | Environment  Type of building, geographical location, condition, access, etc. | Documents  Identify and collect the different documents used. | Methods  Techniques, processes, and operating modes used. | Equipment  Tools, instruments, machines, equipment, and materials used. | Workforce (Human Resources)  Number of people, qualification and role in the process observed | Others |
| BLOCK 4 | Component 4.1 Quality control of renovation results and client approval | * Identify and characterise the points of attention to be taken into account | installation of insulated sheets on the roof | manufacturing and control plan  work plan (quality plan) | He visually verifies whether what has been realised corresponds to what was designed in the manufacturing and quality plan |  |  |  |
| * Develop the necessary control procedures |
| Component 4.2. Evaluation of the working process and results, including evaluation, valorisation, and improvement of the team. | * Evaluate the final deliverables and processes implemented |  |  |  |  |  |  |
| * Valuing work with team leaders and teams |