United Sports Training Center West Bradford, PA

3-Sided Main Imprint Panel Climbing Wall With Dihedral Features
6x9m High Imprint Panel Side Climbing Wall
12 Climber Capacity

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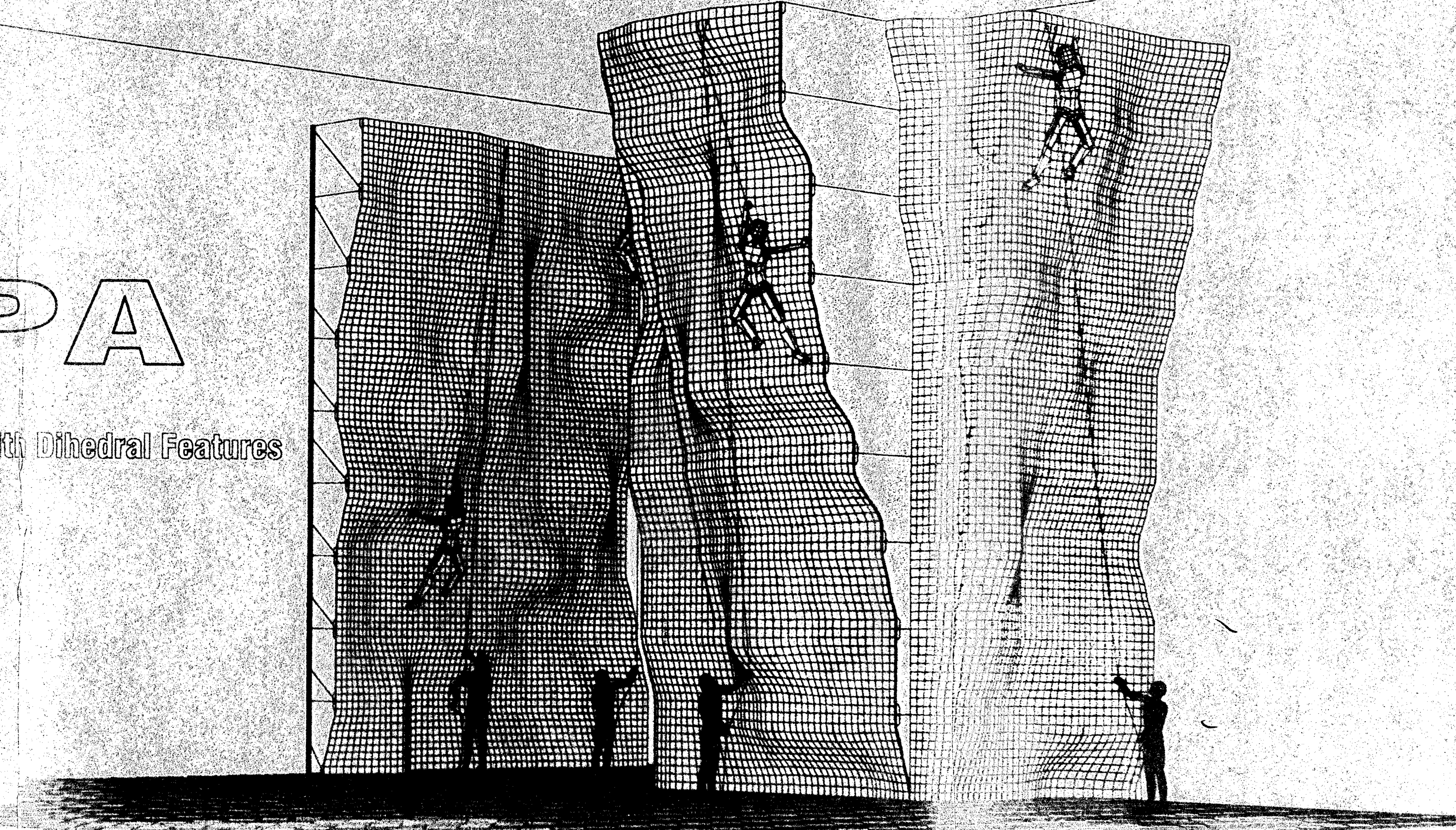

GENERAL NOTES AND SPECIFICATIONS

1. SCOPE:
These drawings and specifications are for the construction of an Imprint climbing wall at the United Sports Center located in West Bradford, PA. Final location of the climbing wall shall be determined by the owner. Entre Prises, USA is not responsible for the design, supervision, or construction of the building in any way.
Engineering calculations outlining reactions generated by the climbing wall ... be carried out by Froelich Engineering Consultants and supplied by Entre Prises, USA.
The final determination of the following structural conditions shall be made by the owners authorized representative and are not the responsibility of Entre Prises, USA or their representatives:

A. Existing structure's ability to support dead and live loads associated wi... this climbing wall
B. The Steel Contractor shall be responsible for supplying and installing the steel support structure as shown in these drawings. Final determination of structure attachment details shall be the responsibility of owners authorized representative, based on reaction forces provided by Entre Prises, USA and Froelich Engineering Consultants.

2. RESPONSIBILITY FOR PERMITS, INSPECTIONS AND LOCAL CODE CONFORMANCE LIES SOLELY WITH THE OWNER AND THEIR REPRESENTATIVES.

3. CODES AND SPECIFICATIONS:
All construction shall comply with all the applicable requirements of the 1994 Edition of the Uniform Building Code or the code of local acceptance. All specifications noted shall be those of latest adoption by the governing body.

4. ADDITIONS AND MODIFICATIONS:
Additions and modifications of these design documents to conform to local building and fire codes are the sole responsibility of the owner and their representatives.

5. VERIFICATION of the existing building structure's ability to carry the additional loads imposed by the climbing wall is the sole responsibility of the owners responsibility. Verification of existing conditions and compliance with construction documents shall be the responsibility the Steel Contractor and shall be inspected by Entre Prises, USA.

STRUCTURAL NOTES AND SPECIFICATIONS

I. CODES AND SPECIFICATIONS:
A. Uniform Building Code - 1994 Edition
B. AISC Manual of Steel Construction – LRFD 1st Edition
C. CEN/AFNOR

II. DESIGN CRITERIA:
A. Dead loads are as follows:
1. Imprint Panel weight = 5.8 lbs/ft^2
2. Imprint support system = 2.5 lbs/ft^2

B. Live loads: (see CEN/AFNOR specifications)
1. Load from utilization = 270lb / 5 linear ft. width
2. Impact load (from falling climber) = 10 KN or 2240lb on any node of structure.

C. Allowable Stresses:

1. Structural Steel	ASTM A36
2. Support Structure Pipe	ASTM A53 Grade A
3. Structural Tube Steel	ASTM A500 Grade B

III. STEEL SUPPORT FRAME (by Steel Contractor):
A. All structural steel and structural steel work shall conform to the specifications for design, fabrication and erection of structural steel for buildings of the American Institute of Steel Construction (AISC) Code of Standard Practice, **and to the requirements of local building codes.**

B. Steel shall consist of A36 material unless otherwise noted.

C. All welding shall conform to the AISC and the Ameri... Welding Society (AWS) Standard Code for Arc and Gas Welding in Building Construction. Minimum size of welds shall be 3/16". Minimum return shall be 1". All welds shall be executed using E70XX elecodes.

D. Unless otherwise specified, all steel work must permit strut attachment within the tolerances outlined in Section IV

E. Finish on the above structural steel shall be the followig:
1. Gray Primer

IV. STRUT ATTACHMENT (by Steel Contractor):
A. Strut used to support climbing wall shall be the followg:
1. Unistrut P1000 or approved equal

B. Finish on the above strut shall be the following:
1. Gray Primer

C. Locknuts to be used with the strut shall be the followin
1. Unistrut P3010 1/2" or compatible with appr...ed strut. (625, supplied by Steel Contractor)

D. Dimensional tolerances
1. The face of the strut may be displaced no m... than 1/8" from the flush face plane. Maximum displacement between extreme forward and ... displaced faces shall not exceed 1/4".
2. Center to center spacing of strut shall be dis...ced no more than 1/8" from established dimensions shown on these drawings. Maxi...m displacement between extreme (outside) struts shall not vary more than (1/4") from the est...ished dimensions.

E. Strut shall be attached to the tube steel columns as sh...n in drawings by Entre Prises, USA

V. MODULAR SUPPORT SYSTEM (by Entre Prises, USA):
A. ANGLE CLIPS: (Strut to Pinch Pipe connection)
1. All Angle Clips shall be attached to strut u...g (2) Grade 5, 1/2" bolts and (2) 1/2" locking plates compatible with strut.
2. All bolts securing Angle Clips to strut shall be...curely tightened.
3. Lock washers shall be used under the head of bolts used with strut locking plates.

B. PINCH PIPES:
1. All vertical pipes shall be fastened between t...nd bottom Corner Brackets as shown in these drawings.
2. All horizontal and diagonal pipes shall be f...ned to the strut using Angle Clips and to the Imprint Panel Corner Brackets as shown in these draw...s.
3. All Pinch Pipe connections shall be made usi.../2" Grade 5 bolts and Grade C lock nuts. Flat washers shall be used under both bolt head and nut.

C. CORNER BRACKETS (CB) shall be attac...
Corner bracket shall be secured with a ...
1. Standard field connections consist of fo... (2) corner brackets with one (1) bracket ...
2. Corner Bracket to Corner Bracket conn... using 1/2" Grade 5 bolts as follows
a. Horizontal seams: one (1) bolt ... (2 bolts std. field conn.), either hole, each side.
b. Vertical seams: two (2) bolts p... pair (4 bolts/std. field conn.). Pinch pipe shall also be attached using these bo...
3. Alignment of Imprint Panels shall be ca... out using CB bolt holes. Once aligned, bolts shall be tightened.
4. All bolts shall be tightened until bolt he... and nut bear firmly on connected parts. Avoid overtightening as panel corners may crack

VI. IMPRINT PANEL SYSTEM (by Entre Prises, USA):
A. Imprint Panels shall be attached to modular support system using Corner Brackets as outlined above.

B. Modular climbing hold installation:
1. Holds having a conical surface in the mounting hole shall be attached using a 3/8" flat head cap screw.
2. All other EP holds shall be attached using a 3/8" Socket Head Cap Screw.
3. Attachment bolts shall be tightened using an allen wrench until the hold is secure from rotation. Care shall be taken to avoid over-tightening, as the hold and/or panel may be damaged.

VII. CLIMBING PROTECTION/ANCHORS (by Entre Prises, USA):
A. Lead bolts:
1. U.I.A.A. approved bolt hangers shall be attached through the Imprint Panel into one of the interior adjacent Corner Brackets using a 3/8" Grade 8 button head cap screw.
2. The 3/8" button head cap screw shall be of sufficient length to extend through the 3/4" stud on the Corner Bracket and through a backup 3/8" lock nut behind the stud.

B. Belay Anchor:
1. Each belay anchor shall consist of two (2) U.I.A.A. approved bolt hangers attached to two horizontally adjacent Corner Brackets as per "Lead Bolts" above.
2. Maximum horizontal distance between bolt hangers shall be 6".

WARNING: Belay anchors and lead bolts shall be placed only into interior Corner Brackets. No bolts except for hold attachments shall be placed directly into Imprint Panels.

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DRW.No: 1376-1
1 of 6

United Sports Training Center
Boulder Drive
West Bradford, PA

EP Job No: 1376
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Checked:

Climbing Wall Installation Drws.
Notes, Specifications & Perspective