



Bharat Heavy Electricals Limited

(A Govt. of India Undertaking)

Transmission Business Group

Materials Management, 5th Floor, Plot No.25,

Sector-16A, Noida, Uttar Pradesh, PIN No: 201301

Phone: 0120-2218840, Email: gaurav.agarwal@bhel.in

CORRIGENDUM - 10 TO NIT NO-99909

Dated 18-07-2026

Subject: Corrigendum-10 to Tender enquiry for Pre-Bid Tie up with the GIS OEM for Supply & Services of 400KV & 220KVGIS for NPCIL's Kundankulam Unit 5&6 Sub-Station Tender / Project.

Project : NPCIL's Kundankulam Unit 5&6
Equipment / Item : Supply & Services of 400kV & 220kV GIS and Its associated equipment
Enquiry No/Date : 61G2700039 Dated 20-05-2026
BHEL NIT NO : 99909
Original Tender due date : 01-06-2026

This Corrigendum is issued by BHEL TBG against above mentioned NIT/ enquiry for the Issuance of technical corrigendum-03 (enclosed).

Due date of tender opening shall remain same.

All other terms and conditions for this tender enquiry shall remain unchanged.

Bidder to ensure submission of offer on or before due date.

Note: Tender ID on CPP Portal is **2026_BHEL_61417_1**.

Thanking you

-----Sd/-----

Gaurav Agarwal
BHEL TBG, NOIDA

Ref. No.: Technical Corrigendum No. 03

Project: Pre-Bid Tie up for Pre-Bid Tie up for,
400kV & 230kV GIS & GIBD systems of Nuclear Power Corporation of India Limited for Main Plant Electrical System Package for KKNPP Units- 5&6

Package/ Item: GAS INSULATED SWITCHGEAR WITH ITS ACCESSORIES

Technical Specification No.: TB-PBTU-KKNPP-400kV GIS, REV-00 &
TB-PBTU-KKNPP-230kV GIS, REV-00

Date: 17.07.2026

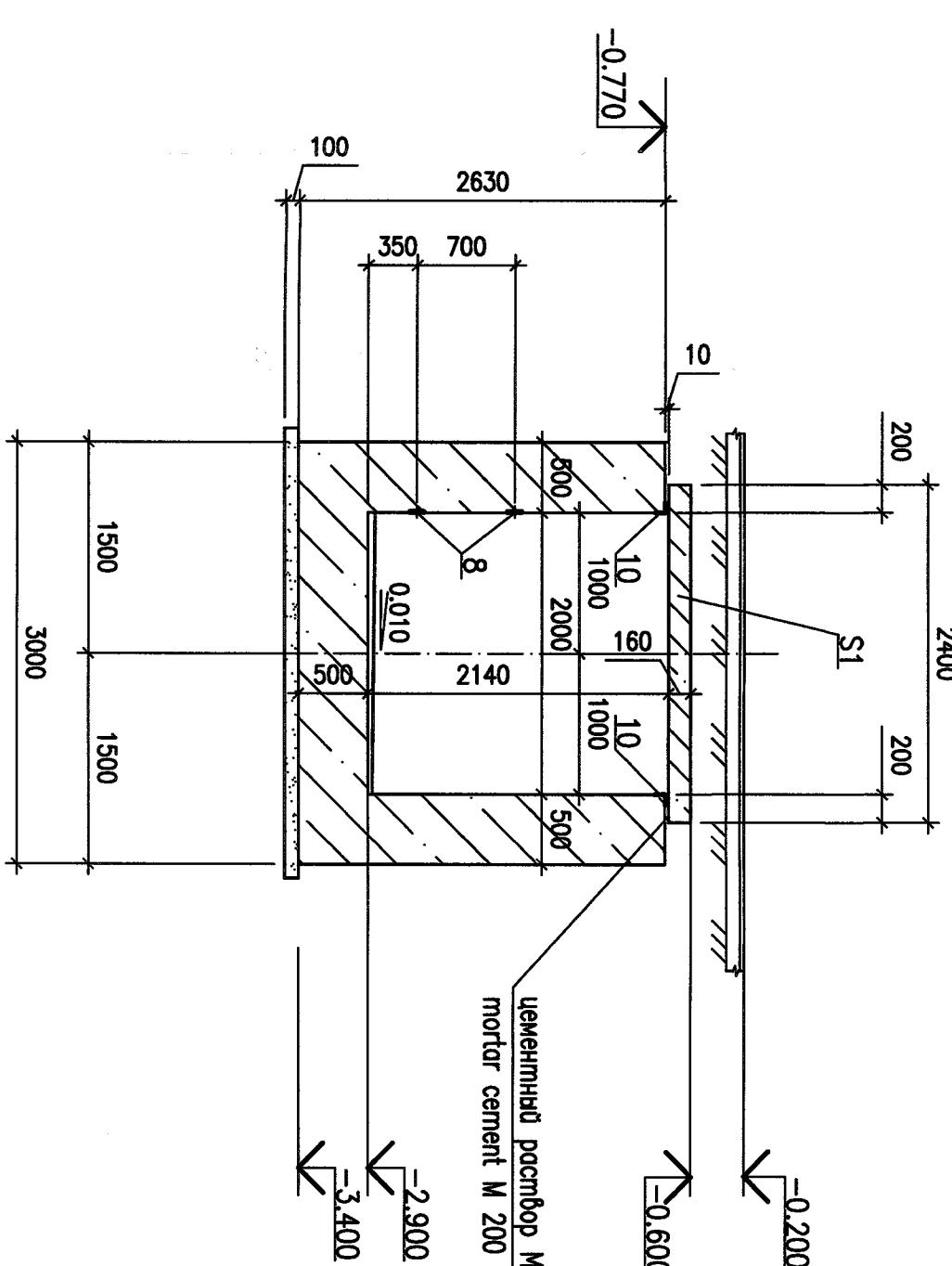
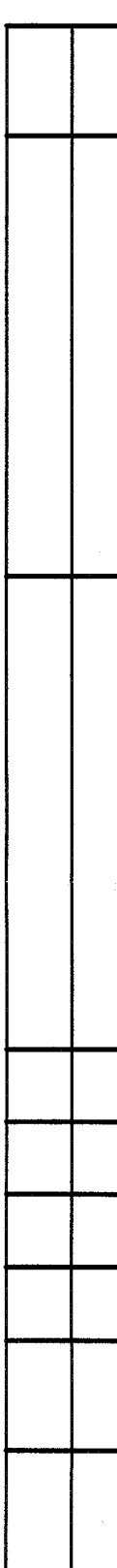
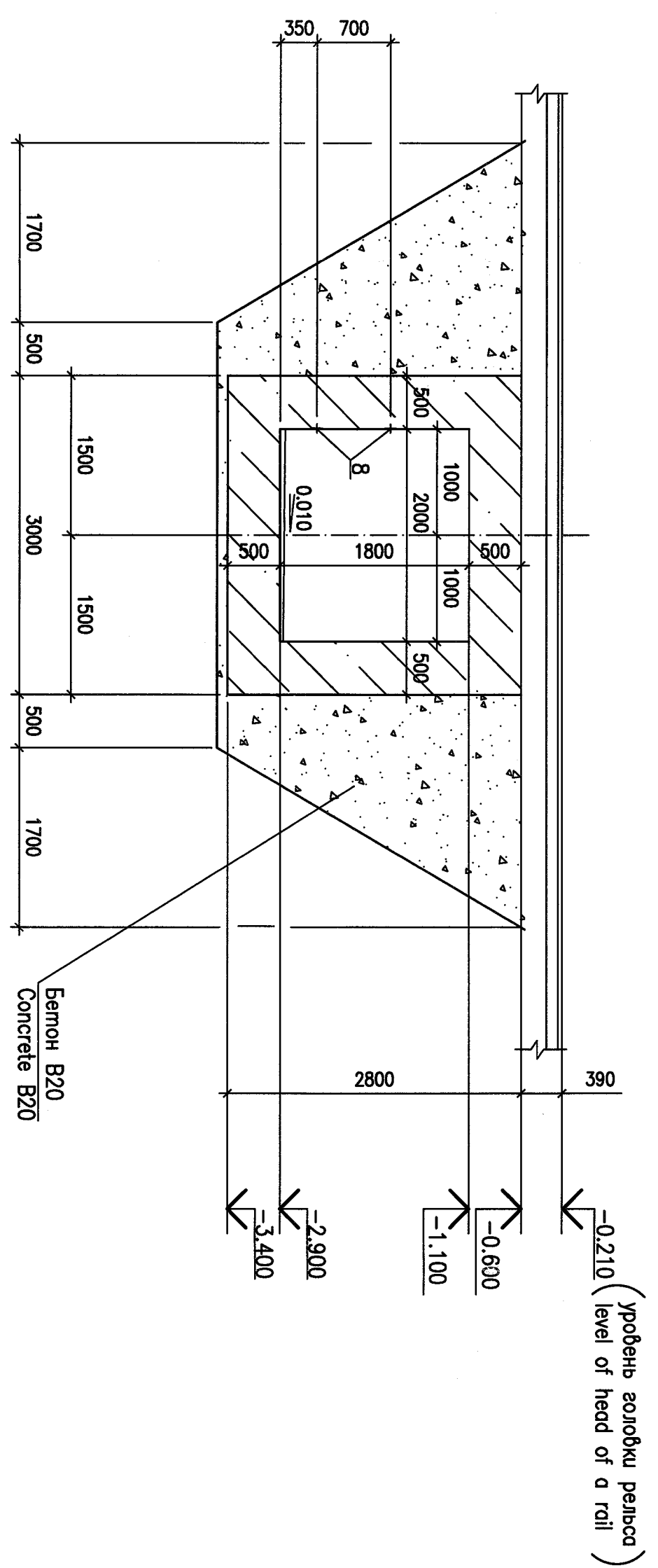
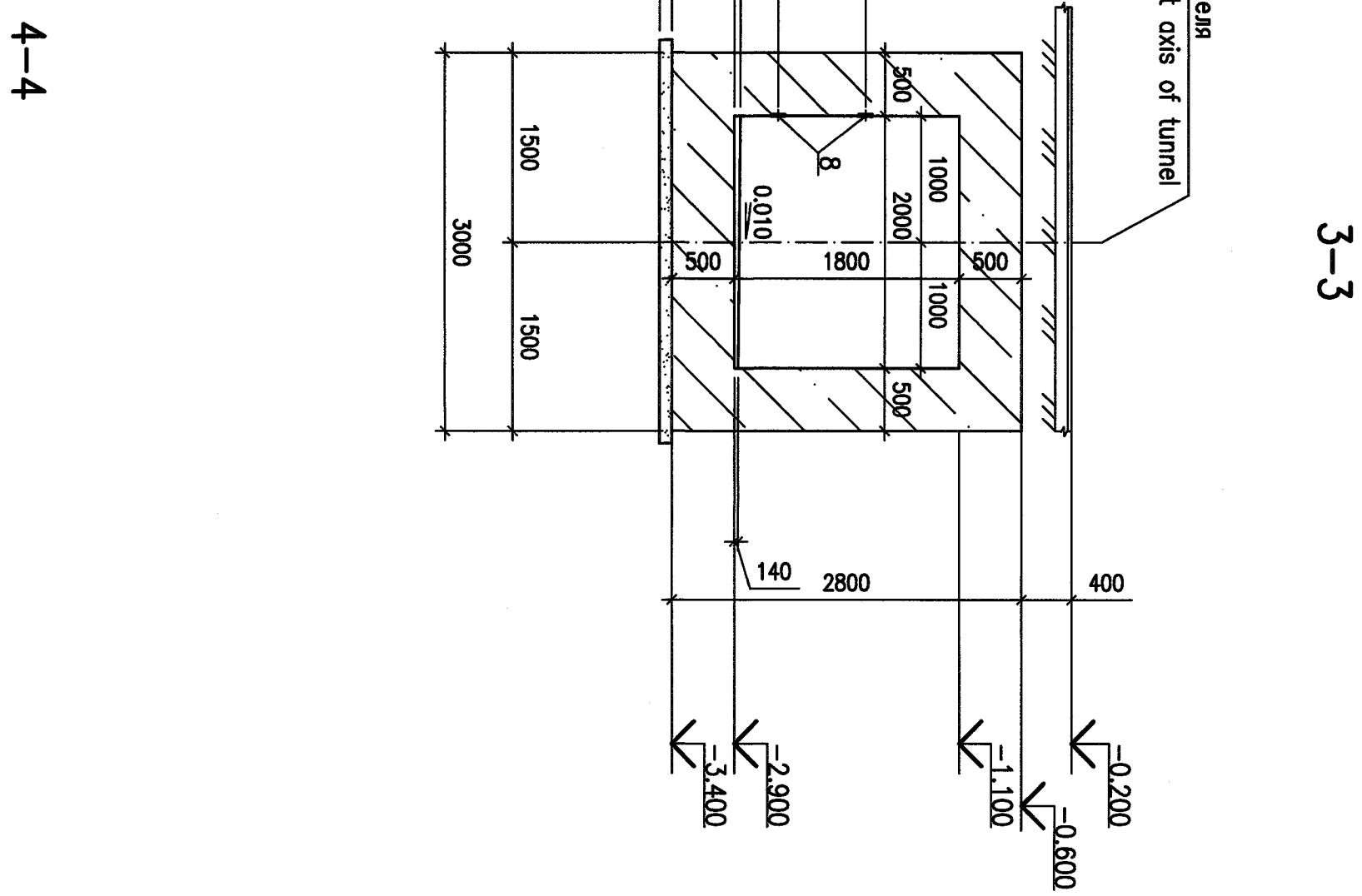
Sl. No.	Volume/ Section/ Clause	Volume/ Section/ Clause as Existing	Volume/ Section/ Clause as Amended/ Added in Technical Corrigendum
1	Technical Specification	Section-1	<i>Drawings & documents as Annexure-1 & Annexure-2 are attached. The above annexures are to be read in connection with Pre-bid Clarifications.</i>
2	-	-	<i>1. Pre-Bid Clarification- Response-4 to Tender No. CMM/MEQ/91-21-2-1219, Pre-Bid Clarification- Response-5 to Tender No. CMM/MEQ/91-21-2-1219 & Pre-Bid Clarification- Response-6 to Tender No. CMM/MEQ/91-21-2-1219 is attached.</i>
3	-	Additional Technical Requirements	<i>Zone tripping logic shall be developed in LCC/ Panel by GIS vendor, as required. Any contact multiplier and/or additional contacts required in density monitors shall be taken care by GIS vendor.</i>

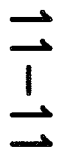
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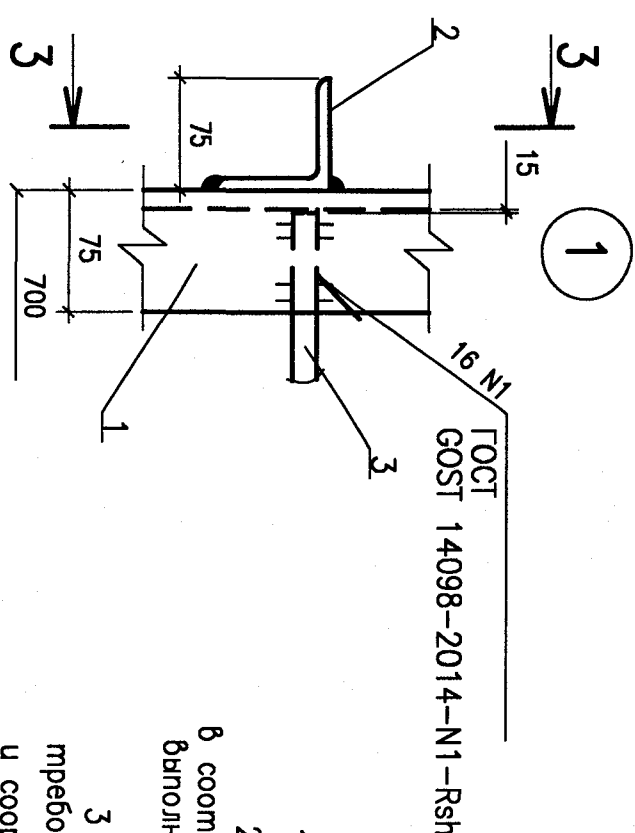
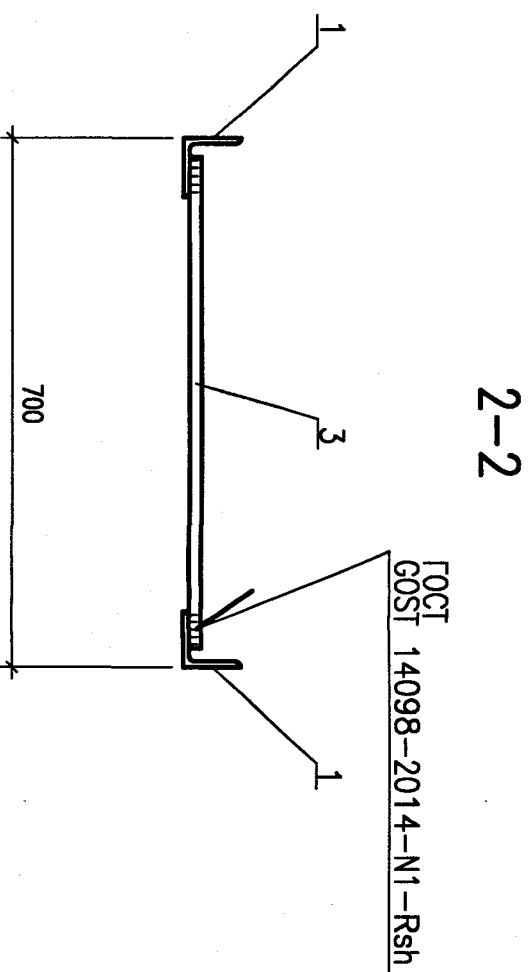
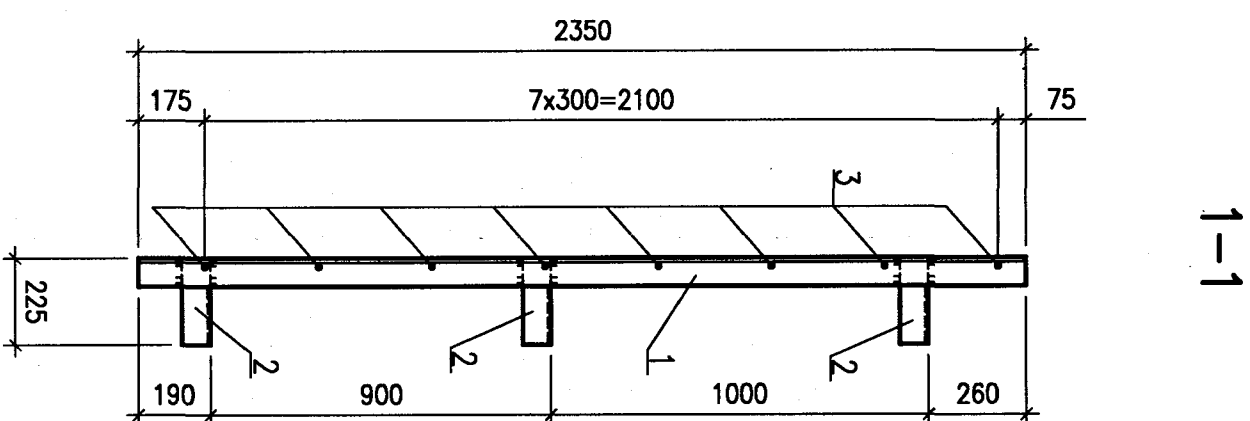
- The changes/ revision are marked/ highlighted in yellow and/ or in green box, if applicable.
- Amendment/ addendum/ clarification/ corrigendum issued herein shall form part of Technical Specification.

Bidders to please note that amendment/ addendum/ clarification/ corrigendum issued shall supersede the respective Volume/ Section/ Clause of Technical Specification Document to the extent for the Volume/ Section/ Clause or part thereof the amendment is issued.


17/07/2026



File: R23 KK56 50UBF 0 KZ OK WD001_003=1



Марка изделия Mark of article	Поз. Det. Item	Наименование Name	Кол. Quant	Масса изделия Weight of part, kg	Масса изделия Weight of the article, kg
		<u>Детали</u> <u>Units</u>			
ST1	1	IS45/206 IS:808-1957 G235 100T 27772-2015			68.0
		L=2350	2	21.0	
	2	L=225	6	2.0	
	3	ISF0 20 IS:1732-1961 L=670	8	1.7	
TA670	4	Лист 20 IS:1730-1961 Sheet 20 IS:1730-1961 G245 100T S245 G051 27772-2015			102.6
		800x800	1	100.5	
	5	ГОСТ 12 А-III ГОСТ 5781-82 L=260			
			9	0.23	

СПЕЦИФИКАЦИЯ ИЗДЕЛИЙ SPECIFICATION OF PRODUCTS

1 Электроды для сварки Э42А по ГОСТ 9467-75.

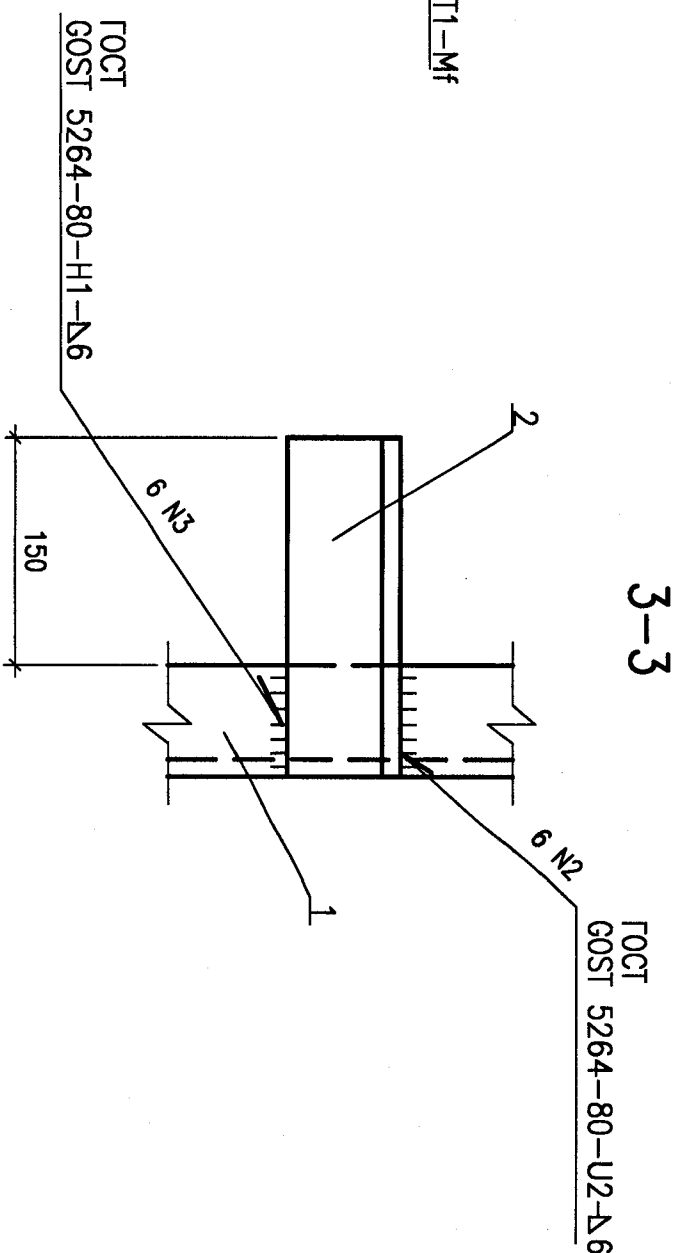
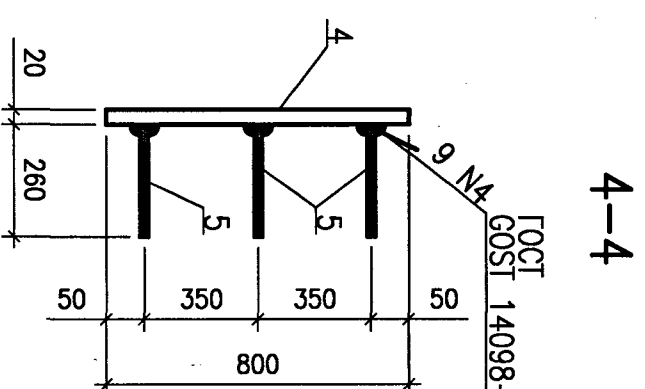
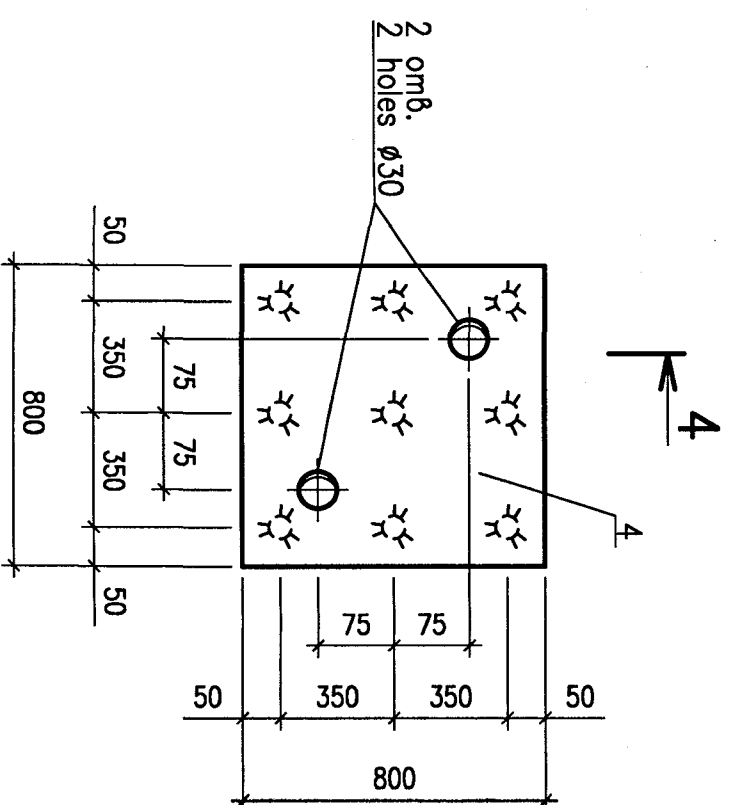
2. Изготовление, контроль качества и приемку закладных изделий осуществлять в соответствии с требованиями Р01.К156.0.0.КЗ.ТТ.УД001 "Технические требования по выполнению бетонных и железобетонных конструкций зданий и сооружений".

З Антискоррозионное покрытие смотри R01.K56.0.0.KZ.TT.WD001 "Технические требования по выполнению бетонных и железобетонных конструкций зданий и сооружений".

¹ Electrodes for welding shall be of E42A type as per GOST 9467-75

2 The fabrication, quality control and acceptance of embedded parts shall be carried out as per the requirements of R01.KK56.0.0.KZ.71.W0001 "Technical requirements to performing concrete and reinforced concrete structures of buildings and constructions".

3 For anticorrosive coating see R01.KK56.0.0.KZ.TT.WD001 "technical requirements to performing concrete and reinforced concrete structures of buildings and constructions".



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Без согласия АО "АТОМПРОЕКТ"						
This drawing is not to be reproduced or transferred to other organizations or private persons without approval of JSC АТОМПРОЕКТ						
Изм.	Кол-во	Лист	N док.	Подпись	Дата	
Rev.	Qty	Sheet	Doc	Signature	Date	
Утвердил						
Approved	Pereyslavets				12.20	
H. контр.	Soboleva				12.20	
Inspector						
Разработ.	Gurova				12.20	
Designed						
R23.KK56.50UBF.O.KZ.OK.WD001 AЭС "КУДАНКУЛАМ" БЛОК NPP "KUDANKULAM" UNIT 5						
50UBF - Сооружения для блочных трансформаторов Модульные канализационные тоннели в пределах светового двора. Геометрия 50UBF Unit Auxiliary Transformers and Generator Transformers Structures Monolithic reinforced concrete tunnels within the limits of a light court yard. Geometry						Стадия
						Лист
						Листов
						Phase
						Sheet
						Sheets
						WD
						4
Надпись заголовка Т.6670 и ступеня ST1 Embedded part T.6670 and step-header ST1						JSC АТОМПРОЕКТ

Package Number 5 6 2 64

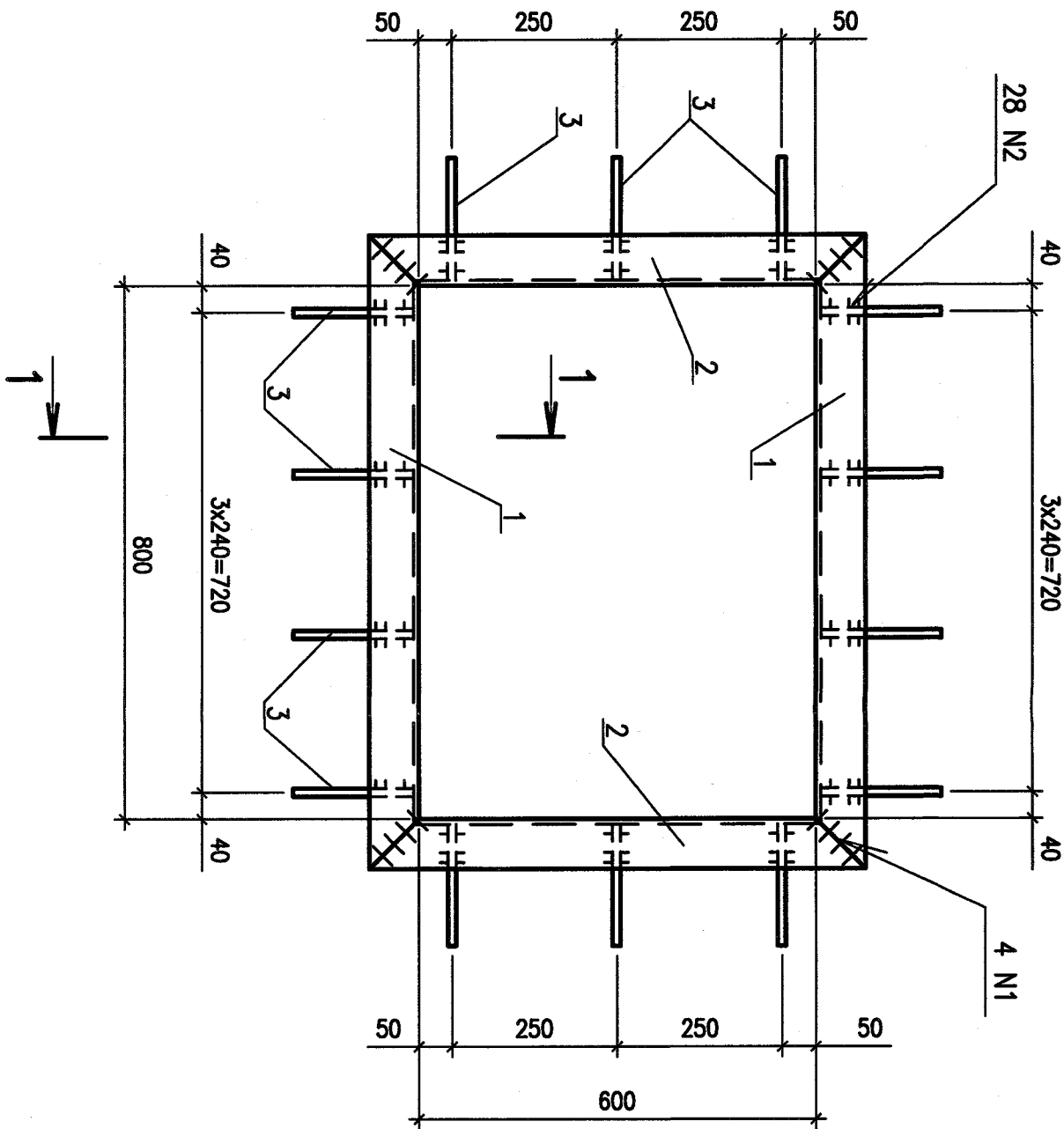
File: R23 KK56 50UBF 0 KZ OK WD001_004=C

СПЕЦИФИКАЦИЯ ИЗДЕЛИЙ ЗАКАДНЫХ
SPECIFICATION OF EMBEDDED PARTS

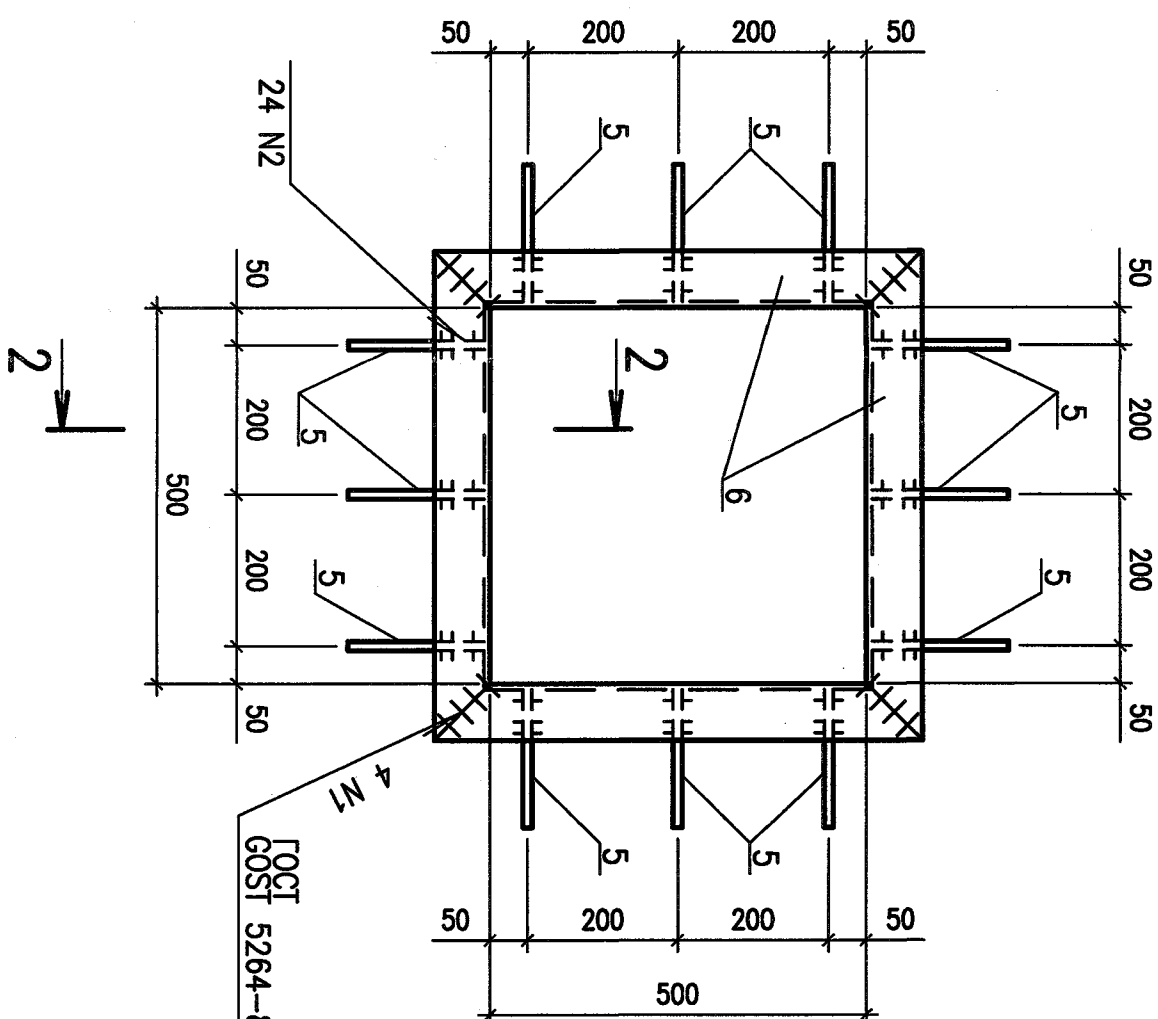
Материал изделия, марка, наименование	Наименование	Кол. изделий, шт.	Масса изделия, кг
1	ISN1010x10 IS300-1989 S245 GOST 21772-2015	2	16.6
2	L=1000	2	13.3
3*	12 A-III GOST 5781-82 L=250	28	0.22
4	ISN575x6 IS300-1989 S245 GOST 21772-2015		
	L=2670	1	18.2
5*	12 A-III GOST 5781-82		
	L=250	16	0.22
6	ISN575x6 IS300-1989 S245 GOST 21772-2015		
	L=650	4	4.4
7	ISN575x6 IS300-1989 S245 GOST 21772-2015		
	L=1000	1	6.8
8	12 A-III GOST 5781-82		
	L=250	8	0.22

* - см. Ведомость изготовленной
* - see List of parts

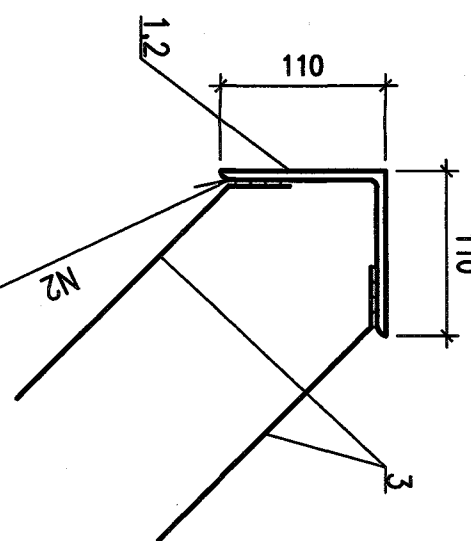
ТА671



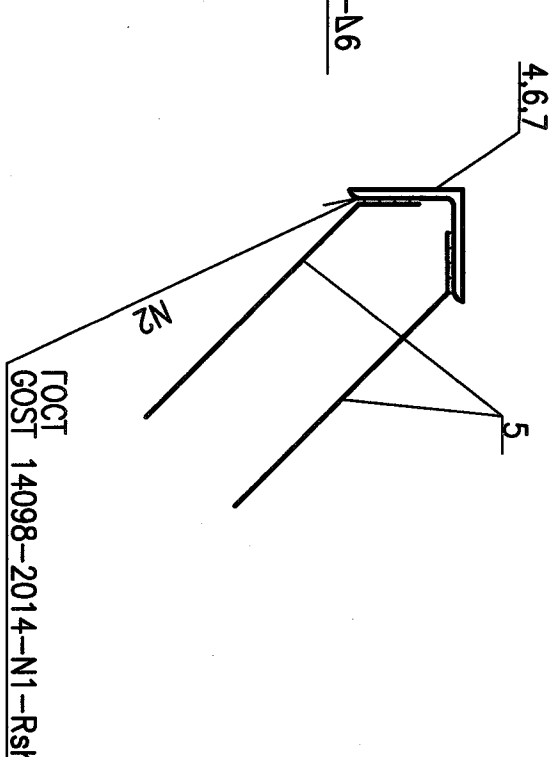
ТА673



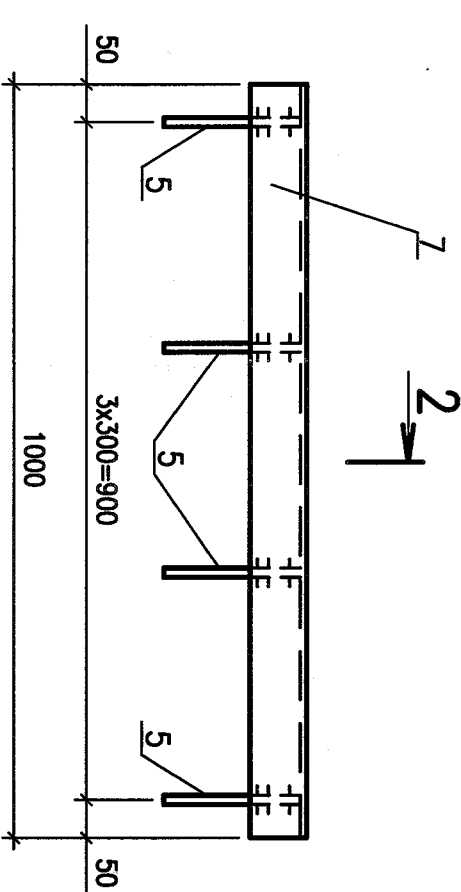
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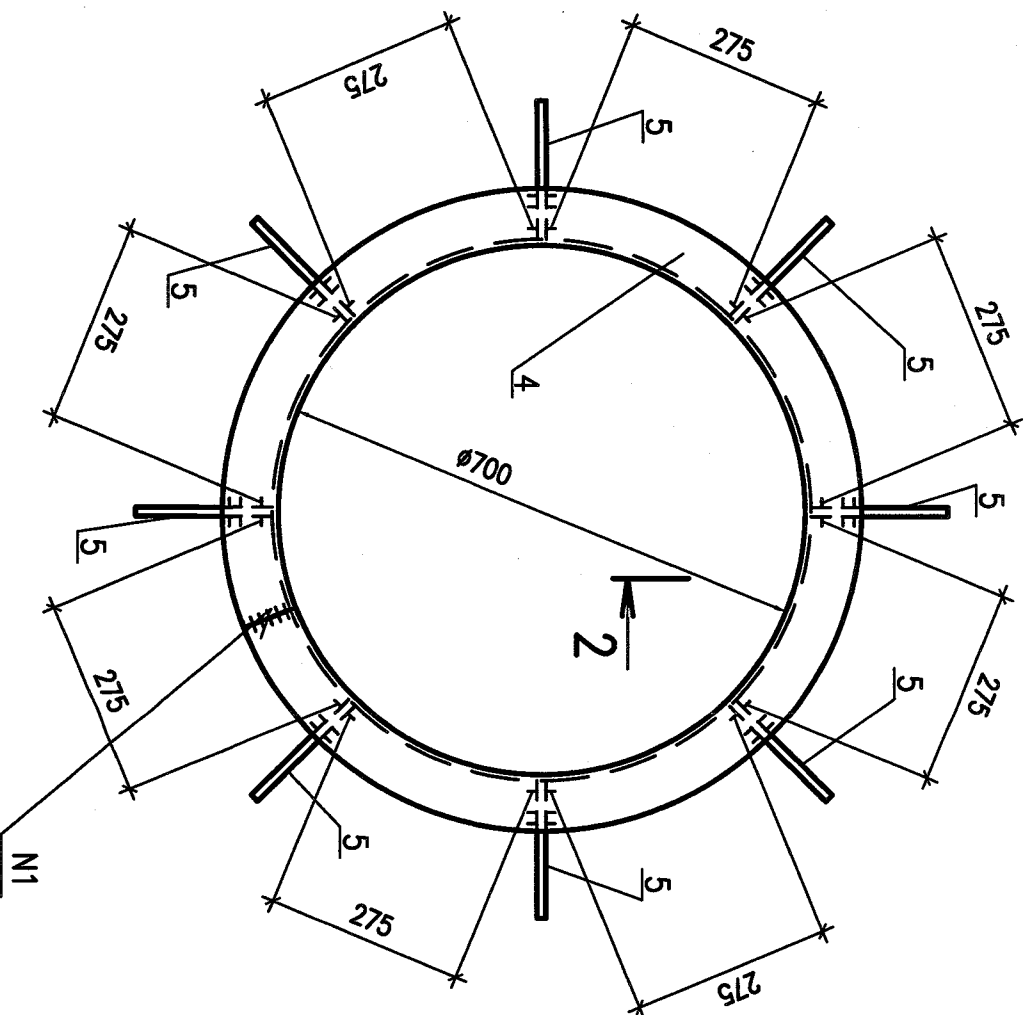
2-2



ТА678



ТА672



ВЕДОМОСТЬ ДЕТАЛЕЙ
LIST OF PARTS

Поз. Item	Эскиз Sketch
3	
5	

- 1 Electrodes for welding shall be of E42A type as per GOST 9467-75.
- 2 The fabrication, quality control and acceptance of embedded parts shall be carried out as per the requirements of R01.KK56.0.0.KZ.TT.WD001 "Technical requirements to performing concrete and reinforced concrete structures of buildings and constructions".
- 3 For anticorrosive coating see R01.KK56.0.0.KZ.TT.WD001 "Technical requirements to performing concrete and reinforced concrete structures of buildings and constructions".
- 4 For better convenience of transportation and erection it is allowed to cut long embedded parts into pieces and than restore them with full strength butt welds as per GOST 5264-80.

Package Number 5 6 2 64

File: R23.KK56.50UBF.0.KZ.OK.WD001_005=1

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1	Rev. 1	Doc. 1	Date 09.21
Изм.	Копия	Лист	Подпись
Rev. of pt.	Sheet	No	Signature
Утвердил	Reviewed		
Approved			
Н. контр.	Soboleva	09.21	
Inspector			
Разработ.	Gurova	09.21	
Designed			
R23.KK56.50UBF.0.KZ.OK.WD001			
АЭС "КУДАНКУЛАМ" БЛОК 5			
NPP "KUDANKULAM" UNIT			
50UBF. Сооружения для блочных трансформаторов. Мониторинг железобетонных конструкций в пределах светового двора. Геодезия 50UBF. Unit Auxiliary Transformers and Generator Monitoring reinforced concrete structures within the limits of a light court yard. Geodeticity			
Изданы закладные ТА671, ТА672, ТА673, ТА678			
Embedded parts TA671, TA672, TA673, TA678			
JSC АТОМПРОЕКТ			

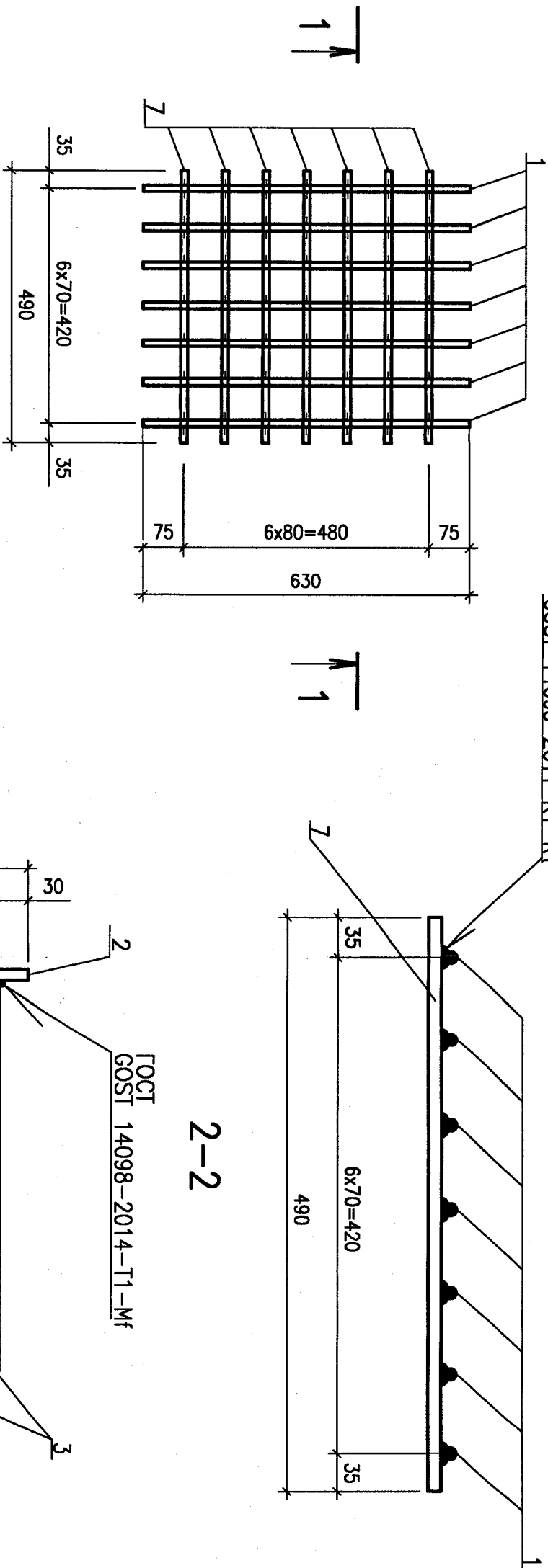
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16-KK-000418	13 OCT 2021	

Inv.Nr 40335 Date 11.11.2021

TA674

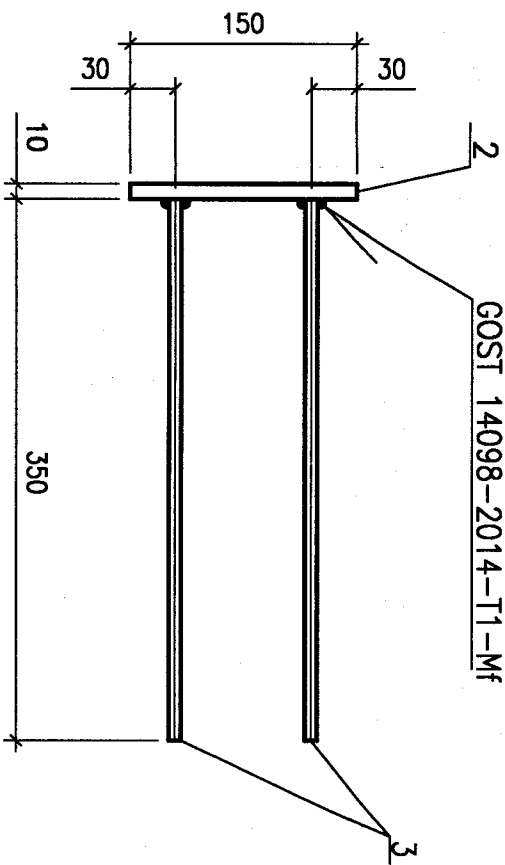
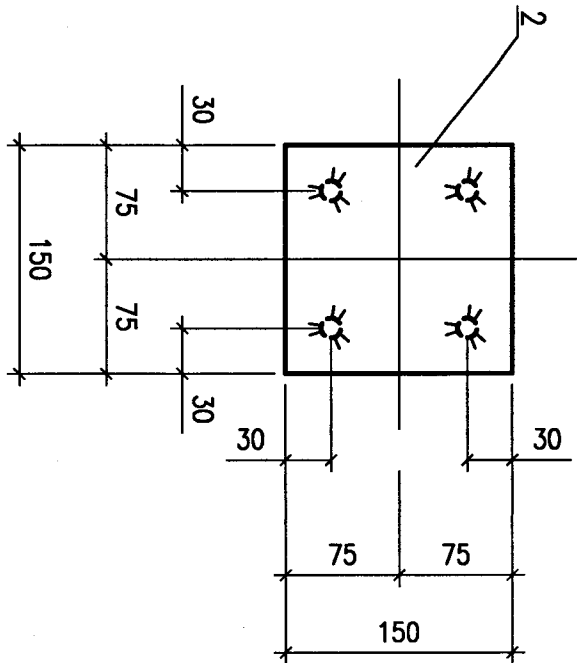
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ГОСТ 14098-2014-K1-K1



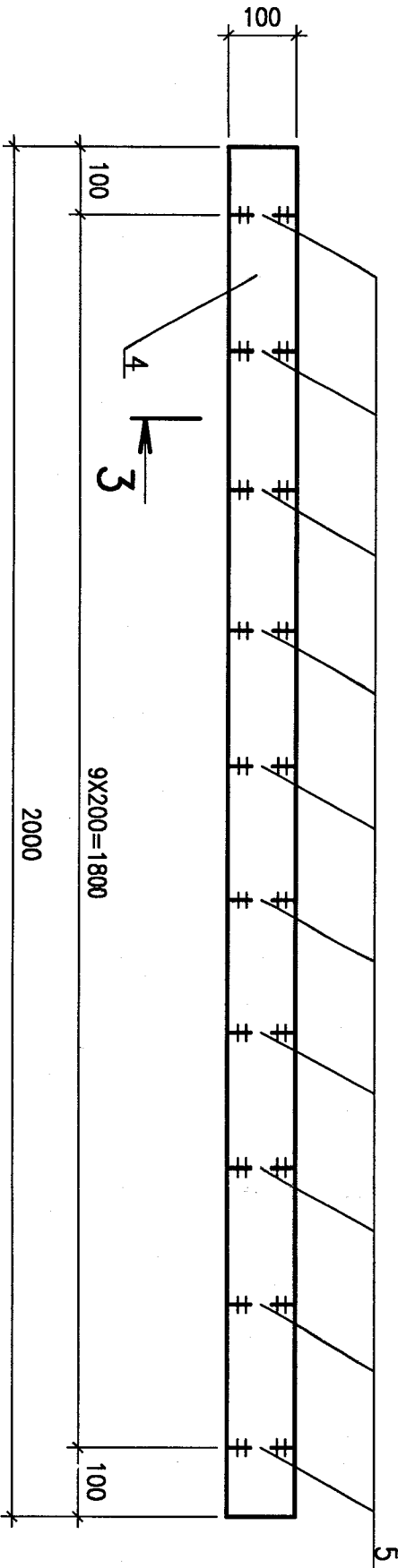
TA675

2-2



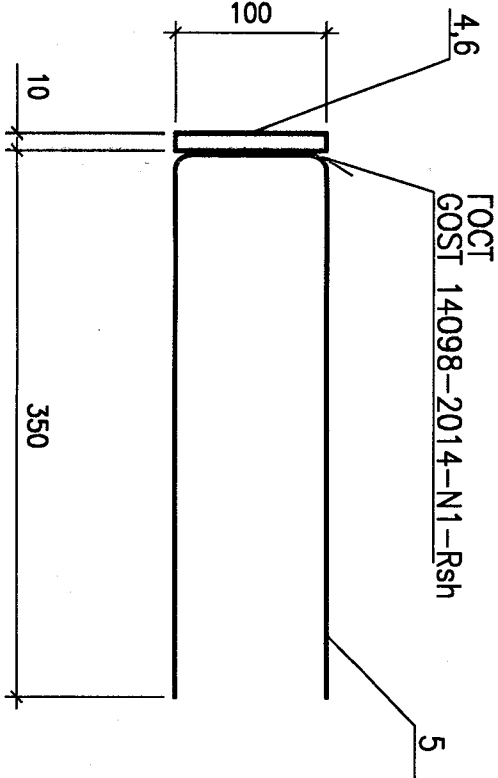
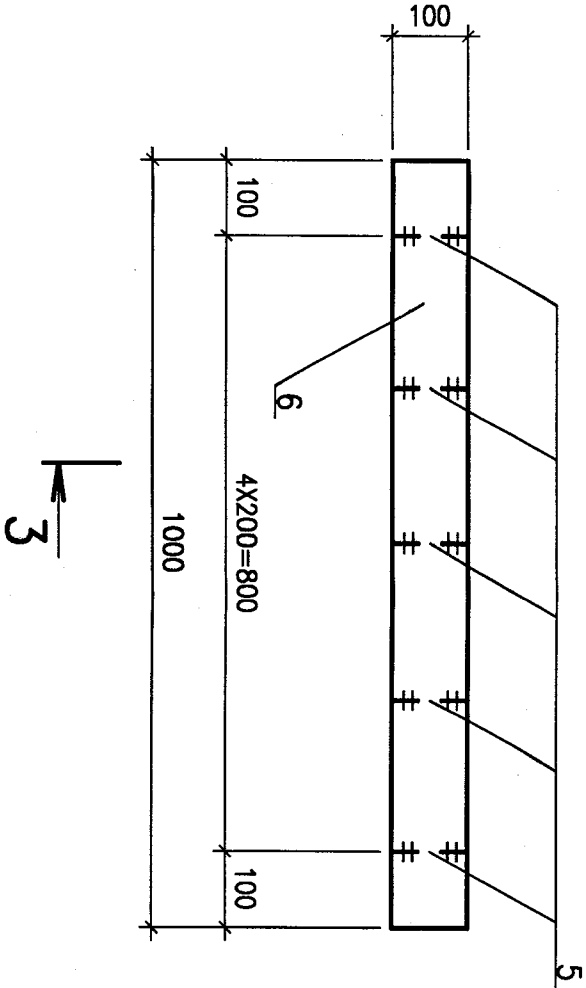
TA676

3



TA677

3-3



ВЕДОМОСТЬ ДЕТАЛЕЙ
LIST OF PARTS

Поз. Item	Эскиз Sketch
5	

Матр. код Mark of the article	Поз. Det. item	Наименование Name	Кол. Quant.	Масса Weight of part, kg	Масса Weight of the article, kg
TA674	1	SRO 16 IS:1732-1961, L=630	7	1.0	12.6
	7	L=490	7	0.8	
	2	t10 IS:1730-1961 G235 ГОСТ 21772-2015			
		150x150	1	1.8	3.0
TA675	3	12 A-III ГОСТ 5781-82			
		L=350	4	0.3	
	4	t10 IS:1730-1961 G235 ГОСТ 21772-2015			
		100x2000	1	15.7	22.7
TA676	5*	12 A-III ГОСТ 5781-82			
		L=780	10	0.7	
	6	t10 IS:1730-1961 G235 ГОСТ 21772-2015			
		100x1000	1	7.9	11.4
TA677	5*	12 A-III ГОСТ 5781-82			
		L=780	5	0.7	

* - см. Ведомость деталей
* - see List of parts

- 1 Электроды для сборки Э42А по ГОСТ 9467-75.
- 2 Изготовление, контроль качества и приемку закладных изделий осуществлять в соответствии с требованиями R01.КК56.0.0.КЗ.П.МД001 "Технические требования по выполнению бетонных и железобетонных конструкций зданий и сооружений".
- 3 Антикоррозионное покрытие смонтиру R01.КК56.0.0.КЗ.П.МД001 "Технические требования по выполнению бетонных и железобетонных конструкций зданий и сооружений".
- 4 Для удобства транспортировки и монтажа, закладные изделия большой длины допускается разрезать на части, с последующим восстановлением равнопрочным стыковым швом по ГОСТ 5264-80.
- 1 Electrodes for welding shall be of E42A type as per GOST 9467-75.
- 2 The fabrication, quality control and acceptance of embedded parts shall be carried out as per the requirements of R01.КК56.0.0.КЗ.П.МД001 "Technical requirements to performing concrete and reinforced concrete structures of buildings and constructions".
- 3 For anticorrosive coating see R01.КК56.0.0.КЗ.П.МД001 "Technical requirements to performing concrete and reinforced concrete structures of buildings and constructions".
- 4 For better convenience of transportation and erection it is allowed to cut long embedded parts into pieces and than restore them with full strength butt welds as per GOST 5264-80.

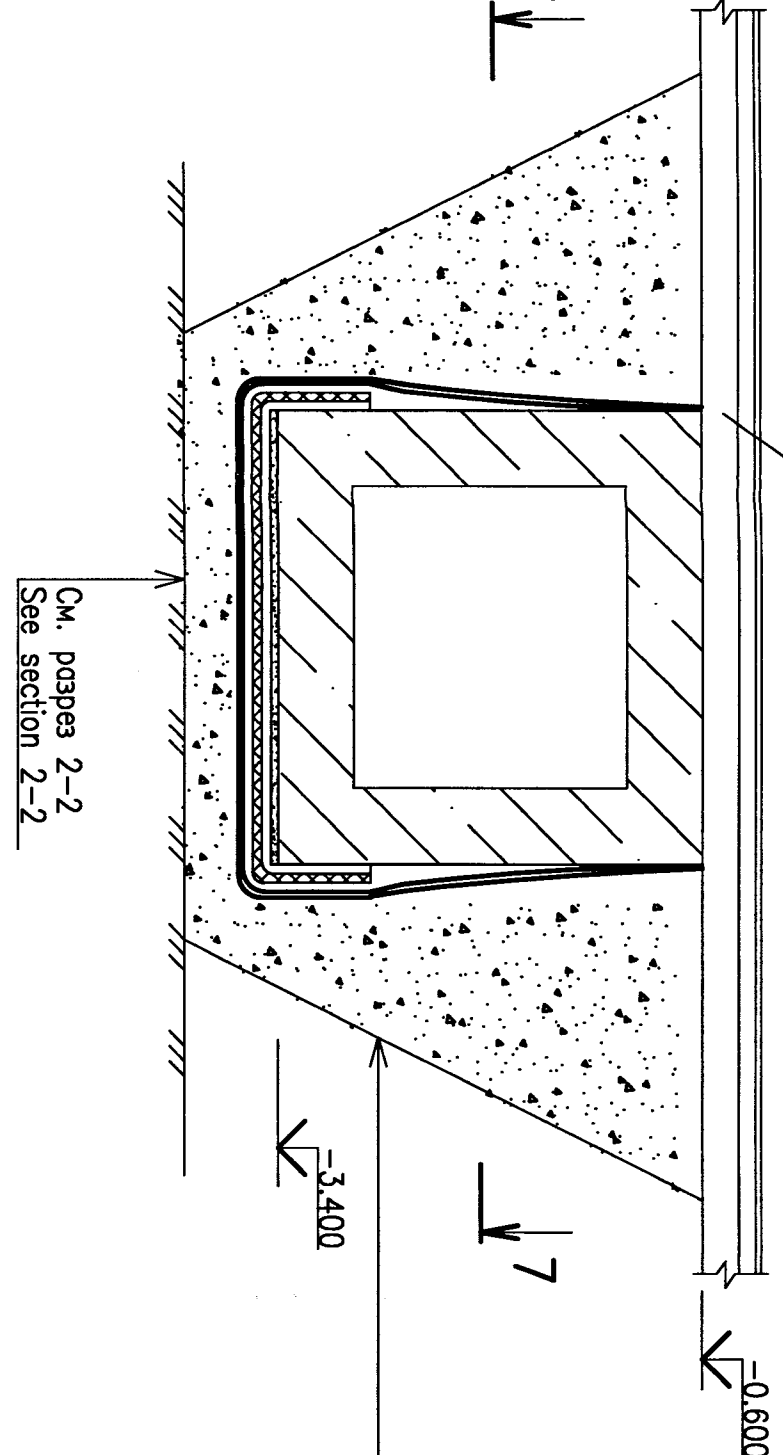
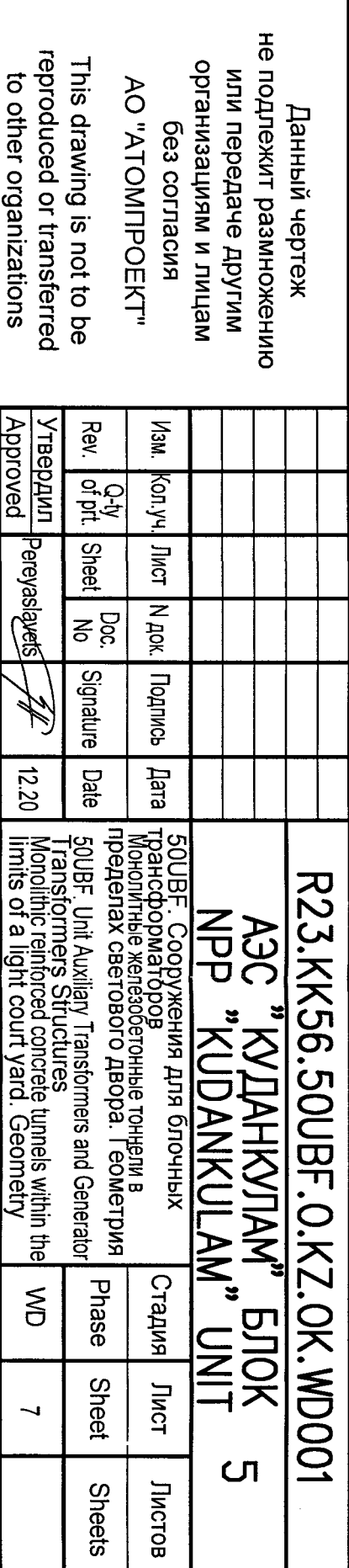
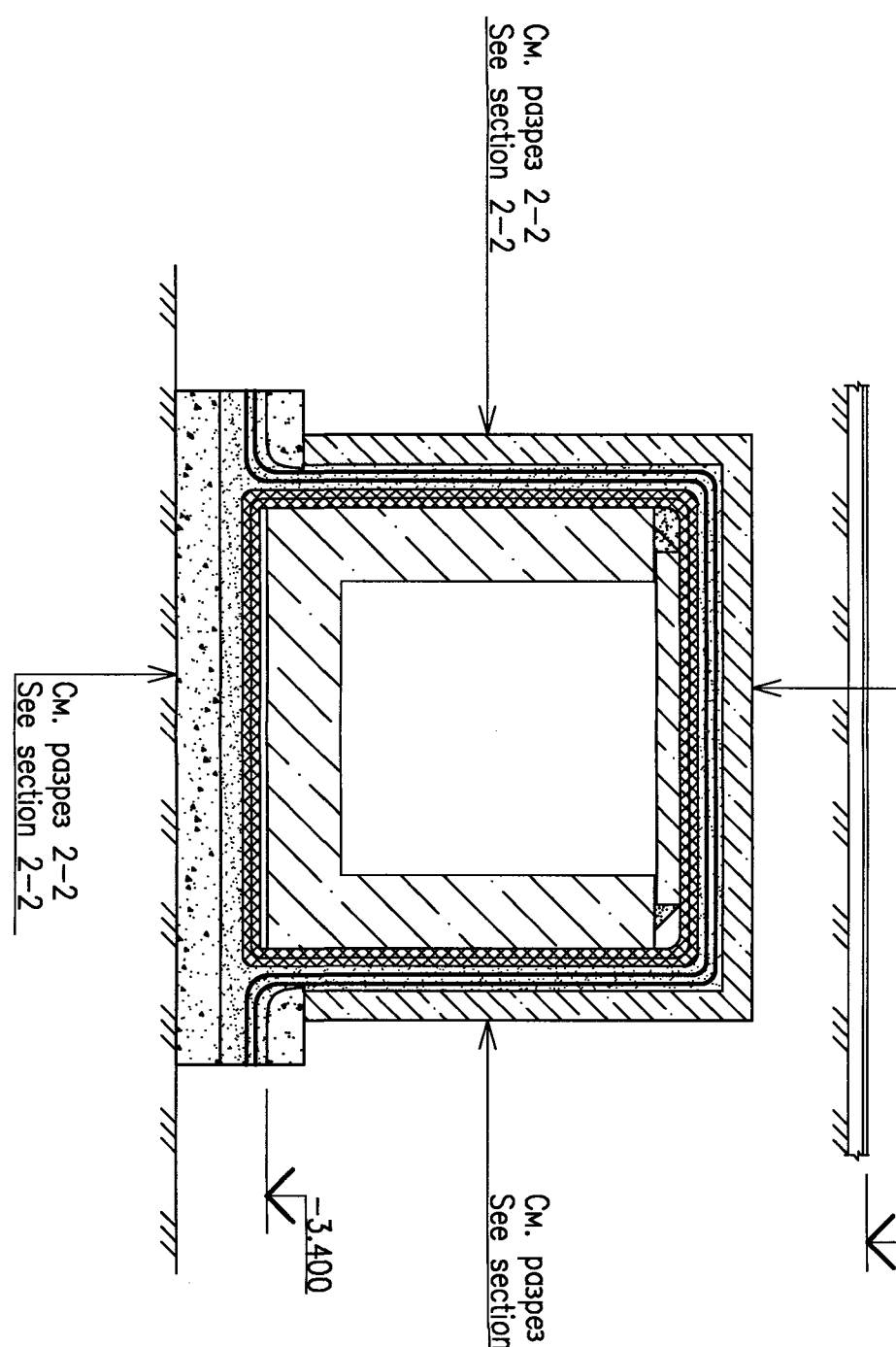
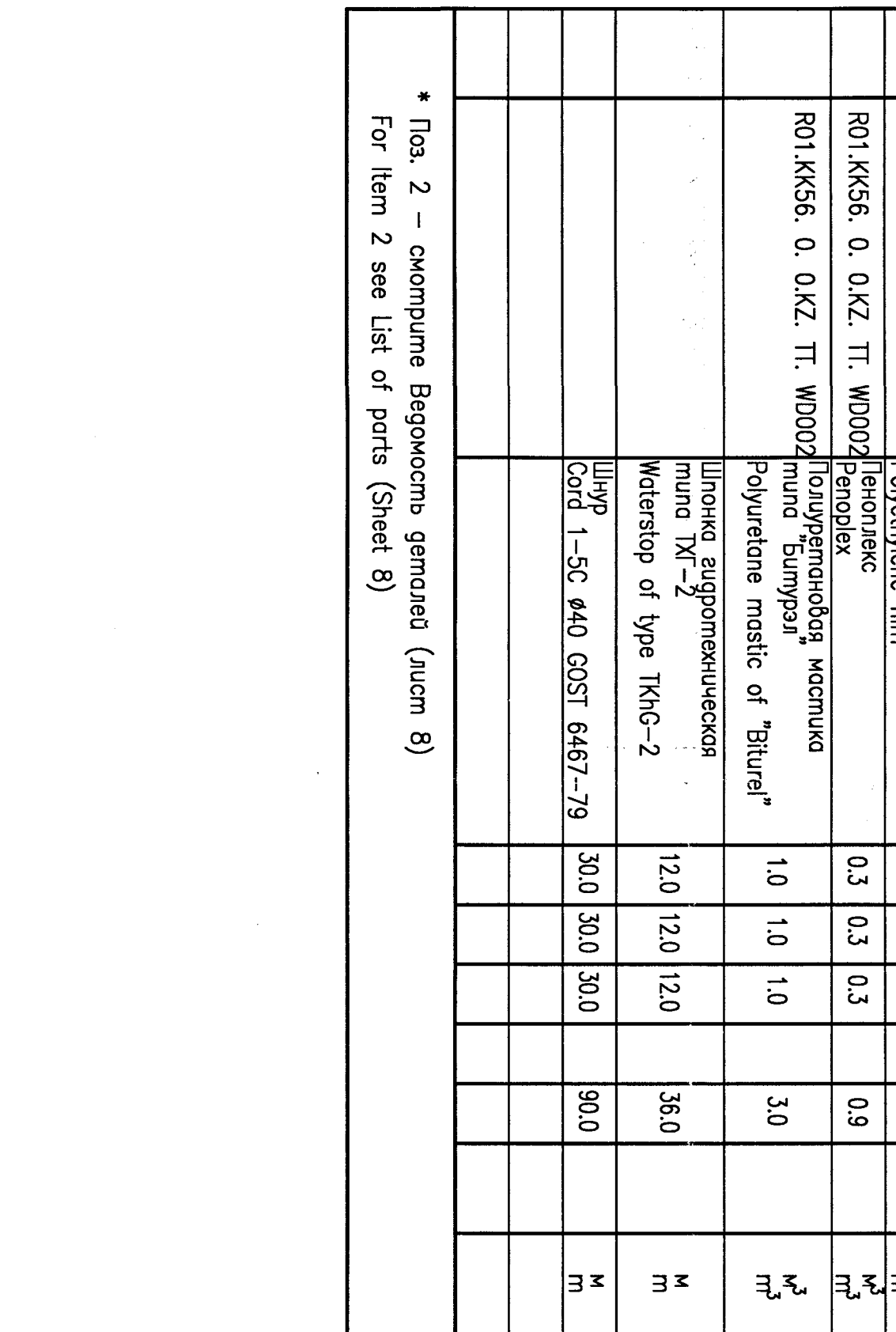
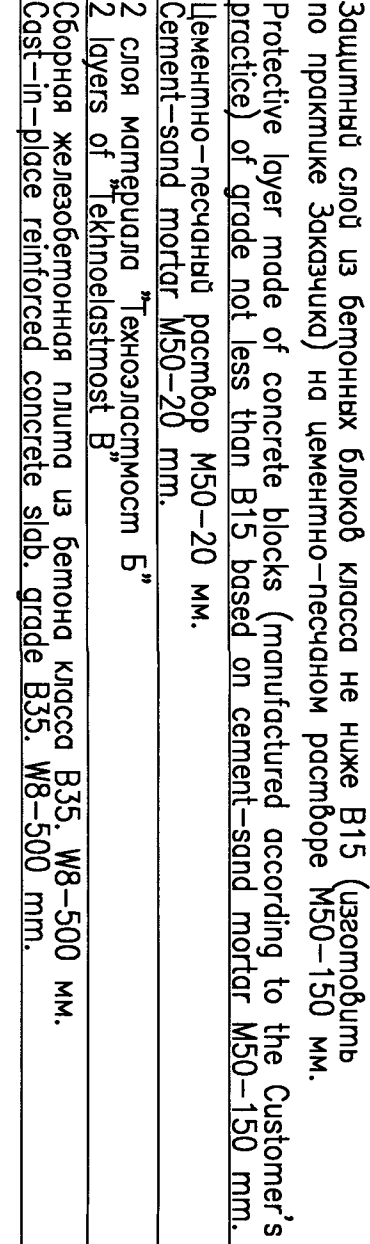
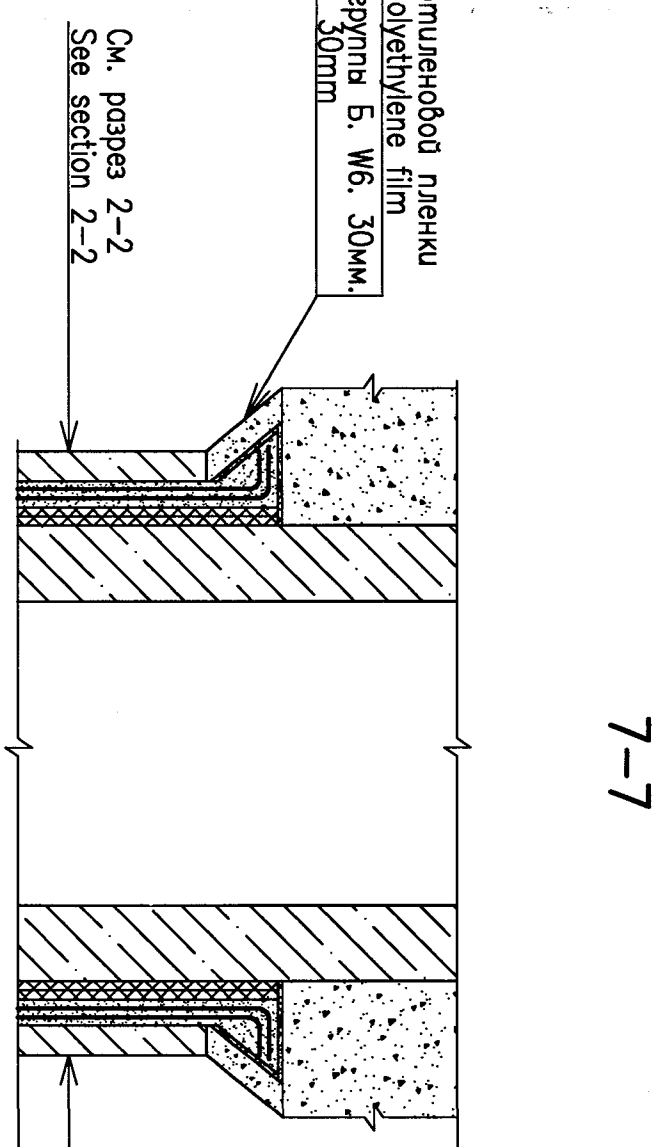
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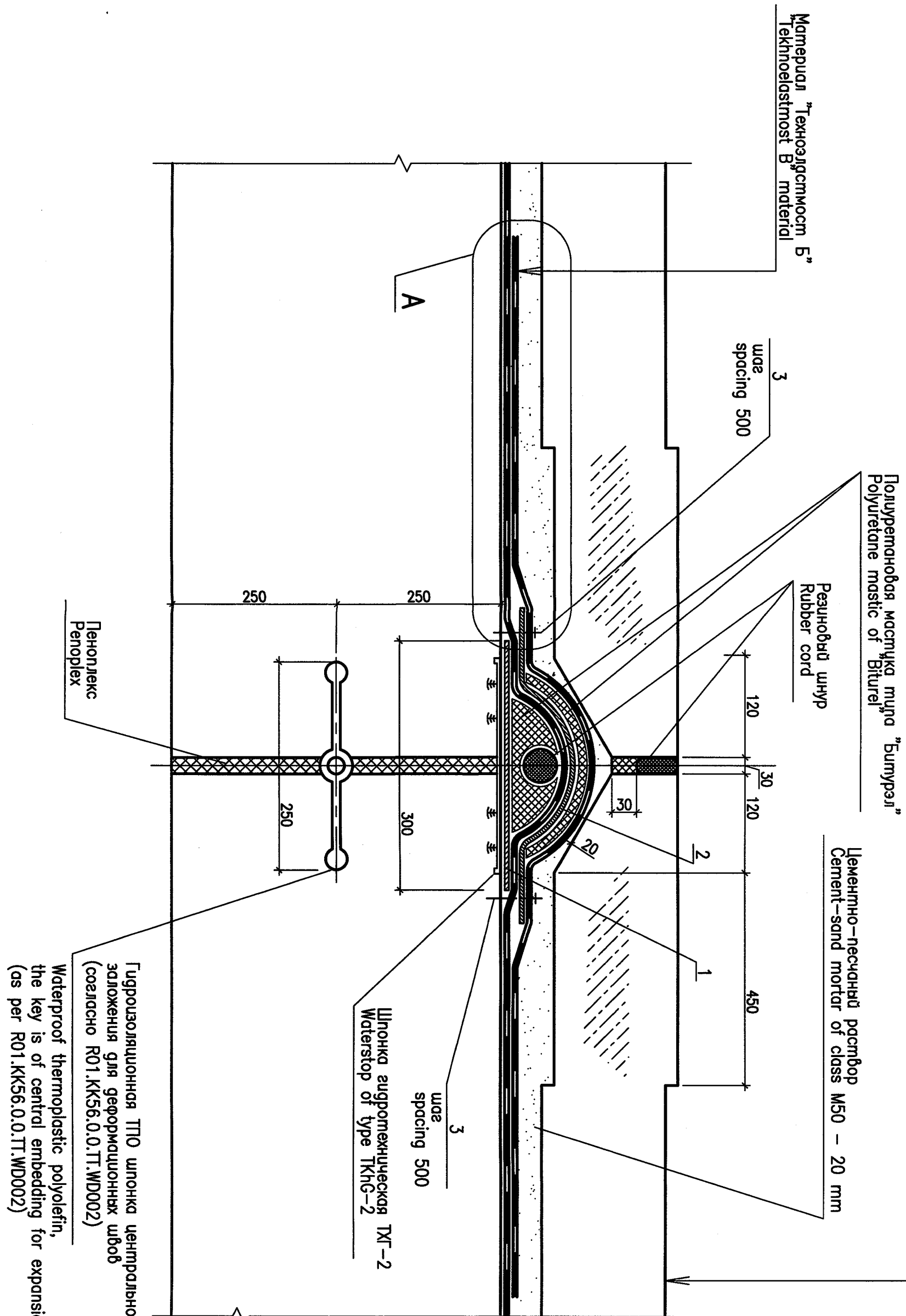
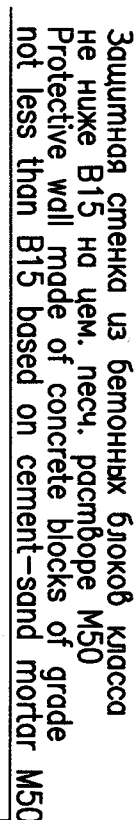
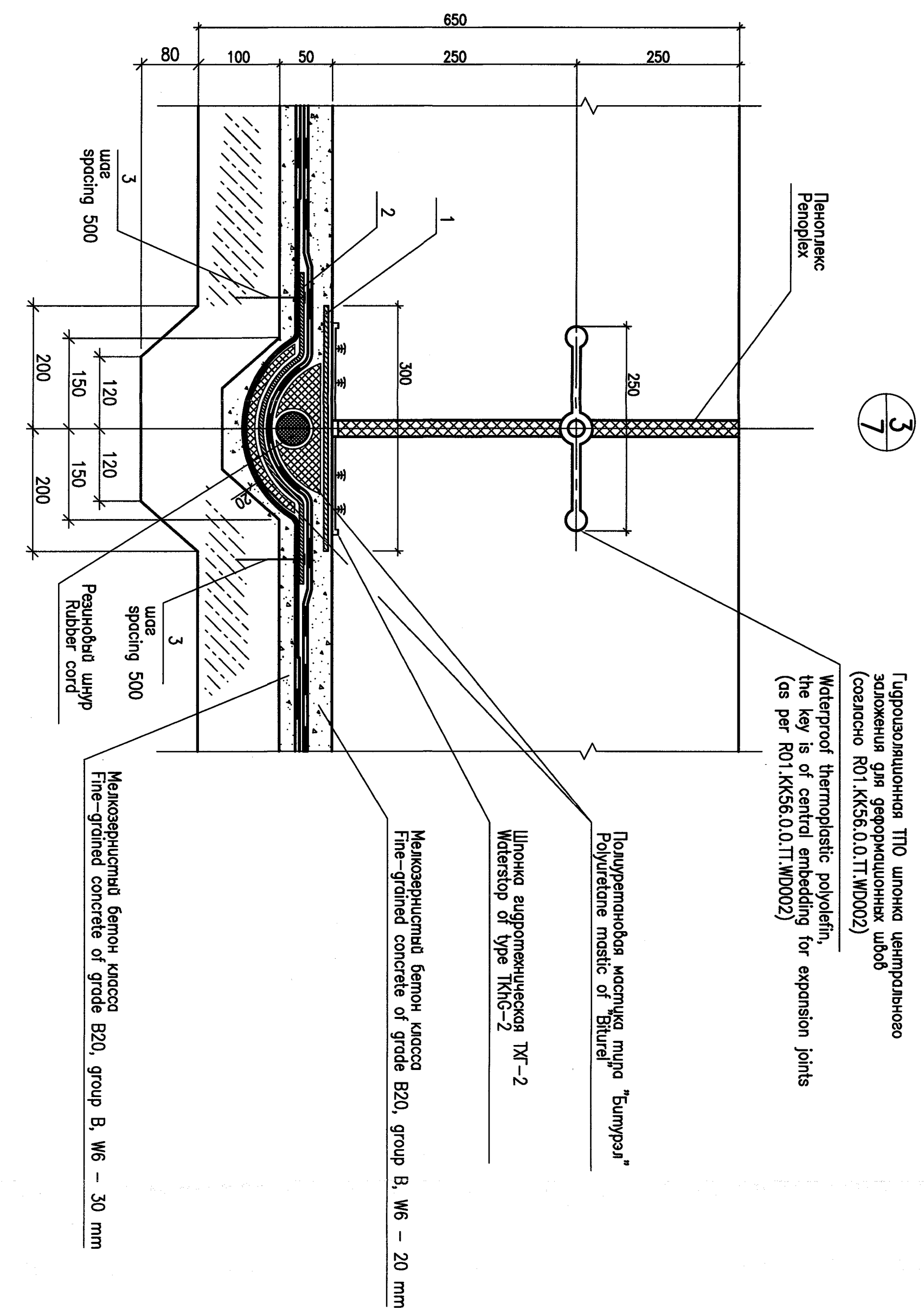
Orig. arch. Nr.	Date	Replace arch. Nr.
46-КК-000487	08 АЕН 2020	

Inv.Nr 40335 Date 27.05.2021

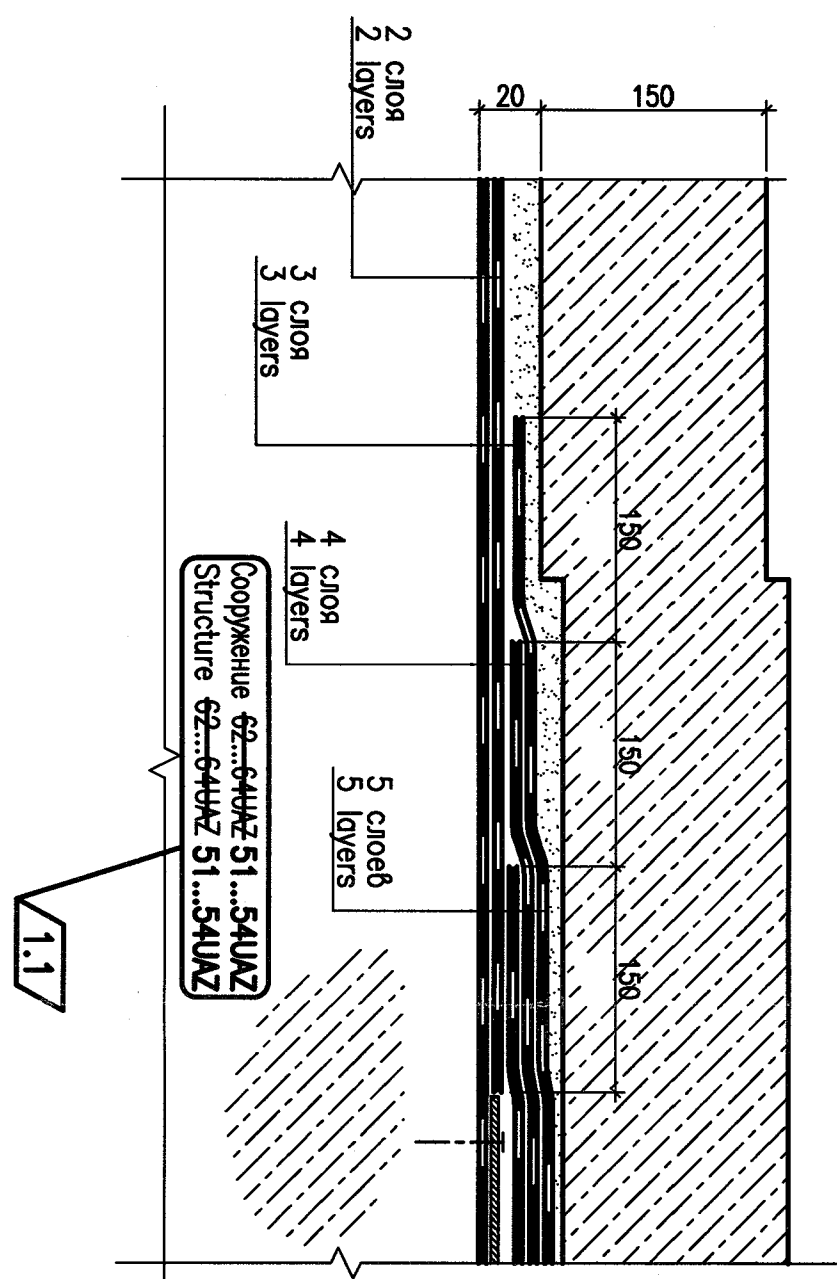
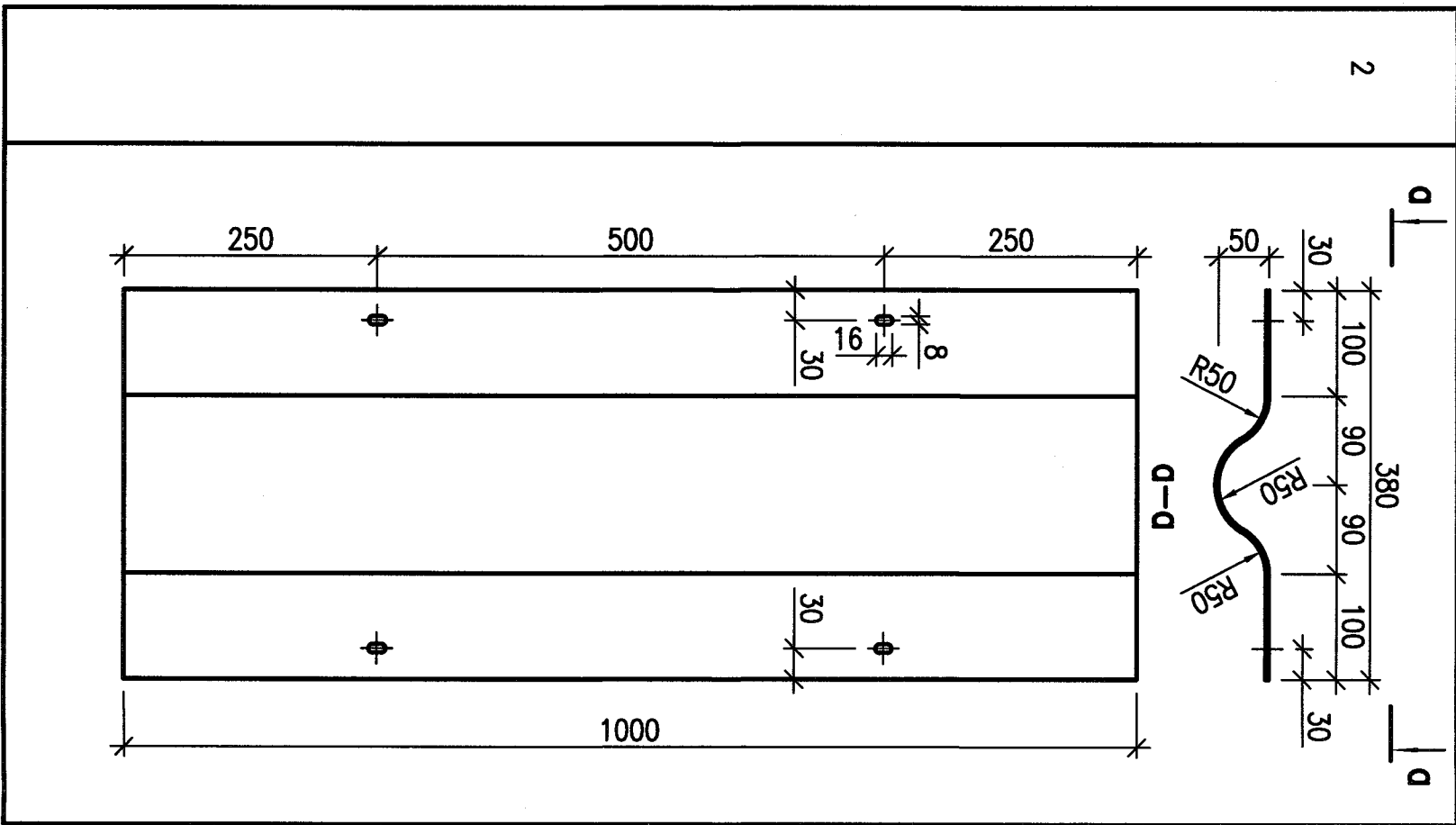
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Изм.	Кор.уч.	Лист	Подпись
Rev.	Q.ty	Sheet	Signature
Утвердил	Регистратор	Дата	
Approved	Registrar	12.20	
И. контр.	Н. контр.	12.20	
Inspector	Soboleva	12.20	
Разраб.	Разраб.	12.20	
Designed	Gurova	12.20	
R23.КК56.50UBF.0.КЗ.ОК.МД001			
АЗС "КУДАНКУЛАМ" БЛОК 5			
НПР "КУДАНКУЛАМ" UNIT			
50UBF. Сооружения для блочных трансформаторов, предназначенные для работы в пределах светового дзора. 1 География 50UBF. Unit Auxiliary Transformers and Generator Transformers Structures. Monolithic reinforced concrete tunnels within the limits of a light court yard. Geometry			
Издания закладные TA674, TA675, TA676, TA677			
Embedded parts TA674, TA675, TA676, TA677			
JSC ATOMPROEKT			
WD			
6			
Листов			
Phase			
Sheet			
Sheets			

[illegible]

Inv.Nr 40335 Date 11.11.2021



№. Item	Зачем Sketch
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Y3E1 A
DETAIL A

File: R23 KK56 50UBF 0 KZ OK WD001_008=1

Package Number 5 6 2 64

GENERAL GUIDELINES

1 В настоящем комплексе разработаны рабочие чертежи геополитры по монтажу монопроборной БЗЛУАЗ, БЗЛУАЗ, БЗЛУАЗ.

2 Рабочие чертежи разработаны в соответствии с нормами, приведенными в спецификации.

3 Сооружение относится к классу 4 по влиянию на безопасность по НП-001-15 "Общие положения безопасности стальных стальных".

4 Категория объектно-технических конструкций из разнородных и ядерных безопасностей – II по ПНД АС-5.6 "Нормы объектно-технических конструкций АС с реакторами различного типа".

5 Категория безопасности сооружений – II по НП-031-01 "Нормы проектирования сейсмостойких стальных стальных".

6 За расчетную нагрузку от массы 0,000 принята масса чистого пола первого этажа здания БЗЛУАЗ, что соответствует безразличной массе +8,100 МПа.

7 Выпущены чертежи для изготовления проекта производства работ на бетонирование, контроль разработки бетона Заказчиком с учетом требований РД 1.КБ5.0.0.К.2.П.1.000.01 "Технические требования к выпонению бетонных и железобетонных конструкций зданий и сооружений".

8 Мониторинг конструкций сооружения выпонили из бетона класса по прочности на сжатие В35, морозе по водонепроницаемости не ниже W8 по ГОСТ 26633-91

9 Бетонная смесь должна быть подобрана из условия ее удобоукладываемости по зернистости с минимальным водо-цементным отношением для данного класса бетона.

10 Запрещается вводить смеси хлористых добавок, натрия и других солей в состав бетона, вызывающих коррозию арматуры и закладных изделий.

11 В бетоне конструкций не допускается наличие трещин, расслоений, пустот и протечек. Места с выявленными дефектами должны быть в соответствии с ремонтно-технологическим документацией. Контроль качества бетонных конструкций осуществляется в соответствии со СП 70.13330.2012 "Нормы и правила проектирования конструкций".

3.04.03–85 Защита спроводящих конструкций и сооружений от коррозии)

стока дренажных вод, обработка осевое вымывание на питательность выполняются работ.

12 При укладке бетона В20, М6 на грун шпунелев с уплотнением 0,01 % для организации

подвергается бетону (поверхность пола) не должна иметь выступов и впадин,

применяется стому веру. Класс шероховатости бетонной поверхности 3–1III

(СП3.3.04-03–85 "Защита строительных конструкций и сооружений от коррозии")

13 При производстве работ обработки осевое вымывание на питательность

выполнения электроизоляционных работ. Периодические работы должны выполняться

и контролироваться в соответствии с Р01.К565.0.0.КЭ.ТТ.М0002 "Технические требования

на электроизоляционные частот зданий и сооружений".

14 При производстве и приемке работ руководствоваться Р01.К565.0.0.КЭ.ТТ.М0001

"Технические требования по выполнению бетонных и железобетонных конструкций зданий и

сооружений". О1.70.1330.2012. "Нормы и требования к конструкциям"

15 Общую работу систему подк коллоидно разводится выполняется только после

бетонирования переключител и набора бетоном конструкции передается не менее 70 %

проектной прочности. Не допускается со сборными плитками перекрывать оборотную систему

выполняют только после тщательной зачеканки швов между плитками на всю высоту шва.

16 Обратная засыпка выполняется песчано-гравийной смесью с плотностью

(15...20 см³) уплотнением вручную равномерно с обеих сторон до плотности не менее

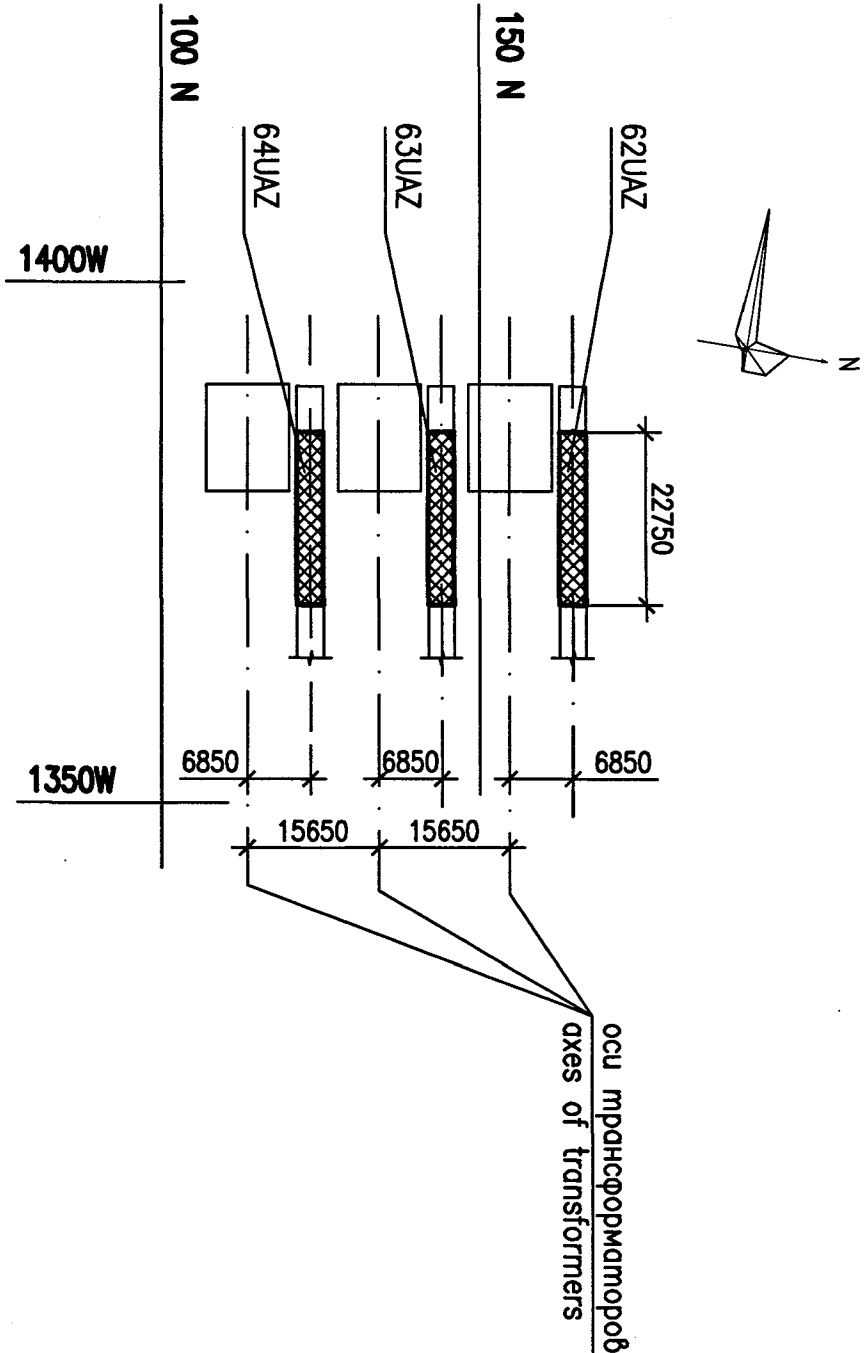
1,75 тл/м³. Размер крупного заполнителя песочно-гравийной смеси не более 40 мм, а размер

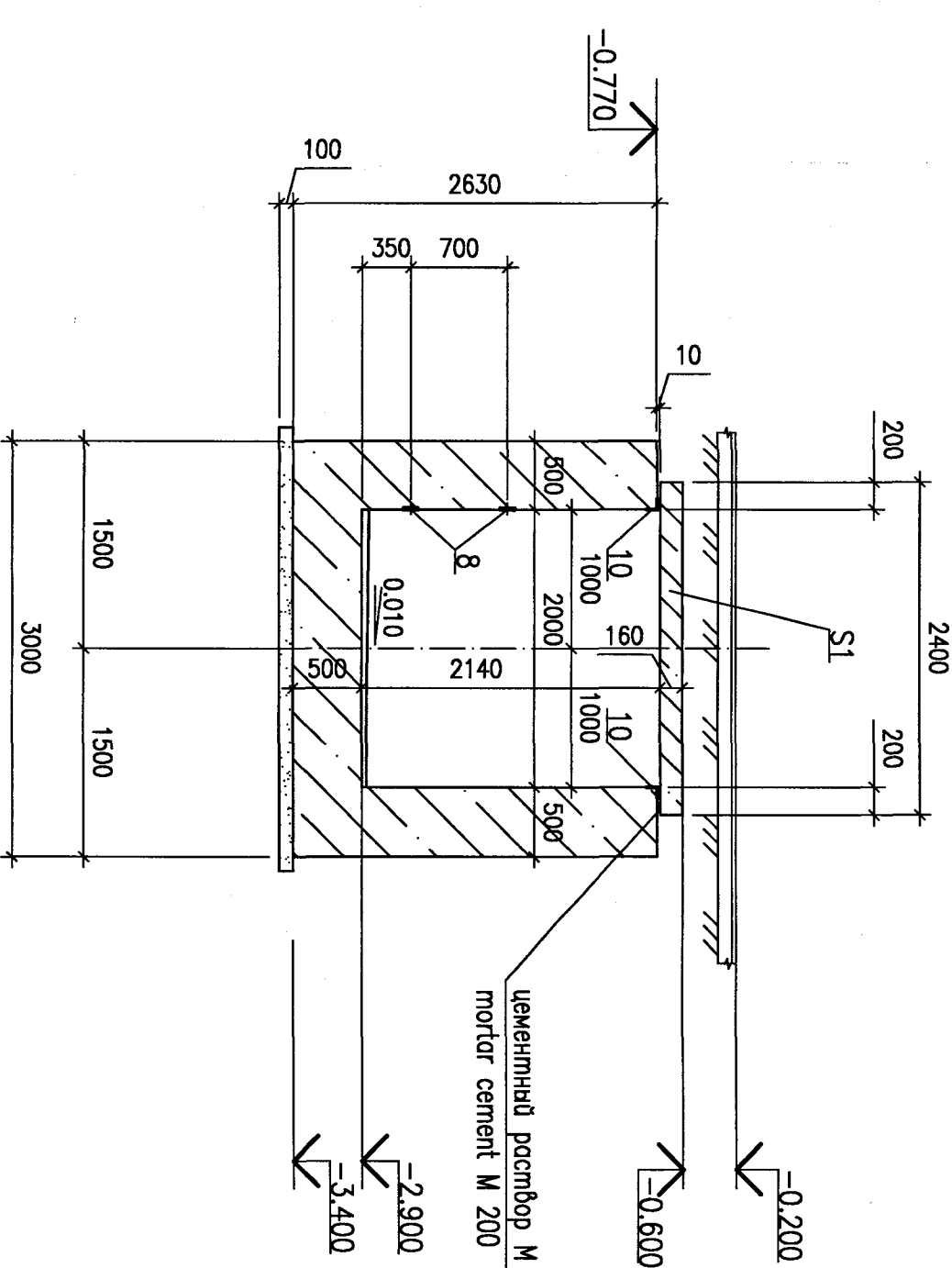
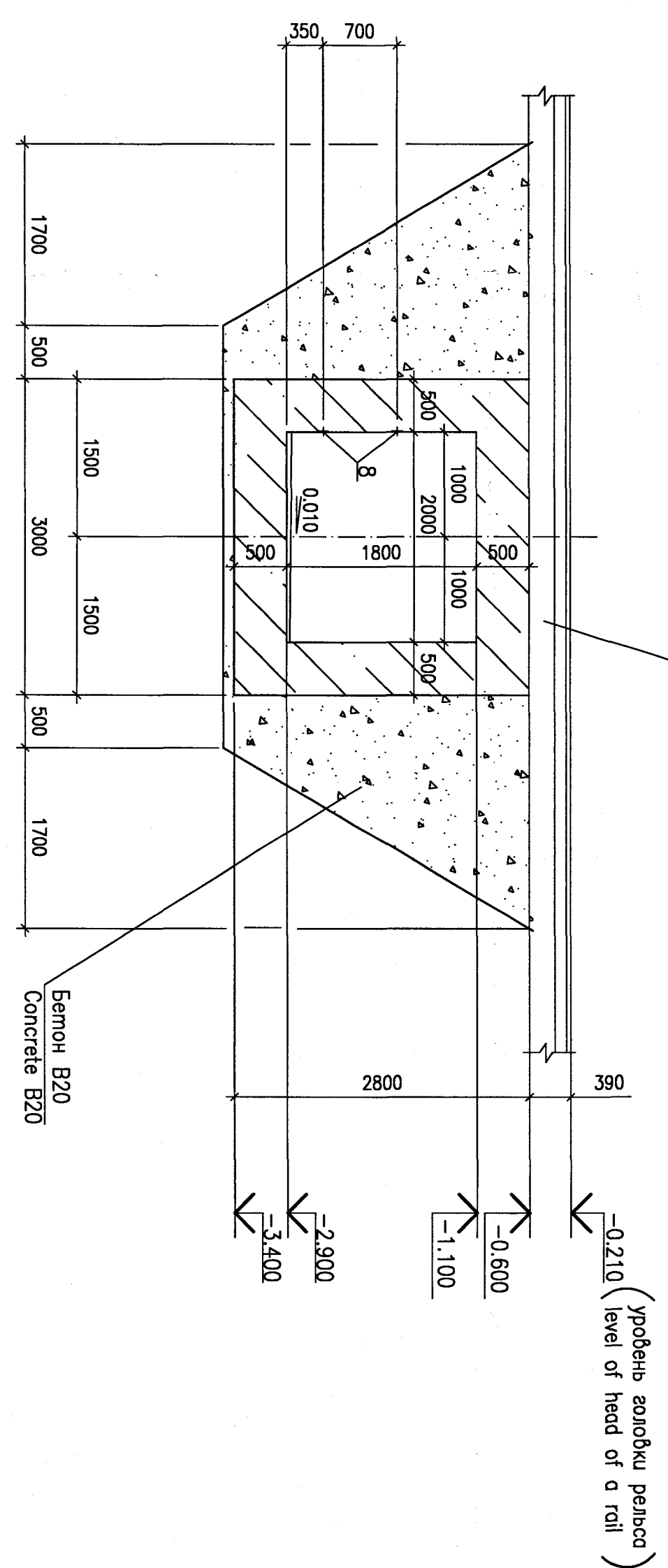
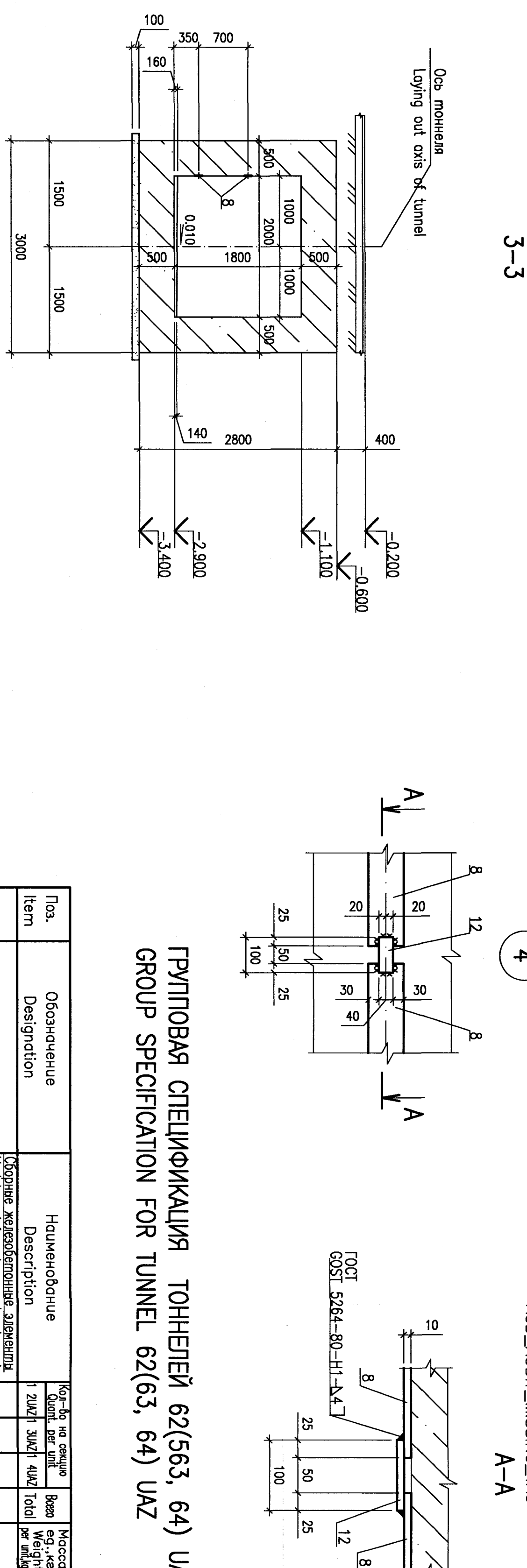
меньше заполнителя не менее 0,3 мм.

СХЕМА РАСПОЛОЖЕНИЯ ЛАВУИТ

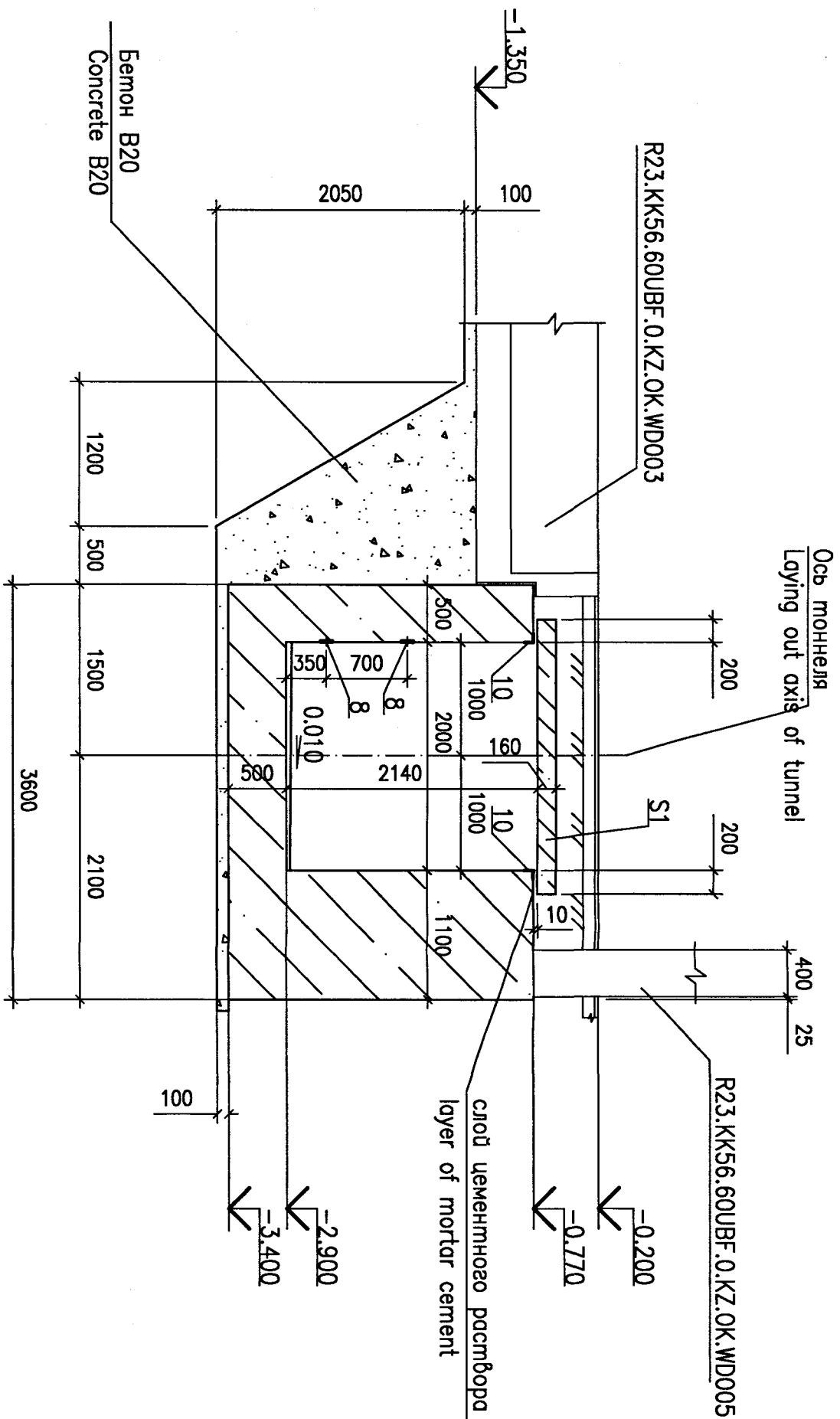
Technical drawing of the base of a transformer (Fig. 1). The drawing shows a top-down view of a rectangular base with a central rectangular cutout. Dimensions are given in millimeters: overall width 15650, overall height 22750, central cutout width 6850, and central cutout height 6300. A north arrow is located in the upper right corner. The text "оси трансформаторов" (transformer axes) is written vertically along the right side of the base.

Technical drawing of three transformer models (62U4Z, 63U4Z, 64U4Z) showing their dimensions and electrical specifications. The models are arranged vertically. The top model is labeled "130 N" and "62U4Z". The middle model is labeled "130 N" and "63U4Z". The bottom model is labeled "100 N" and "64U4Z". Dimensions include a height of 22750 for the top model, a width of 6850 for each, and a total width of 15650 for the middle and bottom models. The drawing also indicates "axes of transformers" and "occi. трансформац. под."

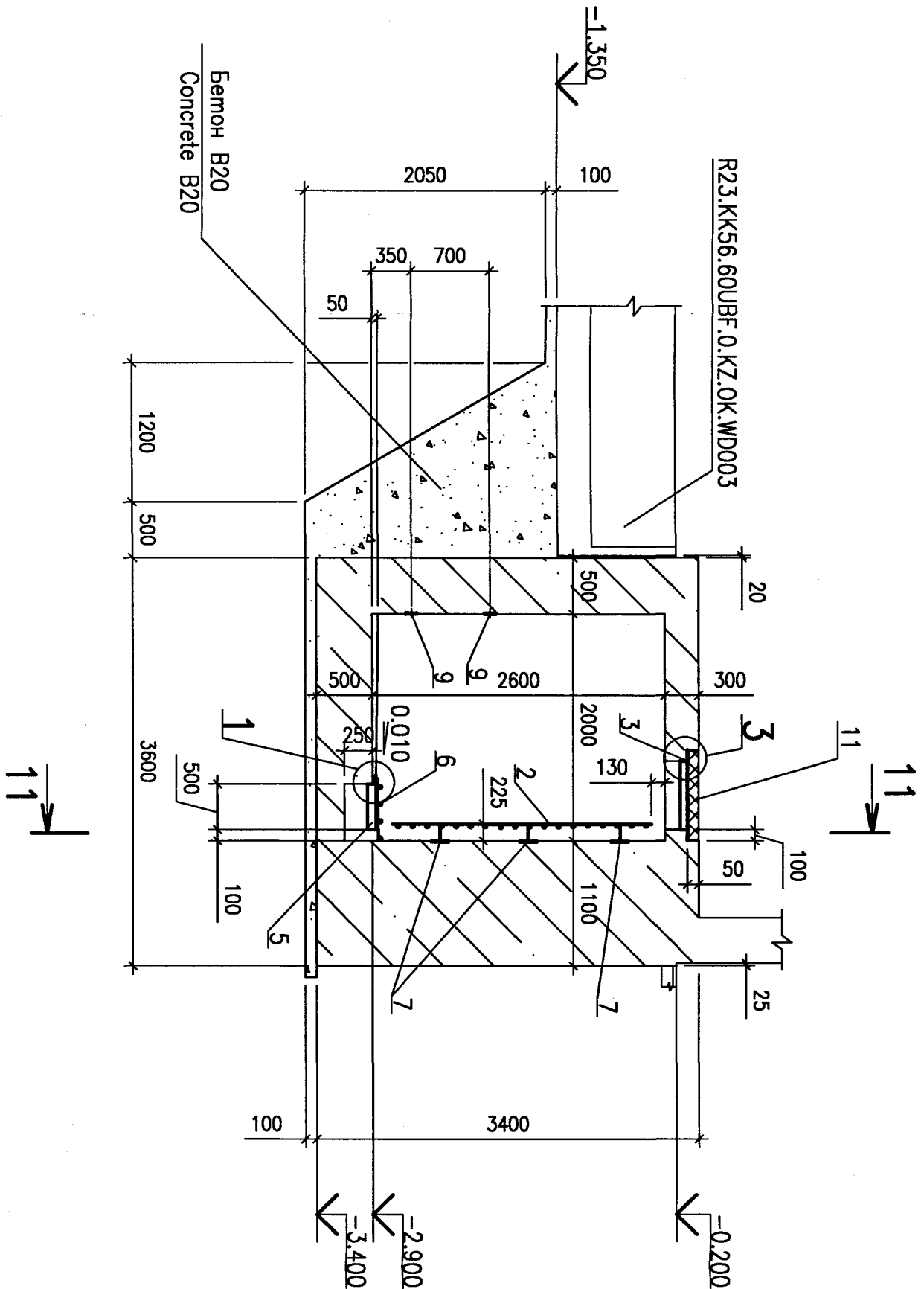


[illegible]

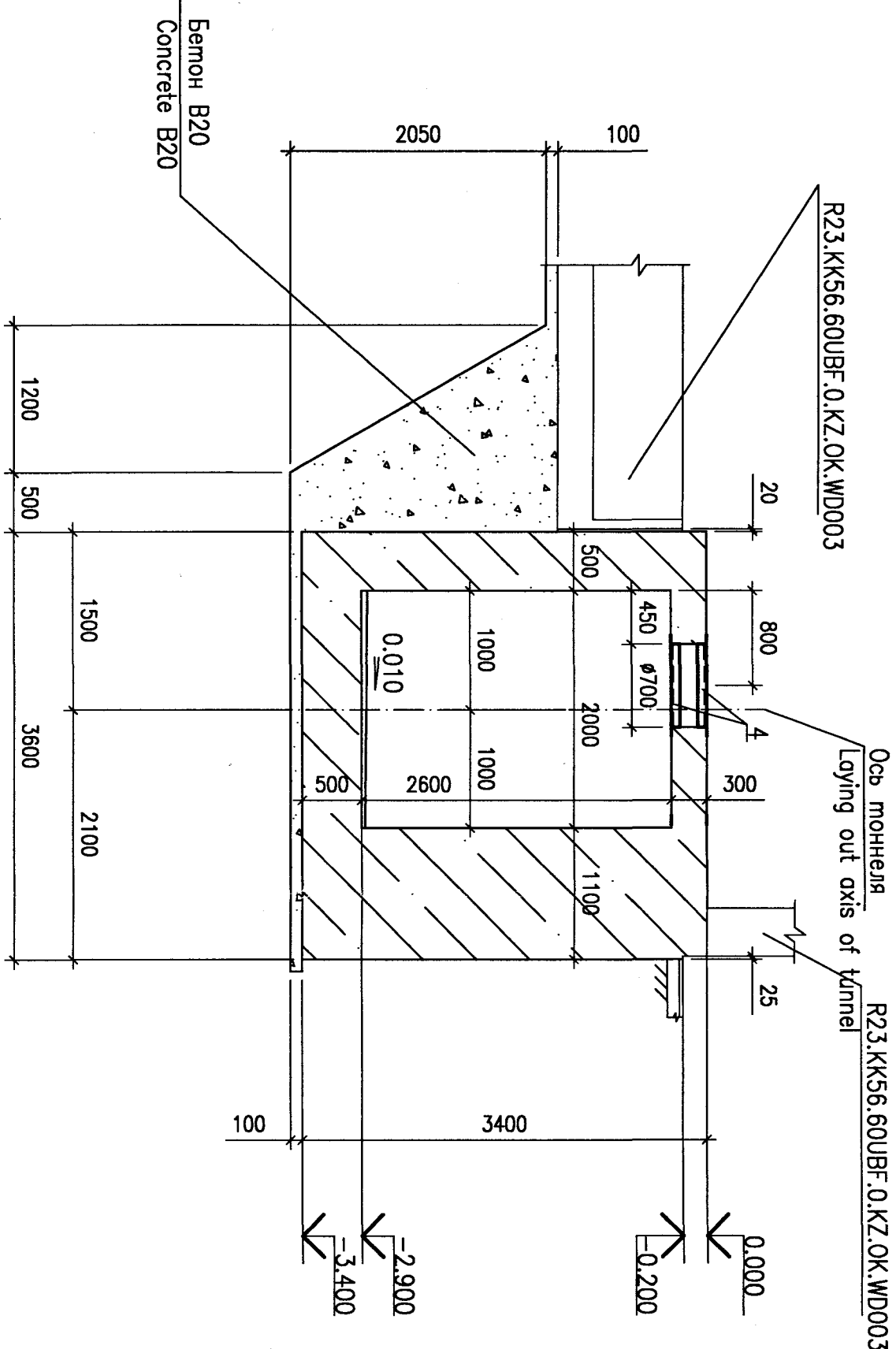
6-6(2)



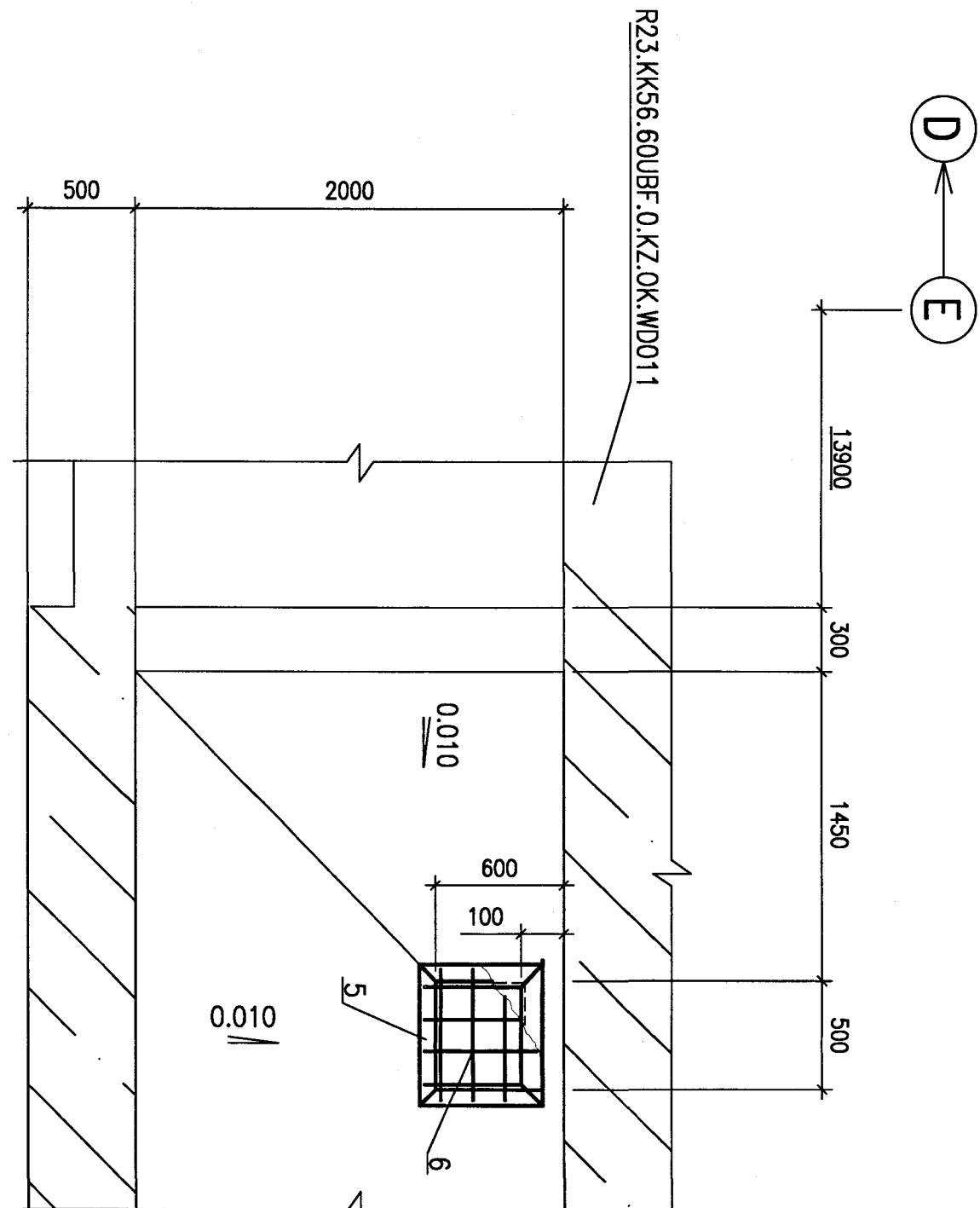
7-7(2)



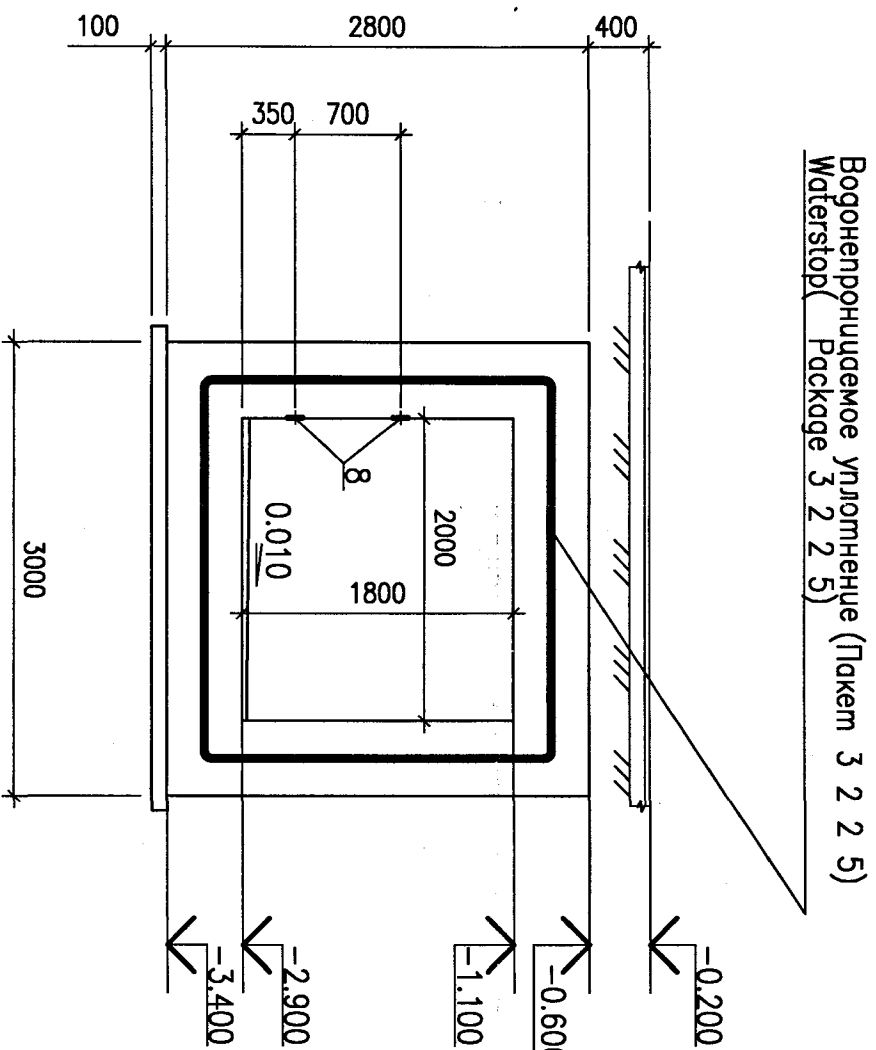
8-8(2)



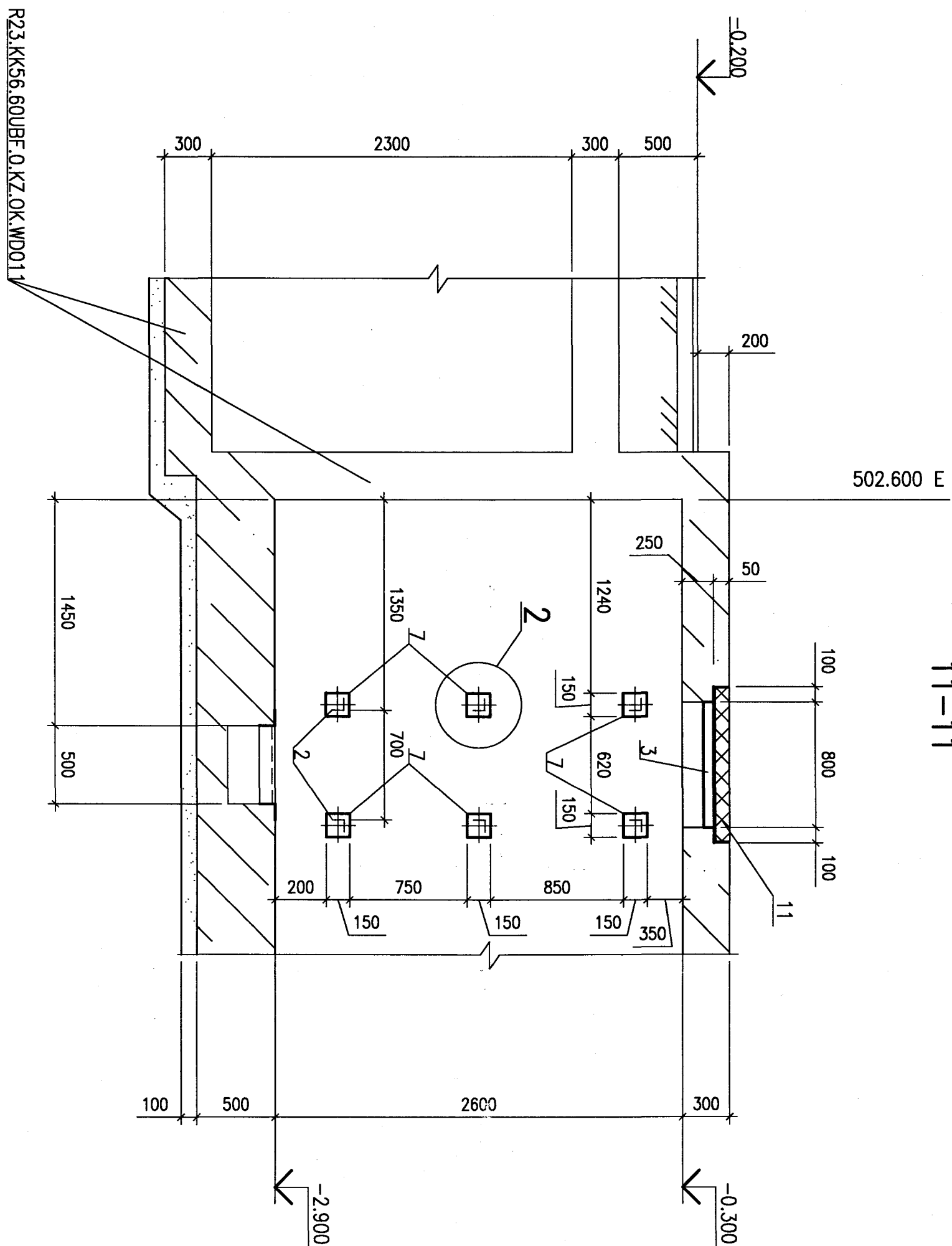
9-9(2)



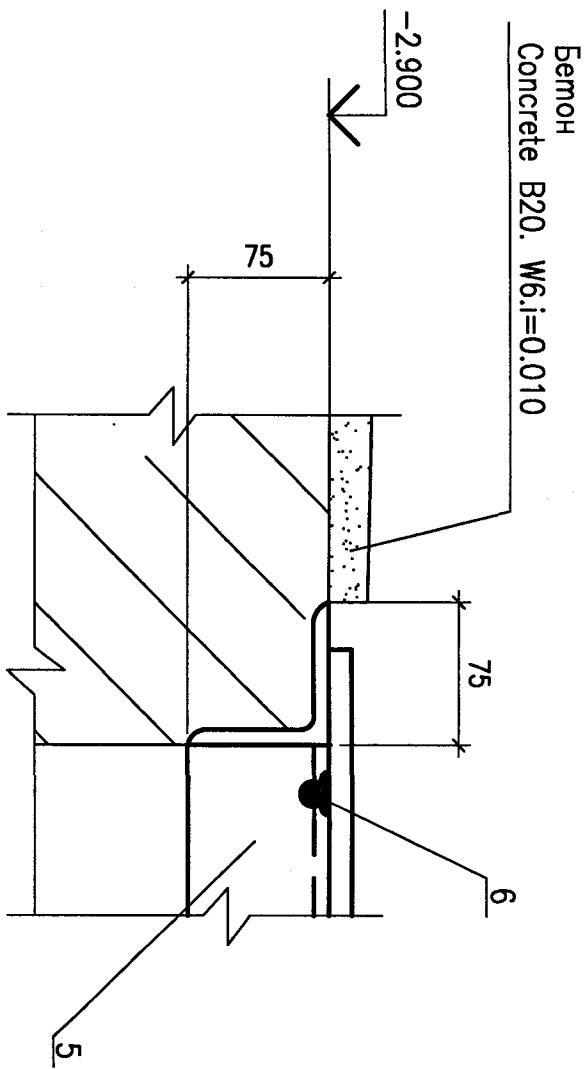
10-10(2)



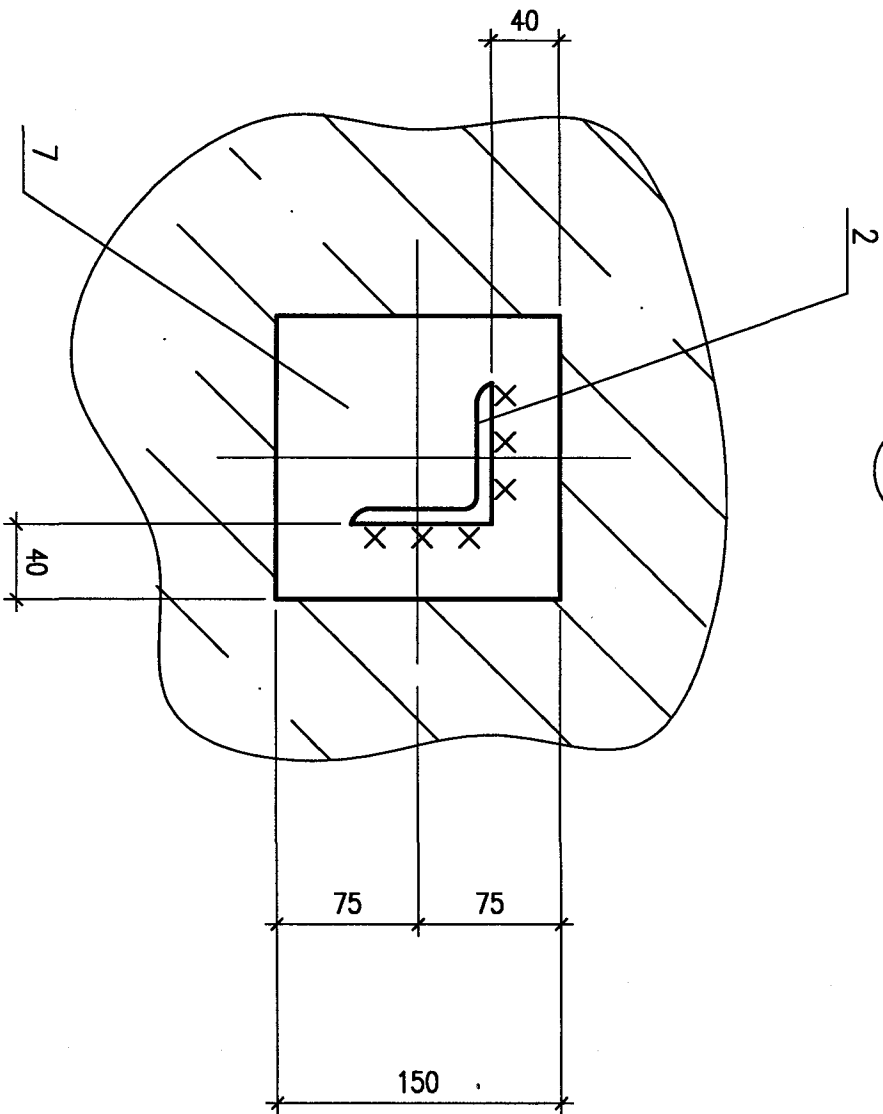
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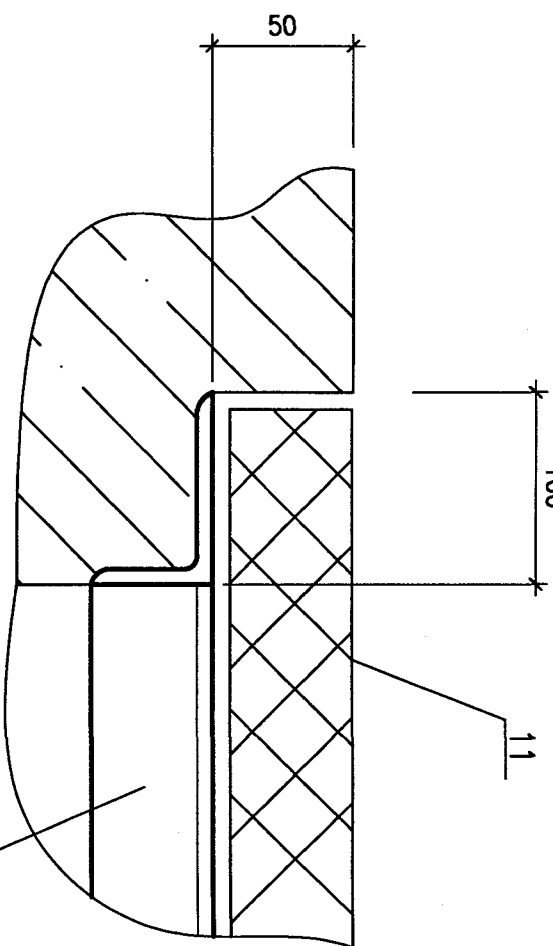
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2



3



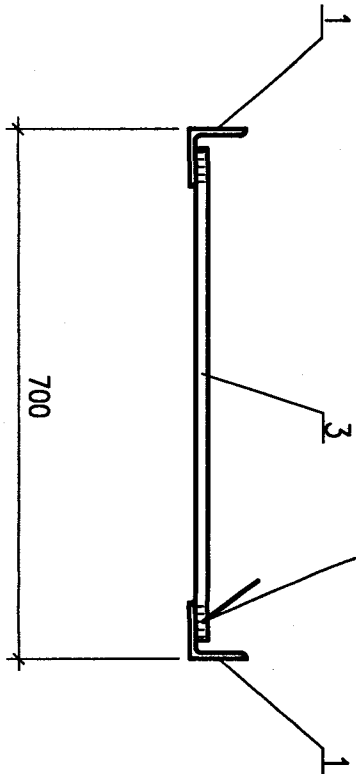
Package Number 5 7 2 76
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Данный чертеж не подлежит разному или передаче другим организациям и лицам без согласия АО "АТОМПРОЕКТ"									
This drawing is not to be reproduced or transferred to other organizations or private persons without approval of JSC ATOMPROM									
Изм.	Кол.ч.	Лист	№ док.	Подпись	Дата	Рис.	Содерж.	Лист	№ док.
Rev.	of dlt.	Sheet	No	Signature	Date	Fig.	Content	Sheet	No
Утвердил	Согласован	Содерж.	Содерж.	Содерж.	Содерж.	Содерж.	Содерж.	Содерж.	Содерж.
Approved	Agreed	Content	Content	Content	Content	Content	Content	Content	Content
Н. контр.	Содерж.	Содерж.	Содерж.	Содерж.	Содерж.	Содерж.	Содерж.	Содерж.	Содерж.
Inspector	Sobolev	Sobolev	Sobolev	Sobolev	Sobolev	Sobolev	Sobolev	Sobolev	Sobolev
Designed	Galova	Galova	Galova	Galova	Galova	Galova	Galova	Galova	Galova
Р23.КК56.60UBF.0.KZ.OK.WD001									
АЭС "КУДАНКУЛАМ" БЛОК 6									
NPP "KUDANKULAM" UNIT 6									
Страница 6									
Page 6									
Лист 3									
Sheet 3									

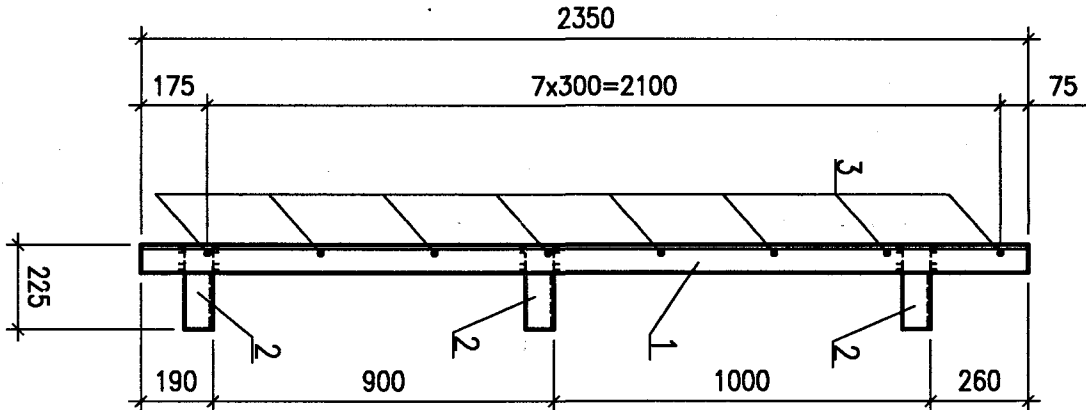
СПЕЦИФИКАЦИЯ ИЗДЕЛИЙ
SPECIFICATION OF PRODUCTS

Марка изделия, Mark of article	Наименование, Name	Кол-во, Quant.	Масса изделия, Weight of article kg
ST1	1 154/575x8 IS:808-1957 5235 GOST 27772-2015		
	2 L=2350	2	21.0
	3 ISRO 20 IS:1732-1961 L=670	8	1.7
TA670	4 Лист 20 IS:1730-1961 C249 GOST 27772-2015 S245 GOST		
	5 12 A-III L=260 GOST 5781-82	9	0.23
		1	100.5
			102.6

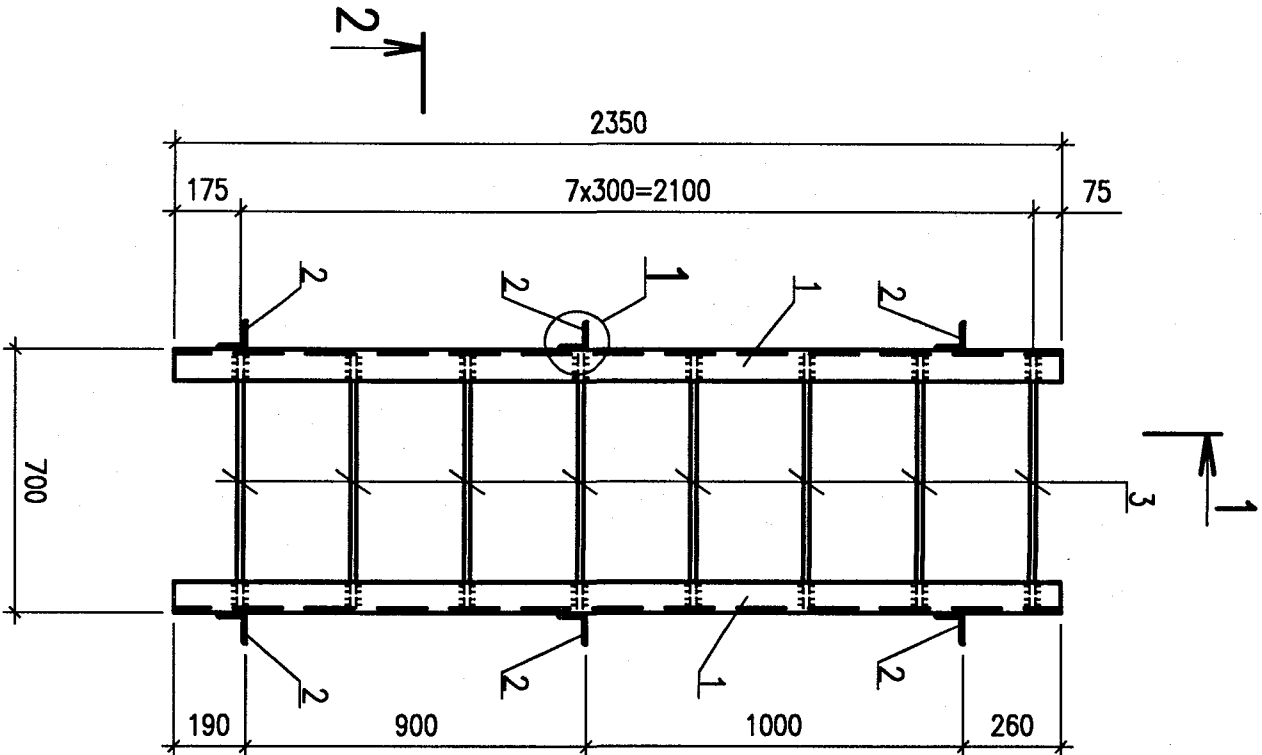
2-2



1-1



ST1



1 Electrodes for welding shall be of E42A type as per GOST 9467-75.

2 Изготовление, контроль качества и приемку закладных частей осуществлять в соответствии с требованиями R01.KK56.0.0.KZ.TT.WD001 "Технические требования по выполнению бетонных и железобетонных конструкций зданий и сооружений".

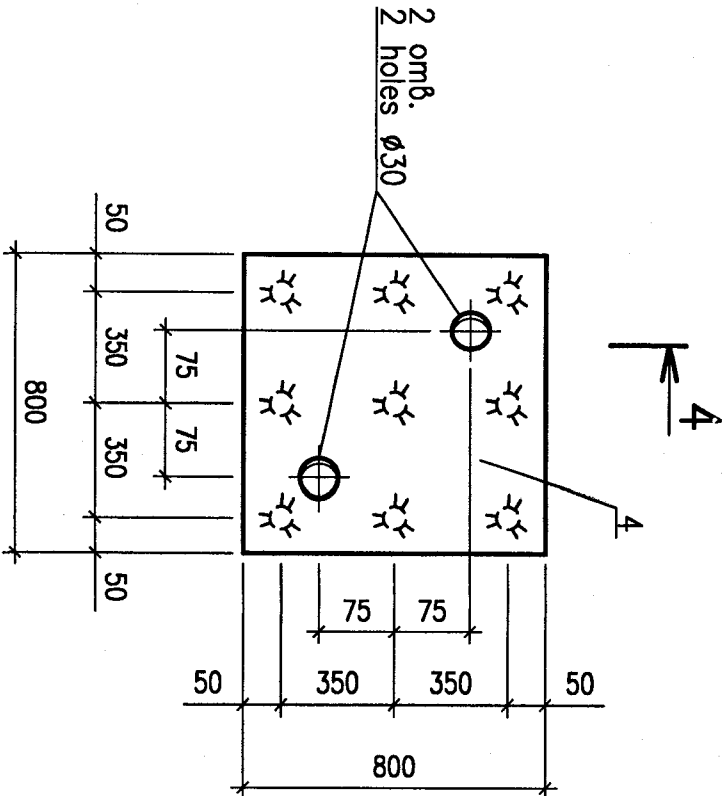
3 Антикоррозионное покрытие смотри R01.KK56.0.0.KZ.TT.WD001 "Технические требования по выполнению бетонных и железобетонных конструкций зданий и сооружений".

1 Electrodes for welding shall be of E42A type as per GOST 9467-75.

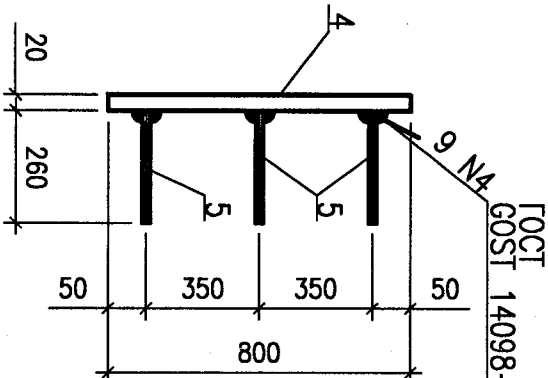
2 The fabrication, quality control and acceptance of embedded parts shall be carried out as per the requirements of R01.KK56.0.0.KZ.TT.WD001 "Technical requirements to performing concrete and reinforced concrete structures of buildings and constructions".

3 For anticorrosive coating see R01.KK56.0.0.KZ.TT.WD001 "Technical requirements to performing concrete and reinforced concrete structures of buildings and constructions".

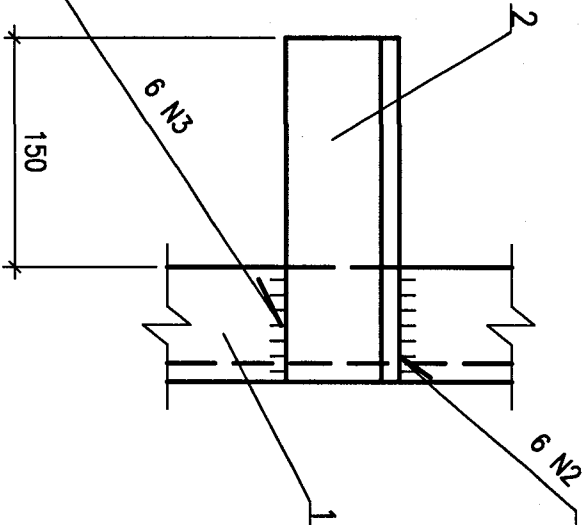
TA670



4-4



3-3

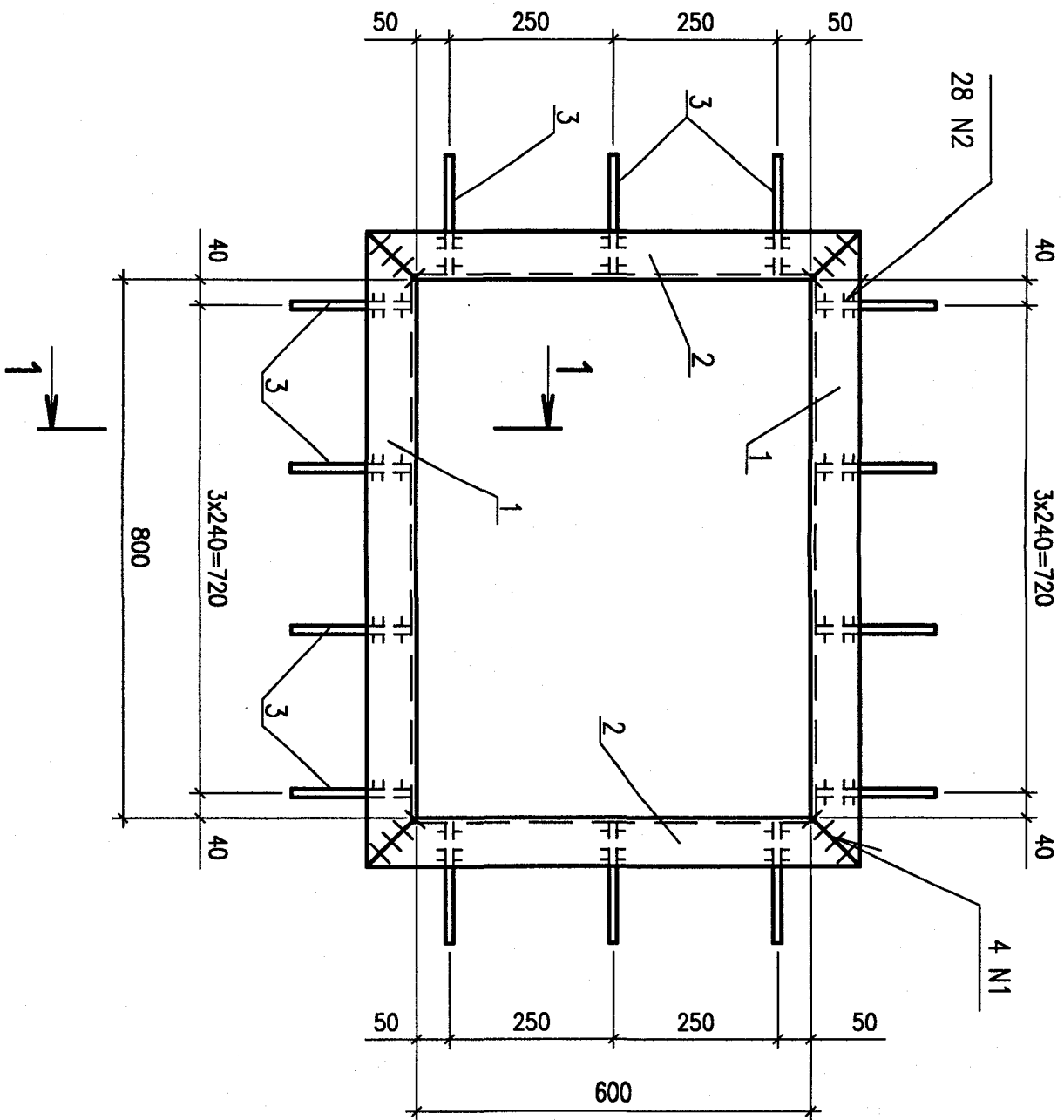


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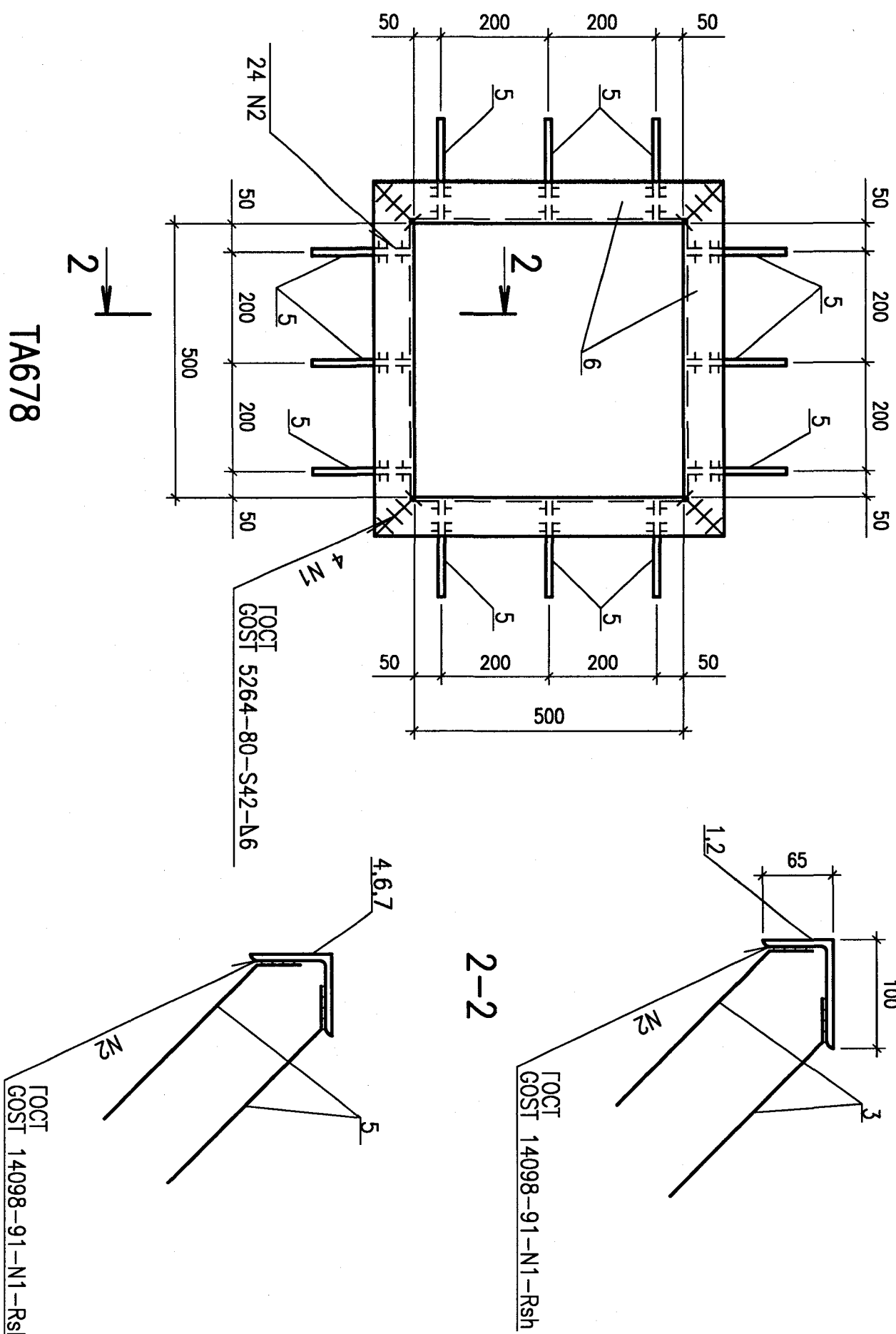
Package Number 5 7 2 76

Данный чертеж не подлежит размножению или передаче другим организациям и лицам без согласия АО "АТОМПРОЕКТ"				This drawing is not to be reproduced or transferred to other organizations or private persons without approval of JSC ATOMPROEKT			
Изм.	Коп-чт	Лист	N док.	Подпись	Дата	R23.KK56.60UBF.0.KZ.OK.WD001 АЭС "КУДАНКУЛАМ" БЛОК NPP "КУДАНКУЛАМ" UNIT	
Rev.	Q-ty	Doc.	Signature	Date			
Утвердил	Sheet	No					
Approved	Peruslawets			12.20			
Н. контр.	Soboleva			12.20			
Inspector						Материал закладное TA670 и стержня ST1 Embedded part TA670 and stir-rader ST1	
Разраб.	Gurova			12.20			
Designed						JSC ATOMPROEKT	

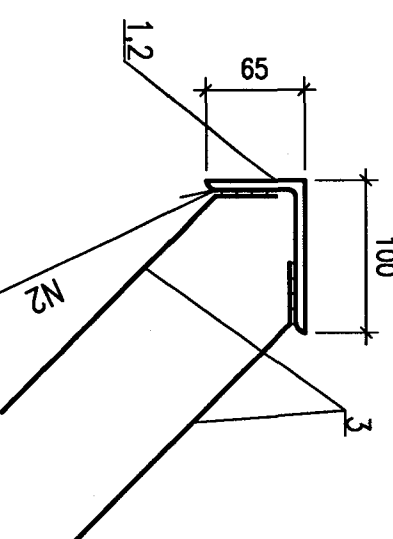
ТА671



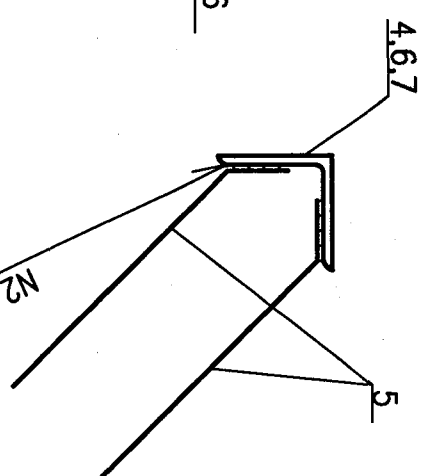
ТА673



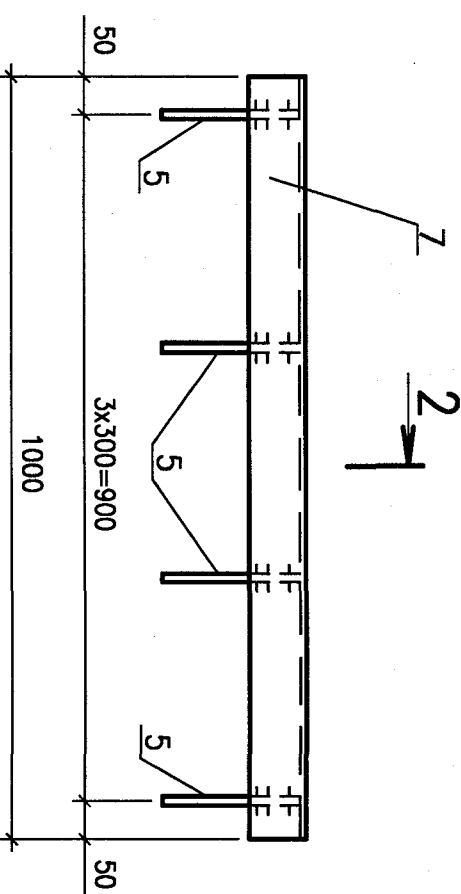
1-1



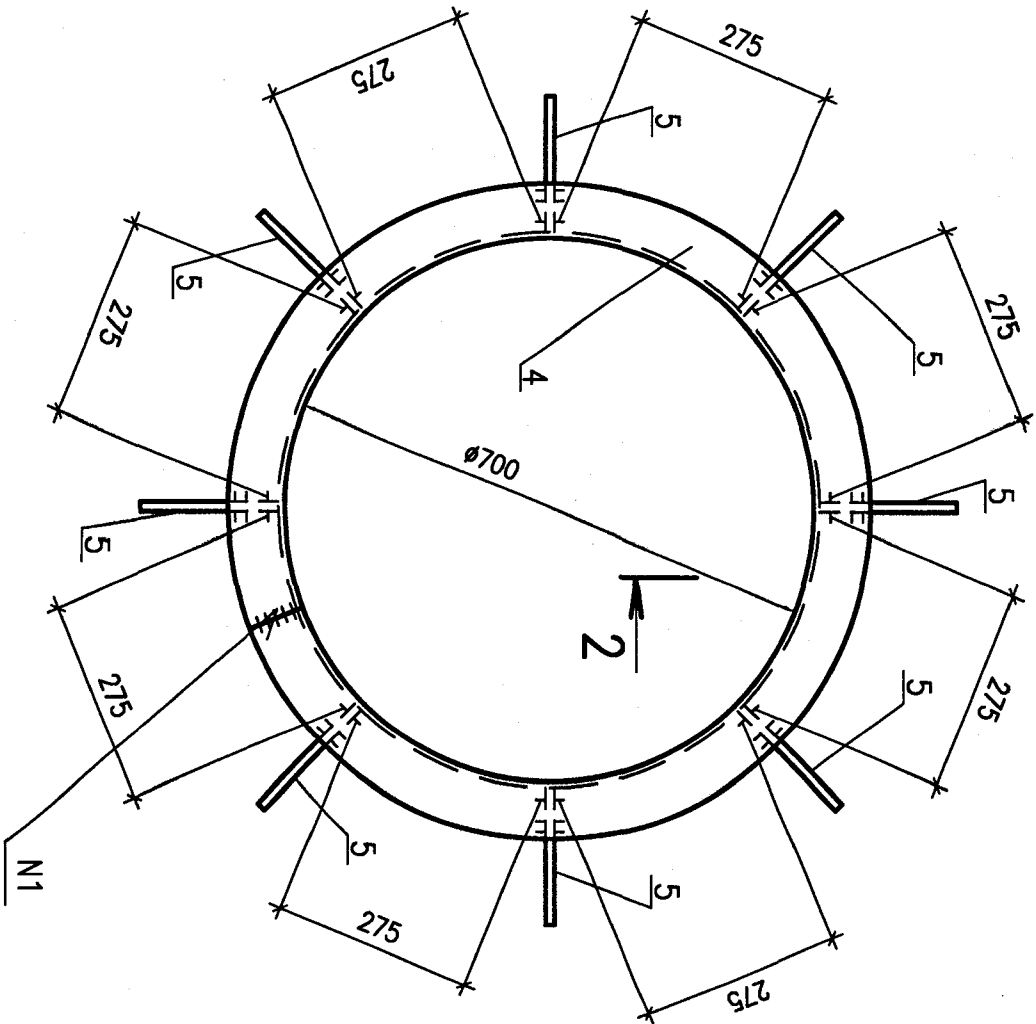
2-2



ТА678



ТА672



ВЕДОМОСТЬ ДЕТАЛЕЙ
LIST OF PARTS

Поз. Item	Эскиз Sketch
3	
5	

СПЕЦИФИКАЦИЯ ИЗДЕЛИЙ ЗАКАПНЫХ
SPECIFICATION OF EMBEDDED PARTS

Маркировка Mark of article	Поз. дет. Det. item	Наименование Name	Кол. Item	Масса Weight of part, kg	Масса Weight of the article, kg
		Детали Units			
TA671	1	IS41006546 IS-808-1957 S235 GOST 27772-2015			
		L=1000	2	9.9	41.8
	2	L=800	2	7.9	
TA672	3*	12 A-III ГОСТ 5781-82 L=250	28	0.22	21.7
	4	IS437546 IS-808-1957 S235 GOST 27772-2015			
		L=2670	1	18.2	
TA673	5*	12 A-III ГОСТ 5781-82			22.9
		L=250	16	0.22	
	6	IS437546 IS-808-1957 S235 GOST 27772-2015			
TA678	5*	L=650	4	4.4	8.6
		12 A-III ГОСТ 5781-82			
		L=250	24	0.22	
TA67B	7	IS437546 IS-808-1957 S235 GOST 27772-2015			8.6
		L=1000	1	6.8	
	5*	12 A-III ГОСТ 5781-82			
		L=250	8	0.22	

— CM. Begmomb gemareit
* — see List of parts

* - см. Ведомость деталей
* - see List of parts

- 1 Электроды для сварки Э42А по ГОСТ 9467-75.
- 2 Изготовленные, контроль качества и приемку закладных изделий осуществлять в соответствии с требованиями R01.KK56.0.0.KZ.TT.WD001 "Технические требования по выголению бетонных и железобетонных конструкций зданий и сооружений".
- 3 Антикоррозионное покрытие смотри R01.KK56.0.0.KZ.TT.WD001 "Технические требования по выголению бетонных и железобетонных конструкций зданий и сооружений".
- 4 Для удобства транспортировки и монтажа, закладные изделия большой длины допускается разрезать на части, с последующим восстановлением радиопрозрачным стыковым швом по ГОСТ 5264-80.
- 1 Electrodes for welding shall be of E42A type as per GOST 9467-75.
- 2 The fabrication, quality control and acceptance of embedded parts shall be carried out as per the requirements of R01.KK56.0.0.KZ.TT.WD001 "Technical requirements to reformatting concrete and reinforced concrete structures of buildings and constructions".
- 3 For anticorrosive coating see R01.KK56.0.0.KZ.TT.WD001 "Technical requirements to reformatting concrete and reinforced concrete structures of buildings and constructions".
- 4 For better convenience of transportation and erection it is allowed to cut long embedded parts into pieces and then restore them with full strength butt welds as per GOST 5264-80.

Package Number 5 7 2 76

File: R23.KK56.60UBF.0.KZ.OK.WD001_005=0

Данный чертеж не подлежит размножению или передаче другим организациям и лицам без согласия АО "АТОМПРОЕКТ"			
Изм.	Кол.уч.	Лист	№ док.
Rev.	Q-ty	Sheet	Doc.
Утвердил	Reviewed	Signature	Date
Approved	Inspector	Signature	Date
H. контр.	Soboleva	Signature	Date
Разраб.	Gurova	Signature	Date
Designed	12.20	12.20	12.20
R23.KK56.60UBF.0.KZ.OK.WD001			
АЭС "КУДАНКУЛАМ" БЛОК 6			
НРР "КУДАНКУЛАМ" UNIT			
60UBF. Сооружения для блочных трансформаторов. Мониторинг железобетонных элементов в пределах светового двора. Геомерия			
60UBF. Unit Auxiliary Transformers and Generator			
Мониторинг железобетонных элементов в пределах светового двора. Геомерия			
Limits of a light count yard. Geometry			
Модели закладные ТА671, ТА672, ТА673, ТА678			
Embedded parts TA671, TA672, TA673, TA678			
JSC АТОМПРОЕКТ			

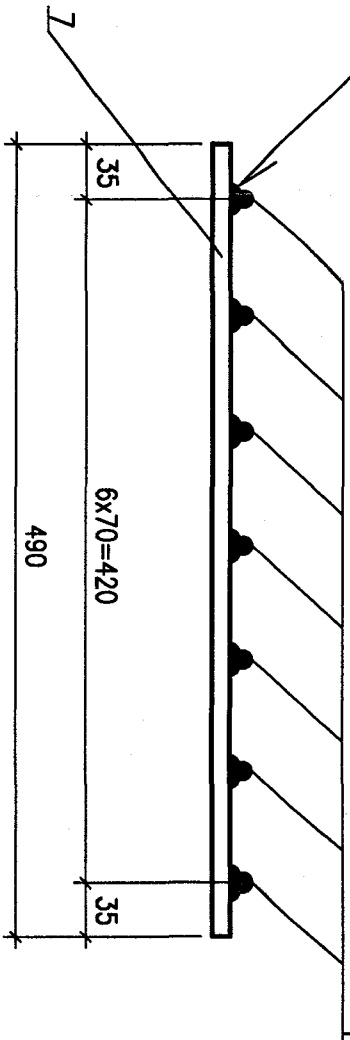
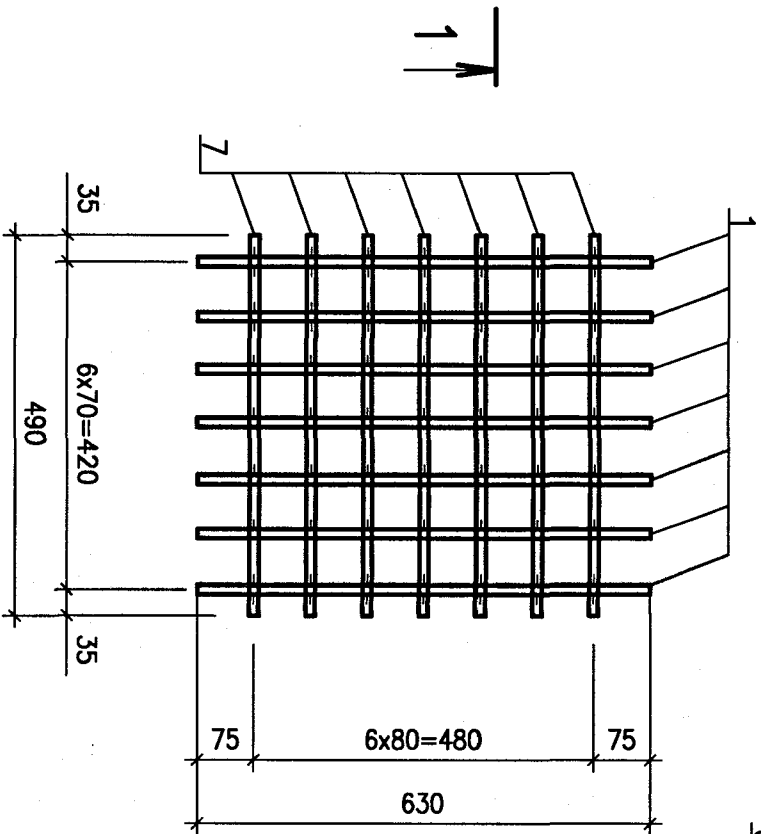
Orig. arch. Nr.	Date	Replace arch. Nr.
46-KK-000488	09 AEN 2020	

Inv.Nr 40655 Date 08.06.2021

TA674

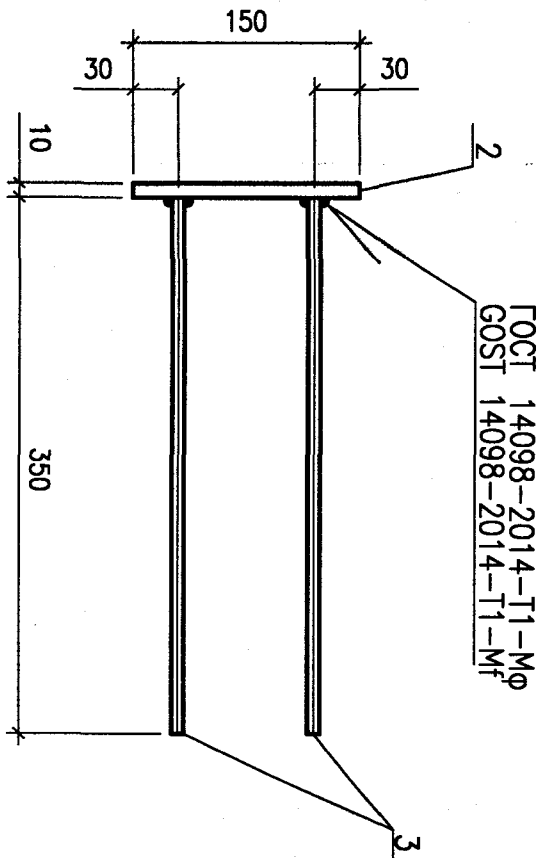
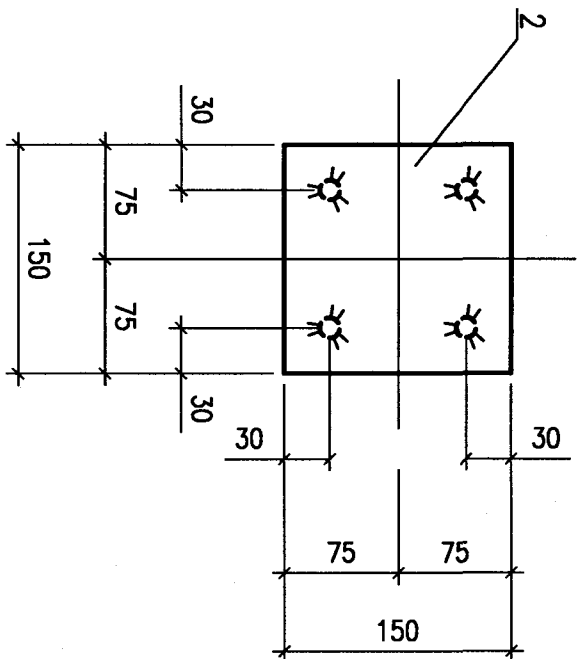
1-1

ГОСТ 14098-2014-K1-Km
ГОСТ 14098-2014-K1-K1



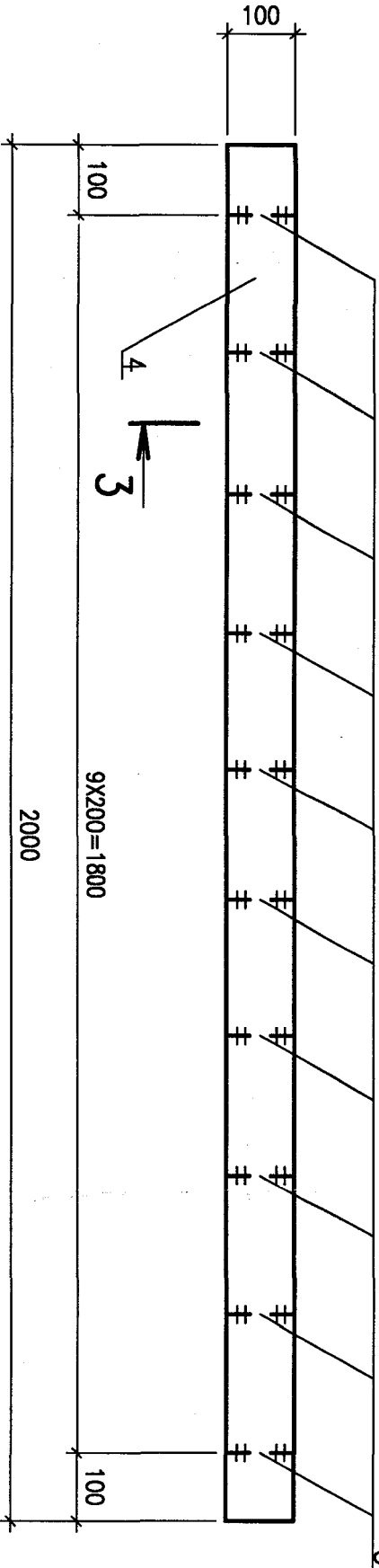
TA675

2



TA676

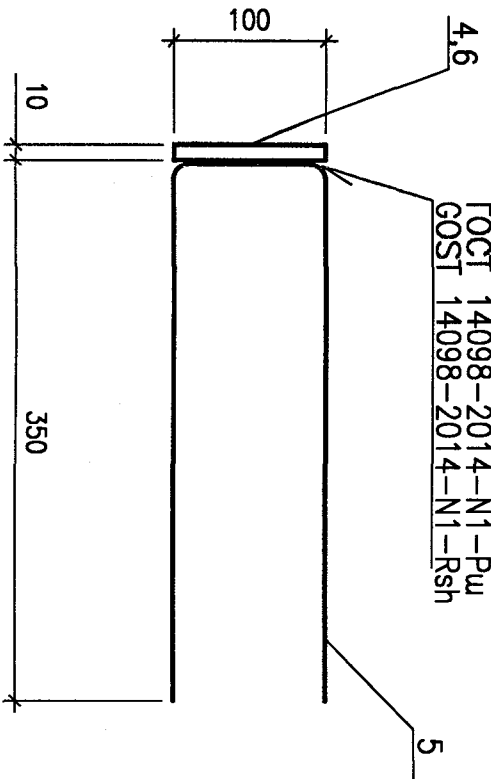
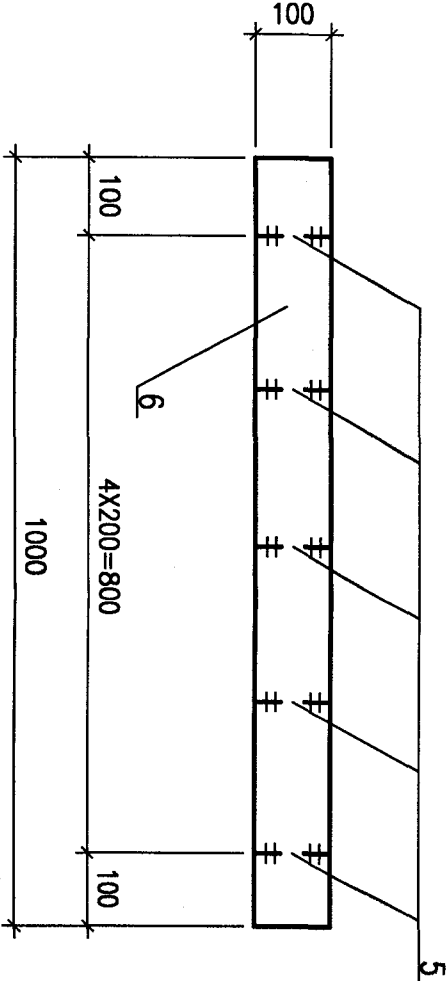
3



TA677

3

3-3



ВЕДОМОСТЬ ДЕТАЛЕЙ
LIST OF PARTS

Поз. Item	Эскиз Sketch
5	

СПЕЦИФИКАЦИЯ ИЗДЕЛИЙ ЗАКЛАДНЫХ
SPECIFICATION OF EMBEDDED PARTS

Марка изделия Mark of Det. article	Поз. Item	Наименование Name	Кол. Quant.	Масса Weight of the part, kg	Масса Weight of the article, kg
TA674	1	IS:1732-1961, L=630	7	1.0	12.6
TA674	7	L=490	7	0.8	
TA675	2	IS:1730-1961 GOST 27772-2015			
TA675	3	150x150 GOST 5781-82	1	1.8	3.0
TA675	4	L=350 GOST 27772-2015	4	0.3	
TA676	4	IS:1730-1961 GOST 27772-2015			
TA676	5*	100x2000 GOST 5781-82	1	15.7	22.7
TA676	6	IS:1730-1961 GOST 27772-2015			
TA677	5*	100x1000 GOST 5781-82	1	7.9	11.4

* - см. Ведомость деталей
* - see List of parts

- 1 Electrodes for welding shall be of E42A type as per GOST 9467-75.
- 2 The fabrication, quality control and acceptance of embedded parts shall be carried out as per the requirements of R01.KK56.0.0.KZ.TT.WD001 "Technical requirements to performing concrete and reinforced concrete structures of buildings and constructions".
- 3 For anticorrosive coating see R01.KK56.0.0.KZ.TT.WD001 "Technical requirements to performing concrete and reinforced concrete structures of buildings and constructions".
- 4 For better convenience of transportation and erection it is allowed to cut long embedded parts into pieces and then restore them with full strength butt welds as per GOST 5264-80.

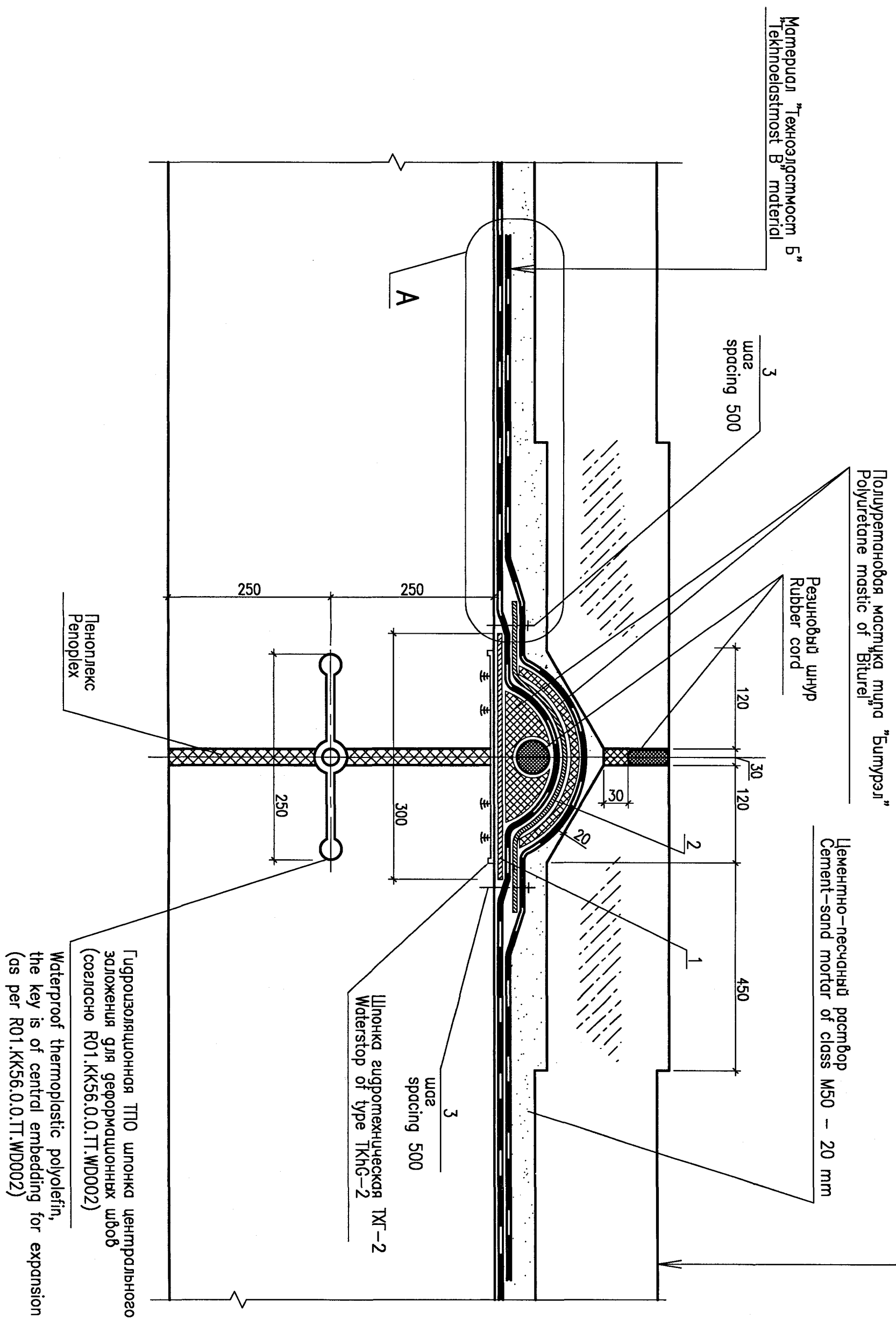
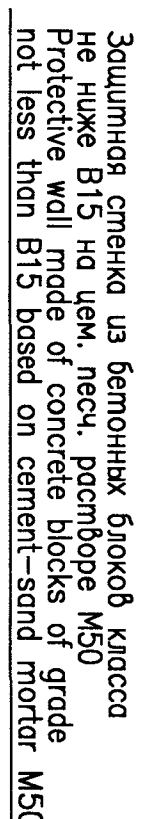
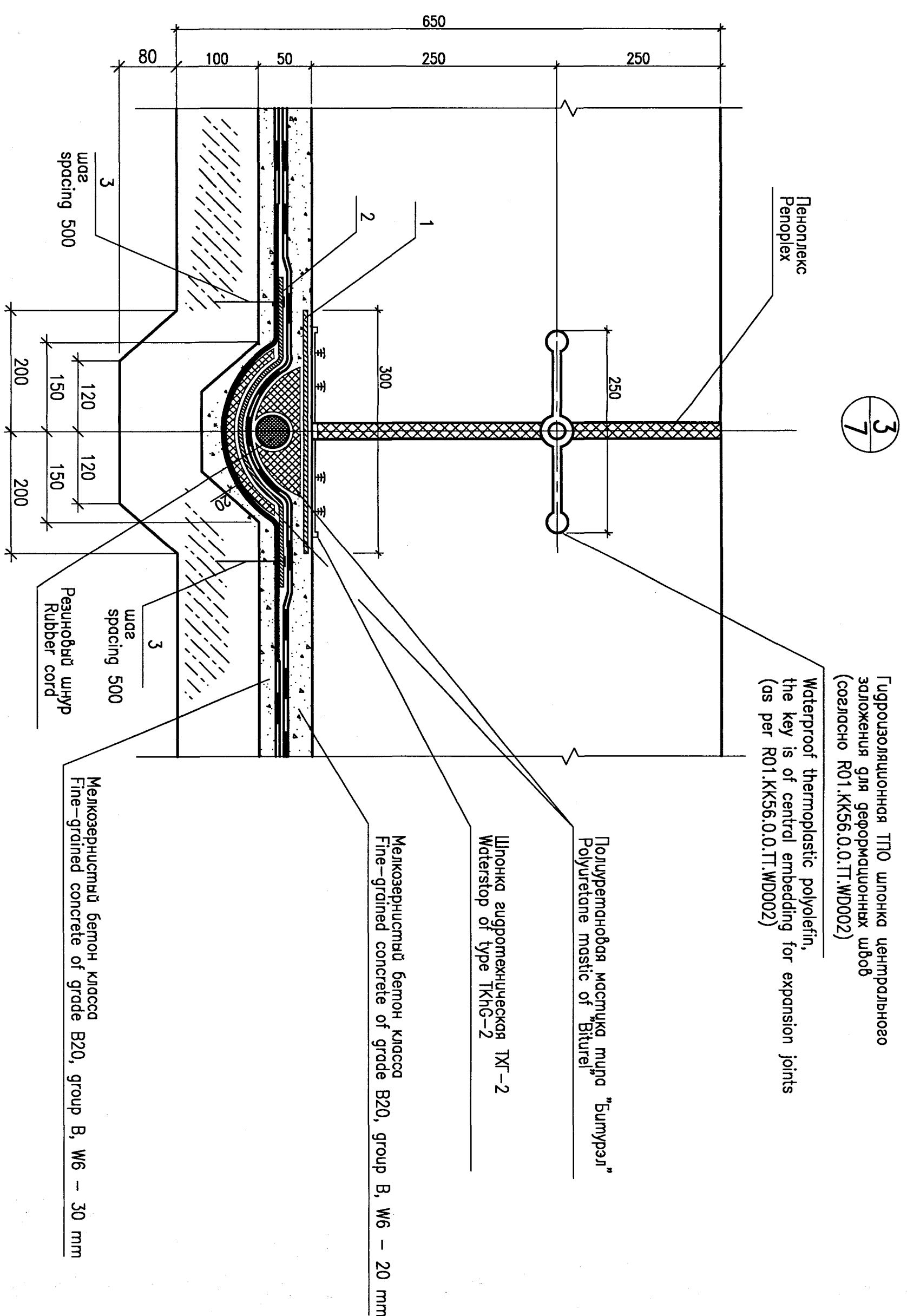
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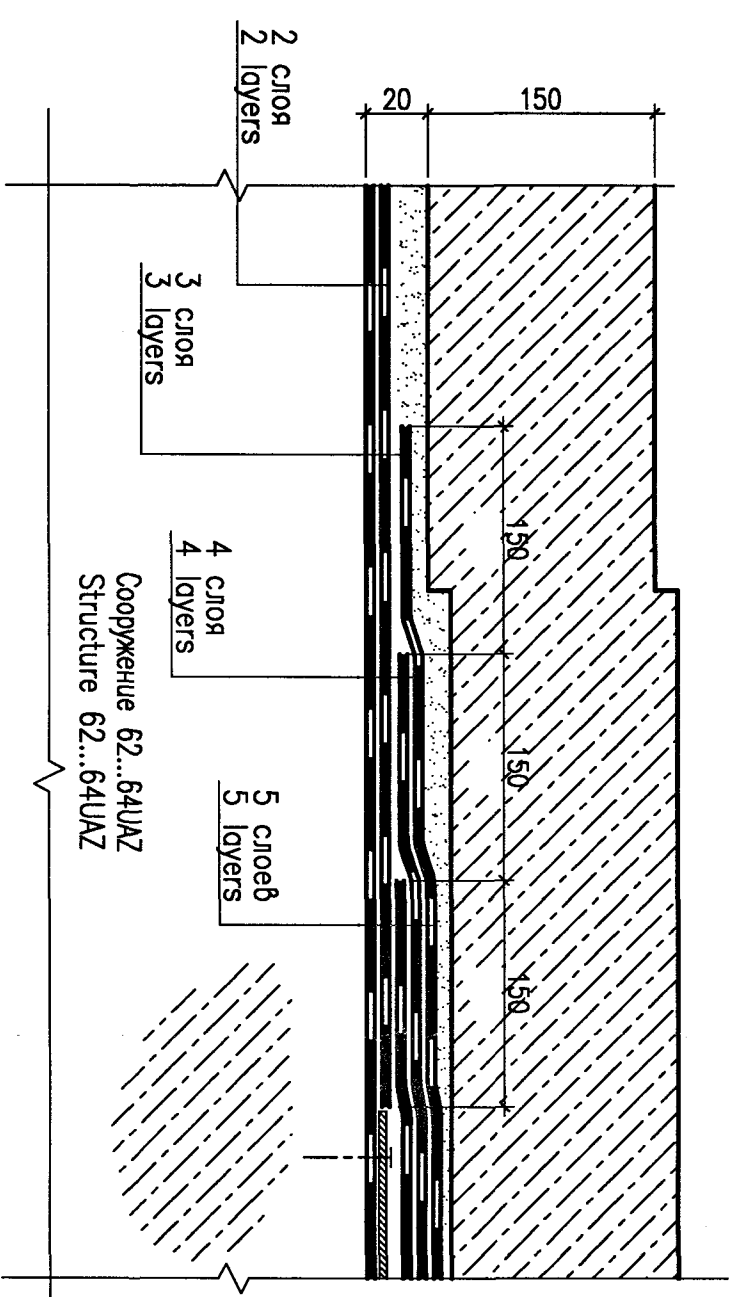
Данный чертеж не подлежит размножению или передаче другим организациям и лицам без согласия АО "АТОМПРОЕКТ"				This drawing is not to be reproduced or transferred to other organizations or private persons without approval of JSC ATOMPROEKT			
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И. КОНТР.	Soboleva				12.20		
Разраб.	Gurova				12.20		
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Orig. arch. Nr.	Date	Replace arch. Nr.
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Inv.Nr 40655 Date 08.06.2021



№3. Item	№3. Sketch
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Package Number 5 7 2 76

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न्यूक्लियर पावर कॉर्पोरेशन ऑफ इंडिया लिमिटेड

(भारत सरकार का उद्यम)

NUCLEAR POWER CORPORATION OF INDIA LIMITED

(A Govt. of India Enterprise)

(CIN : U40104MH1987GOI149458)



ISO:9001:2015 Certified

DIRECTORATE OF CONTRACTS & MATERIALS MANAGEMENT

Nabhikiya Urja Bhavan,

A-'O' Block, Ground Floor,

Anushaktinagar, Mumbai - 400 094.

Tel.: 2599 3000 / 2599 1000

Fax : 91-22-25580741

संविदा एवं सामग्री प्रबंधन निदेशालय
नाभिकीय ऊर्जा भवन,
ए-'O' ब्लॉक, तलमाला,
अणुशक्तिनगर, मुंबई - 400 094.
दुरभाष: 2599 3000 / 2599 1000
फैक्स: 91-22-2558 0741

Pre-Bid Clarifications – Response-4 to Tender No. CMM/MEQ/91-21-2-1219

Ref.: CMM/MEQ/1219

Date: **11 JUN 2026**

To,

All the Concerned Bidders

Dear Sirs,

Sub: Tender No. CMM/MEQ/91-21-2-1219 for **Main Plant Electrical System Package for KKNPP-5&6** (CPPP Tender ID: 2026_NPCIL_269561_1) – reg.

- Ref: 1. Pre-Bid Meeting held on 17.03.2026.
2. Pre-Bid Clarifications – Response-1 dated 24.04.2026
3. Pre-Bid Clarifications – Response-2 dated 22.05.2026
4. Pre-Bid Clarifications – Response-3 dated 02.06.2026

This has reference to the subject Tender.

Please find attached herewith **“Pre-Bid Clarifications – Response- 4”** to the queries received before/during or after the Pre-bid meeting.

Above shall form a part of the Tender, which may please be taken note of. All the other terms and conditions of the subject Tender remain unchanged.

This is, however, issued without prejudice to our rights under the terms and conditions of the subject Tender.

Thanking You,



Yours faithfully,

Sd/-

Addl. General Manager (C&MM)

For and on behalf of Nuclear Power Corporation of India Limited.

(The Purchaser)

Encl: 1. Pre-Bid Clarifications – Response-4

TENDER NO. CMM/MEQ-91-21-2-1219

NUCLEAR POWER CORPORATION OF INDIA LIMITED

Main Plant Electrical System Package for KKNPP Units - 5 & 6: Detailed Engineering, Manufacture, Procurement, Inspection & Testing, Supply, Erection / Construction, Pre-Commissioning, Commissioning & Testing, Trial Operation, Performance Guarantee (PG), Handing over of Systems and Equipment.

Pre-Bid Clarifications Response-4

NPCIL S.No	NAME OF THE BIDDER	QUERY NO	TENDER SECTION NO	REFERENCE CLAUSE NO	REFERENCE DRAWING No. / TECHNICAL SPECIFICATION No. / VALVE SPECIFICATION No. / INSTRUMENTATION SHEET No. / DATA SHEET No.	DESCRIPTION OF THE QUERY	RESPONSE FROM NPCIL
1	3	4	5	6	7	8	9
616	BHEL	1	Section-C	02_I02.KK56.0.0.AP.REP.PR003_R5_Suggested Vendor list for electrical equipment and Clarification NPCIL S. NO. 191	-	BHEL query as per NPCIL S. NO. 191:- As per our standard procurement procedure, major equipment and items are procured through an open tendering process. In this context, reserving the right for the Purchaser to select the make may lead to proprietary procurement and could pose risks to the bidder in terms of cost, delivery timelines, and contractual commitments. Accordingly, we request NPCIL not to insist on such a requirement and to keep the selection of make open within the list of vendors proposed by the contractor, including the vendors listed in NPCIL's suggestive vendor list. This will help ensure transparency in procurement and avoid potential time and cost implications to Contractor. BHEL letter dated 04.06.2026: In this regard, taking consideration of NPCIL's response, we wish to submit that BHEL being a CPSE (public procurement agency), follows established procurement policies based on transparent and competitive bidding procedures mandated by Gol guidelines. Accordingly, all major equipment and items are therefore procured through open tendering amongst technically qualified vendors. In this context, reservation of NPCIL's right to insist on a particular make/vendor during execution stage, without transparent evaluation, may lead to proprietary procurement conditions and will lead to non-compliance with CPSE procurement guidelines, requiring transparent and competitive procurement processes. Such post-award introduction of specific makes/vendors may also create unavoidable audit observations and vigilance concerns, as any ambiguity at tendering stage that subsequently results in preference to a particular make/vendor could be construed as restrictive or non-level playing field conditions affecting fairness and transparency in procurement. We request NPCIL to kindly review the contractual clause and issue clear clarification regarding the issue in order to allow BHEL follow public procurement norms. We request NPCIL's kind consideration and earliest confirmation.	The list of suggested sub-vendors for major equipment / services is enclosed document no. I02.KK56.0.0.AP.REP.PR003_R5. Although number of suggested sub-vendors has been listed, Contractor shall themselves ascertain the present technical and financial capability of the suppliers for supply of items prior to placement of PO to sub-vendors. In case of any difficulty, the Contractor can also propose alternate sub-vendors with documentary evidence of assessment & proper justification, for review and approval by Purchaser. In such cases, the Contractor shall evaluate these vendors with respect to their technical and financial capabilities, order booking position, adhering to delivery schedule etc. and submit the report to Purchaser for review and approval. It shall be Contractor's responsibility to ascertain the present technical and financial capability of the sub vendors listed in this section for the supply of items prior to placement of PO to sub-vendors. It shall be Contractor's responsibility to ensure that the vendor selected implements the quality assurance programme in line with Purchaser's quality assurance programme and meeting the requirements of tender specification. Contractor shall note that there shall not be any price implication in the event of Purchaser not approving the alternate sub-vendors suggested by them and the Contractor having to restrict his choices within Purchaser provided sub-vendor list given in document no. I02.KK56.0.0.AP.REP.PR003_R5. In some equipment/items to maintain similarity with others, NPCIL reserves the right to choose the make of the equipment within the approved list, without or no implication to the NPCIL on account of time and cost i.e. even among the acceptable makes the Purchaser reserves the right to select the vendor based on the confidence/experience gained in other projects e.g KKNPP-3&4 or makes being finalized for the other major works of the Project for ease of O&M. Bidder may please note that incase an equipment which is already qualified recently at other NPCIL projects, meeting the requirements speltout in the present bid, is selected by the bidder, NPCIL reserves the right to accept the previous test reports if they meet the requirements of the present tender, and it can result in to saving of procurement time. In case of some specific control/protection panels, panels manufactured by the fabricators with OEM components may also be acceptable provided the fabricators are authorized channel partners of the suggested OEMs. However, NPCIL decision on such cases will be final and binding to the contractor. It may please be noted that sub-Vendors suggested in Documents No. I02.KK56.0.0.AP.REP.PR003_R5_Suggested Vendor list for electrical equipment, can be considered as Approved Vendor list, however above requirements needs to be considered by the bidders.





न्यूक्लियर पावर कॉर्पोरेशन ऑफ इंडिया लिमिटेड

(भारत सरकार का उद्यम)

NUCLEAR POWER CORPORATION OF INDIA LIMITED

(A Govt. of India Enterprise)

(CIN : U40104MH1987GOI149458)



संविदा एवं सामग्री प्रबंधन निदेशालय
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DIRECTORATE OF CONTRACTS & MATERIALS MANAGEMENT

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Pre-Bid Clarifications – Response-5 to Tender No. CMM/MEQ/91-21-2-1219

Ref.: CMM/MEQ/1219

Date: 17 JUL 2026

To,

All the Concerned Bidders

Dear Sirs,

Sub: Tender No. CMM/MEQ/91-21-2-1219 for **Main Plant Electrical System Package for KKNPP-5&6** (CPPP Tender ID: 2026_NPCIL_269561_1) – reg.

- Ref: 1. Pre-Bid Meeting held on 17.03.2026.
2. Pre-Bid Clarifications – Response-1 dated 24.04.2026
3. Pre-Bid Clarifications – Response-2 dated 22.05.2026
4. Pre-Bid Clarifications – Response-3 dated 02.06.2026
5. Pre-Bid Clarifications – Response-4 dated 11.06.2026

This has reference to the subject Tender.

Please find attached herewith “**Pre-Bid Clarifications – Response- 5**” to the queries received before/during or after the Pre-bid meeting.

Above shall form a part of the Tender, which may please be taken note of. All the other terms and conditions of the subject Tender remain unchanged.

This is, however, issued without prejudice to our rights under the terms and conditions of the subject Tender.

Thanking You,



Yours faithfully,

-Sd/-

Addl. General Manager (C&MM)

For and on behalf of Nuclear Power Corporation of India Limited.
(The Purchaser)

Encl: 1. Pre-Bid Clarifications – Response-5 along with Annexures.

पंजीकृत कार्यालय: 16 वी मंजिल, सेंटर-1, वर्ल्ड ट्रेड सेंटर, कफ परेड, कुलाबा, मुंबई - 400 005
Regd. Office : 16th Floor, Center-1, World Trade Centre, Cuffe Parade, Colaba, Mumbai - 400 005
Visit us at : www.npcil.nic.in

Main Plant Electrical System Package for KKNPP Units - 5 & 6: Detailed Engineering, Manufacture, Procurement, Inspection & Testing, Supply, Erection / Construction, Pre-Commissioning, Commissioning & Testing, Trial Operation, Performance Guarantee (PG), Handing over of Systems and Equipment.

PRE-BID CLARIFICATIONS RESPONSE-5

NPCIL S.No	Query Set /Round	NAME OF THE BIDDER	QUERY NO	TENDER SECTION NO	REFERENCE CLAUSE NO	REFERENCE DRAWING No. / TECHNICAL SPECIFICATION No. / VALVE SPECIFICATION No. / INSTRUMENTATION SHEET No. / DATA SHEET No.	DESCRIPTION OF THE QUERY	RESPONSE FROM NPCIL	DESCRIPTION OF THE QUERY	RESPONSE FROM NPCIL
1	2	3	4	5	6	7	8	9	10	11
617	BHEL- Set-6	BHEL	1	Section-C	102.KK56.0.0.AP.REP.PRO03_R5_Suggested Vendor list for electrical equipment and Clarification NPCIL S. NO. 191	102.KK56.0.0.AP.REP.PRO03	A. Supply/selection of makes/vendors for electrical equipment: Our query dated 02nd Apr'26 against the tender specification Sec-C (02_102.KK56.0.0.AP.REP.PRO03_R5_Suggested vendor list for electrical equipment) and corresponding clarification (Sl. No-191) dated 22.05.2026 issued by NPCIL regarding selection of makes/vendors for electrical equipment and our letter dated 04th Jun'26. In this regard, considering NPCIL's response on our pre-bid query i.e. During execution/detailed engineering, "NPCIL reserves its rights to insist on the make of equipment, which the Contractor shall comply with no additional cost and time implication to NPCIL"; we wish to submit that BHEL, being a CPSE, is required to adhere to established procurement policies based on transparent, fair, and competitive bidding procedures in accordance with Government of India guidelines. Accordingly, all major equipment and items are procured through open tendering among technically qualified vendors as per NPCIL tender specifications. Hence, the lowest bidder/make thus selected by BHEL should be acceptable to NPCIL without insisting for any other technically qualified make who is not the lowest bidder in our procurement/ outsourcing tender. NPCIL may kindly appreciate and concur.	The intent of the specification is not just to replicate the make/manufacturer of each and every items of other projects or replicate the makes being finalized for the other major works of the same Project. The matter is to be reviewed on a case to case basis during execution/detailed engineering taking into account of the project timeline and time schedule of engineering, qualifications and tests of the offered equipment, their delivery schedules, services & support guarantees of the OEM and dimensional constraints.		
618	BHEL- Set-6	BHEL	2	Section-C	102.KK56.0.0.ET.TS.PRO78_6kV Switchgear	102.KK56.0.0.ET.TS.PRO78	B. Supply/selection of makes/vendors for 6KV HT Switchgear: As per NPCIL Tender Specifications Nos. 102.KK56.0.0.ET.TS.PRO78 and 102.KK56.0.0.PR.TT.PRO08 for the KKNPP Units 5 & 6 Project, the specified dimensions for 6 kV switchgear panels are 800 mm (W) > 2595 mm (H) x 1800 mm (D) for cable-terminated feeders and 1000 mm (W) x 2595 mm (H) x 2270 mm (D) for bus-duct-terminated feeders. In this regard, we wish to submit that BHEL proposes to offer switchgear panels with dimensions of 820 mm(W) x 2910 mm (H) x 2405 mm (D) for cable-terminated feeders and 1220 mm (W) x 3010 mm (H) x 2929 mm (D) for bus-duct-terminated feeders. The offered panels are fully type-tested in accordance with relevant standards and are operating satisfactorily at several prestigious installations, including those of NTPC, PGCIL, IOCL Refineries, and other leading state-owned power generation and transmission utilities. Similar panels have also been supplied and commissioned by BHEL for the Power Supply System at NPCIL Tarapur, Maharashtra.	Kudankulam 5&6 is a sort of near repeat design of Kudankulam 1, 2, 3 & 4 wherein the layouts, footprints and interfaces with connected systems are almost fixed with no flexibility to change. There are two categories of buildings in KKNPP 5&6 e.g. Russian designed Main plant buildings and Indian designed BoP buildings. Majority of 6kV switchgear are to be placed in Russian designed buildings which are already in advanced stage of construction at KKNPP 5&6. Few 6kV switchgears are to be installed in BoP buildings designed by NPCIL and civil design for the same is already frozen and construction has already started. BHEL is proposing for higher dimension (WXHxD) of 6kV switchgear in comparison to tender specifications. The dimensional requirements indicated in the tender is based on the available layouts in various buildings of KKNPP 5&6 taking into account various engineering considerations e.g. regulatory clearances, O&M clearances, interfaces & interference with other equipment etc. There is no margin to accommodate the increase in any of the dimensions of 6kV switchgear from the tender		



Main Plant Electrical System Package for KKNPP Units - 5 & 6: Detailed Engineering, Manufacture, Procurement, Inspection & Testing, Supply, Erection / Construction, Pre-Commissioning, Commissioning & Testing, Trial Operation, Performance Guarantee (PG), Handing over of Systems and Equipment.

PRE-BID CLARIFICATIONS RESPONSE-5

NPCIL S.No	Query Set /Round	NAME OF THE BIDDER	QUERY NO	TENDER SECTION NO	REFERENCE CLAUSE NO	REFERENCE DRAWING No. / TECHNICAL SPECIFICATION No. / VALVE SPECIFICATION No. / INSTRUMENTATION SHEET No. / DATA SHEET No.	DESCRIPTION OF THE QUERY	RESPONSE FROM NPCIL	DESCRIPTION OF THE QUERY	RESPONSE FROM NPCIL
620	BHEL- Set-6	BHEL	4	Section-C	General		In this context, any reservation of NPCIL's right to insist upon a particular make or vendor during the execution stage, without a transparent evaluation process, may effectively create proprietary procurement conditions and result in non-compliance with CPSE procurement guidelines, which mandate transparent and competitive procurement practices. Further, the post-award introduction of specific makes or vendors may give rise to audit observations and vigilance concerns, as any ambiguity in the tendering stage that subsequently results in preference to a particular make or vendor could be construed as restrictive in nature and inconsistent with the principles of fairness, transparency, and a level playing field in public procurement.	Please see NPCIL response at S.No. 617 , 618 & -619.	---	---
621	BHEL- Set-7	BHEL	4	Section-C	General	-	This is with reference to the above-mentioned tender for the Main Plant Electrical System Package for KKNPP Units - 5 & 6. We are thankful to NPCIL for prompt replies to our queries and would like to affirm that BHEL submit the most optimised techno-commercial bid for the tender. However, we continue to have reservations about the response given by NPCIL for query no. 191 wherein NPCIL has reserved its right to choose a particular make even amongst the approved vendors. Having dealt with numerous NPCIL tenders including the concurrent Common Services tender for Kudankulam Unit 5&6, we would bring your attention to the fact that this particular condition is unique to this particular tender. Though our Since NPCIL desires the bidder to ascertain the financial and technical capability of the vendors, NPCIL is requested to furnish the technical and financial qualification criteria, requirement of order booking criteria, requirement of delivery timelines, type testing, maintaining similarity with previous projects and any other criteria on which NPCIL desires to evaluate the vendors while choosing a particular make even amongst the approved vendors. These criteria have to be defined item-wise/product-wise to bring objectivity and transparency in the process. We further request that these criteria be atleast defined for the following items: SI. NO. ITEM DESCRIPTION 1. 400kV GIS and GIDB 2. 220kV GIS and GIDB 3. 400 kV Single Phase Capacitive Voltage Transformer with Common Junction Box (1 No. Common JB for 3 Nos. CVT)- 400kV Switchyard 4. 400kV Bus Post Insulator - 400kV Switchyard 5. STRUCTURAL STEEL FOR SWITCHYARD STRUCTURES AS PER TENDER DRAWINGS & DOCUMENTS- 400kV Switchyard.	Please see NPCIL response at S.No. 617 , 618 & -619.	---	---



Main Plant Electrical System Package for KKNPP Units - 5 & 6: Detailed Engineering, Manufacture, Procurement, Inspection & Testing, Supply, Erection / Construction, Pre-Commissioning, Commissioning & Testing, Trial Operation, Performance Guarantee (PG), Handing over of Systems and Equipment.

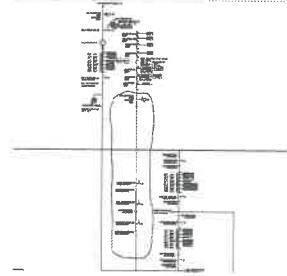
PRE-BID CLARIFICATIONS RESPONSE-5

NPCIL S.No	Query Set /Round	NAME OF THE BIDDER	QUERY NO	TENDER SECTION NO	REFERENCE CLAUSE NO	REFERENCE DRAWING No. / TECHNICAL SPECIFICATION No. / VALVE SPECIFICATION No. / INSTRUMENTATION SHEET No. / DATA SHEET No.	DESCRIPTION OF THE QUERY	RESPONSE FROM NPCIL	DESCRIPTION OF THE QUERY	RESPONSE FROM NPCIL
							17. GPS SYSTEM FOR EPSS 18. 110V DCDB 19. 1800AH, 110V battery 20. Load bank 21. OFC Cables 22. LV SWGR/ MCCs 23. 220V Batteries 25. MV cables 26. LV cables 27. Control cables			
400kV & 230kV GIS & GIBD										
622	BHEL Set-8	BHEL	1	SPECIFICATION NO: I02.KK56.0.0.E T.TS.PR051 Rev04; DOCUMENT REGISTERED NO. KK56/I/H/TS/1149/00/R4 Dt. 13-11-2025	Clause no. 4.38.4	It must be generally possible to remove a circuit element (breaker, disconnect switch etc), without removing another element.	We infer this requirement calls for the removal of CB interruptors and not the complete CB enclosures for maintainance, please confirm.	Confirmed. The requirement is regarding the removal of CB interruptors and not the complete CB enclosures.		
623	BHEL Set-8	BHEL	2	SPECIFICATION NO: I02.KK56.0.0.E T.TS.PR051 Rev04; DOCUMENT REGISTERED NO. KK56/I/H/TS/1149/00/R4 Dt. 13-11-2025	Clause no. 5.4.1	Earthing switches located at the beginning of the line feeder bay modules shall be of the high speed, make-proof type and will be used to discharge the respective charging currents, in addition to their safety earthing function. High speed earthing switch shall be class E2.	Offered High speed Earthing switch shall confirm to class E1.	Tender Clauses shall prevail.		
624	BHEL Set-8	BHEL	3	SPECIFICATION NO: I02.KK56.0.0.E T.TS.PR051 Rev04; DOCUMENT REGISTERED NO. KK56/I/H/TS/1149/00/R4 Dt. 13-11-2025	6.17	Short circuit making capability: Class E2 (5 making operations)	For high speed earth switch the short circuit making capability shall be of class E1	Tender Clauses shall prevail.		
625	BHEL Set-8	BHEL	4	SPECIFICATION NO: I02.KK56.0.0.E T.TS.PR051 Rev04;	1.14	Supply and installation of SF6 leak detection system for 400kV & 230kV GIS/ GIBD- SF6 detection monitor along with sampling box, connecting hose, clamps	We understand that this requirement is as per Clause no. '5.23 External SF6 Gas Leakage Detection System' for 400kV/220kV GIS Hall, however the required quantity should be made as 1 no. Kindly confirm.	The quantity mentioned against this item pertains to the no. of SF6 detectors/monitors along with associated accessories. The description of the item is also in line with the above understanding. These SF6 detectors/monitors are envisaged to be fixed in 400kV and 230kV GIS buildings.		



Main Plant Electrical System Package for KKNPP Units - 5 & 6: Detailed Engineering, Manufacture, Procurement, Inspection & Testing, Supply, Erection / Construction, Pre-Commissioning, Commissioning & Testing, Trial Operation, Performance Guarantee (PG), Handing over of Systems and Equipment.

PRE-BID CLARIFICATIONS RESPONSE 5

NPCIL S.No	Query Set /Round	NAME OF THE BIDDER	QUERY NO	TENDER SECTION NO	REFERENCE CLAUSE NO	REFERENCE DRAWING No. / TECHNICAL SPECIFICATION No. / VALVE SPECIFICATION No. / INSTRUMENTATION SHEET No. / DATA SHEET No.	DESCRIPTION OF THE QUERY	RESPONSE FROM NPCIL	DESCRIPTION OF THE QUERY	RESPONSE FROM NPCIL
				DOCUMENT REGISTERED NO. KK56/I/H/TS/1149/00/R4 Dt. 13-11-2025		and accessories for fixing, and all required hardwares (nuts, bolts washers)- nos. 10		Instead of considering the leak detection system as a lumpsome quantity, it is intended to quantify the no. of detectors/monitors for ease of execution. The scope includes supply and installation of - SF6 detection monitor along with sampling box, connecting hose, clamps and accessories for fixing, and all required hardwares. The signals from these monitors will be wired to Ventilation control system panels which is excluded from the scope of this tender. Therefore the scope under this package is quantifiable as the no. of SF6 monitors with accessories.	---	---
626	BHEL Set-8	BHEL	5	SINGLE LINE DIAGRAM FOR 400kV SYSTEM-I02.KK56.0.0.E T.OKP.WD004 Annexure 3 to I02.KK56.0.0.P R.TT.PR008	--		Please note that, as per our standard practice, the metering CT and VT for the line bay are positioned on after line side of the disconnector. However, in the tender SLD, the VT is indicated before the line side disconnector. Kindly clarify the acceptable configuration.	Arrangement as per tender SLD shall be followed.	---	---
627	BHEL Set-8	BHEL	6	SINGLE LINE DIAGRAM FOR 400kV SYSTEM-I02.KK56.0.0.E T.OKP.WD004 Annexure 3 to I02.KK56.0.0.P R.TT.PR008 BOQ for 400kV GIS & GIBD	1.02: Line reactor bay	400kV, 63kA GIS Line Reactor feeder bays in complete sets (for all three phases) in all respects, as per technical specifications, tender SLDs. Line Reactor feeder Bay shall consist of the following: Circuit Breaker with CSD - 1 no. Disconnector - 2 nos. Earthing Switch - 3 nos. Gas Insulated Surge arrestor (R,Y,B) - 1 no LCC including BCU, control cables between LCC and GIS equipment. Partial Discharge sensors, Densimeters, as per OEM type tested design. Hardwares (nuts, bolts, washers) Bus bar modules for the bay	The bidder has observed an ambiguity between the tender BOQ and the SLD regarding the line reactor bay configuration. The tender SLD indicates a switchable line reactor bay arrangement consisting of two circuit breakers; however, the tender BOQ/description specifies only one circuit breaker along with associated equipment. In this regard, kindly confirm whether the scope of supply shall be considered as per the tender SLD or the BOQ.	The Line Reactor Bay and Line Feeder Bay is considered separate as per the BoQ. For Better understanding kindly refer the below snapshot of a Line reactor bay. Equipment considered for Line Reactor bay are encircled with blue margin. 	---	---
628	BHEL Set-8	BHEL	7	SINGLE LINE DIAGRAM FOR 400kV SYSTEM-I02.KK56.0.0	Surge arrestor	The bidder has observed a discrepancy between the tender SLD and BOQ regarding the GIS-type surge arrestor. In the tender SLD, GIS-type LA is not shown within the GIS scope for certain bays; however, the same is mentioned in the BOQ.	The bidder has observed a discrepancy between the tender SLD and BOQ regarding the GIS-type surge arrestor. In the tender SLD, GIS-type LA is not shown within the GIS scope for certain bays; however, the same is mentioned in the BOQ.	As per Tender SLD GIS type LA is required for GT/Shunt Reactor/Line Reactor Feeders. For Line Feeders, Outdoor Lightning arrestors are envisaged. The BoQ is also in line with the above. The Lightning arrestors/ Gas Insulated		



Main Plant Electrical System Package for KKNPP Units - 5 & 6: Detailed Engineering, Manufacture, Procurement, Inspection & Testing, Supply, Erection / Construction, Pre-Commissioning, Commissioning & Testing, Trial Operation, Performance Guarantee (PG), Handing over of Systems and Equipment.

PRE-BID CLARIFICATIONS RESPONSE-5

NPCIL S.No	Query Set /Round	NAME OF THE BIDDER	QUERY NO	TENDER SECTION NO	REFERENCE CLAUSE NO	REFERENCE DRAWING No. / TECHNICAL SPECIFICATION No. / VALVE SPECIFICATION No. / INSTRUMENTATION SHEET No. / DATA SHEET No.	DESCRIPTION OF THE QUERY	RESPONSE FROM NPCIL	DESCRIPTION OF THE QUERY	RESPONSE FROM NPCIL
				.ET.OKP.WD004 Annexure 3 to I02.KK56.0.0.P R.TT.PR008 BOQ for 400kV GIS & GIBD		shown within the GIS scope for certain bays; however, the same is mentioned in the BOQ. The bidder understands that the surge arrestor is an optional item, and its requirement shall be finalized after the insulation coordination study. kindly confirm the same	The bidder understands that the surge arrestor is an optional item, and its requirement shall be finalized after the insulation coordination study. kindly confirm the same	Surge arrestors as per tender SLD/BoQ shall be considered as a minimum requirement and not as optional.	---	---
629	BHEL Set-8	BHEL	8	SINGLE LINE DIAGRAM FOR 400kV SYSTEM I02.KK56.0.0.E T.OKP.WD004 Annexure 3 to I02.KK56.0.0.P R.TT.PR008	GIS Generator Transformer		Please note that, as per our standard practice, the metering CT and VT for the Generator bay are positioned on after line side of the disconnector. However, in the tender SLD, the VT is indicated before the line side disconnector. Kindly clarify the acceptable configuration.	Arrangement as per tender SLD shall be followed.	---	---
630	BHEL Set-8	BHEL	9	BOQ for 400kV GIS & GIBD	1.14: SF6 Leak detection system	Supply and installation of SF6 Leak detection system for 400kV and 230kV GIS/GIBD - SF6 detection monitor along with sampling box, connecting hose, clamps and accessories for fixing, and all required hardwares (nuts, bolts, washers)	Please note that the bidder has observed an ambiguity concerning the SF6 leak detection system. The BOQ specifies both room gas detection systems and portable gas detectors. In this regard, kindly confirm whether the SF6 room gas detection system is required for both the 230 kV and 400 kV GIS portions.	Item no. 1.2.11 of Supply BoQ - These are portable sniffer type SF6 leak detectors which would be used to identify the leak and its location on 230kV/400kV GIS and GIBD. Item No. 1.1.14 of Supply BoQ - This item is for stationary SF6 leak detectors to be installed inside 400kV and 230kV buildings. The output signal of these detectors would be used by Ventilation control system of respective buildings. Also Please refer response to Query no. 4	---	---
631	BHEL Set-8	BHEL	10	SINGLE LINE DIAGRAM FOR 230kV SYSTEM I02.KK56.0.0.E T.OKP.WD005 Annexure 4 to I02.KK56.0.0.P R.TT.PR008 BOQ for 230kV GIS & GIBD	---	230kV, 50kA GIS RAT (Reserve auxiliary Transformer) feeder bays in complete sets (for all three phases) in all respects, as per technical specifications, tender SLDs, . RAT feeder Bay shall consist of the following: Circuit Breaker - 1 no. Disconnector - 4 nos. Earthing Switch - 4 nos. Current Transformer (2 core) - 1 no. Current Transformer (2 core) - 1 no. Gas Insulated Surge arrestor (R,Y,B) - 1 nos LCC including BCU, control cables between LCC and GIS equipment. Partial Discharge sensors,	kindly provide the transformer bay termination detail, in the BOQ Transformer termination detail is not clearly mentioned. Kindly confirm whether transformer is terminated through the Gas to air bushing or Gas to oil bushing. Kindly confirm the same.	Transformer Termination shall be through SF6-Oil bushings. The SF6-Oil bushings shall be supplied as a part of the transformers and are excluded from the scope of this tender. However, Termination of GIBDs on the Bushing flange shall be under the scope of this package. Tentative location and footprint of transformers are provided in Annexure -1 Layout of 230kV Outdoor Switchyard attached with the tender document I02.KK56.0.0.ET.TS.PR054- Technical Specification for 230kV Outdoor Switchyard. Detailed drawings of the transformers and bushing flange details shall be provided to the succesful bidder during execution.	---	---



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PRE-BID CLARIFICATIONS RESPONSE-5

NPCIL S.No	Query Set /Round	NAME OF THE BIDDER	QUERY NO	TENDER SECTION NO	REFERENCE CLAUSE NO	REFERENCE DRAWING No. / TECHNICAL SPECIFICATION No. / VALVE SPECIFICATION No. / INSTRUMENTATION SHEET No. / DATA SHEET No.	DESCRIPTION OF THE QUERY	RESPONSE FROM NPCIL	DESCRIPTION OF THE QUERY	RESPONSE FROM NPCIL
						Densimeters, as per OEM type tested design .Hardwares (nuts, bolts, washers)Bus bar modules for the bay.				
632	BHEL Set-8	BHEL	11	BOQ for 230kV GIS & GIBD	1.12: PD monitoring system	Portable PD monitoring system item12	Kindly confirm whether the 220kV GIS online PD monitoring system is required or not . As per the BOQ, we presume that for 230kV, only a portable PD monitoring system is required. Kindly confirm the same.	Online PD monitoring system is not envisaged for 230kV GIS.		
633	BHEL Set-8	BHEL	12	BOQ for 230kV GIS & GIBD	2.12 & 1.11: Portable SF6 leak detectors		Kindly note that the SF6 leak detector is listed multiple times in the BOQ with varying quantities. In this regard, we request you to kindly confirm the exact quantity to be considered for the portable gas detector	Item no. 1.2.11 of Supply BoQ - These are portable sniffer type SF6 leak detectors which would be used to identify the leak and its location on 230kV/400kV GIS and GIBD. Item No. 1.1.14 of Supply BoQ - This item is for stationary SF6 leak detectors to be installed inside 400kV and 230kV buildings. The output signal of these detectors would be used by Ventilation control system of respective buildings. Both items are different in their design and functions.		

Techno Commercial

634	L&T Set-6	L&T Construction	1	Section-B SCC	16	Training	As per the SCC clause "Training needs for NPCIL personnel described in the various technical specifications shall be binding on the contractor. All the expenses towards training programmes held shall be borne by the contractor. This clause of SCC shall be read in conjunction with the referred clauses No. 9.8 of GCC." We request NPCIL to confirm the requirements of Training on applicable Equipments along with No of Person & Duration of Training at Manufacturer works to be clarified in pre-bid stage. We also understand that NPCIL shall bear boarding, lodging and travelling expenses of its personnel deputed for such training and Contractor will bear the Trainer charges.	1. Training at Manufacturer Works and/ or in their Collaborator's works shall be for minimum of 7 working days. 2. Training at Site shall be for minimum of 7 working days. 3. Number of person to be trained shall be minimum of 8 Nos for Training at Manufacturer Works and/or in their Collaborator's works. Similarly, minimum 10 personnel of site shall be trained. Further, it may be noted that all the expenses towards the training except travel & lodging expenses shall be borne by the Contractor.	We request NPCIL to mention the Maximum No of Days Training required and Maximum No. of Persons shall attend the Training.	NPCIL response sent through earlier pre-bid response shall prevail.
635	L&T Set-6	L&T Construction	2	Annexure-A-II		Housekeeping Clauses in Tender Document for EPC Contracts	Based on our experience in Units 3 & 4, we were instructed to carry out housekeeping activities such as removal of scaffolding, debris, rubbish, etc., which are related to civil works. Since we are not involved in the Main Plant civil works, we request NPCIL to kindly confirm that the scope of housekeeping activities under the present tender shall be restricted strictly to those associated with the Electrical works of KKNPP Units 5 & 6.			Housekeeping shall be done as per Instructions of Engineer In Charge at Site



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636	L&T Set-6	L&T Construction	3	Annexure-A-II	5	Housekeeping Clauses in Tender Document for EPC Contracts	We request NPCIL to exclude Sunday for Housekeeping works. Kindly confirm.	----	----	Housekeeping shall be done as per Instructions of Engineer In Charge at Site
637	L&T Set-6	L&T Construction	4	Section-B SCC	10	5.9 Terms of payment	As per the clause 5.9.4 (b) Items & Materials (excluding spares) supplied from indigenous sources: 60% of Basic Price, inclusive of P&F charges and 100% applicable taxes and duties and payment of 10% advance and penalties & recovery if any, to be paid as scheduled in Section-E, as applicable, on pro rata basis, upon receipt of materials at site (against issue of 'Receipted Delivery Challan – RDC). The submission shall also include dispatch documents with original shipping release, invoice of the contractors, proof of dispatch (with a copy of consignee copy of LR) duly certified, copy of transit insurance policy, as applicable. We understand that "Receipted Delivery Challan (RDC)" refers to the receipted copy of the LR (Lorry Receipt) upon arrival of materials at the KKNPP site.	---	---	Receipted Delivery Challan (RDC) shall be issued by Site after receipt of Materials at Site
638	L&T Set-6	L&T Construction	5	Section-B SCC	10	5.9 Terms of payment	As per the clause 5.9.4 (c) Items & Materials (excluding spares) supplied from indigenous sources: 20% of Basic Price, inclusive of P&F Charges and exclusive of taxes & duties, along with 100% Freight & Insurance Charges along with 100% Price Adjustment, if any, on receipt of items at site on pro-rata basis against physical verification and certification of the items received at site along with submission of invoice of the contractor and a certification from Chief Construction Engineer, KKNPP – 5 & 6 or his authorised representative stating that, all documentation regarding receipt formalities are completed and payment can be released. As per GCC Clause 9.7.2, The Purchaser shall issue MRICAR – CMRCIV within seventy five days (75) days of receipt of MRICAR – CMRCIV along with all supporting documents complete in all respects from the Contractor. We request NPCIL to issue "Material Receipt Intimation Cum Acceptance Report" (MRICAR)" within 14 days after issuance of "Receipted Delivery Challan – RDC" to ease the cash-flow and enable smoother execution of the project.	---	---	Tender conditions shall prevail.
639	L&T Set-6	L&T Construction	6	Section-B GCC		9.7 Unloading and Storage	As per GCC Clause No. 9.7.3: Contractor shall warehouse or otherwise provide appropriate storage at site (in accordance with manufacturer's			Tender conditions shall prevail.



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							recommendation and taking into account climatic and other relevant conditions at the warehousing site) for all Equipment, Plant & Machinery and Contractor's Equipments. We seek clarification that in the event work fronts are not released in accordance with the agreed L2 Schedule, thereby preventing the Contractor from proceeding with installation activities, any materials/equipment already supplied shall be taken over by the Purchaser for safe custody and storage at the Purchaser's designated warehouse in line with the manufacturer's recommendations; this is requested to avoid prolonged storage obligations on the Contractor and to mitigate associated risks such as deterioration, damage, and warranty implications arising from delays attributable to the Purchaser, and we request your confirmation on the same.	---	---	
640	L&T Set-6	L&T Construction	7	Section-E		5.6 C_Erection	It is observed that no specific line item has been provided in the BOQ for EP rectification in the present tender for Unit 5&6. However, based on prior experience in Units 3 & 4, a significant quantity of EP rectification may arise during execution due to ground undulation and existing site conditions. Notably, approximately 90% of the equipment in Units 3 & 4 required installation adjustments associated with EP undulations. Hence, we request NPCIL to provide suitable amendment with EP rectification in Erection BOQ as separate line item and confirm.	---	---	Tender conditions shall prevail.
641	L&T Set-6	L&T Construction	8	Section-E		5.6 C_Erection	It is observed that separate BOQ line items for CMS (Cable Management System) fabrication have not been included in the tenders for Units 3 & 4 and Units 5 & 6, whereas such provisions were explicitly available in the Units 1 & 2 tender. The omission is significant considering that CMS fabrication involves a substantial quantum of work, estimated to be in excess of 500 MT, entailing considerable material procurement, fabrication, and installation efforts. We request NPCIL to provide suitable amendment with CMS fabrication as separate line items in the BOQ. Kindly confirm.	---	---	Tender conditions shall prevail.
642	L&T Set-6	L&T Construction	9	Section-E		5.6 C_Erection	We request NPCIL to provide a separate line item in BOQ for CMS activities in Cable Shaft considering the cable shaft area (34 nos) is characterized by very low productivity and involves more than 150 MT of work. Kindly confirm.	---	---	Tender conditions shall prevail.



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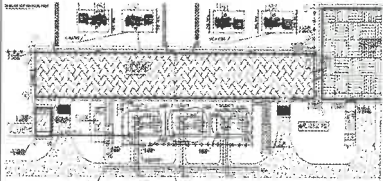
PRE-BID CLARIFICATIONS RESPONSE-5

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643	L&T Set-6	L&T Construction	10	Section-E		5.6 C_Erection	We would like to inform you that in Units 1 & 2, the USY Trestle CMS scope under KKBS involved ducts (0.6 x 0.5–2 m) at a height of 11 m having 300 MT. However, for Units 3 & 4, the CMS work scope has been revised to 500 mm trays at a height of 24 m. This change has resulted in an overall scope increase of 1050 MT. Due to the increased height and stringent safety requirements—particularly in areas lacking proper platforms, leading to additional time required for scaffolding—the productivity has been significantly impacted. In view of this, it is proposed that these additional items be operated separately by NPCIL. Furthermore, the increased CMS scope in USY trestle is not reflected in the actual cable laying, as nearly 50% of the installed trays remain underutilized. Therefore, we request NPCIL to review the scope of qty and arrange for a separate line item in BOQ. Kindly confirm.	---	---	Tender conditions shall prevail.
644	L&T Set-6	L&T Construction	11	Section-B GCC		15.6 Definition of Scrap	As per GCC Clause 15.6 (viii): Power and Control Cables of various types and sizes of length less than 50 meters shall be treated as scrap. We would like to clarify that certain unique cables, the difference between the actual supply length and the erection schedule length is less than 50 meters; such lengths should be considered usable length, otherwise the overall scrap percentage will increase. We request NPCIL to confirm the same.	---	---	Tender conditions shall prevail.
Technical Part - Electrical										
645	L&T Set-6	L&T Construction	12	Section C Part	General	I02.KK56.0.0.ET.OKP.WD004_SLD for 400kV system and I02.KK56.0.0.ET.OKP.WD005_SLD for 230kV system	Air bushings termination points are not shown in Line feeder bays in SLD.	---	---	The SF6-Air Bushings (Air termination points) shall be placed just before Wavetraps. Gas Insulated Bus duct symbol has been marked just before Wavetraps in the tender SLD (Kindly refer the blue highlighted marking in the snapshot below) . This is to indicate the interface point between Air insulated and Gas Insulated parts of switchyard equipment. For tentative location of SF6-Air Bushings, kindly Refer Annexure -1 Layout of 400kV Outdoor Switchyard attached with the tender document I02.KK56.0.0.ET.TS.PR052- Technical Specification for 400kV Outdoor Switchyard.



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646	L&T Set-6	L&T Construction	13	mpe_Section C Part01	General	I02.KK56.0.0.ET.TS.PR054_R4_TS For 230kV Outdoor Switchyard and I02.KK56.0.0.ET.TS.PR052_R4_TS For 400kV Outdoor Switchyard	3 Nos Shunt Reactors termination points to be clarified in outdoor switchyard Layout plan.	---	---	Kindly Refer Annexure -1 Layout of 400kV Outdoor Switchyard attached with the tender document I02.KK56.0.0.ET.TS.PR052- Technical Specification for 400kV Outdoor Switchyard for tentative location of Shunt Reactors. Outline of Shunt Reactor Foundation plan (tentative) is encircled in blue in the attached snapshot. As mentioned in the drawing, the locations are tentative and minor changes are expected. Exact locations and editable copies of layout drawing shall be provided during detailing. 
647	L&T Set-6	L&T Construction	14	mpe_Section C Part01	General	I02.KK56.0.0.ET.OKP.WD004_SLD for 400kV system and I02.KK56.0.0.ET.OKP.WD005_SLD for 230kV system	2 Nos GT bays Termination point to be clarify. (Via tunnels 61UAZ & 51UAZ).	---	---	Kindly refer the attached drawings for end portion of GIBD tunnels (Unit 5&6). These drawings are preliminary drawings and provided for reference purpose only. Also, GT interface drawings will be provided during detailing to the successful bidder.
648	L&T Set-6	L&T Construction	15	mpe_Section C Part01	General	I02.KK56.0.0.ET.OKP.WD004_SLD for 400kV system and I02.KK56.0.0.ET.OKP.WD005_SLD for 230kV system	As per SLD in GT Bay only one number 5 Core CT mentioned But BOQ 2 Nos 5 Core CT.Please clarify	---	---	Kindly refer items listed under item 1.1.5 of Supply BoQ. Only 1 no. of 5 core CT is listed under the same. Second CT listed is a metering CT for Special Energy meters.
649	L&T Set-6	L&T Construction	16	mpe_Section C Part01	General	I02.KK56.0.0.ET.OKP.WD004_SLD for 400kV system and I02.KK56.0.0.ET.OKP.WD005_SLD for 230kV system	In technical specifications VTs not indicated in GT Bay, however it mentioned in BOQ and SLD.Please clarify			



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						I02.KK56.0.0.ET.TS.PR054_R4_TS For 230kV Outdoor Switchyard and I02.KK56.0.0.ET.TS.PR052_R4_TS For 400kV Outdoor Switchyard		---	---	VT shall be included in GT bay. Items as per SLD, listed as per Supply BoQ along with technical specifications shall be considered.
650	L&T Set-6	L&T Construction	17	mpe_Section C Part01	General	I02.KK56.0.0.ET.TS.PR054_R4_TS For 230kV Outdoor Switchyard and I02.KK56.0.0.ET.TS.PR052_R4_TS For 400kV Outdoor Switchyard	Clause (1.17 pg.11/125) Outdoor switchyard (I02.KK56.01UAK.0.ET.OK. WD001) -Tentative layout including the GIBD routing is attached as Annexure of I02.KK56.0.0.ET.TS.PR052. - This document is not available.Please share reference drawing	---	---	The drawing is attached as Annexure-I to I02.KK56.0.0.ET.TS.PR052- Technical Specification for 400kV Outdoor Switchyard. The drawing is not separately included but as a part of the specification. Kindly go through the last pages of above said specification. Additional point: Construction of drains for 230kV and 400kV Switchyard areas as per NPCIL issued drawing is also included under scope of Contractor. The same shall be executed via relevant item nos of Civil SOQR.
651	L&T Set-6	L&T Construction	18	mpe_Section C Part01	Table 1	I02.KK56.0.0.ET.TS.PR086 TS FOR LIGHTING SYSTEMS AND RECEPTACLES	As per specification, For GI JB's - Pg no 8,9 - one fuse terminal block with glass fuse and LED indication suitable for 16sqmm cable--mentioned in BOQ JB. However, Glass Fuse & LED indication is available only upto 4sqmm. Kindly confirm	---	---	it will be available and please comply the tender requirements
652	L&T Set-6	L&T Construction	19	mpe_Section C Part01	5.5.1	I02.KK56.0.0.ET.TS.PR086 TS FOR LIGHTING SYSTEMS AND RECEPTACLES	An SS retention chain shall be connected between the lid and the body so that the lid doesn't fall off during maintenance--mentioned in TS for lighting system and receptacles (003). Therefore, Our Junction Boxes are hinged type thus SS retention chain is not required to prevent the lid from falling during maintainance.Please confirm	----	----	JBs envisaged for outside Reactor building is acceptable. Inside RB, JB's shall have SS chain.
653	L&T Set-6	L&T Construction	20	mpe_Section C Part01	Table 1	I02.KK56.0.0.ET.TS.PR086 TS FOR LIGHTING SYSTEMS AND RECEPTACLES	having two or three cable entries--mentioned in BOQ JB However,Please clarify cable entry has to be provided in the bottom / side / top	----	----	Bottom entry is preferable.
654	L&T Set-6	L&T Construction	21	mpe_Section C Part01	5.5.1	I02.KK56.0.0.ET.TS.PR086 TS FOR LIGHTING SYSTEMS AND RECEPTACLES	The JB's and BB's shall be provide with continuous PU gaskets achieving IP55 protection.--mentioned in TS for lighting system and receptacles (003) We supply neoprene rubber gasket. Also, the same has been previously supplied to NPCIL .Please confirm	----	----	Neoprene rubber gasket is also acceptable.



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655	L&T Set-6	L&T Construction	22	mpe_Section C Part01	5.8.1	I02.KK56.0.0.ET.TS.PR086 TS FOR LIGHTING SYSTEMS AND RECEPTACLES	The number of cage clamp feed through terminal blocks shall be 4. The number of earth terminal blocks shall be 2. Each receptacle shall be supplied with two endclamps, two end plates, 3 two-way shorting links and two barrier plates--mentioned in TS for lighting system and receptacles (003) As per our previous supply for 10A Receptacle we had provided 2Nos. 4way terminals with end plate and end clamp. For earthing we normally provide earthing stud. Please confirm	---	---	Tender conditions shall prevail.
656	L&T Set-6	L&T Construction	23	mpe_Section C Part01	Table 1	I02.KK56.0.0.ET.TS.PR086 TS FOR LIGHTING SYSTEMS AND RECEPTACLES	10A Aluminum receptacle mentioned in heading & description shows Industrial, epoxy coated CRCA sheet enclosed receptacles--mentioned in TS for lighting system and receptacles (003) Please clarify receptacle moc is CRCA or Aluminium as it varies BOQ and technical specification	---	---	Please follow BoQ.
657	L&T Set-6	L&T Construction	24	mpe_Section C Part01	Table 1	I02.KK56.0.0.ET.TS.PR086 TS FOR LIGHTING SYSTEMS AND RECEPTACLES	Terminal blocks suitable for 35 sqmm cables and loop-in-loop-out provision--mentioned in TS for lighting system and receptacles (003) & BOQ Receptacle For 20A Receptacle the maximum incoming cable should not exceed 25 sq.mm. Thus, as mentioned in TS the incoming cable is 35 sq.mm thus it is technically not acceptable. Please clarify	---	---	25 Sqmm is also acceptable
658	L&T Set-6	L&T Construction	25	mpe_Section C Part01	Table 1	I02.KK56.0.0.ET.TS.PR086 TS FOR LIGHTING SYSTEMS AND RECEPTACLES	Earth terminal blocks suitable for 35 sqmm cable shall be provided--mentioned in TS for lighting system and receptacles (003). For 20A Receptacle the maximum incoming cable should not exceed 25 sq.mm. Thus, as mentioned in TS the incoming cable is 35 sq.mm thus it is technically not acceptable. Please clarify	---	---	25 Sqmm is also acceptable
659	L&T Set-6	L&T Construction	26	mpe_Section C Part01	5.8.2	I02.KK56.0.0.ET.TS.PR086 TS FOR LIGHTING SYSTEMS AND RECEPTACLES	The number of cage clamp feed through terminal blocks shall be 4. The number of earth terminal blocks shall be 2. Each receptacle shall be supplied with two endclamps, two end plates, three two-way shorting links and two barrier plates--mentioned in TS for lighting system and receptacles (003) As per our previous supply for 10A Receptacle we had provided 2Nos. 4way terminals with end plate and end clamp. For earthing we normally provide earthing stud. Please confirm	---	---	Tender Conditions shall prevail
660	L&T Set-6	L&T Construction	27	mpe_Section C Part01	5.8.3	I02.KK56.0.0.ET.TS.PR086 TS FOR LIGHTING SYSTEMS AND RECEPTACLES	The number of cage clamp feed through terminal blocks shall be 8. The number of earth terminal blocks shall be 2. Each receptacle shall be supplied with two endclamps, two end plates, five two-way shorting links and two barrier plates--mentioned in TS for lighting system and receptacles (003)	---	---	Tender Conditions shall prevail



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							As per our previous supply for 63A Receptacle we had provided 8Nos. 16way terminals. For earthing we normally provide earthing stud. Please confirm			
661	L&T Set-6	L&T Construction	28	mpe_Section C Part01	5.9.1	I02.KK56.0.0.ET.TS.PR086 TS FOR LIGHTING SYSTEMS AND RECEPTACLES	The number of cage clamp feed through terminal blocks shall be 4. The number of earth terminal blocks shall be 2. Each receptacle shall be supplied with two endclamps, two end plates, 3 two-way shorting links and two barrier plates--mentioned in TS for lighting system and receptacles (003) . For 20A Receptacle the maximum incoming cable should not exceed 25 sq.mm. Thus, as mentioned in TS the incoming cable is 35 sq.mm thus it is technically not acceptable. As per our previous supply for 10A Receptacle we had provided 2Nos. 4way terminals with end plate and end clamp. For earthing we normally provide earthing stud. Please confirm	---	---	Earthing Studs is acceptable
662	L&T Set-6	L&T Construction	29	mpe_Section C Part01	5.9	I02.KK56.0.0.ET.TS.PR086 TS FOR LIGHTING SYSTEMS AND RECEPTACLES	Terminal blocks suitable for 35 sqmm cables and loop-in-loop-out provision--mentioned in TS for lighting system and receptacles (003) & BOQ JB The number of cage clamp feed through terminal blocks shall be 4. The number of earth terminal blocks shall be 2. Each receptacle shall be supplied with two endclamps, two end plates, three two-way shorting links and two barrier plates.--mentioned in TS for lighting system and receptacles (003)	---	---	Please comply the tender requirements
663	L&T Set-6	L&T Construction	30	mpe_Section C Part01	5.9.3	I02.KK56.0.0.ET.TS.PR086 TS FOR LIGHTING SYSTEMS AND RECEPTACLES	The number of cage clamp feed through terminal blocks shall be 8. The number of earth terminal blocks shall be 2. Each receptacle shall be supplied with two endclamps, two end plates, five two-way shorting links and two barrier plates.--mentioned in TS for lighting system and receptacles (003) As per our previous supply for 63A Receptacle we had provided 8Nos. 16way terminals. For earthing we normally provide earthing stud. Please confirm	---	---	Tender Conditions shall prevail
664	L&T Set-6	L&T Construction	31	mpe_Section C Part01	5.6.1	I02.KK56.0.0.ET.TS.PR086 TS FOR LIGHTING SYSTEMS AND RECEPTACLES	The junction boxes shall be provided with continuous PU gaskets and achieving IP65 protection. Polycarbonate junction box supplied with factory-fitted gasket. Please confirm	---	---	Polycarbonate JBs shall be Hensel or equivalent make is acceptable
665	L&T Set-6	L&T Construction	32	mpe_Section C Part01	General	I02.KK56.0.0.ET.OKP.WD004_SLD for 400kV system and I02.KK56.0.0.ET.OKP.WD005_SLD for 230kV system	Air bushings termination points are not shown in Line feeder bays in SLD.	---	---	Please Refer NPCIL Response at S. No. 645 for this Query
666	L&T Set-6	L&T Construction	33	mpe_Section C Part01	General	I02.KK56.0.0.ET.TS.PR054_R4_TS For 230kV Outdoor Switchyard and I02.KK56.0.0.ET.TS.PR052_R4_TS For 400kV Outdoor Switchyard	3 Nos Shunt Reactors termination points to be clarified in outdoor switchyard Layout plan.	---	---	Please Refer NPCIL Response at S. No. 646 for this Query



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PRE-BID CLARIFICATIONS RESPONSE-5

NPCIL S.No	Query Set /Round	NAME OF THE BIDDER	QUERY NO	TENDER SECTION NO	REFERENCE CLAUSE NO	REFERENCE DRAWING No. / TECHNICAL SPECIFICATION No. / VALVE SPECIFICATION No. / INSTRUMENTATION SHEET No. / DATA SHEET No.	DESCRIPTION OF THE QUERY	RESPONSE FROM NPCIL	DESCRIPTION OF THE QUERY	RESPONSE FROM NPCIL
667	L&T Set-6	L&T Construction	34	mpe_Section C Part01	General	I02.KK56.0.0.ET.OKP.WD004_SLD for 400kV system and I02.KK56.0.0.ET.OKP.WD005_SLD for 230kV system	2 Nos GT bays Termination point to be clarify. (Via tunnels 61UAZ & 51UAZ).	---	---	Please Refer NPCIL Response at S. No. 647 for this Query
668	L&T Set-6	L&T Construction	35	mpe_Section C Part01	General	I02.KK56.0.0.ET.OKP.WD004_SLD for 400kV system and I02.KK56.0.0.ET.OKP.WD005_SLD for 230kV system	As per SLD in GT Bay only one number 5 Core CT mentioned But BOQ 2 Nos 5 Core CT.Please clarify	---	---	Please Refer NPCIL Response at S. No. 648 for this Query
669	L&T Set-6	L&T Construction	36	mpe_Section C Part01	General	I02.KK56.0.0.ET.OKP.WD004_SLD for 400kV system and I02.KK56.0.0.ET.OKP.WD005_SLD for 230kV system I02.KK56.0.0.ET.TS.PR054_R4_TS For 230kV Outdoor Switchyard and I02.KK56.0.0.ET.TS.PR052_R4_TS For 400kV Outdoor Switchyard	In technical specifications VTs not indicated in GT Bay, however it mentioned in BOQ and SLD.Please clarify	---	---	Please Refer NPCIL Response at S. No. 649 for this Query
670	L&T Set-6	L&T Construction	37	mpe_Section C Part01	General	I02.KK56.0.0.ET.TS.PR054_R4_TS For 230kV Outdoor Switchyard and I02.KK56.0.0.ET.TS.PR052_R4_TS For 400kV Outdoor Switchyard	Clause (1.17 pg.11/125) Outdoor switchyard (I02.KK56.01UAK.0.ET.OK. WD001) -Tentative layout including the GIBD routing is attached as Annexure of I02.KK56.0.0.ET.TS.PR052. – This document is not available.Please share reference drawing	---	---	Please Refer NPCIL Response at S. No. 650 for this Query
671	L&T Set-6	L&T Construction	38	mpe_Section C Part01	1. Scope - Table 2	I02.KK56.0.0.ET.TS.PR085_R1_TS Battery	Supply of Load bank : Exide does not manufacture & supply Load bank	---	---	The query is not in contradiction with tender conditions/clauses. Hence, Tender conditions shall prevail.
672	L&T Set-6	L&T Construction	39	mpe_Section C Part01	3.3.2- CONSTRUCTIONAL FEATURES OF THE CELL	I02.KK56.0.0.ET.TS.PR085_R1_TS Battery	The plates shall be supported at the bottom by the ribs provided on the container. : As per IS1652, Positive plate must hang from container shoulder moulded with container.	---	---	Accepted. Positive plate design as per IS 1652 is acceptable.
673	L&T Set-6	L&T Construction	40	mpe_Section C Part01	3.3.8	I02.KK56.0.0.ET.TS.PR085_R1_TS Battery	Water conforming to IS 1069 shall be provided by the MANUFACTURER separately : Shall be available at site by NPCIL. Not in our scope.	---	---	Tender conditions shall prevail.
674	L&T Set-6	L&T Construction	41	mpe_Section C Part01	3.3.10	I02.KK56.0.0.ET.TS.PR085_R1_TS Battery	The battery racks shall be a welded single tier : Exide's recommended design is bolted type	---	---	Acceptable if the bolted design pass seismic test successfully.
675	L&T Set-6	L&T Construction	42	mpe_Section C Part01	5.1 - Battery Sizing	I02.KK56.0.0.ET.TS.PR085_R1_TS Battery	If the calculated size of the cells increases from that given in table-1, the BIDDER shall supply the higher size battery as per calculation, without any extra cost towards PURCHASER. : Not acceptable. In case of capacity increase Exide will supply on chargeable basis.	---	---	The battery discharge duty cycle provided in annexure -2 of the technical specification document (I02.KK56.0.0.ET.TS.PR085) is final. Based on that duty cycle, considering requirements given in clause 5.1 of the document, the Manufacturer to finalise the C10 rating of the battery.



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NPCIL S.No	Query Set /Round	NAME OF THE BIDDER	QUERY NO	TENDER SECTION NO	REFERENCE CLAUSE NO	REFERENCE DRAWING No. / TECHNICAL SPECIFICATION No. / VALVE SPECIFICATION No. / INSTRUMENTATION SHEET No. / DATA SHEET No.	DESCRIPTION OF THE QUERY	RESPONSE FROM NPCIL	DESCRIPTION OF THE QUERY	RESPONSE FROM NPCIL
676	L&T Set-6	L&T Construction	43	mpe_Section C Part01	7.7 - SITE ACCEPTANCE	I02.KK56.0.0.ET.TS.PR085_R1_TS Battery	c) NDT checks of welding of racks with the Eps : Not accepted at site. f) Check for chemical analysis of acid and water. : Not accepted at site.	---	---	c) Random 10% NDT checks of welding with EPs to be conducted at site as per tender requirement. f) Tender conditions shall prevail.
677	L&T Set-6	L&T Construction	44	mpe_Section C Part01	3.3 Container	I02.KK56.0.0.ET.TS.PR085_R1_TS Battery	Container-Lid to be sealed to withstand high and low pressure : Not as per IS1652	---	---	Tender conditions shall prevail.
678	L&T Set-6	L&T Construction	45	mpe_Section C Part01	3.3.4 - Separators	I02.KK56.0.0.ET.TS.PR085_R1_TS Battery	Halogen free - max 300ppm Chlorine may be present	---	---	Trace chlorine content up to 60-80 ppm is acceptable. Not beyond that in separator.
679	L&T Set-6	L&T Construction	46	mpe_Section C Part01	3.3.5 Vent Plug	I02.KK56.0.0.ET.TS.PR085_R1_TS Battery	Vent plug : We shall supply anti splash type ceramic vent plug in line with KKNPP 3&4	---	---	Tender conditions shall prevail.
680	L&T Set-6	L&T Construction	47	mpe_Section C Part01	3.3.6 Connectors	I02.KK56.0.0.ET.TS.PR085_R1_TS Battery	Fire retardant sleeve : Our sleeving are fire resistant. We will supply in line with KKNPP 3&4	---	---	Performance better than that of tender requirement is acceptable.
681	L&T Set-6	L&T Construction	48	mpe_Section C Part01	3.3.9 Bolt, nut	I02.KK56.0.0.ET.TS.PR085_R1_TS Battery	stainless steel nut & bolt : Lead coated MS. We will supply in line with KKNPP 3&4	---	---	As an alternative to SS nut and bolt, lead coated MS is also acceptable.
682	L&T Set-6	L&T Construction	49	mpe_Section C Part01	3.3.12 Spacer block materials	I02.KK56.0.0.ET.TS.PR085_R1_TS Battery	It is Acid resistance but not the rubber is not fire retardant and halogen free	---	---	Tender conditions shall prevail.
683	L&T Set-6	L&T Construction	50	mpe_Section C Part01	7.4 Inspection & testing	I02.KK56.0.0.ET.TS.PR085_R1_TS Battery	100% acceptance test of Container and other incoming materials : Not possible. Shall be checked 2% randomly	---	---	Tender conditions shall prevail.
684	L&T Set-6	L&T Construction	51	mpe_Section C Part01	Annexure 1 Indicative QAP	I02.KK56.0.0.ET.TS.PR085_R1_TS Battery	1.1.2 : volume, mechanical strength, etc. : Not possible 1.2.2 : volume, mechanical strength, etc. : Not possible 1.6.3 : Chemical analysis of sleeve material. : Not possible 2.3 : Hydro test on sealed battery : Not applicable 4. : Seismic test : As per approved procedure 5 : Site acceptance test : Should not be in QAP, as it has to be done at site & site conditions are not in Exide's control. 1.9 : Testing on vent plug. : Not possible.	---	---	1.1.2 & 1.2.2:- Accepted. Volume and mechanical checks can be removed from checks of plates. 1.6.3:- As per specification, the material shall be acid resistant and fire retardant. Hence, chemical analysis to be done for identification of material. Other established methods of material identification is also acceptable. 2.3:- Accepted.



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NPCIL S.No	Query Set /Round	NAME OF THE BIDDER	QUERY NO	TENDER SECTION NO	REFERENCE CLAUSE NO	REFERENCE DRAWING No. / TECHNICAL SPECIFICATION No. / VALVE SPECIFICATION No. / INSTRUMENTATION SHEET No. / DATA SHEET No.	DESCRIPTION OF THE QUERY	RESPONSE FROM NPCIL	DESCRIPTION OF THE QUERY	RESPONSE FROM NPCIL
										4:- AD (approved document) is already mentioned. 5:-Tender conditions shall prevail. 1.9:- Tender conditions shall prevail.
685	L&T Set-6	L&T Construction	52	mpe_Section C Part01	H Mandatory Spare	I02.KK56.0.0.ET.TB.PR002_22.09.20 22_R1	2. Battery stand insulators and cell insulators (if required) : Not required 8. End take off connector : Shall supply in line with KKNPP 3&4 11. Insulated shrouds over bare connections and terminals : shrouds will be given only at terminal end , in line with KKNPP 3&4. 13 Battery terminal leads : Not applicable 14. PVC granules of PVC insulation/ sleeves : Not required	---	---	2. :- If stand insulators are present in rack design, the tender conditions shall prevail. 8:- Tender conditions shall prevail. 11:- Tender requirements shall prevail. 13:- Acceptable. 14:- Acceptable.
686	L&T Set-6	L&T Construction	53	mpe_Section C Part01	3 Accessories	I02.KK56.0.0.ET.DS.PR079_R0_DS_	3.18 : PVC Spill tray : Not recommended particularly in seismically designed stands	---	---	Accepted.
687	L&T Set-6	L&T Construction	54	mpe_Section C Part01	7.5 Type Test	I02.KK56.0.0.ET.TS.PR085_R1_TS Battery	Exide will submit existing valid type test report of same or higher capacity made with same type of Positive plate. Conducting type test newly will attract extra cost with extended delivery period.	---	---	Co-orrelatable type test report is acceptable subject to technical validity.
688	L&T Set-6	L&T Construction	55	mpe_Section C Part01	7.6 Factory Acceptance Test	I02.KK56.0.0.ET.TS.PR085_R1_TS Battery	7.6.1 (b) - C-2 Capacity Test - We shall conduct load cycle test	---	---	Both load duty cycle test and C2 capacity test shall be conducted in factory acceptance test.
689	L&T Set-6	L&T Construction	56	mpe_Section C Part01	6.3 Ageing test	I02.KK56.0.0.ET.TS.PR085_R1_TS Battery	Exide will submit existing Ageing test report of same or higher capacity made with same type of Positive plate. Conducting Ageing test newly will attract extra cost with extended delivery period.	---	---	Co-orrelatable type test report is acceptable subject to technical validity.
690	L&T Set-6	L&T Construction	57	mpe_Section C Part01	CI 6.4.1 -Pg no 75 of 125	I02.KK56.0.0.ET.TS.PR051 Rev 4 Annexure A to C and IQAP	For FAT, If Considered necessary by the purchaser multipart assemblies shall be fully erected and tests in works prior to dispatch to the site Multipart assemblies (GIS bay modules like CB+CT, DS,ES,H-ES, Bus bar, SF6 Bushings, Bus Duct, CSE, LCC panel etc.) shall be assembled and Factory routine testing & FAT (Factory Acceptance Testing) shall be done in module wise test set up. IEC standard also mentioned about modulewise (transport unit wise) testing at manufacturer works. NPCIL Indicative QAP also mentioned that FAT test shall be performed on Transport shipment units. (Refer page no. 32 of Indicative QAP). Please consider this.	The technical requirement mentioned in the BOQ sl.no 4.7.1 - HT TERMINATION KIT 4.7.2 - LT TERMINATION KIT is sufficient for supply. So, No additional technical specification is required for the supply	As per prebid clarification response - 2 from NPCIL for sl no 245. In price schedule, No clarity about testing requirements and QAP of termination kits mentioned for inside and outside reactor building. Please clarify	Indicative QAP shall be followed. FAT shall be conducted on the complete representative bay of 400kV GIS. The termination and straight through jointing kits for use on the systems shall be suitable for the type of cables offered as per this specification and shall meet requirements of IS 13573. QAP shall be finalized for Raw material stage to, in process inspection and final inspection etc. as per relevant standards during the execution of Contract.



PRE-BID CLARIFICATIONS RESPONSE-5

NPCIL S.No	Query Set /Round	NAME OF THE BIDDER	QUERY NO	TENDER SECTION NO	REFERENCE CLAUSE NO	REFERENCE DRAWING No. / TECHNICAL SPECIFICATION No. / VALVE SPECIFICATION No. / INSTRUMENTATION SHEET No. / DATA SHEET No.	DESCRIPTION OF THE QUERY	RESPONSE FROM NPCIL	DESCRIPTION OF THE QUERY	RESPONSE FROM NPCIL
691	L&T Set-6	L&T Construction	58	mpe_Section C Part01	CI 6.4.3.c,d,e&g 76 of 125	I02.KK56.0.0.ET.TS.PR051 Rev 4 Annexure A to C and IQAP	Routine test on CT,VT, Bushings, and enclosure All applicable tests on CT,VT, Bushings (On hollow core composite insulator) and enclosure are to be carried out at sub supplier works and will not be conducted again at GIS factory as part of internal routine test or as FAT witness test.	The technical requirement mentioned in the BOQ sl.no 4.7.6 may please be referred	As per prebid clarification response - 2 from NPCIL for sl no 263. In price schedule, No clarity about testing requirements and QAP of termination kits mentioned for inside and outside reactor building.Please clarify	Indicative QAP shall be followed for 400kV GIS & GIBD. The termination and straight through jointing kits for use on the systems shall be suitable for the type of cables offered as per this specification and shall meet requirements of IS 13573. QAP shall be finalized for Raw material stage to in process inspection and final inspection etc. as per relevant standards during the execution of Contract.
692	L&T Set-6	L&T Construction	59	mpe_Section C Part01	CI 6.4.3.h - Pg no 77 of 125	I02.KK56.0.0.ET.TS.PR051 Rev 4 Annexure A to C and IQAP	Insulation test with 2 kV on all auxiliary circuit. For motor as per type tested design As per IEC standard dielectric test voltage is 1KV for 1 sec for control & auxiliary circuits. Kindly accept the same.	Kindly refer feeder list of the boards attached along with TS I02.KK56.0.0.ET.TS.PR091_R5	Applicable scheme, release current of breaker and protection requirement are not available.Please provide the details.	Tender condition shall prevail for query of Column "I". With reference to query in column J&K,Tender documents, Tender conditions and Pre-Bid response provided shall be referred/ Shall be applicable. Details will be provided to successful bidder, during execution of contract.
693	L&T Set-6	L&T Construction	60	mpe_Section C Part01	CI 6.4.3.j -Pg no 77 of 125	I02.KK56.0.0.ET.TS.PR051 Rev 4 Annexure A to C and IQAP	Complete tests on interlocking devices 1. Interlocking device test shall be done alongwith LCC panel by simulation method at LCC panel manufacturer works. At GIS manufacturer factory LCC panel will not be offered for routine or FAT (Factory acceptance test) inspection. We request to carry our FAT Witness inspection by purchaser at our LCC manufacturer works. 2. Interlocking device testing shall be done at site.	Kindly refer feeder list of the boards attached along with TS I02.KK56.0.0.ET.TS.PR091_R5.All details required for technical commercial offer are present in feeder list of the boards . Please refer protection and control schemes along with feeder list. Hope it clarifies the query	Applicable MCCB/ACB/MCB/Contactor ratings, release current of breaker are not available. Please provide the details.	Please refer the NPCIL response S. NO. 731 for query of Column "I". With reference to query in column J&K,, Details are provided in the tender, however if any (left out) will be provided to successful bidder, during execution of contract.



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NPCIL S.No	Query Set /Round	NAME OF THE BIDDER	QUERY NO	TENDER SECTION NO	REFERENCE CLAUSE NO	REFERENCE DRAWING No. / TECHNICAL SPECIFICATION No. / VALVE SPECIFICATION No. / INSTRUMENTATION SHEET No. / DATA SHEET No.	DESCRIPTION OF THE QUERY	RESPONSE FROM NPCIL	DESCRIPTION OF THE QUERY	RESPONSE FROM NPCIL
694	L&T Set-6	L&T Construction	61	mpe_Section C Part01	CI 6.4.3.k - Pg no 77 of 125	I02.KK56.0.0.ET.TS.PR051 Rev 4 Annexure A to C and IQAP	Functional test of all auxiliary devices including all protective relays, alarm, and trip circuits Auxiliary devices including all protective relays, alarm, and trip circuits tests shall be done along with LCC /CRP at panel manufacturer works. It will not be conducted at GIS factory as part of routine test /FAT Witness test.	The technical requirement mentioned in the BOQ sl.no 4.7.5 is sufficient for supply. So, No additional technical specification required for the same	As per prebid clarification response - 2 from NPCIL for sl no 279. In price schedule, No clarity about testing requirements and QAP of termination kits mentioned for inside and outside reactor building.Please clarify	Please refer the NPCIL response S. NO. 735 for query of Column "I". With reference to query in column J&K,,QAP shall be finalized for Raw materail stage to in process indpection and final inspection etc. as per relevant standards during the execution of Contract.
695	L&T Set-6	L&T Construction	62	mpe_Section C Part01	CI 6.4.3.m - Pg no 77 of 125	I02.KK56.0.0.ET.TS.PR051 Rev 4 Annexure A to C and IQAP	Acceptance test on SF6 gas SF6 gas is brought out item and hence all tests are carried out at SF6 gas manufacturer/supplier works end only. Our supplier test report will be submitted for review during Final FAT of GIS at GIS factory.	Tender condition prevails	We have not envisaged any line item for battery and battery charger for PLCC.Kindly make a suitable provision in the price schedule.	For query of column "I", NPCIL reserve the right to modify the requirements given in the Indicative QAP. Indicative QAP shall be finalized in consultation with OEM, successful EPC contractor and NPCIL during the execution of the project. With reference to query in column J&K, Please refer the BoQ item no. 1.5.10.1 & 1.5.19.1 of Section-E where in PLCC with Dedicated Power supply i.e. Battery & Battery charger etc. are covered.
696	L&T Set-6	L&T Construction	63	mpe_Section C Part01	CI 6.4.4 - Pg no 77 of 125	I02.KK56.0.0.ET.TS.PR051 Rev 4 Annexure A to C and IQAP	Switchgear assembly stage tests in presence of Purchaser on each shipping assembly. Please note that switchgear assembly stage tests in presence of purchase is not feasible. Further we need more detailed calrification of this clause requirment.	Tender condition prevails	As per NPCIL response, Pre bid clarification -2 SI no 340.We have not envisaged such 140 sqmm cables in price schedule. Please clarify	For query of column "I", NPCIL reserve the right to modify the requirements given in the Indicative QAP. Indicative QAP shall be finalized in consultation with OEM, successful EPC contractor and NPCIL during the execution of the project. For 140 sq. MM two run of 70 sq. MM shall be used. For two point earthing requirements two runs of 2x70sq.MM tinned copper conductor shall have to be used..
697	L&T Set-6	L&T Construction	64	mpe_Section C Part01	CI 8.5 - Pg no 81 of 125	I02.KK56.0.0.ET.TS.PR051 Rev 4 Annexure A to C and IQAP	The equipment may be stored outdoors for long periods before installation. It is advisable to store the equipment indoor if needs to be stored more than 6 months.	----	----	Tender condtions shall prevail



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PRE-BID CLARIFICATIONS RESPONSE-5

NPCIL S.No	Query Set /Round	NAME OF THE BIDDER	QUERY NO	TENDER SECTION NO	REFERENCE CLAUSE NO	REFERENCE DRAWING No. / TECHNICAL SPECIFICATION No. / VALVE SPECIFICATION No. / INSTRUMENTATION SHEET No. / DATA SHEET No.	DESCRIPTION OF THE QUERY	RESPONSE FROM NPCIL	DESCRIPTION OF THE QUERY	RESPONSE FROM NPCIL
698	L&T Set-6	L&T Construction	65	mpe_Section C Part01	CI 8.4 - Pg no 89 of 125	I02.KK56.0.0.ET.TS.PR051 Rev 4 Annexure A to C and IQAP	Acceptance test on BD - High pressure test of enclosure. Please note that High pressure test is conducted at enclosure on 100% enclosures after machining at enclosure manufacturer works and we are reviewing our enclosure supplier routine test reports of pressure test and same shall be submitted to customer for review during GIS FAT at factory.	----	----	Indicative QAP shall be followed
699	L&T Set-6	L&T Construction	66	mpe_Section C Part01	CI 8.4 - Pg no 89 of 125	I02.KK56.0.0.ET.TS.PR051 Rev 4 Annexure A to C and IQAP	Acceptance test on BD - leak rate tightness enclosure tests as per IEC 62271-204. We will conduct SF6 Gas tightness test (SF6 Leakage test) on Bus duct at our factory as per IEC 62271-203.	----	----	Indicative QAP shall be followed
700	L&T Set-6	L&T Construction	67	mpe_Section C Part01	CI 8.7 - Pg no 89 of 125	I02.KK56.0.0.ET.TS.PR051 Rev 4 Annexure A to C and IQAP	The power frequency tests for insulation of the control circuits and auxiliary circuits of the bus ducts shall be performed according to IEC 61180-1. The test voltage shall be 2kV with a duration of 1 min.	----	----	Indicative QAP shall be followed
701	L&T Set-6	L&T Construction	68	mpe_Section C Part01	QAP 1.1 - Pg no 94 of 125	I02.KK56.0.0.ET.TS.PR051 Rev 4 Annexure A to C and IQAP	Aluminium casting (extent of check and witness by prime supplier/EPC) - Visual and dimension check	----	----	Indicative QAP shall be followed
702	L&T Set-6	L&T Construction	69	mpe_Section C Part01	QAP 1.2- Pg no 94 of 125	I02.KK56.0.0.ET.TS.PR051 Rev 4 Annexure A to C and IQAP	Aluminium alloy conductors (extent of check and witness by prime supplier/EPC) - chemical and mechanical properties We have multiple items/parts covered under this category. So requirement of witness by 3rd party lab for chemical and mechanical properties for each component/part is not possible. However, we will arrange to submit material Test Certificates from our supplier inhouse facility. Kindly accept.	----	----	NPCIL reserve the right to modify the requirements given in the Indicative QAP. Indicative QAP shall be finalized in consultation with OEM, successful EPC contractor and NPCIL during the execution of the project.
703	L&T Set-6	L&T Construction	70	mpe_Section C Part01	QAP 1.9- Pg no 99 of 125	I02.KK56.0.0.ET.TS.PR051 Rev 4 Annexure A to C and IQAP	Gaskets tests - by third party lab NPCIL approved - Material property test witness by EPC/Prime supplier We request that we will submit Material test certificates of our sub-supplier and please do not consider requirement of Witness by prime supplier/EPC contractor	----	----	NPCIL reserve the right to modify the requirements given in the Indicative QAP. Indicative QAP shall be finalized in consultation with OEM, successful EPC contractor and NPCIL during the execution of the project.
704	L&T Set-6	L&T Construction	71	mpe_Section C Part01	QAP 1.10 Pg no 100 of 125	I02.KK56.0.0.ET.TS.PR051 Rev 4 Annexure A to C and IQAP	O-Rings - by third party lab NPCIL approved O-RINGS are 100% imported item. So NABL Lab or NPCIL lab at overseas supplier is not possible. Hence we will submit our sub-supplier Test reports for NPCIL review during Final GIS FAT.	----	----	As per indicative QAP, MTC shall be submitted otherwise test will be performed at IRMRA Lab
705	L&T Set-6	L&T Construction	72	mpe_Section C Part01	QAP 1.11 Pg no 100 of 125	I02.KK56.0.0.ET.TS.PR051 Rev 4 Annexure A to C and IQAP	SF6 to air bushing - Routine tests to be witness by EPC/Prime supplier SF6 Bushing assembly is done at Hyosung Pune factory, And it is not bought out item for Hyosung T&D. SF6 Bushing routine testing is done at Hyosung Pune	-----	----	NPCIL reserve the right to modify the requirements given in the Indicative QAP. Indicative QAP shall be finalized in consultation with OEM, successful EPC contractor and NPCIL during the execution of the project.



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PRE-BID CLARIFICATIONS RESPONSE-5

NPCIL S.No	Query Set /Round	NAME OF THE BIDDER	QUERY NO	TENDER SECTION NO	REFERENCE CLAUSE NO	REFERENCE DRAWING No. / TECHNICAL SPECIFICATION No. / VALVE SPECIFICATION No. / INSTRUMENTATION SHEET No. / DATA SHEET No.	DESCRIPTION OF THE QUERY	RESPONSE FROM NPCIL	DESCRIPTION OF THE QUERY	RESPONSE FROM NPCIL
							factory and it is not possible to conduct 100% witness of Routine test by EPC/Prime supplier. We will arrange to conduct FAT witness by customer/EPC on 1 nos. of SF6 Bushing/Lot offered for inspection at Hyosung Pune factory during GIS FAT.			
706	L&T Set-6	L&T Construction	73	mpe_Section C Part01	QAP 1.12 Pg no 101 of 125	I02.KK56.0.0.ET.TS.PR051 Rev 4 Annexure A to C and IQAP	Current Transformer - Routine test to be witness by NPCIL QC/ENGINEER, Prime supplier/EPC, main vendor/manufacturer QC Current transformer assembly is done at Hyosung Pune factory, And it is not bought out item for Hyosung T&D. BCT wound core is bought out item for us and wound core routine testing is done at our sub-supplier factory and it is not possible to conduct 100% witness of Routine test by EPC/Prime supplier. We will arrange to conduct Stage FAT witness by customer/EPC on 1 nos. of wound core /Lot offered for inspection at Hyosung supplier factory. And at Hyosung Pune factory during GIS final FAT, we will conduct SF6 leak test and HVPD test on current transformer with CB module. And for wound core we will submit routine test report of our supplier for customer review during final FAT of GIS.	----	----	NPCIL reserve the right to modify the requirements given in the Indicative QAP. Indicative QAP shall be finalized in consultation with OEM, successful EPC contractor and NPCIL during the execution of the project.
707	L&T Set-6	L&T Construction	74	mpe_Section C Part01	QAP 1.13 Pg no 102 of 125	I02.KK56.0.0.ET.TS.PR051 Rev 4 Annexure A to C and IQAP	Voltage Transformer - Routine test to be witness by NPCIL QC/ENGINEER, Prime supplier/EPC. Voltage transformer is 100% bought out item and we are purchasing VT equipment from overseas supplier and hence it is not possible to witness routine test by NPCIL QC/ENGINEER, Prime supplier/EPC at overseas VT OEM works. However, we would suggest to offer review of routine test report of VT OEM during final GIS FAT at factory. At GIS factory we can not perform Routine test/ FAT Inspection testing on VT equipment.	----	----	NPCIL reserve the right to modify the requirements given in the Indicative QAP. Indicative QAP shall be finalized in consultation with OEM, successful EPC contractor and NPCIL during the execution of the project.
708	L&T Set-6	L&T Construction	75	mpe_Section C Part01	QAP 1.14 Pg no 103 of 125	I02.KK56.0.0.ET.TS.PR051 Rev 4 Annexure A to C and IQAP	Surge Arrestor - Routine test for visual and dimension and Tightness test to be witness by NPCIL QC/ENGINEER, Prime supplier/EPC	----	----	NPCIL reserve the right to modify the requirements given in the Indicative QAP. Indicative QAP shall be finalized in consultation with OEM, successful EPC contractor and NPCIL during the execution of the project.
709	L&T Set-6	L&T Construction	76	mpe_Section C Part01	QAP 1.15 Pg no 104 of 125	I02.KK56.0.0.ET.TS.PR051 Rev 4 Annexure A to C and IQAP	Circuit Breaker - Routine tests to be witness by NPCIL QC/ENGINEER, Prime supplier/EPC. - Dielectric test in Motor 1.2 kV and control circuit 2 kV for 1 min	----	----	NPCIL reserve the right to modify the requirements given in the Indicative QAP. Indicative QAP shall be finalized in consultation with OEM, successful EPC contractor and NPCIL during the execution of the project.
710	L&T Set-6	L&T Construction	77	mpe_Section C Part01	QAP 1.16 Pg no 105 of 125	I02.KK56.0.0.ET.TS.PR051 Rev 4 Annexure A to C and IQAP	Disconnecter and Earthing switch - Pressure test of enclosure to be witness by NPCIL QC/ENGINEER, Prime supplier/EPC. 1. Disconnecter and Earthing switch (DS & ES) assembly will be done at Hyosung Pune factory and	----	----	NPCIL reserve the right to modify the requirements given in the Indicative QAP. Indicative QAP shall be finalized in consultation with OEM, successful EPC contractor and NPCIL during the execution of the project.



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PRE-BID CLARIFICATIONS RESPONSE-5

NPCIL S.No	Query Set /Round	NAME OF THE BIDDER	QUE RY NO	TENDER SECTION NO	REFERENCE CLAUSE NO	REFERENCE DRAWING No. / TECHNICAL SPECIFICATION No. / VALVE SPECIFICATION No. / INSTRUMENTATION SHEET No. / DATA SHEET No.	DESCRIPTION OF THE QUERY	RESPONSE FROM NPCIL	DESCRIPTION OF THE QUERY	RESPONSE FROM NPCIL
							we will conduct applicable Routine test on 100% of DS & ES. However FAT Wittness inspection shall be conducted by NPCIL QC/ENGINEER, Prime supplier/EPC at Hyosung factory on 1 nos. of DS & ES/Lot offered for Inspection. And we will submit our internal routine test reports for review to NPCIL QC/ENGINEER, Prime supplier/EPC. Please accept the same. It is not possible to offer 100% DS & ES for wittenss testing by customer. 2. Dielectric test on control & auxiliary circuit shall be conducted by appying 1kV for duration of 1 second as per IEC standard 62271-203. Please accept the same. 3. Pressure test of enclosure is done on 100% of enclsoures after machining at our Enclsoure manufacturer (sub-supplier works) and it is not possible to witness the pressure test by NPCIL QC/ENGINEER, Prime supplier/EPC. However, we will submit pressure test reports of 100% qty. of enclosures for customer review during GIS Final FAT at Hyosung factory.			
711	L&T Set-6	L&T Construc tion	78	mpe_Section C Part01	QAP 1.18 Pg no 106 of 125	I02.KK56.0.0.ET.TS.PR051 Rev 4 Annexure A to C and IQAP	Bellows - Intergranular corrosion test This test is not possible to conduct on Bellows. Please accept the same.	----	----	Acceptable. However, material used for manufacturing of the bellow shall be procured from reputed raw material sources.
712	L&T Set-6	L&T Construc tion	79	mpe_Section C Part01	QAP 1.20 Pg no 107 of 125	I02.KK56.0.0.ET.TS.PR051 Rev 4 Annexure A to C and IQAP	Test for color, odour, toxicity & Non flammability MSDS can be submitted for review.	----	----	Acceptable
713	L&T Set-6	L&T Construc tion	80	mpe_Section C Part01	QAP 1.21 Pg no 107 of 125	I02.KK56.0.0.ET.TS.PR051 Rev 4 Annexure A to C and IQAP	Epoxy insulators (gas tight, gas permeable bushings) - creepage distance Creepage distance is not possibel to measure in	----	----	Acceptable. However, offered epoxy insulator shall conform to OEM design



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PRE-BID CLARIFICATIONS RESPONSE-5

NPCIL S.No	Query Set /Round	NAME OF THE BIDDER	QUERY NO	TENDER SECTION NO	REFERENCE CLAUSE NO	REFERENCE DRAWING No. / TECHNICAL SPECIFICATION No. / VALVE SPECIFICATION No. / INSTRUMENTATION SHEET No. / DATA SHEET No.	DESCRIPTION OF THE QUERY	RESPONSE FROM NPCIL	DESCRIPTION OF THE QUERY	RESPONSE FROM NPCIL
714	L&T Set-6	L&T Construction	81	mpe_Section C Part01	QAP 1.23 Pg no 108 of 125	I02.KK56.0.0.ET.TS.PR051 Rev 4 Annexure A to C and IQAP	Rupture Disc - Leakage test 100 % to be witness by NPCIL QC/ENGINEER, Prime supplier/EPC. Leakage test on rupture disk will be performed during routine testing of GIS bays, however it is not possible to witness leakage test of Rupture disk for 100% of qty. We shall conduct SF6 leak test on rupture Disc on 1 nos. of sample /Lot offered for Inspection of GIS bays and this sample will be witnesses by customer during final GIS fat.	----	----	NPCIL reserve the right to modify the requirements given in the Indicative QAP. Indicative QAP shall be finalized in consultation with OEM, successful EPC contractor and NPCIL during the execution of the project.
715	L&T Set-6	L&T Construction	82	mpe_Section C Part01	QAP 1.28 Pg no 109 of 125	I02.KK56.0.0.ET.TS.PR051 Rev 4 Annexure A to C and IQAP	CONTROL CABLES - Acceptance tests Control cable is 100% bought out item. So FAT /Acceptance test shall be conducted at our Control cable supplier (OEM) works. Separate MQP/ITP will be submitted for customer approval for tests to be conducted/Witnessed.	----	----	Acceptable
716	L&T Set-6	L&T Construction	83	mpe_Section C Part01	QAP 1.33 Pg no 110 of 125	I02.KK56.0.0.ET.TS.PR051 Rev 4 Annexure A to C and IQAP	Control Wires Control wires is bought out items and considering the Minimum order quantity it is not possible to offer Control wires for Acceptance test for customer /EPC witness and please also note that it is not possible to get the TYPE Test reports. Please accept the same.	----	----	Indicative QAP shall be followed.. Type test reports/certificates for the control cables/wires shall be provided
717	L&T Set-6	L&T Construction	84	mpe_Section C Part01	QAP 2.1 Pg no 115 of 125	I02.KK56.0.0.ET.TS.PR051 Rev 4 Annexure A to C and IQAP	Bay Control Unit (BCU) BCU is not under the scope of GIS vendor. So concern EPC need to take care of this point.	----	----	Supply of BCU is part of 230 kV GIS supply.
718	L&T Set-6	L&T Construction	85	mpe_Section C Part01	QAP 2.1 Pg no 115 of 125	I02.KK56.0.0.ET.TS.PR051 Rev 4 Annexure A to C and IQAP	Electrical Conductivity Electrical Conductivity :- Not applicable for GIS enclosure.	----	----	Tender conditions shall prevail.
719	L&T Set-6	L&T Construction	86	mpe_Section C Part01	QAP 2.1 Pg no 115 of 125	I02.KK56.0.0.ET.TS.PR051 Rev 4 Annexure A to C and IQAP	Radiography testing on Base metal of head pipe (casting) (2 samples per bay) to be witness by Prime supplier/EPC. Radiography test reports shall be submitted for review for 1 sample/Lot offered for Inspection Witness by Main contractor & End customer is not possible.	----	----	Tender conditions shall prevail.
720	L&T Set-6	L&T Construction	87	mpe_Section C Part01	QAP 2.1 Pg no 115 of 125	I02.KK56.0.0.ET.TS.PR051 Rev 4 Annexure A to C and IQAP	Welding (electrode qualifications) (Batch qualification) to be witness by Prime supplier/EPC. Welding (electrode qualification) & Welding (WPS/PQR/WPQ) test qualification	----	----	NPCIL reserve the right to modify the requirements given in the Indicative QAP. Indicative QAP shall be finalized



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NPCIL S.No	Query Set /Round	NAME OF THE BIDDER	QUERY NO	TENDER SECTION NO	REFERENCE CLAUSE NO	REFERENCE DRAWING No. / TECHNICAL SPECIFICATION No. / VALVE SPECIFICATION No. / INSTRUMENTATION SHEET No. / DATA SHEET No.	DESCRIPTION OF THE QUERY	RESPONSE FROM NPCIL	DESCRIPTION OF THE QUERY	RESPONSE FROM NPCIL
							certificates shall be submitted for review for entire project. Witness by Main contractor & End customer is not possible.			in consultation with OEM, successful EPC contractor and NPCIL during the execution of the project.
721	L&T Set-6	L&T Construction	88	mpe_Section C Part01	QAP 2.1 Pg no 115 of 125	I02.KK56.0.0.ET.TS.PR051 Rev 4 Annexure A to C and IQAP	----	----	----	There is no query.
722	L&T Set-6	L&T Construction	89	mpe_Section C Part01	QAP 2.1 Pg no 115 of 125	I02.KK56.0.0.ET.TS.PR051 Rev 4 Annexure A to C and IQAP	Penetration test on welding (100%) to be witness by Prime supplier/EPC. We can provide our supplier test reports of Penetration test on welding (100%) for review during GIS Final FAT. However, witness by Main contractor/EPC and NPCIL is not possible.	-----	-----	NPCIL reserve the right to modify the requirements given in the Indicative QAP. Indicative QAP shall be finalized in consultation with OEM, successful EPC contractor and NPCIL during the execution of the project.
723	L&T Set-6	L&T Construction	90	mpe_Section C Part01	QAP 2.1 Pg no 115 of 125	I02.KK56.0.0.ET.TS.PR051 Rev 4 Annexure A to C and IQAP	Radiography on welded portion (25% of BUTT weld section) to be witness by Prime supplier/EPC. Radiography test reports shall be submitted for review for 1 sample/Lot offered for inspection. However, Witness by Main contractor & End customer is not possible.	-----	-----	As per the indicative QAP, witness shall be by the EPC supplier and hold point by NPCIL
724	L&T Set-6	L&T Construction	91	mpe_Section C Part01	QAP 2.1 Pg no 115 of 125	I02.KK56.0.0.ET.TS.PR051 Rev 4 Annexure A to C and IQAP	Salt spray test for painting (one test coupon) to be witness by Prime supplier/EPC. We can provide our supplier test reports of salt spray test for painting for review during GIS Final FAT. However, witness by Main contractor/EPC and NPCIL is not possible.	-----	-----	Tender conditions shall prevail.
725	L&T Set-6	L&T Construction	92	mpe_Section C Part01	QAP 2.2 Pg no 116 of 125	I02.KK56.0.0.ET.TS.PR051 Rev 4 Annexure A to C and IQAP	Conductor (Bus Duct & Bay) - Copper spray_surface finish & thickness Please clarify about this test requirement. We shall share test report for silver plating thickness.	-----	-----	Surface Finish & Thickness report for copper spray (if applicable) shall be provided
726	L&T Set-6	L&T Construction	93	mpe_Section C Part01	QAP 2.3 Pg no 117 of 125	I02.KK56.0.0.ET.TS.PR051 Rev 4 Annexure A to C and IQAP	Support Structure - PT on welds joints (10%) to be witness by Prime supplier/EPC. We can provide our supplier test reports of Penetration test on welding (10%) for review during GIS Final FAT. However, witness by Main contractor/EPC and NPCIL is not possible.	----	----	Indicative QAP shall be followed
727	L&T Set-6	L&T Construction	94	mpe_Section C Part01	QAP 2.3 Pg no 117 of 125	I02.KK56.0.0.ET.TS.PR051 Rev 4 Annexure A to C and IQAP	Support Structure - Welding (WPS/PQR/WPQ) Hold point by NPCIL QS/ENGINEER Please note that we have understood that WELDER qualification certificate to be submitted for REVIEW	----	----	Indicative QAP shall be followed



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PRE-BID CLARIFICATIONS RESPONSE-5

NPCIL S.No	Query Set /Round	NAME OF THE BIDDER	QUERY NO	TENDER SECTION NO	REFERENCE CLAUSE NO	REFERENCE DRAWING No. / TECHNICAL SPECIFICATION No. / VALVE SPECIFICATION No. / INSTRUMENTATION SHEET No. / DATA SHEET No.	DESCRIPTION OF THE QUERY	RESPONSE FROM NPCIL	DESCRIPTION OF THE QUERY	RESPONSE FROM NPCIL
							purpose and WELDING Qualification examination will not be witnessed by Cutomer/EPC.			
728	L&T Set-6	L&T Construction	95	mpe_Section C Part01	QAP4.4 Pg no 121 of 125	I02.KK56.0.0.ET.TS.PR051 Rev 4 Annexure A to C and IQAP	4 GIS Bay and other modules -Voltage Drop measurement (contact resistance) for the bay & other shipments Please note at factory we are performing measurement of contact resistance for various modules of GIS bay by using micro ohm meter. We are injecting 100 Amp DC current across the closed circuit and measureing the contact resistance. We understood that test mentioned under point no. 4.4 & 4.5 is same test.	----	----	Methodoligy for Voltage drop measurement by injecting 100A DC current is acceptable.
729	L&T Set-6	L&T Construction	96	mpe_Section C Part01	QAP4.5 Pg no 121 of 125	I02.KK56.0.0.ET.TS.PR051 Rev 4 Annexure A to C and IQAP	----	----	----	There is no query.
730	L&T Set-6	L&T Construction	97	mpe_Section C Part01	QAP4.6 Pg no 121 of 125	I02.KK56.0.0.ET.TS.PR051 Rev 4 Annexure A to C and IQAP	4 High voltage test for the bay & other shipments & 2 kv for 1 min on auxiliary circuits. High voltage test for bay module shall be conducted as per IEC 62271-203 and for control and auxiliary circuits we will appaly 1 kv for 1 second as per IEC standard.	----	----	Tender condtions shall prevail
731	L&T Set-6	L&T Construction	98	mpe_Section C Part01	QAP4.8 Pg no 122 of 125	I02.KK56.0.0.ET.TS.PR051 Rev 4 Annexure A to C and IQAP	4 LCC - Operational checks & interlock checking, Functional tests of auxiliaries including Alarm & trip circuit with BCU Please note that, 1) BCU is not in supply scope of GIS vendor. BCU related test can not be conducted at GIS factory or at LCC supplier factory. 2) LCC panel testing like operational check & interlock checking and functional tests etc. shall be carried out by SIMULATION Testing at our LCC panel manufacturer works and LCC panels shall be offerred for FAT Wittness inspection at our LCC supplier works. 3) Further, please note that at factory we will NOT integrate LCC panel with respective GIS bay for internal routine testing as well as for final GIS bay FAT witnees test.	----	----	1. BCU supply shall be in scope of the GIS vendor. BCU related FAT e.g. functional tests, etc. shall be carried out at GIS factory during GIS FAT. GIS FAT shall include bay level interlock checks through BCU mounted on LCC 2 & 3. During final FAT of GIS, LCC panel with BCU shall be interconnected with respective GIS bay for LCC Panel testing purpose.
732	L&T Set-6	L&T Construction	99	mpe_Section C Part01	QAP5.1 up to 5.8 Pg no 122 of 125	I02.KK56.0.0.ET.TS.PR051 Rev 4 Annexure A to C and IQAP	Sample size for FAT wittness test is 10% We request to consider the Sample size for FAT Wittness test as 1 nos. of GIS bay/Lot offerred for Inspection.	----	----	Acceptable. Further , please refer NPCIL response no. 735



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PRE-BID CLARIFICATIONS RESPONSE-5

NPCIL S.No	Query Set /Round	NAME OF THE BIDDER	QUERY NO	TENDER SECTION NO	REFERENCE CLAUSE NO	REFERENCE DRAWING No. / TECHNICAL SPECIFICATION No. / VALVE SPECIFICATION No. / INSTRUMENTATION SHEET No. / DATA SHEET No.	DESCRIPTION OF THE QUERY	RESPONSE FROM NPCIL	DESCRIPTION OF THE QUERY	RESPONSE FROM NPCIL
733	L&T Set-6	L&T Construction	100	mpe_Section C Part01	QAP 5.2 Pg no 122 of 125	I02.KK56.0.0.ET.TS.PR051 Rev 4 Annexure A to C and IQAP	GIS Bay and other modules - Resistance verification of main circuits and earthing circuit Noted. We conduct the contact resistance measurement at our factory on transport unit/modules including earthing switches. However, please clarify about earthing circuit.	----	----	Voltage drop between connecting flanges shall be measured at 100A DC for the transport units e.g. DS+BB+ES, DS+ES, DS+ES+HSES, etc.
734	L&T Set-6	L&T Construction	101	mpe_Section C Part01	QAP5.4 Pg no 123 of 125	I02.KK56.0.0.ET.TS.PR051 Rev 4 Annexure A to C and IQAP	GIS Bay and other modules - Voltage Drop measurement for the bay & other shipment Please note at factory we are performing measurement of contact resistance for various modules of GIS bay by using micro ohm meter. We are injecting 100 Amp DC current across the closed circuit and measuring the contact resistance. We understood that test mentioned under point no. 5.2 & 5.4 are same test.	----	----	Confirmed
735	L&T Set-6	L&T Construction	102	mpe_Section C Part01	QAP5.7 Pg no 127 of 125	I02.KK56.0.0.ET.TS.PR051 Rev 4 Annexure A to C and IQAP	LCC including BCU - Functional test of all auxiliaries including alarms & trip circuits with BCU 1. BCU supply is not in GIS vendor scope. 2. BCU related test can not be conducted at GIS factory during GIS FAT. 3. During GIS Bay internal routine testing and also during Final FAT of GIS bays at GIS factory respective LCC panels will not be interconnected with respective GIS bay for LCC Panel testing purpose. 4. LCC panels shall be offered for NPCIL FAT witness inspection on sample basis at our LCC sub-supplier works and interlock check and schematic circuit check testing shall be carried out by SIMULATION method. 5. Further, please note that at GIS factory we will NOT integrate LCC panel with respective GIS bay for internal routine testing as well as for final GIS bay FAT witness test. LCC panel FAT Witness sample size shall be 1 nos. of LCC Panel/Lot offered for FAT Inspection.	----	----	1. BCU supply shall be in scope of the GIS vendor 2. BCU related FAT e.g. functional tests, etc. shall be carried out at GIS factory during GIS FAT. GIS FAT shall include bay level interlock checks through BCU mounted on LCC 3. During final FAT of GIS, LCC panel with BCU shall be interconnected with respective GIS bay for LCC Panel testing purpose. 4,5. See response to Point 3 above
736	L&T Set-6	L&T Construction	103	mpe_Section C Part01	5.5 B_Supply Clause no 4.7.1 & 4.7.2	Cabel termination (HT & LT)	As per tender documents we havenot envisaged specification for Cable Termination (HT<), Kindly provide the detailed specification for the both the cables termination kit(inside & outside reactor building).	The technical requirement mentioned in the BOQ sl.no 4.7.1 - HT TERMINATION KIT 4.7.2 - LT TERMINATION KIT is sufficient for supply. So, No additional technical specification is required for the supply	As per prebid clarification response - 2 from NPCIL for sl no 245. In price schedule, No clarity about testing requirements and QAP of termination kits mentioned for inside and outside reactor building. Please clarify	MV cable terminations shall as a minimum requirement shall comply to IS:13573, all the tests as mentioned in the standard shall be applicable for the product offered. If valid (As per CEA guideline and Tender condition for valid type test) type test reports of the offered product are available the same shall be reviewed by Purchaser during QAP approval stage and if they are approved, type tests shall not to be repeated. However all tests related to raw material, in process inspection shall be decided by Purchaser and details of the same will be provided to successful vendor,



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PRE-BID CLARIFICATIONS RESPONSE-5

NPCIL S.No	Query Set /Round	NAME OF THE BIDDER	QUERY NO	TENDER SECTION NO	REFERENCE CLAUSE NO	REFERENCE DRAWING No. / TECHNICAL SPECIFICATION No. / VALVE SPECIFICATION No. / INSTRUMENTATION SHEET No. / DATA SHEET No.	DESCRIPTION OF THE QUERY	RESPONSE FROM NPCIL	DESCRIPTION OF THE QUERY	RESPONSE FROM NPCIL
										all routine tests as per the IS shall be performed and sample size of the these tests i.e. raw material,in process and routine tests shall be one random sample per lot per size.
737	L&T Set-6	L&T Construction	104	mpe_Section C Part01	5.5 B_Supply Clause no 4.7.6	Cable lug	Kindly provide the detailed specification for cable lug.	The technical requirement mentioned in the BOQ sl.no 4.7.6 may please be referred	As per prebid clarification response - 2 from NPCIL for sl no 263. In price schedule, No clarity about testing requirements and QAP of termination kits mentioned for inside and outside reactor building.Please clarify	Technical requirement mentioned in the BoQ Sl. No. 4.7.6 are already mentioned. Testing requirements shall be as per relevant standards. QAP shall be finalized for Raw materail stage to in process indpection and final inspection etc. as per relevant standards during the execution of Contract.
738	L&T Set-6	L&T Construction	105	mpe_Section C Part01	5.5 B_Supply Clause no 2.4.1.9 - 2.4.1.18 TS I02.KK56.0.0 .ET.TS.PR09 1_R5	LVSwitchgear & MCC	Kindly provide the SLDs for the LV switchgear boards listed in the price schedule under Items 2.4.1.9 to 2.4.1.18.	Kindly refer feeder list of the boards attached along with TS I02.KK56.0.0.ET.TS.PR091_R5	Applicable scheme, release current of breaker and protection requirement are not available.Please provide the details.	Single line diagrams of switchgears 00BKL, 00BKM and LV MCCs/DBs such as 00BKM53GH001, 00BKL53GH001, 00BKM74GH001, 00BKM73GH001, 00BKL73GH001, 00BKL74GH001, 00BKL21GH001,00BKL23GH001,00BKLM 22GH001,00BKM52GH001,00BKL22GH0 01, 00BKL81GH001, 00BKL82GH001, 00BKM81GH001 and 00BKM82GH001 is being provided as additional clarification in Annexure-A of pre-bid queries set-6. The details given in the drawing of Annexure-A shall supercede any other information given regarding the above mentioned subject panels elsewhere in this tender which may be in contradiction with it. Other requirements given in ET.TS.PR091_R5 shall be applicable. SLDs of 00BKS, 00BKU, 00BKG, 00BKH are attached as annexure to pre-bid queries set-6. Vendor shall refer GADs of all boards along with protection schemes attached with the tender to understand protection requirements. Kindly refer feeder lists of the boards attached along with TS I02.KK56.0.0.ET.TS.PR091_R5. All details required for techno-commercial offer are present in feeder lists of the boards. Please refer protection and control schemes along with feeder lists.
739	L&T Set-6	L&T Construction	106	mpe_Section C Part01	5.5 B_Supply Clause no 2.5.87 & 2.5.88 TS	LVSwitchgear & MCC	As per Price Schedule Items 2.5.65 and 2.5.66, kindly provide the SLDs for 00AFA34GH001, 00AFA44GH001, and 00AFA34GH000A.	Kindly refer feeder list of the boards attached along with TS I02.KK56.0.0.ET.TS.PR091_R5.All details required for technical commercial offer are present in feeder list of the boards . Please refer protection and control schemes along with feeder list. Hope it clarifies the query	Applicable MCCB/ACB/MCB/Contactor ratings, release current of breaker are not available. Please provide the details.	Kindly refer feeder lists of the boards attached along with TS I02.KK56.0.0.ET.TS.PR091_R5. All details required for techno-commercial offer are present in



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PRE-BID CLARIFICATIONS RESPONSE-5

NPCIL S.No	Query Set /Round	NAME OF THE BIDDER	QUERY NO	TENDER SECTION NO	REFERENCE CLAUSE NO	REFERENCE DRAWING No. / TECHNICAL SPECIFICATION No. / VALVE SPECIFICATION No. / INSTRUMENTATION SHEET No. / DATA SHEET No.	DESCRIPTION OF THE QUERY	RESPONSE FROM NPCIL	DESCRIPTION OF THE QUERY	RESPONSE FROM NPCIL
					102.KK56.0.0.ET.TS.PR091_R5					feeder lists of the boards. Please refer protection and control schemes along with feeder lists. Please clarify if any additional details are required.
740	L&T Set-6	L&T Construction	107	mpe_Section C Part01	5.5 B_Supply Clause no 4.7.5	Cable Glands	Kindly provide the detailed specification for cable glands.	The technical requirement mentioned in the BOQ sl.no 4.7.5 is sufficient for supply. So, No additional technical specification required for the same	As per prebid clarification response - 2 from NPCIL for sl no 279. In price schedule, No clarity about testing requirements and QAP of termination kits mentioned for inside and outside reactor building.Please clarify	Technical requirement mentioned in the BoQ Sl. No. 4.7.5 are already mentioned. Testing requirements shall be as per relevant standards/will be decided during approval of QAP..
741	L&T Set-6	L&T Construction	108	mpe_Section C Part01		TS_I02.KK56.0.0.ET.TS.PR092	As per TS clause 1.14 "Design, engineering,manufacturing/ procurement, supply, installation, testing, pre commissioning/ commissioning and final handing over of Power Line Carrier Communication (PLCC) Panel along with their dedicated battery and battery charger is also included in Contractor's scope." We request NPCIL to provide the seperate line item for batter & battery charger.	Tender condition prevails	We have not envisaged any line item for battery and battery charger for PLCC.Kindly make a suitable provision in the price schedule.	Power Line Carrier Communication (PLCC) Panel along with their dedicated battery and battery charger is included as a combined line item of 1.5.10.1 & 1.5.19.1
742	L&T Set-6	L&T Construction	109	mpe_Section C Part01	Annexure-1 2.4.2	I02.KK56.0.0.ET.TT.PR005_R2 TS for Grounding and Lightning Protection System	6kV Motors & 75KW above Motors shall be grounded with Minimum 140Sqmm tinned copper wires, however we have not envisaged such sizes in price schedule kindly clarify which price schedule need to be used.	Tender condition prevails	As per NPCIL response, Pre bid clarification -2 Sl no 340.We have not envisaged such 140 sqmm cables in price schedule. Please clarify	two runs of 70 sqmm is acceptable.

TRANSMISISON LINE

743	L&T Set-6	L&T Construction	110	14_I02.KK56.0.0.ET.TS.PR052-R4-TS 400kV outdoor SY & Pre-Bid clarification-2	6.9 b & I & S. No. 217	Design of all towers types shall be of dead end/DD60 type as per IS 802 & The tower GA and shop drawing shall be designed by the sucessful bidder and Supply shall be executed accordingly, by the sucessful bidder. Wind load calculation shall be carried out as per IS-875 Part-3. It is confirmed that the tower shall be designed based on analytical approach without any testing.	As the 400 kV D/C 'DD' type is to be designed using an analytical approach without any physical testing, the design will be carried out considering Reliability Level-3. Kindly confirm if our understanding is correct.	----	----	Reliability level 2 as per IS 802 shall be followed for 400kV tower design.
744	L&T Set-6	L&T Construction	111	15_I02.KK56.0.0.ET.TS.PR054-R4-TS 230kV outdoor SY & Pre-Bid clarification-2	5.7 & S. No. 218	Page No : 11 of 43: Works pertaining to 230 kV Tie line between KK 3&4 and KK5&6 The existing tower structure design details and drawings for existing TANTRANSCO lines will be provided during execution. Tentative existing conductor for TANTRANSCO line shall be ACSR in Zebra per phase.	The specification states that detailed design and drawings of existing 230 kV tower structures for TANTRANSCO lines will be provided during execution. However, as per the clarification, bidders are required to design the tower without testing. In this context, kindly clarify the exact scope of work. Additionally, please specify the reliability level to be adopted for tower design in the absence of testing.			Two no. of 230kV TANTRANSCO lines are envisaged for KKNPP 3-6. These two lines will be LILO connection of an existing TANTRANSCO feeder. Both the lines will be routed as 230kV D/c line and will be terminated at KKNPP 3&4 initially (230kV D/c line upto KKNPP 3&4 will be executed by the Purchaser and is excluded from the scope of this contract).



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PRE-BID CLARIFICATIONS RESPONSE-5										
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						& The tower GA and shop drawing shall be designed by the sucessful bidder and Supply shall be executed accordingly, by the sucessful bidder. Wind load calculation shall be carried out as per IS-875 Part-3. It is confirmed that the tower shall be designed based on analytical approach without any testing.		----	----	One of the 230kV Line need to be shifted to KKNPP 5&6 230kV Switchyard during KKNPP 5&6 execution. Also a 230kV tie line needs to be erected between KKNPP 3&4 and KKNPP 5&6. The Purchaser and TANTRANSCO are currently in the process of route finalisation for the 230kV D/c line to KKNPP 3&4. The details of TANTRANSCO towers for this will be available at a later stage and will be shared with the sucessful bidder during execution. As mentioned above for KKNPP 5&6, 230kV line shifting and tie line to KKNPP 5&6 need to be executed. The towers required for the line shifting and tie line to KKNPP 5&6 (apart from those by TANTRANSCO as a part of D/c line to KKNPP 3&4) are under the scope of this contract (under respective BoQ items). Reliability level 2 as per IS 802 shall be followed for the 230 tower design.
745	L&T Set-6	L&T Construction	112	15_I02.KK56.0.0.ET.TS.PR054-R4-TS 230kV outdoor SY	5	Page No : 11 of 43: Works pertaining to 230 kV Tie line between KK 3&4 and KK5&6 230kV D/C lines from TANTRANSCO will be routed till the last nearest tower to KKNPP 5&6. However, the line in the nearest tower to KKNPP 5&6 will be jumpered. Bidder scope is to make/erect line between the last nearest 230kV TANTRANSCO tower and KKNPP 5 & 6 220kV switchyard and removal of the jumper. Two nos. of lines from TANTRANSCO tower at KKNPP 5&6 end need to be erected and terminated at KKNPP 5&6 switchyard.	Kindly provide the layout indicating the coordinates of the existing 230 kV transmission towers/line feeding Units 5 & 6, to enable our understanding and facilitate further study.	----	----	The Purchaser and TANTRANSCO are currently in the process of route finalisation for the 230kV D/c line to KKNPP 3&4. The route details will be available at a later stage and will be shared with the sucessful bidder during execution. However, Annexure 2 I02.KK56.0.0.ET.TS.PR052- Technical Specification for 400kV Outdoor Switchyard (Grid size is 50 m x 50 m) may be refered for better understanding of the 400kV line routes and 230kV Switchyard locations. The locations are marked with blue colour in the below snapshot. 
Additional clarification from NPCIL										
746	To all Bidders	Additio nal clarifica tion	-	I02.KK56.0.0.E T.TS.PR078 I02.KK56.0.0.E T.TS.PR081	-	All internal wiring shall be carried out with 650 V grade LSZH (low smoke zero halogen), single core, stranded copper conductor wires as per relevant IECs.				For the clause no. 6.16.09 of TS I02.KK56.0.0.ET.TS.PR078 in place of "All internal wiring shall be carried out with 650 V grade LSZH (low smoke zero halogen), single core, stranded



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				I02.KK56.0.0.E T.TS.PR082 I02.KK56.0.0.E T.TS.PR091						copper conductor wires as per relevant IECs." To be read as "All internal wiring shall be carried out with 650 V grade as per IS 17048 or 450/750V grade as per BS EN 50525, LSZH (low smoke zero halogen), single core, stranded copper conductor wires (tinned or bare copper). Similarly, requirement of internal wiring in DCDBs given in Clause no. 3.3.13 of TS ET.TS.PR0082 shall also be read as "The auxiliary circuits/control circuits/signaling circuits shall be wired with 650 V grade as per IS 17048 or 450/750V grade as per BS EN 50525, or higher grade 1.5 sqmm, stranded copper conductor, LSZH insulated wires." Similarly, requirement of internal wiring in Wall mounted PDBs given in Clause no. 3.3.13 of TS ET.TS.PR0081 shall also be read as "The auxiliary circuits/control circuits/signaling circuits shall be wired with 650 V grade as per IS 17048 or 450/750V grade as per BS EN 50525, 1.5 sqmm, stranded copper conductor, LSZH insulated wires". Similarly, requirement of auxiliary wiring in LV switchgears, MCCs, PDBs etc., given in Clause no. 5.6.2 of TS ET.TS.PR091 shall also be read as "All control wiring shall be carried out with 650 V grade as per IS 17048 or 450/750V grade as per BS EN 50525, self-extinguishing, flame retardant, non-propagating, Halogen free insulated single core, stranded copper conductor wires."
747	To all Bidders	Additio nal clarifica tion		----	----	----	QAP related queries			NPCIL reserve the right to modify the requirements given in the Indicative QAP. Indicative QAP shall be finalized in consultation with OEM, successful EPC contractor and NPCIL during the execution of the project.
748	L&T Set-7	L&T Construc tion	1	Section-B SCC	10	Terms of Payment	As per clause 5.9 "NOTE 1: a) According to the Payment Terms, Advance payments will be interest bearing at the applicable rate as notified by NPCIL on the first of April each year. The rate of interest for the current financial year FY 2025 – 26 is 10.14% p.a.	Tender conditions shall prevail..	We would like to inform you that, due to the rapid expansion of renewable energy projects across the country, many suppliers are currently heavily booked with large volumes of orders. As a result, only a	Tender conditions shall prevail.



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							b) Upon completion of the activity of the milestone, payments will be released after adjusting advance payments and interests accrued. c) Unless otherwise stipulated, interest shall be calculated on advances from the date of release until the preceding day of recovery from the bills. Interest rates applicable in future financial years are inherently unpredictable and therefore cannot be reasonably considered in our working or cost assumptions. Unlike the arrangement followed for KKNPP Units 3 & 4, we request NPCIL to release the advance payment on an interest-free basis till CDD against submission of the Bank Guarantee, without linking it to the completion of the milestone activity specified in the SCC.		limited number of vendors have responded to our enquiries. Further, all major suppliers such as GIS, switchgears, distribution boards, transformers, CMS, etc. are insisting on interest-free advance payments along with the Purchase Order. In view of the above, we request NPCIL to kindly consider releasing the advance payment on an interest-free basis to avoid unnecessary loading of financial charges in the bid.	
749	L&T Set-7	L&T Construction	2	SECTION-B SCC	26	20.2 Time Overrun General Query related to Contractor's claim	As per SCC Clause "20.2.1 In the event of delay in completion and handing over of the Facilities beyond CDD by the Contractor due to specific site related issues for which Purchaser is responsible like release of work front as per work programme schedule and readiness of other facilities to be provided to the Contractor by the Purchaser in accordance with the Contract, the Contractor shall be entitled to compensation for additional expenditure for extended stay at site to the extent required for such reasons in addition to extension of time as per GCC clause no. 20.1. The amount of compensation will be arrived at through mutual consultation between the Purchaser and the Contractor following the other procedures as per GCC Sub-Clause no. 19.2.2 and 19.2.3. The clause does not clearly define the scope of 'additional expenditure' for overstay. In this regard, it is interpreted that the same includes compensation towards balance quantities executed beyond the CDD at revised rates based on prevailing market conditions. Kindly confirm.	Tender conditions shall prevail.	As per SCC Clause "20.2.1 In the event of delay in completion and handing over of the Facilities beyond CDD by the Contractor due to specific site related issues for which Purchaser is responsible like release of work front as per work programme schedule and readiness of other facilities to be provided to the Contractor by the Purchaser in accordance with the Contract, the Contractor shall be entitled to compensation for additional expenditure for extended stay at site to the extent required for such reasons in addition to extension of time as per GCC clause no. 20.1. The amount of compensation will be arrived at through mutual consultation between the Purchaser and the Contractor following the other procedures as per GCC Sub-Clause no. 19.2.2 and 19.2.3. However, the clause does not define the scope of the term "additional expenditure." It is requested that NPCIL clarify that the following costs are intended to be covered under the said provision: 1. Extended site overheads, including but not limited to: - Salaries and wages of site personnel and support staff; - Bank Guarantee charges; - Insurance premiums; - Guest house/accommodation expenses; - Conveyance and transportation; - Office running expenses, electricity, power, security and other site establishment costs. 2. Additional cost of execution of works carried out beyond the CDD (Supply, Civil and Erection), including compensation for increased input costs attributable to the	Tender conditions shall prevail.



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									Purchaser caused delay. 3. Additional costs due to expiry of manufacturers'/vendors' warranties before commissioning resulting from Purchaser-attributable delays.	
750	L&T Set-7	L&T Construction	3	Section-B SCC	7	Price Adjustment	As per clause 5.4.3 "....The price adjustment will be allowed up-to a ceiling of +/- thirty percent (+/- 30%) of the total DAP price (including packing & forwarding charges, however, excluding transportation, transit insurance, spares, value of free issue material if any and GST) component in INR...." We would like to bring to NPCIL's attention that the price adjustment formula for the supply portion is entirely driven by RBI indices (based on Whole Sale Price Index) and labour wages (based on Consumer Price Index), which are neither controlled by the Bidders nor predictable in terms of future movement. If the price adjustment exceeds 30%, the contractor will have to bear the additional financial burden despite having no influence over these cost drivers. We would also like to inform NPCIL that during the execution of the KKNPP 3&4 Package, the price variation has already exceeded 30%, even though the supply portion is still not completed and the execution period has extended beyond the original contractual timeline. Based on current market trends, we anticipate that the overall price variation may exceed 50%, driven by the surge in demand from the Renewable Energy sector and ongoing Global Geo-Political disruptions affecting key material costs and supply-chain stability. Therefore, we request NPCIL to remove the price adjustment ceiling limit in order to avoid unnecessary loading of financial charges in the Bid.	Tender conditions shall prevail.	As experienced in the KKNPP Units 3 & 4 Main Plant Electrical Package, the variation in the prices of supplied materials has exceeded the stipulated price adjustment ceiling of 20%. In fact, the actual variation was significantly higher and has currently reached approximately 33%. Considering the extended duration of the project and the prevailing geopolitical and economic uncertainties affecting global supply chains and commodity prices, we anticipate even greater price variations during the execution of the KKNPP Units 5 & 6 Project. In view of the above, we once again request NPCIL to consider removing the price adjustment ceiling limit on supply portion also. Retaining the ceiling would compel bidders to incorporate substantial risk premiums and financial loading in their bids to mitigate potential losses arising from price escalations beyond the specified limit i.e. 30% in KKNPP Units 5&6. Removal of the ceiling would enable bidders to submit more realistic and competitive prices, thereby benefiting both the Employer and the Contractor while ensuring smooth project execution.	Tender conditions shall prevail.



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751	L&T Set-7	L&T Construction	4	Section-B SCC	4		As per SCC clause "Tenderers shall note that, the total price of 'Site works i.e. Sum of the total price given against Erection works, Commissioning works, given in the Erection & Commissioning Schedule (i.e. Site Works Schedule) shall not be less than 20% of the total price of Supply given in Supply Schedule (The total price of Supply is inclusive of total price for Supply of Mandatory Spares also for above purpose)..." Similarly, for Commissioning of Electrical Equipment / Systems included under Commissioning Schedule of Section - E, the total price shall not be less than 3% of total price of Erection Works / Items of Electrical Equipment / Systems included under Erection works Schedule of Section - E..." It is important to highlight that the Supply Price Schedule under Section-E is to be executed on an EPC basis, wherein the predominant scope of work falls under the vendor's supply responsibilities. Only system integration activities are required to be carried out at site. Given this scope distribution, it is not feasible to adhere to the requirement that erection cost be mandated to 20% of the total supply price indicated in the Supply Schedule. Such an allocation does not reflect the actual nature of the work and may result in an unbalanced bid. This, in turn, could lead to significant financial and cash-flow challenges for bidders during project execution. We are presently executing the KKNPP 3 & 4 project, wherein the supply of major equipment has already been completed. However, the erection activities have been substantially delayed. Due to the mandated requirement of loading 20% of the supply value into the erection portion, we inflated the erection prices accordingly. As a result, the project is currently operating under significant negative cash flow. Hence, we respectfully request NPCIL to remove the mandatory 20% loading requirement on services/erection to ease the cash-flow burden and enable smoother execution of the project. Also, this will enable bidder to avoid the loading of financial charges in the Bid.	Tender conditions shall prevail.	We would like to bring to your kind attention that, based on the actual scope composition of the KKNPP Units 5 & 6 Main Plant Electrical Package, the erection cost component is substantially lower than 20% of the corresponding supply cost. However, the SCC provision mandating that the erection price be quoted at a minimum of 20% of the total supply value results in a significant deviation from the actual cost structure. This requirement leads to an unbalanced allocation between the supply and erection components, causing an artificial loading of erection prices. Such a pricing structure has a considerable impact on our working capital requirements and adversely affects project cash flow management during execution. In view of the above, we kindly request NPCIL to reconsider and remove the mandatory 20% loading requirement on the erection portion. Aligning the quoted values with the actual scope and cost distribution would help ease the working capital burden and facilitate smoother and more efficient execution of the project.	Tender conditions shall prevail.
752	L&T Set-7	L&T Construction	5	Section-B-1	2	Project Instructions Industrial Safety Clauses in tender documentation for EPC contracts Doc No. I01.KX56-0.0.OT.PIN.P001	The minimum numbers of safety professional requirements are mentioned in the tender documents as mentioned below:	----	-----	Tender conditions shall prevail. Manpower is total strength of Employee. "Employee and worker" sentences are self explanatory. Number of safety personals



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							However if your requirement is for PVC Type C Insulation compound then the corresponding sheath shall be PVC Type ST-2 only as per IS 5831 , IS:1554 . Also note that if PVC Type ST-2 is used then we have to carry out all the special tests again.(ie special tests like Service life, Mould growth , Anit Rodent, Anti Termite) for this sheath compound cable.Kindly confirm whether we can proceed further with PVC Type A insulating compound and PVC Type ST-1 sheathing compound as done earlier for KKNPP Unit 3 & 4.	----	----	See response to NPCIL SI. No. 753
756	L&T Set-7	L&T Construction	4	mpe_Section C Part01	Clause 6.1.17	I02.KK56.0.0.ET.TS.PR004_R1_TS for LV POWER CABLE (TYPE – VVGng-FRLS & VVGEng-FRLS)	Physical mechanical and chemical characteristics of insulaiton (Value 1) of Table 6.1.16.1 - it is mention oxygen index 35% and temperature index 300 deg.C which is not applicable for insulating compounds. Kindly delete the same from table Value 1.	----	----	Tender conditions shall prevail.
757	L&T Set-7	L&T Construction	5	mpe_Section C Part01	Clause 6.1.17	I02.KK56.0.0.ET.TS.PR004_R1_TS for LV POWER CABLE (TYPE – VVGng-FRLS & VVGEng-FRLS)	Physical mechanical and chemical characteristics of insulaiton (Value 1) of Table 6.1.16.1 - it is mention break relative elongation125% , After ageing in thermostat temperature as 135 ±2 deg.C which is applicable only for PVC Type C insulation compound as per IS 5831. It will be satisfied only if you provide PVC Type C insulating compound and not PVC Type A compound. Kindly clarify whether PVC Type C or PVC Type A insulating compound to be considered for Unit 5 & 6.	-----	-----	See response to NPCIL SI. No. 753
758	L&T Set-7	L&T Construction	6	mpe_Section C Part01	Clause 5.6	I02.KK56.0.0.ET.TS.PR003_R1_TS for LV POWER CABLE (TYPE – VVGng-LS & VVGEng-LS)	Normal operating conductor temperature is mentioned as 75 deg.C. Kindly note that for PVC Type A insulation it shall be 70 deg.C as done in Unit 3 & 4. Or if you want PVC Type C then the temperature shall be 85 deg.C. Kindly clarify your requirement is for which type of Insulation.	-----	-----	See response to NPCIL SI. No. 753
759	L&T Set-7	L&T Construction	7	mpe_Section C Part01	Clause 6.1.5	I02.KK56.0.0.ET.TS.PR003_R1_TS for LV POWER CABLE (TYPE – VVGng-LS & VVGEng-LS)	The type of insulation has been change from PVC Type A as per IEC 60502-1 to PVC Type C as per IS 5831. If PVC Type C insulation compound is required then fresh special type tests has to be carried out (ie special tests like Service life, Mould growth , Anit Rodent, Anti Termite) and the earlier conducted special tests like service life etc for unit 3 & 4 will not be valid for these cables as the compound is changed for insulation. Kindly check and confirm whether we can proceed further with PVC Type A and the earlier conduct special test reports. The current loads of cables with PVC Type A shall be as per IEC 60287/IS 3961.	-----	-----	See response to NPCIL SI. No. 753



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PRE-BID CLARIFICATIONS RESPONSE-5

NPCIL S.No	Query Set /Round	NAME OF THE BIDDER	QUERY NO	TENDER SECTION NO	REFERENCE CLAUSE NO	REFERENCE DRAWING No. / TECHNICAL SPECIFICATION No. / VALVE SPECIFICATION No. / INSTRUMENTATION SHEET No. / DATA SHEET No.	DESCRIPTION OF THE QUERY	RESPONSE FROM NPCIL	DESCRIPTION OF THE QUERY	RESPONSE FROM NPCIL
760	L&T Set-7	L&T Construction	8	mpe_Section C Part01	Clause 6.1.10	I02.KK56.0.0.ET.TS.PR003_R1_TS for LV POWER CABLE (TYPE – VVGng-LS & VVGEng-LS)	The cable outer sheath shall be extruded from PVC compound type ST-1 as per IEC 60502-1. Kindly note that if your requirement is for PVC Type A Insulation compound then PVC Type ST-1 is applicable. However if your requirement is for PVC Type C Insulation compound then the corresponding sheath shall be PVC Type ST-2 only as per IS 5831, IS:1554. Also note that if PVC Type ST-2 is used then we have to carry out all the special tests again.(ie special tests like Service life, Mould growth, Anit Rodent, Anti Termite) for this sheath compound cable. Kindly confirm whether we can proceed further with PVC Type A insulating compound and PVC Type ST-1 sheathing compound as done earlier for KKNPP Unit 3 & 4.	-----	-----	See response to NPCIL Sl. No. 753
761	L&T Set-7	L&T Construction	9	mpe_Section C Part01	Clause 6.1.15	I02.KK56.0.0.ET.TS.PR003_R1_TS for LV POWER CABLE (TYPE – VVGng-LS & VVGEng-LS)	Physical mechanical and chemical characteristics of insulaiton (Value 1) of Table 6.1.14.1 - it is mention oxygen index 35% and temperature index 300 deg.C which is not applicable for insulating compounds. Kindly delete the same from table Value 1.	-----	-----	Tender conditions shall prevail.
762	L&T Set-7	L&T Construction	10	mpe_Section C Part01	Clause 6.1.15	I02.KK56.0.0.ET.TS.PR003_R1_TS for LV POWER CABLE (TYPE – VVGng-LS & VVGEng-LS)	Physical mechanical and chemical characteristics of insulaiton (Value 1) of Table 6.1.14.1 - it is mention break relative elongation125% , After ageing in thermostat temperature as 135 ±2 deg.C which is applicable only for PVC Type C insulation compound as per IS 5831. It will be satisfied only if you provide PVC Type C insulating compound and not PVC Type A compound. Kindly clarify whether PVC Type C or PVC Type A insulating compound to be considered for Unit 5 & 6.	-----	-----	See response to NPCIL Sl. No. 753
763	L&T Set-7	L&T Construction	11	mpe_Section C Part01	Clause 6.1.25	I02.KK56.0.0.ET.TS.PR113_R1_TS FOR CONTROL CABLES-CABLE TYPE- KVVGng-FRLS & KVVGEng-FRLS	For insulation it is mentioned as oxygen index Minium 30% at room temperature. Kindly note that oxygen index is not applicable on Insulating compound .	-----	-----	Tender conditions shall prevail.
764	L&T Set-7	L&T Construction	12	mpe_Section C Part01	Clause 6.1.22	I02.KK56.0.0.ET.TS.PR114_R1_TS FOR CONTROL CABLES- CABLE TYPE- KVVGng-LS & KVVGEng-LS	For insulation it is mentioned as oxygen index Minium 30% at room temperature. Kindly note that oxygen index is not applicable on Insulating compound .	-----	-----	Tender conditions shall prevail.



TENDER NO. CMM/MEQ-91-21-2-1219										
NUCLEAR POWER CORPORATION OF INDIA LIMITED										
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PRE-BID CLARIFICATIONS RESPONSE-5										
NPCIL S.No	Query Set /Round	NAME OF THE BIDDER	QUERY NO	TENDER SECTION NO	REFERENCE CLAUSE NO	REFERENCE DRAWING No. / TECHNICAL SPECIFICATION No. / VALVE SPECIFICATION No. / INSTRUMENTATION SHEET No. / DATA SHEET No.	DESCRIPTION OF THE QUERY	RESPONSE FROM NPCIL	DESCRIPTION OF THE QUERY	RESPONSE FROM NPCIL
765	L&T Set-7	L&T Construction		Section_E	Sl. No. 1.1 and 2.1	5.8 E_Civil Works	As per the Price Schedule, the quantity referenced under the relevant clause includes: "Construction of pedestal and foundation for 400kV Gantry structures, Equipment foundations, Pedestals, Cable trenches, RCC roads, tower foundations, Oil water discharge systems and other structures as applicable - RCC of M30 using 20 mm and down, owngraded hard stone aggregate" & "Construction of pedestal and foundation for 230kV gantry tructures, equipment foundations, pedestals, cable trenches, RCC roads, tower foundations and other associated structures – RCC M30 using 20 mm and down graded hard stone ggregate".	-----	-----	Bidder understanding is correct. The unit rate for the RCC items includes the cost of formwork/shuttering required for execution
766	L&T Set-7	L&T Construction	2	Section_E		5.8 E_Civil Works	We understand that no separate item for backfilling has been provided in the Price Schedule. If backfilling is not included in any existing item in the price shedule, kindly provide a separate item for backfilling in the Price Schedule.	-----	-----	Backfilling shall be considered excluded from the scope of the tender. The same shall be under NPCIL scope.
767	L&T Set-7	L&T Construction	3	Section_E	Section-E_Price Schedules	5.8 E_Civil Works & 5.6 C_Erection	We trust that, site levelling for 400kV & 220kV Switchyard is not in the bidder scope, as the same is not mentioned under scope of work & in the price schedule and we understand that, levelled land with earth protection upto the required FGL shall be furnished by NPCIL to the bidder. Please confirm.	The excavation and site levelling is in the scope of the successful bidder. Kindly refer Clause 22.4.3 of TS No. 102.KK56.0.0.CC.TSPROO1_TS for Civil Works of E-BoP Outdoor Structures related to site preparation.	Upon review, Clause 22.4.3 pertains to chemical emulsion/anti-weed treatment as part of site preparation and does not specify any requirement for bulk site filling, grading, or levelling of the switchyard area up to the Finished Ground Level (FGL).	Kindly refer the countour map for KKNPP area attached alongwith. The existing levels of KKNPP 5&6 Switchyard areas can be infered from the above. All activities required for levelling the Switchyard area upto the required FGL (from the existing condition) shall be under the scope of this Contract.



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PRE-BID CLARIFICATIONS RESPONSE-5

NPCIL S.No	Query Set /Round	NAME OF THE BIDDER	QUERY NO	TENDER SECTION NO	REFERENCE CLAUSE NO	REFERENCE DRAWING No. / TECHNICAL SPECIFICATION No. / VALVE SPECIFICATION No. / INSTRUMENTATION SHEET No. / DATA SHEET No.	DESCRIPTION OF THE QUERY	RESPONSE FROM NPCIL	DESCRIPTION OF THE QUERY	RESPONSE FROM NPCIL
									Accordingly, bidder understands that major site grading, filling, and levelling of the 400kV and 220kV switchyard areas up to the required FGL are not within the bidder's scope of work, and that NPCIL shall provide the switchyard area in a levelled condition up to the required FGL for execution of the works under this contract. Kindly confirm the above understanding. In case any site filling, grading, or levelling up to the required FGL is in the bidder's scope, kindly provide the relevant item in the price shedule.	
768	L&T Set-7	L&T Construction	4	Section_E	Sl. No. 1.7 and 2.7	5.8 E_Civil Works	As per the referred item in the price shedule, "Supplying of chain link fencing fabric (PVC coated) of 50mm mesh size of Tata or approved equivalent make and nominal diameter of mesh wire equal to 4mm as per IS 2721, fixing it to hot dip galvanised MS angle posts using PVC coated GI line wire connected to posts using M10 size GI bolts (supply inclusive) and 6 mm diameter hot dip galvanised MS stretcher rods tied vertically on posts using M8 size GI J bolt inclusive of their supply etc., complete as per drawings and specifications. Note: The MS angle posts and MS stretcher rods shall be paid under relevant item". Bidder understands that foundation works for the chain link fencing shall be paid under the relevant items. Kindly confirm our understanding.	----	----	Confirmed.
769	L&T Set-7	L&T Construction	5	Section_E		5.8 E_Civil Works	We understand that no separate item for pipes required for drain crossings has been provided in the Price Schedule. Kindly provide a separate item for pipes for drain crossings in the Price Schedule.	----		The drain crossings expected in the outdoor switchyard area are that of Cable trenches. The Cable are intended to be taken over the drains using pedestals. The pedestal construction will be executed through relevant items of the BoQ. Embedded pipes/Duct banks shall be used for cable crossings of road and



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PRE-BID CLARIFICATIONS RESPONSE-5

NPCIL S.No	Query Set /Round	NAME OF THE BIDDER	QUERY NO	TENDER SECTION NO	REFERENCE CLAUSE NO	REFERENCE DRAWING No. / TECHNICAL SPECIFICATION No. / VALVE SPECIFICATION No. / INSTRUMENTATION SHEET No. / DATA SHEET No.	DESCRIPTION OF THE QUERY	RESPONSE FROM NPCIL	DESCRIPTION OF THE QUERY	RESPONSE FROM NPCIL
										embedded pipes would be required for drain from cable trenches to the drain. The GI pipes required for this shall be executed through respective items of supply BoQ (Item no. 1.3.12). Other items required shall be as per the respective items of Civil BoQ (RCC, PCC etc)
770	L&T Set-7	L&T Construction	6	Section_E		5.8 E_Civil Works	Bidder understands that if any item required for execution of the project but not included in the Price Schedule shall be measured and paid at actuals. Kindly confirm our understanding.			In case extra item is required, it shall be executed subject to approval of NPCIL as per relevant tender conditions.

