



Constructability Review For Woodland School District

NEW SENIOR HIGH SCHOOL

September 2013

Prepared by:



Specialists in School Buildings



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Background & Qualifications

CSG has provided Constructability Reviews on over \$600,000,000 worth of K-12 School Construction Projects in the last several years.

CSG Constructability Review is a discipline performed by an independent multidiscipline team. Performing a Constructability Review of design involves reviewing contract documents and identifying potential claim or problem areas and deficiencies that may occur during the construction phase of a project. The purpose is to identify errors, ambiguities, omissions, discrepancies, and conflicts in the construction documents. The goal of the review is to achieve the lowest possible bid and minimize the chances of change orders and claims after construction begins.

CSG is uniquely qualified for providing expert services in this area because our work focuses exclusively on K-12 Educational Projects. Consequently we provide a comprehensive and detailed pre-bid building plan evaluation. Our team consists of experts in all major facets of construction.

Constructability and Bid ability Review principles include:

- Design documents should be easily understood and clearly communicate the design intent.
- Design documents should be free of significant design errors, omissions, and ambiguities.
- Contract provisions should be capable of being administered and enforced.
- Design should be compatible with available materials, equipment, and construction techniques.
- Can the project be built within the time allocated?
- Revise construction details that can be simplified or improved.
- Review any potential conflicts between structural, mechanical, architectural, and electrical components.

CSG is one of the only Constructability Team that sends the Review team to the school or site to look at actual conditions. This process produces great results. The on-site review team finds such things as site conditions that don't match the drawings, existing fixtures, openings, or doors that are not shown or are not in the right location, and structural elements that have not been considered.

On this new construction project, the team reviewed access, existing site conditions, utility locations and other fixed elements to see if they have been correctly shown on the drawings. Erosion control, wetland issues, and other site related topics are checked by the on-site team. Information about the local construction market and building costs are also gathered.



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Constructability Reviews Save the District Money

Historically, schools that have had Constructability reviews will experience less change orders. Contractors bidding on high quality documents can produce better bids and need less clarification from the design team during construction. Less confusion and better clarity are major contributing factors to reduced change orders.

On school projects where CSG has provided complete review services, the change orders created from errors and omission average 1-1/2% to 2% of the construction contract. The national average for similar projects is 3% to 5% and as high as 12% to 15% on extensive modernization projects.

A Brief Description of Constructability Review Methodology Used

Very simply, a Constructability Review looks at 3 primary issues:

- Can the job be bid accurately? In other words, will the Contractor be able to quantify all the parts and pieces required to accurately price the cost of Construction?
- Can the job be built from the information provided by the Design team? In other words, will the Contractor be able to find enough details to build the facility from the information provided in the Design Documents?
- Have the work of the various Designers been properly coordinated among the documents. In other words, have the locations of Mechanical equipment on the drawings been coordinated with the locations of potentially conflicting devices on the Electrical drawings? Also, are the conditions at the site or existing building accurately depicted in the Design documents?

Thus CSG Constructability Reviews seek to contribute to Design Documents that are Biddable, Build-able and Coordinated.

Description of the CSG Constructability Process

Constructability Review is a discipline performed by an independent multidiscipline team. Performing a Constructability Review of design involves reviewing contract documents and identifying potential claim or problem areas and deficiencies that may occur during the construction phase of a project. The purpose is to identify errors, ambiguities, omissions, discrepancies, and conflicts in the construction documents. The goal of the review is to achieve the lowest possible bid and minimize the chances of change orders and claims after construction begins. All Constructability Review processes exceed the requirements of WAC 392-344-065 and conform in scope, content and product with the requirements of OSPI.



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Experience has shown that more than half of all errors and omissions in construction documents result from inadequate coordination between disciplines and that these errors are usually the largest cost items when change orders are written. Cross-Check is a system that provides a structured approach to checking drawings and specifications. It has been designed to eliminate the subjectivity associated with reviews done without a written protocol. The use of a checklist minimizes problems that can cause reviewers to overlook critical items because of distractions, limited experience, or imperfect memory. The Cross-Check checklist also concentrates on interdisciplinary coordination of the drawings, since research has shown that this is the source of many of the most expensive construction problems.

Cross-Check has been shown to dramatically reduce change orders and RFI's on typical projects resulting in several percent savings of total construction costs. It has also been shown to reduce the time required by the A/E and the Owner for construction administration. In addition, contractors have reported that improved drawing accuracy from Cross-Check reviews improves their bids thus lowering initial construction costs.

We use light-tables to overlay and compare plans. It is particularly important to do this when checking for interdisciplinary coordination of the latest designs, grid lines, layouts and dimensions. This technique is also used to check intra-disciplinary coordination by overlaying elevations and building sections with plans and with one another and with to see if the walls and openings remain the same. Other intra-disciplinary plans such as reflected ceiling plans will also be checked in this way.

We use yellow hi-lighters to mark items that have been reviewed (this does not necessarily mean that yellow items are correct). We use pink hi-lighters to mark incorrect items or confusing areas in the drawings. We use red pencils to ask questions and make comments directly on the drawings and the specifications and the use of sticky-notes to mark annotated pages.

General remarks regarding issues or questions can be made on the Cross-Check checklists and a summary of the comments are made on a sheet by sheet basis for inclusion in the final report for historical purposes. An executive summary of the major issues causing concern will be included.

The original marked-up set of plans and specifications, and the annotated checklists, comment sheets, and summary will be given to the Design Team at the completion of the Study. The Owner will get copies, except for the original marked-up drawings and specifications. If requested, the Review Team can give a general presentation of its findings to the Design Team at the completion of the review.



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Designers Responsibilities for Corrections and Back-Check

The Design Team should, after receipt of the Cross-Check Comments and mark-ups, start their final corrections. The design schedule should include 1 to 2 weeks (depending on job size) for the Cross-Check and also at least 1 to 3 weeks for the Design Team to complete their revisions and corrections.

The Review Team comments are not intended to comprise complete or final corrections; comments and questions should be viewed as possible indications of further problems. Some mark-ups may be applicable in multiple locations but shown only once. Other comments may have a ripple effect, requiring modifications to various drawings. The A/E's Project Manager must still coordinate the final work and perform his/her own back check to be sure those applicable coordination issues and corrections have been completed. It is important that the Design Team conduct a thorough back-check on the corrected design documents to ascertain that all comments and questions have been addressed.

CSG Back-Check

The CSG Constructability Team will conduct a limited back-check of the documents to ascertain that the Design Team has made needed corrections or clarifications.

Purpose and Limitations

The Cross-Check process and checklists are primarily intended to identify major errors, omissions, and conflicts in the design documents. They are based on historical evidence that 20% of the key design errors typically result in 80% of the designer-caused cost increases during construction. The Cross-Check checklist concentrates on the commonly most important 20% but only touches on the less problematic, but more numerous (and typically, but not always, less costly) issues.

There is however, **no** guarantee or warranty, expressed or otherwise, that all or any expensive problems, claims, or change orders in the documents can be identified using the checklists. Finding these problems relates largely to the skill and experience of the reviewer(s) and to the diligence and time taken to perform the study/review. Most importantly, however, in the final analysis, it is always the originating A/E's responsibility to not only review and confirm (or deny) review comments from all sources, but also to take whatever actions are necessary to fulfill their overall professional responsibilities for job completion, problem resolution and document coordination.



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Constructability Study Comments Design Team Response

Back check has been completed and the results are included in this report.
Those comments are in **Red** (needs correction) or **blue** (no change needed).



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Constructability Review Comments Form

PROJECT NAME: Woodland School District – Woodland High School

DATE: Aug. 5th -14th, 2013

REVIEWERS: Rick Alexander – Team Lead (RA), Mike Craig - Electrical (MC), Russ Chambers – Plumbing (RC), Steven Nunez – HVAC (SN), Lee Senn – Construction (LS), Gaby Massaad – Structural (GM), Carter Bagg – Architecture (CB), Geert Aerts – Schedules (GA) Caleb Aring – Commissioning (CA)

Reviewer ID/No.	Dwg/Spec#	Comments	A/E Response
RA001	003100	1.01C refers to nwcontractorsnetwork.com for geotechnical report – not found on site and no reference to Woodland High Project. Provide access to geotechnical report.	Will be posted when documents are issued to bidders. Changed
RA 002	011000	Summary of Work – Building Pad will be surcharged until Dec. 20, 2013. What work can the contractor do when awarded the contract by Nov. 1 st ?	Any work outside of the building pad. Not Changed
RA 003	011150	Alternate S-5 refers to Cross Country Running Course; all other references to this are soft track. Coordinate names and refer to the same thing.	Corrected. Not Changed
RA 004	011400	1.03.C refers to City of Woodland wet weather restrictions. As contractor will be limited in scope that he can do because of the surcharge, is there anything that he can do with wet weather restrictions? Provide source for getting restrictions and place in project manual.	The City has indicated they have restrictions verbally but not provided written confirmation. We want the contractor to be responsible for contacting the City to ascertain what limitations they may place on the work. Not Changed
RA 005	012700	Should there be a unit price or allowance for weather/surcharge delay maybe by the week?	No. That would be a red flag to a contractor that the Owner expects delays and is prepared to pay for them. Not Changed
RA 006	033000	1.02.H refers to 079005 joint sealers. This should be 079200. Provide correct reference and spec section.	Corrected Changed
RA 007	033560	1.02.B refers to 079005 joint sealers. This should be 079200. Provide correct reference and spec section.	Corrected Changed
RA 008	034500	1.02.E refers to 079005 joint sealers. This should be 079200. Provide correct reference and spec section.	Corrected Changed



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RA 009	051250	1.02.D refers to 099900 Painting. This should be 099000. Provide correct reference and spec section.	Corrected Changed
RA 010	055000	1.02.A refers to 011150 - Alternates. This should be 012300. Provide correct reference and spec section.	Corrected Changed
RA 011	055200	1.02.D refers to 074100 metal wall and roof panels. This should be 074113 for metal roof and 074213 for metal wall/soffit. Provide correct reference and spec section.	Corrected Changed
RA 012	055213	1.02.F and G – both refer to 092116. Should one be 092100? Provide correct reference and spec section.	Corrected Changed
RA 013	061000	3.05.A refers to section 017419 – this should be 017300. Provide correct reference and spec section.	Corrected Changed
GA027	07 72 00	Are any provisions needed for the “bidder designed” Automatic Fire Vent manual release to prevent unauthorized use of the vent?	The winch is not bidder designed and the specified product is in a lockable cabinet. Not Changed
RA 014	071713	1.05.B refers to minimum ----- years experience. Complete by adding number of years.	Corrected Changed
RA 015	071900	1.09 refers to extra materials, see section 016000. There is no information related to extra materials found in that section. Provide quantities and labeling for extra materials needed.	Deleted reference Changed
RA 016	072100	1.07 refers to section 072500 for vapor retarder. This should be 072600.	Corrected Changed
RA 017	072140	1.2.C refers to 055400. This should be 054000. Provide correct reference and spec section.	Corrected Changed
RA 018	072140	1.05A refers to section 01300. This is not a current section. Provide correct reference and spec section.	Corrected Changed
RA 019	072726	Section 3.02, 3.03, 3.04, 3.05, and 3.06 has multiple spelling errors of “manufacturer’s”. Correct	Corrected Changed
RA 020	073113	1.02.C refers to 075310. This section is not provided. Provide correct reference and spec section.	Corrected Changed



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RA 021	073113	1.02.F refers to 077119. This should be 077190. Provide correct reference and spec section.	Corrected Changed
RA-150	074113	Spec says that metal roof panel color will be found on drawings. Did not see on A400 sheets. Add reference to sheet in spec and/or add colors to roof sheets.	Color added to sheet A9.00. Callout added to A4.00 Changed
RA 022	074213	1.02.D refers to 079005 joint sealers. This should be 079200. Provide correct reference and spec section.	Corrected Changed
RA 023	076200	1.02.D refers to 075310. This section is not provided. Provide correct reference and spec section.	Corrected Changed
RA 024	076200	1.07 Shouldn't there be an extended warranty on the material for rust and finish?	Added Changed
RA 025	077123	No warranty section. Doesn't this product have an extended color and finish warranty.	Added Not Changed - Not Found!
RA 026	077190	1.02.A refers to 061600. This section is not provided. Provide correct reference and spec section.	Corrected Changed
GA098	08 11 13	Specifications for the signage panel tackable surface are not located in the door matching panel portion of the specifications.	Added Not Changed-- Not Found!
CB-034	08 43 13	2.03 C. should read "as specified in section 08 51 13"	Corrected Changed
CB-029	08 51 13	Section 1.01A describes aluminum windows in storefront systems – operable windows also occur in curtain wall	Added Not Changed - Not Found!
CB-035	08 51 13	Provide stops to limit opening of operable windows to prevent people from falling out or running into open windows	Limiters are included in the spec. Changed
RA 027	083100	1.02.B refers to 092600. This should be 092100. Provide correct reference and spec section.	Corrected Changed
RA 028	083323	3.02.F refers to section 262717 for electrical service. This section is not provided. Provide correct reference and spec section.	Corrected Changed



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RA 029	083619	1.02.C is a repeat of 1.02A. Delete or change as needed.	Corrected Changed
RA 030	086201	2.04.C refers to 079005 joint sealers. This should be 079200. Provide correct reference and spec section.	Corrected Not Changed
RA 031	088000	1.02.A refers to 072500. This section is not provided. Provide correct reference and spec section.	Corrected Changed
RA 032	088000	1.02.J refers to 086300. This section is not provided. Maybe 086201. Provide correct reference and spec section.	Corrected Changed
CB-006	09 68 00 09 68 14	Section 09 68 00 is for Contractor preparing for carpeting, including testing (already spec'd for resilient flooring under Section 09 65 00 3.01) 0968 14 is for furnisher & installer, included only for contractor's reference) Should carpet installer test floors before installation?	Both sections are labeled FOIO. We want the installer to test the floors to confirm they accept the substrate before they install. That has also been confirmed with Beresford, the supplier of the FOIO carpet. Not Changed
CB-025	09 68 14	1.01 C states base @ carpet is FOIO, but not if it's cove base or carpet base – may affect height of casework or MDF paneling	All base is the same height Not Changed
RA 033	095100	1.02.E refers to 211300. This section is not provided. It might be 211313 and 211316. Provide correct reference and spec section.	Corrected Changed
RA 034	095100	1.02.G refers to 265100. This should be 265000. Provide correct reference and spec section.	Corrected Changed
RA 035	095113	1.02.C refers to 072120. This should be 072100. Provide correct reference and spec section.	Corrected Changed
RA 036	095113	1.02.D refers to 092600. This should be 092100. Provide correct reference and spec section.	Corrected Changed
RA 037	096510	1.02.A refers to 058100. This should be 055810. Provide correct reference and spec section.	Corrected Changed
RA 038	096800 096814	Owner furnished & Installed Carpet can be problematic and potentially could result in change orders for Contractor delays, cleanup fees, etc. Oversight is a must and good Contractor relationships	Noted Not Changed



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		are necessary.	
RA 039	097200	Wall coverings – no extra materials for patch and repair. Recommend some extra material.	Will add. Changed
CB-045	10 28 00	FOIC items are: -Paper Towel Dispensers (PTD/PTL) -Sanitary Napkin Dispensers ((SND) -Sanitary Napkin Receptacles (SNR) -Soap Dispensers (SD) -Toilet Paper Dispensers (TPD) -Toilet Seat Cover Dispensers ((SCD)	Ok Not Changed
CB-046	10 28 00	Spec includes shower curtain & rods, but t none are indicated on the drawings	Added note to provide at each shower stall Changed
GA057	11 66 23	Specification doesn't list adjustment height of motor-operated basketball hoops to be able to determine the wall mounting height.	Basketball hoops are not adjustable. Provide wall mounting height. Not Found!
RA 040	123500	1.02.B refers to 092600. This should be 092100. Provide correct reference and spec section.	Corrected Changed
RC075	22 11 16 22 11 17	Specification Section 22 11 16 Paragraph 2.02.C.1 calls for Type L Copper for Above Ground Piping. There does not appear to be any area for exceptions in the specification. Section 22 11 17 describes PEX systems for potable water. The sections appear to be conflicting. If PEX is to be allowed it should be included in Section 22 11 16 Domestic Water Pipe and Fittings. Please review and revise as appropriate.	Sections allow either copper or PEX to be used for 1 ½" and smaller. A reference to PEX will be added to section 22 11 13. Changed
RC101	22 13 00	Specification 22 13 00 Page 2 Paragraph 2.02.A.3 and Page 3 Paragraph 3.01.H,I refer to Acid Waste piping materials and installation. The project plans do not have acid waste piping installed. Please review and revise as appropriate.	Concur, will remove acid waste piping requirements. Changed
RC102	22 13 23	Specification 22 13 23 Page 2 Paragraph 3.03.A refers to Section 22 13 16 "Sanitary Waste and Vent Piping". Incorrect Section Number reference should be 22 13 00. Please review and revise as appropriate.	Corrected Changed



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RC103	22 15 00 M0.02	Specification Section 22 15 00 Page 1 Paragraph 2.01 Approved Manufacturers lists Atlas Copco, Quincy & Speed Aire, Page 2 Paragraph 2.06.A calls for Cast Iron Reciprocating. M0.02 22 15 00 Air Compressor Schedule lists a Powerex Scroll compressor. This compressor does not meet existing specification. Please review and revise specification to meet scheduled compressors.	Concur, will revise/correct to match scheduled air compressors. Changed
RC105	23 05 23	Specification Section 23 05 23 Pages 1, 2 & 3 have multiple paragraphs with bold face type and bracketed information which indicates these paragraphs have not been reviewed and edited for the specific project. Please review the specification and revise as appropriate to be project specific.	Concur, will revise/correct specification for this project. Changed
GA066	23 09 00.1	The requirement for the digital control system (DDC) system to monitor water should be eliminated since there are no code or WAC requirements to monitor water. This requirement only adds cost for the school district. The school district can monitor their water use with their water bill. CSG has never observed any schools using the metering data sent to the DDC system.	The requirement to monitor both gas and water usage through the DDC system will be removed. Changed
RC106	23 25 00	Specification Section 23 25 00 Page 1 Paragraph 2.02.A states" ...shall be as supplied CH ₂ O." CH ₂ O is a specific water treatment supply vendor based in Olympia. Is CH ₂ O the current water treatment vendor for the Woodland School District. If not there are suppliers in the area which should be included in the specification as approved equal. Please review and revise as appropriate.	Concur, will revise/correct to include district providers. Changed
GA054	23 34 23	Big ass fans shouldn't be in exhaust fan section. Coordinate with DDC controls to include sequence of operations.	Paddle fans will be specified in 23 34 23. Sequence of operation is shown on sheet M7.01. Not Changed
RC089	23 52 33	Specification Section 23 52 33 Page 1 Paragraph 2.01.A allows Fulton as the only approved manufacturer. State	Concur, will revise/correct to list multiple boiler manufacturers that have the ability to produce



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		bidding laws do not allow sole sourcing specifications. Approved equal language needs to be included in the specification. There are many boiler manufacturers with local representatives that may be less expensive and of equal or better quality. Is there a district standard in place? Please review and reply.	equivalent equipment. Changed
RC092	23 64 20	Specification Section 23 64 20 Air Cooled Modular Chillers Page 2 Paragraph 2.01 lists approved manufacturers as ClimaCool and MultiStack. There are multiple quality manufacturers available. Is there a district Standard in place. In Paragraph 2.05, 2.06 and 3.02 there are specific references to ClimaCool supplied items. This specification implies that ClimaCool will be the successful bidder. If ClimaCool is not the successful bidder who will be responsible for supplying the items referenced in the specification. The specification should be re-written in a vendor generic manner to eliminate ambiguous responsibilities. Please review and revise as appropriate.	Additional manufacturers will be able to prior approve through the bidding process. Will review 2.05, 2.06, and 3.02 for specific references that can be revised to be vender generic. Changed
RC093	23 72 00	Specification Section 23 72 00 Page 1 Paragraph 2.01.A allows Renewaire as the only approved manufacturer. State bidding laws do not allow sole sourcing specifications. Approved equal language needs to be included in the specification. There are many ERV manufacturers with local representatives that may be less expensive and of equal or better quality. Is there a district standard in place? Please review and reply.	Concur, will revise/correct to include equivalent vendors. Changed
RC094	23 73 00	Specification Section 23 73 00 Page 1 Paragraph 2.01.A allows Aaon as the only approved manufacturer. State bidding laws do not allow sole sourcing specifications. Approved equal language needs to be included in the specification. There are many AHU manufacturers with local representatives that may be less	Concur, will revise/correct to include equivalent vendors. Changed



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		expensive and of equal or better quality. Is there a district standard in place? Please review and reply.	
MC005	260000	Show all alternates that effect division 26.	Alternate Bid Items Referenced on Plans Changed
MC006	260000 131340	Be specific as to the sections that are responsible for the wiring of power, lighting and controls in the greenhouse.	Greenhouse plan with lighting, power and controls requirements has been added, E1.03. Changed
MC007	260000 E0.02	Are lighting fixtures required for the greenhouse.	Yes, See previous comment Changed
MC008	260519 E5.01	To prevent delays and added cost submit an aluminum feeder schedule with the submittal to L&I.	Will consider Not Changed
MC016	262726	Provide spec for LED dimmers.	Concur, will add to switch spec Changed
MC017	265000	Provide spec for LED fixtures.	Concur, will add to Light Fixture spec Changed
CB-004	3/A-1.04	Add dimension to masonry wall – min. 3'-6" above platform for code compliance.	Wall height and platform heights are noted Changed
RA 041	312000	3.05.D.3 refers to section 015639 – Temp. Tree and plant protection. This section is not provided. Provide correct reference and spec section.	Corrected Changed
RA 042	312000	3.09.C refers to section 033053 – Misc. Cast-in-place concrete. This section is not provided. Provide correct reference and spec section.	Corrected Changed
RA 043	312319	2.01.B – Where does the Contractor get the information to develop a dewatering plan? Information needed would be well sizes, pumping rates, radius of influence of wells, flow rates, etc. Geotechnical report doesn't supply this. Provide or plan would be of little value.	Dewatering is a means and methods issue. The contractor needs to determine the requirements based on their approach to the work. Not Changed
RA 044	321050	1.02.A Alternate S-5 Cross Country Running Path v soft track. Use same terminology for this item.	Corrected Not Changed
RA 045	323113	2.04 refers to "posts by others". Who is supplying the posts? They should be listed.	Section deleted. Covered by landscape Changed
GA073	A0.02	Fire Rating Note S & General Note 7 - Sheet A0.12 doesn't exist. Notes 2 and 3 on sheet A0.03 and A0.04 (Fire Rated	Corrected Changed



Constructability Review Comments Form

		Details) don't detail smoke control. Please coordinate.	
GA074	A0.02	Acoustic Note 9 – Sheet A9.53 doesn't exist. Please coordinate acoustical wall detail.	Corrected Changed
GA075	A0.02	General Note 9 – Sheet A3.4 doesn't exist. Please coordinate.	Corrected Changed
GA105	A0.02	It can be confusing when the plans refer to a non-fire-barrier-wall and the wall type states "1 HR FIRE BARRIER WALL" "(where rating noted required)". One way to make this clearer would be to have the note state "If noted as fire wall, follow General Notes for walls."	Notes revised Changed
GA107	A0.02	Exterior wall types 09 &10 appear reversed in regard to fire rating.	They are not reversed Not Changed
GA108	A0.02	Wall type 31 appears to be missing gypsum wall board in drawing.	Not required in that assembly Not Changed
GA109	A0.02	Some walls are drawn left to right, and some walls are drawn right to left. Would be clearer if they were all drawn in one direction.	Will consider Not Changed
CB-050	A-0.02	Wall Types descriptions and Wall types designations conflict. I.E. Types 32-35 are described as "1 hour firewalls and have STC ratings of 45 or 50. To meet these descriptions, the designations would all have to be ##A1B. Either change designations <u>or</u> delete firewall & STC ratings from the descriptions and let the designations 1 & B determine this.	Corrected Changed
CB-052	A-0.02	Note on Wall Types 63, 64, & 65 says to "See interior elevations & finish schedule" but may not apply in all cases, i.e. walls @ shop storage 1411 & 1412	Corrected Changed
CB-054	A0.03 11/A-0.03	Where fire hose cabinets are in sound walls, need to show insulation required to maintain STC rating.	Corrected Changed
RA 046	A1.00	Legend – Concrete Paving and Asphalt paving have the same symbol. Correct.	Corrected Changed
CB-003	A1.01 5/A-1.01 13 13 40	Drawing shows 4/12 roof pitch, spec calls for 3/12	Reference in spec removed. Changed



Constructability Review Comments Form

	(B)		
RA 047	A1.01	Gridline 8 is not in the correct location when dimensions are checked with plan v elevations. Coordinate and correct.	Corrected Changed
RA 048	A1.01	Coordinate roof pitch with mfr. specification in spec section for Greenhouse.	Reference in spec removed Changed
RA 049	A1.01	What is the thickness of the concrete housekeeping pads? Add to note on plan.	Added Changed
CB-001	A-1.01	Greenhouse elevations show North wall @ GL 8, Floor plan shows North wall 4'-0" North of GL 8.	Corrected Changed
CB-002	A-1.01 13 13 40 (B) (1)	Need downspout(s) @ eave of shed roof sized for run-off from ridge of building. Spec calls for 10' under gutter height, shed roof gutter will be lower.	Added Changed
RA 050	A1.02	2/A1.02 – Dimensions in shaded area are hard to read. Move out of the shaded area for readability.	Corrected Changed
RA 051	A1.02	Housekeeping pads between gridlines P and M and below line 14. Provide size of the pads and the thickness.	Added Changed
RA 052	A1.02	Condensing units – Provide size of the pads and the thickness.	Added Changed
RA 053	A1.03	2/A1.03 – provide dimension for the minimum or maximum gap for expansion at the door post.	Not necessary Not Changed
RA-153	A1.03	Sign has a reader board. Detail doesn't show conduit for power. Check to make sure there is power for the sign and state conduit size and location in concrete.	Will coordinate with electrical Changed
RA 054	A1.04	5/A1.04 refers to 2/A1.04, is this correct? Provide correct reference and section.	Corrected Changed
RA 055	A1.04	Provide thickness of slabs or if they are shown in structural, provide reference to structural plans.	Added Changed
GA006	A10.00	Door type M isn't drawn in Door Types.	Corrected Changed
GA060	A10.00	Doors 1700CA and 1700CB not found on plan view A2.16	Shown on A2.15 Changed
GA069	A10.00	Operable partition (K) has no dimensions for width of individual panels. The specs also do not indicate the width of individual panels. Please specify in	Will coordinate Changed



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		schedule or dimension in the detail drawing.	
GA095	A10.01	I don't see detail drawing A10.12-5 referenced anywhere to clarify the construction of the signage panel or tackable surface.	Callout added Changed
CB-044	A-10.01	@ Frame types 6, 8, 13, 14, 21, 26, & 27 extend tackable surface panel to ceiling or top of frame for conduit/wiring where light switches or other devices occur.	There are no switches in those locations Not Changed
GA072	A10.11	4 – wall mounted door powered assist operator not shown on this drawing	Added Changed
CB-027	A10.12 5/A10.12	Provide key way @ top of frame for light switch wiring where occurs in tackable surface area adjacent to doors (See also CB-044)	Switches have been moved Changed
GA093	A10.12	2 – Please specify MDF bevel dimension.	Not necessary Not Changed
GA094	A10.12	3 – Insulation is drawn across framing members. This could be misinterpreted by contractor to be a mistake, and thus, all voids may not be filled in. Please draw insulation separately in each cavity to be clear.	Note added to clarify Changed
GA096	A10.12	The signage panel will transmit corridor noise to the classroom around its edges since it is not sealed. A method of sound sealing this assembly needs to be drawn and specified.	Sealant is noted Changed
GA061	A10.31	1, Step 2 – Dimensions of liquid applied weather resistant barrier don't match drawing – either increase bottom vertical dimension or redraw bottom of liquid barrier.	Corrected Changed
GA062	A10.31	1, Step 2 – Area of liquid applied weather resistant barrier is not completely shaded in gray – please increases shaded area.	Corrected Changed
RA113	A2.11 A2.31	Partial Floor Plan General Notes #4 refers to 4/A2.31 for mounting heights. This should be B/A2.32. Provide correct reference and detail.	Corrected Changed
GA023	A2.11 & sim.	Some rooms such as 1207, 1208, 1405, 1407, etc. do not have elevation symbols drawn.	Added where required Changed



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CB-049	A-2.11 through A-2.32	Wall type comments – see individual comments on plans	Noted Changed
CB-051	A-2.11 through A-2.32	Indicate 1 & 2 hour firewalls as shown on overall small scale plans.	Wall types indicate rating Not Changed
GA131	A2.12	West wall of commons - If AED is in wall, please provide detail view.	Detail is in set Changed
GA130	A2.12 & A9.43	Wall between commons and concourse 1000B is not drawn correctly here or on detail drawing A9.43 – 1.	Comment is not clear Changed
CB-053	A-2.13 2/A-5.01 7/A-5.02	Walls @ shop storage yards keyed “C” for partial height, but shown full height on elevations	Corrected Changed
CB-057	A-2.13 3/A-6.13	Is floor of Industrial Tech Shop 1410 sloped to floor drain?	No Not Changed
GA025	A2.14	1501D – Shelf & clothing rod not drawn.	Added Changed
GA070	A2.16 & A10.00	6 PE storage room doors are not in door schedule.	Added Changed
GA103	A2.21	General Note 4: “Sheet A0.13” should be A0.02	Corrected Changed
GA104	A2.21	Rm 2203 wall type 37A2A should have acoustic B since it is a classroom.	That particular wall is a 2 hour area separation wall. Per the acoustical engineer there is no need for additional acoustical treatment Not Changed
GA106	A2.21	Elevation symbol should include word “Sim” for similar classrooms.	Added where appropriate Changed
GA115	A2.21 & A8.33	Rm. 2101 - Not all relites are drawn on floor plans.	All are shown Changed
GA114	A2.21, A2.12 & sim.	Some interior elevations that are drawn are not noted with a symbol on the floor plans. Rms. 2100C & 2100 on A2.21. Room 1600B on A2.12.	Callouts added Changed
GA126	A2.22	Rm. 2301 – Cutouts for computer power cords not drawn or noted on elevations.	Included in specs Not Changed
GA127	A2.22	AED is drawn inside wall. AED not shown on interior elevation.	Corrected Changed
GA002	A2.31	B - Restroom accessory is drawn, but does not appear to be an actual accessory, and is not dimensioned.	Corrected Changed
GA003	A2.31	B - Toilet partition not dimensioned.	Added Changed
GA068	A2.31	Note 9 – Please either draw location of	Added panels Changed



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		access panels or eliminate this note.	
Cb-011	A-2.31 A-3.32	Note 9 on A-2.31 calls for access doors to chases @ all plumbing walls – not shown on plans or elevations. Does this note apply to locker rooms on A-3? Is it really necessary to have access panels where there are no valves? See Note 9 on A-2.31	Will coordinate Changed
CB-012	A-2.45	Code requires waterproof, washable surface to at least 4"-0" – none shown on interior elevations	Corrected Not Changed - Not Found!
RA114	A2.41	Provide interior elevations for room A200, A201, A202, A203, and A204. Show casework window height etc.	Added where required Changed
RA115	A2.41	2/A2.41 refers to unreadable section of Grandstand on A10.14. Provide correct reference and section.	Corrected Changed
CB-010	A2.41 2/A-2.41 3/A-2.44	H/C toilet compartment doors should be swinging out, not in.	Corrected Changed
GA064	A2.42	2 – Storefront SF45 shows operable window in opposite direction from storefront drawing on A10.22.	Storefront elevation governs Not Changed
GA065	A2.42	1 – Concession overhead coiling door not designated like storage overhead coiling door.	Corrected Changed
GA008	A2.45	A004, View 8 – PTD not drawn.	Hand dryers added Changed
RA116	A2.51	Provide on elevations, reference to wall section 8/A2.51.	Corrected in plan Changed
RA117	A3.11	Refers to 3/A3.31 north of gridline 5 and between gridlines K & J. Is this correct? If not, provide correct reference and detail.	This is correct Not Changed
RA118	A3.11	Refers to 16/A10.13 south of gridline 3 and east of gridline H. Is this correct? If not, provide correct reference and detail.	This is correct Not Changed
CB-018	A-3.11	RCP legend has several GWB & Metal deck ceilings coded 60A	60A is the paint color which applies to multiple substrates Not Changed
CB-032	A-3.11 A-3.13	Need detail/spec of trellis outside conference rooms 1200B & 1400B	Details in structural and roof details Not Changed
GA055	A3.11 & sim.	Please use small HVAC return grill symbol throughout ceiling drawings, rather than large light symbol; otherwise, lights and return look the same.	Noted Changed



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CB-047	A-3.11 thru A-3.27	Assorted coordination items from overlay of RCP's with mechanical & electrical plans	Will coordinate Changed
CB-055	A-3.15	Need detail of pot rack suspension in Culinary Arts Lab 1601	Will coordinate Changed
CB-013	A-3.16 4/A-6.18	Coiling door shown above ceiling on RCP, exposed on wall section – Ceiling would have to be lowered to conceal it.	Not intended to be concealed Not Changed
CB-014	A-3.16 19/A-3.32 3/A-6.12 3/A-6.17 8/A-8.2	Need detail of batting cage suspension North of GL 7, where structure is above ACT ceiling & 16'-21' above top of batting cage.	Added Changed
CB-015	A-3.16 19/A-3.32 3/A-6.12 3/A-6.17 8/A-8.25	Detail of batting cage suspension doesn't work because drive shaft has to be horizontal & structure is sloping	Corrected Changed
CB-056	A-3.16 A-8.21	Commons/Stage - key details from A-9.44	Callouts added Changed
CB-009	A-3.21 3/A-3.23 3/A-6.01 7/A-6.01	Ceiling fans @ shared activity spaces shown @ mounting height that conflicts with ducts.	Mounting heights are not shown on architectural. Will coordinate with mech Not Found!
CB-039	A-3.22 7/A-6.02 1/A-8.21	Need to locate, detail & dimension suspended acoustical reflectors in commons. Are these to be specified in 09 51 00 or 09 51 13?	Added Changed
CB-058	A-3.22 7/A-6.02 E-2.22	Track lights @ stage not shown on RCP, & mounting height not indicated anywhere.	Theatrical lighting more clearly defined on E2.22 and E7.11 Changed
CB-007	A-3.23 23 34 23	Ceiling fans are specified under exhaust fans – should be under separate section for recirculating fans 23 87 00. Also need detail specifications: model, etc.	Paddle fans will be specified in 23 34 23. Changed
CB-022	A-3.24 21/A-8.17 22/A-8.17	Pipe grid/acoustical clouds shown on elevations not shown on RCP	Added Changed
GA029	A3.24 & A8.19	1502 – Ceiling panels are not dimensioned in length or width.	Added Changed
CB-024	A-3.32	Provide details of track & enclosure of Stage Side Curtain - Alternate Bid A-3	Added Changed
CB-008	A4.12	Arrow for Note "3 5/8" mtl framing @	Corrected Changed



Constructability Review Comments Form

	1/A-4.12	16" O.C. w/ R-19 batt insul infill pointed to wrong place.	
CB-033	A-5.01 A-5.02 08 43 13 08 44 13	Use curtain wall only where necessary.	That is already the case Not Changed
RA119	A5.12	No reference on plans to details 8, 10, 12. Provide reference on plans for good navigation of documents.	Added where appropriate Changed
CB-042	A6.02 2/A-6.02 8/A-8.25 M-4.16	Southernmost duct @ wrestling/Fitness conflicts with trusses – duct must either be threaded through 18" truss or routed under it.	Concur, will revise duct as required to avoid structure. Changed
RA120	A6.11	Note: Footing drains per civil. Civil does not show them. Provide on plans, also reference and details as needed to connect to storm system with cleanouts etc.	Not required per geotech Not Changed
RA121	A6.12	1/A6.12 Provide correct foundation detail in this area.	Corrected Changed
GA071	A6.13	Please provide detail drawing for sliding gate.	See landscape Not Changed
RA122	A6.18	Provide identification of items and elevation for wall attached device.	Added where required Changed
RA123	A6.19	Provide identification of items and elevation for device.	Added where required Changed
RA124	A6.20	3/A6.20 Correct spelling of Telescoping Bleacher Assembly.	Corrected Changed
RA125	A6.22	Provide reference to details used on this area of 3/A6.22.	Will coordinate Changed
RA126	A6.25	Provide reference to detail for attachment of cloud to structure and lighting or accessories to cloud.	Added to RCP Changed
RA127	A7.21	Add to water-stop note to include sump at all breaks below grade. Provide spec for water-stop.	Added Changed
GA079	A7.21	3 – Elevator sign needs dimension from doorway.	Added Changed
GA081	A7.21	3 - Elevator floor number horizontal location not drawn	Added Changed
GA083	A7.21	General Note 4 – Incorrect detail specified.	Note removed Changed
GA082	A7.21,	3 – Some of the elevator control panel	Will coordinate Changed



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	14 20 10	buttons are labeled incorrectly or not labeled at all, and the call buttons are not detailed. Suggest specifying standard control panels to avoid the cost of custom controls. The elevator specs. 3.09 already include "Signa4 Signal Fixtures with Microban antimicrobial protection". Also ensure spec. section "2.09 Controls" coordinates with 3.09 and A7.21.	
GA084	A7.21, 14 20 10	Elevator shaft lights are not in specification. Please coordinate with spec. and with electrical.	Shaft lights have been added to Lighting Plan Changed
GA080	A7.21, A9.61	3 - Elevator floor number sign not located in signage schedule, nor drawn on elevator details, nor included in specs. to be supplied by elevator manufacturer.	Will coordinate Changed
GA017	A8.00 & interior elevations	A number of accessories are not defined in a legend or included in typical mounting heights such as electrical outlets, telecommunications outlets, light switches, clocks, door signage, etc.	Elec accessories shown on elec. drawings. Signage added. Not Changed
RA128	A8.01 Gen. Note	Provide notes for all materials shown on interior elevations.	Added Changed
RA129	A8.01	Provide reference and details for fire Extinguisher cabinet in MDF wall. Dimension Rough opening and depth of box.	Detail added. Cabinet specified Changed
RA130	A8.01	Provide detail for top of abuse resistant GWB at 5'-6" or a note to finish smooth with upper GWB.	Dim added. Will coordinate finish Changed
GA022	A8.01	1000-2 – Stair drawing not finished.	Corrected Changed
GA026	A8.01	1101-4 – No numeric casework designation or detail drawing for desk.	Desks are FOIO Not Changed
GA034	A8.01 & sim.	Tackable surface dotted pattern should be placed on Finish Legend sheet A9.00 since there are large wall areas with this finish. Shouldn't just be placed on the relite schedule on A10.00.	Material callouts have been added to interior elevations Changed
RA131	A8.02	Provide reference and details for fire Extinguisher cabinet in masonry wall. Dimension Rough opening and depth of box.	Will consider Changed
RA133	A8.02	Provide note for material next to door in	Elevation revised Changed



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		Rm 1100, 1100A.	
CB-019	A8.02 3/A-8.02	Add note microwaves on shelf in Seating Area are FOIO, clarifies spec "Counter top microwaves are FOIO"	Elevation revised Changed
CB-020	A8.02 5/A-8.02 E-3.22	No power shown for LCD display on South wall of Seating Area 2000A	Power receptacle will be provided. Changed
CB-021	A8.02 5/A-8.02 2/A-8.22	Need to specify/detail backing in walls behind FOIO LCD displays	Will coordinate Changed
CB-030	A8.02 1/A-8.02 4/A-8.02 2/A-8.2.1	Provide details & specifications for display cases	Will coordinate Changed
CB-037	A8.02 2/A-8.02 2/A-8.21	Detail top, bottom & sides of openings of wall openings @ 1/A-9.43	Added Changed
GA128	A8.02	1 - 1000B elevation should be on bottom and 2000B on top.	Will coordinate Changed
GA129	A8.02	2 – Elevation for 2000B & 1000B is not correct (missing guardrail assembly, wall openings).	Corrected Changed
GA018	A8.02, A8.03 & sim.	At least 5 different symbols are drawn for electrical and telecommunications outlets. Please define these if they are different, or coordinate and draw correct symbols.	Elec accessories are shown on elec drawings Changed
GA132	A8.03	1, 2 & 3 - 1000C is at bottom and 2000C is at top.	Corrected Changed
RA132	A8.04 Gen. Note	Provide material notes and dimensions for all interior elevations like Toilet room 1000F.	Will review and consider Not Changed
GA020	A8.04 & sim.	A number of interior elevations have extraneous wall outlets, and other symbols that are not defined, drawn on them. Please remove or place in legend and specify mounting heights.	Elec accessories are shown on elec drawings Changed
RA134	A8.05	Provide carrel details and dimensions or add note OFOI.	Furniture removed Changed
GA010	A8.05	1104 – Ceiling mounted curtains are not in specifications.	Added Changed
GA009	A8.05 & sim.	Various devices drawn on wall are not actually present	Will coordinate Changed



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RA135	A8.07	How is Clock/intercom attached to this surface? Provide details or change location.	Clock/Intercom will be moved from glazing.
RA136	A8.07	Provide transition details for MDF to other surfaces.	MDF details added Changed
GA011	A8.07	1200 – Device on wall not defined.	Elec devices shown on elec drawings Changed
GA012	A8.08	1200A 2 & 4 - Please label mech ducts.	Will coordinate Changed
GA005	A8.09	1202 - No specification found for Slot Channel Grid Assembly in Art Classroom.	Spec'd in metal fab Changed
GA013	A8.09	1203-18 – Coordinate with electrical & data to provide more outlets for this counter. There appear to be no outlets dedicated to this counter.	Will coordinate Changed
GA067	A8.09	1202-8 – HVAC duct appears to interfere with ceiling joist.	Will coordinate Changed
CB-026	A-8.09	Note suspend slot channel grid & dimension AFF & key detail 1/A-3.32	Added Changed
CB-028	A-8.09 E-3.11 E3.13	Entry elevation to Conference Rooms 1200B & 1400B show full height glass – electrical shows outlet in middle of pane.	Outlets will be removed from glazing. Changed
GA007	A8.09 & sim.	No mounting height of projector above white board.	Projectors are OFCI. Height will have to be coordinated once the Owner picks the projector and mounting bracket Not Changed
CB-031	A8.10 16/A-8.10 1 53 00	Drawings indicate acid storage as OFCI and flammable storage as OFOI. Both are specified in the contract	Cabinets are OFOI. Callouts will be corrected Changed
CB-048	A8.14 9/A-8.14 11 30 00	Dishwasher in Life Skills indicated as FOIO, spec has dishwashers FCIC “UNO” Does the UNO apply here?	Dishwasher is FCIC. Callout corrected Changed
GA133	A8.14	1401-4 – Please specify if washer & dryer is FOIO.	Added Changed
RA137	A8.17	Provide angle for pipe attached acoustical ceiling panels and provide reference to details and provide details.	Added Changed
RA138	A8.17	Provide dimensions and spacing of shelves.	Added Changed
CB-023	A8.17 21/A-8.17 22/A-8.17	Key pipe grid details 3.6,7/A-3.32 where grid is shown on elevations	Details noted on RCP Changed
GA028	A8.17,	1501 – Sloped acoustical ceiling & pipe	Dims noted on RCP Changed



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	A8.18	grid & stage curtain hanging system(s) are not dimensioned.	
RA139	A8.18	Room 1501 - Provide angle for pipe attached acoustical ceiling panels and provide reference to details and provide details.	Details noted on RCP Changed
RA140	A8.18	Provide mounting height of projector screen.	Shown on sections Not Changed
GA030	A8.18	1501 – Coordinate with mechanical on Fire Hose Cabinet. There is no specification for this.	Spec added Not Found!
GA031	A8.18	1501 – Are any provisions needed to prevent unauthorized use of Fire Hose Cabinet?	Cabinet is lockable Changed
GA032	A8.18	1501A-3 - The screen size drawn is not 16:9 aspect ratio as called out in the spec.	Screen size matches spec Changed
RA141	A8.19	provide mounting height and dimensions of acoustical ceiling.	Section added to RCP Changed
GA019	A8.19	1710 – No specification referenced or found for chain link athletic storage fencing.	Section added Not Found!
GA021	A8.19	1501D-16 – Shelf and clothing rod is not fully drawn. Does it wrap around the corner or end at wall jog?	Revised Changed
GA024	A8.19	1501D-15 – Clothing rod is not drawn.	Added Changed
CB-036	A8.20 2/A-8.20 10/A-8.20 E-3.14	Outlets shown in glass sidelights, electrical base plan does not show sidelights.	Outlets will be removed from glazing. Changed
GA035	A8.20	1503 – No electrical outlets in green room placed high enough for curling irons and blow-dryers. COORDINATE WITH ELECTRICAL.	Dedicated outlets shown will be moved above counter. Changed
GA037	A8.20, A2.14	1502D-4 – Outlines are drawn that might be a bookcase, but is not labeled and no detail drawings. In plan view this is a shaded line. Label if OFOI.	Elec item relocated Changed
GA038	A8.20, A2.14	1502D-4 – Second instance of lines that look like might be a bookcase in plan view, but not in elevation view. Please coordinate.	Furniture lines removed Changed



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GA039	A8.20, A2.14	1502D-2 – Furnishing shown in plan view not drawn in elevation view. Please label and indicate if OFOI.	Furniture lines removed Changed
GA134	A8.21	2 – What are objects drawn above second floor?	Ductwork removed Changed
GA135	A8.21	1 – What is object drawn across ceiling of commons?	Lights removed Changed
GA015	A8.21 & sim.	1600 & sim. - Display cases are not dimensioned or detailed.	Added Changed
RA142	A8.22	Provide mounting heights for HVAC, fans, etc. and show missing return grill.	Section added, elev revised Changed
RA143	A8.23	Does the Commons need acoustical panels for sound control? Provide mounting heights, dimensions and locations, if needed.	Panels and section added Not Found!
GA040	A8.23	1601 - No spec. or detail drawing(s) for camera & support.	Will coordinate Changed
CB-040	A8.24 17/A-8.24	Key area plan 2/A-9.23	Added Changed
CB-041	A8.24 17/A-8.24	Need FRP wainscot @ mop sink	Added Changed
CB-043	A8.25 8/A-8.25 E-2.16	Chain hung pendant fixtures should be suspended @ =12"-0" to be under structure, not +14'-0" per note 4 on E-2.16	Will coordinate light fixture height with structure and batting cage. Changed
GA042	A8.25	1701-8 - Please dimension and provide detail drawing(s) for batting cage attachment to ceiling.	Added Changed
GA043	A8.25	1701-8 - Please dimension height of projector screen & projector and coordinate with electrical.	Added Changed
GA044	A8.25	1701-9 - Clock drawn on top of window frame.	Will coordinate Changed
GA045	A8.25	1700C-5 – Section of baseboard missing.	Added Changed
GA041	A8.26 & sim.	1706-18 – Please dimension heights of clocks & coordinate with electrical.	Will coordinate Changed
RA144	A8.27	Provide identification note and mounting height for room 1707. Maybe a projection screen?	Added Changed
GA047	A8.27	1707-1 – Screen not labeled, dimensioned, nor attachment detail drawings provided.	Added Changed
GA046	A8.27 &	1707 – Basketball backboard attachment	Secondary support is typically bidder



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	A8.28	and hoist motor attachment details not drawn.	designed. Requirement is in the specs Changed
GA048	A8.27 & A8.28	1707 – Half circles and small circles on gym wall not labeled.	Will coordinate Changed
GA063	A8.28	1707 - Gym divider curtain, attachment, motor location, etc. is not dimensioned or detailed.	Added Changed
RA-145	A8.29	Provide mounting heights for volleyball net wall and pole brackets.	Brackets deleted. Cart will be provided Changed
GA049	A8.29	1709 & 1710 – Rectangular devices on wall not labeled.	Added Changed
GA058	A8.29, 11 66 23	1709-3 - Volleyball net wall storage doesn't have a detail drawing. Nor is it included in volleyball equipment in specification.	Deleted. Cart will be provided Changed
RA-146	A8.32	Room 2100 – Provide references and enlarged plan detail of the desk.	Added Changed
RA-147	A8.32	Identify wall item on room interior 3/2100 with note.	Added Changed
GA111	A8.34 & sim.	14 - Please number all casework or specify detail drawings. Many throughout the interior elevations are not yet numbered.	Added Changed
GA112	A8.34 & sim.	Sometimes the number of casework units is incorrect, throughout the interior elevations.	Corrected Changed
GA113	A8.35	18 – Objects drawn on floor are not identified.	Removed Changed
GA001	A9.00	Corner guard material states only “L stainless steel”. Will need a numerical designation such as 304L or 316L.	Revised Changed
GA014	A9.00	Please fill in colors of perforated acoustical wall panels.	Added Changed
GA056	A9.00	Note 4 – Color 92B is not included in finish list.	Will coordinate Changed
GA110	A9.11	Most rooms do not show floor finish legend.	No pattern equals carpet. See legend. Changed
RA-148	A9.17 A9.31	1,2,3,4/A9.17 – provide the color of the striping, dimensions for layout, including radius, for each sport. Also on A9.31 same condition.	Added Changed
RA-149	A9.44	Provide reference on plans to details 3 and 13.	Added Changed



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GA116	A9.45	4 – dimensions, thickness, attachment method of plate to hold counter are not provided.	Will review and coordinate Changed
GA117	A9.45	4 – bevel at front of counter not dimensioned.	Will review and coordinate Changed
GA118	A9.45	4 - Type of wood and finish not specified.	Covered in specs Not Changed
GA119	A9.45	4 – Construction information for partial height wall is not detailed.	See 4/A8.00 Not Changed
GA120	A9.45	8, 9 – What is bump out on counter front?	Revised Changed
GA121	A9.45	15 – Please provide detail drawing for book return slot.	Will review and consider Changed
GA122	A9.45	4 – Detail not provided for means of connection of bracket to partial height wall.	Will review and coordinate Changed
GA123	A9.45	3 – Sections need to be indicated through book return counter, or state sim. at existing sections.	Added Changed
GA124	A9.45	16 – Please provide detail drawing for book cart.	Will coordinate Changed
GA125	A9.45	Rm. 2100 – FEC not labeled.	Added Changed
GA076	A9.61	Sign Mounting Type 6 is not in the schedules. Is this mount type present anywhere?	Mount is used for sign at 1600A Changed
GA078	A9.61	Type 1 sign appears to need dimensions to center the sign on the tackable surface.	Not required Not Changed
GA085	A9.61	Sign spelling should be “Auxiliary”.	Corrected Changed
GA086	A9.61	Door 1700CB does not have a sign type.	Added Changed
GA087	A9.61	The following Door No. in the schedule should not have an extra A (for example 1400BA should be 1400B): 1400BA, 1501DA, 1502BA, 1502CA, 1502EA, 1502FA, 1502GA, 1502HA, 1712DA, 2409AA, 2409BA, 2409CA, 2409DA.	Will review and coordinate Changed
GA088	A9.61	Shouldn't corridor door 1408A be the door with the IT CLASSROOM sign?	The sign on 1408A is the typical classroom entry sign with a removable insert. 1408B has the fixed text because the sign does not have the insert Not Changed
GA089	A9.61	Door 1700CB is the same door from the door schedule that is not found in the floor plans.	Shown on A2.15, east end of corridor 1700C Not Changed



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GA090	A9.61	Three of the sign type D are not filled in with Message B.	Will review and coordinate Changed
GA092	A9.61	Sign type with evacuation route is only specified on doors with frames that have a signage panel. Please specify either in door schedule or specifications if a different evacuation sign is to be manufactured for inside corridor doors without signage panels.	All locations where required are listed in the sign schedule Not Changed
GA102	A9.61	Door No. 15003AA should be 1503AA.	Corrected Changed
GA077	A9.61, A9.62, 10 14 00	General Note 5 states "Primary typeface to be Helvetica" but interior sign types specifies "Arial Narrow or Bold". Please coordinate. Spec states Helvetica, Arial or other sans serif font – please coordinate.	Corrected Changed
GA059	A9.62	Sign type G is not located in sign schedule A9.61. Is this sign type used?	Not used. Will be removed Changed
GA099	A9.62	Type D – Colors of sign not identified.	Added Changed
GA100	A9.62	Type D – Message font is drawn black whereas all others appear white. Please confirm font is white.	Corrected Changed
GA101	A9.62	Signs type D, F2 and G do not include the note "See sign 'A' for typical callouts"	Will coordinate Changed
GA091	A9.62, 10 14 00	The "Printed Evacuation Route" is not included in signage or fire protection specifications as to who is responsible for drawing this, and if each sign is to be unique for the room location.	The signs are OFOI. Changed
GA097	A9.62, A9.61	Sign type A/B and C - when mounted on the tackable surface on top of the signage panel, the clear face may deform to hinder insertion of the 8-½" x 11" sign sheet. Or the tackable surface itself may hinder insertion. A mock-up should be made to clearly define the thickness of this sign type to prevent either of these issues.	The tackable surface product is not compressible enough to present the concern noted. Not Changed
GA033	Arch. General	Small devices on walls such as electrical and telecommunications outlets, switches, etc. are not printed full density and this makes them almost impossible to differentiate.	Interior elevations have been further developed Changed
GA004	Arch.	Much of the casework and many	Interior elevations have been further



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	Interior Elevations	accessories are not labeled. Some accessories are labeled but not drawn.	developed Changed
GA016	Architectural General	Finish plan key is not found on floor plans as indicated on A9.00.	As noted on A9.00 callout is only used where condition differs from standards. Callouts have been added for those locations Changed
GA136	Architectural General	Please number all casework or specify detail drawings. Many throughout the interior elevations are not yet numbered.	Call outs have been added Changed
RA 056	C1.01 Gen. Note	Suggest a phasing plan is needed to show work that could be done Nov-Dec, Jan – Jun, Balance till completion August 2015.	This is a means and methods of construction and the contractors responsibility to work accordingly. Division 1 shows schedule constraints Not Changed
RA 057	C1.03 Gen. Note	Drawings show existing salvaged topsoil stockpile from Phase 1. Does this exist? Is it covered? Provide notes to explain site in more depth.	Stockpile does exist, it is covered. A survey will be conducted at time of phase 1 completion, issued as an addendum for bidding purpose. Not Changed
RA 058	C1.06 C1.07 C1.09 Gen. Note	Drawing show work inside the wetlands buffer from Phase 1 surcharge. As no wetlands permit has been issued, has this work taken place? Provide notes on drawings to explain existing conditions.	Wetland Buffers are City of Woodland Jurisdiction, Approval has been given for work within the buffers as shown in phase 1 plans. Not Changed
RA 059	C3.03 C3.04	Settlement plates – provide reference to the detail and include information about surcharging these areas. This Contractor doesn't have access to the Phase one documents. Also need spec for these.	Provided Changed
LS001	C3.03	Looking at the note shown in the center of the football field the top of surcharge is EL. 20.00. is this note saying to bring all the surcharge up to EL 20.00 for all the football field? If not, may need to provide a new note for this area.	This has been removed Changed
RA 060	C3.05	Provide geo-pier specs and need plan for layout, details, size placement etc. Provide specs as needed for this work – none found.	Aggregate piers are design build, specifications have been provided. Limits of ground improvements is now shown Changed
LS006	C3.05 C3.03	General note: provide all plans and details needed for phase 2 geo-grid, geo-piers, settlement plate and etc.	provided Changed
LS007	C3.05	General note: will all compacted	No, a portion of the compacted



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		surcharge stay for backfill or structural fill in the parking lots and football field?	backfill and all surcharge will be moved to other portions of the site Changed
LS008	C3.05	Will all surcharge material from phase 1 be used in phase 2 for backfill? If it is, may need to provide a note on the plans.	Yes for backfill and surcharge, the rest can be used on site at the fields. Material meets specifications Not Changed
LS009	C3.05 Gen. Note	Provide meaning of: track packed surcharge.	Provided in specifications Changed
L052	C3.05	Show ballast rock under surcharge. It would help seeing what is going on with this area.	Shown in surcharge plan and section Changed
RA 061	C3.06	Curb scupper refers to 2/C9.01 should be 3/C9.01. Provide correct reference and detail.	Corrected Changed
LS011	C3.06 L3.07	Looking left to right, Bay 2 provide correct curb elevations. t.c. showing a 15.95 may need to be 16.05 if 6" curbs (coordinate with landscape).	Corrected Changed
LS012	C3.06 L3.07	Looking left to right Bay 1 at the south end it is showing t.c. 15.53 and f.g 16.20, provide correct elevations for this area. (Coordinate with landscape).	Corrected Changed
LS013	C3.06	Provide correct detail for curb scupper (detail 2/C9.01 is shown) may need to be detail 3/C9.01 for curbs at south east corner rain garden.	Corrected Changed
LS014	C3.06 L3.07	Looking left to right Bay 4, provide correct grate elevations at the center of the bay. It is shown at 9.50 elevation.	Corrected Changed
LS015	C3.06	Provide correct sheet number to dike access road improvement note. (Showing sheet C7.03, looks to be C7.04).	Corrected Changed
LS016	C3.07	Add sheet C7.04 to dike access road improvement note.	Added Changed
LS018	C3.07 L1.06 L1.07	General Note: Would it help if the soft trail was in the center of the dike access road, so it would not be driven on as much?	Layout per landscape architect Not Addressed - Not Found!
LS019	C3.07	Provide correct detail number for dike ditch and road show at southwest area on plan. (showing 1/C9.0x)	Corrected Changed
LS020	C3.07	General note: provide and coordinate	Coordinated Changed



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	C3.06 L2.07 L2.05	with landscape all dimensions, radius, etc. for all road and parking lots.	
LS021	C3.07 L3.07	Provide detail for 0.20' road access reveal and look at the southeast road access. If needed, provide correct elevations for that area (showing t.c. at 16.78 and 16.48). coordinate with landscape.	Detail has been added to the plans Elevations have been revised Changed
LS022	C3.07 L3.07	Provide correct f.g elevations for access road on southeast of parking lot. (showing f.g. 15.32 and 15.16).	Elevations have been revised Changed
LS023	C3.07 L3.07	Provide correct t.c. elevation that is showing as t.c. 15.27 at the south east center of parking lot. Coordinate with landscape.	Corrected Changed
LS030	C3.07 C2.07	General Note: provide and coordinate all dimensions, radius, etc. for all parking lots and road with landscape.	Coordinated Changed
LS024	C3.08 L3.07	Will the grading elevation of 16' shown by the southeast access road work in this area? If not provide correct elevation and coordinate with landscape.	This contour has been revised. Changed
LS025	C3.10	Will the t.c. /f.g. elevation 14.92 shown on the east side at the bus loop road work in this area? If not, provide correct elevation and coordinate with landscape.	Elevation has been revised Changed
RA 062	C3.11	Drawing refers to 2/C9.01 for curb scupper should be 3/C9.01. Provide correct reference and detail.	Corrected Changed
LS026	C3.11	Provide correct curb scupper detail number (showing 2/C9.01).	Corrected Changed
RA 063	C3.14	Refers to 1/C9.04. No correct. This maybe 7/C9.05. Provide correct reference and detail.	Corrected (detail 1 of 9.05) Changed
LS002	C3.14	Provide correct detail number for section view looking west at the south side of detention pond, (detail 1/C9.04 looks to be 2/C9.04).	Corrected Changed
LS017	C3.14	At south end of site, move the construction notes and details to correct areas in plans.	Corrected Changed
LS027	C3.14	Provide correct sheet number for dike access road detail. (showing sheet C9.04).	Revised Changed



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RA 064	C4.02	Drawing refers to ARCH Pipe. Provide reference to details for this item. Should refer to 4/C9.07.	Provided Changed
LS028	C5.02	It is showing a 10" by 18' long perf. pipe between drain basin and stm.MH. it is showing a 15" perf. pipe at the north side of the stm. MH. Correct size of pipe for the area.	Pipe sizes updated. Changed
LS029	C5.03 Gen. Note	Provide details for stm.MH, stm CB and stm. CO.	Details callouts provided. Changed
LS030	C5.03	There is no pipe going west out of stm.CB16. provide correct direction of 12" pipe going out (showing it going out to the west).	Callout updated. Changed
LS034	C5.04 C3.08	Provide grate finish elevation for area drain in south east runoff flow direction pond and IE for pipe. (Coordinate with landscape).	Area drain elevations provided on landscape architect plans. Changed
LS035	C5.04 C3.08	Provide area drain grate finish elevations and IE for pipe in the southwest runoff flow direction pond. (Coordinate with landscape).	Area drain removed per landscape architect. Changed
LS031	C5.05 C5.03	Provide correct size and IE for pipe between stm. CB19 and stm. CB 16. Pipe shown is a 10" not 12".	Pipe size updated. Changed
LS038	C5.06	Provide the correct direction for the 8" and 10" pipe coming out of CB 24, 25 and correct IE for pipes. East is west and west is east.	Revised per comment. Changed
LS041	C5.07	Provide correct size for san line crossing over stm 8" north of stm CB27. Showing a 2" line and it looks to be a 6" line.	Pipe size updated. Changed
LS042	C5.07 C6.07	Is the IE correct for the san line crossing over the 8" stm line north of stm CB 27? They look like they may hit in the center of the other.	Pipe size updated. Changed
LS046	C5.07	Provide correct size of stm pipe shown for utility crossing at stm 6" crown 13.31. it is a stm8".	Pipe size updated. Changed
LS047	C5.07	Provide outline of building in Alternate A-1.	Linework for alternate shown. Changed
LS048	C5.07 C5.08	Coordinate 15" (ST) pipe to the pond. Provide correct size of pipe.	Pipe size updated. Changed



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RA 065	C6.02	Provide thickness for 5' x 4' concrete pad.	Concrete pad revised to show 4'x4'. City standard detail called out. Changed
RA 066	C6.07	Refers to 2/C9.06 for grease interceptor. This should be 2/C9.08. Provide correct reference and detail.	Reference updated. Changed
RA 067	C6.07	Refers to detail W-15/C9.19 this is not provided. It may be W14/C9.19. Provide correct reference and detail.	Reference updated. Changed
LS003	C6.07	Provide correct details for sewer pump station shown on sheet C6.07. Detail 2/C9.06 is for a drain basin. It may need to be detail 3/C9.08.	Reference updated. Changed
LS039	C6.07	Is the IE 14.92 from the building to grease interceptor to high? (It may be 12" + or-high).	Elevations given are from mechanical engineer. Not Addressed - Not Found!
LS040	C6.07	Provide correct detail sheet numbers for grease interceptor.	Reference updated. Changed
LS043	C6.07	Is there room for the W, FM, and stm lines to crossover south of stm MH E 60" with the IE the pipes have in this area? If not, provide new elevations.	One storm pipe was eliminated, and note added for force main to run under all utilities in this area. Changed
LS044	C6.07	Who and when will the FDC line be installed on the northwest side of the building? Add note on drawings to let Contractor know.	Note has been added. Changed
LS045	C6.07	Is there room for the utility cross over on the north side of the building for san and stm lines? They look to have about 3/8" between them. If needed provide new IE for pipe lines.	Pipe slopes updated to provide more clearance at crossing. Changed
RA 068	C6.08	Refers to 2/C9.06 for pump station. This is wrong. It should be 3/C9.08.	Reference updated. Changed
RA 069	C6.08	Refers to check valve/Gate valve on 2/C9.06. This is not correct. Provide correct reference and spec section.	Reference updated. Changed
L055	C7.01	Coordinate 12" IE elevation for CB 1 with Inlet Table elevation. CB at 12.30 and Inlet Table at 12.65. Provide correct elevations.	Inlet table removed to remove duplicated information. Changed
L053	C7.02	Provide correct elevation for 12" pipe in CB 2. Inlet Table showing IE at 11.77 and at CB 7 is showing 11.62.	Inlet table removed to remove duplicated information. Changed



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L054	C7.02	Provide and coordinate correct grate elevation for CB 3 with inlet table. Provide correct elevations.	Inlet table removed to remove duplicated information. Changed
LS056	C7.03 C7.04	Coordinate IE elevations for CB 4,5,6,7, and 8 with Inlet Table. Provide correct elevations.	Inlet table removed to remove duplicated information. Changed
LS057	C7.03 C7.04	Provide and coordinate correct grate elevation for CB 4, 5, and 7 with inlet table.	Inlet table removed to remove duplicated information. Changed
LS058	C7.03	Provide correct detail number or letter for pedestrian ramps.	Provided Changed
LS059	C7.03 Gen. Note	Provide all needed details for stm MH 4 and 5. Will there be demo work around MH 4 and 5? If there is, provide note on plans or provide a demo plan for the site.	4 and 5 are curb return symbols Changed
RA 070	C8.02	Sign legend #1 refers to sign code R8.3. The sign listed on C9.11 is R7-1. Provide correct reference and detail.	Reference updated. Changed
RA 071	C8.03	Sign legend #14 is not shown on C9.10-C9.12. Provide sign R7-801.	Provided on detail 7, sheet C9.10. Changed
RA 072	C8.04	Sign #11 – there is no reference on plans to 5/C9.11.	Reference provided. Changed
RA 073	C8.05	Sign #1 should be R7-1 not R8-3. Sign #14 not shown on sheet. Provide sign R7-801.	Reference updated. R7-801 provided on detail 5, sheet C9.10. Changed
RA 074	C8.06	Note #2 not used on this sheet. Add symbol for location or remove note for clarity.	Note removed. Changed
RA 075	C8.06	Traffic arrow color is not provided on this sheet or C9.12.	Color added on note. Changed
RA 076	C8.06 Gen. Note	This electrical work needs to be coordinated with electrical plans. It is not shown or referenced on electrical site drawings. Contractor may miss this work when bidding.	Off-site electrical is provided solely in the civil plans. Not Changed
RA 077	C9.01	Refers on 5/C9.01 to sheet C9.21 for detail CC-1207. This should be sheet C9.22. Provide correct reference and detail.	Corrected Changed
RA 078	C9.01	6/C9.01 there is no reference on plans to this detail. Provide correct reference and detail.	This has been provided on the surcharge plan Changed
RA 079	C9.02	Provide reference on plans to these details. Add sections as needed to ensure	References have been provided on the plans Changed



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		good navigation of documents.	
LS049	C9.03 C5.08	Coordinate size of inlet pipe and IE shown in detail 1 and 3/C9.03 with sheet C5.08. Provide correct size of pipe and IE.	Corrected. Changed
LS004	C9.04	In detail 1/C9.04 is the 12" pipe elevation ok for the pond liner in this area? The pond liner looks to go down to EL. 9.20.	Control structure location revised. The contractor to seal penetrations per specifications. Changed
LS005	C9.04	Coordinate the L.F. of 12" pipe with sheet C5.10 and sheet 1/C9.04. is the station 0+86.43 and 0+98.50 correct for this area? It is showing 6 l.f. of pipe between the stations. Provide the correct dimensions station and l.f. of pipe if needed.	Stationing does not correlate. Stationing has been removed. Changed
L051	C9.04 C5.10	Is the 6.50 IE shown in detail 1/C9.04 correct for this 12" pipe in this area? Sheet C5.10 is showing it at 5.90 IE and is it a sewer outfall? If needed, provide correct IE and type of pipe outfall.	The IE is correct. Sheet c5.10 has been corrected Changed
RA 080	C9.06	Provide thickness of drain rock bed.	Note has been added. Changed
RA 081	C9.08	Provide correct reference to detail 3/C9.08.	Reference updated. Changed
MC004	C9.08 221343 E1.01	The spec section referencing the sewer lift station does not match C9.08. The E sheets need more information and details in reference to the sewer lift station	Specification coordinated with electrical engineer Changed
RA 082	C9.12	No reference on plans to detail T10-01. Provide correct reference and detail.	This detail has been removed Changed
RA 083	C9.21	Provide reference in electrical drawings to these street light details. Show all electrical work on electrical drawings.	Off-site street lights are shown only on civil plans. Not Changed
SN001	Div 23 Specs	Section 23 05 93—3.01 B—Remove Architect's spot balancing requirements as this is rarely actually done. Please add in commissioning requirements for TAB verification. Up to 10% of all air and Hydronic balancing will be spot checked. Please include the TAB firm's responsibilities for verification regarding commissioning activities.	Concur, will remove Architect's spot balancing and add the commissioning requirements. Changed
SN002	Div 23 specs	Section 23 05 95—3.01A— Please add in commissioning requirements for TAB	Concur, will add the commissioning requirements. Changed



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		verification. Up to 10% of all air and Hydronic balancing will be spot checked. Please include the TAB firm's responsibilities for verification regarding commissioning activities.	
SN003	Div 23 specs	Section 23 08 00—Coordination subsection B 2d; will the requirement to install P/T plugs at each water sensor be included in the actual HVAC piping section? Contractors may miss this installation requirement if it is not included within their own specifications section.	Concur, will add the requirement to install P/T plugs at each water sensor to section 23 20 00. Changed
SN004	Div 23 specs	Section 23 09 00—H1; is it realistic to store every EMCS point for five years? This would require a huge amount of server space. Also, no mention of how often points will be required to be polled.	Yes, it is the intention to have the contractor provide a web based server platform with adequate storage. Not Changed
SN005	Div 23 specs	Section 23 09 00—I1; Does the maintenance staff at Woodland School district utilize pagers? We suggest adding or changing this requirement to include email notification or cell phone texts for alarm notification.	Concur, will add email notification and cell phone texts and a requirement for the contractor to coordinate with the owner for type desired. Changed
SN006	Div 23 specs	Section 23 09 00—3.01C—should subsection 1a be stricken with a line through it?	No, will correct this. Changed
SN007	Div 23 specs	Section 23 09 00—3.05C mentions section 01 65 00 regarding commissioning duties. This section does not exist. Should it be referring to section 01 91 00 instead?	Yes, will revise reference to 01 91 00. Changed
SN008	Div 23 specs	Section 23 64 00—2.05—is the CoolLogic Control system proprietary to one Air Cooled Modular Chiller manufacturer? There are two manufacturer's named. Is there a similar control system for the other manufacturer listed as acceptable?	Concur, will revise section to include "or equivalent" with respect to proprietary systems. Changed
SN009	Div 23 specs	Section 23 64 00—2.06—Does ClimaCool provide water testing for all manufacturer's equipment? What if Multistack is used on this project?	Concur, will revise section to for the contractor to provide water testing as required per the manufacturer's requirements. Changed
SN010	Div 23 specs	Section 23 73 00—2.03 F mentions the wheel media and latent efficiency. We	Sensible wheels are being used. Section will be revised to reflect this.



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		were under the impression this would be a sensible heat recovery wheel only, as desiccants have caused odor issues in this climate.	Changed
MC002	E0.02 E2.22	Fixture type TF1 is not on the fixture schedule.	Revised referenced callout for theatrical lighting. Changed
MC003	E0.02 E1.16	Provide description and manufacture model number for fixture type PL4.	Concur, will provide manufacturer and model number. Changed
CB-038	E-0.02	Light fixture schedule for pendant fixtures PL 1, 2, & 3 says see plans for mounting heights but heights aren't always shown on RCP or lighting plans.	Mounting heights for all pendant and wall mounted fixtures will be noted. Changed
MC049	E0.02B M0.03	The mechanical schedule on M0.03 does not match the schedule E0.02B	Concur, will coordinate with Mechanical Changed
MC050	E0.02B M0.02	The mechanical schedule on M0.02 does not match the schedule on E0.02B.	Concur, will coordinate with Mechanical Changed
MC009	E1.01	Show location, circuits and control conduits to all scoreboards.	Concur, will add Changed
MC010	E1.01	Reference the proper sheet numbers for the enlarged plans.	Will revise to E3.51 and E4.51 Changed
MC015	E1.01 C7.06 C8.08	Coordinate electrical sheets with civil sheets.	Off-site street lights are shown only on civil plans. Not Changed
MC030	E1.01 L1.05 G0.03B	The electrical sheets should show the fence and the required exit lighting on or at the gates.	Will coordinate with Landscape and Civil Changed
MC012	E2.11 E6.02	Provide circuit for lighting in rooms 1101, 1100, 1111, 1113.	Added circuit, (1H05-3) link to lighting Changed
MC019	E2.11	Provide circuit to exit light.	Concur, has been added Changed
MC020	E2.12 G0.03B	Coordinate exit light location.	Concur, will coordinate Exit sign locations with G0.03B. Changed
MC021	E2.12 G0.03B	See above.	Concur, will coordinate Exit sign locations with G0.03B. Changed
MC022	E2.12 G0.03B	See above.	Concur, will coordinate Exit sign locations with G0.03B. Changed
MC023	E2.12 G0.03B	See above.	Concur, will coordinate Exit sign locations with G0.03B. Changed
MC013	E2.13	Provide circuit for fixtures type SF1	Concur, added circuit.
MC024	E2.13 G0.03B	Coordinate location of exit sign.	Concur, will coordinate Exit sign locations with G0.03B. Changed
MC025	E2.13 G0.03B	See above.	Concur, will coordinate Exit sign locations with G0.03B. Changed
MC026	E2.13	See above.	Concur, will coordinate Exit sign



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	G0.03B		locations with G0.03B. Changed
MC038	E2.14	Show locations of theatrical dimming rack, controls and fixtures.	Concur, locations added with reference to detail sheet E7.11. Changed
MC027	E2.15 G0.03B	Coordinate location of exit sign.	Concur, will coordinate Exit sign locations with G0.03B. Changed
MC028	E2.16 G0.03B	Coordinate location of exit sign.	Concur, will coordinate Exit sign locations with G0.03B. Changed
MC029	E2.16 G0.03B	See above.	Concur, will coordinate Exit sign locations with G0.03B. Changed
MC031	E2.21 G0.04B	Coordinate location of exit sign.	Concur, will coordinate Exit sign locations with G0.04B. Changed
MC032	E2.21 G0.04B	See above.	Concur, will coordinate Exit sign locations with G0.04B. Changed
MC033	E2.21 G0.04B	See above.	Concur, will coordinate Exit sign locations with G0.04B. Changed
MC042	E2.21	Show power for or label ceiling fans in 2200B.	Concur, will add power connection referencing the PF's in the mechanical equipment connection schedule on E0.02B Changed
MC041	E2.22 A6.02 A6.03 A8.22	Show mounting detail and interior elevations for the commons ceiling. Show lighting, duct work, fans, girders and acoustical clouds.	Will coordinate with Architect Changed
MC043	E2.22	Show power for or label ceiling fans in the commons.	Concur, will add power connection referencing the PF's in the mechanical equipment connection schedule on E0.02B Changed
MC018	E2.23	Do the light fixtures in room 2401 need to be dimmed?	Yes, by integral photosensor in fixture type RL3P. Not Changed
MC044	E2.23	Show power for or label ceiling fans in corridor 2400.	Concur, will add power connection referencing the PF's in the mechanical equipment connection schedule on E0.02B Changed
MC034	E2.24 G0.04B	Coordinate location of exit sign.	Concur, will coordinate Exit sign locations with G0.04B. Changed
CA050	E2.XX M7.01 M7.03 M7.04	Suggest adding a note for the electrical contractor to each Lighting Plan page (2.XX) to match the Miscellaneous Control Item on M7.01 note 9C: "Occupancy Sensors: EC to provide an auxiliary contact on each occupancy sensor for connection and monitoring by	Specified Occupancy Sensor has auxiliary contact per 26 50 00. Not Changed



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		the EMCS.” This is required for the building sequence of operation on M7.03 and M7.04 to be achieved (All AHUs, HRUs, and EF-24).	
MC035	E3.11 A2.11	No roll up door at this location.	Concur, will revise callout. Changed
MC036	E3.11 A2.11 A10.00	The door at this location is a vertical lift door, not a roll up. Verify location for power.	Concur will coordinate power and control location with Arch. Changed
MC014	E3.12	Show power requirements for both the base bid seating and the alternate seating.	There does not appear to be a difference in the electrical requirements, but will coordinate with Architect. Changed
MC037	E3.13 A2.13 A10.00	As above.	Concur, will revise callout and will coordinate power and control location with Arch. Changed
CA041	E3.15	EF-15 in Laundry 1601 is not shown on the power plan E3.15	Concur, Will coordinate final equipment locations and power requirements with Mech. Changed
CA042	E3.16	EF-20, EF-21, EF-22, and EF-23 are not shown on the power plan E3.16	Concur, Will coordinate final equipment locations and power requirements with Mech. Changed
MC039	E3.16	Show locations of and power for the batting cages.	Concur, will coordinate locations and requirements with Arch. Changed
MC040	E3.16 A3.26	Show the location of and power for the gym divider curtain.	Concur, will coordinate locations and requirements with Arch. Changed
CA044	E3.22	PF-3 and PF-4 located in Commons 1600 (2 nd Floor Ceiling) are not shown on the power plan, E3.22.	Concur, will add power connection referencing the PF’s in the mechanical equipment connection schedule on E0.02B Changed
CA045	E3.26	HRU-17 located in Mech 2700 E.3.26 is part of alternate bid A-1. Suggest adding a note or including a separate sheet for the alternate bid.	Alternate bid item descriptions are shown with the electrical connection requirements on E0.02B. Changed
CA043	E3.41	ERU-1 and DC-1 (requiring 480 volts) located in the Grandstand are not shown on the power plan, E3.41.	Concur, Will coordinate final equipment locations and power requirements with Mech. Changed
CA046	E4.26	HRU-15 is labeled as HRU-18 showing duct-smoke detectors in Mech 2700 on E4.26.	Concur, Will revise to be HRU-15. Changed
CA049	E5.01 E5.02 E7.01	Lighting control panels 1, 2 and 3 on E7.01 are not located on the 1-line power and panel diagrams, E5.01 & E5.02.	No, they are not intended to be on one-line diagram, but are shown in the following locations: LCP-1 –



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		Should they be and where are they located in the building?	RM1607 on E2.15, LCP-2 – RM 1201 on E2.11 and LCP-3 – RMA001 on E2.41. Changed
MC046	E5.01	End-use metering is required as of June 1, 2013. See WAC 51-11-4093 and other associated WAC's. Might be able to accomplish this through the energy management system if it meets the WAC.	Building was permitted prior to June 1, 2013. Not Changed
MC047	E5.01 E6.01	The spares shown on the one line are not shown on the panel schedule.	Concur, will add to match. Changed
MC048	E5.02 E6.01	Show feeder to greenhouse from SDB4.	Concur, the feeder has been added. Changed
MC011	E6.02 E2.11	Incorrect circuit designation at 1HO7-3.	Concur, will correct. Changed
MC045	G0.00C	The cover sheet (conceptual drawings), show what appears to be a light fixture in the commons in front of the block wall. Is this to be or not to be?	Image has been replaced Changed
MC001	G0-01C E0.01	Index does not match sheet number.	Corrected Changed
RA 093	Gen. Note	Suggest that the geotechnical report be placed in the Project Manual, Division 1.	The report of far too large. Copies are available for bidders at the same location as the contract documents. Not Changed
RA 094	Gen. Note	Suggest meeting with geotech, structural, and civil to determine what Contractor could be expected to do on site between Nov. 1 st and Dec. 31 st .	The constraints for work have been defined in the contract documents. Beyond that the contractor needs to be responsible for determining how he will execute and sequence the work. Not Changed
RA 095	Gen. Note	Suggest that the allowance or an alternate be given for delays due to the wetlands permit not being issued yet.	Disagree. Adding an allowance for delays sets the stage for a claim for delay and an argument that the Owner fully expected wetland delays thus the allowance. Not Changed
RA 096	Gen. Note	Dewatering of the Utility trenches will be required based on the information provided in geotechnical report. Ground water was found at 2' in August 2012. Drawings and some notes in report suggest "may" be required. This is a potential change order with large dollar impact. Suggest revisiting this section and	Dewatering is means and methods. It is the contractor's responsibility to determine what sequence in which he will execute the work and to determine what temporary measures will be required to allow him to do so. Not Changed



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		<p>geotech report and come up with a better plan to make the Contractor responsible for dewatering. Due to the magnitude of the water of site and proximity to the Lewis and Columbia Rivers there could be a large cost for this activity and the General Contractor should understand that it is his responsibility. He will however want additional dollars if the amount is larger than he bid and/or larger than could be reasonably expected. The geotech may have some idea of what would be needed and that could be shared during project pre-bid meetings.</p>	
RA-151	Gen. Note Landscape	<p>Provide detail for protection of existing trees and plants. Add references to landscape drawings to details.</p>	<p>Shown on civil drawings Not Found!</p>
RA-152	Gen. Note Geotechnical report	<p>Page 7 refers to old tanks, wells, and foundations. Are there known tanks, wells, or foundations on the property? If so, locate on plans. If unknown, this is probably too weak a statement to prevent change order for removal.</p>	<p>Not addressed - Not Found!</p>
RA-154	Gen. Note	<p>Non-potable water system is not needed and adds costs to the project. If the project comes in over budget, suggest this might be a VE item.</p>	<p>The non-potable water system is required per WAC 246-290-490. Design approach is the simplest arrangement for the District to maintain. Additional RPBP's would be required in occupied areas requiring additional drain locations and maintenance points. Not Changed</p>
RA-155	Gen. Note Structural	<p>The grandstand mfr will not size the length of the anchor bolts because of the unknown soils conditions. They will provide all calculations for determining loads and length in relation to the soils condition. They will also provide the diameter of the anchor bolts. Structural will need to size the bolts.</p>	<p>Not addressed - Not Found!</p>
RA-156	Gen. Note	<p>Coordination of the interior elevations with the electrical drawings show that work is needed in this area. Designers</p>	<p>Changed</p>



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		should look at all power needs and match with electrical engineer.	
RA-157	Gen. Note	Foundation drains are not shown on plumbing or civil. There are from the wall sections some interior foundation drains needed. This item should be coordinated with civil, structural, plumbing, and architectural.	Changed
RA 097	Gen. Note Civil	Provide location for Contractor lay down area and worker parking.	Contractor will have full use and control of the entire site and can use whatever portion they wish for laydown Not Changed
MC051	General Note	Provide power and connections for faucets and flush valves if required.	All flush valves are manual type. Lavatory faucets are self powering (for the flow of water) and do not require external power. Not Changed
SN020	General Sequence of Operation for HRU's	In order to protect the Energy Recovery Wheel from loading up on a single spot, when the wheel is not running, is there a provision to jog the wheel periodically to protect it from contaminants, moisture etc building up on a single area?	Per the manufacturer the sensible only type wheels are not as susceptible to the build up of contaminants as a "total enthalpy wheel". If directed by the district we can add provisions to jog the wheel as described. This is \$750 option from the manufacturer. Not Changed
RA 084	L1.01 L6.09	Refers to 3/L6.09 for Fine Aggregate Paving. Detail says "Not Used". Provide correct reference and detail.	Done. Detail added back in. Changed
CB-005	L-1.02	Indicate limits on 20' high chain link fence similar to other fence height limits @ competition baseball field.	Done. Changed
RA 085	L1.04	Long jump detail 1/L6.06 is not referenced on this plan and should be included for good navigation of documents.	Done. Changed
RA 086	L1.04	Refers to trench drain detail 7/L6.09. This is not correct and maybe 3,4/L6.04. Provide correct reference and detail.	These are two different types of trench drains. D-zone trenches labeled as "track trench drain" to clarify. Changed
RA 087	L1.05	Refers to 18 permanent bollards (5/L6.01). This is not correct. Provide correct reference and detail.	Note deleted. Number and type of bollards already shown on plans with notes 15 and 16. Changed



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RA 088	L1.05	Lines from symbol Note 16 only goes to 8 not 9 bollards. Show line to other bollard or remove bollard and change count.	Added line to 9 th bollard. Changed
RA 089	L1.05	Count is wrong for bollards in this area and should be 5 and 2 as shown. Correct and provide the right number and coordinate with arrows.	Done. Changed
RA 090	L1.05	Note shown twice for alternate # A-1. Only show once and cleanup drawings.	Done. Changed
RA 091	L1.07	Refers to Riverstone along edge of pavement. Detail 4/L5.10 is not provided as there is no sheet L5.10. Provide correct reference and detail.	Detail is 4/L5.09. References corrected. Changed
LS010	L1.07	Provide sheet L5.10 with detail 4/L5.10.	Detail is 4/L5.09. References corrected. Changed
RA 092	L1.09	Refers two places to see L1.09 for alternate #A-1. Only show once and cleanup drawings.	Done. Changed
RA 098	L2.03	Provide all radius points for soft trail.	Comment noted. No action taken. Not Changed
RA 099	L2.03	Cleanup drawing dimensions and make readable.	Dimension plans will be reviewed for clarity. Changed
RA 100	L2.04	Provide detail for brass benchmark.	We will add this detail. Changed
RA 101	L2.04	Provide measurements in US/Imperial Standard not metric.	Done. Changed
LS050	L2.04	General Note: provide all dimensions needed for all stm area drains, stm CO, and etc. on landscape plans. Coordinate with Civil.	Dimensions for storm area drains in pavement where grade is critical were added. Changed
RA 102	L2.05 L2.07	Dimensional walls and provide all radius points etc.	Okay. Changed
LS033	L2.05 L2.04	General note: it would help to have all dimensions in inches, not inches, decimals and fractions.	We will simplify where possible. Changed
LS060	L2.08	Provide start points and or dimensions of radius for radius with 8degrees46'39", 14degrees 52'25", 11 degrees 47'34", 30degrees 21'33", 53 degrees 24'52", 39 degrees 8'38", 64 degrees 31'48", and 75 degrees 4'23".	Done. Changed
RA 103	L2.09	Where is the building design for the Batting Cage with roof? Provide reference to that sheet.	Done. Sheet reference: A2.61. Changed



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LS061	L2.09 L2.05	General Note: provide dimensions for starting points for all angles and radius for baseball, football fields, etc.	Done. Changed
LS032	L3.05	Provide a note for the number 1 and 3 that are circled by area drains.	Landscape grading notes are included on sheet L3.01. Not Changed
LS036	L3.05	General note: provide top of drain and cleanout elevation for all drains and cleanouts. Coordinate with Civil.	City of Woodland standard detail (D-2.3/C9.16) shows relationship between top of cleanout and paving or landscape. Top of drain elevations given. Not Changed
LS037	L3.05	General note: provide all abbreviations in landscape legend. Tad, taw, etc.	Updated legend to include all abbreviations. Changed
RA 104	L4.01	Refers to 4, 5/L11. This should be 4,5/L4.11. Provide correct reference and detail.	Corrected. Changed
RA 105	L5.01	Plant Material Legend refers to 1/L6.09. This detail is labeled "Not Used". Provide correct reference and detail.	Reinforced lawn was removed from scope. Hatch, note, and detail reference were deleted from legend. Changed
RA 106	L5.01	Planting Plan Notes #3, and #4 refer to 4/L5.10. There is no sheet L5.10 provided. Provide correct reference and detail.	Corrected to 4/L5.09. Changed
RA 107	L5.02 L5.08	What materials go here? Provide note.	Hardscape materials (including infield soil) are noted on the Construction plan. (L1.01, L1.02, L1.08) Not Changed
RA 108	L5.09	Provide reference on plans to details 1, 2, 3, 5, and 6 to show locations. Provide reference on plans for good navigation of documents.	Added references to Planting Legend. Changed
RA 109	L6.04	Missing reference to detail. Provide correct reference and detail.	Added detail reference. Changed
RA 110	L6.05	What material and dimension is Discus Ring made from? Provide note and size.	Noted in specifications. Not Changed
RA 111	L6.05	Details 4, 5, 6/L6.05 have no references on the plans. Provide reference on plans for good navigation of documents.	Referenced on sheets L1.04 and L1.09 Changed
RA112	L6.06	There is no reference to detail #1. Provide reference on plans for good navigation of documents.	Added detail reference. Changed



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CA032	M.4.26	Suggest repeating the note referencing exhaust and outside air duct location where it meets the mechanical platform on M4.26.	Will revise/correct as required. Changed
RC020	M0.02 A2.41	Sheet M0.02 Equipment Schedule 22 33 00 lists HWT 7 and Equipment Schedule 22 11 23 lists CP 7 location as A001, Sheet A2.41 lists room as A101, please coordinate drawing room numbers.	Concur, will revise/correct. Changed
RC071	M0.02 M6.01	Sheet M0.02, 22 40 00 Kitchen Plumbing Fixture Schedule Commercial Dishwasher notes call for hot water at 140deg. Sheet M6.01 Kitchen Dishwasher Piping Diagram and Sheet FS1.01 Kitchen Equipment Schedule call for 120deg supply with booster heater. Specification Section 11 40 00 Item 61 Specifies Dishwasher with Booster heater. Please review and revise as appropriate.	Concur, will revise the commercial dishwasher note to 120°F. Changed
RC073	M0.02 M6.01	Sheet M0.02 22 34 36 Gas Fired Water Heater Schedule HWT 6 Kitchen Water Heater Notes does not include Note 2. Note 2 specifies setting water heater temperature at 140deg. Typically the water heater is set to 140deg to compensate for the heat loss through the TMV (appx. 10-15deg). HWT 6 has TMV 6 and feeds the kitchen sinks and dishwasher. HWT 6 should be set to 140deg same as all other gas fired water heaters in the facility. Please review and review as appropriate.	Concur, will revise storage temperature to 140°F. Changed
CA001	M0.03	Note 8 is not used in the HRU schedule. Should it be added to any unit(s)?	Concur, will add note 8 in reference to HRU-11, 13, and 18. Changed
CA002	M0.03	The occupancy sensor in the restrooms may cycle off regularly throughout the day. Will the ceiling panels provide heat quickly enough if units are off much of the day?	Due to the infrequent usage this is the intent as an energy savings, i.e. do not heat the space when it is not being used. The cycle time on the occupancy sensors is 30 minutes. The radiant panel will quickly provide warmth to the occupants. Not Changed
CA011	M0.03	Radiant ceiling panels RH-X and unit heaters UH-X do not appear to have any	Yes, this is the intent and was item M-5 from the VE analysis. Due to



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		building automation control or monitoring. Local thermostats and occupancy sensors only. Is this the intent?	infrequent usage, it was decided not to utilize the building automation system for the equipment in the grandstand as a cost savings. Not Changed
SN018	M0.03, M7.04	The sequence of operations identifies Minimum DCV damper positions/airflow rates for the applicable HRU's. HRU-13 does not have the minimum DCV design airflow listed in the air-to-air HRU Schedule. Please provide the CFM value on sheet M0.03.	Concur, will add the DCV design value. Changed
CA059	M0.04	The AHU equipment schedule lists AHU-17 as an AAON Heat Recovery Unit according to the model number noted (M2H018). Should this actually be placed on the HRU mechanical equipment schedule with a new equipment ID?	No, the M2H018 model number designates the "M2" (Aaon series), "H" (horizontal configuration), and 018 (unit size). The requirement for an energy recovery wheel is set by which schedule the equipment is specified. Not Changed
CA013	M0.04, M7.03	Note 3 on M0.04 calls out pre filters and final filters. The schematics on M7.03 show one filter and one differential pressure sensor. Should there be two filters and two DP sensors?	The pre and final filters are next to each other and it is felt that one DP sensor is sufficient. Not Changed
CA004	M0.05	"Heat" is spelled with a typo.	Concur, will revise/correct as required. Changed
CA003	M0.05/ M7.02	Note 8 says to "provide with Fulton Modsync boiler sequence". It appears that the Modsync Fulton controller is a "Modbus" protocol controller. The building automation system is BACnet. It can be very challenging or impossible for Modbus controllers to integrate with a BACnet system. Specs call out a Honeywell SOLA controller.	Per the manufacturer's literature, the Modsync Boiler Sequencer is BACnet compatible. This will be used for the base bid (two) boiler system. The Honeywell SOLA controller will be used for the alternate bid (single) boiler system. Please reference the schedule notes as well as section 23 52 33. Changed
CA005	M0.06	Ceiling Fan control sequence states a minimum and maximum value with 0-10VDC modulation speed control. How will minimum be defined for TAB/Controls? Sequence is vague.	The minimum speed will be initially set at 25% and field adjusted as required in the field. Not Changed
RC051	M1.01 M2.05 M2.46	Sheet M1.01 References Bid Alternate 1 Ground Loop installation, Supply and return lines are labeled GLS/GLR, Sheets M2.05 & M2.46 label same lines as RL/RS	Concur, will revise/correct. Changed



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		which are Refrigerant Liquid and Refrigerant Suction. Please provide correct line labeling for clarity.	
RC001	M2.01	Sheet M2.01 gridline D/2 Island Sink appears to show a waste connection with ½" size label which should be domestic hot water.	Concur, will correct size label. Changed
RC076	M2.01 C6.03	Sheet M2.01 Gridline J shows Sanitary Sewer Line exit building at 5'10" below finished floor. Sheet C6.01 shows line at IE 11.55'. This appears to be an elevation miss of 7". Please review and revise as appropriate.	Elevation revised. Changed
RC099	M2.01 M2.11 M2.21	Sheet M2.11 does not show waste connections from M2.01 through to Lab sinks North in Room 2201 Sheet M2.21. Please review and revise as appropriate.	Concur, will add waste connections. Changed
RC011	M2.02 M2.12	Sheets M2.02 & M2.12 between gridlines H & G DWV line with no size call out	Concur, will add size call out. Changed
RC077	M2.03 C6.06	Sheet M2.03 gridline 8 shows 2" sanitary sewer out of greenhouse. Sheet C6.06 shows 6" sanitary sewer at that location. Is the sizing correct? Please review and revise as appropriate.	Concur, will review sizing and coordinate with the Civil Engineer. Changed
RC078	M2.03 C6.06	Sheet M2.03 gridline C/14 shows 4" sanitary sewer exiting building at 4'4" BFF and 2" sanitary sewer exiting at 3'0" exiting to Oil/Water Separator. Sheet C6.06 shows the two lines combining before Oil/Water Separator. Is this correct? Please review and revise as appropriate.	No, the two lines should not connect prior to the oil/water separator. Will coordinate with the Civil Engineer. Changed
RC086	M2.03 C6.06	Sheet M2.03 shows 1" CW line from Classroom North to the Greenhouse. The water line does not show on Civil. The line extends more than 5' from building, who has the trenching and installation responsibility? Please review and coordinate drawings.	Concur, will review and coordinate with the Civil Engineer. Changed
RC079	M2.04 C6.06	Sheet M2.04 gridline J shows 4" sanitary sewer exiting building at 3'8" BFF. Sheet C6.06 shows 6" sanitary sewer line at IE 13.42'. This appears to be an elevation miss of 11". Please review and revise as	Concur, will review and coordinate with the Civil Engineer. Changed



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		appropriate.	
RC002	M2.05	Sheet M2.05 gridline M/10 domestic hot water line shows in solid, not according to symbol schedule.	Concur, will revise line type. Changed
RC052	M2.05	Sheet M2.05 Construction Note 3 should specify Bid Alternate 1. Not clear on this sheet.	Concur, will clarify. Changed
RC080	M2.05 M2.46 M5.11 C6.07	Sheet 2.05 shows 4" water main entering building with reference to Sheet M2.46. Sheet M2.46 Enlarged Mechanical Room 1606 Plan does not show entering 4" water main. Entering main should show on enlarged plan for clarity. Sheet C6.07 and M5.11 show entering 6" fire main and exiting FDC line. These lines should appear on M2.05 and M2.46 for clarity and trade coordination. Please review and revise as appropriate.	Concur, will show the fire protection piping on sheet M2.05 and a reference to the piping on sheet M2.46. Lines shown on civil per coordination with mechanical Changed
RC096	M2.06 FS1.02	Sheet FS1.02 indicates two waste connections on North wall of Warewashing that do not show on Sheet M2.06 foundation plumbing plan. Please review and revise as appropriate.	Concur, will add missing waste connections. Changed
RC097	M2.06 FS1.02	Sheet FS1.02 indicates 3" waste connection to P17 Trough Drain. Sheet M2.06 appears to have only 2" waste connection to location of P17. Please review and revise as appropriate.	Concur, will revise connection size. Changed
RC095	M2.06 M2.16 FS1.02	Sheets M2.06 & M2.16 indicate three floor drains in Seryery 1602A along gridline M. FS1.02 does not show floor drains in the area. There is no apparent need for floor drains in those locations. Are they needed? Please review and coordinate drawings as appropriate.	Concur, will review with Kitchen Consultant and Architect and revise drains as required. Changed
RC081	M2.08 C6.04	Sheet M2.08 gridline Q shows 4" sanitary sewer exiting building at 3'11" BFF. Sheet C6.03 shows 6" sanitary sewer line at IE 13.69'. This appears to be an elevation miss of 8". Please review and revise as appropriate.	6" IE set at 13.39 for utility clearance Changed
RC021	M2.08 M2.18	Sheet M2.08 does not show domestic water service to grandstand building, C6.07 note calls for "see mechanical for	Concur, will coordinate with the Civil Engineer and add domestic water service to the grandstand building.



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		connection to building" please coordinate.	Changed
RC008	M2.11	Sheet M2.11 gridline Keynote 9 calls to drop condensate drain from Elevator Machine Room ICU3 to exit exterior wall at 6" above finished grade. Condensate should not exit exterior walls, this can cause multiple issues including drain line plugging from freezing and stains/mold & slime on wall, sidewalks and mow strips from moisture buildup. Condensate needs to be drained or pumped to appropriate sewer.	Condensate is being drained to a planted area. Piping will be installed with a downturned elbow so slime on the wall will not occur. Not Changed
RC058	M2.11	Sheet M2.11 gridline 5 at Health Room 1104 indicated domestic hot water supply branching from the recirculation line. This is not standard practice. Please review and revise as appropriate.	Concur, will review piping configuration and revise as required. Changed
RC010	M2.11 M2.12 M2.13	Sheet M2.11 at Northwest corner of room 1202 an apparent NPCW supply line for rooms 2401 & 2402 does not have a source connection. Line just appears from nowhere.	Concur, will review piping and revise so pipe routing is clear. Changed
RC003	M2.11 M2.41	Sheet M2.41 Detail 2 Laboratory 1209 plumbing connections to lab sinks not complete and do not show same connections as Sheet M2.11	Concur, will review/complete connections and coordinate between the two sheets. Changed
RC057	M2.11 M2.44	Sheet M2.11 Hot water supply and recirculation piping diagram to Toilet Room 1114 does not match Sheet M2.44 Detail 1 piping diagram. Sheet M2.11 indicates two HW supply and recirculation sets into TR 1114, Sheet M2.44 indicates one set. Please review and revise as appropriate.	Concur, Detail 1 on M2.44 will be revised to show two sets of piping. Changed
RC009	M2.12 M2.13	Sheets M2.12 & M2.13 gridline H domestic H & C water lines with no size callout	Concur, will add size callout. Changed
RC068	M2.13	Sheet M2.13 gridline A/14 shows hose reels fixture # P19 & P20 with no supply shown or identified. Please review and revise as appropriate.	Concur, will add water and air connections. Changed
RC016	M2.14 M2.44	Sheet M2.14 gridline J11 has domestic hot water line show that does not have	Concur, will correct. Changed



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		corresponding DHW line shown in Sheet 2.44 Detail 2	
RC063	M2.15	Sheet M2.15 gridline P11 shows Hot & cold water supply to wall hydrant. No fixture type identified. Please review and revise as appropriate.	Concur, will add fixture hot/cold hydrant callout. Note, the hydrant will be relocated to the west wall of Laundry 1601B. Changed
RC042	M2.15 M6.02	Sheet M2.15 Construction Note 1 refers to sheet M6.02 for NG pipe size. NG meter detail not found on Sheet M6.02	Concur, will add NG gas size riser will be added to the detail sheets (M6.xx). Changed
RC018	M2.18	Sheet M2.18, Grandstand Mechanical Room, Domestic hot water supply shown triple dash line, incorrect line type. Triple dashed line is for domestic hot water recirculation return. Should be double dash line for hot water supply.	Concur, will correct. Changed
RC019	M2.18	Sheet M2.18 Grandstand Mechanical Room, no detail call out for hot water tank piping.	Concur, will correct. Changed
RC062	M2.18 M2.43	Sheets M2.18 & M2.43 indicate only one Hose Bib/Wall Hydrant for the grandstand area. Is this adequate? Please review and revise as appropriate.	There will be four wall hydrants for the grandstand building. This will be clarified. Changed
RC022	M2.21	Sheet M2.21 Gridline H lines that appear to be NG & Air not labeled for type and size. All lines need to be labeled for clarity.	Concur, will correct. Changed
RC023	M2.21	Sheet M2.21 Science Lab 2202 South Wall Lines labeled as NG and Air with line type of Domestic Hot Water, need to label correctly.	Concur, will correct. Changed
RC024	M2.21	Sheet M2.21 Gridline H lines labeled as 1"NG with line type of Domestic Hot Water. All lines need to be labeled correctly.	Concur, will correct. Changed
RC025	M2.21	Sheet M2.21 along gridline 2 not labeled. All Lines need to be labeled for clarity.	Concur, will correct. Changed
RC026	M2.21	Sheet M2.21 along gridline 2 not labeled. All Lines need to be labeled for clarity.	Concur, will correct. Changed
RC027	M2.21	Sheet M2.21 Southwest corner Science Lab 2202 impossible to trace the piping. Labels, sizes, fittings and routing on top of each other. The area needs to be cleaned up for clarity.	Concur, will revise to provide clarity. Changed



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RC028	M2.21	Sheet M2.21 in three places around Science Lab 2202 lines appear from nowhere, they have domestic hot & cold water lime types, but do not appear to have a connection point or source. Need to clean up the drawing.	Concur, will revise to provide clarity. Changed
RC029	M2.21	Sheet M2.21 Gridline 2, NG and Air lines not labeled or sized. Need to be labeled for clarity.	Concur, will correct. Changed
RC030	M2.21	Sheet M2.21 Gridline 2, Domestic hot & Cold water lines not labeled or sized. Need to be labeled for clarity.	Concur, will correct. Changed
RC031	M2.21	Sheet M2.21 Mechanical Room 2209B does not have enlarged plan callout. No enlarged mechanical plan in drawing set. Installed water heaters not defined, separation of potable and non-potable water systems not defined. Need to provide detail for effective bidding and construction.	Concur, will add an enlarged plan for this area and clarify piping. Changed
RC032	M2.22	Sheet M2.22 gridline H Business Lab 2301, Domestic Waste line appears to connect to NG line. There is no clear termination point for waste line. Need to clearly separate lines for clarity.	Concur, will revise/correct. Changed
RC033	M2.22	Sheet M2.22 Gridline H Seating Area 2000A, 2" waste line dangling. Has no connection or directional change. Need to finish line or terminate appropriately for clarity.	Concur, will revise/correct. Changed
RC034	M2.23	Sheet M2.23 gridline C 13/14 Heating & Cooling water supply lines to AHU 4 not labeled or sized. All lines need to be labeled for clarity.	Concur, will revise/correct. Changed
RC035	M2.23	Sheet M2.23 gridline H Chemistry Prep 2401A NG and Air supply lines not labeled or sized. Lines need to be labeled on each sheet for clarity.	Concur, will revise/correct. Changed
RC066	M2.23 M2.45	Sheet M 2.23 gridlines A & 14 shows unidentified line with no origin or destination. Please review and revise as appropriate	Concur, will revise/correct. Changed
RC100	M2.23	Sheet M2.23 does not show waste lines	Concur, will add the waste lines for



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	M2.33	for condensate drains that should be included on sheet M2.33 per comment RC044. Please review and revise as appropriate.	the condensate drains. Changed
RC036	M2.24	Sheet M2.24 Construction Notes 1 & 2 not used on this sheet. Need to remove.	Concur, will remove notes. Changed
RC037	M2.24	Sheet M2.24 gridline H domestic hot water lines not sized. All lines need to be labeled on each sheet for clarity.	Concur, will revise/correct. Changed
RC038	M2.24	Sheet M2.24 gridline H domestic cold water line dangling. Has no connection or directional change. Need to finish line or terminate appropriately for clarity.	Concur, will revise/correct. Changed
RC039	M2.24	Sheet M2.24 HRU 7 & HRU 8 the HRUs have cooling coils and will need to have condensate drains.	Concur, will add condensate piping. Changed
RC040	M2.31	Sheet M2.31 Construction Note 1 "Route pipe through stiffener plate. Coordinate with structural". No reference to stiffener plate found in structural documents.	Structural to respond. Not Changed
RC041	M2.31	Sheet M2.31 gridline 2 Construction Note 1 call out missing for NG & Air piping through South Wall	Concur, will revise/correct. Changed
RC043	M2.32	Sheet M2.32 condensate drains not clearly shown for AHUs and HRUs. Need to define.	Concur, will revise/correct. Changed
RC044	M2.33	Sheet M2.33 condensate drains not clearly shown for AHUs. Need to define.	Concur, will revise/correct. Changed
RC045	M2.34	Sheet M2.34 Level 2 Plumbing Plan – Western Platform, no floor drains or condensate drains shown for AHU 45 or HRU 17. Please show condensate removal.	Concur, will revise/correct. Changed
RC048	M2.34	Sheet M2.43 Level 1 – 1400 Area piping detail, Northwest corner OP/PT 1401A has extra sanitary waste line segment.	Concur, will revise/correct. Changed
RC004	M2.41	Sheet M2.41 Detail 2 Art Classroom 1203 missing NPCW connection to fixture above three locations.	Concur, will revise/correct. Changed
RC005	M2.41	Sheet M2.41 Detail 1 Art Classroom 1202 incomplete NPHW line	Concur, will revise/correct. Changed
RC006	M2.41	Sheet M2.41 Detail 1 Art Classroom 1202	Concur, will revise/correct. Changed



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		appears to be air line without label.	
RC007	M2.41	Sheet M2.41 Detail 1 Art Classroom 1202 multiple connections to above without label or notes	Concur, will revise/correct. Changed
RC065	M2.42	Sheet M2.42 indicates air and water drops per Construction Note #2. Associated air & water supply lines not shown on sheet.	Concur, will add. Changed
RC072	M2.42	Sheet M2.42 Level 1 Kitchen, pipe sizing not complete on drawing. Please review and revise as appropriate.	Concur, will add sizing/notes for clarity. Changed
RC098	M2.42 FS1.02	Sheet FS1.02 calls for (2) ¾" gas connections to Fixture P14 Double Stack Combi Oven/Steamers. Gas lines for P14 not shown on Sheet M2.42 Kitchen Plan. Please review and revise as appropriate.	Concur, will add. Changed
RC064	M2.42 M6.01 M6.02	Sheet M2.42 Construction Notes #2 calls for Air Drop Detail on Sheet M6.01. Air Drop Detail is not found on M6.01, it is on M6.02. Please review and revise as appropriate.	Concur, will revise note #2 to correctly reference the detail. Changed
RC012	M2.43	Sheet M2.43 Detail 1 DW cold line along gridline H with no size call out	Concur, will revise/correct. Changed
RC013	M2.43	Sheet M2.43 Detail 1 need to complete DW cold line to connection along gridline 12	Concur, will revise/correct. Changed
RC017	M2.43	Sheet M2.43 Detail 2 Enlarged Grandstand Restrooms, Domestic Hot Water supply shown triple dash line, incorrect line type. Triple dashed line is for domestic hot water recirculation return. Should be double dash line for hot water supply.	Concur, will revise/correct. Changed
RC046	M2.43	Sheet M2.43 Construction Note 1 "Route pipe through stiffener plate. Coordinate with structural". No reference to stiffener plate found in structural documents.	Structural to respond Not Changed
RC047	M2.43	Sheet M2.43 Level 1 – 1400 Area piping detail, sanitary sewer line missing links. Gaps in line. Please complete drawing.	Concur, will complete piping. Changed
RC059	M2.43	Sheet M2.43 Detail 2 Level 1 – Enlarged Grandstand Restrooms, shows ¾" CW	Concur, piping is intended for hose bibs above. This will be clarified.



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		line up at gridline A4/AD. No continuation or fixture connection shown on other sheets. Please review and revise as appropriate.	Changed
RC060	M2.43	Sheet M2.43 Detail 2 Level 1 – Enlarged Grandstand Restrooms, shows 1-1/2” CW line at gridline A4. No continuation or fixture connection shown on other sheets. Please review and revise as appropriate.	Concur, piping will be continued on sheet M2.18. Changed
RC014	M2.44	Sheet M2.44 Detail 3 shows Keyed Note 1 callout. Keyed Note 1 not on sheet notes section	Concur, notes will be added. Changed
RC015	M2.44	Sheet M2.44 Detail 2 shows Keyed Note 2 callout. Keyed Note 2 not on sheet notes section	Concur, notes will be added. Changed
RC049	M2.44	Sheet M2.44 Detail 5 Toilet/Shower 1713B, unfinished hot water connection.	Concur, will revise/correct. Changed
RC050	M2.44	Sheet M2.44 Detail 3 Concessions 1702, undefined fixture South wall.	Concur, will add fixture callout for appliance connection. Changed
RC067	M2.45	Sheet M2.45 Detail 3 Mechanical 2409D shows domestic cold water line with no origin. Please review and revise as appropriate.	Concur, will revise/correct. Changed
RC053	M2.46	Sheet M2.46 Enlarged Mechanical Room 1606 Plan, need to complete drawing lines. Line segments not connected and overlapping.	Concur, will revise/correct. Changed
RC054	M2.46	Sheet M2.46 Enlarged Mechanical Room 1606 Plan – Alternate Bid M-1, need to complete drawing lines. Line segments not connected and overlapping.	Concur, will revise/correct. Changed
SN021	M3.11	Because a general exhaust fan, EF-7, is serving the Kiln room and likely on a normal occupied schedule, how will this space be relieved during non-occupied hours when the Kiln may be in use overnight? Having a dedicated exhaust fan for this space controlled via a reverse acting thermostat may serve it well and provide relief when there is no ventilation provided via the AHU serving the adjacent Art Classroom. There is no	Concur, a separate sequence of operation will be provided for this fan. Changed



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		separate sequence of operation for this exhaust fan.	
CA023	M3.11 M4.11	EF 1 in room Electrical 1210A is not shown on the ceiling plan. Expect to see CFM total and an inlet indication on M3.11 even if there is no ceiling grid in 1210A. Also cannot locate an associated balance damper.	Concur, will revise/correct as required. A balance damper is not required since the fan has a single outlet and speed control on the motor for balancing. Changed
CA038	M3.12	Could not locate the thermostat location for Commons 1600 associated with HRU-13 on M3.12.	Concur, will add. Changed
CA030	M3.13 M4.13	Transfer grills are shown for 1409A and 1409 on M3.13. Ductwork for transfer appears to be missing from M4.13.	Concur, will add. Changed
CA039	M3.16	Could not locate the thermostat location for Main Gym 1707 associated with HRU-11 on M3.16.	Concur, will add. Changed
CA052	M3.16, M4.16, M4.26	<p>The gym return grills should be located on the ground level shown on M3.16. The return chase up to the second level is located in the masonry shown. Note 4 is incorrect and an elevation note should be added to the grill on the north end on M3.16.</p> <p>The ductwork for the north end return shown on M4.16 appears to be incorrect if the ductwork is to connect to the vertical concrete chase on the second story where the HRU is located. Ductwork shown on M4.26 appears correct.</p>	<p>The return grille on the north end of the gym is at floor level and a note will be added calling out its elevation. The bottom of the return grille on the south end of the gym is at 14' AFF. Note 4 will be revised. See detail 2 on sheet A8.27. The ductwork for the north end return does not connect to a concrete chase. Changed Not Changed</p>
CA031	M3.22	Return grill cfm in the southwest corner of the commons has a "?" after the 12700 cfm callout on M3.22. The return air grill for the commons is expected to be on the first floor. In the current location, there is a double-door on the first floor below the grill.	As previously discussed, the return grilles in the commons and shared areas are not a ground level. To prevent stratification the ceiling fans will be used. Not Changed
CA040	M3.23	Could not locate thermostat for Electrical 2409C associated with EF-10 on M3.23	Concur, will add. Changed
CA019	M4.11	Room 1204 ductwork to diffusers not labeled (10 inch).	Concur, will add. Changed



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CA020	M4.11	Room 1202 ductwork to diffuser not labeled.	Concur, will add. Changed
CA053	M4.12	It appears that note #1 should be removed from M4.12.	Concur, will remove. Changed
CA029	M4.13	Balance dampers are not shown on some of slotted exhaust hoods in Industrial Tech 410 on M4.13.	Concur, will add. Changed
CA054	M4.13 M6.03	CNC Plasma Cutter Hood on M4.13 has a detail referenced (note #2) on M6.02. Detail is located on M6.03.	Concur, will revise sheet reference. Changed
CA055	M4.14	Construction Notes 1 and 2 do not appear to be used on M4.14.	Concur, will remove. Changed
CA056	M4.16 M6.03	Construction note #1 refers to detail on M6.03. Detail could not be located.	Concur, will add detail. Changed
CA021	M4.21 M3.21 A2.02	The walls shown for room 2100A Circulation on sheets M4.21 and 3.21 appear to be incorrect when compared to the architectural drawing A2.02 floor plan. If walls noted do not exist, diffuser location appears to be OK.	Concur, will review and coordinate with the Architect. Changed
CA024	M4.21	Science Lab 2208 indicates an extra relief between two exhaust louvers on M4.21 . Is this part of another building feature or should it be removed?	Concur, the louver sizes/locations have been revised and unneeded louvers removed. Changed
CA025	M4.21	Stair S01 shows and exhaust duct drop on M4.21. No diffuser is located on M3.21.	The duct drop shows a change in elevation to avoid structure. Not Changed
CA027	M4.21 M4.31	AHU-14 appears to have the outside air and exhaust air ducts location opposite of what they should be where they meet the unit. AHU-15 is an exact mirror and reflects the correct ductwork layout on M4.21 and M4.31	Units are not mirrored as the supply duct is at the south end of each unit. Section(s) will be added to clarify the ductwork in this area. Changed
CA028	M4.21	The two notes called out around J-6 are contradictory on M4.21. Actual design appears to be Supply Above, OSA Middle, Return Below. OSA mains are below the EA mains so OSA may need to remain in the middle or be below SA and RA.	Section(s) will be added to clarify the ductwork in this area. Changed
CA057	M4.21	Construction note 9 describes ducts penetrating ¼-inch seismic stiffener plates. Could not locate penetration details on the structural bracing details.	Structural to respond. Not Changed



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		Near grid line 2-H (M4.21), the 2 ducts combine for 8 square feet that would have to be removed from the stiffener plate. Is this ok or does a modification need made, like a thicker stiffener plate at this location? These penetrations need to be coordinated with Structural.	
CA033	M4.23	Supply and return duct location for AHU-40 is not well defined where the duct meets the mechanical platform. Expect to see similar layout to AHU-38. M4.23	Section(s) will be added to clarify the ductwork in this area. Changed
CA034	M4.23	Ductwork located between AHU-40 and HRU-9 is congested. At this particular section, there are 2 layers of exhaust duct (18 and 22 inches), outside air duct (18 inches), return air duct (22 inches high), and supply air duct (22 inches high). Total is 102 vertical inches or 8.5 feet.	Section(s) will be added to clarify the ductwork in this area. Changed
CA035	M4.23	Outside air ductwork size is not called out for duct serving AHU-29 and AHU-30 on M4.23.	Concur, will add. Changed
CA058	M4.23	See comment CA057 above. Are there any other locations on M4.23 where ductwork penetrates seismic stiffener plates?	Concur, will add all locations where stiffener plates are penetrated. Changed
CA036	M4.24	Suggest calling out the ductwork layers for AHU-25 where outside, return, and exhaust duct overlap. M4.24.	Section(s) will be added to clarify the ductwork in this area. Changed
CA037	M4.32 M4.23	Exhaust air ductwork joins AHU-23 in the incorrect spot on M4.32, per the corresponding supply and return air ducts for AHU-23 on M4.23. Suggest indicating the supply and return ductwork for AHU-22 and 23 on M4.32 to match ductwork on M4.23.	Concur, will correct the duct connections at the unit. Changed
RC083	M5.11 C6.07	Sheet M5.11 Riser Detail Construction Notes #12 states "See Civil drawings for piping continuation and devices to be installed in yard." Sheet C6.07 shows dashed line for FDC with note "FDC line by others location approx. for connection to Building, see mechanical plans.	FDC line is called out on civil plans. Not Changed



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		Information not complete. Please review and coordinate drawings.	
RC082	M5.12 C6.07	Sheet M5.12 Grandstand Riser Detail Construction Notes #12 states "See Civil drawings for piping continuation and devices to be installed in yard." Sheet C6.07 shows dashed line for FDC with note "FDC line by others location approx. for connection to Grandstands, see mechanical plans. Information not complete. Please review and coordinate drawings.	FDC line is called out on civil plans. Not Changed
RC069	M6.01	Sheet M6.01 Wall Hydrant Detail does not accurately reflect the installed fixture. Fixtures specified in Schedule Sheet M0.02 are wall box mounted. Detail is for surface mount. Please review and revise as appropriate.	Concur, will revise detail. Changed
RC070	M6.01	Sheet M6.01 Cleanout Details references Specifications 15412. Incorrect specification format, should be 22 13 00. Please review and revise as appropriate.	Concur, will correct specification reference. Changed
RC088	M6.02 22 11 19	Sheet M6.02 Emergency Thermostatic Mixing Valve Piping Diagram or Specification Section 22 11 19 Paragraph 2.08. The TMV outlet temperature setpoint is not specified. Please establish target outlet temperature. Please review and revise as appropriate.	Concur, will add outlet temperature setpoint. Changed
RC104	M6.02 23 11 00	Sheet M6.02 Natural Gas Equipment Connection Detail calls for Flexible Connection from piping to appliance. Specification Section 23 11 00 Natural Gas does not include a specification for the flexible appliance connector. Please review and revise as appropriate.	Concur, will add flexible connections to section 23 11 00. Changed
RC087	M6.02 M0.02	Sheet M6.02 Emergency Thermostatic Mixing Valve Piping Diagram reverences P-14C fixture, should be P-17 fixture per Sheet M0.02, 22 40 00 Plumbing Fixture Schedule. Please review and revise as appropriate.	Concur, will revise detail. Changed
CA009	M6.04	Both pumps are shown with one schematic. Suggest showing the pumps	Concur, will revise to show pumps specified. Changed



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		<p>piped separately, similar to the chiller secondary pumps on M6.05</p>	
CA010	M6.04	<p>A flow switch is not indicated on the main hot water loop. The chiller loop shows a flow sensor on M6.05. Should one be added to the heating loop?</p>	<p>The flow switch is not needed on the hot water loop. On the chilled water loop the flow meter is used to maintain minimum water flow through the chiller. Not Changed</p>
RC090	M6.06	<p>Sheet M6.06 Hydronic Diagram General Notes Item 22 Boiler Return Temperature Transmitter not identified on diagram. Please review and revise as appropriate.</p>	<p>Concur, will revise/correct. Changed</p>
RC091	M6.06	<p>Sheet M6.06 Hydronic Diagram General Notes Item 29 Differential Pressure Transmitter not identified on diagram. Please review and revise as appropriate.</p>	<p>Concur, will revise/correct. Changed</p>
SN011	M7.01	<p>We don't understand the way EF-24 is being utilized. The storage space beneath the stadium will use an occupancy sensor to energize the exhaust fan when the space is occupied. What happens when it's below freezing outside? Will an occupant remain comfortable with 500CFM of 32° F being drawn into the space without heating? There is no heat source for the space. We suggest using a timed switch, allowing the end user the option as to whether or not to ventilate the space. Often, the large roll up door may be open providing enough ventilation the EF does not need to run. Also, utilizing a timer switch ensures the fan is never left running when it's not necessary. Because this is a non-occupied space (the Architect reflects this as such in his drawings) we don't feel any codes apply regarding ventilating the space when someone enters it.</p>	<p>As suggested, a timer switch will be used. Changed</p>
SN012	M7.01	<p>If EF-24's operation is to remain based off a signal from the occupancy sensor, it is not shown on the drawing like it is shown for other fan systems utilizing occupancy sensors for HVAC control.</p>	<p>N/A, see response to SN011. Not Changed</p>
SN013	M7.01	<p>The #2 note on the control diagram for</p>	<p>Concur, will revise sequence to</p>



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		typical exhaust fan seems to contradict itself in that it first states the fans will be off during unoccupied and AM warm up yet it also states fans to be running when the AHU it is interlocked with is running during unoccupied and NHL/NLL sequences. Unless used as part of a night purge SOO, we recommend only allowing general exhaust fans to operate during occupied hours.	clarify exhaust fan operation. Changed
SN014	M7.01	The controls diagram indicates the initial setpoint for the manufacturer supplied T-stat be 60°F. BCE's 4.22.13 response to our early design review suggested the setpoint would be 68°F. Does the T-stat have end user adjustability?	The initial setpoint will be revised to 68°F. The T-stat does have end user adjustability however it will be covered with a clear plastic case to protect from vandalism (in the restrooms). Changed
SN022	M7.01	The sequence of operations reflected on sheet M7.01 seems to suggest the radiant heat panels and ERU-1 will not be connected to the DDC system due to the lack of necessary points to be displayed. Because of all of the plumbing in the concessions and toilets, how will this space be freeze protected? This is not included on the control diagrams.	The radiant panels and ERU are not connected to the DDC system (see response to comment CA011. Heat tracing will be used for freeze protection. Changed
CA047	M7.01 E7.01	Suggest including the lighting control diagram and panel schedule from E7.01 in the mechanical drawings control section M7.XX. This is valuable information that the mechanical/controls contractors will need. Should the gym be included on one of the lighting control panels on E7.01 as well?	Will include a reference to the lighting control diagram on sheet M7.01. Changed No, occupancy sensors with local override are to be utilized whenever possible including in the gym. Not Changed
CA048	M7.01 E7.01	The lighting control Miscellaneous Item #9 on M7.01 does not match what is shown for lighting control on E7.01. Suggest coordinating and updating note on M7.01 to match the panels and schedule that are being provided per E7.01. See comment "CA047"	Concur, will revise/correct as required. Note, only exterior lighting will be controlled through the EMCS. Changed
CA051	M7.01 E5.01	Power monitoring is required and referenced in the Miscellaneous Control Items note 9A: "EC shall provide output signals for the EMCS contractor to	Specification for digital customer metering is in 26 24 13. Will expand specification to include BACnet compatibility. Changed



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		<p>connect and monitor building power. Power is to be monitored and totaled daily, weekly, and monthly in Kilowatt Hours. See electrical plans for power meter location.”</p> <p>Note #7 on E5.01 reads “Digital display for customer metering”.</p> <p>Suggest expanding on that note to include that the power monitor provided must be BACnet compatible for integration with the EMCS. Who provides the monitoring device?</p>	
CA006	M7.01, M0.05	Suggest adding a note requiring a BACnet compatible controller with the unit.	ERU does not require connection to the EMCS. Not Changed
CA008	M7.02	Fulton condensing boilers operate most efficiently if paired (or multiple) units modulate together calling for a second boiler before increase in the “low” firing rate of the first boiler. Suggest modifying the sequence to match Fulton suggested sequence.	Concur, will revise the sequence to reflect the manufacturers suggested operation. Changed
CA007	M7.02, M0.05	Suggest adding a note requiring a BACnet compatible controller with the unit.	Concur, will add compatible controller with the unit. Changed
SN015	M7.02, E6.04	The controls diagram for the Class 1 Kitchen hood suggests using a single current sensor to monitor multiple pieces of equipment. However, reviewing the Panel schedules suggests the washer and dryer are also on KP2 where the kitchen equipment will be tied in. Using a single sensor on the feeder line will not work. Please coordinate with the electrical engineer or perhaps utilize a different sequence of operation based off an end user switch/schedule or the inclusion of multiple RIBS/current sensors from the kitchen equipment.	Current sensor will be installed at the hood on the conduit serving the kitchen equipment so current sensed will be from the equipment under the hood. Will coordinate with the Electrical Engineer on exact location. Not Changed
CA014	M7.03	Exhaust fans show current sensors “CS” on all exhaust fans. They are not shown on AHU or HRU control schematics on M7.03, M7.04. Should they be added?	Concur, will add current sensors to the AHU and HRU control schematics. Note, units with VFD’s will not require the current sensors. Changed



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CA018	M7.03 M7.04	CO2 sensors are shown in the return duct on the controls schematics for AHUs and HRUs with economizers. The sequence of operations for these units refers to the CO2 sensors "in the space". CO2 sensors are not shown in the spaces. Would it be beneficial to have the CO2 sensor for each unit next to the T-stat or is the design intent to have all CO2 sensors in the return? As previously suggested, if using CO2 sensors in the rooms, it is best that they do not display a value.	The CO2 sensors will be duct mounted and the sequence will be revised. Changed
CA012	M7.03, M7.01	"MF" is not included in the key on M7.01. It appears MF represents a modulating damper and "M" represents a 2-position damper.	MF is to denote the damper is provided with the unit and M is field provided. This will be clarified. Changed
SN016	M7.03, M7.04	The night purge sequence of operations suggests it can occur any time the OSA temperature is less than the space temp. During the winter and should seasons, that may occur regularly without the space temps even requiring such a sequence. Having an enable/disable toggle switch on the DDC is helpful, but still can't prevent this sequence from needlessly occurring 100% of the time. With the addition of some operating parameters to work within, the sequence can be made whole with built in protections should an end user leave this sequence enabled although the space and OSA temperatures don't necessarily require a purge sequence.	The intention of the night purge sequence is to pre-cool the building with outside air in anticipation of warm weather the next day. Our thought is this sequence would have to be enabled by district personnel. To prevent the sequence from being left enabled, it will be reset by the control system to disabled after each day. Changed
SN017	M7.04	There is no mention of the Energy Recovery Wheel operation in the sequence of operations for HRU's 9, 10, 14-16	Concur, will add. Changed
SN019	M7.04	The occupancy sensor override when space is unoccupied does not list a time interval requirement for how quickly the lights turn off. Has this been identified in the electrical specification and is it coordinated well enough will mechanical? If left to the installing	Per Electrical, the occupancy sensor timing in 30 minutes. Changed



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		contractor, they simply leave those settings at default. This may be a 15-20 minute span in which case, offers very little benefit to the school district since breaks in between classes rarely last that long. We recommend identifying an agreeable time setting for lights to cycle off—5 minutes—in order for the additional costs associated with the occupancy sensors, controls programming and necessary points paid for by the district. Without an adequate time span listed in the specs, the district will have paid for the programming and number of controlled points although the sequence will hardly be used.	
CA015	M7.04	The energy recovery wheel sequence is not included in the sequence on M7.04 for HRUs 9, 10, 14, 15, and 16. It is included for the others	Concur, will add. Changed
CA016	M7.04	Exhaust and outside air louvers for the HRUs with economizers are shown in the wrong schematic.	Concur, will correct. Changed
CA017	M7.04	Space pressure sensors are shown for ERUs 1-8, 11, 13 & 17 in the control schematic on M7.04. Pressure control is not included in the sequence. Is it required for these units? Is it also required for the 100% ERUs 9, 10, 14, 15, & 16?	The pressure control for ERUs 1-8, 11, 13 & 17 is shown in #1 under EXHAUST FAN. It is not required for ERUs 9, 10, 14, 15, & 16. Not Changed
GA050	Mech. General	Does the heating/cooling system have sufficient capacity to accommodate the anticipated future additional classrooms and possible future performing arts center?	The heating/cooling system does have sufficient capacity to accommodate the anticipated future additional classrooms. However the future PAC was never part of the discussion and was not included. Not Changed
GA051	Mech. General	Will the specified ground source heat pumps be able to deliver 130F water to the fancoils given the 158 gpm flow through the heat pumps and line temperature loss from heat pump to fancoil?	The specified heat pumps are designed to deliver 130F water. The heat pump schedule will be clarified to reflect this. Changed
GA052	Mech.	Will an entering water temperature of	No, there is a factor of safety built



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	General	less than 130F to the fancoils result in inadequate heating capacity?	into the sizing of the equipment. In addition, the backup boiler will provide additional heat as required on colder days. Not Changed
GA053	Mech. General	Soil stockpile location may need to be located so doesn't interfere with location of entering and leaving ground loop boring, if the ground loop is to be bored while the stockpile is in place.	Concur, this will need to be coordinated. Changed
RC084	Plumbing Civil General Comment	Civil drawings show multiple roof drain connections with RD Connection (TYP) comment. No other detail for downspout connection to storm drain headers found in civil or plumbing drawings. Roof drain connection needs to be detailed in appropriate discipline. Please review and coordinate drawings.	Added Changed
RC085	Plumbing Civil General Comment	Geotechnical report emphasizes the importance of properly installed foundation drains. No foundation drainage detail or responsibility for foundation drainage system found in mechanical or civil drawings. No foundation drain connection to storm sewer found on civil drawings. Please review and coordinate drawings.	Based on the amount of fill being imported the soils engineer recommended eliminating the footing drains. Not Changed
RC055	Plumbing General Comment	Plumbing Drawings general comment. Domestic hot water recirculation return lines are drawn with the incorrect line type. Sheet M0.01 Plumbing/Hydroneic Legend defines HWC line as triple dash. The current project drawings have HWC lines as double dash. Please review and correct to match legend and standard practice.	Concur, will revise/correct. Changed
RC056	Plumbing General Comment	There are no line circuit setters called out for the domestic hot water recirculation system. Typically branch circuit setters would be installed to ensure appropriate DHW supply to all areas. Please review and revise as appropriate.	Concur, will review and add circuit setters as required. Changed
RC061	Plumbing General Comment	Plumbing drawings do not call for wall hydrants/hose bibs in or near any of the gang toilet rooms. Typically custodians	This requirement is called out in section 22 40 00. It will also be clarified on the drawings. Changed



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		will request hot & Cold wall hydrants in gang toilet rooms and locker rooms for cleanup. Please review and revise as appropriate.	
RC074	Plumbing General Comment	Plumbing drawings show complete non-potable cold and hot water systems for science labs. The separate systems require two additional water heaters and thermostatic mixing valves in addition to reduced pressure back flow preventers and significant additional piping. Totally separate non-potable water systems are not required for school science labs. The current systems to be installed according to the project documents will add significant unnecessary cost to the construction of the school. Are the added non-potable water systems necessary, appropriate and required by the district?	See response to comment RA-154. Not Changed
GM025	S10.2	Detail 4 and 5 Provide maximums for "L" dimension to insure the proper use of the details. Please review.	Changed
GM026	S11.1	Detail #3 The plans are not clear to the spacing or location of the bracing shown. Please review and clarify	Changed
GM027	S11.2	Detail #1 Continuous bent plate and continuous 1 ¼" plate appear to be redundant and overdesigned. A continuous embed plate with welded headed studs or welded rebar is more appropriate, similar to detail 13/S11.3. Please review and clarify.	Changed
GM028	S11.5	Detail #14 Specify missing weld between the sloped roof beam to horizontal beam.	Changed
GM029	S11.6	Detail #11 Provide erection bolts from tab plate to beam. Also provide headed studs to support gravity loads as the welded rebar are for lateral tension load.	Changed



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		Please review	
GM030	S13.1	Provide the schedule for the headers and jambs shown. Also in few locations the headers and jambs will most likely require structural steel in lieu of cold form. Please review and clarify.	Changed
LS063	S2.11	Are the center line dimensions correct for the 4-W6x22 columns on gridline 3, 2 an east of gridline H? (There is 5/8" difference between center lines). Provide correct dimensions for columns as needed.	Changed
LS064	S2.11	Provide centerline dimensions for W8x28, W6x25, W10x30 columns on or by gridline H, 6, 5, and 2.	Changed
LS065	S2.11	Provide centerline dimensions for W6x25, W12x25 and 8" pipe columns off of gridline F, 6, 5, and G.	Changed
LS066	S2.11	Provide type of column, footing, and center line dimension for column shown on gridline 1 and east of gridline K.	Changed
LS067	S2.11	Provide centerline dimensions for W6x25, W12x38 columns east of gridline K and north and south of gridline 6.	Changed
LS068	S2.11	Provide centerline dimensions for the 6 – HSS7x7x1/2 in elevator pit, detail 3/S9.2 is showing a HSS6x6.	Changed
LS090	S2.11	Provide size of column on gridline 1 and between gridlines F.9 and F.	Changed
GM001	S2.11	Plans call out for HSS7x7 but detail cut 3/S9.2 calls for HSS6X6. Please review and clarify.	Changed
GM002	S2.11	Column size missing. Please specify.	Changed
LS069	S2.12 S2.14 S2.15	Provide centerline dimensions for HSS6x6x1/2 and W6x25 shown south of gridline 8 and west of gridlines J and K. (dimensions shown are 3'-8" and 3'-3").	Changed
LS070	S2.12	Provide centerline dimensions for HSS5x5x1/2 column west of gridline J and north of the stairs and 6" std pipe column in the stairs.	Changed
LS071	S2.12	Provide centerline dimensions for HSS5x5x1/4 column west of gridline L and	Changed



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		north of gridline 7.	
LS072	S2.12	Provide size of I-beam columns east and west of gridline L and north of gridline 7.	Changed
LS096	S2.12	This 6"x5 pipe column on gridline j and south of gridline 8, is showing a W type column at the roof on sheet S4.12. provide correct type of column with detail at the roof.	Changed
GM003	S2.12	Verify the intent of 1 foot top of footings for location shown as all other brace top of footings are 2 feet. It appears to be a typo. Please review and clarify.	Changed
GM004	S2.12	A combined footing is more appropriate at this location.	Changed
LS073	S2.13 S2.12	Provide center line dimensions to W16x57 column west of gridline 6 and on gridline 10.	Changed
LS074	S2.13	Provide center line dimensions for W6x25, W16x40 columns on and north of gridline 10 and east of gridline F9.	Changed
LS075	S2.13 S2.12	Provide center line dimensions for W8x21 column east of gridline H and north of gridline 8.	Changed
LS076	S2.13	General Note: if a row of columns have the same centerline dimension in that row, provide a dash line continuous to all columns in that line. (It will help to find the dimensions for centerline of columns).	Changed
LS077	S2.13	Provide correct footing detail on gridline A and north of gridline 10. (Showing detail 1/S9.1)	Changed
GM005	S2.13	The classroom wings are similar in design; however, brace frame along the stairs is missing. Also the brace column sizes are different but the design is similar. Please review and clarify.	Changed
LS079	S2.14 S2.15	Provide centerline dimensions for W12x50 and W16x50 column south of gridline 12, east of gridline K and on gridline L.	Changed
LS094	S2.14	Provide size of columns south of gridline	Changed



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		14, on gridlines H and J.	
LS080	S2.15	Provide center line dimension for W6x25 column by gridline P and gridline 11.	Changed
LS081	S2.15 S2.16	Move detail B/S8.3 symbol over so the dimension can be read.	Changed
LS082	S2.15	Provide type of footing for W6x25 on gridline T.	Changed
LS083	S2.15	Is detail 2/s9.3 correct for the 6" CMU wall east of gridline Q on the north side of building? If not, provide correct detail.	Changed
LS110	S2.15 S4.15	Is the W6x25 column in the correct area on gridline S? by looking at details for the roof in this area, the column looks to be at the corner of the building. If needed provide a new detail.	Changed
GM006	S2.15	Provide footing size	Changed
GM007	S2.15	Brace along grid 8 between grids N and P may be eliminated by collecting the lateral load into the gymnasium CMU wall. Please review.	Changed
LS084	S2.16	Provide centerline dimensions for W12x25, W10x30, W8x40, and W6x25 columns east of gridline P and north of gridline 7.	Changed
LS085	S2.16	Provide type of columns in 8" CMU wall on gridline 7.	Changed
GM008	S2.16	10ft square footing under W6x25 column appears to be in error. Please review.	Changed
GM009	S2.17	Provide footing and column sizes.	Changed
GM010	S2.21	It is not clear to what the solid dot denotes. It appears per plan notes that it denotes beam bracing per 6/S10.1. If so, then such detail does not show bracing. Please review the intent	
LS099	S2.22	Is detail 3/S8.1 shown on gridline H at the pipe column correct for this area? If not, provide correct detail.	Changed
LS100	S2.22	The 2/S8.2 shown south of gridline 9 and 10, is it correct for this column? If not, provide correct detail.	Changed
LS105	S2.23	Provide size of WF beam east of gridline H and between gridlines 14 and 13.	Changed



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GM011	S2.23	It is not clear why the pair of columns at this location. Please review. If required, clarify how the pair are connected together to transfer gravity and lateral loads.	Changed
GM012	S2.23	Few beams in the same row are missing camber. Please review the intent.	Changed
LS108	S2.24	Is detail 2/S8.2 correct for area shown between gridlines 12, 10 and on gridline L? If not, provide correct detail for the area.	Changed
GM013	S2.24	It is not clear to what the intent of diagonal beams shown is. At the mirror end the diagonal is providing lateral support for the brace column. At this location the intent is not clear. Please review.	Changed
LS112	S2.26	Are details 4 and 5/S10.01 and 3/S8.1 correct details for the column and beam connections? If not, provide correct details.	Changed
LS113	S2.26	Details 6/S8.3 and 1/S8.3 may need to be coordinated for the work points of the pipe brace with details A and B /S8.3.	Changed
GM014	S2.26	Consider using rectangular HSS sections in lieu of W sections to horizontally brace between columns to avoid the knee bracing shown on sections A and B on sheet S8.3.	Changed
GM015	S2.26	At similar span beams in the same area a W16 is specified but in this bay a W12 section is specified. W16 is more appropriate. Please review and clarify.	Changed
LS087	S2.31	Provide all beam size on gridline 5 between gridlines Hand B. coordinate with 1/S6.1	Changed
LS088	S2.31 S2.11	Provide details, size and center line dimensions for column shown north of gridline 5 and west of gridline J.	Changed
LS091	S2.31	Provide size and details for column shown on gridlines 7 and K.	Changed
GM016	S2.31	A kicker brace is shown at brace column at this location indicating the	Changed



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		requirement of bracing at 2-story brace columns. However, it is not shown at other similar situation. Please review the intent of the brace requirement.	
LS097	S2.32	Provide size of all I-beams on gridline M.	Changed
LS098	S2.32	Provide details for W8x31 and W6x25 columns on gridlines J and 10.	Changed
LS102	S2.33	General Note: is it needed to show the I-beam that will be used for the roof in the mech. floor plan, if not used for the mech. floor? It looks like there is two sets of beams – look at gridline 10, one set for mech. floor and one set for the roof. They should only be shown once.	Changed
LS103	S2.33 S6.9	Coordinate size of I-beam with wall elevation 28/S6.9. Sheet S2.33 showing W18x35 and sheet S6.9 showing W16x31 between gridlines 10 and 12. Provide correct size of beam.	Changed
LS106	S2.33	Provide details and size of columns on gridline B and between gridline 12 and 13.	Changed
LS089	S4.11	Provide size of I-beam east of gridline H and on gridlines 2 and 3.	Changed
LS092	S4.11	Provide details for the two 24LH on gridline 6 and between gridlines G and H.	Changed
LS093	S4.12 S6.3	Provide size and details for columns shown on gridlines J, 10 and 8.	Changed
LS101	S4.12	Details shown on the south west side of roof is for GLM to GLM connection. Shown is detail 7,8/S11.3. provide detail for GLM to beam connection for this area.	Changed
LS104	S4.13	Provide size of beam between gridlines 13, 12 and on gridline A.	Changed
LS107	S4.13	Provide connection details for 5-1/8x24 GLM to W18x50 on gridline 12. If the detail looks like 12/S11.1 it may not work when setting GLMs.	Changed
LS109	S4.14	Provide correct detail if needed at the valley overbuild area. Showing detail 11/S11.4 at this area.	Changed
LS111	S4.16	Provide size of WF beam on gridline N	Changed



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		and south of gridline 7.	
LS114	S4.16	Provide correct detail for 8/S11.3 as it is for a GLM connection, not a WF beam connection on gridline 5.	Changed
LS062	S5.11	2/S9.4 General Note: coordinate grandstand base plates, anchor bolts, and 36" concrete piers with grandstand supplier, structural engineer, and general contractor.	Changed
LS115	S5.12	Provide correct detail between gridlines AK and AJ. (Detail shown is 5/S11.8).	Changed
LS086	S6.1	Provide size of beam at level 2 between W16x50 columns west of gridline G.	Changed
GM017	S6.2	¼" Plate filler is required to transfer lateral loads across the ridge similar to brace #17. Please review and clarify	Changed
LS095	S6.4	Provide size of column west of gridline 7.	Changed
GM018	S6.4	Brace #21 – ¼" plate is required above brace frame to transfer lateral loads. Please review and clarify.	Changed
GM019	S6.6	Braces in the upper bay appears to be required to transfer roof lateral load to brace. Please review the intent of design.	Changed
LS078	S6.7	Provide column size on gridline C in wall elevation 22.	Changed
GM020	S8.1	Clarify the locations of angle bracing on plans as it is not clear on the plans. Is this detail intended to be typical at all collectors. Please clarify the location of this detail	Changed
GM021	S8.2	Provide extended plate size and connection to top of CMU wall.	Changed
GM022	S8.3	Elevation "B" A square or rectangular HSS may be used in lieu of "W" section and eliminate bracing. Please review and clarify.	Changed
GM023	S8.4	Complete details and elevations shown.	Changed
GM024	S9.2	Detail 11 Please specify transverse reinforcing.	Changed
SN023	Sequence of	There is no mention of Optimum start stop programming in the sequence of	Yes, the requirement is called out in section 23 09 00, 2.08, A, 2. Changed



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	operations	operations for this project. Will this energy saving strategy be employed?	
SN024	Sequence of operations	We do not see space temperature set points in place regarding unoccupied NHL, NLL sequences.	See sheet M7.01 under misc. controls, item 20. Not Changed
SN025	Sequence of operations	We notice no provisions for monitoring, managing, alarms or safeties for noxious fumes within the Industrial Tech space, particularly given the OSA ducts providing ventilation air to classrooms runs directly through this space.	Concur, will add a sequence/alarm for monitoring noxious fumes in the IT space. Changed

A/E Responses Completed:

Date: _____ By: _____

Caution, all comments on drawings or in specs may not be included in this list. Please review all documents to complete the list.

Also, comments regarding one specific area may apply in multiple locations and disciplines. As examples: "Complete duct work in this area," may result in duct work interference with structural, fire, and electrical systems and components. "Dimension wall and casework," may result in conflicts with structural, mechanical, and electrical work.

A back check of the comment/response does not allow sufficient time to see that coordination issues are resolved, only that the response was completed. To continue the example: The ductwork is shown. The wall and casework is dimensioned. It is the Design Team's responsibility to check for coordination issues after changing or completing the documents.