

Submittal Reference #: TDC-1892-T-MAR-EL-0004-00	Date: 25 / 08 / 2021
Project Name: METRO LINK IN TR1 & TR2	Contractor: Technical Development co. For Contracting
RAC Project Manager:	Consultant: W S P

Submittal Details (by the Contractor)

Type of Submittal:

<input checked="" type="checkbox"/> Material	<input type="checkbox"/> Shop Drawings	<input type="checkbox"/> Design Drawings	<input type="checkbox"/> Test Report	<input checked="" type="checkbox"/> Manufacturer's Data
<input type="checkbox"/> Method Statement	<input type="checkbox"/> Prequalification	<input type="checkbox"/> As- Built Drawings	<input type="checkbox"/> Sample	<input checked="" type="checkbox"/> Catalogues
<input type="checkbox"/> Others:				

Discipline:

<input type="checkbox"/> Architectural	<input type="checkbox"/> Civil/ Structure	<input type="checkbox"/> Mechanical	<input checked="" type="checkbox"/> Electrical	<input type="checkbox"/> Project Controls	<input type="checkbox"/> General
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Submittal Description:

#	Description	Revision #	Date	Copies
	EMT CONDUITS & FITTINGS	00	25/08/2021	1
	BRAND/ ITCC			
	SUPPLIER& MAIN : ELECTRIC HOUSE/ ITCC			

For the Contractor: T D C Designation: MOHAMED ALMOGY Signature & Stamp: *MOHAMED ALMOGY*

Documents Review (by RAC's Execution Team)

Accepted Rejected

Reviewed by: **Mohamed Shaaban** Date: 25-4-2021 Signature: *[Signature]*

Technical Review (by RAC's Engineering / Execution Team)

A: Approved B: Approved as Noted C: Revise & Resubmit D: Rejected

- ITCC is approved as manufacturer for EMT. Below shall be followed by the contractor:

- Installation of EMT shall only be done for cable route installation above false ceiling.
- Contractor to use steel compression coupling and connectors.
- The size for EMT shall be chosen to ensure that the fill rate does not exceed 40% as per NEC.
- minimum conduit size to be 3/4in
- EMT must be supported every 3-10ft.

- Contractor to gain final approval for conduit sizes with the approval of the electrical load schedule.

- Contractor to follow IEC 61386 for conduit systems for cable management.

Reviewed by: Riyadh Al-Oshan Date: 29/08/2021 Signature: *[Signature]*

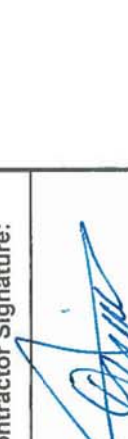
Approved by: Date: Signature:

Approval shall not relieve Contractor of his liabilities under the Contract or constitute authorization of any change to Contract Documents.

Dept	Action	Info
PM		
DPM		
DE		
CA		
PR		
PC		
CC		
HE		
MP		
FN		
HR		
AR		

KKIA T5JV DISTRIBUTION LIST
Remittance

المقاول :
المهندس طارق الراجحي
مكتب خدمات الاستشارات الهندسية
SAUDCONSULT
TAV Construction
TAV
Saudi Consulting Services (Saudconsult)
P.O. Box 2341 - Riyadh 11451



FROM : TAV-ACC Joint Venture
P.O. Box 91313 - Riyadh 11633

REV. No. : DATE : 03/12/2013
CATALOGUES : OTHERS :
4 Hard Copies

3 SAMPLES
DWGS. REF. B.O.Q REF.
Contractor Signature:
Engr. Baris Gucun

CONTRACTOR'S COMMENT : WE CERTIFY THAT THE ABOVE SUBMITTED ITEMS HAVE BEEN REVIEWED IN DETAIL, AND ARE CORRECT AND IN STRICT CONFORMANCE WITH THE CONTRACT DRAWINGS AND SPECIFICATIONS.

Consultant Signature:
Engr. Bruce McDonald
Owner Signature:
12/12/13

12 DEC 2013



KKIA TERMINAL-5 (T5) PROJECT
MATERIAL SUBMITTAL

NEW SUBMITTAL RE SUBMITTAL
MANUFACTURER / SUPPLIER DETAILS
MANUFACTURER / SUPPLIER
ITCC / ELECTRIC HOUSE

DESCRIPTION
METAL CONDUIT AND FITTINGS
(SPECIFICATION)

ACTION CODE : 1. Work May Proceed. 3. Revise & Re-submit. Work May Not Proceed.
2. Revise & Re-submit. Work May Proceed subject to incorporation of changes indicated. 4. Review Not Required. Work May Proceed.

GACA/SC COMMENTS :
- ITCC /ELECTRIC HOUSE IS APPROVED AS SUPPLIER OF ELECTRICAL STEEL CONDUITS (EMT, RMC, IMC, FC, FITTINGS) STEEL TUBES FOR T5 KKIA PROJECT. (AS PER SAMPLES).
- ALL MATERIALS TO BE USED SHOULD BE ACCORDING TO APPROVED SPECIFICATIONS & SHOP DRAWINGS. (TO BE SUBMITTED).
- THE SIZES, TYPES AND APPLICATION OF CONDUITS AS PER APPROVED SHOP DRAWINGS AND SPECIFICATIONS.
- ONLY UL LISTED PRODUCTS TO BE USED.

المقاول :
المهندس طارق الراجحي
مكتب خدمات الاستشارات الهندسية
SAUDCONSULT
TAV Construction
TAV
Saudi Consulting Services (Saudconsult)
P.O. Box 2341 - Riyadh 11451

NEW SUBMITTAL RE SUBMITTAL
MANUFACTURER / SUPPLIER DETAILS
MANUFACTURER / SUPPLIER
ITCC / ELECTRIC HOUSE

DESCRIPTION
METAL CONDUIT AND FITTINGS
(SPECIFICATION)

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GACA/SC COMMENTS :
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- ALL MATERIALS TO BE USED SHOULD BE ACCORDING TO APPROVED SPECIFICATIONS & SHOP DRAWINGS. (TO BE SUBMITTED).
- THE SIZES, TYPES AND APPLICATION OF CONDUITS AS PER APPROVED SHOP DRAWINGS AND SPECIFICATIONS.
- ONLY UL LISTED PRODUCTS TO BE USED.

Received by : (Contractor)
Name, Signature & Date

المقاول :
المهندس طارق الراجحي
مكتب خدمات الاستشارات الهندسية
SAUDCONSULT
TAV Construction
TAV
Saudi Consulting Services (Saudconsult)
P.O. Box 2341 - Riyadh 11451

NEW SUBMITTAL RE SUBMITTAL
MANUFACTURER / SUPPLIER DETAILS
MANUFACTURER / SUPPLIER
ITCC / ELECTRIC HOUSE

DESCRIPTION
METAL CONDUIT AND FITTINGS
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- ALL MATERIALS TO BE USED SHOULD BE ACCORDING TO APPROVED SPECIFICATIONS & SHOP DRAWINGS. (TO BE SUBMITTED).
- THE SIZES, TYPES AND APPLICATION OF CONDUITS AS PER APPROVED SHOP DRAWINGS AND SPECIFICATIONS.
- ONLY UL LISTED PRODUCTS TO BE USED.

Received by : (Contractor)
Name, Signature & Date



THE EMPLOYER: 	King Abdulaziz International Airport Development Project (Phase I) Jeddah, KSA	THE CONSTRUCTION MANAGER:  dar al-handasah shari and partners
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The CM's Reply to Submittals (CRS)

Submittal Ref. No.	: 421-422-MTS-E-00325-00	Date :	03 Dec. 2011
Submittal Title:	RMC Conduits, Fittings and Metallic Boxes		
Contractor's Name	Saudi Binladin Group		
Contract No./Title	J-10-421-PF-0 – Terminal Complex, Control Tower and Supporting Facilities. J-10-422-PF-0 – Aprons, Taxiways, Roads, Tunnels, Bridges, Load Centers and Infrastructure, Transportation Center and Supporting Facilities		

Action Code (tick as appropriate):

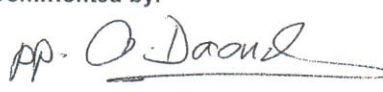
1. Approved, work may proceed.
2. Approved as noted, work may proceed subject to incorporation of comments and resubmit to grant Code (1).
3. Revise and resubmit, work may not proceed.
4. Rejected.
5. Review not required.

For Drawing/Design Submittals, please refer to the attached DDS List for detailed status code.

Review Comments:

1. Provide galvanized cast iron boxes with threaded hubs for indoor exposed surface mounted installation.
2. Provide galvanized cast iron boxes with threaded hubs, PVC gaskets and stainless steel or non-ferrous, corrosion resistance screws for all outdoor installations.
3. All metallic boxes are to be delivered with its grounding bolts from the same box's manufacturer.
4. Use 3 piece unions where required for instance at running threads, boxes with threaded hubs, etc.
5. Use threaded hubs where EMT or RMC are interfacing electrical panel boards.
6. Comments on the submitted sample:
 - i. Locknut to be installed inside and outside the metallic box.
 - ii. Use conduit hanger with bolt and nut to secure metallic conduit instead of one hole straps.
 - iii. Zinc coating painting shall follow any cutting/threading process.



The Construction Manager's approval shall not in anyway relieve the Contractor from full compliance with contractual obligations.

Commented by:  Nabil Guindi/Michael Adel Initial/Signature Over Printed Name	18-Dec- 2011 Date	Issued by:  John Macdonald Project Manager	18-Dec- 2011 Date
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Sameer
4:00 PM



cc: T.A C
421
T.M
kyd

THE EMPLOYER:  General Authority of Civil Aviation	King Abdulaziz International Airport Development Project (Phase I) Jeddah, KSA	THE CONSTRUCTION MANAGER:  dar al-handasah shaer and partners
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The CM's Reply to Submittals (CRS)

Submittal Ref. No. :	421-422-MTS-E-00325-01	Date :	25 Mar. 2015
Submittal Title:	RMC Conduits, Fittings and Metallic Boxes		
Contractor's Name :	Saudi Binladin Group		
Contract No./Title :	J-10-421-PF-0 – Terminal Complex, Control Tower and Supporting Facilities. J-10-422-PF-0 - Aprons, Taxiways, Roads, Tunnels, Bridges, Load Centers and Infrastructure, Transportation Center and Supporting Facilities		

Action Code (tick as appropriate):

1. Approved, work may proceed.

2. Approved as noted, work may proceed subject to incorporation of comments and resubmit to grant Code (1).

3. Revise and resubmit, work may not proceed.

4. Rejected.

5. Review not required.

For Drawing/Design Submittals, please refer to the attached DDS List for detailed status code.

مجموعة بن لادن السعودية
قطاع الصيانة وانشاء المباني
مشروع مطار الملك عبدالعزيز الدولي - جدة

22 APR 2015 9:30

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
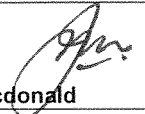
Review Comments:

- Crouse hinds cast aluminum boxes are principally accepted provided that to be delivered complete with cover, gasket, cover screws, earthing bolts, etc. all from Crouse hinds USA.
- List of the used Crouse hinds products shall be in accordance with approved shop drawings/ site requirements.

N.B

CM wonders the revised submittal (after 4 years since granting code 2 on the previous revision) just for changing type of the used box with no technical justification.

The Construction Manager's approval shall not in any way relieve the Contractor from full compliance with contractual obligations.

Commented by:  NGI Initial/Signature Over Printed Name	Issued by:  John Macdonald Project Manager
20-Apr-2015 Date	21/4/15 Date

THE CONSTRUCTION MANAGER:
 dar al-handasah
 shair and partners

King Abdulaziz International
 Airport Development Project
 (Phase I) Jeddah, KSA

THE CONTRACTOR:
 SAUDI BINLADEN GROUP
 مجموعة بن لادن السعودية

MATERIAL SUBMITTALS (MTS)

Submittal Ref. No. : 421-422-MTS-E-00325 Rev. : 00 Date : 03/12/2011

Submittal Title : RMC Conduits, Fittings and Metallic **boxes**.

Contractor Name : Saudi Binladin Group
 Contract No. / Title : J-10- 421 Terminal Complex, Control Tower and Supporting Facilities
 J-10-422-PF-0 - Aprons, Taxiways, Roads, Tunnels, Bridges, Load Centers and Infrastructure,
 Transportation Center and Supporting Facilities
 Subcontractor's Name : Advanced Vision
 Specification Clause No. : 260533

Drawing Ref. No. :
 Standard Ref. : BS 4568 Part 1 and BS 31 Class B Submitted as per ANSI C80.1 and UL6

Manufacturer's Name: ITCC
 Country of Origin: SA - SAUDI ARABIA
 Supplier Name: Electric House
 Supplier's Address: Jeddah -KSA
 LEED Compliance: NA
 Area of Application : A000



Routing Slip		Lead Action	Part Action	For Review	For Info	Cover Only
KAIA Des.						
Date:	3/12					
From:	SM					
Name	NG/MA	✓				
	OD		✓			
	AT			✓		
	NH			✓		

Description of Contents:
 RMC Conduits, Fittings and Metallic Boxes

Attachment:
 No. of copy + original =
 No. of softcopy (CD) = Others:



Purpose of Submission:
 For Review & Approval For Information & Records

We certify that the above submitted items have been reviewed in details and are correct and in strict conformity with the Contract except as otherwise stated hereon.

Prepared By (Doc. Originator): <u>W. Chehade</u> 03/12/2011 Name/Sign Date	Reviewed By (QA Manager): <u>Oussama Abbas</u> 03-12-2011 Name/Sign Date	Approved By (Project Manager): <u>[Signature]</u> 3/12/2011 Name/Sign Date
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VISION - SAT WS SN (Techob6-422) [MTS-50-02] [MTS-247-00] [MTS-246-00]

File-421 ✓

<p>THE EMPLOYER:</p> 	<p>King Abdulaziz International Airport Development Project (Phase I) Jeddah, KSA</p>	<p>THE CONSTRUCTION MANAGER:</p> 
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The CM's Reply to Submittals (CRS)

Submittal Ref. No.	: 421-422-MTS-E-0050-02, E-00247-00 and E-00246-00	Date	: Received 13, 17 and 17 Oct. 2011
Submittal Title:	: EMT Conduit, EMT Fittings and Metallic Outlet Boxes		
Contractor's Name	: Saudi Binladin Group		
Contract No./Title	: J-10-421-PF-0 – Terminal Complex, Control Tower and Supporting Facilities. J-10-422-PF-0 – Aprons, Taxiways, Roads, Tunnels, Bridges, Load Centers and Infrastructure, Transportation Center and Supporting Facilities		

Action Code (tick as appropriate): **AS SHOWN BELOW**

- 1. Approved, work may proceed.
- 2. Approved as noted, work may proceed subject to incorporation of comments and resubmit to grant Code (1).
- 3. Revise and resubmit, work may not proceed.
- 4. Rejected.
- 5. Review not required.
- For Drawing/Design Submittals, please refer to the attached DDS List for detailed status code.



Review Comments:

Below is the CM response to the separately submitted material submittals related to EMT conduits/fitting/boxes which are interrelated and should have been submitted under one submittal as previously requested by the CM:

Submittal ref. no. 421-422-MTS-E-00050-02 (EMT Conduit) "ITCC": Approved as per attached material/item list. (Action Code 1)

Submittal ref. no. 421-422-MTS-E-00247-00 (EMT Fittings): (Action Code 2)

COOPER CROUSE-HINDS is approved as manufacturer of EMT fittings complying with the Contract requirements; however Contractor is to note the following:

- a. The submitted catalogues includes marked up for IMC and RMC fittings, which are not the objective of the submittal as indicated on the cover page.
- b. For EMT fittings, adjust the model number of straight connectors non-insulated to be 451DC-459DC instead of 451DC-559DC.
- c. Some model numbers for the submitted one hole straps are not UL listed e.g. 206, 207, 208 and 209. Contractor is to clarify.

Submittal ref. no. 421-422-MTS-E-00246-00 (Metallic Outlet Boxes) "KHEREIJI": Approved as per attached material/item list. (Action Code 1)

Notes:

- 1. Comply with specification section 260533, Part 3 "Execution" during Construction.
- 2. Ensure adequate number/size of conduits during construction based on final approved shop drawings taking into account proper conduit filling factors.

The Construction Manager's approval shall not in anyway relieve the Contractor from full compliance with contractual obligations.

Commented by:

PP. O. Guindi

Nabil Guindi

Initial/Signature Over Printed Name

29-Oct- 2011

Date

Issued by:

J. Macdonald

John Macdonald

Project Manager

29-Oct- 2011

Date

cc: T.A.C
[Handwritten signature]



**King Abdulaziz International
Airport Development Project**
(Phase I)
Jeddah, KSA

THE CONTRACTOR:

مجموعة بن لادن السعودية
SAUDI BINLADIN GROUP



MATERIAL SUBMITTALS (MTS)

Submittal Ref. No.: PV167-421/422-DCS-MTS-E-0016 Rev.02 Date: 4 October 2011

Submittal Title: **EMT Conduit**

Contractor's Name: Saudi Binladin Group
Contract No. / Title: J-10-421-PF-0 - Terminal Complex, Control Tower and Supporting Facilities.
J-10-422-PF-0 - Aprons, Taxiways, Roads, Tunnels, Bridges, Load Centers and Infrastructure, Transportation Center and Supporting Facilities .

Subcontractor's Name: Advanced Vision
Specification Clause No.: 260533- Exhibit "D" - special specifications, Part - D2
Drawing Ref. No.: all
Standard Ref.: ANSI C80.3 and UL 797

Manufacturer's Name: **ITCC**
Country of Origin: **Jeddah - KSA**
Supplier Name: **ELECTRIC HOUSE**
Supplier's Address: Jeddah - KSA
LEED Compliance: ---
Area of Application: General Application

Description of Contents:

Area Of application:

3.3 CONDUITS AND WIREWAYS APPLICATIONS AND INSTALLATION, GENERAL

C. Electrical Metallic Tubing (EMT) is to be used for exposed installations over false ceilings when the false ceiling is used as a return plenum.

D. Electrical Metallic Tubing (EMT) is to be used for exposed and above false ceiling wiring installations used in conjunction with exit and escape route lighting/central battery circuits, fire alarm & security installations.

E. Electrical Metallic Tubing (EMT) is to be used for all installations in elevator machine rooms and shafts, electrical equipment rooms, parking floors and solid waste rooms.

F. Electrical Metallic Tubing (EMT) is to be used for concealed installations in dry / gypsum board walls.

G. Electrical Metallic Tubing (EMT) is to be used for exposed installations in car park areas

H. Electrical Metallic Tubing (EMT) is to be used for all installations in patient care areas of hospitals, except embedded installations in reinforced concrete slabs.

RECEIVED
10 OCT 2011
[Signature]

E/Essa
[Signature]
10/10/2011

Material Sample included in the submission

Attachment:

No. of copy + original =
No. of softcopy (CD) = Others:

Purpose of Submission:

For Review & Approval For Information & Records

We certify that the above submitted items have been reviewed in details and are correct and in strict conformity with the Contract except as otherwise stated hereon.

Vision Office: <i>[Signature]</i> HANNA NASSAR Date: 9 Oct 2011		Received By (Vision Site Team): Name/Sign: _____ Date: _____		Received By (ABCD): Name/Sign: _____ Date: _____	
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**King Abdulaziz International
Airport Development Project
(Phase I)
Jeddah, KSA**

THE CONTRACTOR:

مجموعة بن لادن السعودية
SAUDI BINLADIN GROUP



MATERIAL SUBMITTALS (MTS)

Submittal Ref. No.: : PV167-421/422-DCS-MTS-E-0075 REV.00 Date: **8 October 2011**

Submittal Title : **EMT Fittings**

Contractor's Name : Saudi Binladin Group
Contract No. / Title : J-10-421-PF-0 - Terminal Complex, Control Tower and Supporting Facilities.
J-10-422-PF-0 - Aprons, Taxiways, Roads, Tunnels, Bridges, Load Centers and Infrastructure, Transportation Center and Supporting Facilities .

Subcontractor's Name : Advanced Vision
Specification Clause No. : 260533- Exhibit "D" - special specifications, Part - D2
Drawing Ref. No. : all
Standard Ref. : UL 514 B/ C22.2 No 18 / Nema FB1

Manufacturer's Name : **COOPER CROUSE-HINDS**
Country of Origin : USA
Supplier Name : **ELECTRIC HOUSE**
Supplier's Address : Jeddah - KSA
LEED Compliance : --
Area of Application : General Application

Description of Contents:

Note: Cooper Zinc die cast fittings are Compatible with ITCC conduits (submittal Ref#:421-422-MTS-E-0016-00)



E/Esse
[Signature]
10/10/2011

Material Sample included in the submission

Attachment:

No. of copy + original =
No. of softcopy (CD) = Others:

Purpose of Submission:

For Review & Approval For Information & Records

We certify that the above submitted items have been reviewed in details and are correct and in strict conformity with the Contract except as otherwise stated hereon.

Vision Office: <i>[Signature]</i> HANNA NASSAR Date: <i>10/9/2011</i>	Received By (Vision Site Team): Name/Sign _____ Date _____	Received By (ABCD): Name/Sign _____ Date _____
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THE EMPLOYER:  المملكة العامة للطيران المدني General Authority of Civil Aviation	King Abdulaziz International Airport Development Project (Phase I) Jeddah, KSA	THE CONSTRUCTION MANAGER:  dar al-handasah shair and partners
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The CM's Reply to Submittals (CRS)

Submittal Ref. No.	: 421-422-MTS-Y-01781-02	Date:	23-Sep-2014
Submittal Title:	: RMC Conduits & Fittings and EMT Fittings (ITCC)		
Contractor's Name	: Saudi Binladin Group		
Contract No./Title	: J-10-421-PF-0 - Terminal Complex, Control Tower and Supporting Facilities J-10-422-PF-0 - Aprons, Taxiways, Roads, Tunnels, Bridges, Load Centers and Infrastructure, Transportation Center and Supporting Facilities		

Action Code (tick as appropriate):

1. Approved, work may proceed.

2. Approved as noted, work may proceed subject to incorporation of comments and resubmit to grant Code (1).

3. Revise and resubmit, work may not proceed.

4. Rejected.

5. Review not required.

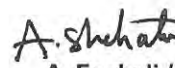

For Drawing/Design Submittals, please refer to the attached DDS List for detailed status code.

مجموعة بن لادن السعودية
 هيئة الهندسة والبناء
 02 OCT 2014 9:10 PM
RECEIVED

Review Comments:

- This submittal was received and reviewed as a partial submittal. Coordination of work in this submittal with other submittals is the Contractor's responsibility.
- Any proposed change by the Contractor to previously approved material submittals shall be resubmitted for reevaluation and approval by the CM. All re-submittals shall include all supporting documents.
- All resubmittals shall have the changed information clearly clouded/highlighted by the submitter. Review of resubmittals applies only to the above highlighted information and is not a mechanism for granting approvals to items not specifically clouded/highlighted.
- Contractor to provide UL certification for the following model numbers: CS-ES1400, CS-ES2400, CS-EL400, CS-EL4125, CS-EL4200, CS-EL4400, C-FC0100, C-FC0125, C-R00400, C-RS1100, C-RS1125, C-RS1200, C-RS1400, C-RL9400, C-RL440
- Expansion joints conduits that will be submitted shall be compatible with ITCC conduits.

The Construction Manager's approval shall not in anyway relieve the Contractor from full compliance with contractual obligations.

Commented by:  A. Feghali / HUK Initial/Signature Over Printed Name	Issued by:  John Macdonald Project Manager
02-Oct-2014 Date	02-Oct-2014 Date