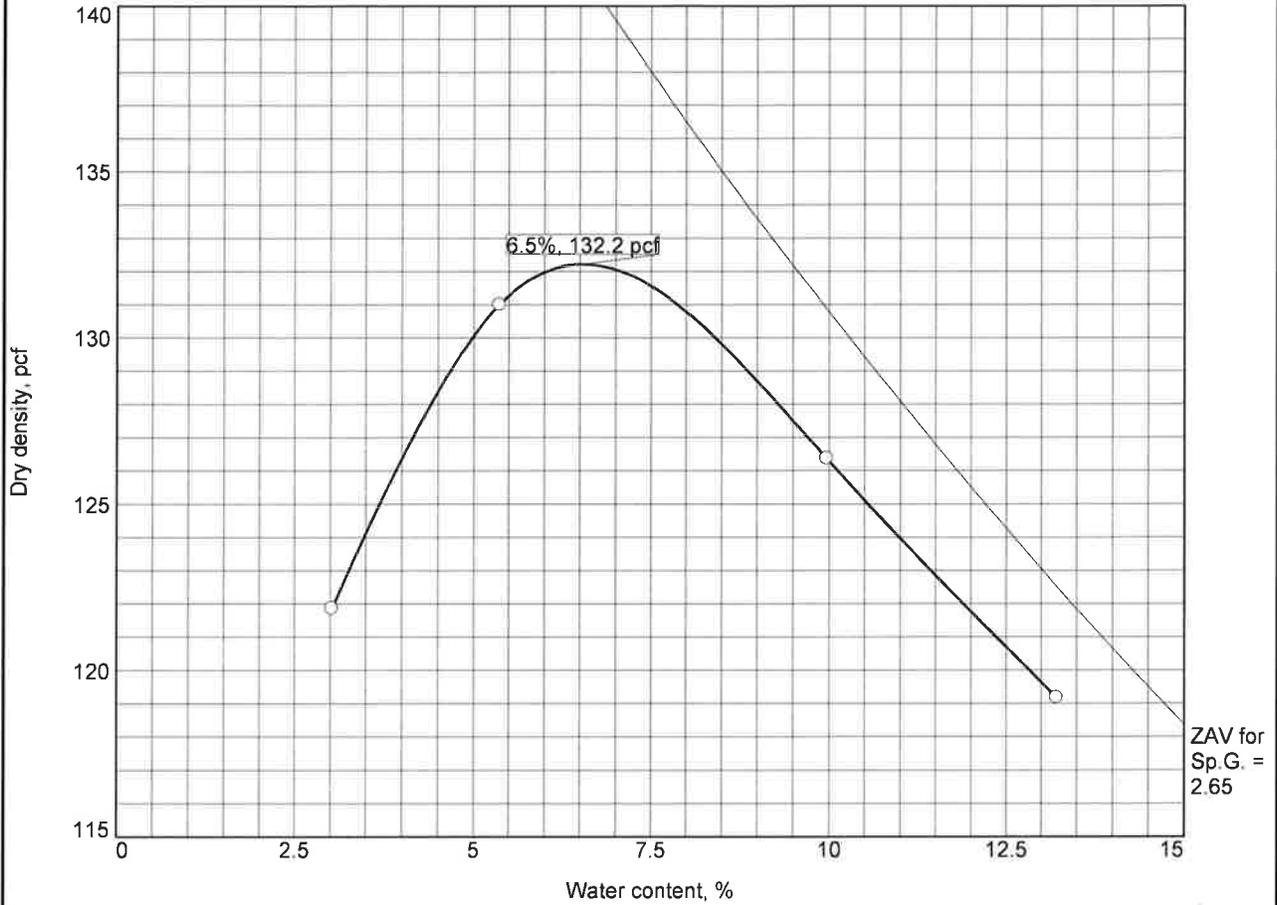


COMPACTION TEST REPORT



Test specification: ASTM D 1557-12 Method C Modified

Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > 3/4 in.	% < No.200
	USCS	AASHTO						
							2.6	

TEST RESULTS	MATERIAL DESCRIPTION
Maximum dry density = 132.2 pcf Optimum moisture = 6.5 %	LIGHT BROWN SAND WITH SILT AND GRAVEL
Project No. 376536 Client: RPM ENGINEERING, LLC Project: PINNACLE PAINTBALL PARK (RPM#87-100) ○ Source of Sample: BULK 01	Remarks: SAMPLE DESCRIPTION BASED ON VISUAL IDENTIFICATION
TRC Engineers, Inc. Mt. Laurel, NJ	

Figure 1

Tested By: CWZ 12/20/19

Checked By: JPB 12/20/19



AGF MARINE CONSULTANTS, INC.

Examined at the request of Pinnacle Paint Ball

EXAMINATION

Paint Ball Facility Constructed with 19 ISO Intermodal Shipping Containers

AGF File # 19253

On February 24, 2020 we proceeded to the Pinnacle Paint Ball facility, Delsea Drive, Franklinville, New Jersey to examine and report on the condition of the 19 ISO containers modified to construct the building.

Conditions sighted at the time of our examination were as follows:

A total of 19 containers were used to construct the structure. (15) – 40' x 8'-6" ISO type 42G1 and (4) – 20' x 8'-6" ISO type 22G1 containers. The containers are configured in a rectangular shape 2 tiers high with the 4 – 20' containers positioned vertically at the 4 corners of the second tier. The 20' containers create a tower effect and are positioned with the door ends on their bottom sides and the undercarriages positioned outward. On the second tier 1 – 40' container is positioned between the 20' towers on each side and 2- 40' containers are positioned between the 20' towers at the front and rear (see attached photos).

The 6 – 40' containers, which form the perimeter of the second tier, and 2 – 40' containers located at the center of the rectangular configuration, have their front panels and rear doors removed. The top tier side containers where they meet the front of the 2 center containers have their side panels cut out. The 4 – vertical 20' vertical containers have the rear portion of their roof panels cut away and the rear side panels that connect to the adjacent 40' container have rear side panels cut out as well. The containers as they have been modified provide for continuous openings between all of the 8 – 40' second tier and 4- vertical 20' tower containers.

The bottom tier of containers have 2 - 40' containers on the front and rear and one 40' container on each side. The containers on front and rear on the 1st tier are located directly under the second tier containers. Starting at the corners, under the vertical 20' towers the 2 front and rear 1st tier 40' containers are positioned towards the center and create a 16' opening (see attached photos). The 2 front and two rear positioned containers have the panels removed on the sides where they come in contact with the side containers. 1 - 40' container is located centered front to rear and side to side and is positioned directly under the 2 second tier containers located in the center. The single container on the 1st tier which is centered between the 2 second tier containers creates a 20' opening at both ends (see attached photos). The front and rear 1st tier containers on both ends have their side sections that overlap the side containers cut away.

The containers are secured by welded plates at all butting ends on the outer vertical sides, floor level sill and bottom front rail connections and second tier outer header and front top rail connections. The two center containers are plated at the front corner post to side container side panels and at the top front header to top rail connections. The 2 centered top tier containers at the vertical side container connections are also supported by standard angles on the underside (see attached photos). The plating detailing and strength calculations were performed by a structural engineer.

No windows, door openings, stairs or landing assemblies were installed at the time of our examination. We examined all the viewable top and bottom rails, front and rear end frames and floor conditions. No rail inserts or sections were sighted. The front corner posts were all sighted to be intact with only one insert repair sighted. The floors overall are solid and showed no signs of any significant damages. We did note some isolated surface delamination which was limited to the top 2-3 ply. The floors are 21 ply. Several existing floor sections were sighted which overall are intact.

The top of the 4 outer sides and the 4 towers have steel battlement shaped steel panels welded to the containers to add to the castle appearance (see photos).

In overview, it is our opinion that the viewable primary structural components, specifically the end frames, rails, corner posts and floors are sound. It is our continued opinion that the secondary components specifically the roof and side panels will be sound after the minimal welding or patching is completed. We again would point out that all the plating and connections were calculated and provided by a professional structural engineer hired by Pinnacle Paint Ball. The plating adds additional strength to the connections and overall strength of the assembled structure.

The container floors are rated at 2.5 times stronger than standard building rated floor strength. We have attached a copy of building code comparisons for all container strengths as compared to building code strengths. It should be noted that all the other container load values greatly exceed the building code values as shown on the attached building code comparisons.

Attached are numerous photos which depict conditions sighted and noted above.

The above is without prejudice to the rights of all parties concerned.

AGF Marine Consultants, Inc.

Mark Anderson

A large, stylized handwritten signature in black ink, appearing to read 'Mark Anderson', is written over the printed name and company name.

Msa

2/28/2020

Enc. (4 zip files of photos)

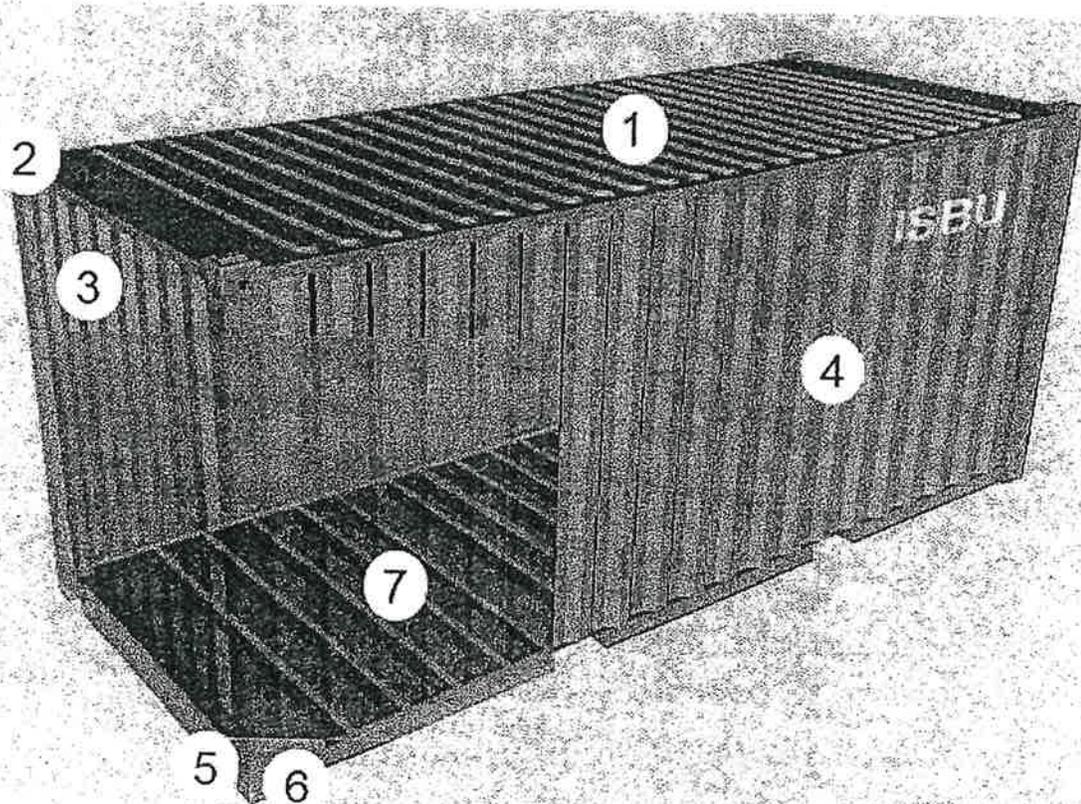
• Building Code Comparisons

Does a standard ISBU meet or exceed IBC or UBC construction standards?

The standard ISO, IMO, and CSC specifications exceed IBC and UBC strength codes in every requirement as a base structural unit:

- Strength loads: top, bottom, side, and end.
- Seismic: earthquake and tremors
- Wind: top and side forces, including tornado and hurricane forces.
- Fire: side, top and bottom.

TYPE	ISBU (container) CERTIFICATION	UBC (Building Code) REQUIREMENTS	ISBU (times stronger) PERFORMANCE
1) Roof, uniform load, center	300 psf	20 psf	15.0 x
2) Roof, stacking, axial	53,000/per post	500/per post	106.0 x
3) End walls, lateral	366 psf	20 psf	18.3 x
4) Side walls, lateral	234 psf	20 psf	11.7 x
5) Racking/shear load "A"	16,800 lb.	680 lb.	24.7 x
6) Racking/shear load "B"	33,600 lb.	1,600 lb.	21.0 x
7) Flooring, uniform load	101 psf	40 psf	2.5 x



© ISBU Association

(See expanded certifications and specifications for details)

* IBC (International Building Code)

* UBC (Universal Building Code)

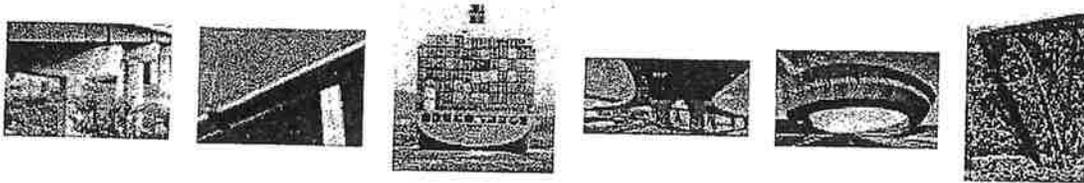
Corten Steel vs., Mild Steel

ISO shipping containers are made using a special steel named "Corten steel". This product is quite different than the common "mild steel" used in most building construction.

U.S. Steel is the original inventor and manufacturer of Corten steel.

Corten steel has at least three very unique properties compared to mild steel

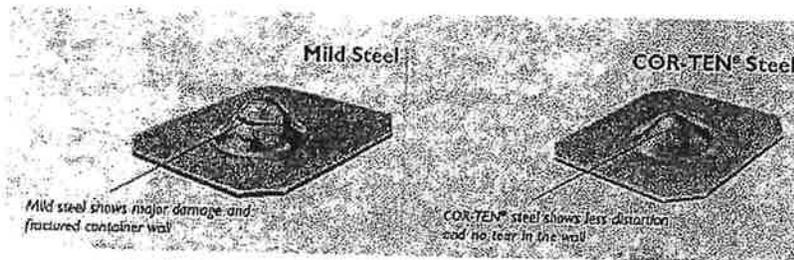
- 1) 40% stronger than mild steel
- 2) Superior bonding properties with paints and coatings
- 3) Anti-corrosive blend of metals



The rusting or corrosion on the surface of un-painted Corten steel is very slow, losing only 1.0 mm of surface per 100 years. 1.5 mm in highly corrosive environments.

For this reason, Corten steel is used on bridges, freeways, cargo ships and the favorite of artists for use on outdoor steel art and architecture. It oxidizes, but does not corrode, that is a very significant difference.

The longevity rating for Corten steel on these structures is 100 - 120 years un-painted. When coated with epoxy paints and maintained, these surfaces are near eternal.



TEST: Corten steel used on shipping containers is virtually undamaged (Cronos)

Many independent studies have been done on shipping containers and the Corten steel used in the container construction. One such study was made by the Cronos Leasing company. The results of a study performed by a UK university concluded that Corten A steel was 75% stronger than mild steel. Their strength test was conducted using a hydraulic ram equivalent of over 20 tons per square inch.

An ISBU or shipping container meet and exceeds all U.S. and International building codes for use as a construction unit base. It is the epitome of sustainability and recyclable and its reputation is well known for durability and longevity.