Rockford Board of Education
501 Seventh Street
Rockford, IL

June 28, 2013

Addendum No. 2:

Bid 13-34 Auburn Field House Addition
Attached are modification, clarifications and/or corrections for the project manual and/or drawings.
All questions are to direct to the purchasing department at 815-966-3096

ROCKFORD BOARD OF EDUCATION

By Tamara Russey
Purchasing Process Manager
ADDENDUM NO. 2

Project: Auburn High School Field House Addition
Project Numbers: C1741

To: All Bidders

This addendum is issued to modify, clarify, or correct the original Project Manual and/or Drawings and is hereby made a part of the contract documents. Please attach this addendum to the Project Manual(s) in your possession. Please note the receipt of this addendum on the bid form. Bidders shall review changes to all portions of this work as changes to one portion may affect the work of another.

Attachments

1. Addendum Documents- Specification and Drawing Clarifications
To: All plan holders

Project: Auburn High School Field House Addition
Subject: Addendum No. 2

Owner: RPS 205
501 7th Street
Rockford, IL 61104

Architect: Hagney Architects, LLC
4615 East State St Suite 206
Rockford, IL 61108
Hagney Project No. 1741

This addendum forms a part of the Bidding and Contract Documents and modifies the original bidding documents: the Drawings dated 05.21.13, the Project Manual dated 05.21.13. Acknowledge receipt of this addendum in space provided on Bid Form. FAILURE TO ACKNOWLEDGE RECEIPT OF ADDENDA ON THE BID FORM MAY DISQUALIFY BID.

This Addendum may include revised Project Manual pages and/or Drawings that are to be inserted in the correct sequence in the Bidding Documents.

Text deleted from the Project Manual by this Addendum is indicated by overstrike. Example: Overstrike

Bold lettering indicates lines in which text has been modified or added by this Addendum.

Revisions to Drawings are identified by the Addendum number. Cross-check all revised documents with the following:

**Auburn High School Pre-construction Meeting Minutes**
See the following for discussion items/responses not answered in ADD#1:

16. Due to the school's location in relation to Cottonwood Airport- The FAA has been notified of the proposed school building and the proposed construction activity. While the "determination of hazard" is not yet complete, they have indicted an area of no crane use. We have requested a 200 foot boom, however a determination has not been given. **Crane booms will be "flagged", lowered at night. Contractor will inform the airport of scheduled use times. Crane activity cannot take place within the trapezoidal area and the boom can only be extended while located in the rectangular boundary marked by "NW, NE, SW and SE" in the document provided in ADD#1.**
See the following for Q & Q items/responses not answered in ADD#1:

19. Q: Precast Concrete Certification required?
   A: **Yes, per the specifications**

21. Q: Rock River Water Reclamation District connection/permit?
   A: **fees will be reimbursed by the district**

25. Q: Precast Concrete wall panels- flush or surface mounted electrical conduit/boxes?
   A: **All wall electrical devices to be flush mount**

27. Q: Water fire loop- fee?
   A: **fees will be reimbursed by the district**

40. Q: Supplementary Conditions- "Minority requirements" not clear?
   A: while it is the goal of the district to meet these guidelines, state funding is not involved. This requirement does not apply. **Regarding the provisions relating to MBE and FBE, the State of Illinois in this project, Bid No. 13-34 has not and is not expected to provide funds in excess of $250,000.00 and therefore the state goals are not applicable. The District supports the use of Minority and Female owned business enterprises however, has not adopted goals for MBE and FBE.**

46. Q: "Illinois Use" tax referenced?
   A: **taxes: Section 16 relates to tangible personal property purchased outside the State of Illinois. The Illinois School Code requires that persons bidding on and awarded a contract, and their affiliates collect and remit Illinois Use Tax on all sales of tangible personal property into the State of Illinois. Therefore, any purchases of property outside of this state will require the collection and remittance of use tax under the Illinois Use Tax Act (35 ILCS 105/1). Conversely, the provisions of Section 5 will apply to sales within the State of Illinois as to which the District will provide a tax exempt number.**

47. Q: Roller Shade locations?
   A: In general, they are to be included in the classrooms (and storage room 1414), cafeteria and office area. *(Alt. Bid #1 and Alt. Bid #2 do not contain shades)* Conference 1411, Athletic Director 1413, Storage 1414, Classroom 1415, 1416, 1417, 1418, 1419, 1420, 1421, 1422, Cafeteria 1429, 1210 (at new door sidelite)

**Auburn High School RFI-BN Responses**
See the attached list for questions and responses. Review and incorporate into your bid.
PROJECT MANUAL
The following new (sections are) (section is) issued herewith:

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<td>BID FORM</td>
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<td>SECTION – SEWER LINING</td>
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The following sections are deleted:

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FOLLOWING EXAMPLE IS FOR THE REFERENCE METHOD. DELETE AND REWRITE FOR CURRENT PROJECT REQUIREMENTS.

The Project Manual is revised as follows:

Section 1100 SUMMARY
See addendum 1 "MANDATORY PRE-BID MEETING AGENDA" 02. Phasing/Schedule for the following information:

- Board Approval 07/19/13
- Notice to Proceed 07/14/13
- Substantial Completion Date 08/01/14
- Final Completion Date 08/25/14

Section 034500 PRECAST ARCHITECTURAL CONCRETE
Par 2.9 INSULATED PANEL ACCESSORIES
Item A POLYISOCYANurate BOARD INSULATion shall read as follows:

Polyisocyanurate Board Insulation: ASTM C 591., Type I, 1.8lb/cu. ft. unfaced, with R-value of 6.5 per inch and thickness of 4 inches.

Section 072726 FLUID-APPLIED MEMBRANE AIR BARRIERS
Par. 2.4 VAPOR-PERMIEABLE MEMBRANE AIR-BARRIER- 1b, add the following approved manufacturer:

6. Sto Corp.; StoGuard Air Seal

Section 074213 METAL COMPOSITE MATERIAL WALL PANELS
Par. 2.1 METAL COMPOSITE MATERIAL WALL PANELS-A.1, add the following approved manufacturer:


Section 096566 RESILIENT ATHLETIC FLOORING
Par. 2.1 RUBBER SHEET FLOORING Delete Item G. Thickness: Fitness/Weight Room 10 mm in its entirety. No flooring required in Fitness or Weigh Rm.
Par 2.1A RUBBER SHEET FLOORING, add the following approved manufacturers:

Hagney Architects, LLC Addendum No. 2 A-3
Job #1741
4. Moose Sport Surfaces, Ltd.
5. Traction

Section 84113 ALUMINUM FRAMED ENTRANCES AND STOREFRONTS:
Par 2.1A MANUFACTURERS, add the following approved manufacturers:
6. VistaWall
7. YKK
8. Oldcastle

Section 84413 GLAZED ALUMINUM CURTAIN WALLS:
Par 2.1A MANUFACTURERS, add the following approved manufacturers:
5. Pittco
6. Kawneer
7. Oldcastle

Section 105113 METAL LOCKERS:
Delete item a. Locks from Par. 1.6.A.1
Add the following approved manufacturer to Paragraph 2.2A
5. Olympus Hercules All Welded Lockers
6. Lyon lockers

At Par. 2.2G self-closing. Standard continuous hinges are acceptable.
At Par. 2.2 J. ACCESSORIES Delete Item 1, Continuous Zee Base in its entirety. No 4” metal Z base required. See notes in Addendum 1.

Section 116623 ATHLETIC EQUIPMENT:
Add the following approved manufacturer to Paragraph 2.1A
3. AALCO Manufacturing Company.
See product data for long jump box and pole vault box, attached.

Section 129300 SITE FURNISHINGS No change. Note bollard location per note 14 on A1.1A.

DRAWINGS

Drawing Changes: The Drawings shall be changed as follows:

AHS 1741-G1.03 Alternate Bids Design Intent Information for Alternate Bids 1 and 2. "Building Shell" work shall include all exterior doors, OH doors and painting of exterior doors. See Addendum 1 for additional information.

Delete Alternate Bid 5. See Addendum 1 for more information and attached sketches.
AHS 1741-C2.0  
Site Grading & Sediment & erosion Control Plan-North--For architectural scoring pattern information, see Addendum 1.

AHS 1741-C2.1  
Site & Grading Plan-Northeast-revised grades, hot mix asphalt drive note (ALT 2), future clinic & storm connection.

AHS 1741-C2.2  
Site & Grading Plan-South--grades and contours revised, notes added.

AHS 1741-C3.0  
Utility Plan- East--Sanitary Sewer to be Lined notes, Storm Sewer to be Lined notes, Future Clinic & Storm connection, revised MH grade and casting, notes added.

AHS 1741-C3.1  
Utility Plan- West--Sanitary Sewer to be Lined notes, Storm Sewer to be Lined notes, notes added.

AHS 1741-AD.1.0.A  
Partial Demolition Basement Plan, Area A--fixed overlapping text

AHS 1741-A1.1.A  
Partial Floor Plan, Area A--See attached sketch regarding deletion of Alternate Bid 5. Also, Basement Landing Elevation Height changed from -5'-8" to -6'-3-1/2".

AHS 1741-A1.2.A  
Partial Roof Plan, Area A--See attached sketch regarding patching existing roof.

AHS 1741-A1.2.C  
Partial Clerestory Plan, Area C--Drawing also should be renamed as follows "Partial Roof Plan, Area C". See attached sketch regarding patching existing roof.

AHS 1741-A1.3.B  
Partial Roof Plan, Area B--Key Notes- Revise note #3 (TYP ROOF HATCH) size to 2'-6"x4'-6"

AHS 1741-A2.21  
Door Schedules and Door Details- ALT #2 - Doors SFALT 7,8,9,10- Hardware Set #10, SFALT 13 & 14- Hardware Set # 4 (sim, no wall stop)  ADD Door to "Future Clinic" #1409E: Wood Door and Hardware (same door/hardware as typ. classroom door/frame/hardware set)

AHS 1741-A2.22  
Exterior Storefront, All Areas--Revise 4-1/2" depth dimension to 5". At detail D15, revise ea corner mullion profile from 3-3/4" to 3". Design intent at storefront/curtain wall all areas: 2" profile and 5" depth. Please see revised detail G10 at Storefront S12.1, attached.

AHS 1741-A2.31  
Wall Types, All Areas--Revised wording for "bituminous damproofing" in exterior wall types. See new masonry Note 7 in reference to vapor permeable membrane air barrier. Added new wall type. See revised sketches.

AHS 1741-A3.11-13  
Exterior Elevations, All Sheets 
Key Notes #24- Revise Precast "V" -Joint to "1" REVEAL, TYP.

AHS 1741-A3.13  
Exterior Elevations, Sheet Three 
At M1 above entrance S15, building section detail tag should read as J16/A3.23.
AHS 1741-A3.31-43  Wall Sections, All Sheets- **ADD THE FOLLOWING TYPICAL NOTES**

1. The design intent for sub-slab perimeter insulation at all exterior foundation walls is per the following note on A13/A3.42, issued per Addendum 1, which reads as follows: "2" perimeter extruded polystyrene board insulation run 36" both ways."

2. The design intent with regard to AIR BARRIERS at all exterior metal stud/metal faced composite panel system is the following: FLUID APPLIED AIR PERMEABLE BARRIER ON EXTERIOR SHEATHING AND AN IMPERMEABLE BARRIER ON INTERIOR FACE OF STUD WALL ASSEMBLY (FOIL FACED BATT INSULATION)

3. The design intent with regard to AIR BARRIERS at all brick and block wall assemblies is the following: FLUID APPLIED AIR IMPERMEABLE BARRIER ON EXTERIOR OF CMU.

4. Provide wood blocking- as required for the installation of doors, window systems, wall copings, etc. See spec section ROUGH CARPENTRY 061000.

5. See Specification Section 61600 SHEATHING. (In reference to "EXT. GYP. BD" or "EXTERIOR SHEATHING")

AHS 1741-A3.36  Wall Sections, Sheet Six--Revised sketches of detail A1 for clarity and intent. Added Detail A13

AHS 1741-A3.37  Wall Sections, Sheet Seven--See revised sketch of wall section detail A8 showing precast spandrel panel and joint elevation height.

AHS 1741-A3.43  Wall Sections, Sheet Thirteen--New wall section at NE EXIT STAIR shown.

AHS 1741-A5.2.0  Plan Details/Typ Details--Revised detail F1 for clarity and intent.

AHS 1741-A7.13  Vertical Circulation Plans/Sections/Details, Sheet Three--Added wall section information and dimensions. See attached sketches.

AHS 1741-S1.1A  Partial Foundation Plan, Area A. Regarding note "Slab control joints are optional in the field house. However all recommendations of athletic flooring manufacturer shall be met, including treatment of all slab joints and crack". See additional information in Addendum 1. See sports equipment product data for long jump box and pole vault box, attached.

AHS 1741-S5.1  Detail B shows drain tile and states "Drain tile, see civil and plumbing drawings". Delete entire note. Revise T.O.S ELEVATION 5'-8-1/2" to 6'-3-1/2". See revised sketch A1.1and A7.13 in this addendum.

AHS 1741-S5.5  Framing Details

See revised sketch A1.1and A7.13 in this addendum

AHS-M1.1.1  At Partial First Floor Plan - Ventilation Area 1, add General Note 15 to read "15. 50"x38" face up opening with 1/2"x1/2" expanded
metal screen at the opening.”

At Partial First Floor Plan - Ventilation Area 1, relocate rooftop unit AHS.RTU-3 approximate 25'-0” west per the attached Sketch R-AHS M1.1.1.1.

AHS-M1.1.6 At HVAC Sections, change fabric duct signs shown in H-1 Section thru Field House 1424 from “36”ø” to “34”ø”.

AHS-M4.1.2 Revise F1 Gas Meter Detail per the attached Sketch R-AHS M4.1.2.1.

AHS-M4.1.3 Omit drawing AHS-M4.1.3 from the set. The details are duplicated on drawing AHS-M4.1.2.

AHS-FP1.1.1 At Corridor 1409, provide connection (pipe with cap, pipe same size as main) for future health clinic. Coordinate location with other trades to ensure pipe can be extended to east.

AHS-E1.1.1 Add note to drawing to read “All electrical devices, receptacles, and fixtures shall be flush mounted in precast walls. This contractor shall coordinate the exact location of boxes and conduit in precast walls with the precast fabricator. This contractor to furnish dimensioned layouts to the precast fabricator for rough-in.”

AHS-E1.1.2 Add note to drawing to read “All electrical devices, receptacles, and fixtures shall be flush mounted in precast walls. This contractor shall coordinate the exact location of boxes and conduit in precast walls with the precast fabricator. This contractor to furnish dimensioned layouts to the precast fabricator for rough-in.”

AHS-E1.1.5 Add note to drawing to read “All electrical devices, receptacles, and fixtures shall be flush mounted in precast walls. This contractor shall coordinate the exact location of boxes and conduit in precast walls with the precast fabricator. This contractor to furnish dimensioned layouts to the precast fabricator for rough-in.”

AHS-E2.1.1 Add note to drawing to read “All electrical devices, receptacles, and fixtures shall be flush mounted in precast walls. This contractor shall coordinate the exact location of boxes and conduit in precast walls with the precast fabricator. This
contractor to furnish dimensioned layouts to the precast fabricator for rough-in."

AHS-E2.1.2 Add note to drawing to read “All electrical devices, receptacles, and fixtures shall be flush mounted in precast walls. This contractor shall coordinate the exact location of boxes and conduit in precast walls with the precast fabricator. This contractor to furnish dimensioned layouts to the precast fabricator for rough-in."

AHS-E2.1.5 Add note to drawing to read “All electrical devices, receptacles, and fixtures shall be flush mounted in precast walls. This contractor shall coordinate the exact location of boxes and conduit in precast walls with the precast fabricator. This contractor to furnish dimensioned layouts to the precast fabricator for rough-in."

AHS-M2.1.6 At Partial HVAC Roof Plan, relocate rooftop unit AHS.RTU-3 and future air cooled condensing unit approximate 25'-0" west per the attached Sketch R-AHS M2.1.6.1.

AHS-E1.1.1 At Partial First Floor Plan - Power Area 1, At Fieldhouse 1424, relocate rooftop unit AHS.RTU-3 approximate 25'-0" west. Reference sketch R-AHS M1.1.1.1.

AHS-E1.1.3 At Partial First Floor Plans - Power Area 3, provide two (2) 2" conduits stubbed 30" below grade east of Corridor 1409 (near column line H8) for Health Center. Homerun one (1) conduit to panel “DP-A” and the other to switchboard “SES”.

AHS-E7.1.0 At Lighting Fixture Schedule, Type A, change lamps to read “(6) T5H0 FS4 5K RS”.

AHS-E7.1.0 At Lighting Fixture Schedule, Type A, change manufacturer and catalog number to read “FOB24 654T5H0 N1 D20 A12125WG MVOLT 2/3 GEB10PS IVAC120”

AHS-E9.1.1 At H1 Gymnasium A021 Conduit Routing Detail, revise the note to read “The contractor shall coordinate the exact location of boxes and conduit in precast walls with the precast fabricator. The contractor to furnish dimensioned layouts to the precast fabricator for rough-in. All electrical devices, receptacles, and fixtures shall be flush mounted in the precast walls."
area 10'-0" above the floor to the underside of the structure to remain clear of conduits."

UNDER THE FOLLOWING HEADING, LIST PREVIOUSLY ISSUED DRAWINGS WHICH ARE BEING CHANGED AND REISSUED WITH THIS ADDENDUM. INCLUDE DRAWING NUMBERS AND FULL DRAWING TITLES.

**Revised or New Drawing Sheets are reissued herewith:**

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**Sketches:** The following 8-1/2" x 11" sketches, reflecting changes to indicated Drawings, are issued herewith (One page, unless noted otherwise):

- INDUSTRIAL/COMMERCIAL APPLICATION FOR SEWER CONNECTION PERMIT (11 pages)
- JUMPFORM - SAND PIT WITH SAND CATCHERS SYNTHETIC TRACK MATERIAL CROSS SECTION
- JUMPFORM - SP6020 OVERVIEW HS 3MX7M SAND PIT WITH SAND CATCHERS
- JUMPFORM - SP6020 EXPLODED VIEW
- VAULT BOX PLAN AND SIDE VIEWS STAINLESS STEEL (TFPV00233)
- R-AHS-G1.03 (A1/G1.03)
- R-AHS-G1.03
- R-AHS AD.1.0.A
- R-AHS-A1.1A
- R-AHS A1.2.A
- R-AHS A1.2.C
- R-AHS A2.22 (G10/A2.22)
- R-AHS A2.31
- R-AHS A2.31A
- R-AHS A2.31-E1
- R-AHS A2.31-E6
- R-AHS A3.36 (A1/A3.36)
- R-AHS A3.36 (A1-A/A3.36)
- R-AHS A3.36 (A1-B/A3.36)
- R-AHS A3.36 (A1-C/A3.36)
- R-AHS A3.36 (A1-D/A3.36)
- R-AHS A3.36 (A13/A3.36)
- AHS 1741-A3.37
- R-AHS A3.43 (A13/A3.43)
- R-AHS A5.2.0 (F1-A/A5.2.0)
- R-1741-A7.13 (L1/A7.13)
- R-1741-A7.13 (L1-A/A7.13)
- R-1741-S5.5 (13/S5.5)
- R-AHS M1.1.1.1
- R-AHS M2.1.6.1
- R-AHS M4.1.2.1

Auburn High School RFI-BN Responses (8 pages)

END OF ADDENDUM NO. 2

Hagney Architects, LLC Addendum No. 2 A-9
Job #1741
Auburn High School RFI-BN Responses

BN-RFI: 001  Locker Room -Substitution Request

REQUEST:  
From: Jeff Anderson @ Olympus

Please find a Substitution Request form seeking your permission to bid our Olympus Hercules All-Welded locker on this project. In addition you will find a specification and feature sheet detailing the construction of our locker. Please also find a point-by-point comparison showing how our locker meets or exceeds design and construction aspects of the project spec. Please note we match existing colors without an additional charge.

RESPONSE:  
Manufacturer added to Addendum 2 to Paragraph 2.2A under Section 105113 METAL LOCKERS.

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BN-RFI: 002  Locker Questions

REQUEST:  
From: Jeff Gordon @ Interiors for Business, Inc.

1.6 A. 1. a refers to 10% extra locks, 2.2 H. 1. refers to handles for use with locks but no locks are specified. Are locks required?  **No, locks are not required per Addendum 2: Delete item a. Locks from Par. 1.6.A.1.**

2.2 G. refers to self closing hinges. Self closing is not recommended for single tier lockers and is not available with the continuous hinge specified in 2.2 G. 1. Are standard continuous hinges acceptable?  **Standard continuous hinges are acceptable. Addendum 2: At Par. 2.2G self-closing.**

2.2 J. 1. Refers to continuous metal base. Drawing A5.12 detail A1 states metal lockers with 4" base which could be interpreted that the base is part of the locker. Drawing A3.33 detail A5 shows a CMU base. Is a 4" metal Z base required?  **Per Addendum 2: At Par. 2.2 J. ACCESSORIES Delete Item 1, Continuous Zee Base in its entirety. No 4" metal Z base required. See notes in Addendum 1.**

RESPONSE:  See above.

BN-RFI: 003  Curtain Wall & Storefront Questions

REQUEST:  
From: Joseph W. Anderson @ Cardinal Glass Co.

1. Please clarify on where to differentiate between curtain wall and storefront. Looks like you’re looking for a 2" profile on both with a 4-1/2" or 6" depth. As it appears curtain wall/6" depth will not be required for wind loading purposes and storefront can be utilized, unless depth is required for aesthetic/detail reasons.  **RESPONSE: See notes under AHS 1741-A2.22 in Addendum 2 for design intent clarification.**
2. Please clarify that framing/door manufactures Kawneer and Oldcasle are to be listed under both Storefront and Curtain wall spec sections...one is missing from one or other. A single source supplier for both Storefront and Curtain wall systems would be ideal.

**RESPONSE:** Manufacturers added to Section 84113 ALUMINUM FRAMED ENTRANCES AND STOREFRONTS and Section 84413 GLAZED ALUMINUM CURTAIN WALLS via Addendum 2 narrative.

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**BN-RFI: 004 Multiple Questions**

**REQUEST:**
From: Robert Behling @ Fridh Construction

1. Please provide construction start and completion dates.

**RESPONSE:** See Project Manual notes in Addendum 2 narrative.

2. Please provide cost for sewer hook up

**RESPONSE:** $1,266/ERU. ERU (rounded up to the nearest whole number, i.e. calculate 1.5 use 2) = estimate daily average flow/350. Only new flows for the addition are included for the hookup fees. The Rockford School District will reimburse the contractor for this fee. See "INDUSTRIAL/COMMERCIAL APPLICATION FOR SEWER CONNECTION PERMIT" attached in Addendum 2.

3. Please provide water hook up fees.

**RESPONSE:** Any fee will be reimbursed by the Rockford School District.


**RESPONSE:** Answered via Addendum 1.

5. Sht C 2.1 Provide spec for new fencing @ NE corner of plan. Or is this a construction fence?

**RESPONSE:** Addressed in Addendum #1

6. Section 329200 – Is any planting soil required and if so how thick?

**RESPONSE:** Note on sheet C2.2 6” topsoil in all disturbed areas.

7. Is there any special landscaping or seeding required in courtyard or other areas?

**RESPONSE:** 6” topsoil rough graded. Landscaping by others.

8. Section 129300 Site Furnishings “ Bollards for Door Operators Push Buttons” – none shown on drawings. Please identify quantity and location.

**RESPONSE:** Section 129300 SITE FURNISHINGS No change. Note bollard location per note 14 on A1.1A, included in Addendum 2.

9. Athletic Flooring- Plans state that “slab control joints are optional in the field house however all recommendations athletic flooring manufacturer shall be met, including treatment of all slab joints and cracks.” With (4) acceptable flooring manufacturers this seems troublesome.

**RESPONSE:** Answered in Addendum 1 and noted in Addendum 2.

10. Are corridor lockers single or double tier? Lockers in section A5/A3.33 scale 15” deep. Please verify size L X W X H.

**RESPONSE:** Answered in Addendum 1.

11. Sht AD1.0.A Demolition notes are not legible.
RESPONSE: Sketch reissued in Addendum 2.
12. Is any painting of exterior doors and frames to be included in alternates #1 & #2?
RESPONSE: Answered in Addendum 2.
13. Are overhead doors to be included in Alt #2?
RESPONSE: Answered in Addendum 2.
14. Sheet C3.0 There is a 20’ section of drive missing @ south side of Alternate 2 addition.
RESPONSE: The drive is not shaded because it is not part of the Base Bid. See Addendum #2 sheet.
15. Should asphalt quantities change from base bid to Alternate 2?
RESPONSE: Yes, the 20’ drive lane will be added to the Alternate 2 quantities.
16. Structural foundation sheets- Is 3” mudslab required under all footings or is it shown for illustrative purposes and to be part of the 250 cy allowance for replacement of unsuitable soil with lean concrete?
RESPONSE: The 3-inch mudslab is required under all footings per the recommendations of the geotechnical report and is not part of the 250 C.Y. allowance for lean concrete replacement for unsuitable soil.
17. Detail 8/S5.1 shows drain tile “see civil and plumbing drawings”. Please provide drawing.
RESPONSE: Clarified in narrative of Addendum 2.
18. Please provide roof plan for area C.
RESPONSE: Clarified in narrative of Addendum 2.

RESPONSE: See notes above.

BN-RFI: 005 Request to be Approved Locker Mfg.

REQUEST:
From: Bill Countryman @ Lyon LLC

I am writing to you to have Lyon LLC (formerly Lyon Workspace Products) listed as an approved locker manufacturer for this project. We are not listed under 2.2 Heavy Duty Metal Lockers

RESPONSE:
Manufacturer added to Addendum 2 to Paragraph 2.2A under Section 105113 METAL LOCKERS.

BN-RFI: 006 Mechanical Questions
RESPONSE:
Request referenced an old set of documents, questions did not apply.
BN-RFI: 007    Panelize Precast Wall Panels

REQUEST:
From: Jake Dykstra @ Cord Construction

1. At the north and south ends of the east elevation and at the north and south ends of the west elevation, I am trying to understand how to best panelize the precast wall panels. Due to the three (3) double man doors located within the 19'-0" area, my feeling is we may have to utilize a spandrel panel spanning across the opening to avoid potential future cracking issues. Please confirm this is acceptable.

RESPONSE: Spandrel panel is acceptable. See revised wall section A8/A3.37 in Addendum 2. Top of spandrel at +14'-0" corresponds to reveals shown in exterior elevations.

2. If spandrel panel as outlined above is acceptable, we would expect the logical horizontal joint centered about Elev. +14'-4". Please confirm this is acceptable and please also confirm that if the intent for that particular reveal is to be a v-groove, it may be made to have a back plane matching the required horizontal joint dimension.

RESPONSE: See answer above. Center of horizontal v-groove joint at +14'-0" is acceptable.

3. Please confirm 2" polyisocyanurate (ISO) insulation is required as per specification, not 4" ISO as illustrated in drawings.

RESPONSE: 4" is required. Specification was revised per Addendum 2.

RESPONSE: See answers above.

BN-RFI: 008    Composite Panels Distributor

REQUEST:
From: Casey Rog @ S&S Panel Sales of Il.

I am Casey Rog of S&S Panel Sales of Il. We are a distributor of composite building panels for the Citadel Architectural Products Co. of Indianapolis In. I would like to be included in spec. section 074213 for the composite panels for the Auburn High School Field House Addition.

I have attached the panel specification sheet, typical details of the Citadel Route and Return Installation method, a warranty for the material, the Envelope 2000 four color brochure, and a color chart of the standard colors. The specification calls for a custom color, which I can provide; however, if a standard color is acceptable, the cost will be much less.

RESPONSE:
Citadel Architectural Products Co. is acceptable.
BN-RFI: 009  AWI's Quality Certification Program

REQUEST:
From:  Al Musch @ Premier Woodwork, Inc.

We have been invited by some of the General Contractors to bid the Plastic - Laminate - Faced Architectural Cabinets. We would like to be able to bid but currently in the specs under Section 064116  1.6 Quality Assurance A. Reads that the shop is a certified participant in AWI's Quality Certification Program. We are not a member of AWI so we are asking if we can bid it if we agree to follow all of the AWI specifications. Thanks for your time please update us on your decision.

RESPONSE:
Premier Woodwork is accepted per conformance to AWI specifications.

BN-RFI: 010  Auto Door/Glass Block/Hardware Groups

REQUEST:
From:  Joseph W. Anderson @ Cardinal Glass Co.

Please provide information/clarifications for the following items:

1. Door # SF1401-F indicates an automatic door opener (Interior Door)  Should Door SF1401-C (Exterior) also have an automatic door opener?
RESPONSE: Correction: Interior door (SF1401-F) should have the door opener omitted, the exterior door (SF1401-C) should have the automatic door opener.

2. ALT #2 - Glass block shown at Elev. G1/A3.2 adjacent to storefront framing, but not shown on plans. If glass block is provided, what the anchoring detail for the storefront frame at the jams?
RESPONSE: For Alt#2- Glass block to be provided per the exterior elevations (adjacent to storefront framing and as individual opening in the precast concrete wall panels). See plan detail E7/AHS-A3.41 showing a steel channel/expansion strip at the glass block jambs.

3. ALT #2 - Doors SFALT 7,8,9,10 and SFALT 13 & 14 do not indicate Hardware groups?
RESPONSE:
ALT #2 - Doors SFALT 7,8,9,10- Hardware Set #10, SFALT 13 & 14- Hardware Set #4 (sim, no wall stop)
BN-RFI: 011  Bid Form/Submission of Bid

REQUEST:
From: Patrice Gentile @ Scandroli Construction Co.

I have a few questions regarding the bid form /submission of bid:

1. On the Required Documentation Checklist it references "Bidding Documents BD1-BD10" - where are those? It looks to me like the bidding documents are 6 pages (not 10).
   RESPONSE: Correct, the AIA Doc A701 INSTRUCTION TO BIDDERS consists of only six pages, not ten. The four page Additions & Deletions report has been omitted. This report is only a convenience and just repeats what has been changed. This report does not need to be included in the published document.

2. The Illinois Dept. of Labor Certified Transcript Payroll Chart -is that to be submitted blank? Because there would be no information to be filled in until work begins. Or are we just verifying that's the form we would use, if we are verifying do we just turn it in blank?
   RESPONSE: The certified payroll form only needs to be filled out when the monthly invoice is submitted.

3. The ROE Title Block Form -what is this for? Should this be submitted blank with the bid? It seems this is another form that they want used once work starts.
   RESPONSE: It is not necessary to submit this form with the bid. The form is just an example to be used during construction for the inspections. This form will be kept on site, updated by the contractor and inspector.

Please clarify about the Bidding Documents BD1-BD10 and please confirm about the Certified Payroll chart and ROE title block chart how they should be submitted with the bid
   RESPONSE: See above.

BN-RFI: 012  AALCO Mfg/SportsCon

REQUEST:
From: Wendy Stout @ AALCO Manufacturing/SportsCon LLC.

Would you please review the attached information regarding Auburn Field House bidding on 07.02.13? I was advised from Jeff Huck with FGM Architects that I need to contact the School District direct with my request. I have attached our correspondence. We are seeking approval of the basketball equipment, volleyball equipment, and wall pads in section #116623.

RESPONSE: AALCO is acceptable, added per Addendum 2.
BN-RFI: 013  Resilient Athletic Floor Product Substitution

REQUEST:
From: Robert (Bob) Novak @ Moose Sports Surfaces, Ltd.

Per Dennis Williams (PM: Ragnar Benson Construction), we are submitting our PSR to you for the 09655-Resilient Athletic Flooring portion of your above noted project. Please note attached cover letter, product substitution request form, product brochures, and product technical specifications. Please contact me with any questions you may have.

RESPONSE: Moose Sport is approved as a substitution subject to meeting the specifications and verification of at least three projects successfully installed in the general vicinity of the project. Added as an approved manufacturer to the specifications in Addendum 2.

BN-RFI: 014  Additional Concrete Work

REQUEST:
From: Robert J. Sautter @ Sjostrom & Sons, Inc.

There appears to be additional concrete work not shown on drawing S1.1.A in order to provide for the steps and ramps shown in Corridor 1409. Please provide additional information.

RESPONSE: Please see note on foundation plans (Key Note 9) that refers to architectural drawings for the ramps and steps, but also provides a reference to typical concrete sections for the steps (11/S5.2) and also slab transitions (10/S5.2) for the side of the ramps.

BN-RFI: 015  Multiple Questions

REQUEST:
From: Bob Behling @ Fridh Construction

1. Please ignore item # 16 on RFI #1. Area C roof plan is included in the drawings.  
   RESPONSE: Clarification given in Addendum 2.

2. Expansion joint in area A at existing building shown on architectural drawings but not included on structural? Please provide details and at all locations of wall and ceiling expansion joints. Also please review roof expansion joint A1/A3.36. It is not legible.  
   RESPONSE: Revised sketch issued in Addendum 2.

3. Masonry wall type 1.01, 1.02, & 1.03 call for bituminous coated rigid insulation. Please clarify and provide spec. Cannot find any notes on any drawing calling for liquid air barrier yet included in spec.
RESPONSE: Please see revised sketches R-AHS-A2.31 issued and written narrative in Addendum 2.
4. Hot fluid applied rubberized waterproofing included in spec but not noted on drawings.
RESPONSE: Revised sketch R-AHS-A3.43 issued in Addendum 2.
5. No horizontal subslab perimeter insulation shown on drawings except a few on Addendum #1. Please clarify.
RESPONSE: Written clarification issued in Addendum 2. What is shown in Addendum 1 is the correct design intent.
6. Please identify exterior soffit material in detail A15/A3.37
RESPONSE: See revised detail attached in Addendum 2.
7. Elevation G1/A3.11 21' high wall should be shown from col J to Col M to correspond with structural drawings.
RESPONSE: Exterior Elevation is correct. Structural needs to be revised to meet design intent shown.
8. No vapor retarder is shown on stud wall sections?
Written clarification issued in Addendum 2.
9. Is interior overhead door to be included in Alternate #2?
RESPONSE: Yes, see door schedule on Sheet AHS-A2.21.

BN-RFI: 016 096566 Resilient Athletic Flooring

REQUEST:
From: Trent Bennett @ Dynamic Sports Construction, Inc.

RESPONSE: No response due to late receipt to Vernon Hilton by June 24, 2013 at 1:00 pm.

BN-RFI: 017 Multiple Questions

REQUEST:
From: Collin Martinovich @ Sjostrom & Sons, Inc.

Vernon,
I have a couple questions for you regarding the Auburn High School field house bid.
On sheet AHS S5.2 detail 10 its calls out that the elevation of the sand pit varies, can you clarify this?
RESPONSE: See product data attached in Addendum 2.
Sheet AHS A1.3.2 detail E12 shows the roof hatch on the plan but I do not see anything in the spec about it, can you clarify?
RESPONSE: BILCO TYPE NB- SHIP STAIR ACCESS (2'-6" X 4'-6"). See also A1.3.B- note #3 (revise size to 2'-6" X 4'-6") and sheet A3.32 detail A11 (revise size to 2'-6" X 4'-6").
Sheet AHS S1.100 The stoop do not have dimensions, please clarify.
RESPONSE: See revised details attached in Addendum 2.
SECTION 004100 BID FORM

TO:

Director of Purchasing  
Rockford Board of Education  
School District N. 205  
501 Seventh Street, 6th Floor Conference Rm.  
Rockford, Illinois 61104

FROM:

_________________________________________________________________

Operating as (strike out conditions that do not apply) (an Individual,) (a Corporation, organized and existing under the law of the State of __________,) (a Partnership,) (a Joint Venture consisting of the firm of:)

_________________________________________________________________

BASE BID PROPOSAL:

In response to your invitation to submit a proposal for the execution of all work described by the Drawings and Specifications dated titled: RPS 205 Additions - Renovations, Auburn High School, located at various 5110 Auburn Street Schools, Rockford, IL and having examined the site where the work is to be executed; and having become familiar with local conditions as they might in any way affect the cost and/or execution of the work; and having carefully examined the aforesaid drawings, specifications and other related documents and addenda thereto, the undersigned Bidder hereby proposes and agrees to provide all labor, materials, plant, equipment, transportation, and other facilities as necessary and/or required for the complete and satisfactory execution of the work for which this proposal is submitted, for the lump-sum consideration as stated hereinafter:

Bidders must show bid amount in both words and figures. In case of discrepancy, amount shown in words shall govern.

BASE PROPOSAL:

Base Bid: For Auburn High School, Bidder agrees to perform all work described and shown on the drawings for the sum of:

Bid ________________________ Dollars ____________________ (in figures)

Hagney Architects, LLC  
Job #1741  
BID FORM  
004100-1
ALTERNATES:

ALTERNATE 1: Locker Room Shell.

Bidder agrees to perform all work described and shown on the drawings described as Alternate 1, Locker Room Shell, for the ADD sum of:

_______________________________ Dollars ($___________)
(in writing)

ALTERNATE 2: Weight Room & Multipurpose Shell.

Bidder agrees to perform all work described and shown on the drawings described as Alternate 2, Weight Room and Multipurpose Room Shell, for the ADD sum of:

_______________________________ Dollars ($___________)
(in writing)

ALTERNATE 3: Acoustical Deck at Field House.

Bidder agrees to perform all work described and shown on the drawings described as Alternate 3, for the ADD sum of:

_______________________________ Dollars ($___________)
(in writing)

ALTERNATE 4: Special Graphic in Pre-Cast Concrete Panel.

Bidder agrees to perform all work described and shown on the drawings described as Alternate 4, for the ADD sum of:

_______________________________ Dollars ($___________)
(in writing)

UNIT PRICES:

UNIT PRICE NO. U-1:

Provide unit price for removal of unsuitable soil and replacement with lean concrete in accordance with specifications. The Bidder shall assume that an estimated quantity of 250 C.Y.'s are included in the Bid Amount at the following Unit Price.

_______________________________ Dollars/cu. Yd. ($___________)/cu. yd.
(in writing)
Bidder acknowledges that estimated quantities are not guaranteed, and are solely for the purpose of comparison of Bids, and final payment for all Unit Price Bid items will be based on actual quantities, determined as provided in the Contract Documents. The Unit Price (U-1) shall include all associated costs for the work, including, but not limited to excavating, backfilling offsite transportation/site fee, labor, overhead, insurance, bond, etc.

ADDENDA ACKNOWLEDGEMENT:

The undersigned acknowledges receipt of the following addenda:

(List by number and date appearing on each addenda. If all addenda are not acknowledged, the bid will be considered irregular).

<table>
<thead>
<tr>
<th>ADDENDUM No.</th>
<th>Date</th>
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The undersigned agrees to complete all work at each school, as required by the contract as follows:

<table>
<thead>
<tr>
<th></th>
<th>Auburn H.S.</th>
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<tbody>
<tr>
<td>Commence Work on:</td>
<td>July 14, 2013</td>
</tr>
<tr>
<td>Completion:Substantial Completion:</td>
<td>August 1, 2014</td>
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<tr>
<td>Final Completion:</td>
<td>August 25, 2014</td>
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BID SECURITY:

Bid Security is attached, without endorsement, in the sum of (5% of Bid Amount):

__________________________ Dollars ______________________

GENERAL STATEMENT:

The undersigned has checked all of the figures contained in this proposal and further understands that the Owner will not be responsible for any errors or omissions made therein by the undersigned.

The undersigned agrees to assist and cooperate with the Owner in preparing the formal Contract,
and shall execute same and return it to the Owner along with surety bonds and insurance certificates, as may be required by the specifications and other Contract Documents, within 10 days following its receipt.

The undersigned further agrees to begin work on said contract as soon as practicable after date of "Contract" or "Notice to Proceed," whichever is earlier; or, in any case the undersigned fails or neglects to appear within the specified time to execute the Contract, the undersigned will be considered as having abandoned it, and the Bid Security accompanying this proposal will be forfeited to Owner as liquidated damages for delay and loss caused to Owner by reason of such failure on the part of the undersigned.

It is understood that the right is reserved by Owner to reject any or all proposals, to waive all informalities and irregularities in connection therewith, and to award a contract for any part of the work or the project as a whole. It is agreed that this proposal may not be withdrawn for a period of 60 days after it has been opened, without permission to the Owner.

The undersigned declares that the person(s) signing this proposal is/are fully authorized to sign on behalf of the named firm and to fully bind the named firm to all the conditions and provisions thereof.

It is agreed that no person(s) or company other than the firm listed below or as otherwise indicated hereinafter has any interest whatsoever in this proposal or the Contract that may be entered into as a result thereof, and that in all respects the proposal is legal and fair, submitted in good faith, without collusion or fraud.

It is agreed that the undersigned has complied or will comply with all requirements concerning licensing and with all other local, state, and national laws, and that no legal requirements has been or will be violated in making or accepting this proposal, in awarding the Contract to him, or in the prosecution of the work required thereunder.

The contractor certifies that the contractor is not barred from bidding on the contract as a result of a conviction for either bid-rigging or bid rotating under Article 33E of the Criminal Code of 1961.

| Name of Contractor (Typed) | Contractor's Signature |

SUBCONTRACTOR LISTING: (By Bidders of General Construction category of work):

RPS 205 is requesting the following breakdown of the bids. The amounts provided are for information only and will not be used for the purpose of determining the low bidder; however, all $ amounts shall equal the amount of the entire bid entered above.

This proposal has been prepared using sub bids received from the firms listed below:

Hagney Architects, LLC
Job #1741

BID FORM 004100-4
Auburn High School:

<table>
<thead>
<tr>
<th>Classification of Work</th>
<th>Name of Sub-Bidder</th>
<th>Total Bid Amt. ($)</th>
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<tr>
<td>General Conditions &amp; Fee</td>
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<tr>
<td>Sitework</td>
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<td>Sanitary and Storm Piping- Lining</td>
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<td>Concrete</td>
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<td>Masonry</td>
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<td>Structural Steel</td>
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<td>Carpentry</td>
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<td>Thermal &amp; Moisture Protection</td>
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<td>Doors &amp; Windows</td>
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<td>Electrical</td>
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<td>Fire Alarm</td>
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<td><strong>Total Bid Amount</strong></td>
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BIDDER SIGNATURE:

Respectfully submitted this ____________ day of _______________

Legal Name of Firm: ____________________________________________

Federal Tax Identification Number: _____________________________

BY: ____________________________________
CERTIFICATE OF ELIGIBILITY TO CONTRACT

______________________________ Contractor, Pursuant to section 33E-11 of the Illinois Criminal Code of 1961 as amended, hereby certifies that neither (he, she, it) nor any of (his, her, its) partners, officers, or owners of (his, her, its) business has been convicted in the past five (5) years of the offense of bid-rigging under section 33E-3 of the Illinois Criminal Code of 1961 as amended; that neither (he, she, it) nor any of (his, her, its) partners, officers or owners has ever been convicted of the offense of bid-rotating under section 33E-4 of the Illinois Criminal Code of 1961 as amended; and that neither (he, she, it) nor any of (his, her, its) partners, officers or owners has ever been convicted of bribing or attempting to bribe an officer or an employee of the State of Illinois, or has made an admission of guilt of such conduct which is a matter of record.

Date: __________________________

SUBSCRIBED and SWORN TO before me

This ______ day of ______

______________________________

NOTARY PUBLIC

______________________________

SUBSCRIBED and SWORN TO before me

This ______ day of ______

______________________________

NOTARY PUBLIC

______________________________

END OF BID FORM
INDUSTRIAL/COMMERCIAL APPLICATION
FOR SEWER CONNECTION PERMIT
(Sections I-IV to be completed by the user of the building)

SECTION I - GENERAL

A. New facility requiring permit: ________________________________
B. Address of facility requiring permit: __________________________
C. County __________________________________________________
D. Current mailing address: ____________________________________
E. Property code(s): __________________________________________
F. Legal description/Parcel size: _________________________________
G. Owner/User: ______________________________________________
H. Name of person completing the application: _________________
   Title: __________________________ Phone #: _____________________
   Company: __________________________________________________
I. Water received from:
   Rockford____ Loves Park____ North Park______ Cherry Valley_____
   Rockton_______ Well__________ Other_______
J. Flow metering (check all that apply):
   Water meter_______ Wastewater flow meter_______ Well meter _______
   Lawn sprinkler meter_______ Other credit meter (describe)___________

Provide estimate of wastewater discharge volume: 1,200 gallons per day*
Connection fees are calculated using projected flows provided in this I/C form. Supplemental connection (surcharge) fees may be imposed should actual flows (or wastewater pollutant strengths) exceed the projected flows (or wastewater pollutant strengths) pursuant to Title 5 of the District Code of Ordinances; this includes flow or wastewater pollutant changes due to changes in the use of properties. Surcharge fees shall be calculated annually. Connection fee rates are subject to change pursuant to District Board action.

The Rock River Water Reclamation District bills on metered water; owner may install a credit meter or wastewater flow meter to more accurately measure discharge to sewer for sewer billing purposes. Surcharge fees will be based solely on information available at the time of the surcharge calculation.

* Until the Rock River Water Reclamation receives the water meter consumption records from the water provider, the District will use the water consumption stated in this application to calculate wastewater treatment bills.

K. Number of fixtures, type: 31 fixtures, 14 water closets, 6 urinals, 4 wash fountains, 1 hand sink, 1 triple sink, 2 mop basin, 3 drinking fountains

L. Number of floor drains/type: 6 floor drains, general purpose

M. Previous I/CU operations address and RRWRD Account No. (If applicable):

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<tr>
<th>Address:</th>
<th>Account No.(s):</th>
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N. TYPE OF WASTEWATER DISCHARGED

- Chemicals
- Food Processing
- Domestic
- Grease, Oil
- Other (Specify):

Is food prepared at this establishment? Yes * No

*If “Yes”, the user must complete Supplemental Schedule B of this form.
SECTION II – BUILDING AND SITE PLUMBING PLAN

Provide engineered, to scale, site drawing showing all existing and proposed site features and required fixtures, including but not limited to, all utilities/sanitary sewer service connections; sampling manholes and building footprint, North arrow, property lines, etc., plumbing plan and plumbing schematic to include the building service and building plumbing. Required special service features, such as but not limited to, grease traps, grease interceptors, oil/water separators, sand catch basins, shall be shown on the detailed engineered site drawing, plumbing plan and plumbing schematic.

SECTION III– CERTIFICATION

I/We have personally examined and are familiar with the information submitted in this application. Moreover, based on our inquiry of those individuals immediately responsible for obtaining the information reported herein, we believe that the submitted information is true, accurate and complete.

As Owner/User, I also understand that should the type of process activity as indicated in Supplemental Schedule A, change because of additions, expansions, or deletions, I am to report such changes to the Rock River Water Reclamation District – Plant Operations Department (815) 387-7634.

Owner/User

Signature:__________________________
Name:____________________________
Title:______________________________
Company:_________________________
Date:_____________________________

Plumber/Contractor

Signature:__________________________
Name:____________________________
Title:______________________________
Company:_________________________
Date:_____________________________

************************************************************************ PROCEED TO SUPPLEMENTAL SCHEDULE A ************************************************************************

SECTION IV – REQUIREMENTS (TO BE COMPLETED BY DISTRICT STAFF)

A. Permits Required

_____ IEPA Construction/Operation Permit
_____ RRWRD Industrial Wastewater Discharge Permit
_____ Connection Permit from Engineering Department

B. Equipment Installation

_____ Gas and Oil Separator
_____ Grease Trap (size required______Gal.)
_____ Grease Interceptor (______ Gal.)
_____ Pretreatment System
_____ Sand Catch Basin
_____ Junction (Service) Manhole
_____ Sampling Manhole
_____ Monitoring Manhole W/Flume
   _____4’ diameter   _____5’ diameter
C. Specific instructions given by Supporting Services for connections, manholes, etc:

________________________

D. This operation is similar to ________________ Account No. ____________________
(This example was used to forecast flow and charges.)

E. Has downstream sewer been accepted for permits? Yes __________ No __________
Downstream sewer is: ____________________

F. General

_____ IEPA Class K Operator
_____ Inspection by IWS

G. Money Owed:

Plant buy in (PBI) fee apply? Y N
Plant buy in (PBI) fee credit apply? Y N

Basin fee apply? Y N (Name): ____________________ Basin fee credit apply? Y N

Payback fee apply? Y N (Name): ____________________

Credit applied (Account name/address): ____________________

Calculated Flow and LUC Credit:

PBI ERUs: _______ Less Credit PBI ERUs: _______ Chargeable PBI ERUs: _______

Basin ERUs: _______ Less Credit Basin ERUs: _______ Chargeable Basin ERUs: _______

Calculation of Charges:

PBI: __________ Basin: __________ Payback: __________
Comments:

H. Standard Terms and Conditions (To Be Completed by District Staff)

☐ A sampling manhole (minimum 5’ deep) of standard District design.

☐ Requires a Private Property Plumbing Contractor, registered and bonded with the District, to schedule inspections with the Engineering Dept. for service connection at the defined point of connection and any required devices.

☐ Requires a Public Property Plumbing Contractor, registered and bonded with the District, to schedule inspections of the new service cut-in and the service extension to the defined point of connection.

☐ Provide detail drawings of ________________ (device).

☐ Provide signed Multi-Tenant Developer Agreement for multiple tenant buildings without food service establishments.

☐ Provide the Engineering Department with detailed flow calculations to support the estimated sewage flow stated on the Application.

☐ A new Industrial/Commercial Application must be submitted for any new tenant that has a sewage discharge of non-domestic characteristics.

☐ All deficiencies and required documentation must be satisfactorily completed and received by the District and the Service Connection Permit issued within sixty (60) days of the initial I/C review letter.
SUPPLEMENTAL SCHEDULE A

Indicate by placing a check in front of those process activities that will occur at the facility for which this permit application is submitted.

### MANUFACTURING

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<tbody>
<tr>
<td></td>
<td>Apparel &amp; Other Textile Products (Men’s &amp; Women’s Clothing, Fur Goods, Misc., Fabricated Textile Products)</td>
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<tr>
<td></td>
<td>Chemical &amp; Allied Products (Industrial Inorganic Chemicals, Plastic Materials &amp; Synthetics, Drugs, Paints &amp; Allied Products, Industrial Organic Chemicals)</td>
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<td></td>
<td>Electrical &amp; Electronic Equipment (Household Appliances, Electric Distributing Equipment, Communication Equipment)</td>
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<td>Fixtures and Furniture</td>
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<td>Food &amp; Kindred Products (Meat Products, Fish Products, Poultry Products, Dairy Products, Bakery Products, Beverages, Dog Food)</td>
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<td>Leather &amp; Leather Products</td>
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<td></td>
<td>Lumber &amp; Wood Products (Wood Containers, Wood Kitchen Cabinets, Sawmills and Planing Mills)</td>
</tr>
<tr>
<td></td>
<td>Machinery (Engines &amp; Turbines, Farm &amp; Garden Machinery, Construction and Related Machinery, Metalworking Machinery, Special Industry Machinery, Office &amp; Computing Machines)</td>
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<td>Miscellaneous Manufacturing Industries (Jewelry, Silverware, Musical Instruments, Toys and Sporting Goods)</td>
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<td>Fabricated Metal Products (Metal Cans &amp; Shipping Containers, Cutlery, Hand Tools &amp; Hardware, Screw Machine Products, Bolts, Etc., Metal Forging And Stamping)</td>
</tr>
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<td>Primary Metal Industries (Iron &amp; Steel Foundries, Primary Nonferrous Metals, Secondary Nonferrous Metals, Nonferrous Rolling &amp; Drawing, Nonferrous Foundries)</td>
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<td>Printing &amp; Publishing (Books, Commercial Printing, Greeting Card Publishing)</td>
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<td>Rubber &amp; Misc. Plastic Products</td>
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<tr>
<td></td>
<td>Stone, Clay &amp; Glass Products (Flat Glass, Glassware, Cement Hydraulic, Pottery &amp; Related Products. Textile Mill Products)</td>
</tr>
<tr>
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<td>Truck Terminal with Vehicular Wash</td>
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<td>Other (Specify): ____________________________________________</td>
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### COMMERCIAL

**Wholesale Trade:**

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<tr>
<td></td>
<td>Apparel, Piece Goods &amp; Notions</td>
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<tr>
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<td>Groceries &amp; Related Products</td>
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<td></td>
<td>Beverages</td>
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<td>Hardware, Plumbing &amp; Heating Equipment</td>
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<td>Electrical Goods</td>
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</tr>
<tr>
<td></td>
<td>Furniture &amp; Home Furnishings</td>
</tr>
<tr>
<td></td>
<td>Sporting Goods, Toys &amp; Hobby Goods</td>
</tr>
<tr>
<td></td>
<td>Other (Specify): ____________________________________________</td>
</tr>
</tbody>
</table>
Retail Trade:

- Apparel & Accessory Stores
- Furniture & Home Furnishings
- Auto & Home Supplies
- Gasoline Service Stations
- Building Materials & Garden Supplies
- General Merchandise Stores
- Liquor Stores
- Eating & Drinking Places
- Food Stores
- New & Used Car Dealers
- Other (Specify): ____________________________

Institutions:

- Clinics
- Educational Facilities
- Health Services (Doctors, Dental, Hospitals, Nursing, Etc.)
- Retirement Centers
- Other (Specify): ____________________________

Office (Finance, insurance and real estate, etc.):

- Banks
- Credit Agencies Other Than Bank
- Insurance Services
- Real Estate
- Securities, Commodity Brokers & Services
- Other (Specify): ____________________________

SERVICES

- Advertising
- Amusement & Recreation Service
- Hotels & Other Lodging Places
- Barber Shop
- Beauty Shop
- Car Wash W/New Water
- Car Wash W/Recycled Water
- Club Organization
- Coin Operated Laundry
- Diaper Service
- Auto Repair, Service & Garage
- Legal Service
- Misc. Repair ( Watches, Clocks, Electrical)
- Mobile Home Park/RV Park (Transient)
- Photographic Studio
- Veterinary Service

Other (Specify): ____________________________
SUPPLEMENTAL SCHEDULE B
INTERCEPTORS AND SEPARATORS

A. Grease Interceptor

The use of any property serviced by a sanitary sewer shall install separators, as necessary, for the proper handling of liquid wastes containing grease, sand, oil or any other matters that may violate the provisions of Article 2, Section 1 of the Code of Ordinances. Such separators shall be installed by the user and be accessible for maintenance purposes.

1. Grease Interceptor Capacity

Any new or altered food service establishment that introduces fats, oils, or grease (FOG) into the drainage and sewage system in quantities large enough to cause line blockages or hinder sewage treatment, shall install a minimum capacity of 1,000 gallons interceptor located outside the building. Multiple tenant strip malls shall install an exterior grease interceptor, properly sized pursuant to Title 2, Article II, Section 8.A.5. In no case will any grease interceptor for a strip mall be less than 1500 gallons.

2. Grease Traps

Small volume food service establishments, which have limited menus, minimum dishwashing, and/or minimal seating, shall provide a grease trap built into the wastewater piping located a short distance from the grease producing fixture(s). The location and capacity of the grease trap(s) shall be approved by the Plant Operations Manager. The minimum grease trap capacity may be determined using the equipment checklist calculation.

Equipment Checklist

Fixture dimensions (Cu.Ft.): \( \text{Length(in.)} \times \text{Depth(in.)} \times \text{Width(in.)} = \text{Cu.Ft.} \)

\[
\begin{align*}
\text{Fixture 1} &\quad \text{See attached interceptor calculation} \\
\text{Fixture 2} &\quad \text{See attached interceptor calculation} \\
\text{Fixture 3} &\quad \text{See attached interceptor calculation} \\
\text{Fixture 4} &\quad \text{See attached interceptor calculation} \\
\text{Total capacity (Cu.Ft.)} &\quad 6.25 \times 7.48 \text{ gal/ft}^3 \times [0.50] \text{ equals 23.4 gallons.}
\end{align*}
\]

3. Design Criteria

a. Grease traps and interceptors shall be constructed in accordance with the design approved by the RRWRD.

b. Grease traps and interceptors shall have a minimum of two compartments with fitting designed for grease retention.

c. There shall be an adequate number of manholes on a grease interceptor to provide access for cleaning all areas of the interceptor. Manhole covers shall be gas-tight in construction with a minimum opening of twenty-four (24) inches.

d. Grease interceptors shall have two (2) compartments. It is recommended that the inlet compartment be two-thirds (2/3) the total capacity of the interceptor with a minimum liquid volume of 666 gallons. The outlet compartment shall have a minimum capacity of one-third (1/3) the total capacity of the interceptor.
e. The inlet and outlet shall have a baffle tee or similar flow device with a minimum cross-sectional area equal to the cross-sectional area of the inlet. Each baffle shall extend from at least four (4) inches above the liquid level to within at least twelve (12) inches of the inside floor of the interceptor.

f. Adequate partitions or baffles of durable material shall be constructed between compartments of the grease interceptor and shall extend at least six (6) inches above the liquid level. Flow from the inlet compartment to outlet compartment shall be through a quarter bend, or similar device equivalent in cross-sectional area to the inlet into the interceptor and shall extend down to within twelve (12) inches of the inside floor. Wooden baffles are prohibited.

(1) grease interceptor with capacity as follows: 50 GPM flow rate, 52 gallon liquid holding capacity and 249 lb. grease capacity

4. Capacity of grease interceptors:

B. Gasoline, Oil and Flammable Liquid Interceptors

1. Commercial Vehicle Repair Garages, Gasoline Stations with Grease Racks or Pits and Oil Change Facilities.

Any commercial vehicle repair garage, gasoline station with a grease rack or pit and oil change facilities shall be provided with floor drains or a trench drain connected to a gas and oil separator.

The minimum size of the interceptor shall be six (6) cubic feet (45 gallons) for the first 500 square feet of floor area plus one cubic foot per each additional 500 square feet drained to the interceptor.

2. Commercial and Residential Vehicle Storage

Commercial and residential vehicle storage areas greater than 1,000 square feet shall comply with the requirements of Section B-3 below.

3. Other Facilities

All facilities, other than those discussed in Section B-1 above that generate fuel, oil or flammable waste shall meet one of the following requirements:

a. Provide floor or trench drains connected to a gas and oil interceptor.

b. Provide an alternative system approved by the IDPH (i.e., an oil reclamation system or containment area).

The minimum size interceptor for these facilities shall be six (6) cubic feet (45 gallons) for the first 3,000 gross square feet plus 1 cubic foot per each additional 1,000 square feet to be drained to the interceptor.

C. Catch Basins

Sand catch basins or similar interceptors for heavy solids shall be so designed and installed to be accessible for cleaning and shall be sized to meet the following criterion:

In all motor vehicle wash racks, drainage shall discharge into a water-tight catch basin at least 36 inches in diameter, or three (3) feet by two and one half (2-1/2) feet (rectangular shape). The bottom shall not be less than 27 inches below the invert of the outlet pipe.

2. Commercial Laundries

Commercial laundries shall be equipped with an interceptor having a removable wire basket or similar device that will prevent materials detrimental to the sewage system from passing into the system.

D. Approval

All plumbing work must be completed in compliance with applicable State and Local Plumbing Codes. Equipment installation shall also meet all applicable State and Local Public Health Codes.
GREASE INTERCEPTOR

ILLINOIS PLUMBING CODE, SECTION 890.510, PARAGRAPH a.2. (MINIMUM SIZE)
FOR TOTAL LIQUID HOLDING CAPACITY OF GREASE INTERCEPTOR: "WHERE TWO
(2) OR MORE SINKS OR RECEPTACLES ARE CONNECTED TO AN INTERCEPTOR
THE LIQUID HOLDING CAPACITY SHALL BE BASED ON THE COMBINED VOLUME
OF THE FIXTURES SERVED."

VOLUME OF SINK/RECEPTACLES
LENGTH x WIDTH x HEIGHT (INCHES) = CUBIC INCHES

CONVERSION OF CUBIC INCHES TO GALLONS
CUBIC INCHES OF SINK/RECEPTACLES / 231 = GALLONS

THREE COMPARTMENT SINK
20”x16”x15”x3 BOWLS =
14,400 CUBIC INCHES

14,400 CUBIC INCHES x .75 =
10,800 CUBIC INCHES

10,800
231
= 46.75 GALLONS

TOTAL LIQUID HOLDING CAPACITY
46.75 GALLONS

SINKS/RECEPTACLES DRAIN TIME (1 MINUTE)
46.75 GALLONS
1 MINUTE
= 46.75 GPM
ALTERNATE PLAN NOTES

ALTERNATE BID 5:
AT PROPOSED CLINIC: CHANGE EXT WALL TYPE TO INTERIOR WALL TYPE AND DELETE WINDOWS.

THIS ALTERNATE RELATES TO A PROPOSED HEALTH CLINIC ADDITION, WHICH IS PLANNED TO BE CONSTRUCTED UNDER A SEPARATE CONTRACT AND SHALL BE LOCATED IN BETWEEN THE LOBBY 1400 AND EXIST BLDG.

CHANGE PORTION OF WALL, AS NOTED ON THE ARCH PLAN FROM EXTERIOR WALL TYPE 1.01 TO INTERIOR WALL TYPE 3.01 AND DELETE WINDOWS. SEE ARCH PLAN, BLDG SECTIONS AND EXTERIOR ELEVATIONS ON SHEET A3.11.

ALTERNATE FIVE DELETED.
GENERAL PROJECT NOTES

A. SEE SPECIFICATIONS.
B. A REQUEST TO THE FEDERAL AVIATION ADMINISTRATION (FAA) HAS BEEN FILED NOTIFYING THEM OF THE CONSTRUCTION ACTIVITY THAT WILL TAKE PLACE INCLUDING THE CONSTRUCTION SITE, USE OF CRANES ERECTING PRECAST WALL PANELS AND INSTALLING ROOF TOP MECHANICAL EQUIPMENT. (COTTONWOOD AIRPORT IS DIRECTLY NORTH EAST OF THE SITE- ACROSS AUBURN STREET)
C. CONTRACTOR SHALL FIELD VERIFY ALL CONDITIONS AND DIMENSIONS. REPORT ANY DISCREPANCIES TO THE ARCHITECT IMMEDIATELY.
D. COORDINATE WORK ON THIS SHEET WITH WORK ON CORRELATING AND ADJ. MEP/FP/STRUCT/RCP/ FLOOR FINISH, EQUIP. ETC. SHEETS.
E. SEE SHEET G1.02 FOR CODE INFORMATION.
F. SEE SHEET G1.03 FOR ALTERNATE BID INFORMATION.
G. ORIGINAL 1959 CONSTRUCTION DOCUMENTS ARE AVAILABLE FOR REVIEW.
H. SEE G1.04 FOR MOUNTING HEIGHTS AND GENERAL NOTES.

DEMOLITION PLAN KEY NOTES

★ NOTE TYPICAL THIS SHEET ONLY
★ REMOVE EXISTING EXTERIOR CONCRETE RAMP, TRENCH DRAIN AND RAILING COMPLETE. SEE PHOTOS ON THIS SHEET. SEE CIVIL EXIST UTILITY LOCATIONS.
★ REMOVE EXIST DR SYSTEM AND FRAME COMPLETE.
FUTURE HEALTH CLINIC SHOWN AND INCORPORATED. NEW WALL TYPE 1.06. SEE WALL SECTION CUT ADDED.

ALTERNATE FIVE DELETED.

FUTURE

A1

PARTIAL FIRST FLOOR PLAN, AREA A

SCALE 3/32" = 1'-0"
PATCH EXISTING ROOF NEAR ADDITION AS REQ'D. VFY WARRANTY INFORMATION W/OWNER.
PATCH EXISTING ROOF NEAR ADDITION AS REQ'D.
VFY WARRANTY INFORMATION W/OWNER.
ADD 2 STOOP DIMENSIONS ADDED

5'-0"

23'-8"

SF1401A

SF1401B

SF1401C
SF1425A

SF1425B

SF1425C

SF1425D

SF1425E

ADD 2
STOOP
DIMENSIONS
ADDED

6'-11"

3'-10"

5'-5"

AUBURN HIGH SCHOOL
FIELD HOUSE ADDITION

SF1425C
N-S SECTION @ NE EXIT STAIR

SCALE 3/8" = 1'-0"

PROJECT: AUBURN HIGH SCHOOL FIELD HOUSE ADDITION

DRAWN: JAM

APPROVED: FSA

DATE:

JOB NO.

ISSUED AS ADD. #2

R-AHS A3.43
DRAFTING ERROR CORRECTED

G10
S12.1
1/4" = 1'-0"

PROJECT
AUBURN HIGH SCHOOL
FIELD HOUSE ADDITION

TITLE
G10/A2.22 EXT STOREFRONT, ALL AREAS
scale 1/4" = 1'-0"

DRAWN
JAM
APPROVED
FSA

DATE

Sheet No.
R-AHS A2.22

Issued As
ADD. #2

PROFESSIONAL DESIGN FIRM - IL # 184-003268
## Wall Type (Abbrev Description)

<table>
<thead>
<tr>
<th>Wall Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.01</td>
<td><strong>Typ Masonry Cavity Wall</strong>&lt;br&gt;8&quot; CMU, Painted, 2&quot; Cont Rigid Insulation, 2&quot; Cont Air Space and STD Modular Face Brick. Cont Cavity Drainage System w/Weep Vents, TYP. See Masonry Notes.</td>
</tr>
<tr>
<td>1.02</td>
<td><strong>Cafeteria: Double Faced Brick Cavity Wall</strong>&lt;br&gt;STD Modular Face Brick, 8&quot; CMU, 2&quot; Cont Rigid Insulation, 2&quot; Cont Air Space and STD Modular Face Brick. Cont Cavity Drainage System w/Weep Vents, TYP. See Masonry Notes.</td>
</tr>
<tr>
<td>1.03</td>
<td><strong>Lobby: Double Faced Brick Cavity Wall</strong>&lt;br&gt;STD Modular Face Brick, 1&quot; Gap, 8&quot; CMU, 2&quot; Cont Rigid Insulation, 2&quot; Cont Air Space and 4&quot; STD Modular Face Brick. Cont Cavity Drainage System w/Weep Vents, TYP. See Masonry Notes.</td>
</tr>
<tr>
<td>1.04</td>
<td><strong>Field House: Precast</strong>&lt;br&gt;12&quot; Insulated Precast Wall System With Reveals and 4&quot; Cont Insulation, See Plan and Interior Elevations for Wall Pad Locations. See Struct and Precast Notes.</td>
</tr>
<tr>
<td>1.05</td>
<td><strong>Classroom: Precast W/Insulation and CMU</strong>&lt;br&gt;4&quot; CMU, Painted, 2&quot; Cont Rigid Insulation, 12&quot; Insulated Precast Wall System With Reveals and 4&quot; Cont Insulation. See Struct and Precast Notes.</td>
</tr>
<tr>
<td>1.06</td>
<td><strong>Previous Ext Wall Type Changed to Double Wythe Interior Wall Due to Deletion of Alternate Five</strong>&lt;br&gt;8&quot; CMU, 1/2&quot; Air Space Gap, 8&quot; CMU. Paint CMU EA Face. See Masonry Notes.</td>
</tr>
</tbody>
</table>

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**Project:** Auburn High School<br><br>**Title:** A2.31 Wall Types Schedules, All Areas Not To Scale<br><br>**Drawn:** JAM<br>**Date:** 06.23.13<br>**Approved:** FSA<br>**Job No.:** R-AHS A2.31<br>**Sheet No.:** ADD. #2
MASONRY NOTES

1. SEE SPECIFICATIONS.

2. LAY MASONRY FACE BRICK WITH FULL MORTAR COVERAGE ON HOR AND VERT FACE SHELLS FOR FULL BUTTERED HEAD JOINT.

3. 1/2" MASONRY REVEALS W/SOLID UNITS AT B/O REVEAL, TYP. ALL MASONRY REVEALS SHALL BE RECESSED 1/2" AT ALL SPECIAL COURSING/BONDING PATTERNS (IE BASKET WEAVE/HEADER/SOLDIER), UNLESS OTHERWISE NOTED.

4. PROVIDE FLASHING AS A COMPLETE SYSTEM WITH PREFORMED CORNERS, END DAMS (W/MIN 2" OVERLAP) AND SEAMING MATERIALS ALL PRODUCED BY FLASHING SHEET MANF. SEE SPEC.

5. AT CAVITY WALLS, BEVEL BEDS AWAY FROM CAVITY TO MINIMIZE MORTAR PROTRUSIONS AND OBSTRUCTIONS INTO CAVITY AND WEEP VENTS. AS WORK PROGRESSES, TROWEL MORTAR FINS PROTRUDING INTO CAVITY FLAT AGAINST THE CAVITY F/O THE BRICK.

6. PLEASE SEE ARCH PLAN IN ANOMOLIES IN CAVITY SIZE.

7. APPLY VAPOR PERMEABLE MEMBRANE AIR BARRIER (PER SPEC) ON EXT F/O CMU AT ALL MASONRY CAVITY WALLS, UNLESS OTHERWISE NOTED.

ADDENDUM 2:
MASONRY NOTE ADDED.
TYP FIRE WALL DETAIL AT EXIST WALL

1" = 1'-0"

E6
WASTE RECYCLING
EXISTING CAFETERIA

A1/A3.36 WALL SECTION BETW NEW AND EXIST CAFETERIAS

SCALE 3/8" = 1'-0"

PROJECT
AUBURN HIGH SCHOOL FIELD HOUSE ADDITION

TITLE
A1/A3.36 WALL SECTION BETW NEW AND EXIST CAFETERIAS

DRAWN
JAM

APPROVED
FSA

PROFESSIONAL DESIGN FIRM - IL # 184-003268

FGM ARCHITECTS
CHICAGO OAK BROOK OTTAWA

R-AHS A3.36

ISSUED AS
ADD. #2
A1-B/A3.36 WALL SECTION

BETW NEW AND EXIST CAFETERIAS

SEE ENLARGED ADDENDUM SKETCH DETAIL A1-B/A3.36

REMOVE EXISTING BLOCKING, FASCIA COPING AND ONE COURSE OF BRICK.

EXIST MASONRY AND EXT WALL ABOVE EXIST LINTEL TO REMAIN. SEE DEMO PLAN AND DEMO EXT ELEVATIONS, TYP.

EXISTING LINTEL BEARING CMU AND BRICK TO REMAIN.

EXIST LINTEL
EL: 19'-1-5/8" VIF

REMOVE EXISTING LIMESTONE PILASTER, BEYOND. SEE FI4/A5.2.0 AND DEMO EXT ELEV, TYP.

REMOVE WALL AND MCH UNITS BELOW EXIST LINTEL. SAW CUT AS NEEDED TO ACCOMMODATE NEW FNDN/SLAB. SEE DEMO PLAN AND DEMO EXT ELEVATIONS, TYP.

A1-A

DEMO SHIFT BETW NEW AND EXIST CAFETERIAS

SCALE 1/2" = 1'-0"
REMOVE EXIST COPING, BLOCKING AND BRICK. SEE DEMO EXTERIOR ELEVATIONS.

EXIST MASONRY AND STRUCTURE TO REMAIN.

REMOVE EXIST DECK AND ROOFING SYSTEM TO F/O INT MASONRY.
A1-C
BETW NEW AND EXIST CAFETERIAS
SCALE 3/4" = 1'-0"

REVISED WALL SECTION

SEE A1-D/A3.36.

TYP ROOFING SYSTEM, EXTEND MEMBRANE TO T/O WALL.

12" CMU

8" CMU

PATCH EXIST AND LAP JOINT PER MANF REGIMENTS,
EXTEND MEMBRANE TO T/O WALL.

STEEL BEAM, INFILL AROUND WC/MU, SEE STRUCT.

4"H CMU

CONT 6" BATT INSULATION

TORQUE CONTROLLED EXPANSION ANCHOR AND STEEL
ANGLE, SEE STRUCT.

STEEL TUBE LINTEL, PAINT W/ INTUMESCENT PAINT
PER SPEC. SEE STRUCT.

STEEL LINTEL, SEE STRUCT DETAIL 13/55.5.

B/O LINTEL
EL: +11'-3"

1'-6 1/2"

5/8" GWB, PAINTED, OVER HAT CHANNELS. SEE RCB AND RM FINISH

T/O STEEL
EL: +15'-8-1/2"

PROJECT
AUBURN HIGH SCHOOL
FIELD HOUSE ADDITION

FGM
ARCHITECTS
CHICAGO OAK BROOK OTTAWA

ADDRESS
PROFESSIONAL DESIGN FIRM - IL # 184-003268

TITLE
A1-A/A3.36 WALL SECTION BETW NEW
AND EXIST CAFETERIAS

DRAWN
JAM

DATE

APPROVED
FSA

ISSUED AS
ADD. #2

SHEET NO.
R-AHS A3.36
A1-D

BETWEEN NEW AND EXIST CAFETERIAS

SCALE 3" = 1'-0"

ROOF TO ROOF BELLOWS TYPE AL
BLDG EXP JT "BRBA-3-6-SE" BY
BALCO INC. OR ARCH APPROVED EQ.

AL COPING W/ MIN
1/4" FT SLOP @ EA SIDE
OF EXP COVER AND 4"
FACE, TYP.

SECURED TREATED WD BLOCK
W/ ANCHOR BOLT SET IN BOND
BEAM, SEE STRUCT.

SEALANT, TYP.
EXTERIOR / FUTURE CLINIC

CORRIDOR

A13 AT E LINK CORRIDOR WALL
SCALE 1/2" = 1'-0"
F1

CAFE 2HR PLAN DETAIL @ OH DR

SCALE 1-1/2" = 1'-0"

LINE OF FNDN BELOW

4" REBAR AND GROUT SOLID CORE.

BACKER ROD AND SEALNT @ EA SIDE, TYP.

GRAPHIC HATCH INDICATES FNDN BELOW

STEEL TUBE FRAME, W/ANTIEMISENT PAINT TO ACHIEVE RATING PER CODE SHEET AND PER SPEC, SEE STRUCT.

ALIGN CHU W/FO

EXIST CHU ABOVE.

BULLNOSE RADIUS, TYP @ OUTSIDE CORNERS.

EXIST COLMN TO REMAIN
BASEMENT STAIR PLAN
SCALE 3/8" = 1'-0"

A13
A3.43

MC12 STRINGER

NOTE:
ALL EXPOSED STEEL TO
ARCHITECTURAL GRADE
GRIND ALL MELDS SMOK

1 1/2" DIA. PIPE RAILING
(EXTRA STRONG)

TO FLOOR

ADDENDUM 2:
DIMENSION ELEV H.T.
INFO ADDED.

1 1/2" DIA. PIPE RAILING
(EXTRA STRONG)

2" CONCRETE FILLED
METAL PAN (TYPICAL)

L1

PROJECT
AUBURN HIGH SCHOOL
FIELD HOUSE ADDITION

FGM
ARCHITECTS
CHICAGO

APPROVED
FSA

DRAWN
JAM

DATE

SHEET NO.
R-AHS A7.13 A

ISSUED AS
ADD. #2

FAGNEY
ARCHITECTS
LLC

PROFESSIONAL DESIGN FIRM - IL # 184-003268
ADDENDUM 2:
WALL CHANGED FROM BRICK & BLOCK TO NEHM WALL TYPE 10B.
SECTION ADDED. DIMENSION ELEV HT INFO ADDED.

L1
BASEMENT STAIR PLAN
SCALE 3/8" = 1'-0"
12" CMU

Δ4x4½x CONT. (splice at existing joist only) w/ 5/8" ø EXP. ANCHORS @ 32" cts.

EXISTING MTL. DECK TO BE CUT BACK AS REQUIRED –RECONNECT DECK TO ANGLE AT 12" cts. – PROVIDE HSS 1.5x1.5 SPACER/SHIM AS REQUIRED

Δ6x3½x4x0'–8" (SLH) @ 4'-0" cts. (typ. each side)

EXISTING MASONRY

CONT. BOND BEAM w/2–#5 BARS

½" øx6" STUDS @ 4'-0" cts.
IN SOLID GROUTED CELL

Δ ¾"x11½" CONT. – WELD TO BOTH EDGES OF BEAM FLANGE –¼" FILLET WELD 2" LONG AT 12" cts.

1½" MTL. DECK (typ.)

TOS VARIES – SEE PLAN
(ALIGN W/ ADJACENT JOISTS)

FILL SOLID EACH SIDE w/CMU
– TIE TO BEAM WEB (typ.)

3 SIDES TYP.

T/ CMU VARIES

3½" MIN.; 2½" MAX.

8" CMU

½" øx6" STUDS @ 4'-0" cts.
IN SOLID GROUTED CELL

W8x21 W/ ¾" BOTTOM δ

¼" Ø12 TYP.

T/PLATE FL.
– SEE ARCH

HSS 6x3¾ – SEE DETAIL
12/S5.5 & ARCH.

SECTION

SCALE: NONE

NOTES

– COORDINATE WITH ARCH. FOR ADDITIONAL INFORMATION

13

PROJECT
AUBURN HIGH SCHOOL
FIELD HOUSE ADDITION

FGM ARCHITECTS
CHICAGO OAK BROOK GLEN ELLYN

HAGNEY ARCHITECTS LLC

PROFESSIONAL DESIGN FIRM - IL # 184-003268

MANAGEMENT

DRAWN
MGM

DATE

APPROVED
TILB

SHEET NO.
R-AHS S5.5

ISSUED AS
ADD. #2

TITIE
13/S5.5 SECTION
scale: none
AUBURN HIGH SCHOOL
FIELD HOUSE ADDITION

TITLE
PARTIAL FIRST FLOOR PLAN - VENTILATION AREA 1

DRAWN
CS2

DATE

APPROVED
CS2

PROJECT
AUBURN HIGH SCHOOL
FIELD HOUSE ADDITION

HAGNEY ARCHITECTS
CHICAGO
OAK BROOK
OTAWAN

PROFESSIONAL DESIGN FIRM - IL # 184-003268

FGM
ARCHITECTS

ISSUED AS
ADD. #2

THE AUBURN HIGH SCHOOL FIELD HOUSE ADDITION

PARTIAL FIRST FLOOR PLAN - VENTILATION AREA 1

DRAWN
CS2

DATE

APPROVED
CS2

PROJECT
AUBURN HIGH SCHOOL
FIELD HOUSE ADDITION

HAGNEY ARCHITECTS
CHICAGO
OAK BROOK
OTAWAN

PROFESSIONAL DESIGN FIRM - IL # 184-003268

FGM
ARCHITECTS

ISSUED AS
ADD. #2
1. Mechanical contractor responsible for all piping above grade from discharge side of meter. Provide gas pressure regulator(s) at all gas fired equipment.

2. Gas company to remove existing gas meter and replace with new gas meter, gas pressure regulator and all required valves and fittings including underground service to points shown. Service shall provide 4 PSI gas pressure with a minimum total capacity of 50,000 CFH to accommodate requirements.

3. NEW EQUIPMENT LOAD BREAKDOWN:
   - 292.5 CFH = AHS.RTU-1
   - 1600.0 CFH = AHS.RTU-2
   - 1600.0 CFH = AHS.RTU-3
   - 1600.0 CFH = AHS.RTU-4
   - 1600.0 CFH = AHS.RTU-5
   - 1600.0 CFH = AHS.RTU-6
   - 1600.0 CFH = AHS.RTU-7
   - 405.0 CFH = AHS.RTU-8
   - 540.0 CFH = AHS.RTU-9
   - 540.0 CFH = AHS.RTU-10
   - 100.0 CFH = AHS.GUH-1 (ALT. NO. 1 FUTURE LOCKER ROOM)
   - 100.0 CFH = AHS.GUH-2 (ALT. NO. 1 FUTURE LOCKER ROOM)
   - 100.0 CFH = AHS.GUH-3 (ALT. NO. 1 FUTURE LOCKER ROOM)
   - 125.0 CFH = AHS.GUH-4 (ALT. NO. 2 FUTURE WEIGHT ROOM)
   - 125.0 CFH = AHS.GUH-5 (ALT. NO. 2 FUTURE WEIGHT ROOM)
   - 125.0 CFH = AHS.GUH-6 (ALT. NO. 2 FUTURE MPR)
   - 125.0 CFH = AHS.GUH-7 (ALT. NO. 2 FUTURE MPR)
   - 125.0 CFH = AHS.GUH-8 (ALT. NO. 2 FUTURE MPR)
   - 125.0 CFH = AHS.GUH-9 (ALT. NO. 2 FUTURE MPR)

   TOTAL ADDITION AND FUTURE ADDITION GAS LOAD: 31,780 CFH

   EXISTING EQUIPMENT LOAD BREAKDOWN:
   - 110.0 CFH = BLODGETT CONVECTION OVEN
   - 240.0 CFH = CLEVELAND STEAM GENERATOR
   - 100.0 CFH = CRODEN BRASING PAN
   - 100.0 CFH = CRODEN KETTLE
   - 110.0 CFH = PITCO FRYER
   - 24.0 CFH = VULCAN STOCK POT
   - 2470.0 CFH = WEIL- McLEAN BOILER
   - 14650.0 CFH = JOHNSTON HOT WATER BOILERS

   TOTAL EXISTING BUILDING GAS LOAD: 17,888 CFH

   NEW FACILITY GAS LOAD: 49,688 CFH

   GAS COMPANY TO PROVIDE MINIMUM CAPACITY OF 47,280 CFH @ 4 PSI AFTER GAS METER.

---

**PROJECT**

AUBURN HIGH SCHOOL FIELD HOUSE ADDITION

**TITLE**

GAS METER DETAIL

**DRAWN**

CS2

**DATE**

CS2

**APPROVED**

CS2

**JOB NO.**

R-AHS M4.1.2.1

**ISSUED AS**

ADD. #2

**SHEET NO.**

HAGNEY/FGM Architect Inc.

PROFESSIONAL DESIGN FIRM - IL # 184-003268
SECTION – SEWER LINING

1 General

These specifications provide the description of work for the Auburn High School Field House Addition Project. The owner is the Rockford School District and will be referred to as District in these Specifications. These Specifications are to provide for the rehabilitation of sanitary and storm sewers by lining with a resin-impregnated flexible tube heated to cure the thermosetting resin/felt tube composite, formed to the existing sanitary and storm sewer.

2 Scope of Work

The Contractor shall provide all material, labor and equipment needed to complete this work. The materials and workmanship provided for this project shall meet or exceed the Detailed Specifications found in this Section, the Rock River Water Reclamation District General Provisions and Technical Specifications for Sanitary Sewer Construction and the Recommended Specifications for Sewer Collection System Rehabilitation, Current Edition, as published by the National Association of Sewer Service Companies. In addition, the materials and workmanship provided for this project shall meet or exceed the Specifications in this section and all conform to the following specifications:

3. Recommended Specifications for Sewer Collection System Rehabilitation, as published by the National Association of Sewer Service Companies, latest edition.
   a. ASTM D 543 Test Method for Resistance of Plastics to Chemical Reagents
   b. ASTM D 638 Test Method for Tensile Properties of Plastics
c. ASTM D 790 Test Method for Tensile Properties of Non-reinforced and Reinforced Plastics and Electrical Insulating Materials

d. ASTM F 1216 Standard Practice for Rehabilitation of Existing Pipelines and Conduits by the Inversion and Curing of a Resin-Impregnated Tube

e. ASTM F 1743 Standard Practice for Rehabilitation of Existing Pipelines and Conduits by Pulled-in-Place Installation of Cured-in-Place Resin Pipe

The Contractor shall be responsible for the pipe lining with a cured-in-place lining system, the reinstatement of sanitary services, all necessary permits and fees, mobilization, flow control (bypass pumping), site preparation, site investigation and all other appurtenances required for completing the project in total compliance with the specifications.

**The Contractor shall perform all operations in strict accordance with all OSHA and manufacturer's safety requirements. Particular attention is drawn to those safety requirements involving working with scaffolding, entering confined spaces and operations with hot water. The District assumes no responsibility for enforcement of safety standards.**

The Contractor shall dispose of any materials cleaned from the sewer appropriately. Any fees related to permits will be reimbursed by the District.

The Contractor shall be responsible for any and all permits required for the construction of this project. The Contractor shall provide all insurance, bonds, etc. as required by these permits at no extra cost to the District.

The Contractor shall notify all utility companies prior to beginning any work. All underground utilities shall be located by the utility involved and special care shall be taken when excavating near underground utilities to avoid damage. Forty-eight (48) hours prior to starting construction, the Contractor shall call J.U.L.I.E. at 1-800-892-0123 for utility locations at site.

### 3 Sewer Video Inspection Records

Sewer television video recordings are available for the Contractors are available by contacting Frank St.Angel at Hagney Architects. Phone 815-397-3330.

### 4 Line Repair (By Others)

If areas of the pipe cannot be lined due to excessive damage, the Contractor shall notify the District. The District will have the line repaired by another Contractor prior to lining.

### 5 Sewer Cleaning

#### 5.1 General

The Contractor shall be responsible for removing foreign materials from the sewer lines and for restoring the sewer lines to an acceptable condition that will permit proper installation of the pipe lining materials. The sewer line cleaning shall be accomplished by using hydraulically propelled, high-velocity jet, or mechanically powered equipment.
All sewer cleaning shall be done in accordance with Section 3 of the Recommended Specifications for Sewer Collection System Rehabilitation, as published by the National Association of Sewer Service Companies, Current Edition.

The cleaning equipment shall be capable of removing dirt, grease, rocks, sand, roots, mineral deposits and other materials and obstructions from the sewer lines. As many passes shall be made as necessary to clean the sections of sewer to be televised. If cleaning of an entire section can not be successfully performed without destroying what is left of the sewer then the District shall be notified and the line will either have to be point repaired or lined over the debris.

Mineral Deposits greater than 1/4" thick and mineral deposits that prohibit the T.V. camera movement shall be removed utilizing a Nozzteq Lumberjack Multi-Purpose Cutter.

5.2 Cleaning Precautions
The Contractor shall take all necessary precautions in the use of cleaning equipment to prevent flooding or damage to any of the sewer lines, services, manholes and public or private property. To ensure safe operation, all machines shall be fully enclosed and shall have an automatic overload clutch or relief valve.

When hydraulically propelled cleaning tools (which depend upon water pressure to provide their cleaning force) or tools which retard the flow in the sewer line are used, precautions shall be taken to insure that the water pressure created does not further damage deteriorated pipe or cause flooding of public or private property being served by the sewer.

The Contractor shall be responsible and liable for any damage caused by sewer back-ups.

5.3 Water and Electricity
Any water and electricity required will be provided by the District.

5.4 Solids Disposal
All foreign materials shall be removed at the downstream manhole for the section of sewer being cleaned. The Contractor shall not be allowed to pass foreign materials into other pipe sections. The Contractor shall dispose of solids in a proper manner.

5.5 Acceptance of Sewer Line Cleaning
The Contractor shall be required to remove any roots in the sewer pipes that would prevent the proper installation of the liner or that would affect the hydraulic cross-section of the pipe. Special attention should be used to assure proper removal of roots at the joints of the sewer pipes.

The Contractor shall televise all sewer lines after they are cleaned to verify satisfactory condition. If the television inspection shows the cleaning to be unsatisfactory, the Contractor shall re-clean and re-televise the sewer line until it is acceptable to the Contractor or District. No additional compensation will be awarded for re-cleaning or re-televising of sewers.

5.6 Equipment Recovery
If any equipment becomes stuck in the sewer line such that excavation is required for removal, the Contractor shall be responsible for the cost of work necessary, including but not limited to excavation, backfill, restoration, pipe repair and damage resulting from the backup of sewage in the pipe.
6 Sewer Flow Control

6.1 General
The Contractor shall be responsible for controlling the flow in the sewers so that the liner can be installed properly and to allow for proper televising of the lines. The Contractor shall be allowed to reduce or eliminate the amount of flow by plugging or blocking an upstream line, or by pumping the flow at the upstream manhole.

All sewer flow control shall be done in accordance with Section 4 of the Recommended Specifications for Sewer Collection System Rehabilitation, as published by the National Association of Sewer Service Companies, latest edition.

6.2 Flow Control Measures

Temporary Plugging: The Contractor shall insert an acceptable sewer line to release plug into the line upstream of the section being worked. The plug shall be designed to release all or any portion of the storm or sewage.

Diversion/Bypass Pumping: When diversion pumping is required, the Contractor shall supply the pumps, conduits, and other equipment to divert the flow of sewage around the manhole section in which work is to be performed. The diversion system shall be of sufficient capacity to handle existing flow plus additional flow that may occur during a rainstorm. The Contractor will be responsible for furnishing the necessary labor and supervision to set up and operate the diversion pumping system.

Flooding Precautions: When flow in a sewer line is plugged, blocked, or diverted, the Contractor shall take sufficient precautions to protect the sewer lines from damage that might result from sewer surcharging, and to insure that sewer flow control operations do not cause flooding or damage to the public or private property being served by the sewer involved.

The Contractor shall be responsible and liable for any damage caused by sewer back-ups.

7 Pipe Materials - Cured-In-Place Pipe (C.I.P.P.)

7.1 General
It is the intent of this specification to provide for the rehabilitation of existing sewer lines by the installation of cured-in-place pipe (C.I.P.P.). A C.I.P.P. is formed by the insertion of a resin-impregnated flexible felt tube into the existing pipe. The tube is expanded in an inversion process to fit against the original conduit, and then heated to cure the thermosetting resin/felt tube composite.

This specification covers the work necessary to furnish and install, complete, the C.I.P.P. The Contractor shall provide all materials, labor, equipment, and services necessary for bypass pumping of sewage flows, cleaning and television inspection of sewer to be lined, installation and curing of liner, reconnection of service connections, and final television inspection and testing of lined pipe system.
7.2 Cured-In-Place Pipe (C.I.P.P.) Material Specifications

1. **Tube**: The tube material shall meet the requirements of ASTM F 1216 or ASTM F 1743, Section 5.1.

   (a) **Absorbent Fabric Tube**: The tube shall consist of one or more layers of absorbent fabric capable of carrying resin, and capable of withstanding installation pressures and curing temperatures. The tube shall be compatible with the resin system used. The tube material shall be able to stretch to fit irregular pipe sections and negotiate bends. The outside layer of the tube shall be plastic coated with a material that is compatible with the resin system used. The tube shall be fabricated to size that when installed, will fit the internal circumference and the length of the pipe. Allowance should be made for circumferential stretch during inversion. For the pull in methods of lining, the resin soaked felt tube shall have an outer plastic lining that effectively prevents the scrape off or wash off of resin.

   (b) **Thickness**: The finished tube shall have a uniform thickness within ±10% of the specified nominal tube thickness. Thickness shall be measured by compressing the tube material under a load equivalent to typical C.I.P.P. installation pressures.

   (c) **Plastic Coating**: The outside layer of the tube (before inversion) shall be plastic coated with a transparent flexible material that is compatible with the resin system used. The plastic coating shall not be subject to delamination after cure of the C.I.P.P. in accordance with Section 5.2 of ASTM F1216 or ASTM F1743.

   (d) **Color**: The tube shall be a light reflective color so that a clear, detailed examination with closed circuit television equipment may be made.

   (e) **Delaminations**: The bond between all C.I.P.P. layers shall be strong and uniform. All layers, after cure, must form one homogeneous structural pipe wall with no part of the tube left unsaturated by resin. Delaminations in the test samples will be cause for rejection of the line segment rehabilitated. If in the opinion of the District the video disks of the finished liner fail to show similar delamination, then more sampling and re-testing of the C.I.P.P. liner may be done by the Contractor to verify or refute the previous tests.

   (f) **Minimum Structural Properties**: The C.I.P.P. system shall have the minimum structural properties given below:

   **C.I.P.P. STRUCTURAL PROPERTIES:**

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>ASTM TEST</th>
<th>MIN. VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flexural Strength D790</td>
<td>4,500 PSI</td>
<td></td>
</tr>
<tr>
<td>Flexural Strength D790</td>
<td>350,000 PSI</td>
<td></td>
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</tbody>
</table>

2. **Resin**: The resin system shall be thermoset polyester (or District approved) resin meeting the requirements of ASTM F1216 or ASTM F1743, Section 5.2.

   (a) The manufacturer shall certify that the proposed resin system and cure schedule are appropriate for the proposed application, and have been tested in laboratory and field conditions. The resin shall produce C.I.P.P. which will comply with the structural and chemical resistance requirements specified.
(b) The resin used shall be compatible with the felt tube and be able to cure in the presence of water and the initiation temperature for cure shall be less than 180°F. Thixotropic agents that enable the resin system to possess pseudo plastic fluid flow properties, and that do not interfere with visual inspection shall be added for viscosity control and to minimize resin washout. Resins may contain pigments that do not interfere with visual inspection of the C.I.P.P. filler materials, of a proprietary nature may be added as long as the final pipe product can meet or exceed the minimum standards set forth in this specification.

Note: The Contractor shall be responsible for field verifying the inside diameters of all sewers to be lined.

8 Structural Design Requirements -- Cured-In-Place Pipe (C.I.P.P.)

8.1 C.I.P.P. Structural Requirements

1. The C.I.P.P. shall be designed in accordance with the requirements of ASTM F 1216, Appendix XI, with the following design parameters. Design calculations shall be submitted to the District for approval prior to lining.

   Design safety factor .................................2.0
   Reduction factor for long-term effects ..................0.50
   (applied to flexural modulus)
   Ovality - Review Video Recordings ..................2% min.
   Enhancement factor, K ..................................7
   Groundwater depth ......................................to grade
   Soil Depth (above crown) .............................to the surface
   Soil Modulus ............................................1000 psi
   Soil density .............................................120#/cf
   Live load ..................................................0
   Design condition ......................................fully deteriorated
   C.I.P.P. Flexural Strength .............................4,500 psi
   C.I.P.P. Flexural Modulus .............................50,000 psi

Exclusion: No factors of design relating to adhesion or bonding to the existing pipe will be allowed in the design.

Cured C.I.P.P. Thickness: The finished thickness of the cured pipe shall not vary from the nominal minimum thickness specified or required by more than 5%. The minimum liner thickness for structurally sound pipe on this project shall be 4.5mm.

2. The bond between C.I.P.P. layers shall be strong and uniform. It shall not be possible to separate any two layers with a probe or point of a knife blade so that the layers separate cleanly or the probe or knife blade moves freely between the layers; nor shall separation of the layers occur during testing performed under the requirements of these Detailed Specifications.
9 Requirements and Submittals Required Prior to Installation

Contractor shall furnish data supporting the following:

9.1 Chemical Resistance
The C.I.P.P. shall meet the chemical resistance requirements of ASTM F 1216, Appendix X2. Test data from C.I.P.P. samples similar to that proposed for actual construction shall be submitted prior to installation. It is required that C.I.P.P. samples with and without plastic coating meet these chemical testing requirements.

9.2 Long-Term Reduction in Physical Properties
Long-term creep data in accordance with ASTM D 2990 shall be submitted by each manufacturer and/or pipe product prior to installation. Duration of creep testing shall be a minimum of 10,000 hours.

9.3 Hydraulic Capacity
The Contractor shall provide calculations which demonstrate that the liner pipe shall have at least 100% of full flow capacity of the original pipe before rehabilitation in a full gravity flow condition. Calculated capacities may be derived using a commonly accepted roughness coefficient for the original pipe material. A typical roughness coefficient of the liner pipe being proposed for this project shall be verified by test data.

9.4 Material and Curing Details
The Contractor shall provide submittals on all lining materials and resins, and shall furnish manufacturer certification that the liner materials are in compliance with the Specifications, Codes, and standards referenced herein. The submittals shall include details of all component materials and construction details including MSDS sheets and complete manufacturer's recommendations for storage procedures and temperature control, (step curing temperature/hours at each and final stage for each section thickness and length) handling, inserting the liner, and curing details.

9.5 Design Guide Submittal
Contractor shall submit the Engineering design guide and quality control procedures for the liner manufacture and installation, including detailed inspection, testing of physical properties, retention of production samples, and taking of field samples.

9.6 Training Certification
Contractor shall submit evidence of installer training, testing and / or certification of being trained to install the product by the Manufacturer for the product.

10 Liner Installation

General Liner Installation Procedures
Liner installation shall be per ASTM F 1216 or ASTM F 1743. The following installation procedures shall be adhered to unless otherwise approved by the District:

10.1 Cleaning of Sewer Line: It shall be the responsibility of the Contractor to remove all internal debris and root intrusions from the sewer line per Section 5.

10.2 Inspection of Pipelines: Inspection of pipeline shall be performed by experienced personnel trained in locating breaks, obstacles, and service connections by closed-circuit television per Section 7.
10.3 **Line Obstructions:** It shall be the responsibility of the Contractor to clear the line of obstructions such as solids, roots, protruding service connections or pipe fragments that will prevent the insertion of the lining. If inspection reveals an obstruction that cannot be removed.

10.4 **Preparation of Liner:**

a) Material shall be to manufacturer's standards to provide lining thickness required.

b) Wet Out: The tube shall be impregnated with resin under controlled conditions. The volume of resin used should be sufficient to fill all voids in the tube material at nominal thickness and diameter. The volume of resin should be adjusted by adding excess resin for the change in resin volume due to polymerization and to allow for any migration of resin into cracks and joints in the host pipe.

c) Transport resin impregnated liner to site immediately prior to inversion in suitable light-proof container with temperature maintained below 40 degrees Fahrenheit (4 degrees Celsius).

10.5 **Inversion / Installation:** Insert liner through existing manholes by means of an inversion process and application of hydrostatic head sufficient to fully extend liner to next designated manhole or by means of winching the liner through the pipe to the next designated manhole. Alternatively, the tube can be pulled into place and expanded by water inversion process with an inflation bladder. Non-toxic lubricant may be used to reduce friction. The inversion / installation process shall be conducted at a maximum controlled speed of two feet per second (2 ft. /sec.)

10.6 **Pressure:** Tube installation forces or pressures shall be limited so as not to stretch the tube longitudinally by more than five percent (5%) of the original length. Before installation begins, the tube manufacturer shall provide the minimum pressure required to hold the tube tight against the host pipe, and the maximum allowable pressure so as not to over stretch or damage the tube. Once the installation has started, the pressure shall be maintained between the minimum and the maximum pressures until the installation has been completed.

10.7 **Curing of Liner**

a) **Heated Water Curing of Liner:** After inversion is completed, a suitable heat source and water re-circulation equipment are required to circulate heated water throughout the pipe liner. The heat source shall be fitted with suitable monitors to gauge the temperature of the incoming and outgoing water supply. Another such gauge should be placed between the impregnated tube and the pipe invert at the termination to determine the temperatures during cure. Water temperature in the line during the cure period should be as recommended by the resin manufacturer. After initial cure is reached, the temperature should be raised to the post-cure temperature recommended by the resin manufacturer. The post-cure temperature should be held for a period as recommended by the resin manufacturer, during which time the re-circulation of the water and cycling of the boiler to maintain temperature continues. The curing of the C.I.P.P. must take into account the existing pipe material, the resin system, and ground conditions (temperature, moisture level, and thermal conductivity of soil). Temperature gauges shall be monitored by the Contractor every 15 minutes.
A curing temperature / time log shall be maintained and provided to the District. The new pipe should be cooled to a temperature below 100 degrees Fahrenheit (38 degrees Celsius) or as recommended by the resin manufacturer before relieving the static head in the inversion standpipe.

b). **Steam Curing of Line:** After inversion is completed suitable steam-generating equipment is required to distribute steam throughout the pipe liner. The temperature in the line during the cure period should be as recommended by the resin manufacturer. The steam-generating equipment should be fitted with a suitable monitor to gage the temperature of the outgoing steam. The temperature of the resin being cured should be monitored by placing gauges between the impregnated tube and the existing pipe at both ends to determine the temperature during cure. Temperature gauges shall be monitored by the Contractor every fifteen (15) minutes and recorded on logs which shall be provided to the District. After initial cure is reached, the temperature should be raised to post-cure temperatures recommended by the resin manufacturer. The curing of the C.I.P. must take into account the existing pipe material, the resin system, and ground conditions (temperature, moisture level, and thermal conductivity of soil). The new pipe should be cooled to a temperature below 113 degrees Fahrenheit (45 degrees Celsius) before relieving the internal pressure within the section.

**10.8 Required Pressures:** Before the curing begins, the pressure required to hold the flexible tube tight against the existing conduit shall be provided by the tube manufacturer. Once the cure has started and dimpling for laterals is completed, the required pressure shall be maintained until the cure has been completed. Should the pressure deviate more than 2.3 ft of water (1 psi) from the required pressure, the installed tube shall be removed from the existing pipe.

**10.9 Liner Termination in Manholes:** The liner pipe shall be cut flush with the manhole wall. Any voids shall be filled grout.

Both upstream and downstream liner ends shall be beveled to 22.5° from the flow line to mid-pipe by grinding.

**10.10 Annular Seal at Manholes:** Hydrophilic seals shall be installed at all liner to manhole connections. Hydrophilic seals shall be LMK Technologies Hydrophilic o-Rings, Hydrotite ORing (RSS-040P) or approved equivalent.

**11.1 General**

1. The Contractor shall locate the sewer lateral openings in the main by televising. **Services capped or plugged at the main shall be documented.**

2. Services that are capped, plugged, or not in use shall not be reopened. All live services shall be reinstated at the main.
3. After the sewer lining is complete as required, the Contractor shall re-establish service connections to 100% of the original opening. Service reinstatement shall be done without excavation from the interior of the pipe by means of a television camera and a remotely controlled cutting device. The edges of the service cut-ins shall be smooth and even. If overcutting occurs the Contractor shall fix the opening.

4. Any pieces of the liner that were cut from the service connections shall be captured at the downstream manhole and disposed of by the Contractor.

12 **Protruding Service Removal**

**General**

It shall be the responsibility of the Contractor to clear the line of protruding service connections greater than one inch (1") in length that would prevent the insertion of the lining. The protruding service connection shall be ground flush with the mainline pipe prior to lining. Protruding services must be removed/ground utilizing a robotic cutting tool. The use of "can" cutters will not be permitted to remove protruding services. Any protruding service connection greater than one inch (1") shall be pointed out to the District prior to grinding. If inspection reveals an obstruction/connection that cannot be removed by conventional cutting equipment, then the Contractor shall advise the District to make a spot repair excavation to uncover and remove or repair the obstruction.

13 **Quality Assurance**

**General**

The Contractor shall televise the liner after installation of the liner and after services have been reinstated. The television recording shall be used by the District to perform final inspection on the line. The finished pipe liner shall be continuous over the entire length of each inversion run and shall be free from visual defects such as foreign inclusions, dry spots, pinholes, pilot holes and delamination. The lining shall be impervious and free of any leakage between the pipe and the surrounding ground, as well as any leakage at the manholes between the parent pipe and the liner. All service cuts shall be in precise alignment with the actual service pipe; displacement of the liner cut from the service due to shrinkage, creep, etc. will not be permitted.

The Contractor shall repair, at his own expense, any defects in the liner that will affect the integrity or strength of the pipe and any visual or functional defects such as wrinkles, drill holes, folds, pillows, etc.

14 **Cleanup**

The Contractor shall clean up and remove all debris, materials, form work, and machines. Any debris removed from sanitary sewers must be disposed of properly.

15 **Warranty**

The Contractor shall guarantee their work for one (1) year.
Base Form Assembly
- 6525 L.H. Corner Base Form w/ Drain (2)
- 6535 R.H. Corner Base Form w/ Drain (2)
- 6502 2 Meter Base Form (6)

Sand Catcher Assembly
- 6601 Sand Catcher w/ Runway Insert (1)
- 6603 Sand Catcher w/o Runway Insert (1)
- 6620 L.H. Corner Sand Catcher w/ Drain (2)
- 6630 R.H. Corner Sand Catcher w/ Drain (2)
- 6602 2 Meter Sand Catcher (4)

6430 Metal Grate Mat Supports
- 36" Long (20)
- 29.25" Long (2)
- 18" Long (2)
- 12" Long (1)

6423 Rubber Mats
- 36" Long (20)
- 29.25" Long (2)
- 18" Long (2)
- 12" Long (1)

SP6020-HD
Hardware Kit Includes
All Stainless Steel Assembly Hardware
6525-DRAIN

Meets NHFS Requirements and Specifications

JUMPForm® - SP6020 Overview
High School 3M x 7M Sand Pit with Sand Catchers

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**Rubber Mats**  
#6423  
Qty - 20 @ 36" Long  
2 @ 29.25" Long  
2 @ 18" Long  
1 @ 12" Long

**Metal Grate Mat Supports**  
#6430  
Qty - 20 @ 36" Long  
2 @ 29.25" Long  
2 @ 18" Long  
1 @ 12" Long

**Drain Tube/Nut**  
#6620-DRAIN  
Qty - 4

**Sand Catchers**

**Base Forms**

**Left Hand Corner Base Form w/ Drain**  
#6525  
Qty - 2

**Right Hand Corner Base Form w/ Drain**  
#6535  
Qty - 2

**2 Meter Base Form**  
#6502  
Qty - 6

**SP6020-HD Hardware Kit of Stainless Steel Assembly Hardware**  
(Not Shown)
Optional Powder Coated - White, Yellow & Orange Finishes Available

Set Wings

MEETS AND/OR EXCEEDS ALL IAAF, NCAA AND NFHS SPECIFICATIONS

VAULT BOX PLAN AND SIDE VIEWS
STAINLESS STEEL (TFPV002SS)