



NESMA
INFRASTRUCTURE
& TECHNOLOGY

MITC Committee Warehouse and Project Site Visit Report

Eastern and Central Regions

December 23, 2025

Inventory Committee

TABLE OF CONTENTS

- 01 EXECUTIVE SUMMARY**
Overview of critical findings and key recommendations from the field visits.
- 02 VISITS OVERVIEW**
Scope and distribution of site visits across Eastern and Central regions.
- 03 EASTERN REGION ANALYSIS**
Findings from Dammam Warehouse, Substation Projects, Jafurah and Ras Tanura sites.
- 04 CENTRAL REGION ANALYSIS**
Assessment of Tuwaiq, Al-Marjan, Ramah, KSP and Diriyah project sites.
- 05 CROSS-CUTTING ISSUES**
Security, maintenance, inventory management and supervision challenges.
- 06 MTC 2025 ACTION PLAN**
Strategic approach and timeline for Material & Technical Count implementation.
- 07 RECOMMENDATIONS & CONCLUSION**
Immediate actions, long-term strategies, and final commitments.

Key findings and recommendations from site visits

This report summarizes findings from inspections of 10 sites across Eastern and Central regions, revealing critical operational challenges requiring immediate attention and strategic intervention.



Material Waste & Scrap

Significant accumulation of scrap cables and metals occupying valuable storage space in warehouses, particularly in Dammam and Tuwaiq.



Storage Conditions

Inadequate storage facilities with unpaved grounds, poor maintenance, and insufficient capacity to accommodate incoming materials.



Security Vulnerabilities

Widespread security issues including faulty doors, inadequate fencing, missing cameras, and inconsistent guard presence across multiple sites.



Supervision & Planning

Lack of effective on-site supervision and clear work planning, resulting in subcontractors operating without adequate oversight.

Primary Recommendations

- ✓ Enhance inventory accuracy through robust tracking systems
- ✓ Implement immediate security upgrades at vulnerable sites
- ✓ Optimize storage capacity through scrap disposal
- ✓ Improve oversight of materials and contractors

Overview of Site Visits

Site Distribution



Total Sites Inspected
10 Locations

Eastern Region

Warehouses: 2

Project Sites: 3

Total: 5 Locations

Central Region

Warehouses: 1

Project Sites: 4

Total: 5 Locations

Key Findings



Material Waste

Significant volumes of scrap cables and metals occupying large storage areas in warehouses.



Security Vulnerabilities

Faulty doors, inadequate fencing, and unrecorded entries at multiple sites.



Storage Conditions

Unpaved grounds, poor maintenance, and insufficient storage capacity for projected material volumes.



Supervision Issues

Lack of on-site supervision and unclear work planning with site managers regarding material requirements.



First week, Central Region, Riyadh

Tuwaiq Warehouses

Assessment of Inventory Status, Waste Management & Security Issues

Key Findings



Inventory Completion

100% inventory completion achieved, indicating accurate record-keeping for existing stock.



Scrap Materials

Large quantities of scrap cables and metals occupying significant storage space, impacting storage efficiency.



Obsolete Stock

Substantial quantity of materials from the long-closed Airport project remains stored, indicating a need for obsolete stock management.

Security Vulnerabilities



Critical Security Deficiencies



Small, insecure locks compromising warehouse security



Main doors requiring maintenance and repair



Recommendation

Immediate security upgrades and development of a comprehensive plan for the disposal or reallocation of obsolete stock.

Tuwaiq Warehouses



Tuwaiq Warehouses



Tuwaiq Warehouses



Firefighting system not working



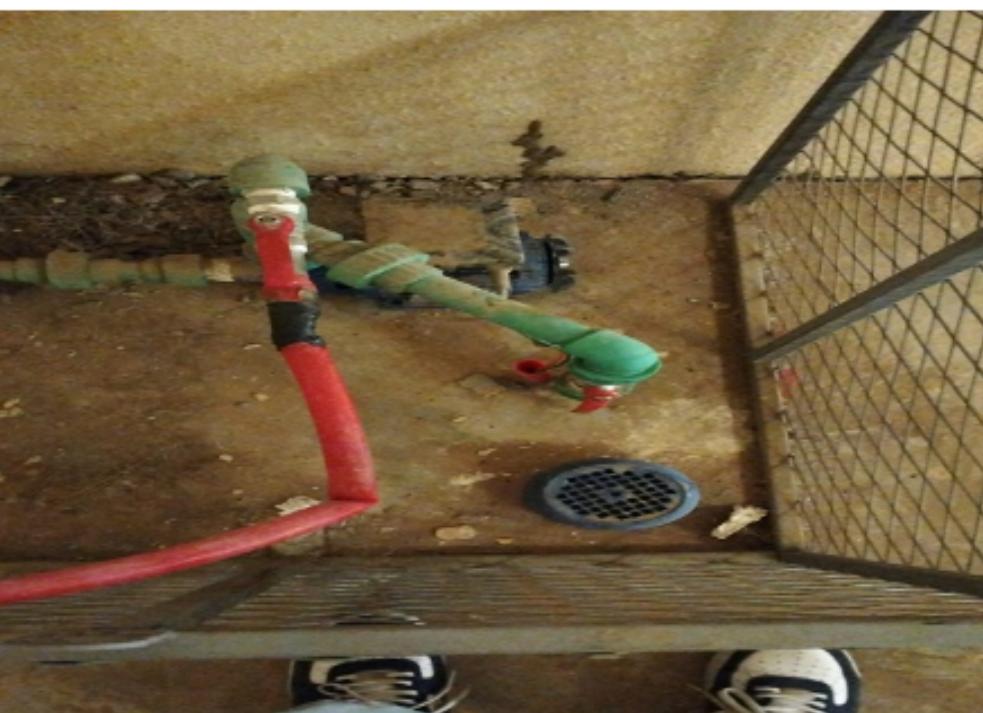
Camera Monitor is broken



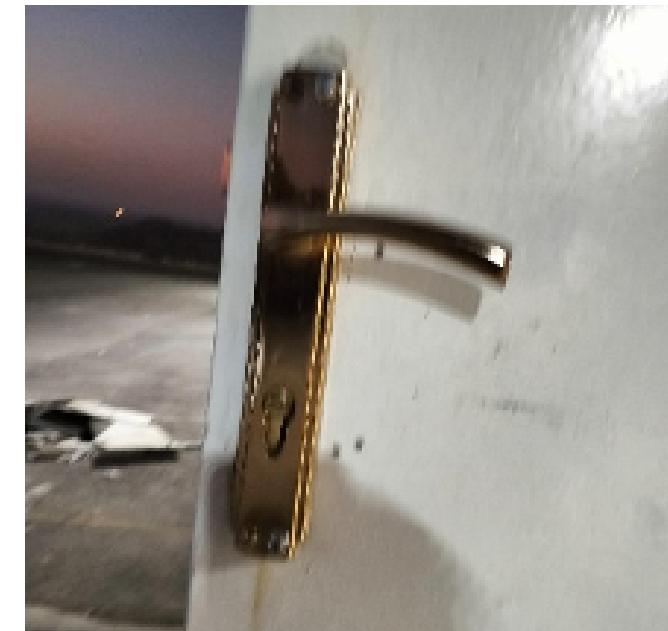
Store Lock is weak
also The store office door
lock is weak and can break easily



Fire extinguisher Expire



Water pump motor not working



Al-Marjan Site

Assessment of surplus materials and inventory management challenges

Key Finding

Many materials on-site are not needed for current project requirements, creating unnecessary storage burden.

Critical Issues Identified

Unconfirmed Surplus

No confirmation from project management regarding surplus materials.

Communication Gap

Lack of clear communication between site management and logistics team.

Process Deficiency

No established process for surplus identification and documentation.

Example of disorganized material storage at Al-Marjan

Impact & Opportunity

Addressing these issues could free up significant storage space and allow for material redistribution, reducing costs and improving inventory efficiency.

Al-Marjan Site



Al-Marjan Site



Al-Marjan Site



DIRIYAH PROJECT



Madinah Warehouses



Madinah Warehouses



Ramah Project

Central Region Analysis

Key Challenges



Insufficient Storage Capacity

The current storage area is inadequate for the projected material volume. Plans to store at least 800 cable drums next month with no space accommodation strategy.



Security Vulnerabilities

The closed warehouse is insecure due to a low surrounding fence and complete absence of security cameras, making it highly susceptible to break-ins and theft.



Expansion Plan Rejection

Despite critical space constraints, expansion plans proposed by the Logistics Department were rejected, creating an operational bottleneck with no alternative solutions provided.



Equipment Risk Exposure

Sensitive GIS equipment stored on-site is exposed to potential damage from heavy rainfall or theft due to inadequate protection measures.

Risk Impact Assessment

Security Risk

High

Storage Capacity

Critical

Equipment Safety

Medium

Ramah Project

Ramah Project

Key Findings

✓ 100% Inventory Completion

Complete inventory verification achieved, indicating accurate record-keeping.

⚠ Significant Scrap Volume

Large quantities of scrap cables and metals occupying storage space.

❗ Security Risk

A closed warehouse door that cannot be secured creates a significant vulnerability.

Recommendations

- Immediate repair of the faulty door to address security concerns
- Prompt disposal or recycling of scrap materials
- Implement enhanced security measures for valuable inventory

Storage Space Utilization

Estimated space occupied by scrap materials

40%

Operational Efficiency

Security Level

Severely Impacted

High Risk

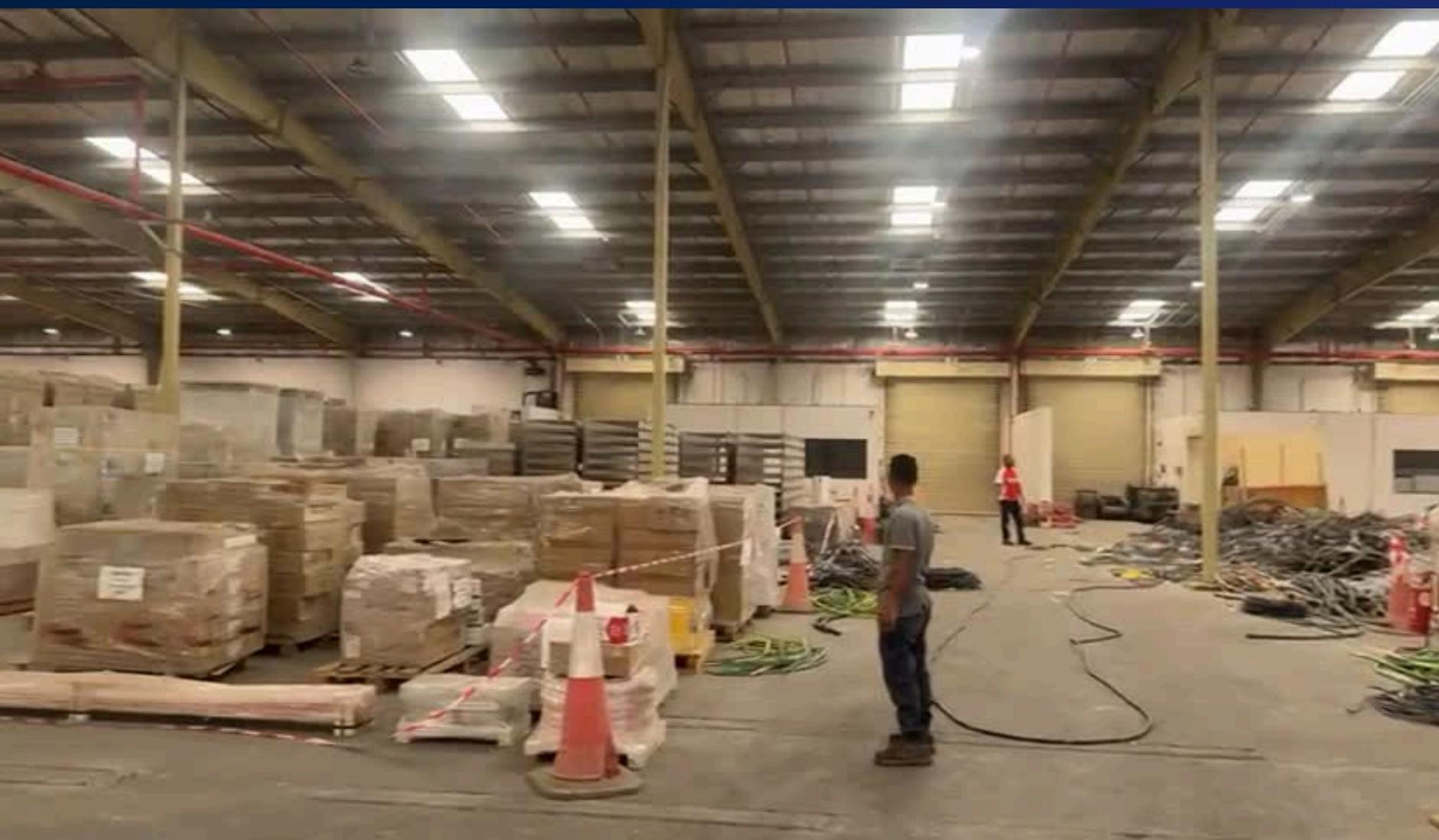
Damam Warehouses



Damam Warehouses



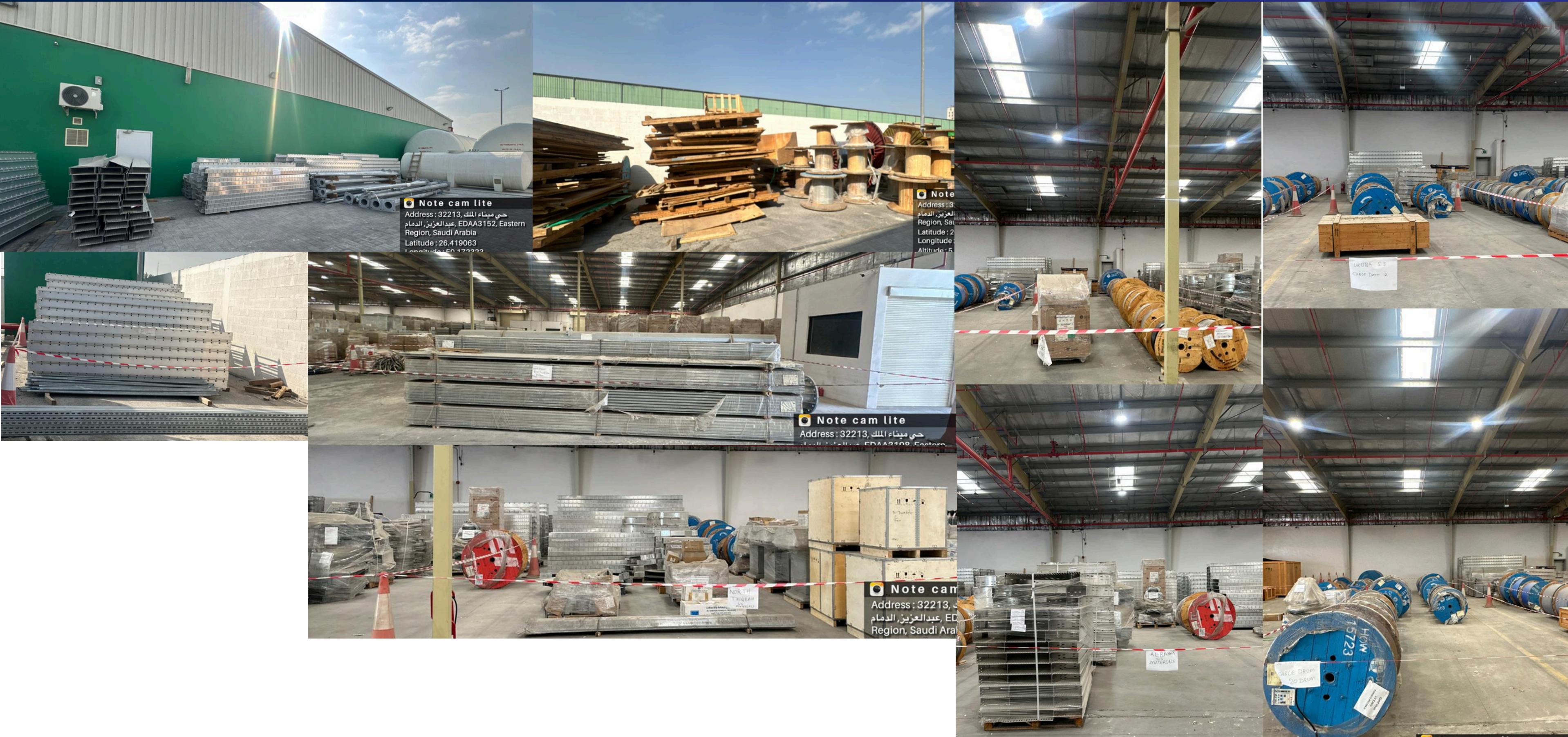
Damam Warehouses



Damam Warehouses



Damam Warehouses



Damam Warehouses



Note cam lite

حي ميناء الملك
Address : 32213, عبد العزيز, الدمام
Region, Saudi Arabia
Latitude : 26.418512

Substation Projects - Eastern Region



Material Organization

Materials are poorly placed without proper organization, hindering efficient access and inventory management.



Supervision Issues

Project engineers are frequently found in offices rather than on-site, leading to inadequate supervision of operations.



Lack of Work Plans

Absence of clear plans with site managers regarding unfinished work volume and material requirements.



Cable Wastage

Review of scrap in the Dammam warehouse and installation works revealed unreasonable waste in used cables.



Security Lapses

Security in some projects is undisciplined with unrecorded entries, creating potential risks to assets.



Contract Clarity

Complaints regarding unclear contracts with subcontractors that don't hold them responsible for completing all works, causing delays.

Root Cause Analysis



Subcontractor Freedom

Operating without adequate supervision



Oversight Gap

Lack of regular site inspections



Process Failures

Inadequate protocols for material handling

Substation Projects - Eastern Region

Jafurah Project

Site assessment and material management analysis

Key Findings



Surplus Materials

Numerous surplus materials identified that need to be returned to the Dammam warehouse, exacerbating existing space constraints.



Unclear Work Plan

Similar to other projects, there is no clear plan for the remaining work volume, leading to inefficient resource allocation.



Inventory Status

Inventory status at the warehouse has been verified, but comprehensive assessment is still pending.

Required Actions



Material Return Strategy

Develop a clear strategy for surplus material return to optimize warehouse space and improve inventory management.



Work Planning

Establish a detailed work plan with clear timelines and resource requirements for remaining activities.



Material Assessment Survey

Conduct a comprehensive survey for remaining works and material reuse opportunities to maximize efficiency.

Ras Tanura Warehouse

Assessment of Engineering Problems & Maintenance Issues

Key Issues Identified



Unpaved Ground Conditions

The warehouse ground is unpaved and sandy, becoming poor with rain, affecting:

- Material accessibility during wet conditions
- Efficient handling of heavy equipment



Pipe Deterioration

All pipes are in poor condition, heavily rusted, presenting:

- Potential safety hazards
- Risk of system failure

Recommendation

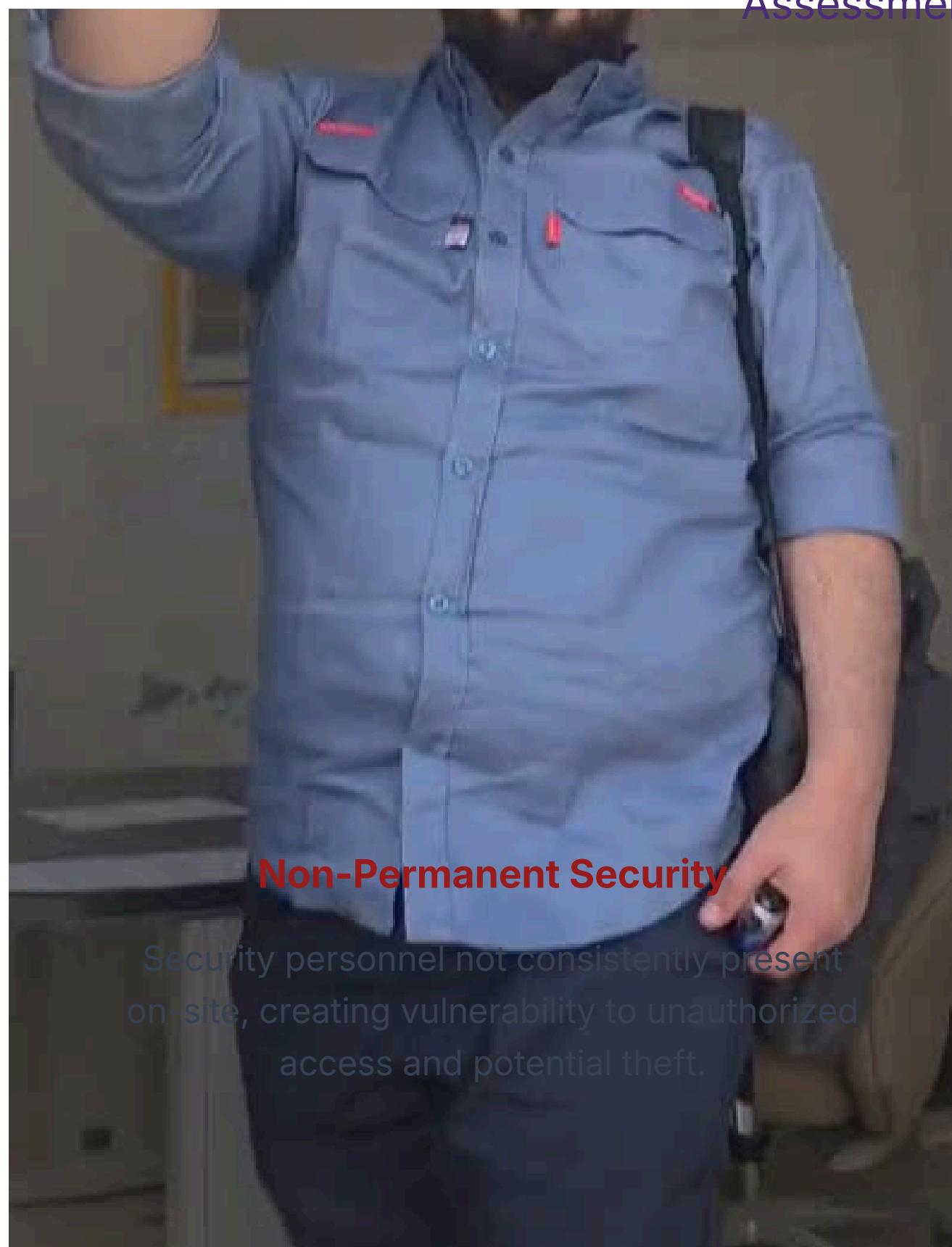
Urgent civil maintenance needed: pave ground and address pipe condition for safe operations.

Documented Pipe Condition

Severe corrosion observed on pipes, showing material degradation.

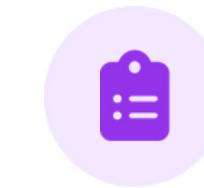
KSP Project

Assessment of inventory, security and supervision challenges



Non-Permanent Security

Security personnel not consistently present on-site, creating vulnerability to unauthorized access and potential theft.



Missing Inventory Records

No inventory records maintained for 12 drums of control cables and a container full of materials, creating accountability gaps.



Uncontrolled Material Movement

No control system in place to track or manage the movement of materials in and out of the project site.



Unsecured Internal Door

Internal warehouse door remains unlocked and unsecured, posing a significant security risk to stored materials.



Poor Visibility

No clear visibility of unfinished works or surplus materials, hindering effective planning and potential reallocation.

DIRIYAH PROJECT

Project Overview

The Diriyah Project stands out as a notable success story amid the challenges observed across other sites. This project demonstrates effective problem-solving and strategic planning approaches that could serve as a model for other locations.



Transformer Transfer Resolution

The critical issue of transformer transfer was successfully resolved, demonstrating efficient technical problem-solving capabilities.



Strategic Work Planning

A comprehensive work strategy was established with clear objectives, timelines, and responsibility assignments.



Site Manager Collaboration

Effective collaboration with site managers created alignment on goals and established clear communication channels.



Subcontractor Management

Implemented structured follow-up plan to address challenges specifically related to subcontractor performance and accountability.



The Diriyah Project demonstrates that with proper planning, clear communication, and strategic problem-solving, common challenges can be effectively overcome.

Security & Maintenance Issues

Regions, posing significant operational and financial risks:

Inadequate physical security measures

Lack of proper facility maintenance

Vulnerable access points at multiple locations

Location	Region	Security Issues	Maintenance Issues	Risk Level
Dammam Main Warehouse	Eastern	Faulty door that cannot be secured	Scrap materials occupying large storage area	High
Ramah Project	Central	Low surrounding fence, no cameras	Insufficient storage for projected materials	High
KSP Project	Central	No permanent security, internal door unsecured	No dedicated warehouse keeper	High
Tuwaiq Warehouses	Central	Small, insecure locks, main doors need maintenance	Scrap materials occupying large area	Medium
Ras Tanura Warehouse	Eastern	Access issues during rain	Unpaved ground, heavily rusted pipes	Medium

Key Security Recommendations:

Immediate repair of faulty doors at Dammam

Implement permanent security at KSP

Install cameras and improve fencing at Ramah

Develop company-wide warehouse security standard

Inventory & Surplus Material Issues

Field visits revealed significant inventory management challenges affecting storage efficiency and costs.



Scrap Accumulation

Scrap cables and metals occupying storage at:

- Dammam Main Warehouse
- Tuwaiq Warehouses

⚠️ Leading to inefficient space utilization.



Surplus Return Challenges

Projects unable to return surplus materials:

- Jafurah Project: Surplus materials to Dammam warehouse
- Al-Marjan Site: On-site materials not needed



Exacerbating existing space constraints.



Inventory Tracking Status

Some sites maintain complete inventory records:

- Dammam Main Warehouse: 100% completion
- Tuwaiq Warehouses: 100% completion

Other sites lack proper tracking systems.



Storage Space Optimization

Critical storage space issues:

- KSP Project: No storekeeper, no records for 12 drums
- Ramah Project: Insufficient storage for 800+ cable drums



Expansion plans rejected despite supply increases.

Inventory & Surplus Material Issues

Supervision & Planning Issues

Key Supervision Challenges

Absence of Site Engineers

Project engineers frequently remain in offices rather than actively supervising on-site activities, leading to inadequate oversight of subcontractors.



Unclear Contractual Terms

Contracts with subcontractors lack clarity regarding responsibilities for completing works, causing significant project delays and accountability issues.



Insufficient Work Planning

Absence of clear plans with site managers regarding unfinished work volume and material requirements leads to inefficient resource allocation.

Operational Impact

Example of disorganization resulting from poor supervision and planning

Consequences Observed:

- Subcontractors operating without adequate supervision, freely handling materials
- Significant material waste, particularly in cable installation
- Disorganized material placement affecting inventory management
- Project delays due to unclear accountability structures



Positive Case Study: Diriyah Project

Successfully established a work strategy and follow-up plan with site managers, demonstrating effective problem-solving and strategic planning, particularly with subcontractors.

Monitoring and Improving Inventory & Logistics Operations

#	Key Performance Indicator	Current Status	Target
1	 Inventory Accuracy Physical count vs. system record match	Variable by site Per MTC findings	100% accuracy By end of MTC 2025
2	 Security Compliance Warehouse security standards adherence	Multiple deficiencies Doors, locks, fences	Full compliance Security standards
3	 Material Waste Reduction Cable & material wastage	Unreasonable waste Eastern Region finding	Minimized wastage Industry standard
4	 Audit Finding Closure Resolution of identified issues	Outstanding findings Multiple regions	100% closure MTC 2025 objective
5	 Storage Space Optimization Efficient use of warehouse capacity	Suboptimal usage Space constraints	Optimized storage Increased capacity
6	 Material Reallocation Value Value of redistributed surplus materials	Unquantified Surplus identified	SAR 500K+ MTC 2025 target
7	 Site Supervision Presence Engineer on-site supervision frequency	Insufficient Engineers in offices	Regular presence Daily site visits
8	 Contract Clarity Subcontractor contracts with clear terms	Unclear contracts Causing delays	Standardized terms Clear responsibilities

Recommendations & Time Priorities

Immediate Actions

1-4 WEEKS

- ✓ Repair faulty door at Dammam Main Warehouse
Timeline: 1 week
Responsible: Logistics/Maintenance
- ✓ Secure Ramah Project warehouse
Timeline: 2 weeks
Responsible: Project Management/Security
- ✓ Implement temporary security measures at KSP Project
Timeline: 1 week
Responsible: Project Management/Security

Short-Term Priorities

1-3 MONTHS

- ✓ Conduct full scrap audit and disposal plan
Timeline: 2 months
Responsible: Logistics/MTC
- ✓ Establish surplus materials redistribution process
Timeline: 1 month
Responsible: Project Management/Logistics
- ✓ Address unpaved ground at Ras Tanura Warehouse
Timeline: 3 months
Responsible: Maintenance/Logistics

Long-Term Strategy

STRATEGIC INITIATIVES

- ✓ Review and standardize subcontractor contracts
Define clear responsibilities for material management
- ✓ Develop company-wide warehouse security standard
Implement comprehensive security protocols
- ✓ Invest in centralized inventory management system
Enable real-time stock visibility and tracking
- ✓ Implement material waste reduction program
Minimize cable wastage through planning and training

MTC 2025 Action Plan

Material & Technical Count Committee Strategy

Objectives & Scope

The MTC 2025 plan is structured around four core objectives to enhance inventory management and operational efficiency:

Physical Verification & Valuation

 Complete physical count and financial evaluation of all materials

Audit Point Closure

 100% closure of all outstanding audit findings

Asset Optimization & Cost Reduction

 Target SAR 500K+ in reallocated materials across projects

Scrap Management

 Classification and profitable disposal of all non-usable materials

Execution Timeline

The MTC plan is structured in distinct phases with specific activities during December 2025:

Preparation Phase (Dec 1-7)

- Kick-off Meeting & Task Assignment
- Review Audit Findings
- Prepare Documentation
- Define Inventory Scope

Field Execution - Central (Dec 8-11)

- Physical count at Riyadh Main Warehouse
- Audit closure at Diriyah 8242 Project
- Scrap segregation at RUMAH 380KV BSP
- Buffer day for completion

Field Execution - Eastern (Dec 13-16)

- Physical count at Dammam Warehouse
- Audit closure at Hafar Al-Batin WH + Modon
- Scrap classification at Jafurah 380/230kV BSP
- QC assessment at Aindar Project

Field Execution - Western (Dec 17-18)

- Physical count at Jeddah + Asfan WH
- Audit closure at Makkah + Madinah WH

Field Execution - Northern & Southern (Dec 20-23)

CONCLUSION & COMMITMENTS

Key Findings Summary

- ⚠ Significant material waste and scrap accumulation across Eastern and Central regions
- 🔒 Widespread security vulnerabilities at multiple warehouse locations
- 🏠 Inadequate storage conditions affecting material integrity
- 👤 Notable lack of effective on-site supervision and clear work planning
- 📅 Unclear contractor agreements leading to operational inefficiencies

Our Commitments

- ✓ Full implementation of the MTC 2025 Action Plan across all regions
- 🛡 Immediate enhancement of security measures at all vulnerable locations
- ♻ Development of comprehensive scrap management and material reallocation strategy
- ☰ Standardization of supervision protocols and contractor management
- 📈 Regular progress reporting and transparent tracking of improvement initiatives

Next Steps for Continuous Improvement

- 📅 Establish monthly review meetings to track implementation progress
- 👥 Form cross-functional teams to address specific challenge areas
- 🎓 Develop training programs for warehouse management best practices

