



EXPRO National Manual for Projects Management

Volume 6, chapter 7

Architectural Design Aids



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Architectural Design Aids

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1.0 PURPOSE

The purpose of this section is to provide the Entity-A/E the templates, checklists, design guidelines, etc. (collectively called Design Aids) to comprehensively define the Architectural design of a Project and ensure that the design is complete, uses the appropriate templates and has undergone the necessary checks to achieve the quality design required for the Entity's project.

Refer to Chapter 7, Section 1 - General Design Guidelines (Document No EPM-KE0-GL-000016) for the definition of terms used and the instructions on the use of every element of Design Aids. Section 1 also covers non-discipline specific Design Aids such as Calculation Templates, Calculation check list, Design software list, etc. which apply to all engineering disciplines including Architecture. Users are urged to carefully read the instructions provided in Chapter 7, Section 1 to fully understand the purpose and use of all documents listed in this section.

The Entity-A/E shall review the list of documents in both sections (Section 1 and 5) of chapter 7 and determine the templates, check lists, etc. applicable to their project. The list of applicable templates/ checklists/ etc. may vary from project to project depending upon the Design Scope of Work of every Project.

Particular attention shall be given to energy efficiency and water conservation measures through both design and construction. From initial design the energy goals shall be defined in order to set clear objectives to the design teams. Early application of design techniques such as site placement, massing and orientation will establish conservation opportunities and then further re-enforced through the fabric design and construction detailing. It is then complimented with holistic services design to complete a fully coordinated building design.

2.0 ARCHITECTURAL DESIGN AIDS

The Architectural Design Aids developed for use on Entity's projects are listed below, each issued as a standalone document.

2.1 Architecture Design Guidelines

Refer to Volume 6, Chapter 7 - General Design Guidelines (Document No EPM-KE0-GL-000016) for the purpose and the instructions on the use of discipline Design Guidelines issued for use in the design of Entity's Projects.

Refer to the document EPM-KEA-GL-000001 for the details of the Architecture Design Guidelines. In addition to this, Volume 6, Chapter 7 Design Guidelines, Section 3 - Architecture, contains the following Guidelines:

1	Architectural Design Guidelines	EPM-KEA-GL-000001
2	Landscape Architecture Design Guidelines	EPM-KEA-GL-000005
3	Universal Accessibility Guidelines	EPM-KEA-GL-000004
4	Program of Rooms / Spaces for Building Design Guidelines	EPM-KEA-GL-000006
5	Door and Window schedule Guidelines	EPM-KEA-GL-000003
6	Material Finish Schedule Guidelines	EPM-KEA-GL-000007
7	Escalator Data Sheet Guidelines	EPM-KEA-GL-000008
8	Elevator Data Sheet Guidelines	EPM-KEA-GL-000009

2.2 Architecture Design Deliverables

Refer to Volume 6, Chapter 7 - General Design Guidelines (Document No EPM-KE0-GL-000016) for the purpose and the instructions on the use of List of Design Deliverables issued for use in the design of Entity's projects.

For a typical list of design deliverables applicable for the Architecture design discipline, Volume 6, Chapter 7 Design Guidelines, Section 3 - Architecture, contains the following Register:



Architectural Design Aids

1	Architectural Deliverables Register	EPM-KEA-RG-000001
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2.3 Procedures

Refer to Volume 6, Chapter 7 - General Design Guidelines (Document No EPM-KE0-GL-000016) for the purpose and the instructions on the use of Checklists issued for the use in the design of Entity's projects.

Volume 6, Chapter 7 Design Guidelines, Section 3 - Architecture, contains the following Procedures:

1	Encroachment Permits Procedure	EPM-KEA-PR-000001
2	Saudi Arabia Archeology Regulations Procedure	EPM-KEA-PR-000002

2.4 Design Checklists

Refer to Volume 6, Chapter 7 - General Design Guidelines (Document No EPM-KE0-GL-000016) for the purpose and the instructions on the use of Checklists issued for the use in the design of Entity's projects.

The table below lists Architectural checklists to be used for the documents listed.

1	Architectural Drawings Checklist	EPM-KEA-TP-000001
2	Universal Accessibility Checklist	EPM-KEA-TP-000020

2.5 Templates

Refer to Volume 6, Chapter 7 - General Design Guidelines (Document No EPM-KE0-GL-000016) for the purpose and the instructions on the use of Templates issued for the use in the design of Entity's projects.

The table below lists Architectural templates to be used for the documents listed.

1	Architectural Design Criteria Template	EPM-KEA-TP-000003
2	Landscape Design Criteria Template	EPM-KEA-TP-000010
3	Final Report of Program of Rooms/Spaces for Building Design Template	EPM-KEA-TP-000004
4	Room Data Sheet Template	EPM-KEA-TP-000021
5	List of Rooms/Spaces with Areas Template	EPM-KEA-TP-000022
6	Interaction Adjacency Matrix Template	EPM-KEA-TP-000023
7	Group Session Meeting Agenda and Notes Template	EPM-KEA-TP-000024
8	Door Schedule Template	EPM-KEA-TP-000005
9	Window Schedule Template	EPM-KEA-TP-000025
10	Material Finish Schedule Template	EPM-KEA-TP-000006
11	Finishes Legend Template	EPM-KEA-TP-000026
12	Data Sheet Escalator Template	EPM-KEA-TP-000007
13	Data Sheet Elevator Template	EPM-KEA-TP-000008
14	Encroachment Application (Permit & Restoration) Template	EPM-KEA-TP-000012
15	Statement of Works and Proposed Actions Template	EPM-KEA-TP-000013
16	Conditions for Road Encroachments Template	EPM-KEA-TP-000014
17	Conditions for Grounds and Landscaping Encroachments Template	EPM-KEA-TP-000015



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18	Special Conditions for Sanitary & Industrial Wastewater Systems Template	EPM-KEA-TP-000016
19	Conditions for Potable and Raw Water Encroachments Template	EPM-KEA-TP-000017
20	Conditions for Treated Effluent and Wastewater Encroachments Template	EPM-KEA-TP-000018
21	Receipt of Antiquity Template	EPM-KEA-TP-000011

2.6 Typical Construction Detail Drawings (TCDDs)

Refer to Volume 6, Chapter 7 - General Design Guidelines (Document No EPM-KE0-GL-000016) for the purpose of issue of TCDD in the design of Entity's projects.

Table below lists examples of Architectural TCDD's issued as sample for use by Entity.

1	Solid Core Door Details	EPM-KEA-05-000001
2	Hollow Metal Door Details	EPM-KEA-05-000002
3	Architectural Abbreviations	EPM-KEA-19-000001
4	Architectural Materials Legend	EPM-KEA-11-000001
5	Clear Glass Door Details	EPM-KEA-05-000003

2.7 Attachments

The following are a list of attachments associated to Volume 6, Chapter 7 Design Guidelines, Section 3 – Architecture:

1. EPM-KEA-TP-000001 - Architectural Drawings Checklist
2. EPM-KEA-TP-000020 - Universal Accessibility Checklist
3. EPM-KEA-TP-000003 - Architectural Design Criteria Template
4. EPM-KEA-TP-000010 - Landscape Design Criteria Template
5. EPM-KEA-TP-000004 - Final Report of Program of Rooms/Spaces for Building Design Template
6. EPM-KEA-TP-000021 - Room Data Sheet Template
7. EPM-KEA-TP-000022 - List of Rooms/Spaces with Areas Template
8. EPM-KEA-TP-000023 - Interaction Adjacency Matrix Template
9. EPM-KEA-TP-000024 - Group Session Meeting Agenda and Notes Template
10. EPM-KEA-TP-000005 - Door Schedule Template
11. EPM-KEA-TP-000025 - Window Schedule Template
12. EPM-KEA-TP-000006 - Material Finish Schedule Template
13. EPM-KEA-TP-000026 - Finishes Legend Template
14. EPM-KEA-TP-000007 - Escalator Data Sheet Template
15. EPM-KEA-TP-000008 - Elevator Data Sheet Template
16. EPM-KEA-TP-000012 - Encroachment Application (Permit & Restoration) Template
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21. EPM-KEA-TP-000017 - Conditions for Potable and Raw Water Encroachments Template
22. EPM-KEA-TP-000018 - Conditions for Treated Effluent and Wastewater Encroachments Template
23. EPM-KEA-TP-000011 - Receipt of Antiquity Template
24. EPM-KEA-RG-000001 - Architectural Deliverables Register
25. EPM-KEA-05-000001 - Drawing - Solid Core Door Details
26. EPM-KEA-05-000002 - Drawing - Hollow Metal Door Details
27. EPM-KEA-19-000001 - Drawing - Architectural Abbreviations
28. EPM-KEA-11-000001 - Drawing - Architectural Materials Legend
29. EPM-KEA-05-000003 - Drawing - Clear Glass Door Details



Architectural Design Aids

Attachment 1- EPM-KEA-TP-000001 - Architectural Drawings Checklist



Checklist - Architectural Drawings

PROJECT NAME:		DOCUMENT NO.			REV.		
No.	QUESTIONS	ORIGINATOR			CHECKER		
		N/A	YES	NO	N/A	YES	NO
GENERAL							
1	Correct levels, colors, line styles, and weights as per Architectural Standards.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	All Elements have been flattened to a 2D plan.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	Check HOLD clouds to ensure they are not over drawing entities text and dimensions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	Line weights the same for all matching materials.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	Text attributes are per standards.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	Sequential "alpha" section cuts within the same drawing number.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	Sequential "numeric" details within the same drawing number.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	North arrow if needed in upper right corner of the drawing pointing up, to the left, or on correct angle (if applicable). Quibla included and angled correctly toward Mecca.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9	Notes, in upper right hand corner (or where appropriate) of drawing in title block or on correct level.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10	Correct abbreviations as per Architectural Abbreviations and the Legends sheets.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11	No periods to be used in Abbreviations.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12	Checked Spelling.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13	Correct and most updated version Key plan on plan drawings (where applicable).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14	Current extractions from model compare with latest model.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15	All Reference Drawings and documents noted on drawings to have dashes separating drawing number.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16	Check print cell and "Preliminary" text to be "turned off" prior to the issue of drawing.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TITLE BLOCK INFORMATION							
17	Correct drawing scale in the project title block.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18	Correct project title in the drawing titles.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19	Correct drawing number in the title block.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20	Correct Revision Number in the title block.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21	Project number has been filled in.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22	Scale: in the title block is filled in.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23	Complete the Originator, Checker, and Approved By, including correct dates.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24	Drawing Index has been included on first sheet of the sequential set and has listed all sheets of the set.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
25	Reference Drawing box is included all referenced drawings indicated on drawing.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ARCHITECTURAL DRAWINGS							
26	Any Holds on drawings are still relevant at document issue.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
27	Correct patterning and correct pattern scale and line type.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
28	Compare room numbers with schedule table of room numbers and name.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29	Compare door, window and screen numbers with schedule tables for each.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
30	Architectural dimensioning is from the centerline of column grids to center of studs for interior partitions and to face of studs at exterior walls, unless otherwise noted.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
31	The most up to date extractions from the model are being used.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
32	All modeling discrepancies or conflicts with other disciplines have been reported for correction.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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Level - 3-E - External

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Checklist - Architectural Drawings - Confidential. This document was prepared by Saudi Arabian Borimat Company (Borimat) for the National Project Management Organisation and is subject to the restrictions set out in the Contract and Important Notice contained on page 3 of the document.

Attachment 2 - EPM-KEA-TP-000020 - Universal Accessibility Checklist



Checklist – Universal Accessibility



EPM-KEA-TP-000020 - Checklist - Universal Accessibility

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FPM-KFA-TP-000020 Rev 00A v01

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Attachment 3 - EPM-KEA-TP-000003 - Architectural Design Criteria Template



Template - Architectural Design Criteria

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Attachment 4 - EPM-KEA-TP-000010 - Landscape Design Criteria Template



Template - Landscape Architecture Design Criteria

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Attachment 5 - EPM-KEA-TP-000004 - Final Report of Program of Rooms/Spaces for Building Design Template



Template - Final Report of Program of Rooms/Spaces for Building Design

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4.1.3	Test Areas Versus Original Space Assignments.....	6
4.2	Room Data Sheets.....	6
4.3	Adjacency Matrices.....	7
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Template - Final Report of Program of Rooms/Spaces for Building Design - Confidential. This document was prepared by Saudi Arabian Bechtel Company (Bechtel) for the National Project Management Organization and is subject to the restrictions set out in the Contract and Important Notice contained on page 3 of the document.



Architectural Design Aids

Attachment 6- EPM-KEA-TP-000021 - Room Data Sheet Template

 هيئة كفاءة الإنفاق والمشروعات الحكومية Expenditure Efficiency & Projects Authority		Project Name: _____	
		Document No. _____	
		Revision No. _____	
ROOM DATA SHEET			
ROOM NO.:		NAME OF ROOM / SPACE:	
DEPARTMENT NAME:			
ROOM / SPACE DATA			
NET FLOOR AREA, m ² :		AVERAGE NO. OF OCCUPANTS:	
USE/CATEGORY:		NO. OF SPACES BY TYPE: Carparking	
ROOM / SPACE FUNCTION			
PROVIDE A GENERAL DESCRIPTION OF THE ROOM/SPACE, INCLUDING ITS FUNCTION, FEATURES AND ACCESS:			
TECHNICAL REQUIREMENTS			
LIST AMOUNTS, CONDITIONS, MATERIALS, OPTIONS, RANGES, AS APPROPRIATE:			
Architectural		Plumbing	
Floor:	_____	Hot Water:	_____
Base:	_____	Cold Water:	_____
Walls:	_____	Treated:	_____
Ceiling:	_____	Drains:	_____
Lighting:	_____	Other:	_____
Other:	_____		
Electrical		Telecommunications	
Power:	_____	Data:	_____
Dedicated Circuits:	_____	TV:	_____
Outlets:	_____	Phone:	_____
Other:	_____	Other:	_____
Mechanical		Furniture, Fixtures and Equipment	
Temperature:	_____	(List items, numbers, size, as appropriate)	
Humidity:	_____	_____	
Air Changes/Hour:	_____	_____	
Other:	_____	_____	
Notes:			

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Attachment 7 - EPM-KEA-TP-000022 - List of Rooms/Spaces with Areas Template



Template – List of Rooms/Spaces with Areas

EXPRO		Project Name: _____				
EXPRO		Document No. _____				
EXPRO		Revision No. _____				
EPM-KEA-TP-000022						
TEMPLATE - LIST OF ROOMS / SPACES WITH AREAS						
Record below in the columns provided the room/space names and dimensions, along with any associated information with the rooms/ spaces in the "Notes" column. The Net Area column and its total will populate automatically. Add other columns and rows and carry over Net Areas to more pages as required. This data can either be provided directly or developed during the interface sessions with the Client. When drawn in Revit, the rooms/spaces will generate a listing of data similar to those listed below, along with other attributes as needed.]						
NO.	ROOM/SPACE	DEPARTMENT	LENGTH	WIDTH	NET AREA	NOTES
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
TOTAL NET AREA						

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Template – List of Rooms/Spaces with Areas - Confidential. This document was prepared by Saudi Arabian Bechtel Company (Bechtel) for the National Project Management Organization and is subject to the restrictions set out in the Contract and Important Notice contained on page 3 of the document.



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Attachment 8 - EPM-KEA-TP-000023 - Interaction Adjacency Matrix Template



Template – Interaction Adjacency Matrix

EXPRO		Project No.	Document No.	Rev No.																			
هيئة الإنفاق والمشتريات الحكومية Expenditure Efficiency & Projects Authority																							
EPM-KEA-TP-000023																							
TEMPLATE - INTERACTION ADJACENCY MATRIX																							
Legend: S = Strong Proximity C = Close Proximity N = Neutral Proximity A = Avoidance		<div>SAMPLE</div>																					
Name of Space																							
1	2				3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
2																							
3																							
4																							
5																							
6																							
7																							
8																							
9																							
10																							
11																							
12																							
13																							
14																							
15																							
16																							
17																							
18																							
19																							
20																							
(Add more spaces as required)		(Add more spaces as required)																					

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Template – Interaction Adjacency Matrix - Confidential. This document was prepared by Saudi Arabian Bechtel Company (Bechtel) for the National Project Management Organization and is subject to the restrictions set out in the Contract and Important Notice contained on page 3 of the document.



Attachment 9 - EPM-KEA-TP-000024 - Group Session Meeting Agenda and Notes Template



Template – Group Session Meeting Agenda and Notes



EPM-KEA-TP-000024 – TEMPLATE

GROUP SESSION

Template – Group Session Meeting Agenda and Notes

<Name of Organization>

<Date>

<Venue>

Meeting Details :

Attendees :

Distribution :

Agenda :

Minutes :

Actions :

MAINTAIN A ROLLING LOG OF MEETINGS BY SERIES TO HIGHLIGHT ACTIONS BEING RAISED AND CLOSED.

Client/stakeholder :

Design Team :

Contractor :

Sub-contractor :

Authorities :

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Attachment 10 - EPM-KEA-TP-000005 - TEMPLATE - DOOR SCHEDULE



3300	44.5	HM 1.3mm THK	PVDF 32μm	STEEL	PVDF 32μm
2200	44.5	HM 1.3mm THK	PVDF 32μm	1.6mm THK STEEL	PVDF 32μm
3300	44.5	HM 1.3mm THK	PVDF 32μm	1.6mm THK STEEL	PVDF 32μm
3300	44.5	HM 1.3mm THK	PVDF 32μm	1.6mm THK STEEL	PVDF 32μm
3300	44.5	HM 1.3mm THK	PVDF 32μm	1.6mm THK STEEL	PVDF 32μm
2650	44.5	HM 1.3mm THK	PVDF 32μm	1.6mm THK STEEL	PVDF 32μm
2650	44.5	HM 1.3mm THK	PVDF 32μm	1.6mm THK STEEL	PVDF 32μm
2200	44.5	HM 1.3mm THK	PVDF 32μm	1.6mm THK STEEL	PVDF 32μm
1750	44.5	HM 1.3mm THK	PVDF 32μm	1.6mm THK STEEL	PVDF 32μm

[illegible]



Architectural Design Aids

Attachment 13 - EPM-KEA-TP-000026 - Finishes Legend Template



Template – Finishes Legend

EPM-KEA-TP-000026 - Finishes Legend		
PROJECT NAME	DOCUMENT NUMBER	REVISION
FINISH TYPE	FINISH DESCRIPTION	SPECIFICATION REFERENCE
F1	12" x 12" CERAMIC TILES	
F2	12" x 12" VINYL FLOOR TILE WITH 1/4" RUBBER BASE	
F3	URETHANE MORTAR WITH AGGREGATE FINISH (VEHICULAR USE)	
C1	SUSPENDED DRY WALL CEILING - PAINTED	
C2	MOISTURE RESISTANT DRY WALL CEILING - PAINTED	
C3	FAIR-FACED (CEILING WILL BE FORMED BY UNDERSIDE OF FLOOR OR ROOF CONSTRUCTION)	
(Example of typical data in blue text)		

SAMPLE

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Attachment 14 - EPM-KEA-TP-000007 - Escalator Data Sheet Template



Template - Escalator Data Sheet

Table of Contents

1.0	ESCALATOR TECHNICAL DATA	5
1.1	Escalator - General Data	5
1.2	Design Data	5
1.3	Drive & Control System	5
1.4	Drive Machine	6
1.5	Balustrade	6
1.6	Steps	6
1.7	Truss	7
1.8	Track System	7
1.9	Step Chains	7
1.10	External Interfaces	7
1.11	Control and Operation Features	7
1.11.1	Safety Features	7
1.11.2	Emergency Features	9
1.11.3	General Operation Features	9
1.11.4	Method of Intermittent (standby speed) Operation	9
1.11.5	Certificates	9

SAMPLE

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Template - Escalator Data Sheet - Confidential. This document was prepared by Saudi Arabian Bechtel Company (Bechtel) for the National Project Management Organization and is subject to the restrictions set out in the Contract and Important Notice contained on page 3 of the document.



Attachment 15 - EPM-KEA-TP-000008 - Elevator Data Sheet Template



Template - Elevator Data Sheet

Table of Contents

1.0	ELEVATOR TECHNICAL DATA.....	5
1.1	Elevator-General Data	5
1.2	Control System	5
1.3	Traction Machine	6
1.4	Speed Governor	6
1.5	Suspension	6
1.6	Car Data	6
1.7	Landing Doors Data	7
1.8	Fixture Data	7
1.9	Shaft Data	7
1.9.1	Safety Features	8
1.9.2	Emergency Features	8
1.9.3	General Operation Features	8

SAMPLE



Architectural Design Aids

Attachment 16 - EPM-KEA-TP-000012 - Encroachment Application (Permit & Restoration) Template



Template - Encroachment Application (Permit & Restoration)

P Form 040101A - Encroachment Application (Permit & Restoration)

ENTITY Logo	ENTITY Name:	ENTITY Management Procedure:
Roads Department:		Encroachment Permit No: xxxxxx
1. APPLICATION		
NAME OF APPLICANT (CONTRACTOR): _____		
CONTRACT/LEASE NO.: _____		
LOCATION: _____		
ENCROACHMENT CATEGORY: _____		
DURATION OF ENCROACHMENT		
START OF WORK	END OF WORK	
REVIEW REQUIRED BY:		
<input type="checkbox"/> PLANNING DEPT <input type="checkbox"/> CIVIL DEPT <input type="checkbox"/> ELECTRICAL DEPT <input type="checkbox"/> ROADS DEPT		
<input type="checkbox"/> IRRIGATION DEPT <input type="checkbox"/> ENV CNTRL (EOD) <input type="checkbox"/> SAUDI TELCOM (STC) <input type="checkbox"/> LANDSCAPING		
<input type="checkbox"/> SAUDI ELECTRICITY COMPANY (SEC)		
PRESENCE OF UTILITIES NEAR ENCROACHMENT		
LIMITS	OTHER	ROADS SEA WATER RECL WATER SEWER FIRE WATER WATER TELCOM POWER
10 m		
3 m		
1 m		
TYPE OF ENCROACHMENT		
<input type="checkbox"/> EXCAVATION AND/OR UTILITY		
EXCAVATION UNDER UTILITY <input type="checkbox"/> YES <input type="checkbox"/> NO		
IF YES, ATTACH PROPOSED EXCAVATION AND SHORING PLAN		
UTILITY OUTAGE <input type="checkbox"/> YES <input type="checkbox"/> NO		
IF YES, WHAT UTILITY AND WHEN		
DEWATERING <input type="checkbox"/> YES <input type="checkbox"/> NO		
IF YES, ATTACH DISPOSAL PLAN		
UTILITY CONNECTION <input type="checkbox"/> YES <input type="checkbox"/> NO		
IF YES ATTACH APPROPRIATE SERVICE REQUEST FORM FOR ENTITY		
<input type="checkbox"/> HIGHWAY / ROAD R.O.W. AND GROUNDS		
ROAD CUTTING <input type="checkbox"/> YES <input type="checkbox"/> NO		
IF YES, BESCREIBE OTHER ATERN METHODS TO EXPLORE		
FLORA REMOVAL <input type="checkbox"/> YES <input type="checkbox"/> NO		
IF YES, SE CONDTION BELOW		
NEW ACCESS ROAD <input type="checkbox"/> YES <input type="checkbox"/> NO		
IF YES, LAR NO. _____		
WORK WITHIN HIGHWAY/ROAD ROW <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		
IF YES, SHWO RELATION SHIP WITH HIGHWAY/ROAD ROW		
WORK INTERRUPTS TRAFFIC FLOW <input type="checkbox"/> YES <input type="checkbox"/> NO		
IF YES, ATTACH PLAN SEE GUIDELINE NO 01570-1		

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Template - Encroachment Application (Permit & Restoration) - Confidential. This document was prepared by Saudi Arabian Bechtel Company (Bechtel) for the National Project Management Organization and is subject to the restrictions set out in the Contract and Important Notice contained on page 3 of the document.



Attachment 17 - EPM-KEA-TP-000013 - Statement of Works and Proposed Actions Template



Template - Statement of Work and Proposed Action

Form 040101B - Statement of Work and Proposed Action

ENTITY Logo	ENTITY Name:	ENTITY Management Procedure: xxxxxx
	Contract / Lease No.	Encroachment Permit No: xxxxxx
1. ENTITY Representative:		
Print Name: _____		
2. Brief statement of the Scope of the Work (what the work is):		
_____ _____ _____ _____		
3. Brief Method Statement (how the work is to be done):		
_____ _____ _____ _____		
4. [ADD IF INDUSTRIAL SECTOR IS PART OF MUNICIPALITY: If the utilities of the produce pipes are indicated and present a problem how will the problem be taken care of:		
_____ _____ _____ _____ _____		
Review by:		
_____ ENTITY Representative Department Date		

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Architectural Design Aids

Attachment 18 - EPM-KEA-TP-000014 - Conditions for Road Encroachments Template



Template - Conditions for Road Encroachments

Form 040101C - Conditions for Road Encroachments

ENTITY Logo	ENTITY Name: ROAD DEPARTMENT	ENTITY Management Procedure: XXXXXX
Contract / Lease No.		Encroachment Permit No: XXXXXX
<p>1. Construction Contractor must insure that at all times he is in compliance with the provisions of all ENTITY Guidelines and/or Ministry of Transportation Standards.</p> <p>2. The Construction Contractor's "Traffic Management Plan," as approved by the Roads Department, constitutes a condition of this permit and must be complied with at all times.</p> <p>3. Construction Contractor must have worksite inspected and approved by the Roads Department prior to work commencement.</p> <p>4. For encroachments requiring complete road closure and/or traffic detours, the Administering Department Director must provide advance information to the General Public about such closures. In such cases, the following guidelines shall be followed:</p> <ul style="list-style-type: none">• For closure of a road functionally classified as Collector or above, seven-day advance notice from the date of closure shall be provided. Notification to be provided to ENTITY employees via emails, and General Public via ENTITY Cable TV Channel. Additionally, Roads Department at its discretion may require public notification via display boards at Commercial Centers and via local newspapers.• For closure of Local and Residential roads, three-day advance notice from the date of closure shall be provided via display boards at Commercial Centers and flyer distribution to residents affected by the closure. <p>5. Construction Contractor assumes full responsibility for the area in which he is working to include:</p> <ul style="list-style-type: none">• All routine maintenance and control of the area.• Replacing any items damaged by himself or any other Construction Contractor.• Restoration of the area.• Meeting all requirements stipulated in the encroachment permit. <p>6. Construction Contractor is to restore the area to the same conditions as when he accepted it from the Roads Department. In case open cut of a road has been granted, restoration of the road cut would include milling/repaving and delineation of the existing pavement wearing course, 50 meters upstream/downstream of the road cut edge lines. The 50-meter length would be extended to the nearby intersection if it exists within 100 meters of the road cut edge line. For parallel road cuts, milling/repaving and delineation of the existing pavement wearing course would be extended to full pavement width for un-divided roads and up to median edge for divided roads.</p> <p>7. Construction Contractor must provide a 24-hours emergency telephone number. Failure to properly man this number will result in revocation of the permit and a halting of the work.</p> <p>8. Construction Contractor is responsible for requesting through his contract supervisor a walkthrough inspection of the completed works by the Roads Department.</p> <p>9. The Construction Contractor is required to be present at the walkthrough of the completed works and must have in his possession the original encroachment permit, which will be given to the roads representative. If the completed works are accepted, then the permit will be signed off and returned to the Construction Contractor through channels.</p> <p>All detour and traffic control signs must be manufactured as per ENTITY guideline specification for traffic signs section 02891.</p>		

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Architectural Design Aids

Attachment 19 - EPM-KEA-TP-000015 - Conditions for Grounds and Landscaping Encroachments Template

**Template - Conditions for Grounds & Landscaping Encroachments**

Form 040101D - Conditions for Grounds & Landscaping Encroachments

ENTITY Logo	ENTITY Name: LANDSCAPING & IRRIGATION DEPARTMENT	ENTITY Management Procedure: XXXXXX
Contract / Lease No.	Encroachment Permit No: XXXXXX	
<p>Following are the special conditions applicable to this encroachment permit. Construction Contractor must ensure that at all times he is in compliance with the provisions of all ENTITY guidelines & the below listed special conditions.</p> <ol style="list-style-type: none">The Construction Contractor, prior to the start of the work, shall coordinate with ENTITY Landscape O&M Contractor to identify probable plants, irrigation, electrical and tiles affected.No mechanical excavation other than hand tools shall be allowed within irrigation pipe lines.The Construction Contractor shall be responsible for any removal & transporting of plants & irrigation system components in the affected area to ENTITY specified landscape service area. Removal shall be done under the direction & supervision of ENTITY Landscape O&M Contractor. Construction Contractor shall inform ENTITY Landscape O&M Contractor within forty-eight (48) hours prior to the execution of the work.The Construction Contractor shall be responsible for replanting any damaged plants with the same species. Likewise, proper rectification of the damaged irrigation pipes, control cables for solenoid valves & other related lighting system components incurred during the duration of the work shall be the responsibility of the Construction Contractor.Any damaged to the pipes or other irrigation accessories that may alter watering schedule for the existing plants, shall be rectified within twenty-four (24) hours. Delay in the repair job that may result to permanent damage to the plants shall be Construction Contractor's responsibility.Any excavation or other activities that may result in damaged of pathways, 3-meter light poles, 5-meter light poles, 1-meter bollard lights, electrical cables & other landscape utilities shall be restored by the Construction Contractor to its original condition.HOLD POINT RELEASE NUMBER_ which are attached shall be inspected /witnesses by ENTITY Field Engineer/O&M Contractor and signoff.Restoration of site & prior to acceptance & signing off of the Encroachment permit, site area will be subject for inspection by ENTITY Field Engineer/O&M Landscape Contractor representative.The Construction Contractor shall comply with all the above the above terms & conditions. Any breach of the conditions shall enforce the ENTITY Landscape O&M Contractor to undertake remedial measures with the cost chargeable against the Construction Contractor.		
AGREED BY:	ISSUED FOR: LANDSCAPING SECTION	
SIGN & STAMP:	SIGN:	
NAME:	NAME:	
DATE:	DATE:	
CONTRACTOR:	O&M CONTRACTOR'S 24 HOURS SERVICE DESK:	
CONTRACT No.	TELEPHONE No.	
TELEPHONE No.	[O&M Contractor's 24 Hours Service Desk Hotline Tel No.]	

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Template - Conditions for Grounds & Landscaping Encroachments - Confidential. This document was prepared by Saudi Arabian Bechtel Company (Bechtel) for the National Project Management Organization and is subject to the restrictions set out in the Contract and Important Notice contained on page 3 of the document.



Architectural Design Aids

Attachment 20 - EPM-KEA-TP-000016 - Special Conditions for Sanitary & Industrial Wastewater Systems Template



Template - Special Conditions for Sanitary & Industrial Wastewater Systems

Form 040101E - Special Conditions for Sanitary & Industrial Wastewater Systems

ENTITY Logo	ENTITY Name:	ENTITY Management Procedure: XXXXXX
Contract / Lease No.		Encroachment Permit No: XXXXXX
<p>1. The Applicant may review ENTITY relevant General Conditions regarding his responsibility for the protection of ENTITY Property and his liability for any actual or possible latent damage done as a result of his negligence in performing work covered by this Encroachment Permit.</p> <p>2. A survey should be performed by the Applicant to locate existing marker post, chambers, structures, surface boxes, valves, and other utility appurtenances that shall be affected by any aspect of work authorized under this Permit. Any damage shall be replaced or restored and the area reinstated to its original condition after complete of the work.</p> <p>3. Hand excavation / compaction shall be done over and near any utility. Proper protection against mechanical damage must be provided for all exposed pipes. If service interruption is required, a Schedule Utility Outage Request must be submitted to the concerned Utility Group for review / approval prior to proceeding with such work.</p> <p>4. <u>ANY DEWATERING WORK SHALL BE REPORTED TO ENTITY / O&M CONTRACTOR PRIOR TO UNDERTAKING SUCH WORK.</u></p> <p>5. <u>IF ANY EXCAVATION IS DONE AT OR NEAR THE TREATED SANITARY AND INDUSTRY WASTEWATER SYSTEM, SHALL IMMEDIATELY INFORM ENTITY FIELD ENGINEER / O&M CONTRACTOR FOR INSPECTION BEFORE BACK FILLING AND SHOULD OBTAIN A HOLD POINT RELEASE.</u></p> <p>6. There should be no vehicle or construction traffic with heavy axle loads traversing or crossing pipeline. No access or haul road traversing the pipeline right-of-way is permitted. If such crossing is a must, a proper protection shall be submitted for approval.</p> <p>7. No continued flooding of the pipeline right-of-way shall be permitted.</p> <p>8. When the pipe is exposed, it should be adequately supported horizontally to prevent the pipeline from settlement, deflection and subsequently joint leakage. PVC pipe when exposed should be wrapped or covered.</p> <p>9. Hold Point Release Number _____ which area attached shall be inspected/witnessed by ENTITY field engineer/O&M Contractor and signed off.</p> <p>10. The Construction Contractor shall lay GREEN COLOR marker tape 300mm above each existing utility in the trench during backfilling. It should be of normal ENTITY standards boldly printed word "CAUTION" followed by "IRRIGATION PIPE BELOW." Upon completion of work, Construction Contractor shall submit a detailed as-built drawing before closing of the Encroachment Permit.</p> <p>11. <u>FAILURE OF THE CONSTRUCTION CONTRACTOR TO OBSERVE THESE SPECIAL CONDITIONS COULD RESULT IN A THIRD-PARTY DAMAGE CLAIM FOR ACTUAL AND POSSIBLE LATENT DAMAGE. THE REPAIR COULD INVOLVE EXCAVATION AND EXPOSING ANY UTILITY WITH POSSIBLE LATENT DAMAGE AND ANY IMPLEMENTATION OF ANY NECESSARY CORRECTIVE ACTION.</u></p>		
AGREED BY:		ISSUED FOR: L/S & IRRIGATION DEPARTMENT (IRRIGATION SECTION)
SIGN & STAMP:		SIGN:
NAME:		NAME:
DATE:		DATE:

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Template - Special Conditions for Sanitary & Industrial Wastewater Systems - Confidential. This document was prepared by Saudi Arabian Bechtel Company (Bechtel) for the National Project Management Organization and is subject to the restrictions set out in the Contract and Important Notice contained on page 3 of the document.



Architectural Design Aids

Attachment 21 - EPM-KEA-TP-000017 - Conditions for Potable and Raw Water Encroachments Template

ENTITY Logo	ENTITY Name:	ENTITY Management Procedure: XXXXXX
Contract / Lease No.		Encroachment Permit No: XXXXXX
<p>1. Only hand tools shall be used for excavation near the water lines and appurtenances.</p> <p>2. No over-burden material should be placed over the existing water lines and appurtenances. Excess excavated materials should be trucked away.</p> <p>3. No heavy equipment should run over and or close to water lines and its appurtenances. Appurtenances includes fire hydrants, washouts, valve chambers, air valves, etc.</p> <p>4. If any water line is likely to be exposed, the applicant must stop the work and inform the ENTITY Engineer / O&M Contractor.</p> <p>5. Before proceeding with excavation that might expose or undermine the water line, the applicant must submit for ENTITY review & approval, detailed plan and procedure to support the water line.</p> <p>6. Any existing water pipeline and appurtenances that was exposed during the current work must be inspected by the ENTITY Engineer before backfilling. After completion of the work, the area must be backfilled and restored to original condition. Refer to section 7.0 "Standards of Restoration" of Encroachment Permit procedure.</p> <p>7. If water service interruption is required, a "Scheduled Outage Request" must be submitted at least 48 hours in advance to ENTITY Engineer / O&M contractor for review and approval. Forms are available at O&M water contractor.</p> <p>8. No ground water or any contaminated water is allowed to be discharged in the vicinity of the existing potable water pipeline.</p> <p>9. If there is any indication that water pipeline or appurtenances is likely to be affected in any way, call our 24-hour service desk at Telephone# [Potable Water Utility telephone number].</p> <p>10. Any consequential damage to the Potable / Raw water system, the applicant shall be held responsible to repair or replace at his own cost to the full satisfaction of ENTITY.</p>		
AGREED BY:		ISSUED FOR: POTABLE & RAW WATER GROUP
SIGN & STAMP:		SIGN:
NAME:		NAME:
DATE:		DATE:
CONTRACTOR:		O&M CONTRACTOR'S 24 HOURS SERVICE DESK:
CONTRACT No.		TELEPHONE No.
TELEPHONE No.		[O&M Contractor's 24 Hours Service Desk Hotline Tel No.]



Architectural Design Aids

Attachment 22 - EPM-KEA-TP-000018 - Conditions for Treated Effluent and Wastewater Encroachments Template



Template - Conditions for Treated Effluent and Wastewater Encroachments

Form 040101G - Conditions for Treated Effluent and Wastewater Encroachments

ENTITY Logo	ENTITY Name:	ENTITY Management Procedure: XXXXXX
Contract / Lease No.		Encroachment Permit No: XXXXXX
<p>1. The Applicant should review ENTITY General Conditions regarding his responsibilities for the protection of ENTITY property and his liability for any actual or possible latent damage done as a result of his negligence in performing work covered by this encroachment permit.</p> <p>2. A survey should be performed by the Applicant to locate existing marker post, chambers, structures, surface boxes, valves, that will be affected by any a pact of work permitted by this permit. Prevent removed marker posts from damages and replace as originally located. Area to be reinstated after completion of work.</p> <p>3. Hand excavation/compaction shall be done over and near any utility. Proper protection against mechanical damage and proper closure must be provided for all exposed pipes. If service interruption is required, a schedule utility outage request must be submitted to the utility group for review/approval.</p> <p>4. <u>ANY DEWATERING WORK SHALL BE REPORTED TO ENTITY / O&M CONTRACTOR PRIOR TO UNDERTAKING SUCH WORK</u></p> <p>5. <u>IF ANY EXCAVATION IS DONE AT OR NEAR THE WASTE WATER OR TREATED EFFLUENT SYSTEM, THE CONTRACTOR SHALL IMMEDIATELY INFORM ENTITY FIELD ENGINEER/ O&M CONTRACTOR FOR INSPECTION BEFORE BACK FILLING AND SHOULD OBTAIN HOLD POINT RELEASE.</u></p> <p>6. There should be no vehicular or construction traffic with heavy axle loads trans versing or crossing pipe line. No access or haul road trans versing the pipe line right of way is permitted. If such crossing is a must, a proper protection shall be submitted for approval.</p> <p>7. No continued flooding of the pipe line right of way will be permitted.</p> <p>8. When the pipe is exposed, it should be adequately supported horizontally and vertically to prevent pipe line settlement, deflection and subsequently joint leakage, PVC pipe when exposed should be wrapped or covered.</p> <p>9. Hold Point Release Number: ___ which are attached are to be inspected/ witnessed by ENTITY Field Engineer/ O&M Contractor and signed off.</p> <p>10. The contractor should lay ORANGE COLOR marker tape 300mm above each existing utility in the trench during backfilling. It should be of normal ENTITY standards boldly printed with word "CAUTION" followed by WASTE PIPE BELOW.</p> <p>11. Restoration of the work site will be reviewed by ENTITY Field Engineer / O&M Contractor for marker posts, chamber membrane damage and fencing prior to the signing off of this Encroachment Permit.</p> <p>12. <u>FAILURE OF THE CONSTRUCTION CONTRACTOR TO OBSERVE THESE SPECIAL CONDITIONS COULD RESULT IN A THIRD PARTY DAMAGE CLAIM FOR ACTUAL AND POSSIBLE LATENT DAMAGE. THE REPAIR COULD INVOLVE EXCAVATION AND EXPOSING ANY LINE WITH POSSIBLE LATENT DAMAGE AND AFFECTING ANY NECESSARY REPAIR.</u></p>		
AGREED BY:		ISSUED FOR: WASTEWATER GROUP
SIGN & STAMP:		SIGN:
NAME:		NAME:
DATE:		DATE:

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Template - Conditions for Treated Effluent and Wastewater Encroachments - Confidential. This document was prepared by Saudi Arabian Bechtel Company (Bechtel) for the National Project Management Organization and is subject to the restrictions set out in the Contract and Important Notice contained on page 3 of the document.



Attachment 23 - EPM-KEA-TP-000011 - Receipt of Antiquity Template



Template - Receipt for Antiquity

EPM-KEA-TP-000011 - RECEIPT FOR ANTIQUITY

Description of Antiquity
<hr/> <hr/> <hr/> <hr/> <hr/>
Instruction from Department of Antiquities
1. CONSTRUCTION MAY CONTINUE <input type="checkbox"/> Yes <input type="checkbox"/> No
2. CONSTRUCTION TO CEASE IN AREA <input type="checkbox"/> Yes <input type="checkbox"/> No
If (2) is checked, steps to be taken to preserve the areas as follows: <hr/> <hr/> <hr/>
RECEIPT
Please tick item(s) received below: <input type="checkbox"/> REPORTS <input type="checkbox"/> PHOTOGRAPH <input type="checkbox"/> SKETCHES/PLANS <input type="checkbox"/> OTHERS, please list down: <hr/> <hr/> <hr/>

Representative of Department of Antiquities

Date

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Template - Receipt for Antiquity - Confidential. This document was prepared by Saudi Arabian Bechtel Company (Bechtel) for the National Project Management Organization and is subject to the restrictions set out in the Contract and Important Notice contained on page 3 of the document.



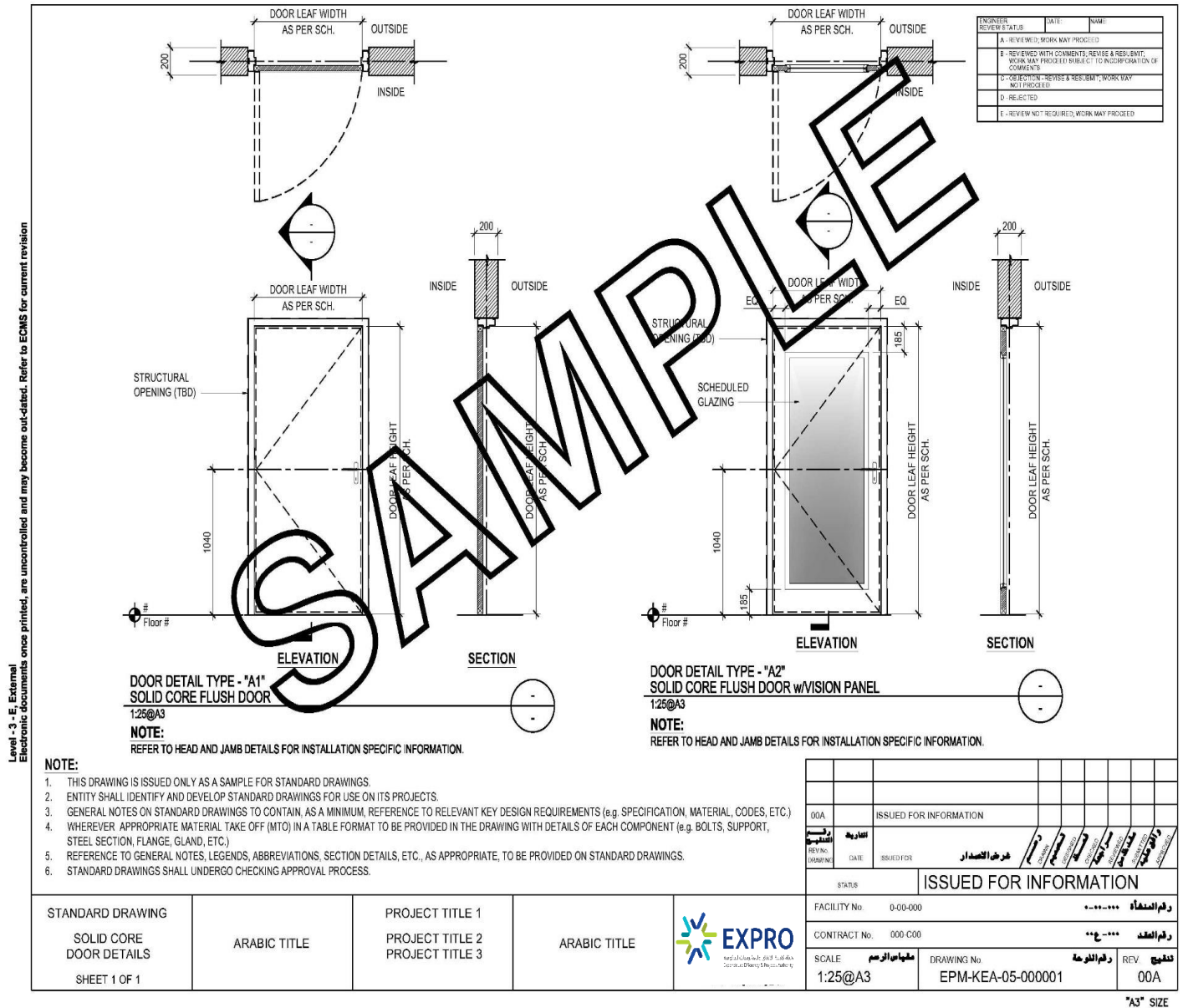
Architectural Design Aids

Attachment 24 - EPM-KEA-RG-000001 - Architectural Deliverables Register

EPM-KEA-RG-000001									
Register - Architectural Deliverables									
SN	Deliverable	Tool	Deliverable Contents	Developed During	Deliverable Data required for			Comments	
					Procurement	Construction	Start-Up & Commissioning		
1	Arch. Adjacency Diagram	MS Excel	This diagram shows primary and secondary relationships between rooms / spaces in the facilities (i.e., which ones must be next to each other and which ones should be in a close vicinity. This leads the development of the floor plans developed in the schematic design process.	B					
2	Arch. program of spaces / rooms	MS Word / MS Excel	Defines special requirements for each room / space in a building facility including usage, electrical and mechanical requirements and start. This feeds the development of the floor plans developed in the schematic design process.	B					
3	Architectural Rendering	InfraWorks, 3DS Max, Revit, Stingray	Perspective views of the overall Project, usually a color rendering.	B	Y				
4	Virtual Reality Files	NavisWork, InfraWorks, Stingray	3-dimensional design review packages to offer 3D viewing of a design in real-time to allow design-review, comment, red-lining or measurement.	B	Y		Y		
5	Requirements Matrix	MS Word / MS Excel	Provides details of client requirements and assurance that requirements have been met for occupancy and operation of completed facilities.	B					
6	Building Area Calculations	MS Word / MS Excel / Revit Architectural / 2D	Provides illustration of Gross Floor Area, Gross Leasable and Net Usable areas for Office Buildings intended for tenant leasing.	B					
7	Building Code Analysis and Compliance report	MS Word	Summary of codes that are used in the design criteria, this report delineates the code requirements for the Use Group and Building Type in order to facilitate the design process.	B					
8	Building Fire and Life Safety Analysis Report, including Egress Analysis	MS Word / Revit Architectural / 2D	Analysis of the building's performance in meeting requirements for fire, life safety, and safe egress. Includes a summary of the building's performance in meeting requirements for fire, life safety, and safe egress.	D					
9	Index / Legend / Symbols Sheet	Revit Architectural / 2D	Legend of architectural drawings, abbreviations, symbols, and legends.	D	Y	Y			
10	Conceptual Design Drawings / Sketches and Rendering	InfraWorks, 3DS Max, Revit, Stingray	General study sketches and sketches evaluating project design alternatives.	B	Y				
11	Site Master Plan	Revit Architectural	Depict site conceptual and facilities / land use in various project phases such as pre-construction, construction, and post-construction operation during second phase construction, and final phase turnover to the client.	B	Y	Y	Y		
12	Site Plan	Revit Architectural	Depicts site development including buildings, facilities and landscaping.	B	Y	Y	Y		
13	Reflected Ceiling Plans	Revit Architectural	Plans of ceiling including electrical, mechanical, piping, fire-suppression layout.	D					
14	Roof Plans	Revit Architectural	Plan view of roof including roof showing materials, drainage, equipment, access hatches, fall arrest, Building Maintenance Units (BMU) and any special details.	D	Y	Y			
15	Enlarged Floor Plans	Revit Architectural	Plans of partial areas of building enlarged to more clearly show arrangement and details.	D	Y				
16	Floor Plans	Revit Architectural	Plan view of all building floor showing location and arrangement of architectural components. This will also include Fire and Life Safety plans and Floor, Wall and Ceiling Finishes plans.	D	Y				
17	Building Cross Sections	Revit Architectural	Shows sections through buildings to show relation of walls and roof to structure, heights, and materials. This will also include Fire and Life Safety compartment sections.	B/D	Y				
18	Building Interior Elevations	Revit Architectural	Internal elevations indicating finishes, heights and elevational details.	D	Y				
23	Building Interior Details	Revit Architectural	Large scale plan / section details for special interior conditions.	D	Y				
19	Building Exterior Elevations	Revit Architectural	Shows each building facade including materials and arrangement of architectural elements. Shall include louver, window and door lag. Elevations and heights shall also be shown.	D	Y				
20	Out Building Plans, Elevations, and Sections	Revit Architectural	Plan, exterior elevation, and cross section of smaller buildings (combined on one drawing).	D	Y				
21	Stairs, Plans and Sections	Revit Architectural	Shows plan and section view of stairs and stair shafts. Riser count, stair angle, heights and landing levels shall be indicated including landing and balustrade elevations.	D	Y				
22	Wall Sections	Revit Architectural	Shows at a larger scale the assembly of materials and systems in each type of building wall.	D	Y				
23	Building Exterior Details	Revit Architectural / 2D	Large scale plan / section details for exterior conditions.	D	Y				
24	Wall Details	Revit Architectural / 2D	Wall details including anchorage, construction, and reinforcement. Details to include fire-stopping and opening and penetration details.	D	Y				
25	Door Schedule and Details	Revit Architectural / 2D	List of doors, stairs types, and reference details. Shows head, jamb, electronic locking and hardware details. Provide each door with a unique identification number and door hardware schedule.	D	Y	Y	Y		
26	Membrane Roofing Details	Revit Architectural / 2D	Plan and section details for membrane roofing conditions.	D	Y				

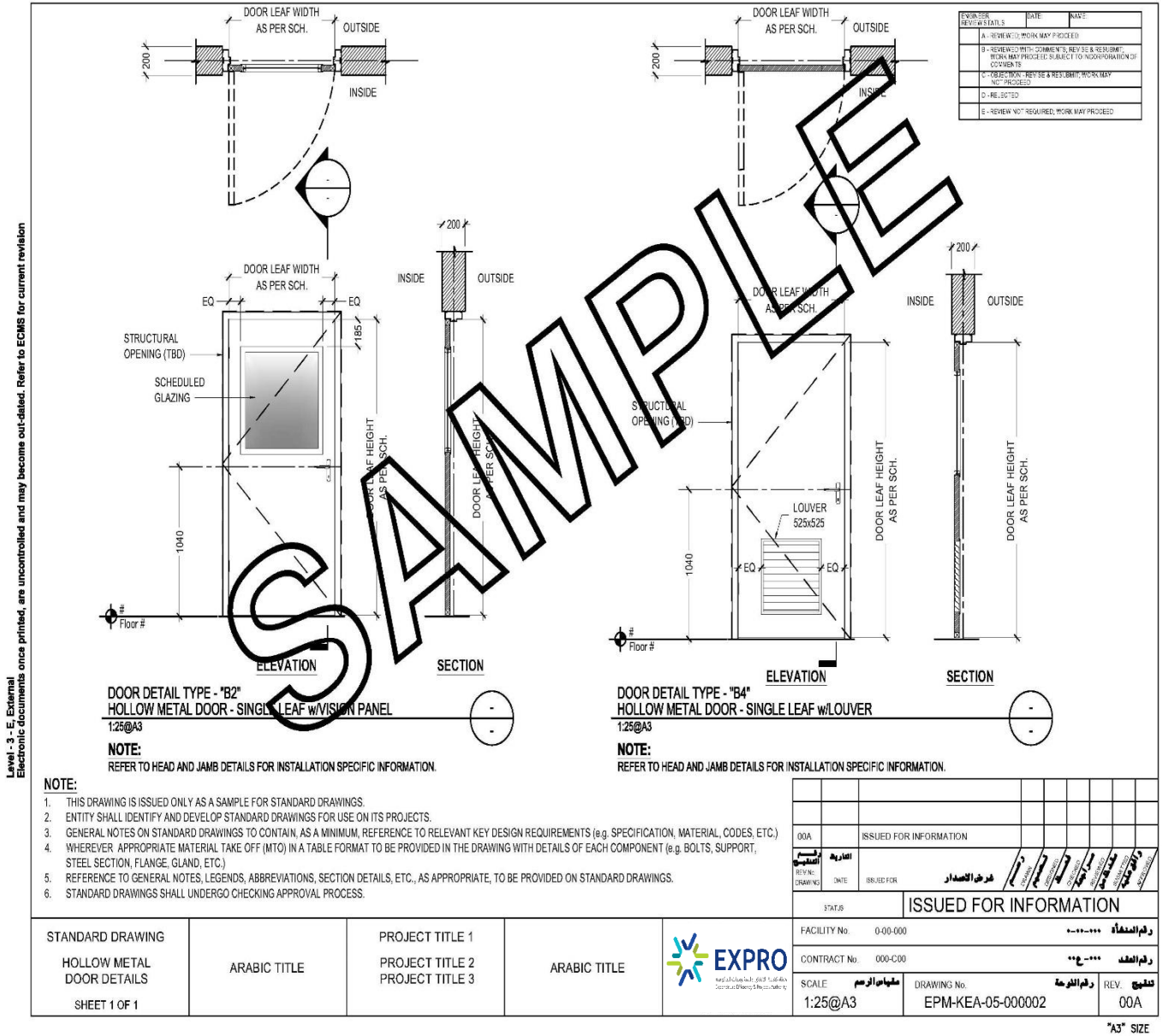


Attachment 25 - EPM-KEA-05-000001 - Drawing - Solid Core Door Details





Attachment 26 - EPM-KEA-05-000002 - Drawing - Hollow Metal Door Details





Architectural Design Aids

Attachment 28 - EPM-KEA-11-000001 - Drawing - Architectural Materials Legend

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ARCHITECTURAL MATERIALS LEGEND	
	C.M.U.
	CONCRETE
	GRANITE / MARBLE
	INSULATION - RIGID
	JOINT FILLER - EXPANDABLE
	PLYWOOD
	PRECAST CONCRETE
	SEALANT
	STONE
	STONEMASONRY
	INSULATION - BATT SOUND ATTENUATION
	WOOD - FINISHED
	WOOD - ROUGH

NOTE:

- THIS DRAWING IS ISSUED ONLY AS A SAMPLE FOR STANDARD DRAWINGS.
- ENTITY SHALL IDENTIFY AND DEVELOP STANDARD DRAWINGS FOR USE ON ITS PROJECTS.
- GENERAL NOTES ON STANDARD DRAWINGS TO CONTAIN, AS A MINIMUM, REFERENCE TO RELEVANT KEY DESIGN REQUIREMENTS (e.g. SPECIFICATION, MATERIAL, CODES, ETC.)
- WHEREVER APPROPRIATE MATERIAL TAKE OFF (MTO) IN A TABLE FORMAT TO BE PROVIDED IN THE DRAWING WITH DETAILS OF EACH COMPONENT (e.g. BOLTS, SUPPORT, STEEL SECTION, FLANGE, GLAND, ETC.)
- REFERENCE TO GENERAL NOTES, LEGENDS, ABBREVIATIONS, SECTION DETAILS, ETC., AS APPROPRIATE, TO BE PROVIDED ON STANDARD DRAWINGS.
- STANDARD DRAWINGS SHALL UNDERGO CHECKING APPROVAL PROCESS.

STANDARD DRAWING	ARABIC TITLE	PROJECT TITLE 1	PROJECT TITLE 2	PROJECT TITLE 3	ARABIC TITLE
ARCHITECTURAL MATERIALS LEGEND					
SHEET 1 OF 1					

ENGINEER	DATE	NAME
REVIEWED		
DATE		
NAME		
DATE		
NAME		
DATE		
NAME		
DATE		
NAME		

REVISION	DATE	DESCRIPTION
00A		ISSUED FOR INFORMATION

SCALE	DRAWING No.	REV.
NTS	EPM-KEA-11-000001	00A

*A3" SIZE

Attachment 29 - EPM-KEA-05-000003 - Drawing - Clear Glass Door Details

