Structural design description of the steel mesh frame

Project overview

project site	Structural use	structural style	Node form	Old frame thickness	eme of structure	Support form	infrastructure
	roef		Bolt ball	2.0m	890M^2		Concrete frame

Structural parameters

		-						
	Natural co	aditions &	q betaler b	ereneters	: (Besic sno	w pressur	e unit: KN/M ^	2.)
v	donental wind press	re shape factor						
	0.3					0.3		
	-			****	Name yall with	damping ratio	Date of the Later	
	1000	0.4g	The third group	II class	0.45\$	0.03	0.16	
	Dates / in Separts							

Palayent renorials stipulated by the state, approved dominants and relevant technical exchanges provided by the entrusting unit. Building flat, stand Socije the drawings and the relevant professional drawings.

Relevant rentrois major building structure design codes and regulations:

- | B. Building flat. stand Sofije [16] disclosing and 165 relevant processional disclosing.
 | S. Bolovent instance in light structure disclosing codes and registations:
 | Col. | Lufted Standard for Deliability During of Engineering Structures (030008-2018)
 | Col. | Lufted Standard for Stella Structure (03 00017-2017)
 | Col. Load standard reluct.
 Load table: (Note: the grid weight weight is not included in the constant load, and the grid weight load is automatically superimposed in the software internal force analysis.)

	dead load	five load	dust load	Maintenance load	note
inst quarti).50KN/m^(.50KN/m^:	2		Color steel plate roof
	marine / A.				

- we word 200KN/m⁻²/₂

 1KN/M

 Toperature within types temperature difference: +25° Lower temperature difference: +25°, with the construction temperature is 70° 25% as the reference.

 Eithorit the common of the design unit, the load standard value during construction and use shall not accord the above load limit.
- . Description of the dasign principle propuration:
 The roof part analysis adopts the 4DSS (version 11.0) independently developed by the Space Structure Research Center of Tongji University for the internal force enalysis and eptimization design.

ł	Averal control defection			-	Date to high all it per halved	May magnine 1 time
	L/250	180	180	180	180 2	15N/mm ²

in the above table)

				-		
249.12KN	-243.36KI	17.71mm	18.73mm	80.87mm	0.89	-0.87
Metaciel	Salnatians					

It is because the control of the project accept mosts the marliand material specification requirements and the following instructions, and the solicins consisted metal metal inset in following requirements. The solicins consisted in the following requirements associated the requirements are made in the construction of the control of t

"	a crising cir.	order number				
	order number	naterial tradement	≤16mm	>16~40mm	>40~60mm	>60~100mn
	- 1	Q235B	215/125	205/120	200/115	190/110
2.	Specific	stion and	standard of st	5 205/120 200/115 190/110		

_				
ŀ		States and	States solv	-
Г	1	man and man	B/T13793-200	8
	2	tentra dari gar tra matratta. G	B/T 8162-200	8

5. See the following table for the materials, material standards and numbers used in the Project

part name	naterial trademark	Molecial standard name	Motorial number	nobes
steel pipe	Q235B	structural carbon steel	\$B/T 700-200	
steel boil	No.45 steel	improved corbon structural steel	\$B/T 699-1999	
blorking plate	Q235B	structural corbon steel	\$B/T 700-200	
-	Q235B	structurel corbon steel	\$B/T 700-200	5
steere	Q235B	structurel corbon steel	\$B/T 700-200	The inner hole is less than 3
	No.45 steel	improved corbon structural steel	\$B/T 699-1999	The inner tale is greater than
scree	40Cr	alloy constructional steel	GB/T 3077-199	9
belt	40Cr	alloy constructional steel	GB/T 3077-200	0

6. Wder standards used in the Project:

Welding method	Start types	velding material	standard
	Q235A Q235B	E4300~E4313	OD /TE447 40
	Q235C	E4315,E4316	GB/T5117-19
hand welding	Q345B	E5001~E5014	CR /T5118_10
	Q345C	E5001~E5014 E5015,E5016,E50	18 13116-18
	Q235A Q235B Q23	5C HJ402-H08A	GB/T14957-19
	Q345	HJ402-H08MnA	GD/11493/-18

7 Connection part standard used in the Project-

ader numbe	r Standard name	Standard number	class
1	My deep and My harpest had belt for man deather	GB/T1228-2008	10.9\$
3	High strength botts for steel mesh frame botts	GB/T 16939-1997	M12-M36 10.9
		GB/T 16939-1997 N	139-M64X4 9.8
4	Class C heappn-head balls	GB/T 5780-2000	4.8S

- 8. For the materials and other specifications of the network frame embedded parts, see the layout diagram and details of the naturoik frame embedded sparts.
 8. So the dispright of technical description of supports and supports, supports and roof purlins.
- c. so in anything isomerous enterprise of supports and supports, supports and roi purings.
 (a) All insertings shall be accompanied with a quality corrifficate and a re-impaction rapport to sent the requirements of the corrient and included.
 (b) The processing of the corrections of the correction of t

- 1. The precessing, testing and ecoginess of the steel structure components in this directory shall be carried out in accordance of the steel structure components in this directory shall be carried out in accordance of the steel structure components in this directory shall be carried out in accordance of the steel structure of the structur

- Anticorrosion and fire prevention:
 Anticorrosion and fire prevention design of steel structure shall be carried out according to the following specifications:

- (1) Code for Construction and Acceptance of Building Corrosion Prevention Works (CB 50212-2002)

- (1) Code for Construction and Acospinuous of Building Corresion Prevention Works (08 50212-2002)
 (2) Technical Code for Corresion Prevention of Buildings (160 Structure (16) f v 257-2011)
 (3) Code for Fire Prevention in the Design of Buildings (160 Structure (16) f v 257-2011)
 (3) Code for Fire Prevention in the Design of Buildings (160 St0012-2001)
 (3) St0012-2001
 (4) The Private Code for Fire Prevention of Buildings (160 St0012-2001)
 (5) St0012-2001
 (5) St0012-2001
 (5) St0012-2001
 (6) St

- Note the parimetric true portains and storage:

 Notice from on departs while the effectively paskaged to provent happing during transportation and damage the surface
 quality of red parts and the deformation of red parts. But part number shall be indicated on the pointage.

 The typicable poles of the both plant shall be closed with plants lapse, and the grill be parkaging but shall be adopted

 The stand structure components in this density about the parts and the parts of the standard number of the parts of

- In local motor and exceptions.

 Installation and installation suspinate of the project shall be carried out seconding to the following spacifications:

 1. Acceptance Standard for Construction Quality of Steal Structure Ingineering (GE 8008-8000)

 2. The Ultimories Installation English Construction (GE 8008-8000)

 3. Standard for Impaction and Acceptance of Steal Versuck East (IG 12-1989)

 4. The Ultimories Spacification for Weighing of Stallating Installation (GE 8008-8000)

 5. Construction of Steal Structure (GE 8008-8000)

 5. Code for Construction of Steal Structure (GE 8008-8000)

 6. Code for Construction of Steal Structure (GE 8008-8000)

 7. The condidate position and top cleration of the network frame support must be constructed accurately seconding to the daily requirements to sware the occurre positioning and smooth installation. Before a grid installation, the rivil construction that the accuracy positioning and smooth installation. Before a grid installation, the rivil construction unit small page the center [11:6] of the first line, and measure the height difference and deviation of the centeral position and unit outside the sixty. In most review the measurement reviews review quit and

- and stall popular equire, thus of the top long, and secure the length difference and deviation of the central point of our support. Before the measurement results of the civil anginouring unit and state the review results of the civil anginouring unit and state the review results of the civil and state the review results to read to the state that the force senting the dusting regularization. Installation and the state that the state of the calculated deflection under the current fold the definition when of the state that the state of the stat

- The dimensions shown in this figure are in mn. and the elevation is in meters. All dimensions in the drawings shall be marked and shall
- . The discussions shown in this figure are in un, and the observed is in nature. All discussions in the drawings whill be national and whall to be taken by such each such particular the such as the property of the such particular than the such as the such as

- XIII. Menistance and others:

 No unit and individual shall not change the use conditions and environment without the consent of the court, and shall not increase the load of the structure at will be component shall be destroyed. The drawing project shall be imposed of equilarly, find that the structured deformation accessed the standard, and notify the design and the construction unit in time had to carry out the necessary maintenance incourse. When the description is the construction desaying does not consistent with this description, the construction desaying does not consistent with this description, the construction desaying does not consistent with this description, the construction drawing description shall provail.

 Other maintenance of opinion shall be specified exceeding to the national or industry apporting the constructions. If the specifications and studends are option in the does instructions, the one standard content shall present.