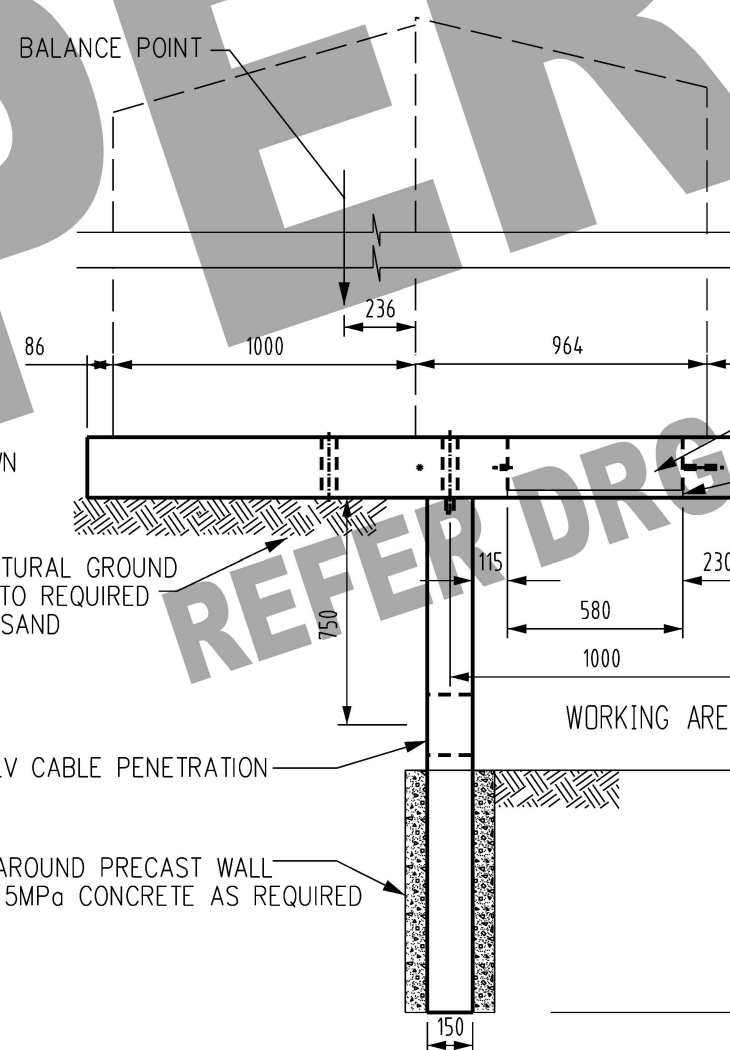


ISOMETRIC VIEW OF ASSEMBLED SLAB AND RETAINING WALL

BALANCE POINT



FINISHED GROUND LEVEL EARTHING APRON NOT SHOWN REFER TO S02-02-05-10

REMOVE TOP SOIL TO NATURAL GROUND AND THEN REESTABLISH TO REQUIRED HEIGHT WITH STABILIZED SAND

200 X 800 LV CABLE PENETRATION

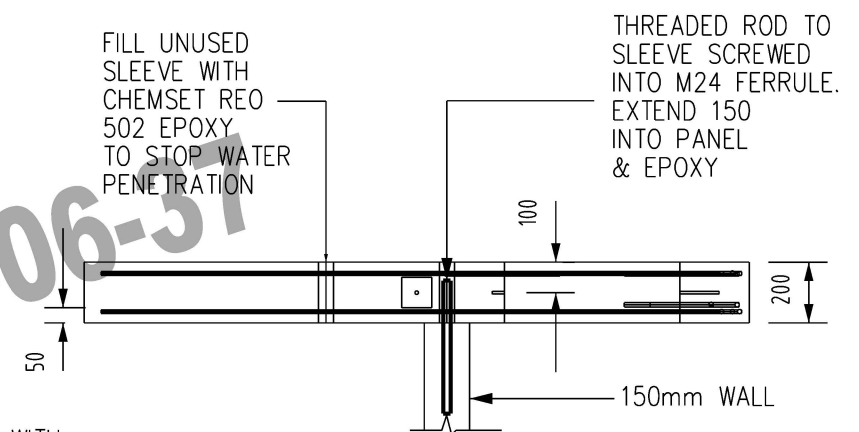
BACKFILL AROUND PRECAST WALL WITH MIN 15MPa CONCRETE AS REQUIRED

NOTES

1. SLAB PANEL AND RETAINING WALL IS DESIGNED FOR A 11KV 1000kVA SUBSTATION (3975 kg MAX.) FITTED WITH 4 WAY KKTT RMU. ALL OTHER HEAVIER SUBSTATIONS OR THOSE WITH VARYING BALANCE POINTS WILL NEED TO HAVE THE FOUNDATION DESIGN RE- ASSESSED.
2. ALL CONCRETE SHALL HAVE A MINIMUM CONCRETE STRENGTH OF 20 MPa BEFORE INSTALLATION. NOMINAL MINIMUM CURING TIME IS 5 DAYS.
3. REMOVE TOP SOIL DOWN TO NATURAL GROUND LEVEL AND THEN BACKFILL TO REQUIRED HEIGHT. BACK FILL BEHIND RETAINING WALL ONLY AFTER FOOTING CONCRETE HAS SET. ALL BACK FILL MATERIAL SHALL BE STABILIZED SAND.
4. MAXIMUM ALLOWABLE SURCHARGE IS 15KPa, KEEP ALL EXCAVATION AND LIFTING PLANT A MINIMUM OF 2000mm FROM THE EXCAVATION EDGE.
5. BASE OF RETAINING WALL SHALL BE FOUNDED ON EITHER NATURAL GROUND OR ENGINEERED FILL WITH AN ALLOWABLE BEARING CAPACITY OF 100 KPa. IN COHESIVE SOILS, $C_u > 40 \text{ KPa}$ AND $\gamma > 18 \text{ kN/m}^3$. IN GRANULAR SOILS, $\phi > 35^\circ$ AND $\gamma > 18 \text{ kN/m}^3$.
6. ENSURE PRECAST WALL IS LOCATED UNDER HOLES CLOSEST TO THE SLAB CAVITY.
7. ENSURE SLEEVES FULLY FILLED WITH EPOXY AND THAT EPOXY IS FINISHED FLUSH WITH SLAB.

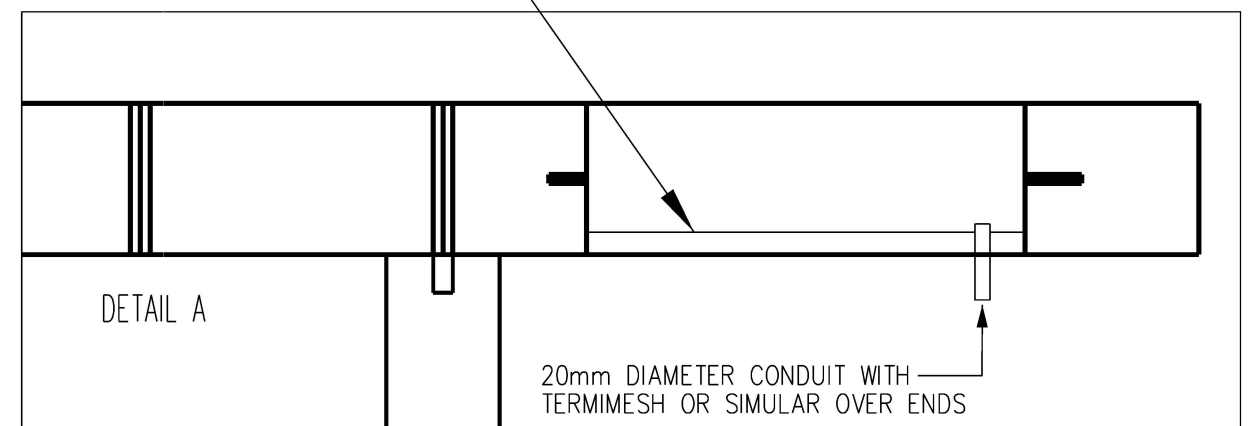
FILL UNUSED SLEEVE WITH CHEMSET REO 502 EPOXY TO STOP WATER PENETRATION

THREADED ROD TO SLEEVE SCREWED INTO M24 FERRULE. EXTEND 150 INTO PANEL & EPOXY



CABLE PENETRATION

30mm THICK LAYER OF GROUT WITH DRAINAGE PENETRATION REFER DETAIL A

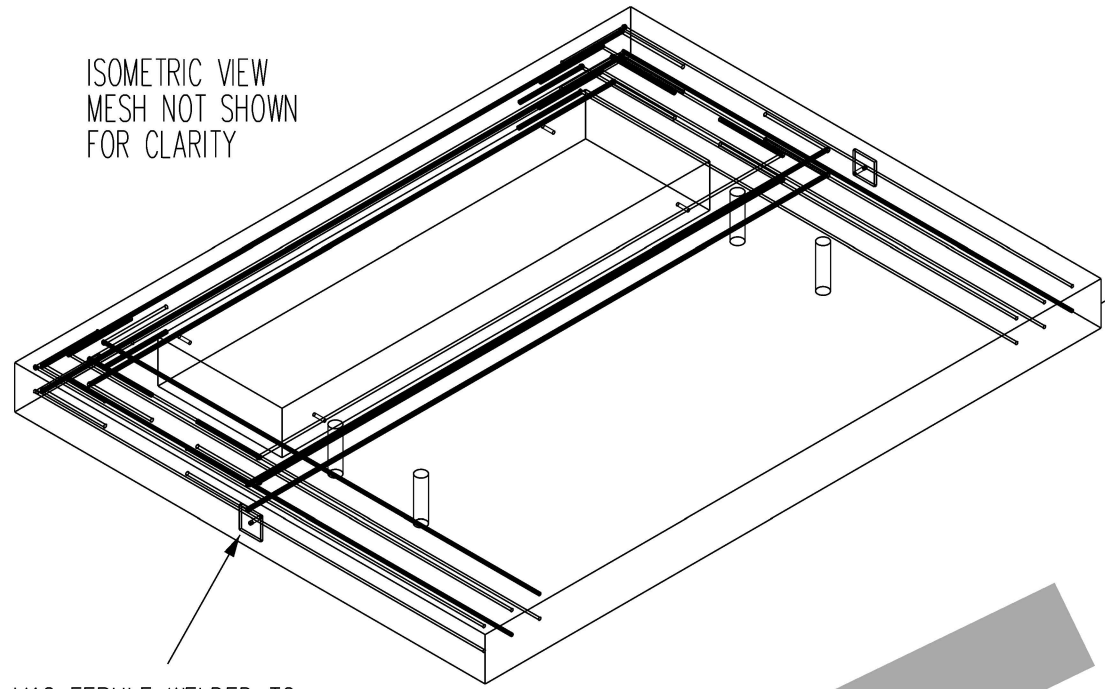


NO	DESCRIPTION	DRN	DATE	CKD	APPD
5	WATERMARK ADDED AND SHEET 5 UPDATED	H.E.	MAY'20	B.V.	H.E.
4	TITLEBLOCK & DRAWING NUMBER FORMATTED. ITEM NUMBER ADDED	K.T.	APR'19	C.C.	C.C.
3	WALL TO SLAB DETAIL MOVED FROM SHEET 2, SHEET 5 ADDED, WALL PENETRATIONS CHANGED	A.T.	MAY'16	I.B.	B.C.
2	CONDUIT PENETRATIONS PIER FOUNDATION ADDED	M.D.C.	JUN'14	J.K	P.K
1	RE-ISSUED FOR CONSTRUCTION	L.O.A	OCT'13	J.K	P.K
0	ISSUED FOR CONSTRUCTION	A.T.	NOV'12	B.C.	S.C.
AMENDMENTS					



DES	J.K.	POWER STANDARD DRAWING		
DRN	L.A.	CIVIL, MK2 PACKAGE SUBSTATION CABLE ENTRY AND FOUNDATION DETAILS SHEET 1 OF 5		
CKD	J.K.			
APPD	P.K	A3	DRAWING NUMBER	S02-02-06-31_1
SCALE	1:25			
ISSUED	JUN'13	DRAFTING STANDARD TO A.S.1100		
ALL DIM.	IN mm			
CAD PRODUCT - DO NOT AMEND MANUALLY		AMDT		

ISOMETRIC VIEW
MESH NOT SHOWN
FOR CLARITY



M12 FERULE WELDED TO
SLAB REINFORCING AND
100X100 STAINLESS STEEL
PLATE, BOTH SIDES

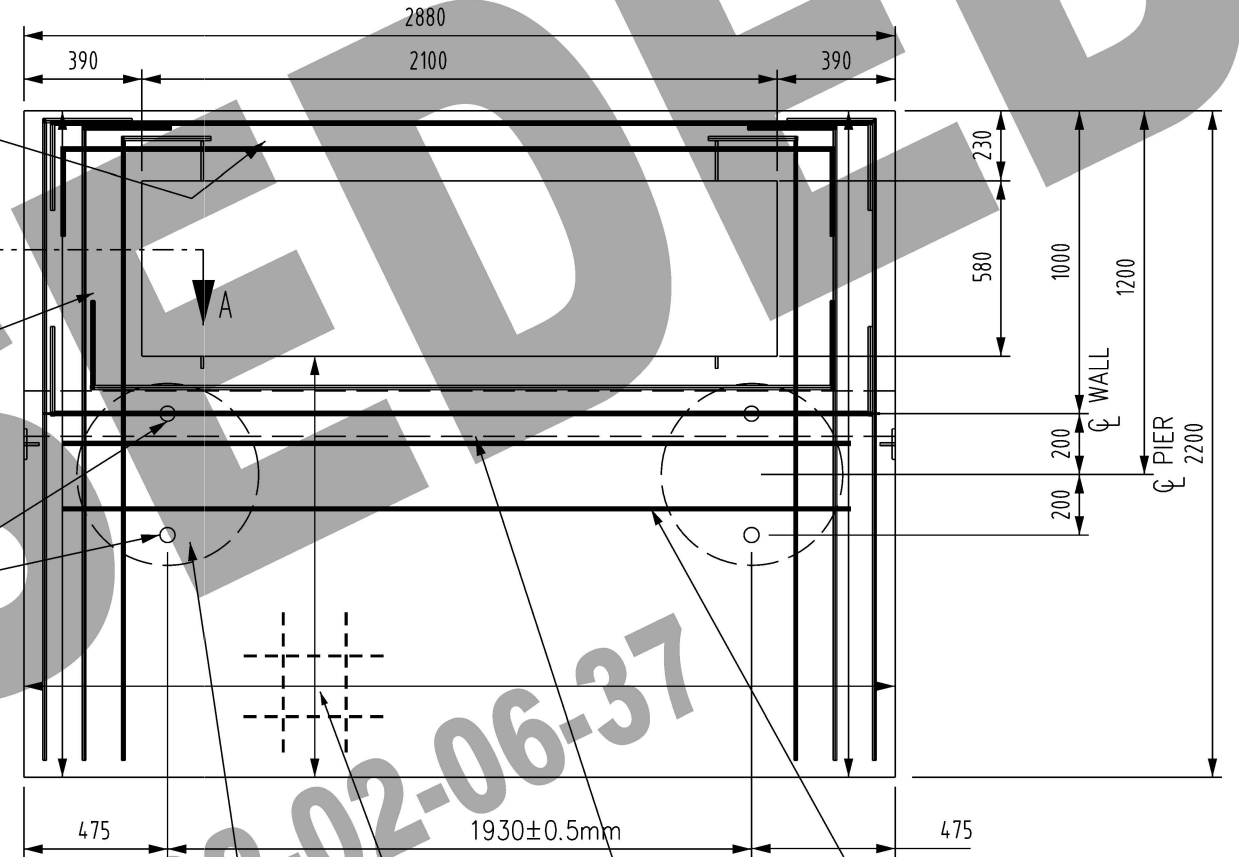
SUBSTATION FOUNDATION SLAB 2880 x 2200 x 200
WITH SL82 REINFORCING MESH TOP AND BOTTOM.
WITH N12 BARS AS SPECIFIED WITH 300 COG.
MIN 25MP_a CONCRETE. WELD REINFORCING BARS TOGETHER

ITEM NUMBER : 500422

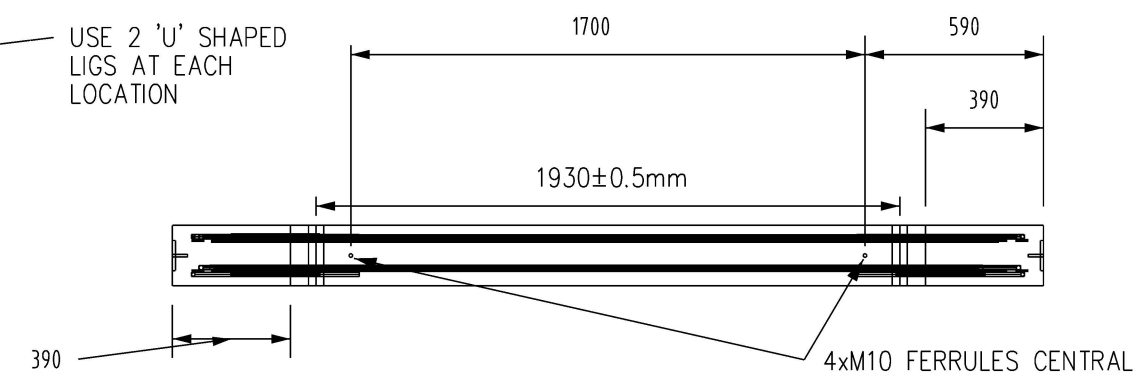
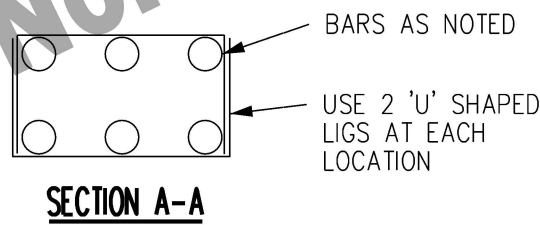
2xN12 BARS TOP AND BOTTOM
FRONT AND BACK OF CABLE
OPENING. 300 COG. REO
LIGS AT 300 CENTERS

3xN12 BARS TOP AND BOTTOM
EACH SIDE. 300 COG.
R10 LIGS AT
300 CENTERS AS 2 'U' SHAPED
LIGS AT EACH LOCATION

2x50mm INTERIOR DIA
SLEEVE FOR CONNECTION
TO M24 FERRULES. ROUGHEN
ON INSIDE FACE PRIOR TO
INSTALLATION



600mmØ PIER LOCATION TOP & BOTTOM
SL82 MESH
RETAINING WALL
PANEL LOCATION
2xN12 BARS
TOP & BOTTOM
LOCATED OVER PIERS



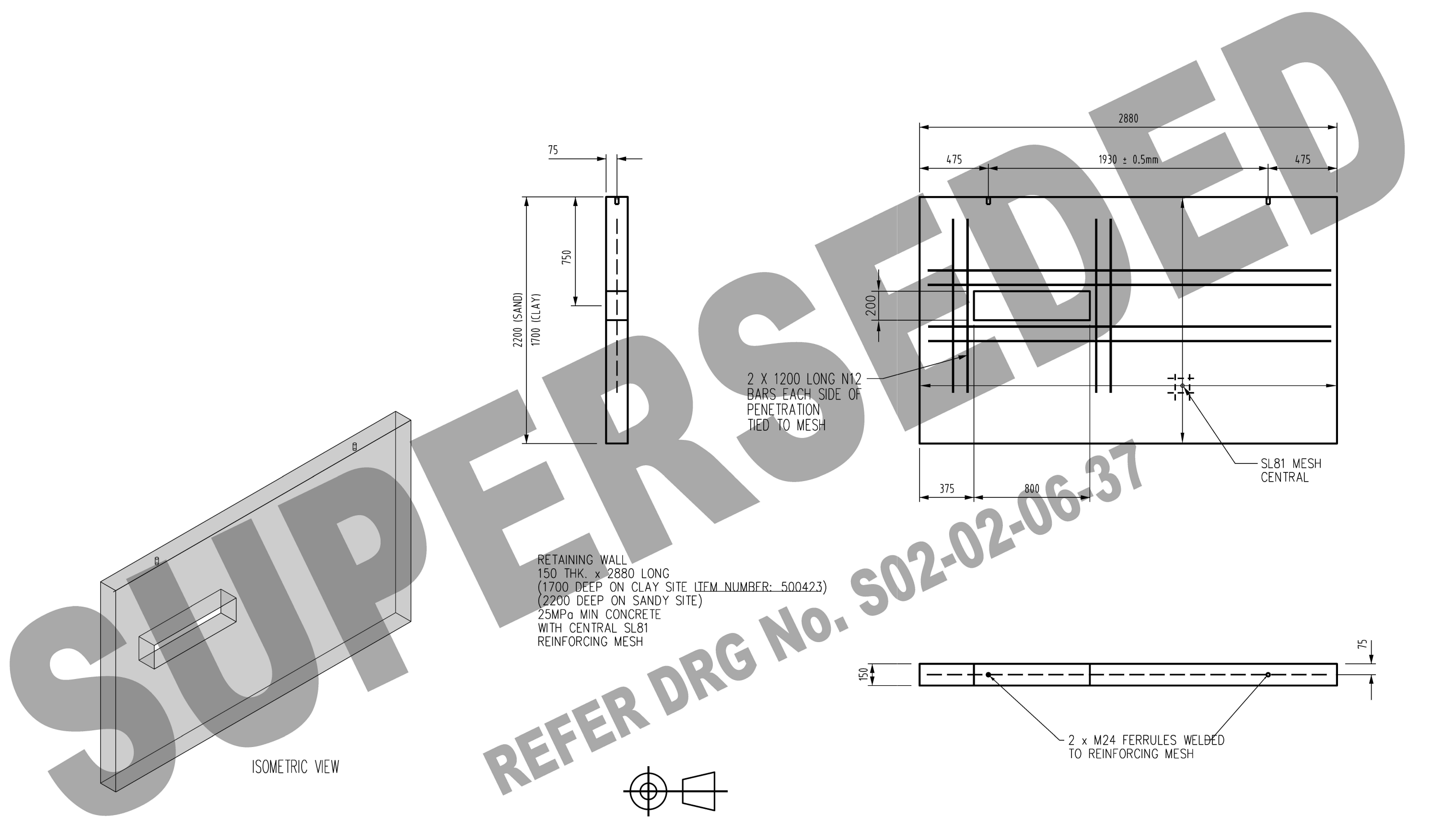
SUPERSEDED
REFER DRG No. S02-02-06-37

NO	DESCRIPTION	DRN	DATE	CKD	APPD
5	WATERMARK ADDED AND SHEET 5 UPDATED	H.E.	MAY'20	B.V.	H.E.
4	TITLEBLOCK & DRAWING NUMBER FORMATTED, ITEM NUMBER ADDED	K.T.	APR'19	C.C.	C.C.
3	PIER AND WALL DETAILS MOVED TO RESPECTIVE DRAWINGS	A.T.	MAY'16	I.B.	B.C.
2	PIER FOUNDATION ADDED	M.D.C.	JUN'14	J.K	P.K
1	RE-ISSUED FOR CONSTRUCTION	L.Q.A	OCT'13	J.K	P.K
0	ISSUED FOR CONSTRUCTION	A.T.	NOV'12	B.C.	S.C.
AMENDMENTS					



DES	J.K.	POWER STANDARD DRAWING	
DRN	L.A.	CIVIL, MK2 PACKAGE SUBSTATION CABLE ENTRY AND FOUNDATION DETAILS SHEET 2 OF 5 SLAB DETAILS	
CKD	J.K.		
APPD	P.K		
SCALE	1:25	A3	DRAWING NUMBER S02-02-06-31_2
ISSUED	OCT'13		
ALL DIM. IN mm			
DRAFTING STANDARD TO A.S.1100		CAD PRODUCT - DO NOT AMEND MANUALLY	





SUPERSEDED

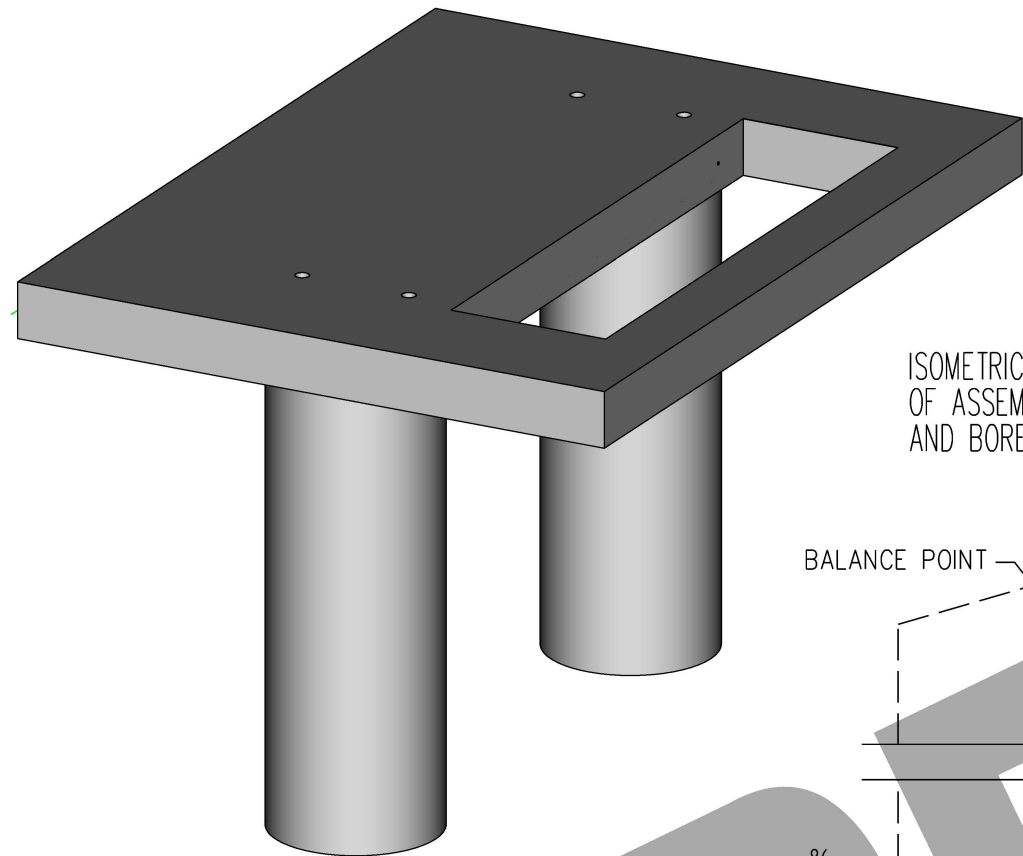
REFER DRG No. S02-02-06-37

5	WATERMARK ADDED AND SHEET 5 UPDATED	H.E.	MAY'20	B.V.	H.E.
4	TITLEBLOCK & DRAWING NUMBER FORMATTED, ITEM NUMBER ADDED	K.T.	APR'19	C.C.	C.C.
3	STOCK CODES ADDED TO SHEET 5 PENETRATIONS CHANGED	A.T.	MAY'16	J.B.	B.C.
2	CONDUIT PENETRATIONS ADDED	M.D.C.	JUN'14	J.K	P.K
1	RE-ISSUED FOR CONSTRUCTION	L.O.A	OCT'13	J.K	P.K
0	ISSUED FOR CONSTRUCTION	A.T.	NOV'12	B.C.	S.C.
NO	DESCRIPTION	DRN	DATE	CKD	APPD
AMENDMENTS					



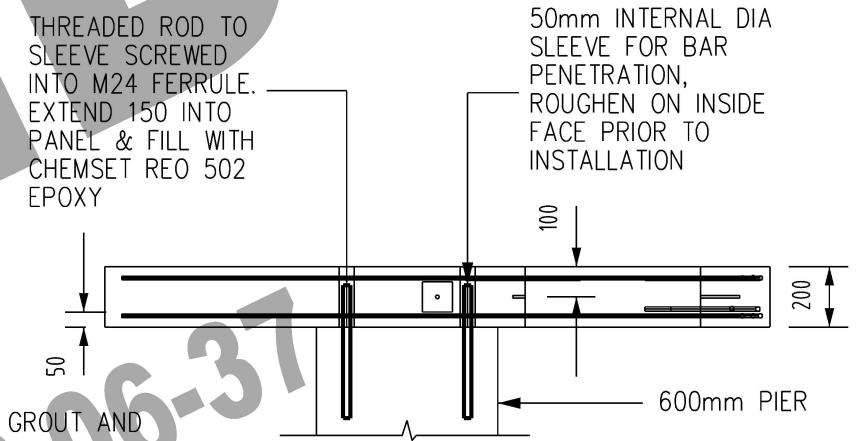
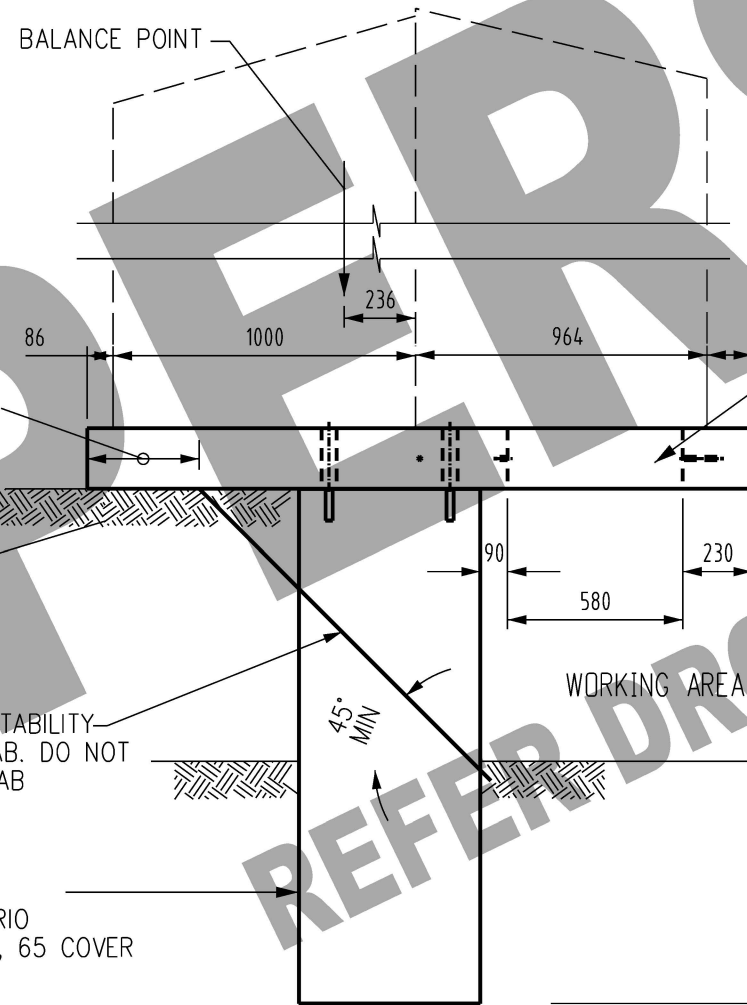
DES	J.K.	POWER STANDARD DRAWING		
DRN	L.A.	CIVIL, MK2 PACKAGE SUBSTATION CABLE ENTRY AND FOUNDATION DETAILS SHEET 3 OF 5 RETAINING WALL DETAILS		
CKD	J.K.			
APPD	P.K			
SCALE	1:25			
ISSUED	JUN'13	A3	DRAWING NUMBER	S02-02-06-31_3
ALL DIM. IN mm				
DRAFTING STANDARD TO A.S.1100		CAD PRODUCT - DO NOT AMEND MANUALLY		 AMDT

BOLE ASSEMBLY PIER, CLAY - ITEM NUMBER 502971
 BOLE ASSEMBLY PIER, SAND - ITEM NUMBER 503026



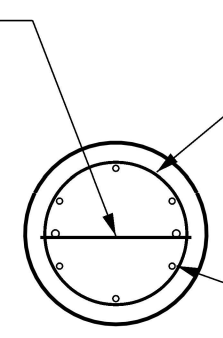
ISOMETRIC VIEW OF ASSEMBLED SLAB AND BORED PIERS

- NOTES:
1. SLAB PANEL AND BORED PIERS ARE DESIGNED FOR A 11KV 1000kVA SUBSTATION (3975 kg MAX.) FITTED WITH 4 WAY KKTT RMU. ALL OTHER HEAVIER SUBSTATIONS OR THOSE WITH VARYING BALANCE POINTS WILL NEED TO HAVE THE FOUNDATION DESIGN RE- ASSESSED.
 2. BORED PIER & SLAB CONCRETE SHALL HAVE A MINIMUM CONCRETE STRENGTH OF 20 MPa BEFORE ATTACHING THE SLAB TO IT. NOMINAL MINIMUM CURING TIME IS 5 DAYS.
 3. REMOVE TOP SOIL DOWN TO NATURAL GROUND LEVEL AND THEN BACKFILL TO REQUIRED HEIGHT. ALL BACK FILL MATERIAL SHALL BE STABILIZED SAND.
 4. MAXIMUM ALLOWABLE SURCHARGE IS 15KPa, KEEP ALL EXCAVATION AND LIFTING PLANT A MINIMUM OF 2000mm FROM THE EXCAVATION EDGE.
 5. BASE OF BORED PIERS SHALL BE FOUNDED ON EITHER NATURAL GROUND OR ENGINEERED FILL WITH AN ALLOWABLE BEARING CAPACITY OF 100 KPa. IN COHESIVE SOILS, $C_u > 40 \text{ KPa}$ AND $\gamma > 18 \text{ kN/m}^3$, IN GRANULAR SOILS, $\phi > 35^\circ$ AND $\gamma > 18 \text{ kN/m}^3$.
 6. DO NOT ALLOW CABLES TO CONTACT PILONS WHEN INSTALLED.
 7. USE 'YOKE' TO POSITION FERRULES. REFER SHEET 5.



CABLE PENETRATION REFER DETAIL A ON SHEET 1 FOR GROUT AND DRAINAGE DETAILS

FINISHED GROUND LEVEL EARTHING APRON NOT SHOWN REFER TO S02-02-05-10

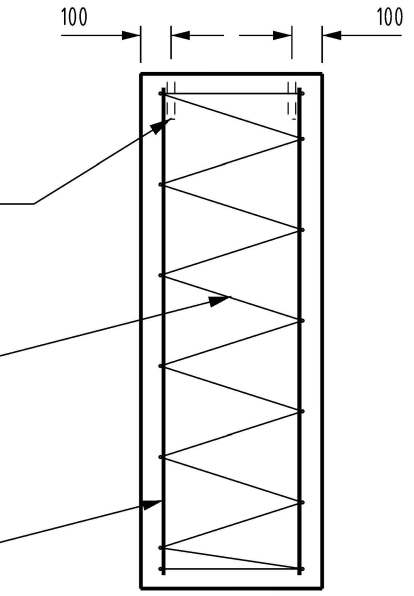


TYPICAL PIER SECTION

2xM24 FERRULES WELDED TO ADDITIONAL R10 CROSS BAR IN POSITIONS SHOWN

R10 SPIRAL LIGS AT 150 PITCH

6xN20 VERTICAL BARS 65mm COVER 470mm P.C.D.



TYPICAL PIER ELEVATION

CONTRACTOR TO ENSURE 300 MIN FOUNDING FOR SLAB PANEL

REMOVE TOP SOIL TO NATURAL GROUND AND THEN REESTABLISH TO REQUIRED HEIGHT WITH STABILIZED SAND

CONTRACTOR TO ENSURE STABILITY OF EXCAVATION UNDER SLAB. DO NOT OVER EXCAVATE UNDER SLAB

600mmØ BORED PIER WITH 6xN20 VERTICAL BARS & R10 SPIRAL LIGS AT 150 PITCH, 65 COVER

NO	DESCRIPTION	DRN	DATE	CKD	APPD
5	WATERMARK ADDED AND SHEET 5 UPDATED	H.E.	MAY'20	B.V.	H.E.
4	TITLEBLOCK & DRAWING NUMBER FORMATTED, ITEM NUMBER ADDED	K.T.	APR'19	C.C.	C.C.
3	NOTE 7 AMENDED, PIER TO SLAB DETAIL MOVED FROM SHEET 2	A.T.	MAY'16	J.B.	B.C.
2	PIER FOUNDATION ADDED	M.D.C.	JUN'14	J.K	P.K
1	RE-ISSUED FOR CONSTRUCTION	L.O.A	NOV'13	J.K	P.K
0	ISSUED FOR CONSTRUCTION	L.O.A	OCT'13	J.K	P.K
AMENDMENTS					



DES	J.K.	POWER STANDARD DRAWING		
DRN	L.A.	CIVIL, MK2 PACKAGE SUBSTATION CABLE ENTRY AND FOUNDATION DETAILS SHEET 4 OF 5 BORED PIER DETAILS		
CKD	J.K.			
APPD	P.K			
SCALE	1:25			
ISSUED	OCT'13	A3	DRAWING NUMBER	S02-02-06-31_4
ALL DIM.	IN mm	CAD PRODUCT - DO NOT AMEND MANUALLY		5
DRAFTING STANDARD TO A.S.1100				AMDT

