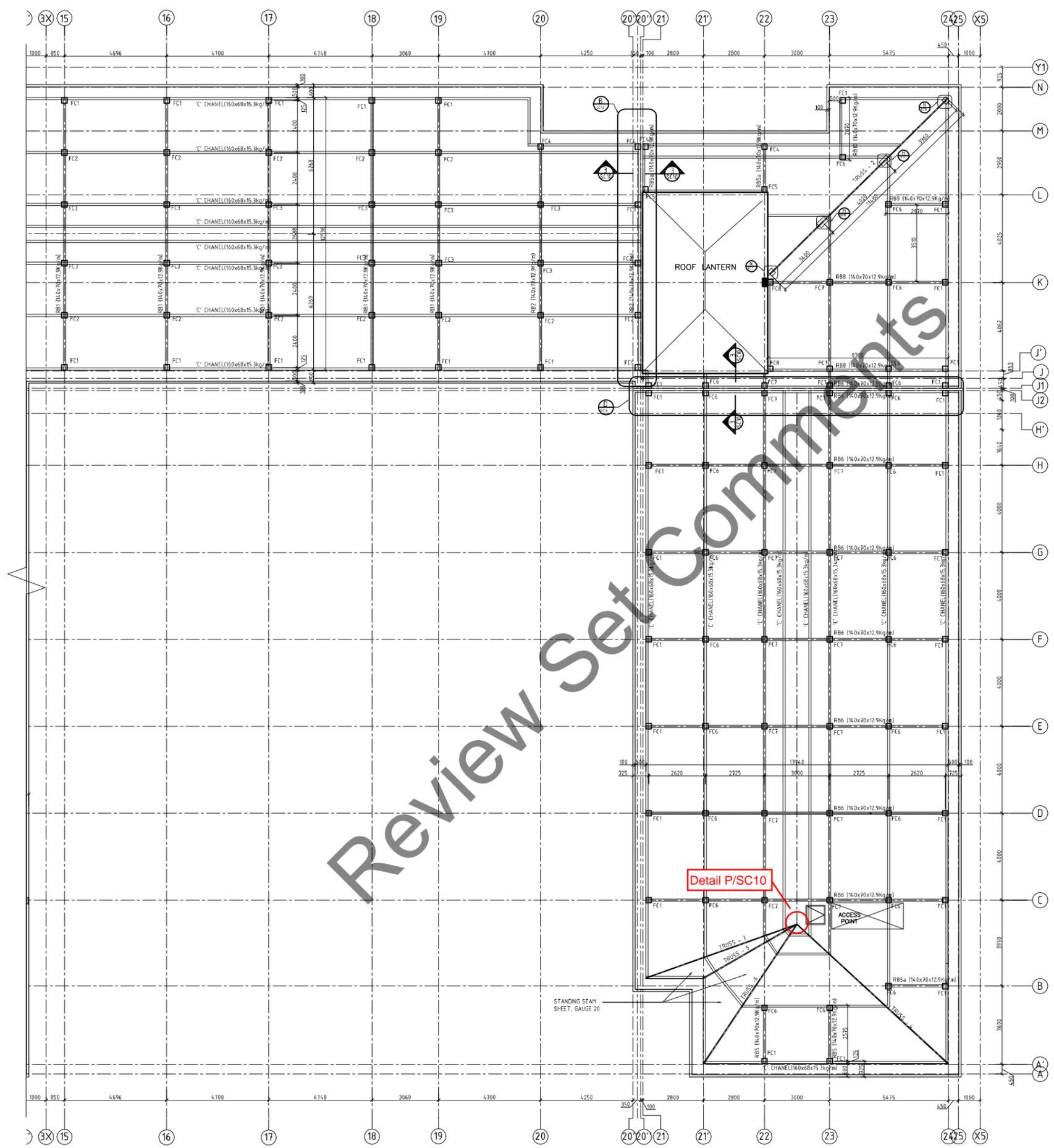




No.	DATE	REVISION
1	11/01/09	NO CHANGE
2	20/02/10	ROOF DESIGN
8	19/12/10	REVISED ROOF DESIGN

NOTES

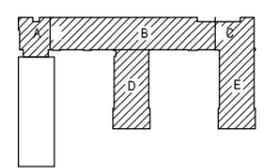
- \* All dimensions in millimeters unless otherwise noted.
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Review Set Comments

Detail P/SC10

ISSUED FOR CONSTRUCTION



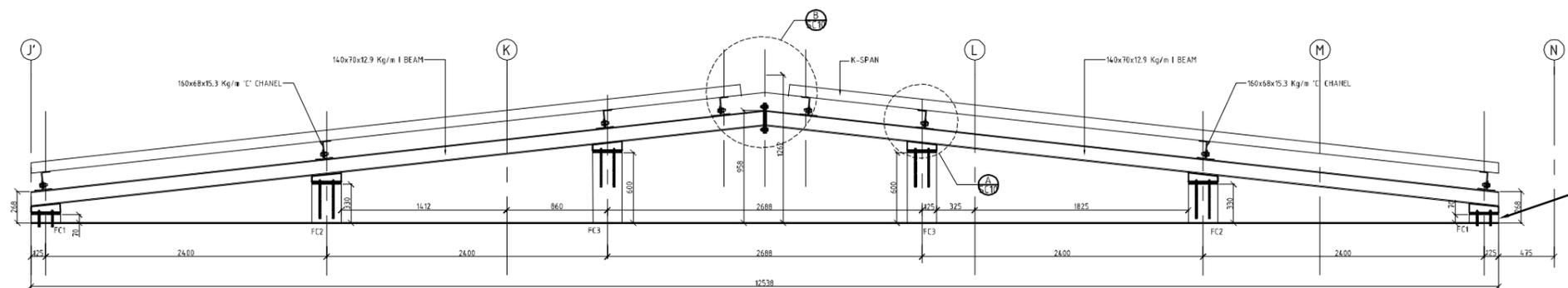
BENEFICIARY: MINISTRY OF EDUCATION REPUBLIC OF AFGHANISTAN			
DONOR: USAID UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT			
IMPLEMENTOR: UNOPS UNITED NATIONS OPERATIONS FOR PEACE 47 CHATEAU DE LA PAIX AVENUE 1215 GENEVA SWITZERLAND			
PROJECT: SARDAR-E-KABUL GIRLS HIGH SCHOOL AFGHANISTAN			
DRAWING TITLE: GENERAL ARRANGEMENT OF ROOF MEMBERS D1/02			
DESIGNED: C.O.	PROJECT NO: 627	DRAWING NO. 627-SC02	REV. 8
DRAWN: A.H.S.	SCALE: AS GIVEN @ A1		
CHECKED: C.O.	DATE: 30/08/2010		
APPROVED: W.G.M.C.			

1 GENERAL ARRANGEMENT OF ROOF MEMBERS (GRID 1 TO 15)  
SC02 SCALE 1:100

No.	DATE	REVISION
1	11/01/09	NO CHANGE
2	03/02/09	NO CHANGE
3	19/12/10	REVISED ROOF DESIGN

NOTES

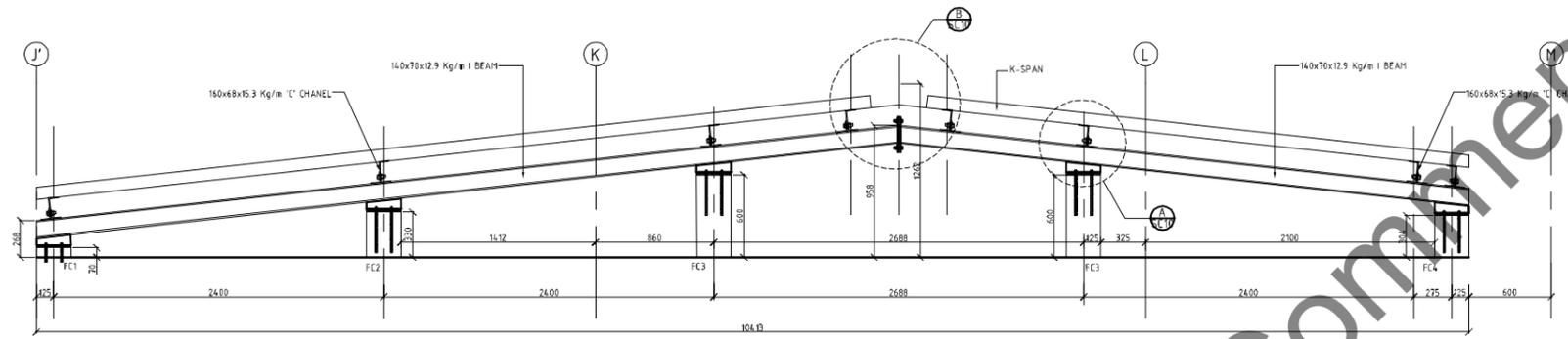
- \* All dimensions in millimeters unless otherwise noted.
- \* Do not scale drawings.
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16  
Embed 16mm threaded rods with approved epoxy adhesive (TYP for pedestal less than 300mm high)

with approved epoxy adhesive

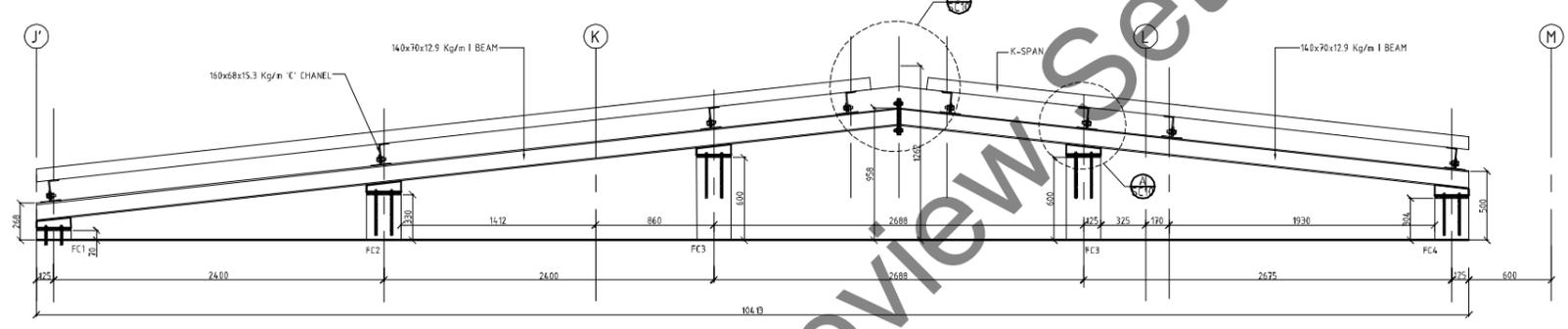
**RB1 (140x70x12.9 Kg)**  
SCALE 1:25



**RB2 (140x70x12.9 Kg)**  
SCALE 1:25

Beam pedestal notes (TYP for all pedestals);

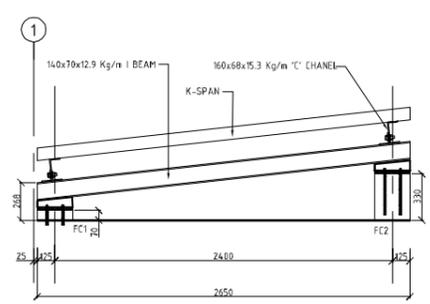
1. Straight M16 threaded rods with nut at bottom are an acceptable alternative to the hooked anchors, and can use 300mm embedment in to pedestal.
2. for short pedestals (less than 300mm) direct anchorage in to concrete roof structure appears necessary, because pedestal is too short to develop the anchor rods, drilling holes in roof slab concrete and setting M 16 threaded anchor rods in to slab thickness -25mm maximum ) is an alternative
3. If embedded steel reinforcement is encountered during drilling, stop drilling and abandon hole. Move laterally along bolt line for a new hole. Extend threaded anchor rods through top of pedestal for beam plate connection of the rods are required, typically a secured template is used.



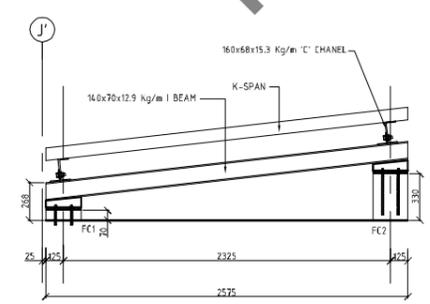
**RB2a (140x70x12.9 Kg)**  
SCALE 1:25

Beam pedestal notes

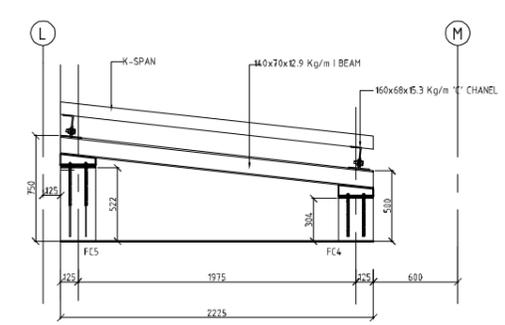
1. All welds to be accomplished in shop-controlled conditions. all field connections to be bolted in place.



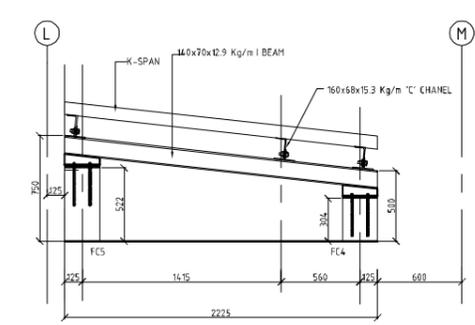
**RB3 (140x70x12.9 Kg)**  
SCALE 1:25



**RB3a (140x70x12.9 Kg)**  
SCALE 1:25



**RB4 (140x70x12.9 Kg)**  
SCALE 1:25



**RB4a (140x70x12.9 Kg)**  
SCALE 1:25

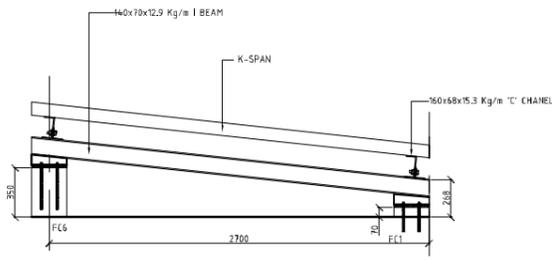
ISSUED FOR CONSTRUCTION

REFERENCED:  
 MINISTRY OF EDUCATION  
 REPUBLIC OF AFGHANISTAN  
 DONOR:  
 USAID  
 (UNITED STATES AMERICAN PEOPLE)  
 IMPLEMENTOR:  
 UNOPS  
 (UNITED NATIONS OFFICE FOR PROJECT SERVICES)  
 PROJECT:  
 SARDAR-E-KABUL GIRLS HIGH SCHOOL  
 AFGHANISTAN  
 DRAWING TITLE:  
 DETAILS OF ROOF BEAMS 0103  
 DESIGNED: C.O. PROJECT NO: 627 DRAWING NO:  
 DRAWN: A.H.S. SCALE: AS SHOWN @ A1 627-SC03 8  
 CHECKED: C.O. DATE: 30/08/2010  
 APPROVED: W.G.M.

No.	DATE	REVISION
1	11/01/09	NO CHANGE
2	03/02/09	NO CHANGE
3	19/12/10	REVISED ROOF DESIGN

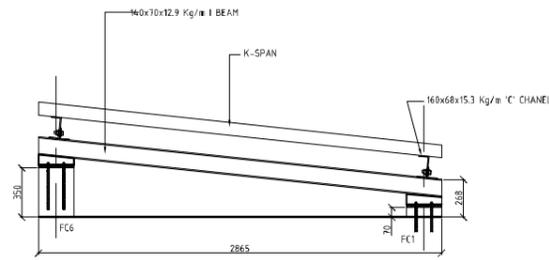
NOTES

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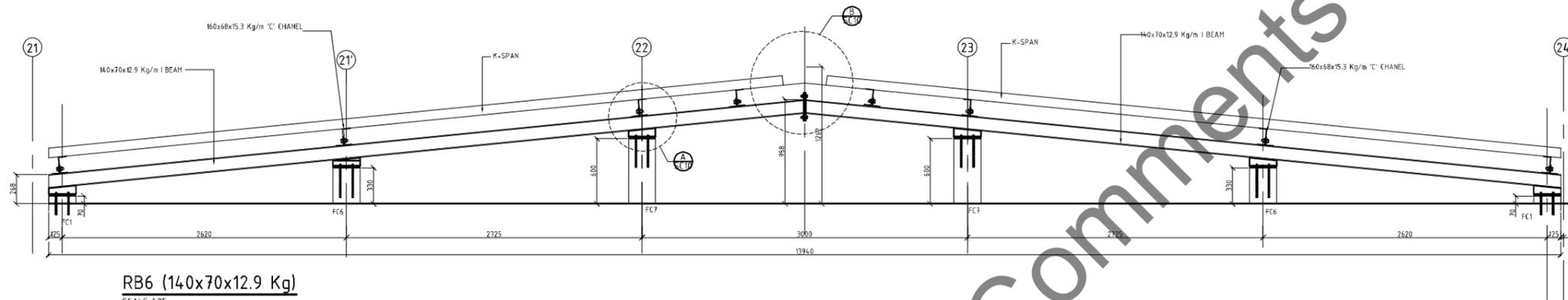
**RB5 (140x70x12.9 Kg)**

SCALE 1:25



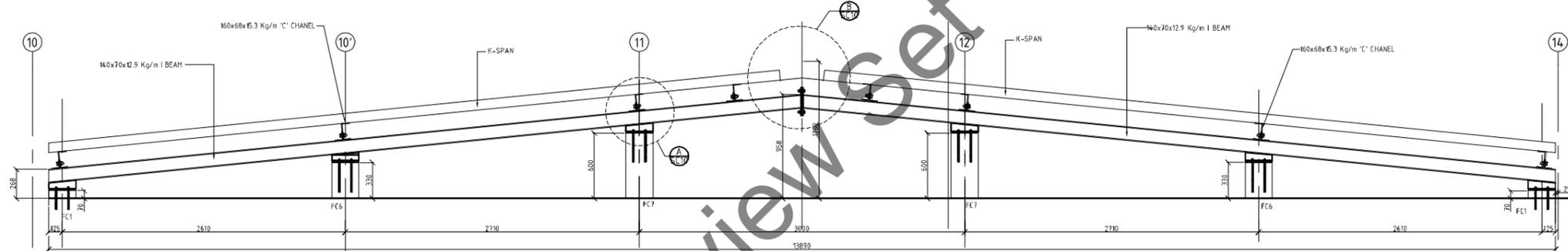
**RB5a (140x70x12.9 Kg)**

SCALE 1:25



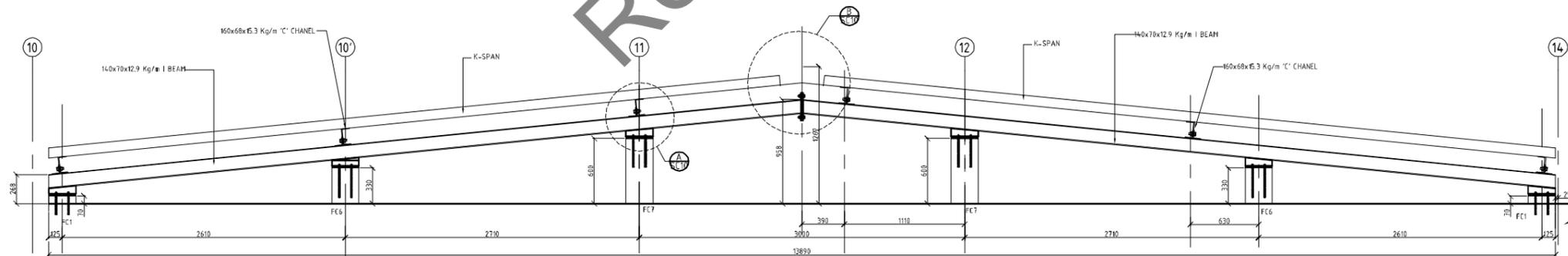
**RB6 (140x70x12.9 Kg)**

SCALE 1:25



**RB7 (140x70x12.9 Kg)**

SCALE 1:25



**RB7a (140x70x12.9 Kg)**

SCALE 1:25

Review Set Comments

16  
Embed 6mm threaded rods with approved epoxy adhesive (TYP for pedestal less than 300mm high)

**Beam pedestal notes**  
1. All welds to be accomplished in shop-controlled conditions. All field connections to be bolted in place.

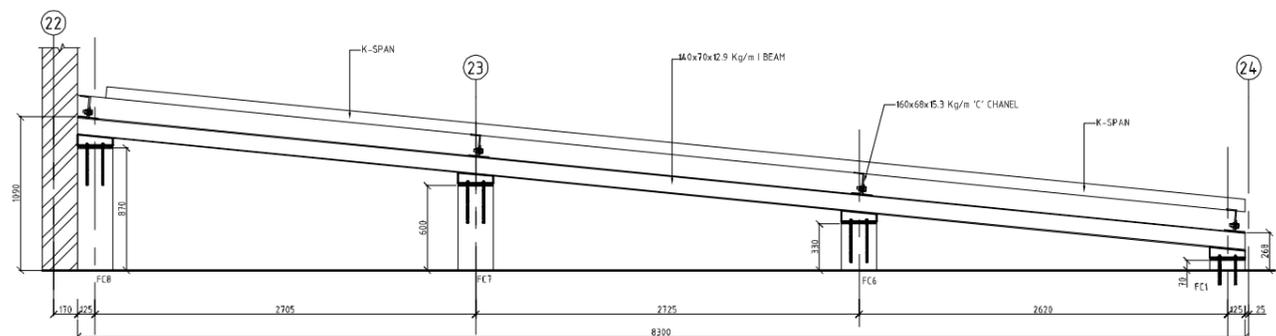
**ISSUED FOR CONSTRUCTION**

BUREAU: MINISTRY OF EDUCATION  
 DONOR: USAID  
 IMPLEMENTOR: UNOPS  
 PROJECT: SARDAR-E-KABUL GIRLS HIGH SCHOOL, AFGHANISTAN  
 DRAWING TITLE: DETAILS OF ROOF BEAMS 02/3  
 DESIGNED: C.O. PROJECT NO: 627 DRAWING NO: 8  
 DRAWN: A.H.S. SCALE: AS SHOWN @ A1 627-SC04  
 CHECKED: C.O. DATE: 30/08/2010  
 APPROVED: W.G.M.

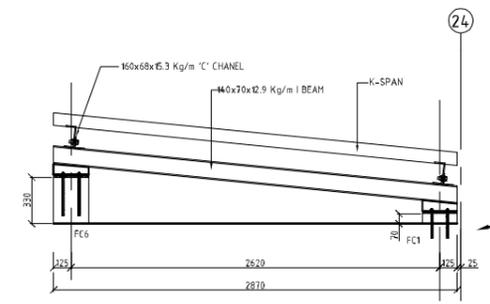
No.	DATE	REVISION
1	11/01/09	NO CHANGE
2	03/02/09	NO CHANGE
3	19/12/10	REVISED ROOF DESIGN

NOTES

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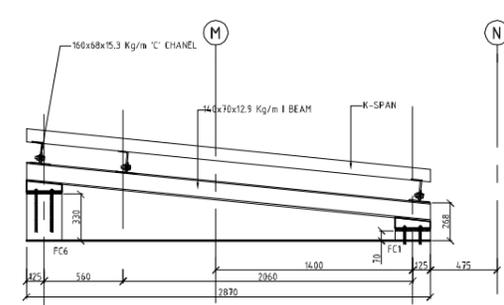


**RB8 (140x70x12.9 Kg)**  
SCALE 1:25

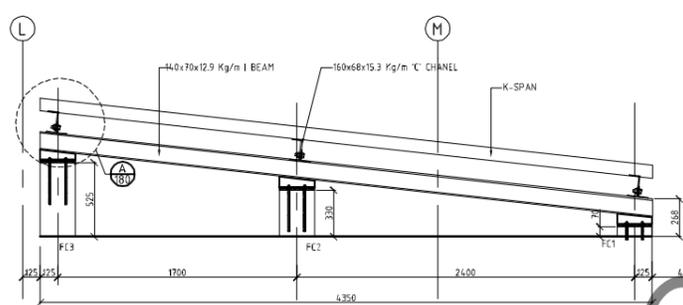


**RB9 (140x70x12.9 Kg)**  
SCALE 1:25

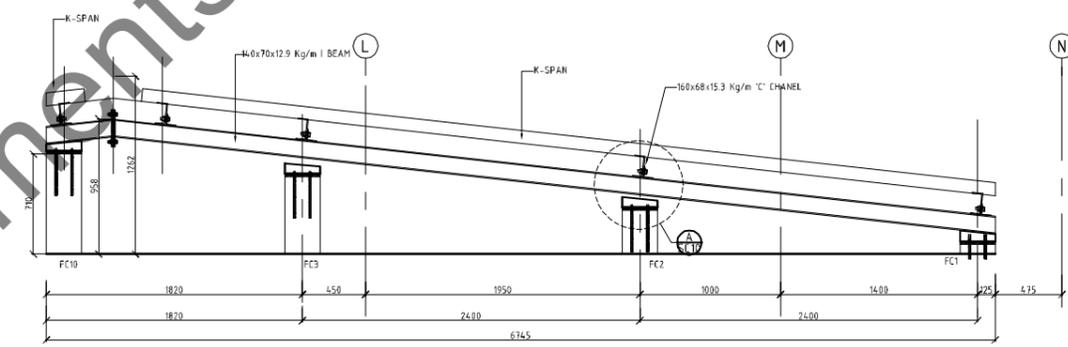
**16**  
Embed 6mm threaded rods with approved epoxy adhesive (TYP for pedestal less than 300mm high)



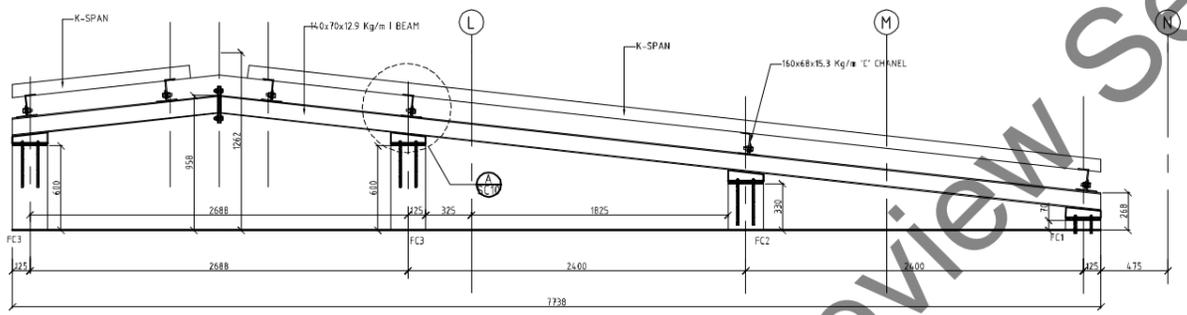
**RB10 (140x70x12.9 Kg)**  
SCALE 1:25



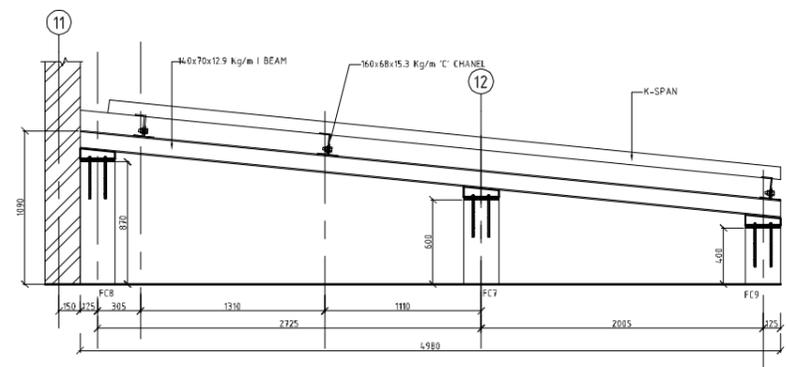
**RB11 (140x70x12.9 Kg)**  
SCALE 1:25



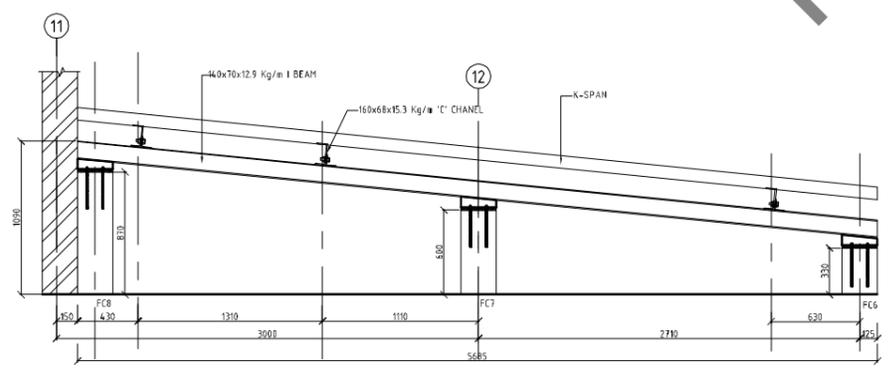
**RB12 (140x70x12.9 Kg)**  
SCALE 1:25



**RB13 (140x70x12.9 Kg)**  
SCALE 1:25



**RB14 (140x70x12.9 Kg)**  
SCALE 1:25

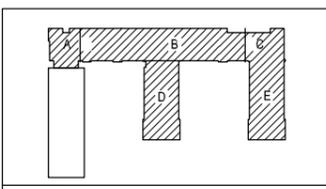


**RB15 (140x70x12.9 Kg)**  
SCALE 1:25

Review Set Comments

**Beam pedestal notes**  
1. All welds to be accomplished in shop-controlled conditions. All field connections to be bolted in place.

ISSUED FOR CONSTRUCTION

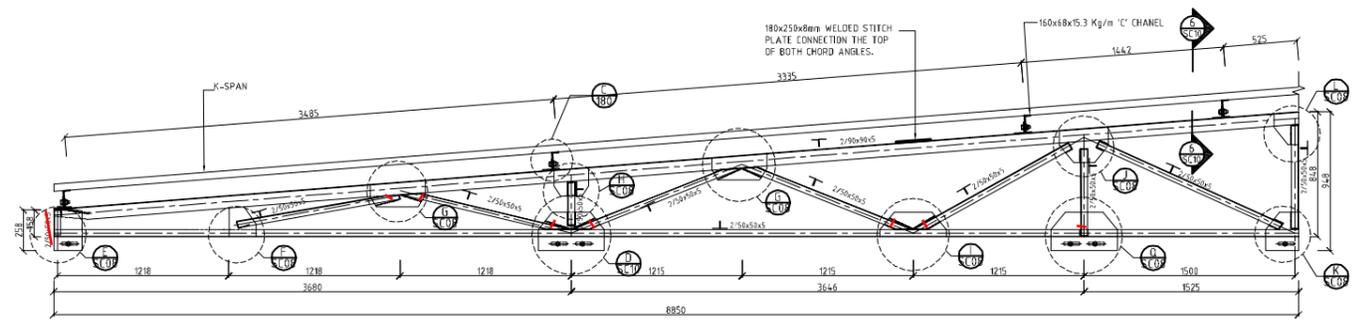


BENEFICIARY: MINISTRY OF EDUCATION REPUBLIC OF AFGHANISTAN			
DONOR: <b>USAID</b> UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT			
IMPLEMENTOR: <b>UNOPS</b> UNITED NATIONS OFFICE FOR PROJECT SERVICES 47 RUE DE LA FRIPIERIE, PARIS, FRANCE			
PROJECT: SARDAR-E-KABUL GIRLS HIGH SCHOOL AFGHANISTAN			
DRAWING TITLE: DETAILS OF ROOF BEAMS 03/03			
DESIGNED: C.O.	PROJECT NO: 627	DRAWING NO. 627-SC05	REV. 8
DRAWN: A.H.S.	CHECKED: C.O.	SCALE: AS GIVEN @ A1	
APPROVED: W.G.M.	DATE: 30/08/2010		

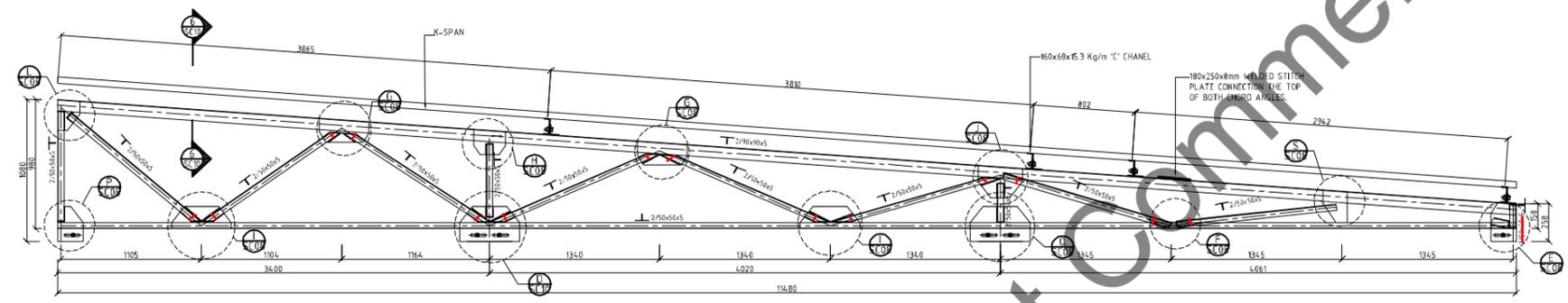
No.	DATE	REVISION
1	11/01/09	NO CHANGE
2	03/02/09	NO CHANGE
3	19/12/10	REVISED ROOF DESIGN

NOTES

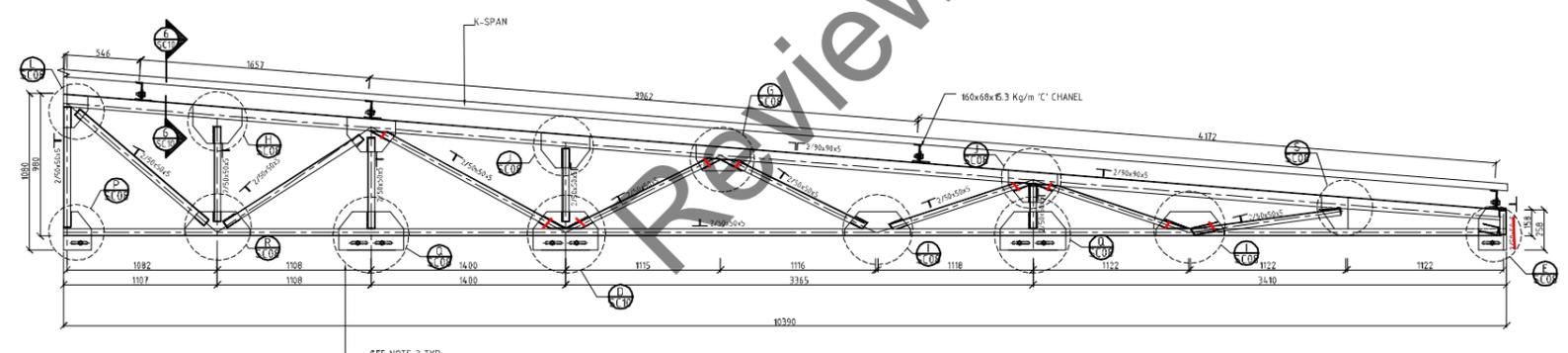
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**TRUSS 1**  
SCALE 1:25



**TRUSS 2**  
SCALE 1:25



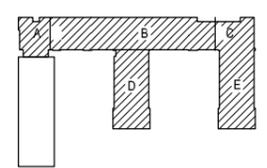
**TRUSS 3**  
SCALE 1:25

Review Set Comments

Check truss geometry and length to accommodate the end connections Detail "O" and Detail "P" on SC10

Show truss connection details to be consistent with those on sheet SC08

**ISSUED FOR CONSTRUCTION**



**TRUSS CONNECTION NOTES:**

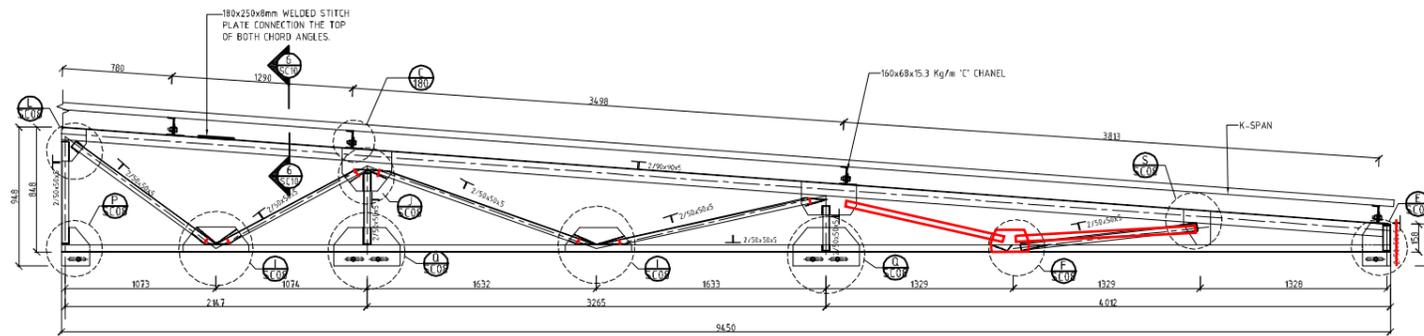
- ALL TRUSS MEMBER CONNECTIONS TO INCORPORATE A GUSSET PLATE TO MAINTAIN DIAGONAL AND POST ANGLE CONTACT, FLUSH WITH GUSSET PLATE.
- MINIMUM E70XX 5mm FILLET WELD LENGTH IS 125mm FOR EACH INDIVIDUAL DIAGONAL AND POSTS CONNECTION TO GUSSET PLATE. PROVIDE CONTINUOUS 5mm FILLET WELD ALONG TOP AND BOTTOM CHORD ANGLES TO GUSSETS.
- SLIP CRITICAL BOLTED CONNECTIONS TO TRUSS BOTTOM CHORD ARE REQUIRED IF SLOTTED HOLES ARE USED, TO TRANSFER THE LATERAL LOADS TO THE CONCRETE ROOF STRUCTURE. SLIP CRITICAL BOLTS TYPICALLY REQUIRE ADDITIONAL DOCUMENTATION AND INSPECTIONS. AS AN ALTERNATIVE, IT IS SUGGESTED THAT THE AS-BUILT EMBEDMENT LAYOUT IS MAPPED AND STANDARD DIAMETER CONNECTION HOLES ARE DRILLED IN THE GUSSETS TO CONFORM WITH ACTUAL CONDITIONS.

BENEFICIARY: MINISTRY OF EDUCATION REPUBLIC OF AFGHANISTAN		DRAWING NO: 627-SC06	
DONOR: USAID UNITED STATES INTERNATIONAL DEVELOPMENT ADMINISTRATION		PROJECT NO: 627	
IMPLEMENTER: UNOPS UNITED NATIONS OPERATIONS FOR PROJECT SERVICES 47 RUE DE LA FAYETTE, 75008 PARIS, FRANCE		SCALE: AS GIVEN @ A1	
PROJECT: SARDAR-E-KABULI GIRLS HIGH SCHOOL AFGHANISTAN		DATE: 30/08/2010	
DRAWING TITLE: DETAILS OF TRUSSES G02			
DESIGNED: C.O.	CHECKED: C.O.	APPROVED: W.G.M.C.	REV: 8

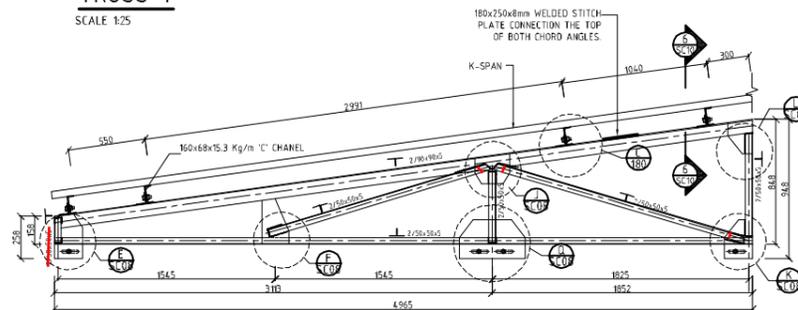
No.	DATE	REVISION
1	11/01/09	NO CHANGE
2	03/02/09	NO CHANGE
3	19/12/10	REVISED ROOF DESIGN

NOTES

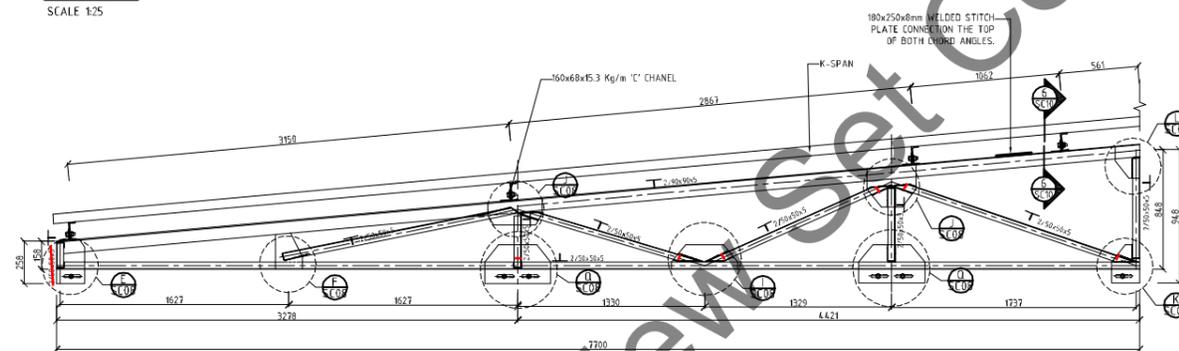
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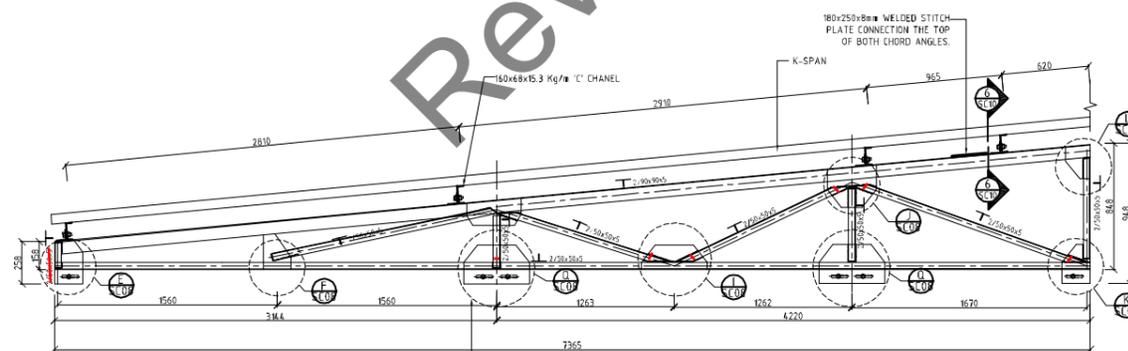
TRUSS 4  
SCALE 1:25



TRUSS 5  
SCALE 1:25



TRUSS 6  
SCALE 1:25

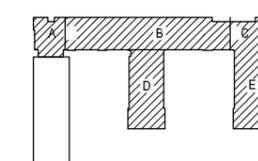


TRUSS 7  
SCALE 1:25

Review Set Comments

Check truss geometry and length to accommodate the end connections Detail "O" and Detail "P" on SC10

ISSUED FOR CONSTRUCTION



Show truss connection details to be consistent with those on sheet SC08

TRUSS CONNECTION NOTES:

1. ALL TRUSS MEMBER CONNECTIONS TO INCORPORATE A GUSSET PLATE TO MAINTAIN DIAGONAL AND POST ANGLE CONTACT, FLUSH WITH GUSSET PLATE.
2. MINIMUM E70XX 5mm FILLET WELD LENGTH IS 125mm FOR EACH INDIVIDUAL DIAGONAL AND POSTS CONNECTION TO GUSSET PLATE. PROVIDE CONTINUOUS 5mm FILLET WELD ALONG TOP AND BOTTOM CHORD ANGLES TO GUSSETS.
3. SLIP CRITICAL BOLTED CONNECTIONS TO TRUSS BOTTOM CHORD ARE REQUIRED IF SLOTTED HOLES ARE USED, TO TRANSFER THE LATERAL LOADS TO THE CONCRETE ROOF STRUCTURE. SLIP CRITICAL BOLTS TYPICALLY REQUIRE ADDITIONAL DOCUMENTATION AND INSPECTIONS. AS AN ALTERNATIVE, IT IS SUGGESTED THAT THE AS-BUILT EMBEDMENT LAYOUT IS MAPPED AND STANDARD DIAMETER CONNECTION HOLES ARE DRILLED IN THE GUSSETS TO CONFORM WITH ACTUAL CONDITIONS.

BIBLIOPHANY:			
MINISTRY OF EDUCATION REPUBLIC OF AFGHANISTAN			
DONOR:			
USAID UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT			
IMPLEMENTER:			
UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 47, RUE DE LA FAYETTE, 1050 BRUXELLES, BELGIUM			
PROJECT:			
SARDAR-E-KABUL GIRLS HIGH SCHOOL AFGHANISTAN			
DRAWING TITLE:			
DETAILS OF TRUSSES 0202			
DESIGNED:	C.O.	PROJECT NO.:	DRAWING NO.:
DRAWN:	A.H.S.	627	627-SC07
CHECKED:	C.O.	SCALE:	AS GIVEN @ A1
APPROVED:	W.G.M.	DATE:	30/08/2010

No.	DATE	REVISION
1	1/10/09	NO CHANGE
2	03/02/09	NO CHANGE
3	19/12/10	REVISED ROOF DESIGN

NOTES

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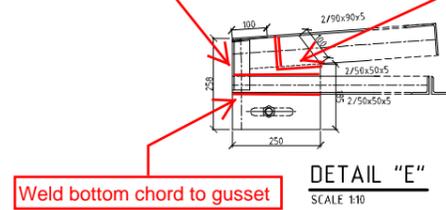
Vertical angles at end not required - just provide gusset plate with top and bottom chord angles

Cut end of top chord square and weld along end and bottom as shown

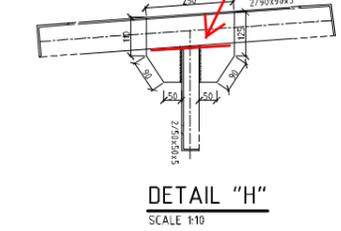
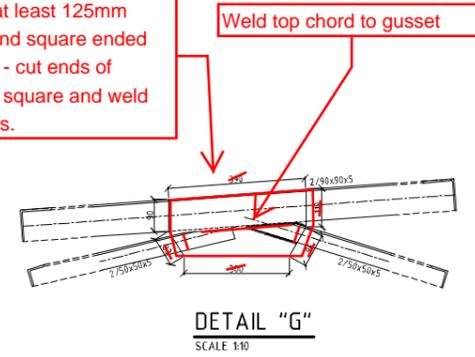
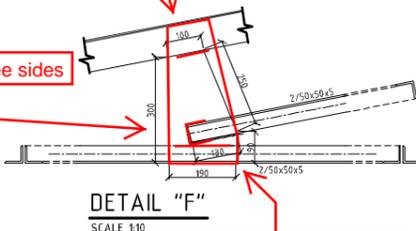
Extend gusset up through top chord - weld top chord to gusset

Adjust gusset plate size to allow for at least 125mm weld around square ended diagonals - cut ends of diagonals square and weld three sides.

Weld top chord to gusset



Weld diagonal on three sides



Weld bottom chord to gusset

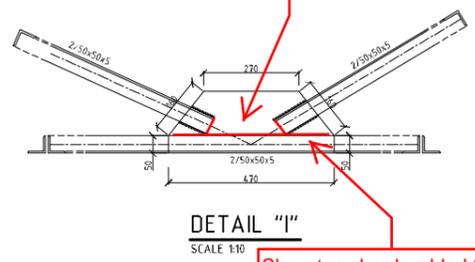
DETAIL "E"  
SCALE 1:10

DETAIL "F"  
SCALE 1:10

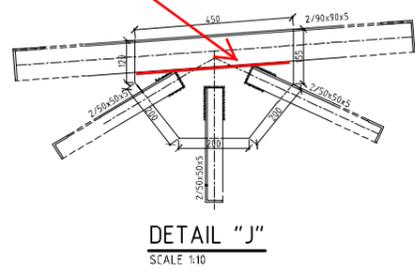
DETAIL "G"  
SCALE 1:10

DETAIL "H"  
SCALE 1:10

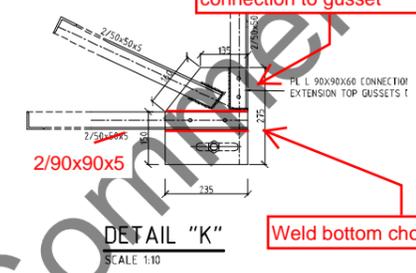
Show weld along 3 sides of diagonals



Show top chord welded to gusset

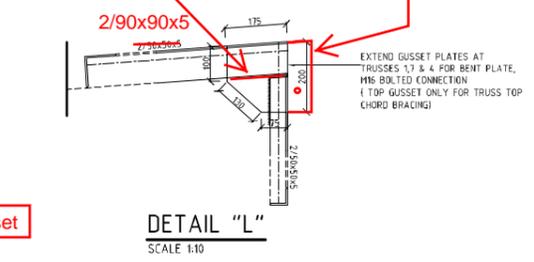


No bolt holes through 50x50 angles - show welded connection to gusset



Show top chord welded to gusset

Show extended plate dimension with bolt hole



Show top chord welded to gusset

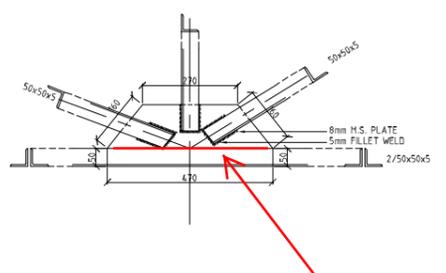
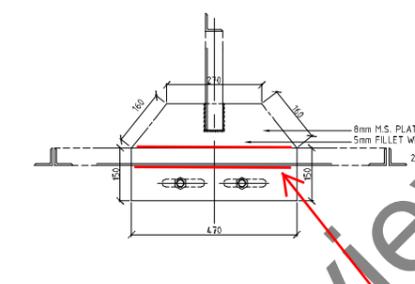
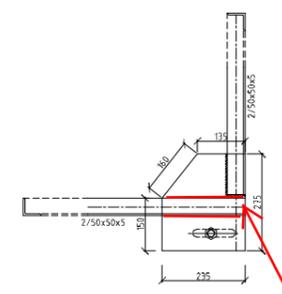
DETAIL "I"  
SCALE 1:10

DETAIL "J"  
SCALE 1:10

DETAIL "K"  
SCALE 1:10

DETAIL "L"  
SCALE 1:10

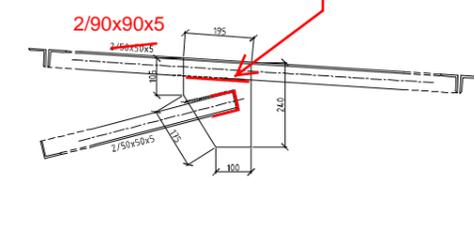
Show bottom chord welded to gusset



Show bottom chord welded to gusset

DETAIL "R"  
SCALE 1:10

Show top chord welded to gusset

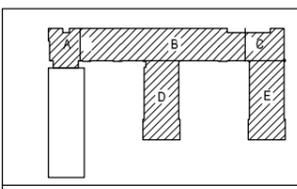


DETAIL "S"  
SCALE 1:10

**TRUSS CONNECTION NOTES:**

1. ALL TRUSS MEMBER CONNECTIONS TO INCORPORATE A GUSSET PLATE TO MAINTAIN DIAGONAL AND POST ANGLE CONTACT, FLUSH WITH GUSSET PLATE.
2. MINIMUM E70XX 5mm FILLET WELD LENGTH IS 125mm FOR EACH INDIVIDUAL DIAGONAL AND POSTS CONNECTION TO GUSSET PLATE. PROVIDE CONTINUOUS 5mm FILLET WELD ALONG TOP AND BOTTOM CHORD ANGLES TO GUSSETS.
3. SLIP CRITICAL BOLTED CONNECTIONS TO TRUSS BOTTOM CHORD ARE REQUIRED IF SLOTTED HOLES ARE USED, TO TRANSFER THE LATERAL LOADS TO THE CONCRETE ROOF STRUCTURE. SLIP CRITICAL BOLTS TYPICALLY REQUIRE ADDITIONAL DOCUMENTATION AND INSPECTIONS. AS AN ALTERNATIVE, IT IS SUGGESTED THAT THE AS-BUILT EMBEDMENT LAYOUT IS MAPPED AND STANDARD DIAMETER CONNECTION HOLES ARE DRILLED IN THE GUSSETS TO CONFORM WITH ACTUAL CONDITIONS.

ISSUED FOR CONSTRUCTION



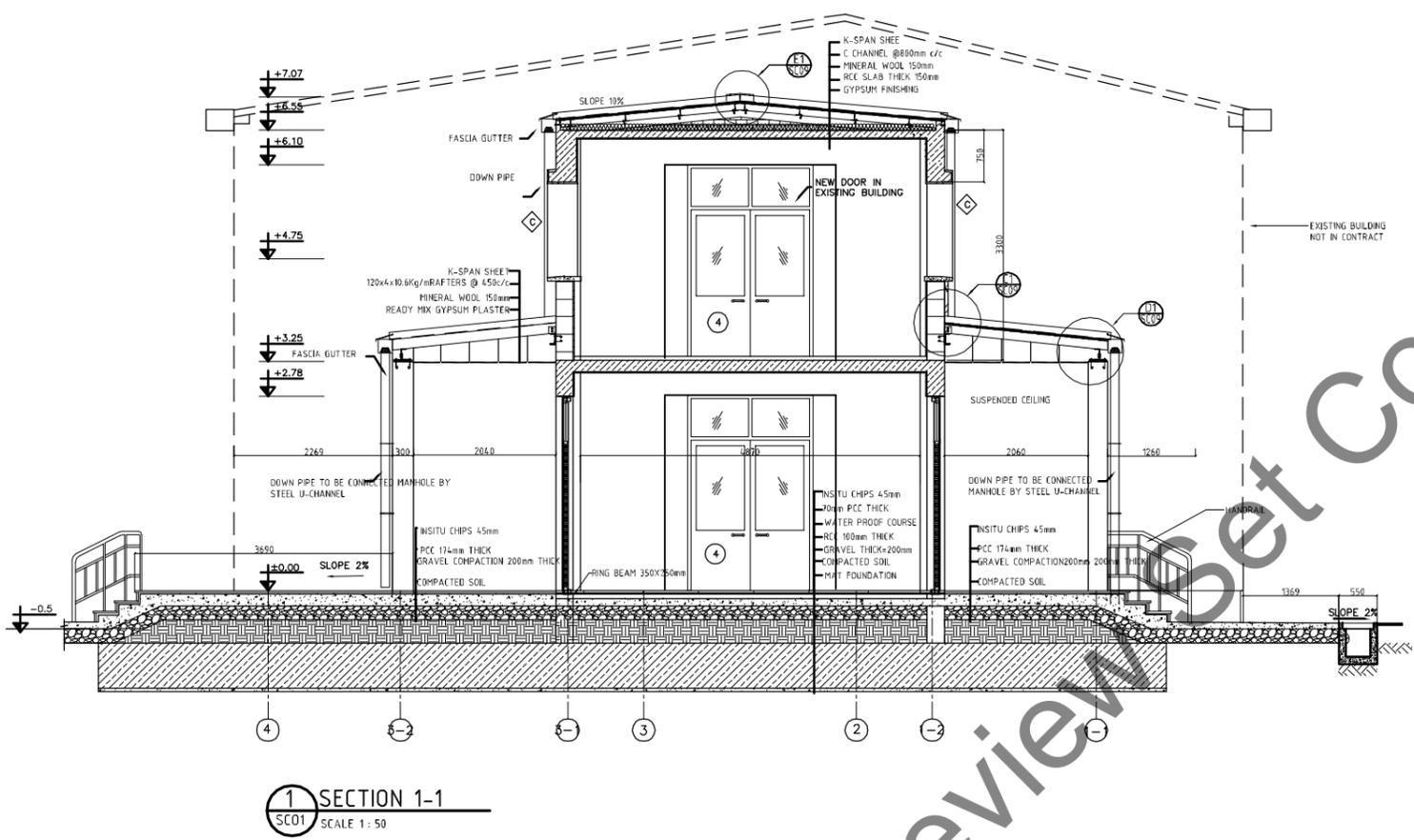
BIBLIOPHANY:			
MINISTRY OF EDUCATION REPUBLIC OF KOREA			
DONOR:			
USAID UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT			
IMPLEMENTOR:			
UNOPS UNITED NATIONS OFFICE FOR PROJECT SERVICES 47 CHATELAIN BOULEVARD, 1215 GENEVA, SWITZERLAND			
PROJECT:			
SARDAR-E-KABULI GIRLS HIGH SCHOOL AFGHANISTAN			
DRAWING TITLE:			
DETAILS OF TRUSSES 01/02			
DESIGNED:	C.O.	PROJECT NO:	DRAWING NO:
DRAWN:	A.H.S.	627	627-SC08
CHECKED:	C.O.	SCALE:	AS GIVEN @ A1
APPROVED:	W.G.M.	DATE:	30/08/2010

No.	DATE	REVISION
5	06.09.2009	GENERAL CORRECTION
6	12.11.2009	NO CHANGE
8	15.12.10	REVISED ROOF DESIGN

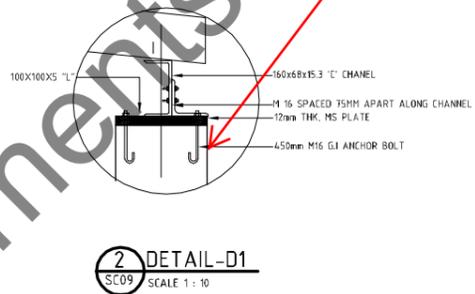
**NOTES**

- \* All dimensions in millimeters unless otherwise noted.
- \* Do not scale drawings.
- \* Verify all dimensions on site before commencement of work.
- \* All drawing shall be read in conjunction with specifications and schedules.
- \* All work shall be carried out in accordance with local laws and UNOPS standard specifications.
- \* Any discrepancies shall be reported to UNOPS engineers.

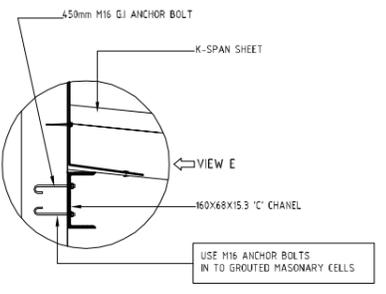
This wall is only 200mm wide, no room for two J bolts in same cmu core. (2) Straight M16 threaded anchors with end nuts through bottom of channel may be an alternative, to avoid conflict between angle and anchor.



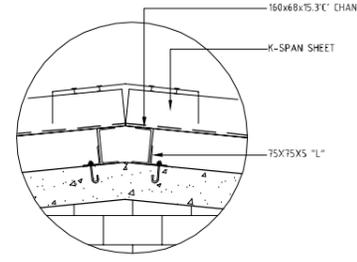
**1 SECTION 1-1**  
SC01 SCALE 1 : 50



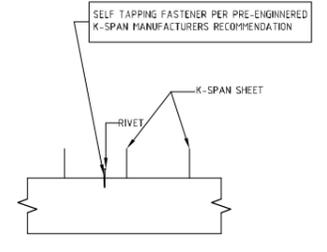
**2 DETAIL-D1**  
SC09 SCALE 1 : 10



**3 DETAIL-C1**  
SC09 SCALE 1 : 10



**4 DETAIL-E1**  
SC09 SCALE 1 : 10

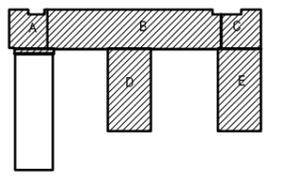


**3 DETAIL-E**  
SC09 SCALE 1 : 10

Review Get Comments

HATCHES:  
COR. GRADE : C/D (1:40MPH)  
REF. GRADE : S4/D (1:4:40MPH)

**ISSUED FOR CONSTRUCTION**



BENEFICIARY: MINISTRY OF EDUCATION MINISTERIAL OFFICE OF AFGHANISTAN	
DONOR: <b>USAID</b> UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT	
IMPLEMENTER: <b>UNOPS</b> UNITED NATIONS OPERATIONS FOR PEACE SERVICES	
PROJECT: SARDAR-E-KABULI GIRLS HIGH SCHOOL AFGHANISTAN	
DRAWING TITLE: SECTION 4-4b	
DESIGNED: C.O	PROJECT NO: 627
DRAWN: A.J.S	DRAWING NO: SC09
CHECKED: C.O	SCALE: AS GIVEN @ A1
APPROVED: W.G.M	DATE: 20.09.2010

**K-SPAN ROOF NOTES:**  
1. INCORPORATE ROOF FASTENING SCHEDULE AND TYPICAL FASTENER PATTERN ON DRAWINGS, WITH FASTENER TYPE AND SIZE AS REQUIRED BY THE PRE ENGINEERED ROOF MANUFACTURER'S REQUIREMENT

May be appropriate as a separate shop drawing due to level of detail needed.

