



**Homestead High School Expansion/Renovation Project
Phase 2B - Gymnasium and Auditorium Additions - General Construction
12.16.20
Addendum No. 4**

Questions and Front End Clarifications - Pre-Bid Meeting - CSO Architects Addendum No. 4

The following information by issuance as Addendum 04 shall be included and become part of the Bidding Documents and therefore part of the Construction Documents.

**BIDDERS ARE TO REVIEW ALL ADDENDUM ITEMS FOR FAMILIARITY WITH ALL BID PACKAGES AND
SCOPES OF WORK.**

Item: 4.01
Location: Bid Opening ZOOM Link for Bid Opening - 2:00PM Friday, December 18, 2020
Description: <https://zoom.us/j/92023013824?pwd=RGExcVUzKzdBcUt5d3VGQ2dUY2dsdz09>
Meeting ID: 920 2301 3824
Passcode: 727735

Item: 4.02
Location: Revised Bid Form
Description: See attached bid form with new Bid Date 12.18.20 and noted Addendums 1 - 4

Item: 4.03
Location: CSO Addendum No. 4 2B
Description: See attached copy of CSO Addendum No. 4 documents from CSO. Also can be accessed from notice through Smartbid

Item: 4.04
Location: BP-19 General Trades - Appliances
Description: Correction to to washers.
(1)30015 T6X - E-P Express control model
(1)42026 V67 MilTouch-EX Controller

Item: 4.05
Location: BP-19 General Trades
Description: Wood blocking - furnis and install plywood behind all wood panels for anchoring of wood panels.

Item: 4.06
Location: Auditorium Seating
Description: Seating count to be 1068

Item: 4.07
Location: Display Cases - 10 12 00 2.04 Light Box
Description: Each dsplay case shall be lighted.

Item: 4.08
Location: Translucent Wall Panels
Description: Major Industries will be an approved manufacturer



Item: 4.09
Location: Correction - Auditorium Seating Classification
Description: Fabric is to be a Grade 1. Grade G is in reference to retractable seating. Use the following allowances:

(12 61 24) Fixed Audience Seating upholstery budget \$60/square yard, net.

(12 61 13) Retractable Audience Seating upholstery budget \$50/square yard, net.

Item: 4.10
Location: Clarification - Counter tops
Description: C111, F101, and H102 Concessions to have SS1. F102 to have PL1.

Item: 4.11
Location: Clarification WD1 and WP1 Panels
Description: Referencing CSO Addendum No. 03 - Items 3.08, 3.09, 3.011, 3.012, BP-14 Gyp Assemblies will be responsible for WD1. BP-19 will be responsible for WP1 panels.

Item: 4.12
Location: Clarification on ACM panel colors
Description: Large running bond pattern to be the "LIGHT" panel color. All remaining areas of ACM panels shall be "DARK" panel color.

Item: 4.13
Location: RFI Questions and Answers
Description:

1. There are multiple locations (Dance Studio, Weight Room, Gray Box) where W14 wall type is used (CMU wall with hat channel and drywall both sides), but when you reference elevations of these rooms, they show exposed CMU as the wall material. Please clarify which is correct. [Addressed in previous addendums.](#)
2. Will any painting be required in the Cleat Building mezzanine? [Yes – SC1, EP1, and B1 are required.](#)
3. My wallcovering rep has said that DVW3 has been deleted from the project, can you confirm? [Yes](#)
4. Can more information be provided on VG1? [See detail 4/A620](#)
5. Will attic stock of digital wallcoverings be required? These are large scale images that will not be able to be patched with attic stock. [Not for custom images.](#)
6. Is Keyed Finish Note F8 used anywhere? [No, note can be omitted.](#)
7. General finish notes on A800-2 do not match general notes on the following sheets [Disregard notes on subsequent pages, general notes on A800-2 shall be followed.](#)
8. General finish note 22 states that all CMU walls are to receive epoxy paint but room finish tags indicate
9. General finish note 22 states to assume 2 colors at all corridor locations. Will these be used as a wainscoting? [Disregard, refer to general finish notes on A800-2.](#)



10. Please clarify which paint system gypsum board ceilings in restrooms and shower areas are to receive. [Ceilings in restrooms and shower areas to receive epoxy paint per spec 09 96 00 high performance coatings section 1.02.A.2.c.](#)
11. Is all decorative CMU in the auditorium factory colored/finished (ground face, split face, and acoustical masonry)? [All visible block will be decorative, block above ceiling plane will be standard. In auditorium, block above ceiling will be required to be painted black.](#)
12. In addendum 2, the substrate for DVW1 was changed to include an underliner. The wallcovering supplier does not manufacture an underliner and could not recommend one to use. Please provide more information for this underliner. [Provide vinyl wallcovering capable of application over CMU substrate.](#)
13. Is Carlisle Secureshield HD Polyiso Cover Board an approved cover board (075419 – 2.05 D Option 2)? [Not currently, for consideration a substitution request is required.](#)
14. -Dens Deck board is called out for exterior parapet wall framing. Securement strip at angle change for roofing membrane can't go into DensDeck. Is it acceptable to fasten through steel deck? [Unclear what question is?](#)
15. -Is it the intent to mechanically fasten all layers of roof insulation over steel deck and adhere cover board? [See roofing specs and details.](#)
1. -Sheet A112-2 lists Type "B" Roof system. Is that used anywhere in Phase 2B? [NO.....with the understanding that type A is \(2\) layers 2" polyiso staggered over sloped structure and type B is one layer 4" tapered polyiso over sloped structure.](#)

Please clarify if there are liquidated damages associated with this project and if so, the amount. [There are no LD's](#)
It doesn't appear that there are any plate details for wall or rack plates for the AV Systems. Please clarify if this will be provided.

16. Reference sheet T310-2. Please clarify if the symbols used for SPK1-4 indicate speaker outlets only or if we are to provide a speaker per outlet.
 - a. Please clarify the desired quantity of Tannoy VX12 speakers desired for the Gray Box. Please confirm that plenum cable will be required for all AV systems.

18. Where on civil drawings are fences and gates located at Ticket Booths? [No civil drawings in the scope – see architectural plans.](#)
19. Regarding window treatments, A902E-2 shows RS5 on both North & South Main Gym, however A601-2 has South RS2, North RS5 which is correct? [Equipment plans are correct \(RS5\).](#)
20. Print A801F-2, Room F122 Weight Room, Shows two different colors of floor for the lifting platforms but not Logo. Are there to be any logos included in the platform designs? [See clarification in addendum 03.](#)
21. I'm struggling to find a manufacturer to do the specified mirrors for the weight room (see snip below). Can we use the lami mirror (as described in 2.01; B) in the weight room like we are at all other MR1 callouts? Or, if not, could they provide a BOD for that 2.02 mirror? [See Reytek or Mirrored Solutions](#)
22. Signage questions:
23. A601-2 #10 : Digitally Printed Acoustical Panels - Are these the same as the panels mentioned in CSO Addendum 1 | 2.03 10 14 23 Panel Signs | D 3.04 #A ? [Unclear of questions, but 10 14 23 is not correct section for acoustic panels. Should reference 09 84 00 and look at manufacturer data for custom print panels.](#)
24. A617-2 #3 & A620.2 #2 : Mural 29'x9'-6" & 29'-1.5"x9'-6" - I asked below 'what is this' After further research it appears to be a graphic mural. What level of scratch resistance do you want? [Refer to specifications where 'medium-duty products' is indicated.](#)



25. A619-2 #2: Dimensional Letters - What material are these? I seem dimensional letters called out to be cast aluminum, but wanted to confirm this sign was that as well. [See spec 10 14 19.](#)

26. Rendering File : Cleat Building shows Exterior Dimensional Letters. "HOMESTEAD SPARTANS" on the building façade. BUT there is no indication at all on A310-2 in the CSO Addendum1. [See Addendum 04](#)

27. Can you advise if I should add 24" Cast Aluminum letters for the Cleat Building just like the 2 other Exterior locations (A301 & A306) [See addendum 4.](#)

28. A010-2 : Signage Location Schedule (shown below)

Type A: Room sign with one removable insert -\$\$

Type B: Room sign with two removable inserts -\$\$\$

How I do I determine which Classrooms get sign A and which get sign B? [Sign location schedule provided on this sheet by sign type.](#)

Type C: Room ID with name & number - \$

It lists out 5 types of rooms. I also added additional rooms to this list: Chase, Conf Rm, Cafeteria, Spirit Shop, Lockers, Exam,

Sensory, Dance, AV, Choir, Practice, Band, Library, etc etc etc (Qty 219)

Can you confirm if the miscellaneous rooms I assigned to Type C, can indeed have that sign? [No they cannot.](#)

Type H: Max Occupancy"Gyms & Auditorium"

Can you confirm that Conference rooms, Large Classrooms, Locker Rooms & Cafeteria do not get them?

[Confirm not required.](#)

Type I: FDC; Fire Department Connection

How many FDC signs will there be? It says – TBD Fire Marshall ([Assume 1 per Fire Riser room](#))

Type K: EXIT Sign

"Each Entrance – Both Interior & Exterior" is to get an EXIT sign (6"x6" w/Braille)

Are these ALL to be ADA compliant? [Where sign type provided yes.](#)

Can you confirm that every door **also** gets 24" vinyl numbers for the interior AND the exterior? (found in specs) [See sign general notes. All glazed entrances will receive vinyl letters over door – exterior sign type k not required, only interior. Where glazed entrance not present sign type k provided on interior and exterior of door.](#)

Can I get a list of Door Numbers ? If not, I'll go through the floor plans, locate them and create a list. [See door schedule.](#)

SIGNAGE LOCATION SCHEDULE

SIGN TYPE	LOCATIONS
A	OFFICES, CLASSROOMS
B	CLASSROOMS
C	ELECTRICAL, IDF, MDF, JANITOR, STORAGE ROOMS
D	1 PER OCCUPIABLE SPACE EXCEPT ELECTRICAL, MDF, JANITOR, STORAGE ROOMS, AND RESTROOMS
E	ALL WOMENS RESTROOMS
F	ALL MENS RESTROOMS
G	ALL SINGLE TOILET RESTROOMS
H	GYMS, AUDITORIUM
I	TBD (VERIFY WITH FIRE MARSHALL)
J	EACH CORRIDOR ENTRANCE FROM A MAIN CIRCULATION CORRIDOR
K	EACH ENTRANCE - BOTH INTERIOR AND EXTERIOR SIDE
L	ENTRANCE LOBBY

A617-2 & A620-2 : Digital Scrolling - coordinate with Telecom (BP-25)

Who do I communicate with on this portion? [Bid package/subcontractor providing scrolling sign.](#)



Above is a scrolling ticker type sign, What is below? (9'-6" tall) [Question unclear – materials called out in elevation.](#)

CSO Addendum 1 | 2.03 10 14 23 Panel Signs | A 2.07 #F

Characters: die cut 3.5 mil weather resistant adhesive vinyl character pre spaced white.

How many characters will there be? [Assume 75 characters per board.](#)

CSO Addendum 1 | 2.03 10 14 23 Panel Signs | D 3.04 #A

"Provide manufacture's solid phenolic panels in specified colors, sizes & quantity required to sign company to apply custom vinyl graphics to panels."

Who will we get these panels from? [Subcontractor/bid package providing and installing phenolic panels.](#)

Lastly: I did not notate where I read it, but there are to be ADA-Compliant signs at all stairwells; to include stair number, pictogram & Braille.

There is no sign type assigned to this. Can I label it in my proposal Type S? [Type note important as long as specifications are met.](#)

29. After reviewing the section details for the curtain wall elevations W13 & W14, detail 2/A401-2, it is showing thermafiber insulation from the 3rd horizontal mullion and up. This is not noted on the frame elevations as receiving insulation or spandrel glazing. Please confirm this is the intent. If elevations will be listed with glass tags, this will confirm question. [Intent at W13 and W14, provide G1 glass with applied glazing film.](#)

30. *Could you please request the architect confirm the seat count? Sheet TS11B states 950 seats with 12 movable bases for a total of 962. However, when I count the chairs the total comes up to 1068 with the chairs on movable bases included. As this is a substantial difference in regard to the final cost, I want to be certain we get it right.* [Confirm 1068 seat count, provided in addendum 04.](#)

31. Is there a flooring finish for room A104 Grey Box? It has the specialized wood subfloor labeled but no top layer. [A104 Grey Box is to receive resilient floor type B and is to be finished per specification. No additional floor finishes required.](#)

32. Can you clarify the girt that is required at the metal panel? 072413 has both a vertical girt and a horizontal hat channel rail. [Provide per details.](#)

33. Is a standard G90 coated 18g 3" Z furring acceptable? [Reference requirements in 07 21 00.](#)

34. 074243 is less specific. Is the same system required at these panels? [Reference requirements in 07 21 00.](#)

35. On A800-2 the finish legend calls for SVT1 Solid Vinyl Tile to be welded in specific locations as indicated. I have looked on the prints and cannot find any locations that are supposed to be welded. If this note an error? [See addendum 4.](#)

36. One last question: Spec 092216-2.03-C-1-a indicates to use 33 mil steel for the non-structural metal framing. Is 20 gauge "EQ" steel acceptable? If not, is 30 mil (which is "drywall" 20 gauge) acceptable? [No.](#)

37. W14 on A200-2 show 7/8" furring both sides of wall with 5/8" Gyp. I have not been able to find an elevation or wall section that shows this. Per details and elevations W14 is to be a block wall only. Please confirm. [See clarification in addendums for wall types W14 and W15.](#)

a. See 1/A201A-2, East Wall of A104 Gray Box. Show W14

b. Elevation 2/A607-2 does not show any drywall

c. 1/A403-2 Does not Show Drywall

d. This is true in a number of walls located at B113 Choir Room, B114 Auditorium, C122 Orchestra, etc.



38. 07-21-00-B Specifies Thermally Isolated Z-Girt but does not specify spacing [Subcontractor required to coordinate with exterior finish and provide as required or best suited – coordinate requirements with manufacturer of z-girt.](#)

- a. Are we to install horizontally or vertically to accommodate ACM and other Metal Panels?
- b. What spacing are we to install. SMARTci recommends 4' o.c., 2' o.c., or 16" o.c.

39. In spec section 07 54 19 PVC Roofing it states section 2.03 Substrate Boards. Line A provide when using extruded polystyrene insulation. Line B Type X 5/8" Gypsum glass-mat board. And doesn't call for a substrate board when using polyiso insulation board some details show the board and some don't, but it also calls for the substrate board to be fastened. My interpretation is when using polyiso insulation no substrate board and we mechanically fasten the insulation and adhere then 1/4" cover board. [See clarification in addendum, substrate board only required at auditorium. Coverboard over insulation required at all new roofing.](#)

40. One more item 2.01 PVC Membrane Roofing Item A states felt backed membrane.

41. Under line 1 a. states Sarnafil G410 and doesn't reference Felt Backed. [FB is noted on TREMCO product not Sika Sarnafil BOD? TREMCO is bid as alternate only.](#)

42. A601-2.5 shows the Spartan Head to be installed at location A619-2.3. Is it safe to assume that the correct logo to install IS the Spartan Head? [Yes](#)

43. A501-2 & A502-2 shows Room Schedules Since there is no Sign Schedule, can I use this to determine the quantities of Signs A-L found on A010-2 & A011-2 ? [Sign location schedule provided on A010-2.](#)

44. A201B-2: Entrance B124 indicates NOTE 29. Door schedule sheet A501-2 shows this elevation as a HM frame w/ wood door. Can you confirm frame and door material?

a. Follow up to this question... is note 29 on the floorplans the item specified as CRL Clear View Wall system in 084100; 2.01; A; 3? I cannot find anything that appears to be this Clear View all glass system, so I'm thinking maybe it's the note 29 scope? [Correct, follow note 29. Edits will be made to schedule in addenda.](#)

b. Also, if Entrance B124 is to be the all glass system, would the other entrances in that office area (B125-B129) be note 29 as well? If so, please have them confirm door as there is no specification for all glass doors. [Correct.](#)

45. Several wall partition tags on the Unit B & C floor plans have a suffix "+" listed after the P-type designation. I cannot find on the Sheet A200-2 what the "+" represents. The suffixes "#" and "*" are called out in the Wall Type Notes on A200-2, but there is no reference to "+". I don't want to guess, but I presume the "+" might represent sand-filled walls for acoustical purposes. Can you please confirm what the "+" suffix represents? Thanks. [Note will be added to addendum to reference acoustical wall termination details and fully grout walls.](#)

45. Need to confirm that the 'glazing film' (shaded grey) they are calling for that is not labeled the frosted film is the yellow brimstone and not security film. Also here are the decals I found: (sheets and brimstone sample attached) --- I never actually saw a "WF-1, 2 or 3" anywhere. [Review the interior elevations and finish plans and will find these callouts. There is no 'security film' only security glazing on this project.](#)

-frosted homestead spartan head that is over 6 panels in the weight room- I assume this is interior installation. [Yes interior](#)

-the frosted graphic that says 'homestead strong' and 'spartans' (interior or exterior application?) -- spec made me think exterior [Yes exterior](#)

46. Addendum 3 Item 3.15 RFI Questions and Answers #24. 116200 Entertainment Equipment - The answer removes the finishes from the TV Studio and are to be provided in future phases. However, BP-22 still includes 116200 Entertainment Equipment. Please clarify that 116200 is not to be included in BP-22 at this time. [Eliminate from this Phase 2B. Will be part of future phase.](#)

Project: **Homestead High School**
Phase 2B – General Construction Auditorium and Gymnasium
Fort Wayne, Indiana

Bid Date: **Friday, December 18th, 2020**
Bid Time: **2:00 p.m. EST – See instructions below**

Name of Bidder: _____

Bid Item No.: _____

Bid Item Description: _____

Bidders are to complete and submit the following forms:

1. Bid Form
2. Subcontractor/Sub-subcontractor/Supplier/Material List

Due to COVID-19 State Mandates – SACS Central Office is closed to outside visitors. The office will be open to receive bids only starting at Noon Friday, December 18, 2020 until 2:00pm (EST) that same day. Location of Central Office is:

Attn: Hagerman, Inc.
SACS Central Office
4824 Homestead Rd.
Fort Wayne, IN 46814

EMAILED OR FAXED BIDS WILL NOT BE ACCEPTED.

The undersigned Bidder, having visited the site of the work and having familiarized himself/herself with local conditions affecting the cost of this Work, hereby proposes to perform the following listed Work, in accordance with the Project Manual/Specifications and Drawings, for the Phase 2B – Auditorium & Gymnasium dated October 28, 2020, Front End Specifications latest revision also dated October 28, 2020 and all Addenda and Revisions/Clarifications Letters issued prior to the due date of bids, for the **Lump Sum Amount** stated below.

Addenda Received & Included: No. 1 Dated _____

Addenda Received & Included: No. 2 Dated _____

Addenda Received & Included: No. 3 Dated _____

Addenda Received & Included: No. 4 Dated _____

Multiple Bid Item lines are made available if bidders are bidding on multiple packages. If the bidder chooses to provide “combination” packaged bids, please list the individual base bids below and use the lines noted as “Combination Bids” on next page for the combination bids.

BASE BID(S)

Bid Item # ____ – _____

_____ \$ _____

(amount in words)

Bid Bond Amount Included: \$ _____

Bid Item # ____ – _____

_____ \$ _____

(amount in words)

Bid Bond Amount Included: \$ _____

Bid Item # ____ – _____

_____ \$ _____

(amount in words)

Bid Bond Amount Included: \$ _____

Bid Item # ____ – _____

_____ \$ _____

(amount in words)

Bid Bond Amount Included: \$ _____

Bid Item # ____ – _____

_____ \$ _____

(amount in words)

Bid Bond Amount Included: \$ _____

COMBINATION BIDS

Bid Item #'s _____ – _____

_____ \$ _____

(amount in words)

Bid Bond Amount Included: \$ _____

Bid Item #'s _____ – _____

_____ \$ _____

(amount in words)

Bid Bond Amount Included: \$ _____

Bid Item #'s _____ – _____

_____ \$ _____

(amount in words)

Bid Bond Amount Included: \$ _____

Performance and Payment Bond:

Not required. Shall be furnished by Construction Manager.

UNIT PRICE(S):

Please attach any applicable unit prices to this bid form.

VOLUNTARY ALTERNATE(S): Describe here or attach to Bid Form.

NOTE: Bidders are to circle "Add" or "Deduct" as appropriate.

1. Description: _____
(Add/Deduct)\$ _____
2. Description: _____
(Add/Deduct)\$ _____
3. Description: _____
(Add/Deduct) \$ _____

ALTERNATE(S): Describe here or attach to Bid Form.

NOTE: Bidders are to circle "Add" or "Deduct" as appropriate.

Alternate 1: Provide estimate to furnish and install terrazzo flooring in lieu of SVT. Refer to spec. sections 09 66 23 or 09 67 23 for terrazzo flooring requirements.

ADD/DEDUCT: _____

Alternate 2: Provide estimate for furnishing and installing DeBourgh metal lockers if NOT included in base bid.

ADD/DEDUCT: _____

Alternate 3: Provide estimate for furnishing and installing telescoping stand and retractable audience seating from Hussey Seating and Hussey Seatway if NOT included in base bid.

ADD/DEDUCT: _____

Alternate 4: Provide estimate for furnishing and installing TREMCO tri-polymer alloy felt backed (TPA-FB) roofing system if NOT included in base bid.

ADD/DEDUCT: _____

LEGAL NAME OF BIDDER: _____

d/b/a NAME (if different): _____

ADDRESS: _____

FEDERAL ID NUMBER: _____

PHONE: _____

FAX: _____

E-MAIL ADDRESS: _____

BY: _____

PRINTED NAME: _____

TITLE: _____

DATE: _____

ACKNOWLEDGEMENT – Notary of Public

STATE OF _____

SS:

(seal)

COUNTY OF _____

_____ being duly sworn, deposes and says that

he/she is _____ of the above _____ and that the
(Title) (Name of Organization)
statements contained in the foregoing Supplements to Bid Form are true and correct.

Subscribed and sworn to before me this _____ day of _____, _____.

Notary Public

My Commission Expires: _____

County of Residence: _____

Each Subcontractor is also requested to submit the names of the proposed staff that would be assigned to this project as well as a resume for each person.

A. Site Foreman/Superintendent: _____

B. Project Manager: _____

END OF SECTION

SUBCONTRACTOR – SUPPLIER MATERIALS LIST

On this sheet, please indicate the appropriate specification section number(s) and description(s) that you are submitting a bid for. Also, please specify the company name of the subcontractor, supplier, or vendor that you will use for completion of the work covered by this specification section.

[illegible]

ADDENDUM

ADDENDUM NO: 4

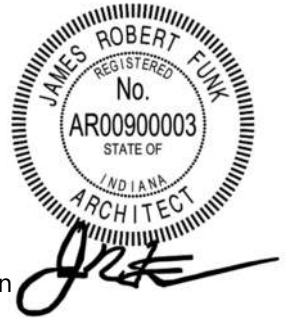
BID PACKAGE NO: ALL

PROJECT: Additions & Renovations to Homestead High School
Phase 2B

PROJECT NO: 18138

DATE: 12/14/2020

BY: Emily Newton



This Addendum is issued in accordance with the provisions of "The General Conditions of the Contract for Construction," Article 1, "Contract Documents" and becomes a part of the Contract Documents as provided therein. This Addendum includes:

Addendum Pages: ADD4-1 – ADD4- 7

Attachments: 03 41 10

PART 1 - BIDDING AND CONTRACT REQUIREMENTS

1.01 NOT USED

PART 2 - SPECIFICATIONS

2.01 06 25 30 – RETAIL EQUIPMENT

A. Add section 2.1A5 as follows:

5. TMI Systems.

2.02 08 41 00 – ALUMINUM FRAMED ENTRANCES AND STOREFRONTS

A. Replace section 2.01A1 with the following:

1. Exterior:

a. Kawneer Trifab 451T

b. Kawneer Trifab 601T

B. Revise section 2.03A1a to read as follows:

a. Exterior: Thermally broken, 2" x 6" depth **or 2" x 4 ½" depth as indicated in drawings.**

C. Add section 2.03H as follows:

H. Receptors:

1. Provide manufacturers standard aluminum sill, jamb, and head receptors only where indicated in drawings.

2. Receptors shall meet all performance criteria of inserted storefront system.

3. **Ensure all corners joints are clean and smooth prior to installation of storefront system.**

4. **Finish of receptors to match inserted storefront system.**

2.03 08 45 23 – FIBERGLASS-SANDWICH-PANEL ASSEMBLIES

A. Add section 2.01A3 as follows;

3. **Major Industries**

2.04 11 61 53 – THEATRICAL LUMINAIRES AND ACCESSORIES

A. Add section 1.5H4-9 as follows:

- 4. **Fantasee Lighting, Belleville, MI, 734-699-7200**
- 5. **John S Hyatt & Associates, Grand Rapids, MI 49504**
- 6. **PRG – Detroit, Troy, Michigan, 248-824-1080**
- 7. **TLS Productions, Jackson, MI, 855-515-8577**
- 8. **Tobins Lake Sales, Ann Arbor, Michigan, 810-813-4691**
- 9. **Vincent Lighting Systems – Westland, Michigan, 734-660-8959**

2.05 11 66 23 – GYMNASIUM EQUIPMENT

A. Add section 2.01A12 as follows:

12. **Jaypro Sports.**

2.06 12 32 19 – MUSIC INSTRUMENT CASEWORK

A. Add section 2.01A5 as follows:

5. **TMI Systems.**

2.07 12 61 13 – RETRACTABLE AUDIENCE SEATING

A. Revise section 2.03B5 to “**Architect to select from manufacturer’s full range of ‘Grade G’ Fabrics.**”

PART 3 - DRAWINGS

3.01 A200-2 – WALL TYPES

- A. Revise wall type W14 from ~~7 5/8" CONCRETE MASONRY UNIT, 7/8 METAL FURRING CHANNELS @ 16" O.C. MAX. ON BOTH SIDES OF CMU, and 5/8" GYPSUM WALL BOARD ON BOTH SIDES, TAPED AND FINISHED~~ to **9 5/8" CONCRETE MASONRY UNIT.**
- B. Delete wall type W15.
- C. Add wall type note: **9. IF A MASONRY WALL TYPE SYMBOL IS FOLLOWED BY A "+" SYMBOL, THEN THE BLOCK SHOULD HAVE A HORIZONTAL JOINT REINFORCEMENT @ 16" VERTICALLY, GROUT FILL ALL CORES COMPLETELY, SEE DETAILS 1 THRU 6 ON**

A201 FOR TOP OF WALL CONDITIONS. PROVIDE APPROPRIATE DETAIL AS REQUIRED TO ENSURE ISOLATION.

3.02 A201B-2 – FIRST FLOOR PLAN – UNIT B

- A. Revise plan note 51 to read **“SPLIT FACE CMU; ALL REMAINING AUDITORIUM WALLS SHALL BE GROUND FACE CMU TO (2) COURSES ABOVE CEILING HEIGHT OR MAXIMUM 32'-8" A.F.F. ALL STANDARD CMU ABOVE DECORATIVE CMU SHALL BE PAINTED BLACK.”**

3.03 A310-2 – EXTERIOR ELEVATIONS – CLEAT SPORTS

- A. Add 24" cast aluminum letters mounted to 07 42 53-A metal panel center section to read 'HOMESTEAD SPARTANS' on North and South elevation of Cleat Sports building. Final location as indicated by Architect in field.
- B. Add 24" cast aluminum letters mounted to 07 42 43-A ACM metal panel to read 'SPARTAN SHOP' on West and North Elevation of Cleat Sports Building. Final location as indicated by architect in field.

3.04 A501 – DOOR SCHEDULE

- A. B124 – Revise frame material to **AL** and frame finish to **AN**. Revise head, jamb, and sill details to reflect material changes.
- B. B125 – Revise frame material to **AL** and frame finish to **AN**. Revise head, jamb, and sill details to reflect material changes.
- C. B126 – Revise frame material to **AL** and frame finish to **AN**. Revise head, jamb, and sill details to reflect material changes.
- D. B127 - Revise frame material to **AL** and frame finish to **AN**. Revise head, jamb, and sill details to reflect material changes.
- E. B128 - Revise frame material to **AL** and frame finish to **AN**. Revise head, jamb, and sill details to reflect material changes.
- F. B129 - Revise frame material to **AL** and frame finish to **AN**. Revise head, jamb, and sill details to reflect material changes.

3.05 A502-2 - DOOR SCHEDULE & ELEVATIONS

- A. F103B - Revise frame material to **AL**, frame finish to **AN**, door material to **AL**, and door finish to **AN**. Revise head, jamb and sill details to reflect material changes.
- B. F103C - Revise frame material to **AL**, frame finish to **AN**, door material to **AL**, and door finish to **AN**. Revise head, jamb and sill details to reflect material changes.
- C. F104B - Revise frame material to **AL**, frame finish to **AN**, door material to **AL**, and door finish to **AN**. Revise head, jamb and sill details to reflect material changes.
- D. F105 - Revise frame material to **AL**, frame finish to **AN**. Revise head, jamb and sill details to reflect material changes.

- E. F106 - Revise frame material to **AL**, frame finish to **AN**. Revise head, jamb and sill details to reflect material changes.
- F. F122A - Revise frame material to **AL**, frame finish to **AN**, door material to **AL**, and door finish to **AN**. Revise head, jamb and sill details to reflect material changes.
- G. H110A – Revise frame material to **AL**, frame finish to **AN**, door material to **AL**, and door finish to **AN**. Revise head, jamb and sill details to reflect material changes.
- H. H110B– Revise frame material to **AL**, frame finish to **AN**, door material to **AL**, and door finish to **AN**. Revise head, jamb and sill details to reflect material changes.
- I. H110C - Revise frame material to **AL**, frame finish to **AN**, door material to **AL**, and door finish to **AN**. Revise head, jamb and sill details to reflect material changes
- J. H110D -Revise frame material to **AL**, frame finish to **AN**, door material to **AL**, and door finish to **AN**. Revise head, jamb and sill details to reflect material changes.

3.06 A505-2 – WINDOW SCHEDULE

- A. F103 – Revise frame material to **AL** and frame finish to **AN**. Revise head, jamb and sill details to reflect material changes.
- B. F122A – Revise frame material to **AL** and frame finish to **AN**. Revise head, jamb and sill details to reflect material changes.
- C. F122B – Revise frame material to **AL** and frame finish to **AN**. Revise head, jamb and sill details to reflect material changes
- D. H110A – Revise frame material to **AL** and frame finish to **AN**. Revise head, jamb and sill details to reflect material changes.
- E. H110B– Revise frame material to **AL** and frame finish to **AN**. Revise head, jamb and sill details to reflect material changes.
- F. H110C– Revise frame material to **AL** and frame finish to **AN**. Revise head, jamb and sill details to reflect material changes.
- G. H110D– Revise frame material to **AL** and frame finish to **AN**. Revise head, jamb and sill details to reflect material changes.
- H. H110E– Revise frame material to **AL** and frame finish to **AN**. Revise head, jamb and sill details to reflect material changes.

3.07 A601-2 – INTERIOR ELEVATIONS – MAIN GYMNASIUM

- A. 3/A601-2: Revise **RS2** equipment tag to **RS5**.

3.08 A800-2 – FINISH LEGEND AND NOTES

- A. Revise GENERAL FINISH NOTES on all sheets to match A800-2 GENERAL FINISH NOTES. Revision should include any changes made to the GENERAL FINISH NOTES in this and prior addendums.

- B. Revise GENERAL FINISH NOTE 17 to read ALL GWB CEILINGS AND/OR BULKHEADS TO BE PAINTED CEILING WHITE UNO. **REFER TO SPEC 09 69 00 HIGH PERFORMANCE COATINGS FOR GWB CONDITIONS IN TOILET ROOMS.**
- C. Revise KEYED FINISH NOTE F8 ~~AREA TO RECEIVE TWO PAINTED ATHLETIC GRAPHICS, EACH TO HAVE 4 COLORS AND INCLUDE SCHOOL NAME AND MASCOT~~ to read F8 **NOT USED.**
- D. Revise SVT1 SOLID VINYL TILE to read **"INSTALL: WELD ROD LOCATIONS TO OCCUR APPROX. EVERY 14'-0" AND AT COLOR TRANSITIONS TO MIMIC TERRAZZO CONTROL JOINT LOCATIONS"**
- E. Revise SVT2 SOLID VINYL TILE to read **"INSTALL: WELD ROD LOCATIONS TO OCCUR APPROX. EVERY 14'-0" AND AT COLOR TRANSITIONS TO MIMIC TERRAZZO CONTROL JOINT LOCATIONS"**
- F. Revise DVW1 DIGITAL VINYL WALLCOVERING to read NOTE: **PROVIDE VINYL SUITABLE FOR APPLICATION ON CMU BLOCK.**
- G. Delete wall finish DVW3 DIGITAL VINYL WALLCOVERING from FINISH LEGEND. Finish removed from project in Addendum 1.
- H. Revise VG1 VINYL GRAPHIC to read COLOR: ~~AS INDICATED ON DRAWINGS~~ **2 SCHOOL COLORS (BLUE AND YELLOW)**
- I. Revise VG1 VINYL GRAPHIC to read SIZE: ~~AS INDICATED ON DRAWINGS~~ **APPROX. 7'-6"W x 10'-0"H.**

3.09 A801CS-2 – FIRST FLOOR FINISH PLAN – UNIT CS

- A. MECH MEZZANINE CS201 finishes to be **SC1 EP1** and **B1**.

3.010 TS111B-2 – FIXED AUDIENCE SEATING

- A. Revise seat count as follows:

Fixed Seating:	1056
Wheelchair Seating:	0012
Total:	1068

PART 4 - CONTRACTOR QUESTIONS

- 4.01 Exterior material legends indicate (2) types of ACM metal panel, however elevations only indicate one. Please advise.

- A. ACM metal panels indicated with a large running bond pattern shall be 'LIGHT' ACM panel color. All others shall be 'DARK' ACM panel color.

4.02 Sheet T406-2, Detail #9 – Main Gym Audio Equipment Rack Elevation:

The third rack (BRK12) shows "Audio Control Panel"

Is this the (2) Female XLR's and (1) Male XLR shown "Locate on Rack Panel" shown on sheet T313-2?

D27 Response: Per section 274116 - 2.85, the AV Equipment Rack Type 4 is the Gator Cases GRR-10L. This functional is shown in the second rack elevation. The Audio I/O panel shown in that rack elevation has the XLR connectors. The audio control panel shown below is for the loudspeaker muting shown on T314-2.

4.03 In the Gym's and Auditorium will all the Speaker and Mic cables be in conduit complete?

D27 Response: All conduit should be a homerun to the mic/speaker junction box and/or to the AV equipment rack location.

4.04 Sheet T503-2 Detail #7 shows the "House Manager Location"

The panel in the middle is also shown on sheet T309-2.

This does not seem to show up in the Specification, do you have a Manufacturer and Model # for this panel?

D27 Response: This is a generic panel to fit within the Hoffman enclosure. This is no specific requirement other than requirements listed in the Custom Faceplates. Contractor can select any 10k potentiometer and buttons for functionality as shown in functional.

4.05 Sheet T201CS-2

In reception CS149 just inside the door there is an Intrusion Keypad shown. – I don't see any intrusion shown in the specifications or anywhere else on the drawings. – Please confirm if this is to be supplied/installed in this package.

D27 Response: There is to be no intrusion detection incorporated for this building. Please disregard this keypad location.

4.06 Digital Signage Locations.

Sheet T201F-2 shows a digital signage location in Corridor E109 but does not show a monitor or monitor size. – Is the monitor future? Or should we provide one and if so what size?

D27 Response: 60" display shall be provided for this digital signage location. Reference sheet T405-2 detail #5 for mounting height and blocking requirements.

Sheet T201H shows a digital signage location in Student Entry F121 but does not show a monitor or monitor size. – Is the monitor future? Or should we provide one and if so what size?

D27 Response: 60" display shall be provided for this digital signage location. Reference sheet T405-2 detail #6 for mounting height and blocking requirements.

4.07 Sheet T201C-2: Shows a SPK (Speaker) in Scene Shop C135. I don't see this speaker location on the Auditorium Riser outputs. Is this fed from somewhere else. What type of speaker is it? Mfg. / Model #?

D27 Response: One (1) speaker is a wall-mounted speaker tied to the auditorium. Reference Addendum #1 for loudspeaker type. The other speaker is a wall-mounted paging speaker tied to the building wide paging system. Reference specification section 27 51 23 part 2.6/2.7 for

speaker information.

- 4.08 Sheet T202F-2: Media Row E208 shows three (3) CAM locations. Legend shows 2 types of CAM, CAM1 and CAM2. What CAM goes in this location?

D27 Response: These three (3) locations should be Camera Type 1.

- 4.09 Video wall – how is the video content to be distributed to the video and from where? Is there a riser diagram that indicates the designed connectivity of the video wall?

D27 Response: The video walls are based around the Planar Clarity system. Therefore, it is anticipated that the video processing and power supplies for the video wall will be remote and distributed via manufacturer recommended cabling. All equipment to support the video wall shall be installed in the nearest IDF room per specification 27 41 16 - 2.3. All cabling from the video wall shall be cabled back to this IDF room.

- 4.010 T501-2 – Detail 3 – Short Throw Projector

The detail indicates the data jack is to be in a surface box above the ceiling. But. There is also a two-gang plate for HDMI on the wall? Is this detail correct? Are we to remove a blank and pull a patch cable through? Or should the data jack be located in the faceplate?

D27 Response: The faceplate will be updated via a future ASI. The surface box above the ceiling will be removed. The data jacks at the Short Throw Projector location should terminate directly to the faceplate. Patch cables shall still be provided to connect the wireless receiver and projector to the building network.

- 4.011 T306-2 – Detail 3 – Typical Classroom AV Diagram

Wireless receiver shows a network drop. Is this the same network drop that is indicated on T501-2 - Detail 3 - Short Throw Projector, or is this in addition to?

D27 Response: Each Short Throw Projector location is scheduled to have two (2) network drops located terminated to faceplate. One (1) network drop shall be utilized for the wireless receiver and one (1) for the projector through the use of a patch cord.

- 4.012 This may answer above...T600-2 Cable Matrix for temp IFD A103 indicates two data at the short throw projector, assuming one (1) for the projector and one (1) for the wireless receiver, pointing back to question one (1) can these be moved to the faceplate?

D27 Response: Reference answer to #4.09. Data jacks shall be moved and terminated directly to faceplate.

- 4.013

END OF ADDENDUM

SECTION 03 41 10 - PRECAST, PRESTRESSED HOLLOWCORE PLANK

PART 1 - GENERAL

1.01 SUMMARY

- A. This section covers product design, manufacturing, transportation, storage, installation and grouting of precast, prestressed, concrete hollowcore and solid concrete planks including grouting of all joints.
- B. Related Sections:
 - 1. 03 30 00 - Cast-in-Place Concrete for supporting concrete structure and topping slab.
 - 2. 04 20 00 – Unit Masonry for supporting concrete masonry walls.
 - 3. 05 12 00 – Structural Steel for supporting steel structure.

1.02 PERFORMANCE REQUIREMENTS

- A. Structural Performance: Provide hollowcore units and connections capable of withstanding the design loads indicated on drawings.

1.03 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Shop Drawings:
 - 1. Erection Drawings
 - a. Plans locating and defining all hollowcore planks furnished by the manufacturer, with all major openings shown.
 - b. Sections and details showing connections, weld plates, edge conditions and minimum support conditions of the hollowcore plank units.
 - c. All dead, live and other applicable loads used in the design.
 - d. Fire rating.
- C. Product Design Criteria:
 - 1. Loadings for design
 - a. Handling and erection stresses.
 - b. All dead and live loads as specified on the contract documents.
 - c. All other loads specified for hollowcore plank where applicable.
 - 2. Approximate camber and deflection values and how they may affect the project should be reviewed with the manufacturer.
 - 3. Fire rating shall be a minimum of 2 hours. MNL – 124 may be used to determine fire rating.
 - 4. Design steel plank support headers at openings when headers are determined necessary by the manufacturer's engineer.
 - 5. Design calculations shall be performed by an engineer, registered in the state the project is in, and be experienced in precast, prestressed concrete design. Design calculations shall be submitted as an informational submittal.
 - 6. Design shall be in accordance with ACI 318 and other applicable codes and standards.
- D. Tests and Reports: Perform all concrete testing in accordance with PCI MNL-116 requirements.

1.04 QUALITY ASSURANCE

- A. Erector Qualifications: An experienced erector who has completed precast structural concrete

work similar in material, design, and extent to that indicated for this Project and whose work has resulted in construction with a record of five years' successful in-service performance. Erector shall be a PCI Qualified Erector.

- B. Manufacturer Qualifications: A firm that complies with the following requirements and is experienced in manufacturing precast structural concrete units similar to those indicated for this Project and with a record of successful in-service performance.
1. Assumes responsibility for engineering precast, prestressed concrete, hollowcore plank units to comply with performance requirements. This responsibility includes preparation of Shop Drawings and comprehensive engineering analysis by a qualified professional engineer.
 2. Professional Engineer Qualifications: A professional engineer who is legally qualified to practice in the jurisdiction where Project is located and who is experienced in providing engineering services of the kind indicated. Engineering services are defined as those performed for installations of precast, prestressed, concrete hollowcore plank that is similar to those indicated for this Project in material, design, and extent.
 3. Participates in PCI's Plant Certification program and is designated a PCI-certified plant for category C2.
 4. Has sufficient production capacity to produce required units without delaying the Work.
- C. Design Standards: Comply with provisions of the following codes, specifications, and standards, except as otherwise indicated.
1. ACI 301 "Specifications for Structural Concrete".
 2. ACI 318 "Building Code Requirements for Structural Concrete".
 3. Concrete Reinforcing Steel Institute "Manual of Standard Practice".
 4. Precast Prestressed Concrete Institute MNL – 116, "Manual for Quality Control for Plants and Production of Precast Concrete Products".
 5. Precast Prestressed Concrete Institute MNL – 135, "Tolerance Manual for Precast and Prestressed Concrete Construction".
 6. Precast Prestressed Concrete Institute MNL – 120, "PCI Design Handbook".
 7. Precast Prestressed Concrete Institute MNL – 127, "Erection Manual Standards and Guidelines for the erection of precast concrete products".
 8. Precast Prestressed Concrete Institute MNL – 124 "Design for Fire Resistance of Precast Prestressed Concrete".
 9. American Welding Society, AWS D1.1 "Structural Welding Code", D1.4 "Structural Welding Code – Reinforcing Steel", D1.6 "Structural Welding Code – Stainless Steel", C5.4, "Recommended Practices for Stud Welding".
 10. ASTM Specifications – As referenced to in Part 2 – Products, of this Specification.

1.05 SEQUENCING

- A. Furnish anchorage items to be embedded in other construction without delaying the Work. Provide setting diagrams, templates, instructions, and directions, as required, for installation.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

- A. Fabricators: Subject to compliance with requirements, provide products by one of the following:
1. ATMI Precast, Aurora, IL
 2. DBS Prestress of Ohio, Huber Heights, OH
 3. Kerkstra Precast, Inc., Grandville, MI
 4. Spancrete, Crystal Lake, IL
 5. StresCore, Inc., South Bend, Indiana.

2.02 PRESTRESSING TENDONS

- A. Prestressing Strand: ASTM A 416, Grade 250 or 270, uncoated, 7-wire, low-relaxation strand.

2.03 CONCRETE MATERIALS

- A. Portland Cement: ASTM C 150, Type I or Type III, of same type, brand, and source.
- B. Normal-Weight Aggregates: Except as modified by PCI MNL 116, ASTM C 33.
 - 1. Local aggregates not complying with ASTM C33, but which have shown by special test or actual service to produce concrete of adequate strength and durability, may be used when acceptable to the Architect.
 - 2. Fine Aggregate: Clean, sharp, natural sand free from loam, clay lumps or other deleterious substances.
 - 3. Coarse Aggregate: Clean, un-coated, processed aggregate containing no clay, mud, loam or foreign material, meeting the requirements of ASTM C33.
- C. Water: Potable; free from deleterious material that may affect color stability, setting, or strength of concrete and complying with chemical limits of PCI MNL 116.
- D. Water-Reducing, Retarding, Accelerating, High-Range Water Reducing Admixtures: ASTM C 494.

2.04 STEEL CONNECTION MATERIALS

- A. Carbon-Steel Shapes and Plates: ASTM A36.
 - 1. Provide anchors, weld plates, and other accessories required for a complete installation. Provide setting diagrams, templates, instructions, and directions as required for installation.
- B. Finish: For exterior steel items, steel in exterior walls, and items indicated for galvanizing, apply zinc coating by hot-dip process according to ASTM A 123, after fabrication, and ASTM A 153, as applicable.
 - 1. Galvanizing Repair Paint: High-zinc-dust-content paint with dry film containing not less than 94 percent zinc dust by weight and complying with DOD-P-21035A or SSPC-Paint 20.
- C. Shop-Primed Finish: Prepare surfaces of nongalvanized steel items, except those surfaces to be embedded in concrete, according to requirements in SSPC-SP 3 and shop-apply zinc-rich urethane (cold-galvanizing), rust-inhibitive primer.
- D. Accessories: Provide clips, hangers, plastic shims, and other accessories required to install precast structural concrete units.

2.05 BEARING STRIPS & FOAM ROPE

- A. Provide bearing strips and foam rope for hollowcore units as follows:
 - 1. Plastic Bearing Strips: Multi-monomer plastic bearing strips shall be non-leaching and support construction with no visible overall expansion.
 - 2. Foam Rope: ½" Ethafoam rope for grout stoppage in bottom of keyway joints.

2.06 GROUT MATERIALS

- A. Sand-Cement Grout: Portland cement, ASTM C 150, Type I, and clean, natural sand, ASTM C 144. Mix at ratio of 1 part cement to 3 parts sand, by volume, with minimum water required for placement and hydration and the consistency shall be such that joints can be completely filled without seepage over adjacent surfaces. The grout shall achieve a minimum compressive strength of 3000 psi in 28 days.
- B. Nonmetallic, Nonshrink Grout: Premixed, nonmetallic, noncorrosive, nonstaining grout containing selected silica sands, portland cement, shrinkage-compensating agents, plasticizing and water-reducing agents, complying with ASTM C 1107, of consistency suitable for application.

2.07 CONCRETE MIXES

- A. Limit water-soluble chloride ions to the maximum percentage by weight of cement permitted by ACI 318.
- B. Normal-Weight Concrete: Proportion mixes by either laboratory trial batch or field test data methods according to ACI 211.1, with materials to be used on Project, to provide normal-weight concrete with the following properties:
 - 1. Compressive Strength (28 Days): 5000 psi with minimum 3000 psi at release.
 - 2. Maximum Water-Cementitious Materials Ratio: 0.40.
- C. Other Admixtures: Use water-reducing, high-range water-reducing, water-reducing and accelerating, water-reducing and retarding or air-entraining admixtures according to manufacturer's written instructions.

2.08 DESIGN AND FABRICATION

- A. Units shall be of designation as required to support the design loads indicated on the Drawings, including cantilevered ends where indicated and special reinforcing if required. Grout cores in the plank if required for increased shear capacity as determined by the manufacturer's engineer.
- B. Built-in Anchorages: Accurately position built-in anchorage devices. Locate anchorages where they do not affect position of main reinforcement or concrete placement. Do not relocate bearing plates in units unless approved by the structural engineer.
- C. Openings: Opening locations will be determined by the appropriate trades and provided to the manufacturer. Manufacturer shall provide openings 12 inches square or larger and shown on the architectural and structural drawings. Small openings (less than 12 inches square) shall be drilled or cut by the respective trades after plank is grouted. Prior to field cutting, openings must be approved by the manufacturer.
- D. Finishes: Bottom surface shall be a smooth steel form finish from an extrusion process, without major chips, spalls and imperfections. Top surface is a roughened finish suitable for bonding of the composite concrete topping slab.
- E. Provide solid, monolithic, precast concrete slab units forming an integral part of hollow-core slab unit system where indicated. Design and fabricate solid units to dimensions and details indicated for hollowcore slab units.
- F. Provide headers of structural-steel shapes for openings of one slab width according to hollow-core slab unit fabricator's written recommendations.

- G. Dimensional Tolerances: Fabricate hollow slab units to comply with the following fabricated dimensional tolerances:
1. Length: plus or minus 1/2 inch.
 2. Width: plus or minus 1/4 inch.
 3. Depth: plus or minus 1/4 inch.
 4. Position of voids (vertical or horizontal): plus or minus 1/4 inch.
 5. Position of tendons: plus or minus 1/8 inch.
 6. Position of handling devices: plus or minus 6 inches.
 7. Position of weld plates: plus or minus 1 inch.
 8. Camber deviation from design camber: plus or minus 1/8 inch per 10 feet, but not greater than plus or minus 3/8 inch. Design camber must be listed on the shop drawings.
 9. Differential camber between adjacent members of the same design: 1/4 inch per 10 feet, but not greater than 3/8 inch.
 10. Squareness of ends (vertical and horizontal alignment): plus or minus 1/4 inch.

2.09 SOURCE QUALITY CONTROL

- A. Quality-Control Testing: Test and inspect precast concrete according to PCI MNL 116 requirements.
- B. Defective Work: Precast concrete units that do not comply with requirements, including strength, manufacturing tolerances, and finishes, are unacceptable. Replace with precast concrete units that comply with requirements.

2.10 PRODUCT DELIVERY, STORAGE & HANDLING

- A. Delivery and Handling:
1. Hollowcore plank shall be lifted and supported during manufacturing, stockpiling, transporting and erection operations only at lifting or supporting points designated by the manufacturer.
 2. Transportation, site handling and erection shall be performed by qualified personnel with acceptable equipment and methods.
- B. Storage:
1. Store all units off ground on firm, level surfaces with dunnage placed within 2 feet of bearing points.
 2. Place stored units so that identification marks are discernible.
 3. Separate stacked units by dunnage across full width of each plank.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Examine concrete, masonry and structural steel installations, substrates and conditions for compliance with requirements for installation tolerances, true and level bearing surfaces, and other conditions affecting performance. Proceed with installation only after unsatisfactory conditions have been corrected.

3.02 ERECTION

- A. Site Access: Erection access suitable for cranes and trucks to move unassisted from public roads

to all crane working areas as required by erector, or otherwise indicated herein, shall be provided and maintained by the general contractor. Obstructing wires shall be shielded or removed and, when applicable, snow removal and winter heat shall be provided by the general contractor.

- B. Stability of the building walls and structure during erection shall be the responsibility of others.
- C. Preparation: The general contractor shall be responsible for:
 - 1. Providing true, level, bearing surfaces on all field-placed bearing walls and other field-placed supporting members. Masonry wall bearing surfaces shall be bond beams with properly filled and cured grout.
 - 2. All pipes, stacks, conduits and other such items shall be stubbed off at a lower level than the bearing plane until after the plank are set. Masonry, concrete or steel should not be installed above plank-bearing surface until after the plank is in place.
- D. Installation: Installation of hollowcore slab shall be performed by a PCI Qualified Erector and have a minimum of five years' experience installing precast concrete. Members shall be lifted at points determined by the manufacturer. Bearing strips shall be set where required.
- E. Shore and brace precast concrete units to maintain location, stability, and alignment until permanent connections are installed.
- F. Erection Tolerances: Install precast concrete units level, plumb, square, and true, without exceeding the recommended erection tolerances in PCI MNL 127, "Recommended Practice for Erection of Precast Concrete." Variations between members shall be leveled out by jacking, bolting or any other method recommended by the manufacturer.
- G. Welding: Perform welding in compliance with AWS D1.1, with qualified welders.
- H. The general contractor shall provide and maintain all safety barricades, rebar caps and opening covers required for plank in accordance with current industry safety standards.
- I. Fasteners: Hollowcore plank may be drilled or powder-actuated fasteners used for attaching accessory items to units with approval from the manufacturer.

3.03 GROUTING

- A. Grout:
 - 1. Cement Grout: Grout shall be a mixture of not less than one-part Portland cement to three-parts fine sand, and the consistency shall be such that joints can be completely filled without seepage over adjacent surfaces. Install Ethafoam rope in bottom of grout joint. The rope shall be placed securely so as to prevent grout from seeping through the joints. Any grout that seeps from the joint shall be completely removed before it hardens.
 - 2. Review any locations of reinforcing steel that are to be placed within the keyways, slab ends or cutouts in the planks. Verify what reinforcing is provided by the manufacturer and what is provided by others.
 - 3. Review the plans and shop drawings for additional locations of grouting, including grouting cores at the ends of the slabs and cutouts.
 - 4. Review the plans and shop drawings for locations where weld plates are required for connections. Due to the camber of the planks, steel shims may be required to offset elevation differences. The erector should have additional steel shims on hand if weld plates are required. Weld plates may transfer loads to the slabs and should be welded before walls are loaded with backfill or other transverse loads.
 - 5. Grout keys and joints shall be filled and cured properly prior to loading the deck with building materials, equipment, or field-cutting openings.

6. Loading the deck with building materials and equipment should be reviewed with the manufacturer.
7. Cold weather construction requirements shall apply when grouting in winter conditions.

3.04 FIELD MOISTURE & ICE CONTROL

- A. Cores: Drill both ends of every core of every plank with a 1/2-inch hole to eliminate accumulated moisture during delivery and the construction until the structure is dried-in.

3.05 CLEANING

- A. Clean exposed surfaces of precast concrete units after erection to remove weld marks, other markings, dirt, and stains.
 1. Wash and rinse according to precast concrete fabricator's written recommendations. Protect other work from staining or damage due to cleaning operations.

END OF SECTION