

# **ATHLETIC FLOORING CUT SHEETS**

## **-- BASIS OF DESIGN --**

ALL PROPOSED FLOORING SYSTEMS WILL BE EVALUATED AGAINST THE PERFORMANCE REQUIREMENTS OF THIS BASIS OF DESIGN PRODUCT. OTHER PRODUCTS OF EQUAL OR BETTER PERFORMANCE CHARACTERISTICS ARE ENCOURAGED TO BE SUBMITTED FOR CONSIDERATION.

## ADVANCE VULCANIZED

TOUGH MEETS COMFORT



**ADVANCE VULCANIZED IS A MULTI-LAYERED FLOORING MADE OF VULCANIZED RUBBER. ITS THREE LAYERS HAVE VARYING DEGREES OF HARDNESS, AND THE COMBINATION MAKES IT HANDS DOWN THE MOST DURABLE MULTIPURPOSE FLOORING AROUND.**



### CO-VULCANIZED MULTI-LAYER DUAL DUROMETER

Two different layers of solid rubber with their own formulations, vulcanized together to form a continuous, seamless piece of material.



### AIR-CELL TECHNOLOGY

Air-filled chambers on the bottom layer compress, then expand, acting like bowstrings and projecting athletes up and forward.



### SMOOTH SOLID RUBBER TOP LAYER

Vulcanized rubber surfaces with a smooth finish, for indoor installation. Thanks to its properties, under dry conditions, the rubber naturally ensures a superficial grip, without any need for additional embossing.



## ADVANCE VULCANIZED

In basketball, support starts under the feet: the right energy return, stability and grip provide the perfect base for top athletic performance. Advance Vulcanized combines three layers to meet all play needs, from practices to championship finals.

Speed, agility and explosive leaping. Volleyball requires a high-end surface capable of supporting high-performance play. That's Advance Vulcanized.

## BETTER GRIP MEANS BETTER PERFORMANCE

The performance layer is made of solid rubber that requires no finishes or surface coatings. It is designed to exceed the toughest friction coefficient standards for high-level play and superior biomechanical performance.

## LESS IMPACT, MORE COMFORT

The underlayer's deformable geometric structure increases the flooring elasticity. This results in optimized foot support, exceptional shock absorption and maximized energy return for superior comfort while playing.

## MAXIMUM SUPPORT FOR HEAVY LOADS

The load disbursement layer enables Advance Vulcanized to withstand heavy loads, such as sports equipment, bleachers, benches and tables.

## DIMENSIONS

### THICKNESS

10 mm

### ROLL LENGTH

42'7" (13 m (Min. 6m, Max. 15 m) )

### ROLL WIDTH

6'1" (1.86 )

## COLOR RANGE



## SPORT IMPACT

HEAVY WORKOUTS? NO WORRIES.



**SPORT IMPACT IS A DOUBLE-LAYERED VULCANIZED RUBBER FLOORING WITH AN EXTRA-THICK SURFACE LAYER THAT CAN RESIST WEAR FROM HEAVY WEIGHTS AND THE MOST INTENSE SPORTS ACTIVITIES.**



### **CO-VULCANIZED MULTI-LAYER DUAL DUROMETER**

Two different layers of solid rubber with their own formulations, vulcanized together to form a continuous, seamless piece of material.



## SPORT IMPACT

Whether athletes are powerlifting, core training or using free weights, nothing other than their own fatigue should limit the intensity of their workouts. Sport Impact ensures the best surface for strength training exercises, capable of absorbing even the heaviest impact, and offering incomparable safety and comfort.

A weightlifting platform must provide support at the moment of maximum effort. It has to be stable, uniform, and comfortable, so users can fully concentrate on their workouts. Sport Impact's two vulcanized layers not only absorb even the most violent impact from free weights, they also reduce muscle stress and support leg exertion. It's a uniform and incredibly weight-resistant solution to support the most intense training.

Even before skaters hit the ice, their blades give arena flooring a serious workout. With its 3 millimeter wear layer, Sport Impact resists abrasions and cuts, and it's perfect for common areas and dressing rooms as well.

## UNSURPASSED WEIGHT RESISTANCE

With its extra-thick 3 millimeter wear layer, Sport Impact resists traction, lacerations, and heavy loads. Ideal for even the most intense sports activities, it ensures athletes excellent stability due to the embossed non-porous surface, and the underlayer guarantees uniform shock absorption and dimensional stability.

## DIMENSIONS

### THICKNESS LENGTH

### WIDTH

### WEIGHT

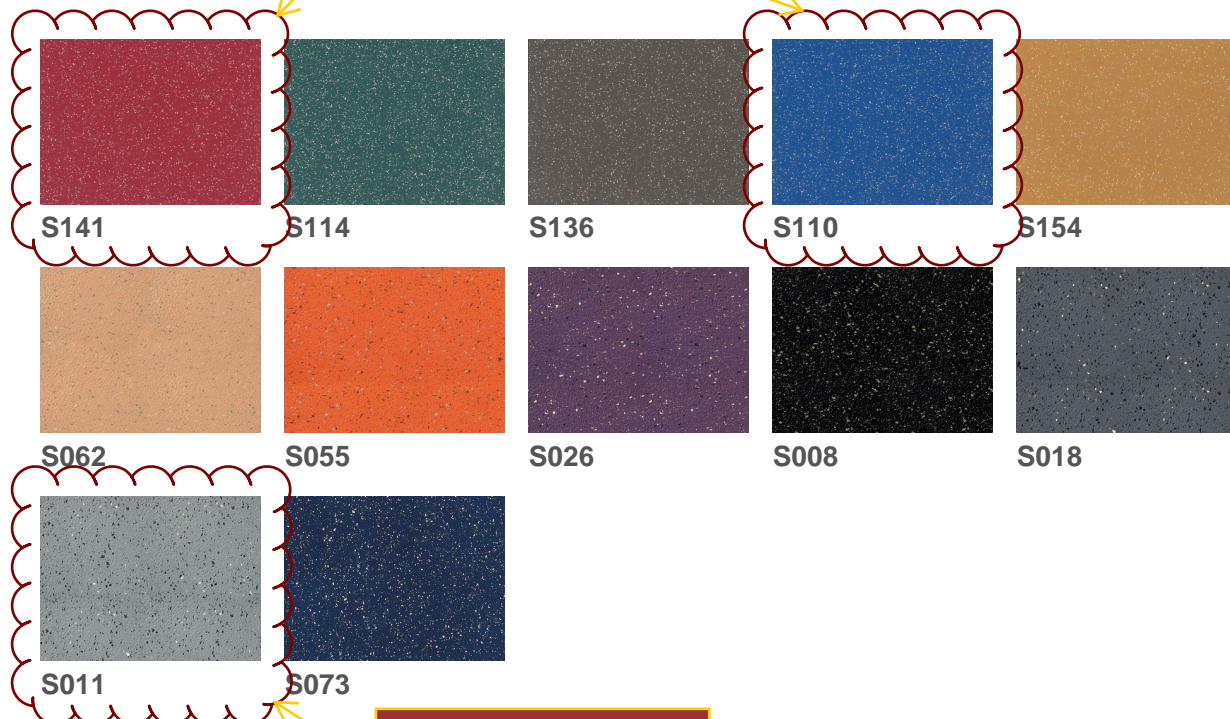
### TILE SIZE

10 mm	29'6" (Min. 19'8", Max. 36'1") (9 m)	6' (186 cm)	2.9 lbs/sq.ft. (14.2 kg/m <sup>2</sup> )	3' x 3' (91.35 x 91.35 cm)
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Located at platform  
lift area only.



## COLOR RANGE



Located in weight room area as  
field color throughout room.

## CERTIFICATIONS

Sport Impact Greenguard Certification

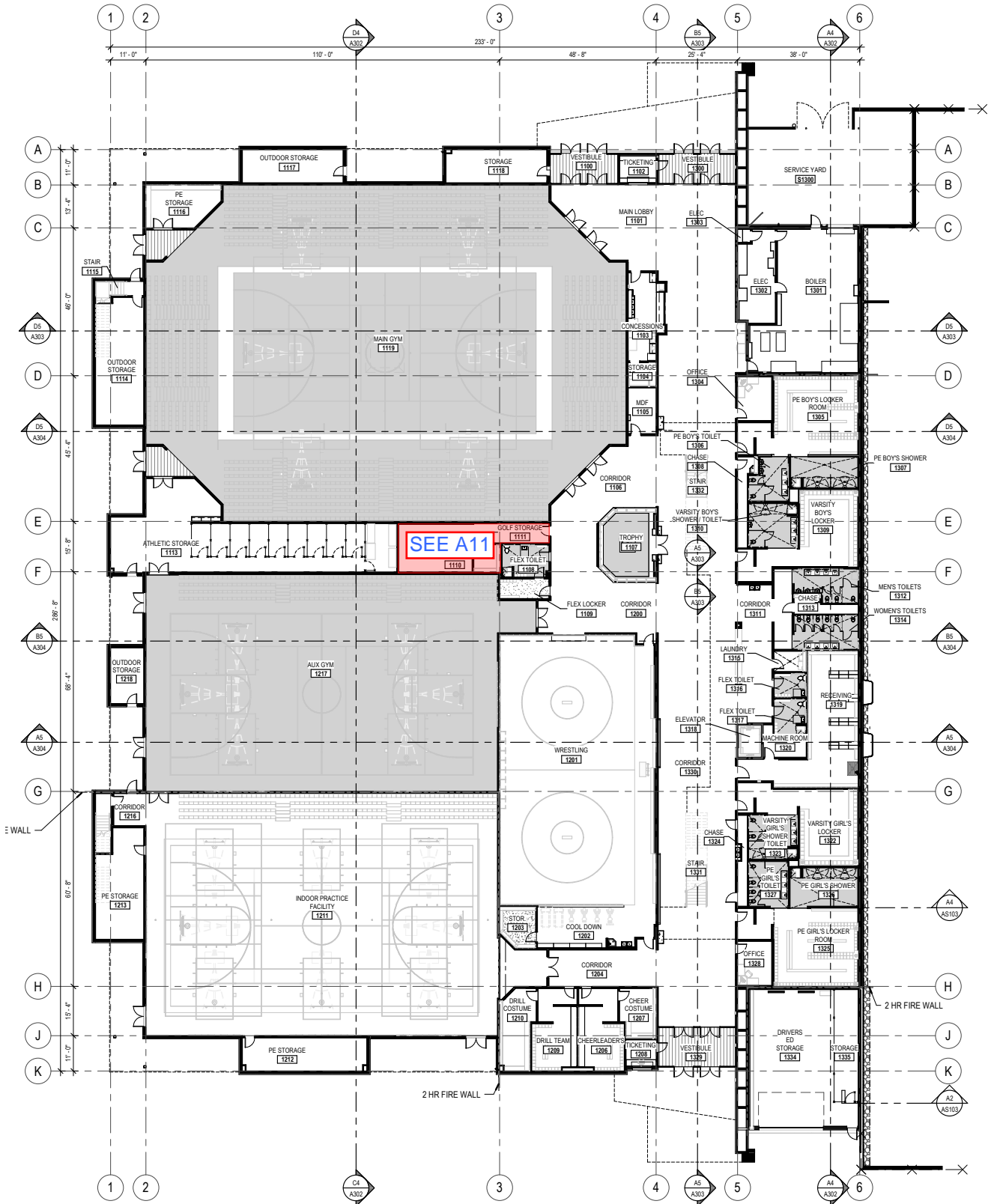
Sport Impact Greenguard Gold Certification

# **ATHLETIC & WEIGHT EQUIPMENT CUT SHEETS & LAYOUT INFORMATION -- BASIS OF DESIGN --**

ALL PROPOSED ATHLETIC & WEIGHT EQUIPMENT WILL BE EVALUATED AGAINST THE PERFORMANCE REQUIREMENTS OF THESE BASIS OF DESIGN PRODUCTS. OTHER PRODUCTS OF EQUAL OR BETTER PERFORMANCE CHARACTERISTICS ARE ENCOURAGED TO BE SUBMITTED FOR CONSIDERATION.

ADDITIONALLY, LAYOUTS CAN BE PROPOSED IN DIFFERENT CONFIGURATIONS IF DESIRED BY BIDDER.





# OSD BLHS ATHLETIC CENTER

OGDEN SCHOOL DISTRICT  
 1080 9TH ST, OGDEN, UT 84404  
 CONFORMED SET



VCBO: 17875  
 CLIENT: 17875  
 DATE: 08 MAR 2019

GOLF SIMULATOR

A10

Location for golf simulator computer.  
Power provided at this location under separate contract.

Painted concrete floor finish provided under separate contract. All additional flooring systems associated with the simulator shall be provided in this scope of work.

31' - 5 3/8"

15' - 2 5/8"

14' - 8 7/8"

Golf Simulator

Putting Green

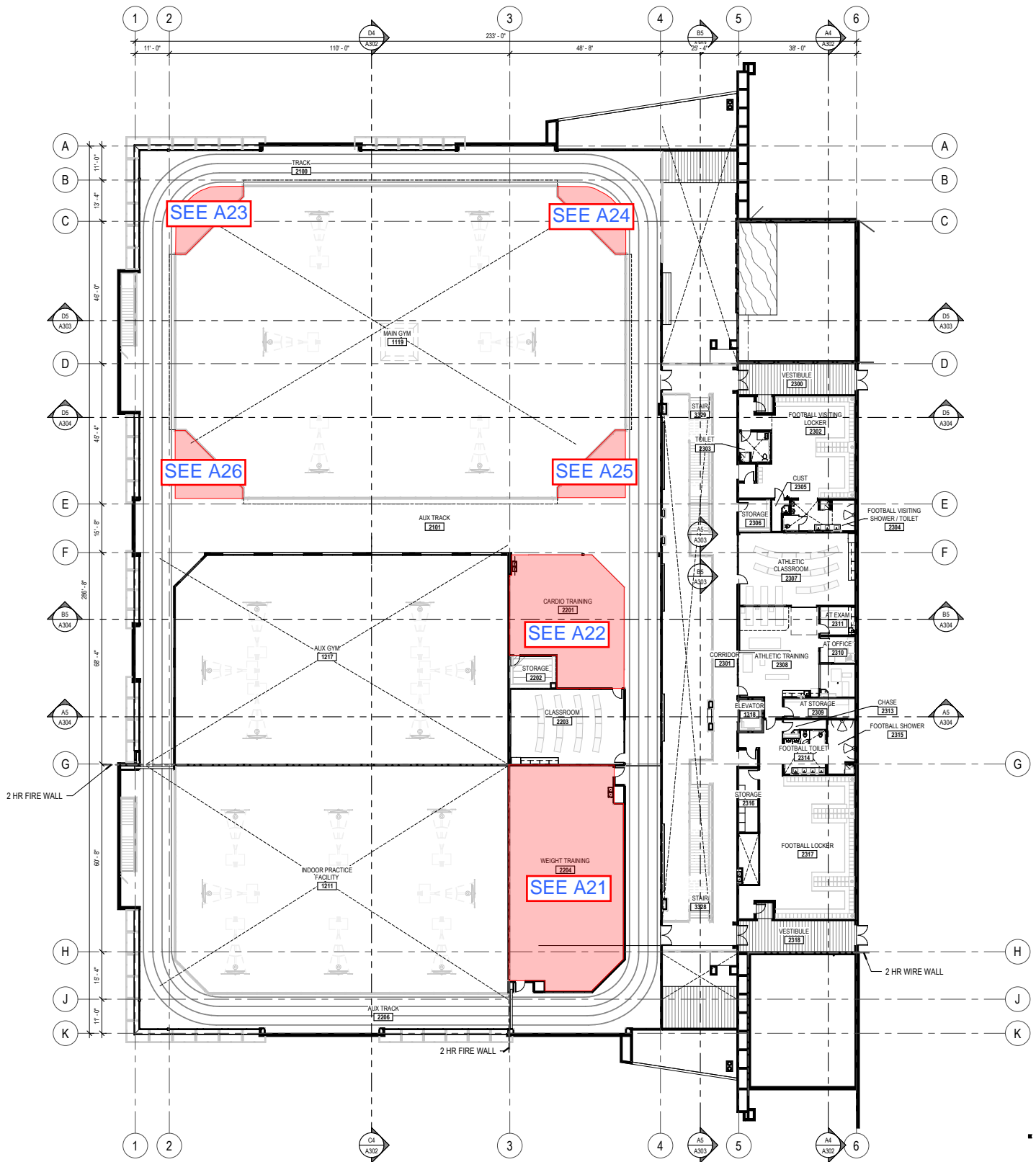
Student lockers shown for reference only.

Simulator Tee Box

**NOTE:**

Scope of work in this area to include all golf simulator & putting green equipment, flooring, and associated power and data termination at wall plates only. Walls, ceilings, painted finishes, lockers, power & data feeding wall plates in this area is covered under separate contract.

## OSD BLHS ATHLETIC CENTER



# OSD BLHS ATHLETIC CENTER

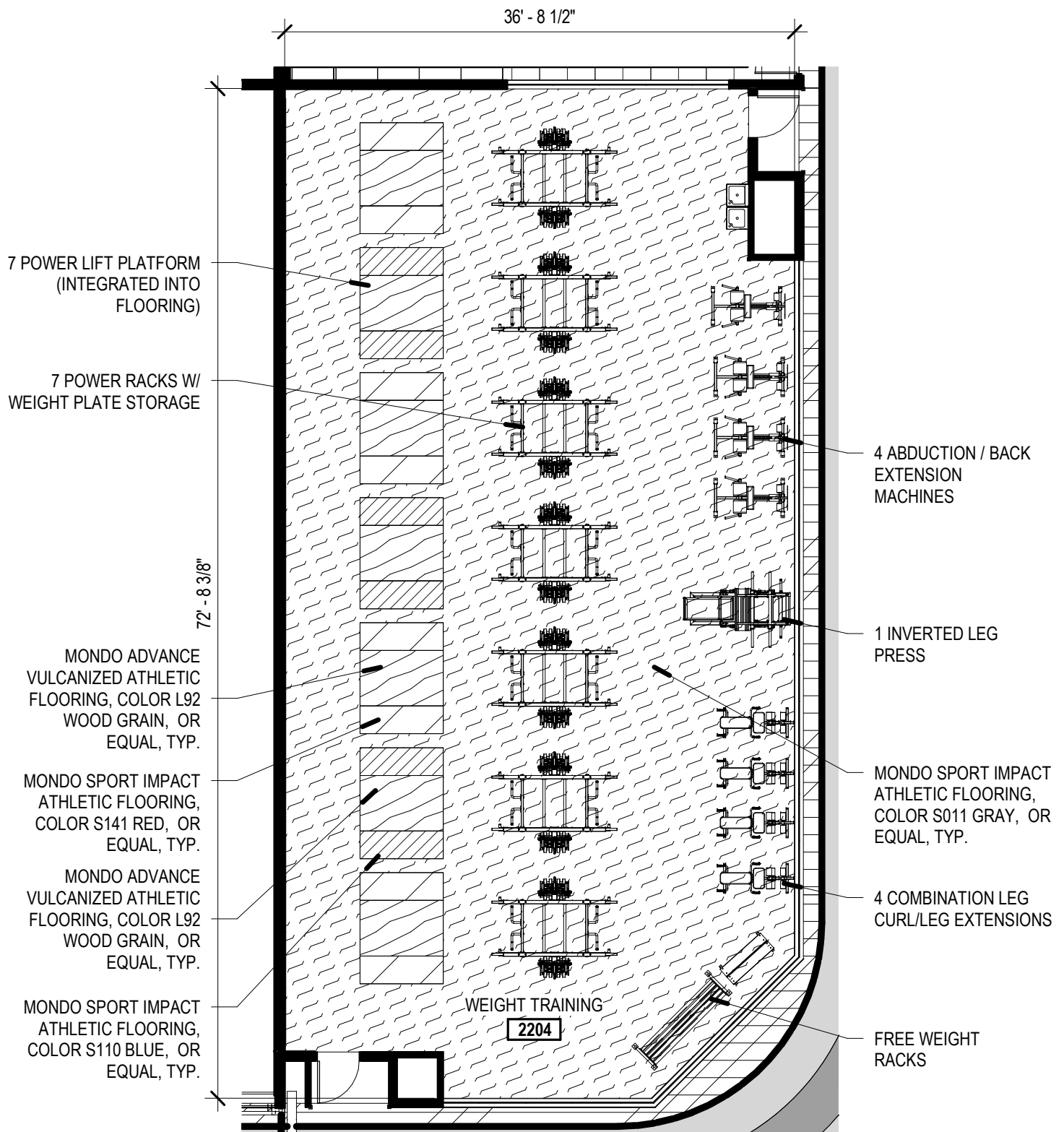
OGDEN SCHOOL DISTRICT  
1080 9TH ST, OGDEN, UT 84404  
CONFORMED SET



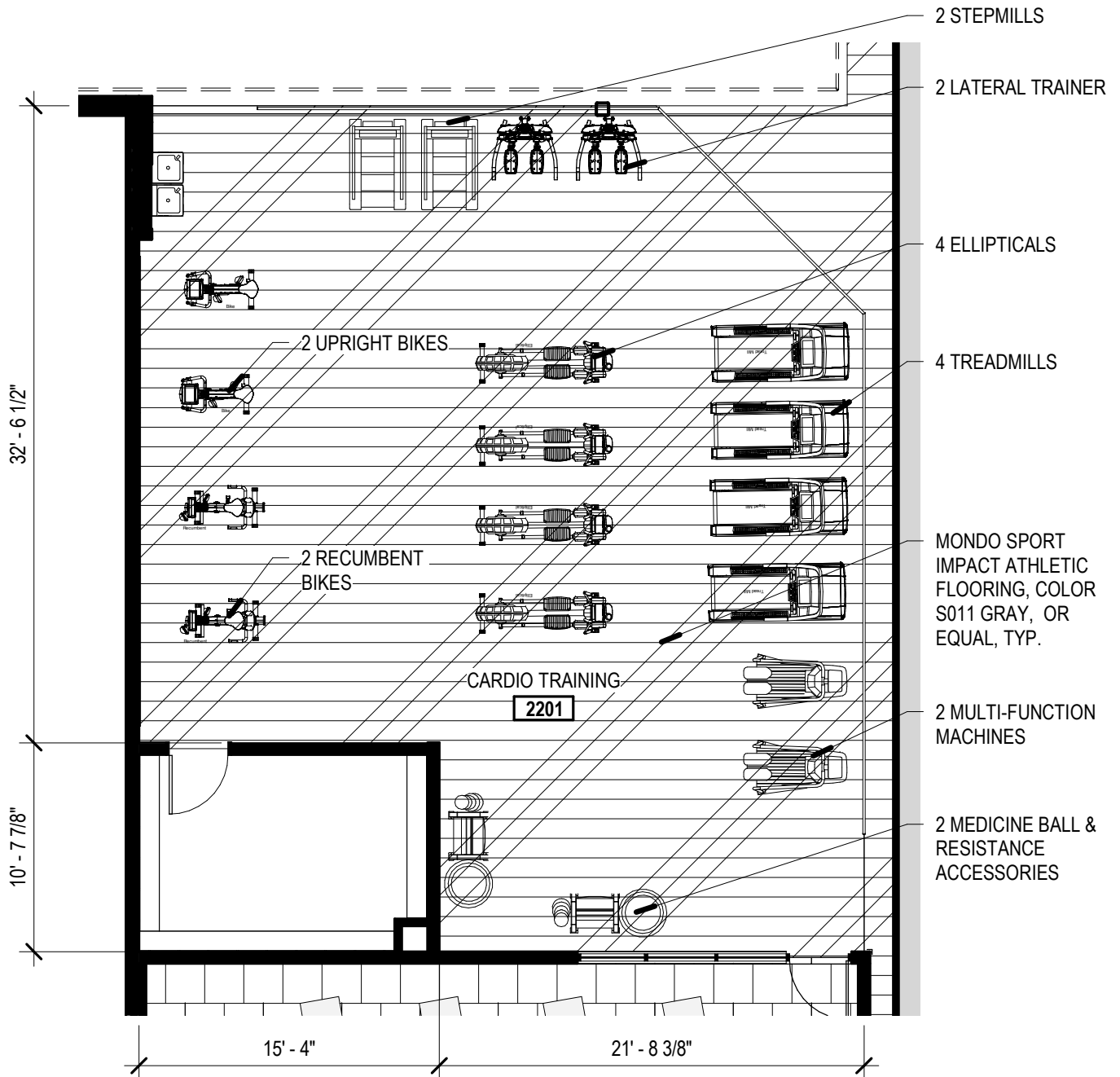
VCBO: 17875  
CLIENT: 17875  
DATE: 08 MAR 2019

WEIGHT ROOM

A20



## OSD BLHS ATHLETIC CENTER



**NOTE:**

Scope of work in this area to include all exercise equipment, and associated power and data termination at wall plates only (for all equipment that requires power/data service.) Walls, ceilings, finishes, and power & data feeding wall plates in this area is covered under separate contract.

**OSD BLHS ATHLETIC CENTER**

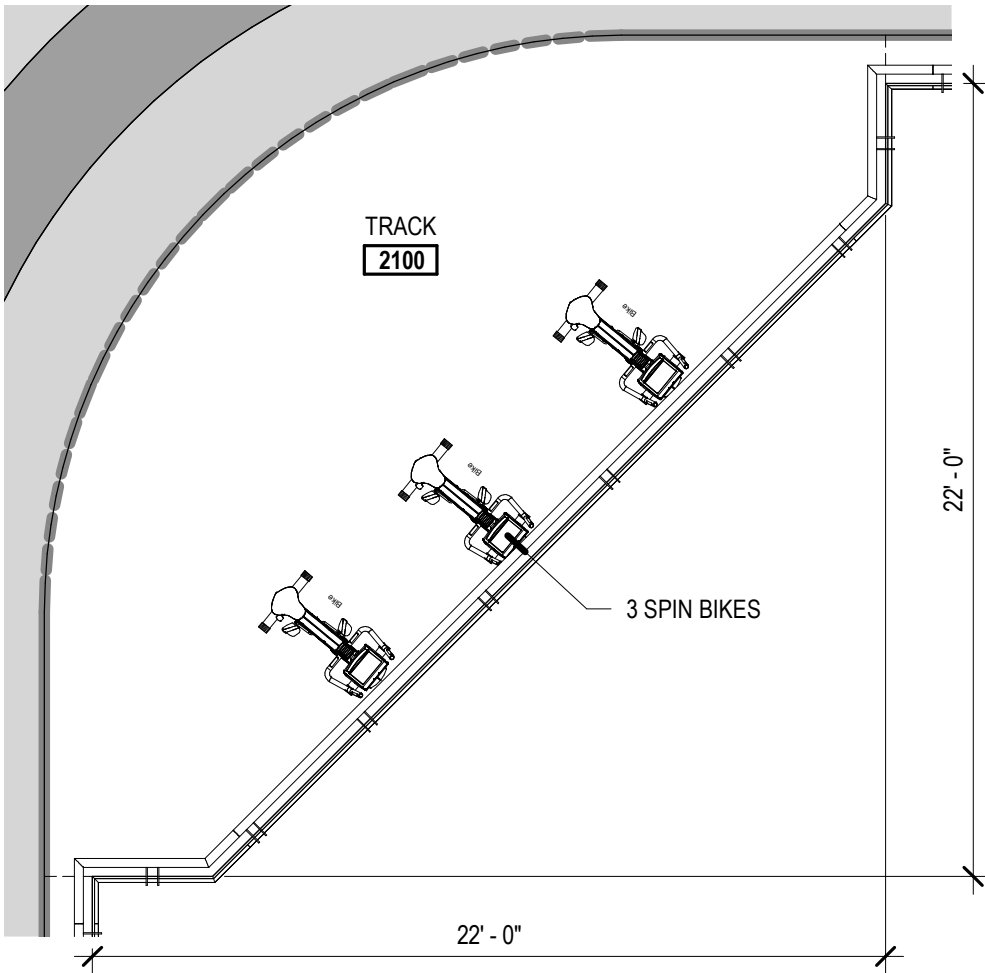


OGDEN SCHOOL DISTRICT  
1080 9TH ST, OGDEN, UT 84404  
CONFORMED SET

VCBO: 17875  
CLIENT: 17875  
DATE: 08 MAR 2019

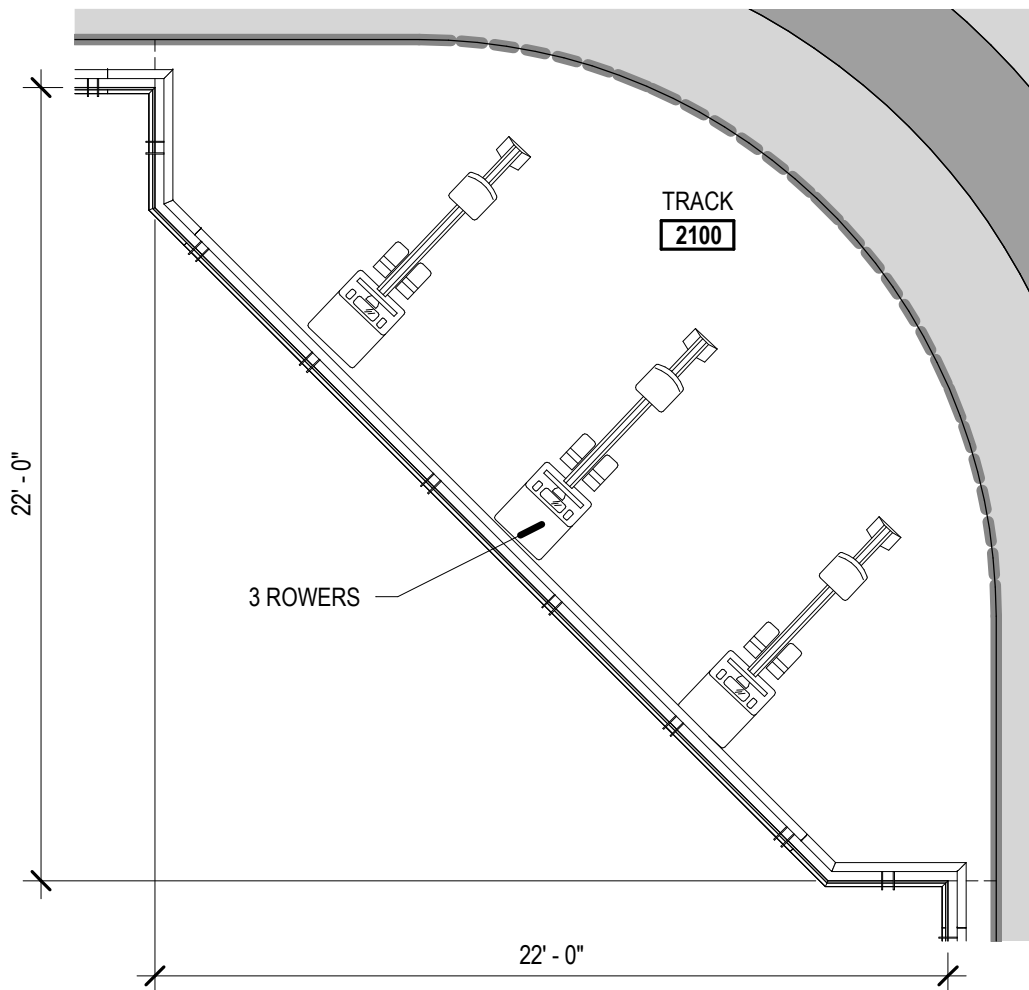
CARDIO ROOM

**A22**

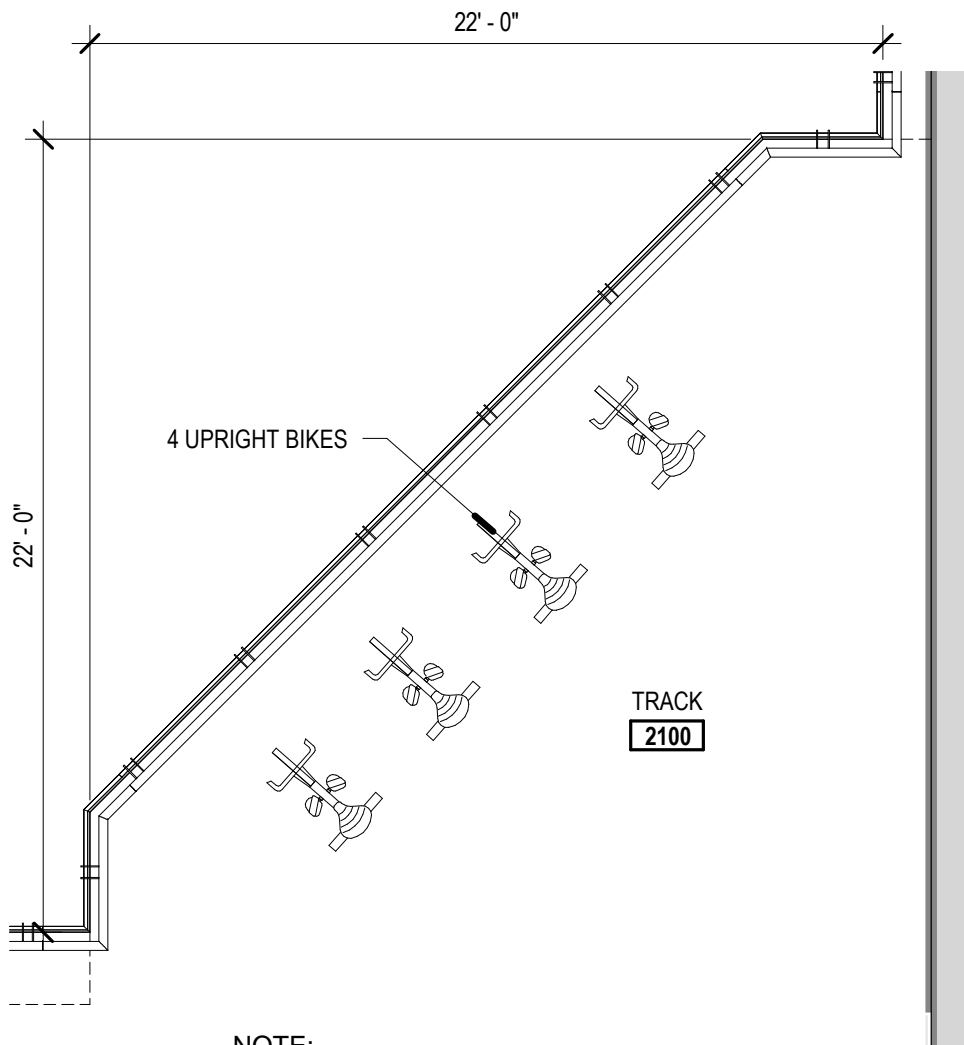


**NOTE:**

Scope of work to include 3 spin bikes and associated terminations to adjacent power & data wall plates (where occurs) only. Flooring and all other improvements in this area is covered under separate contract.

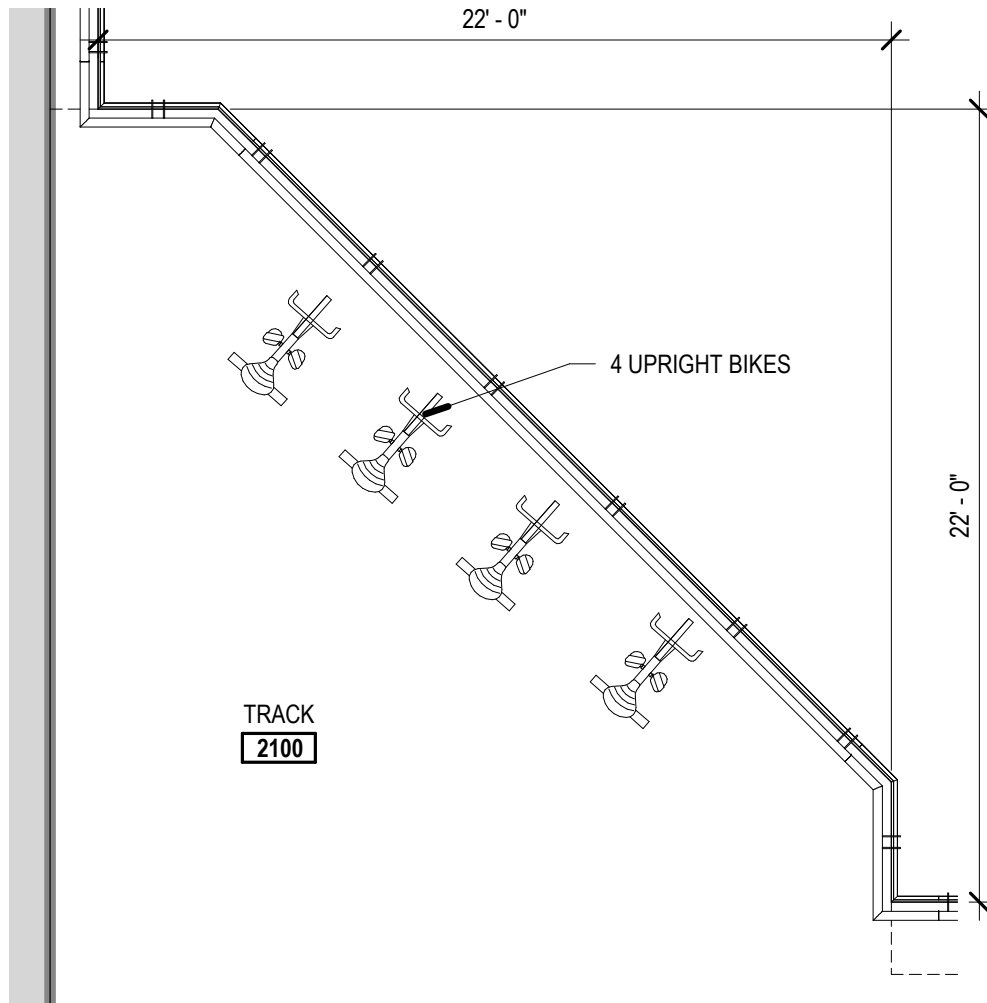


**NOTE:**  
 Scope of work to include 3 rowers and associated terminations to adjacent power & data wall plates (where occurs) only. Flooring and all other improvements in this area is covered under separate contract.



**NOTE:**  
 Scope of work to include 4 upright bikes and associated terminations to adjacent power & data wall plates (where occurs) only. Flooring and all other improvements in this area is covered under separate contract.





**NOTE:**  
 Scope of work to include 4 upright bikes and associated terminations to adjacent power & data wall plates (where occurs) only. Flooring and all other improvements in this area is covered under separate contract.

# **GOLF SIMULATOR CUT SHEETS**

## **-- BASIS OF DESIGN --**

ALL PROPOSED GOLF SIMULATORS & PUTTING GREENS WILL BE EVALUATED AGAINST THE PERFORMANCE REQUIREMENTS OF THIS BASIS OF DESIGN PRODUCT. OTHER PRODUCTS OF EQUAL OR BETTER PERFORMANCE CHARACTERISTICS ARE ENCOURAGED TO BE SUBMITTED FOR CONSIDERATION.

## **SECTION 26 3400**

### **GOLF SIMULATORS**

#### **PART 1 – GENERAL**

##### **1.1 RELATED DOCUMENTS:**

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division-1 Specification Sections, apply to work of this section.
- B. This section is a Division 26 General Provisions section, and is part of each Division 26, 27, and 28 sections referring to Golf Simulators.

##### **1.2 DESCRIPTION OF WORK:**

- A. The following outlines general requirements for Golf Simulators:
  - 1. Provide engineered stamped drawings, shop drawings, and project documentation.
  - 2. Golf Simulator system components including, but not necessarily limited to:
    - a. Enclosure.
    - b. Projector.
    - c. Golf Ball Tracking System.
    - d. Software.
    - e. Options.
  - 3. Putting Simulator system components including, but not necessarily limited to:
    - a. Adjustable Platform.
    - b. Projector.
    - c. Electronics
  - 4. Specify layout and location of the system at the approved project site.
  - 5. Conduct acceptance testing of system.
  - 6. Minimize the risk of vandalism, theft and personal injury in the installation and operation of the systems.
  - 7. System layout, spacing, and construction shall comply with all current zoning, building, and fire codes requirements.
  - 8. Other items as may be included in other scope of work documents.

##### **1.3 SECTION INCLUDES**

- A. Golf Simulator.
  - a. Enclosure.
  - b. Projector.
  - c. Golf Ball Tracking System.
  - d. Software.
  - e. Options.
- B. Putting Simulator.
  - a. Adjustable Platform.
  - b. Projector.
  - c. Electronics.

#### **1.4 REFERENCE STANDARDS**

- A. ASCE 7-10 - Minimum Design Loads for Buildings and Other Structures; 2010.
- B. NECA 1 - Standard for Good Workmanship in Electrical Construction; National Electrical Contractors Association; 2010.
- C. NFPA 70 - National Electrical Code; National Fire Protection Association; Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.

#### **1.5 ADMINISTRATIVE REQUIREMENTS**

- A. Coordination:
  - 1. Coordinate arrangement of equipment with the dimensions and clearance requirements of the actual equipment to be installed.
  - 3. Notify Architect of any conflicts with or deviations from the contract documents. Obtain direction before proceeding with work.
- B. Pre-installation Meeting: Convene one week prior to commencing work of this section; require attendance of all affected installers. Include adequate instruction on the hazards associated with Golf Simulators and appropriate safety procedures to be followed.

#### **1.6 SUBMITTALS**

- A. Design Documents: Prepare and submit all information required for plan review and permitting by authorities having jurisdiction, including but not limited to plans, electrical diagrams, riser diagrams, mounting details, and description of operation.
- B. Product Data: Provide manufacturer's standard catalog pages and data sheets for each product. Include configurations, standard diagrams, outline and support point dimensions, finishes, weights, service condition requirements, and installed features.
- C. Shop Drawings: Include dimensioned plan views and sections indicating locations of system components, required clearances, attachment locations and details, and proposed size, type, and routing of conduits and cables. Include system interconnection schematic diagrams showing all factory and field connections.
- D. Installer's Qualifications: Include evidence of compliance with specified requirements.
- E. Manufacturer's Installation Instructions: Indicate application conditions and limitations of use stipulated by product testing agency. Include instructions for storage, handling, protection, examination, preparation, installation, and operation of product.
- F. Field quality control test reports.
  - 1. Include manufacturer's field reports.
- G. Operation and Maintenance Data: Include detailed information on system operation, equipment programming and setup, replacement parts, and recommended maintenance procedures and intervals.
- H. Warranty: Submit sample of manufacturer's warranty and documentation of final

executed warranty completed in Owner's name and registered with manufacturer. Submit any extended warranty options available from the manufacturer.

## **1.7 QUALITY ASSURANCE**

- A. Comply with NFPA 70.
- B. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum three years documented experience.
  - 1. Provide 3 references, minimum, with bid.
- C. Installer Qualifications: Company specializing in performing the work of this section with minimum five years documented experience of similar size, type, and complexity.
  - 1. Licensed in the State of Utah as a General Electrical Contractor (S200).
  - 2. Manufacturer's authorized installer.

## **1.8 DELIVERY, STORAGE, AND HANDLING**

- A. Store products in manufacturer's unopened packaging, keep dry and protect from damage until ready for installation.

## **1.9 WARRANTY**

- A. See Section 01 7800 - Closeout Submittals, for additional warranty requirements.
- B. Golf Simulator: Provide a minimum 5-year manufacturer warranty covering repair or replacement due to defective materials or workmanship.
- C. Putting Simulator: Provide minimum 5-year manufacturer warranty covering repair or replacement due to defective materials or workmanship.

# **PART 2 – PRODUCTS**

## **2.1 MANUFACTURERS**

- A. Subject to compliance with requirements, provide products from one of the following for each component:
- B. Golf Simulator:
  - 1. Basis-of-Design Product: Full Swing – Pro Series.
  - 2. Subject to compliance with requirements, equivalent products to the Basis-of-Design Product may also be provided from one of the following:
    - a. Full Swing
    - b. Other manufacturers of equal workmanship that can meet the criteria of this specification.
- C. Putting Simulator:

1. Basis-of-Design Product: Full Swing – VirtualGreen VG2
  2. Subject to compliance with all requirements, other products similar to the Basis-of-Design Product may also be provided from one of the following:
    - a. Full Swing
    - b. Other manufacturers of equal workmanship that can meet the criteria of this specification.
- E. Source Limitations: For each type of component, furnish products produced by a single manufacturer and obtained from a single supplier.

### **2.3 GOLF SIMULATOR SYSTEM REQUIREMENTS**

- A. Provide complete golf simulator consisting of an enclosure, projector, high impact screen, play surface and golf ball tracking system.
- B. Enclosure:
1. Solid wood construction sized to match the space provided. Energy absorbing high-impact diffuser screen. Industrial grade, high quality turf with hitting mat and long tread life.
- C. Projector:
1. Ceiling mounted cinema quality projector.
- D. Golf Ball Tracking System:
1. Ceiling mounted high speed camera that captures the club head at impact with playback capabilities.
  2. Infrared sensors to track ball flight.
  3. Instant ball flight transfer to screen upon impact.
  4. Accurately measures the following information to determine ball flight:
    - a. Club Speed
    - b. Ball Speed
    - c. Club Path
    - d. Face to Path
    - e. Backspin
    - f. Spin Axis
    - g. Launch Angle
    - h. Smash Factor
    - i. Side Carry
    - j. Carry
    - k. Total Distance
- E. Software:
1. Software is to include the following:
    - a. 80+ golf courses from around the world.
    - b. Practice ranges.
    - c. Environmental control to adjust wind speed, green speed and weather conditions.
    - d. Contests for longest drive and closest to the pin with leaderboards.
  2. Wall mounted touchscreen for course selection and control.

E. Options:

1. Provide with swing analysis capabilities that records your swing from multiple angles and can play back in slow motion. Must include pressure sensors to record balance and weight transfer data.

## **2.4 PUTTING SIMULATOR SYSTEM REQUIREMENTS**

A. Provide complete putting simulator consisting of a adjustable platform, projector, play surface.

B. Adjustable Platform:

1. The platform is to have a solid wood, multi-layer construction including computer-controlled actuators that raise and lower to change the slope and undulation of the putting surface to mimic the contours of a real green.
2. Play surface is to be industrial grade, high-quality turf with the feel of a real putting green and have a long tread life.

C. Projector:

1. Ceiling mounted projector capable of displaying the contour of the green, aim line with the correct ball path to the hole and setup lines to line up your feet with the shot.

D. Electronics:

1. Wall mounted touchscreen monitor that displays the slope information of the putting surface. Must have preset scenarios to change the type and difficulty of the putt with the ability to manually adjust the slope to the user's preference.

## **PART 3 - EXECUTION**

### **3.1 EXAMINATION**

- A. Verify that field measurements are as shown on the Drawings.
- B. Verify that ratings and configurations of system components are consistent with the indicated requirements.
- C. Verify that mounting surfaces are ready to receive system components.
- D. Verify that conditions are satisfactory for installation prior to starting work.

### **3.2 INSTALLATION**

- A. Perform work in a neat and workmanlike manner in accordance with NECA 1.
- B. Install products in accordance with manufacturer's instructions.

### **3.4 FIELD QUALITY CONTROL**

- A. See article "SYSTEM STARTUP" below for additional requirements related to testing and inspection.
- B. Provide services of a manufacturer's authorized representative to observe installation and assist in inspection and testing. Include manufacturer's detailed testing procedures and field reports with submittals.
- C. Inspection and testing to include, at a minimum:
  - 1. Inspect each system component for damage and defects.
  - 2. Verify proper wiring connections have been made.
  - 3. Verify tightness of mechanical and electrical connections is according to manufacturer's recommended torque settings.
  - 4. Verify proper operation of system.
- D. Correct defective work, adjust for proper operation, and retest until entire system complies with contract documents.
- E. Diagnostic Period: After successful completion of inspections and tests, operate system in normal mode for at least 7 days without any system or equipment malfunctions.
  - 1. Record all system operations and malfunctions.
  - 2. If a malfunction occurs, start diagnostic period over after correction of malfunction.
- F. Submit detailed reports indicating inspection and testing results and corrective actions taken.

### **3.5 SYSTEM STARTUP**

- A. Provide services of a manufacturer's authorized representative to assist in performing system startup. Include manufacturer's detailed startup procedures with submittals.
- B. Obtain Owner's approval prior to performing system startup.
- C. Prepare and start system in accordance with manufacturer's instructions.

### **3.6 CLEANING**

- A. Clean using only methods recommended by manufacturer to avoid scratches and other damage. Clean exposed surfaces on other components to remove dirt, paint, or other foreign material and restore to match original factory finish.

### **3.7 CLOSEOUT ACTIVITIES**

- A. Demonstration: Demonstrate proper operation of system to Owner, and correct deficiencies or adjust as directed.
- B. Training: Train Owner's personnel on operation, adjustment, and maintenance.
  - 1. Use operation and maintenance manual as training reference, supplemented with additional training materials as required.
  - 2. Provide minimum of four hours of training.

### **3.8 PROTECTION**



- A. Protect installed products from subsequent construction operations.

### **3.9 MAINTENANCE**

- A. Conduct site visit at least once every six months to perform inspection, testing, and preventative maintenance. Conduct tests similar to those made during original field quality control testing. Submit report of Owner comparing test results with those of original tests along with evaluations and recommendations.
- B. Provide Trouble call-back service upon notification by Owner:
  - 1. Include allowance for call-back service during normal working hours at no cost to Owner.
  - 2. Owner will pay for call-back service outside of normal working hours on an hourly basis, based on actual time spent at site and not including travel time; include hourly rate and definition of normal working hours in maintenance contract.

**END OF SECTION 26 3400**