DINISCO DESIGN
architects + planners

10 April 2020

Mayor Kassandra Gove
City of Amesbury
62 Friend Street
Amesbury, MA 01913

Reference: **Amesbury Elementary School**
Amesbury, MA

Subject: Responses to Schematic & Design Development Submission Comments

Dear Mayor Gove:

Enclosed are our responses to Nick Wheeler's comments on the Amesbury Elementary School project Schematic and Design Development plans, dated 10 January 2020 and 07 February 2020, for distribution and review by the School Building Committee.

We trust these responses have adequately addressed Mr. Wheeler's concerns and comments. We will also forward a copy of this to the Planning Board per their request. If any additional information is required, please do not hesitate to let us know.

Sincerely,

Vivian Low
DiNISCO DESIGN

VL/mh

cc: Angela Cleveland, Director of Community & Economic Development
Nipun Jain, Director of Planning
Jared Fulgoni, Superintendent of Schools
Tim Dorman
Tom Murphy
Donna DiNisco

Enclosures: DiNisco Responses to Nick Wheeler's Comments

18543 CorOwner / 20-04-10 Responses to DD Comments R1

Combined Responses to Review of the AES Design Development Plans (dated 01-10-20).
by N. Wheeler – 02-07-2020; Responses 04-08-20, **REVISED 04-10-20**

	Comment	Response
Sheet G.0.02		
	Table 248 CMR 10-2 (Note a) – confirm it is possible to base gender-neutral fixture counts on females only. 248 CMR 10.10(18)(r) requires basing the counts on the total of both sexes.	Note (a) will be changed to read: "The project provides single user gender neutral toilets for staff toilets for women and men. For the purpose of calculating the total number of required gender-neutral toilets: the minimum number of fixtures required will use the more stringent rate: 1 water closet /20 (75 staff, 4 WC required, 7 provided)". No additional fixtures are required.
	Ground Floor – Confirm square footages shown for Pre-K & Kindergarten are adequate at ~980SF apiece. The figure of 1,200SF has been noted as a requirement several times by the design team at previous public forums.	MSBA guidelines for Pre-K & K classrooms provide a range of 1,100 to 1,300 SF including toilet rooms. The SF used for the new AES Pre-K and K classrooms is 1,200 SF but 60 SF is allocated to the shared Project Areas. The **net** area on Sheet G.0.02, used to calculate occupancy for purposes of egress, **excludes** the 60 SF in the Project Areas, built-in millwork (teacher desk, sink area cabinets, storage wall and cubbies) and the toilet room.
	I suggest reviewing plumbing fixture counts for Assembly use of Gymnasium and Cafeteria; numbers indicated seem to be below those required under 248 CMR Section 10.10., in particular Section 10.10(18)(h)(3). If Section 10.10(18)(b) were to be applied to the assembly occupancies, the deficiency would be even greater, so please review as floor plan may not align exactly with the chart requirements.	The plumbing fixture requirement for assembly within an educational setting are based on the number of seats. The fixture requirements for the Gym as Assembly (268 W: 2 WC; 268 M: 1 WC & 2 urinals) and Cafeteria (175 W: 2 WC; 175 M: 1 WC & 1 urinal) is met by the combined fixtures proposed on Ground, First and Second floors (W: 6 WC, M: 3 WC & 3 urinals provided). These are within the 300' requirement stated in 248 CMR (18)(h)3. There is also 1 accessible gender-neutral adult toilet available off the lobby. No additional fixtures are required.

Sheet G.0.04		
	Near the eastern border of the existing CES property with the Essex County Greenbelt property, a note refers to “See Note 4”. It is unclear where this note is or what it refers to.	Both site survey & proposed site background images have been updated for all phasing drawings. This note no longer appears on the background image.
Sheet G.0.06		
	The notes on this sheet indicate that CES is intended to be closed/inaccessible for the entire summer of 2021. Has this been coordinated with the school district?	Site Logistics & Cashman School Operations during construction were further discussed and coordinated in a Working Group meeting (3/24) which included representatives from the Police and Fire Departments, school district and Cashman community.
Sheet G.0.07		
	“Cashman” is spelled incorrectly in the last “Usage Note” on this Sheet.	Thank you, spelling has been corrected
Sheets G.0.07 & G.0.08		
	The site plan shown appears to be out of date. The HC ramp to the AES playground differs from elsewhere in the Civil set.	Both site survey & proposed site background images have been updated for all phasing drawings. This will be updated as the proposed site plan is refined.
Sheet 0.0.01		
	Do the two existing mailboxes shown at the location of the proposed Woodsom egress driveway need to be relocated? Doing so may facilitate installation of the new driveway, as well as extension of the adjacent sidewalk.	The mailboxes should be relocated in order to build the curb cuts. Relocation will be added to the scope of work.
Sheet 1.0.00		
	Remove/relocate legend/notes at the upper left-hand corner of the Sheet (drafting error).	The legend and notes are from the survey which is shown as a background on this drawing. They are not required on Sheet 1.0.0. Legend and notes will be removed from the viewport for future drawings.

Sheet 1.1.01		
	The City & Design Team should investigate extending sidewalk from the new Woodsom egress driveway eastward towards the existing sidewalk termination along Lion's Mouth Road (the current sidewalk ends approximately one house down from the proposed driveway, a distance of only ~200'). This would help improve pedestrian circulation (particularly from an accessibility standpoint) and pedestrian safety in that area.	Upon further discussion with the Mayor & DPW (3/18) the City has committed to extending the sidewalk.
	Are any plantings / "tree islands" required at the parking lot for the new school under Amesbury's Zoning Bylaw? See Section VIII(G)(16).	This was presented as part of the planning board site plan review process. Further discussion expected at future planning board meetings. Outcome TBD. Upon further discussion (3/18), DPW affirmed their preference for the lot without tree islands as presented at planning board hearing.
	I STRONGLY suggest relocating the sidewalk which runs along the proposed egress driveway to the north of said driveway. Doing so would allow the design to provide for connections to the existing "grass path"/pedestrian access from the AES/CES site to the adjacent Woodsom Farm (and may in particular help connect AES to the proposed athletic fields being located there).	We will be relocating the sidewalk to the north side of the egress roadway. We agree it would provide better connectivity to Woodsom Farm. Additionally, this would position parking on the right side of the one-way road, which is the more conventional location. This was reviewed during the Working Group meeting on 3/24/20 (which included representatives from school district, Fire & Police Departments) – all were amenable to the change.

Sheet 1.1.02		
	The plan appears to indicate a pair of tractor trailers parked at the proposed service area for AES. Is there appropriate turning space to allow them to exit around the retaining wall located to the west? Or will they be required to drive forward 350-400' to the end of the classroom wing in order to turn back around (this can be confusing for truck drivers unfamiliar with the area unless clear signage is provided). Also, there does not appear to be a gate which would prevent unauthorized vehicles from driving around the building and onto the play area; suggest looking into this.	Delivery trucks will use the turnaround north of the building to do a K turn. All turning movements have been reviewed and confirmed by the traffic engineer and the plan satisfies all movement requirements. A gate was further discussed in a Working Group meeting (3/24) which included representatives from school district and Police and Fire Departments. Police recommended locating the gate at the top of the driveway leading to the loading area. Options for the type of gate will be further studied.
	There is a large amount of painted pavement (bituminous concrete/asphalt) behind the proposed school, much of which will need to be plowed, as it is an emergency access way. What is the maintenance/longevity of this topping? Likewise, what is the maintenance/longevity of the proposed "rubber" surfacing shown at (2) play areas?	Snowplows could damage the surface and may require repainting more often due to damage. We will survey older projects and provide info for expected longevity Rubber surfacing is warrantied for 7 years, likely will last at least 15 years. No special routine maintenance is required.
	The sidewalk to the west of the proposed academic wing has been removed from the design since the SD submission; is pedestrian access being provided from the new school to the adjacent, relocated ball fields? There is existing, informal pedestrian access across the intermittent stream near the current baseball fields (~75' north of the 3rd baseline fence on the northernmost field), but it is unclear from the current site plans whether this walking path will be removed, maintained or formalized.	The sidewalk was for van drop off and was not for pedestrian access to the fields. The school department confirmed that this drop off area would not be required. Access to the fields was discussed with the DPW (3/18). Conceptual plans for the fields project were reviewed – they show a pedestrian connection to the AES site at the northeast corner of the school (approximate current access location). This will be further coordinated.
	The match line shown north of the proposed building location does not appear to correspond with an inset plan. Please review.	Plan has been adjusted.

Sheet 1.1.03		
	Confirm additional screening will not be required at the Cashman School's existing service area. Similar note applies to Sheet 1.4.03.	The sliding gate will provide screening of the dumpsters / loading area.
	Based on the proposed layout of the guardrails and lack of sidewalk, it appears that existing pedestrian access to the soccer field east of CES is being removed. This should be reviewed and addressed immediately, as the proposed lack accessibility will likely make using this sports field difficult if not impossible. In addition to pedestrian concerns, a gate should be considered to facilitate access for maintenance vehicles/lawnmowing equipment, as well as EMS in emergency situations. Is it possible to extend the sidewalk in this area ~100-125' to the north from the crossing currently shown to maintain this access? Please review.	The plan will show a break in the vehicular guardrail and a flush curb at approximately the same existing access point. Access to the field is currently and will remain from the parking lot. The existing fence and gate at the bottom of the slope is to remain.
	Review egress from cafeteria area at CES – it appears to conflict with the proposed relocated service area (as well as possibly conflict with the proposed sliding/cantilevered gate). Will children be expected to traverse this area regularly during recess times? Do they now?	Sidewalks for access to the cafeteria will be studied in relation to the service area gate. Due to the location near future bus drop-off, the cafeteria doors may be used for access in inclement weather but less likely during recess because the playground is on the opposite side of the school. The emergency muster points & recess procedures were further discussed at a Working Group meeting (3/24).
	The mulched play area for CES (located outside the CES cafeteria) is being removed in order to accommodate the proposed AES driveway. Will it be replicated? The plans are currently unclear.	The populations (Pre-K–2) that would use the mulched play area at CES will be moved to the new school where they will use the playground with rubber safety surfacing. The current plan does not call for the recreating the mulched play area. Interim plans for this function during the construction project will be further discussed with school department and the Cashman principal.

Sheet 1.1.03 (CONT.)		
	Note: the cantilevered sliding gate for the CES service area (in its open or transit positions) are a potential conflict with pedestrian traffic on the adjacent sidewalk. A short, fixed fence for the section to "ride" behind may be warranted at this location.	The design for the sliding gate is currently being refined.
	The existing wood storage shed outside CES's cafeteria – is this being relocated? The plans are currently unclear. Please review.	The function and need for the shed will be further discussed with the school department and the Cashman principal.
	At the new CES entry driveway (see inset plan) – would it make more sense to locate the proposed guardrail between the travel lane and the sidewalk in this area?	This was reviewed with the Technical Review Committee (4/6) with representatives from the DPW, Department of Inspectional Services and Department of Community & Economic Development. All agreed that the guardrail is better located as shown at the side of the sidewalk away from the road.
Sheet 1.2.01		
	Grading Note #5 refers to Civil Drawing C600 – this drawing does not appear to exist. Will it be added later? Please review.	Note has been removed.
	Two different bio-retention basins (the one at the Woodsom egress driveway, as well as the one located south of the arc-shaped parking area) are labeled as "Bio-retention area #1). Please review/revise accordingly.	Labels were resolved for the NOI submission.
Sheet 1.2.02		
	From the fencing/guardrails shown to the north of the proposed building, it is currently unclear whether pedestrian connections to the adjacent existing nature trail system will be maintained by this project. Possible trailheads or signage are needed; please review.	Connections to the grass paths were discussed with DPW (3/18). It is their understanding that the grass paths are mowed each year by Mr. Woodsom. Mowed paths will need to be adjusted to make connections where possible. Where grading allows, the design will provide opportunities for connections near the current locations along the property line.

Sheet 1.3.01		
	Please confirm whether the proposed egress drive on the Woodsom property will have separate left/right turning lanes.	Separate 12-foot wide left-turn and 12-foot wide right-turn lanes are proposed at the new exit driveway.
	RE: the arc-shaped parking area in front of the proposed school: Amesbury Zoning Bylaw requires that parking spaces abutting a walkway/sidewalk to be separated from the sidewalk by 3'-0". A variance may be required in order to accommodate the layout as currently shown. Note: a similar condition will also apply on Sheet 1.3.03 at the parking island in front of the existing CES.	The sidewalk is 10' wide which accommodates the car bumper overhang while providing adequate pedestrian access. Maintenance and snow removal are difficult if the walk is 3 feet away from the parking spaces. Upon further discussion (3/18), DPW affirmed their preference for the plan as presented at the planning board hearing without the 3'-0" space. If necessary, we will request a variance.
Sheet 1.3.02		
	There is a LOT of asphalt being proposed at the rear play area outside the cafeteria; can this be softened or broken up with plantings somehow? Has permeable asphalt been considered in this area, or is it not possible due to the high water table?	Porous asphalt is not a good option for the playground area due to the need for a smooth surface that can easily be painted. We are also proposing large underground stormwater systems which cannot be installed below porous asphalt. For the playground we need adequate continuous play space as well as a 50' radius for emergency access. Trees will be added to the rubber surfacing playgrounds once the equipment has been finalized.
	Are there any shaded areas for kids to play outside?	There will be shade structures incorporated into the playground equipment areas.
Sheet 1.3.03		
	Is traffic control going to be required at the new, larger intersection/entry off of Lion's Mouth Road?	We expect that the crosswalk will be controlled by a crossing guard on Lions Mouth Road as occurs today. The crossing guard will be responsible for assisting students crossing at the crosswalk on Lions Mouth Road as occurs today. The need for additional traffic control is not expected.

Sheet 1.3.03 (CONT.)		
	Is vehicle egress possible from the existing, widened entry location or is that proposed to be utilized for incoming traffic only (striping/arrows are not yet shown)? If incoming only, suggest potentially pushing back the island shown, or eliminating it in favor of a striped pavement marking only.	Vehicle egress is possible (proposed) from the Main Site driveway other than during drop-off and pick-up operations. During drop-off/pick-up, all exiting traffic will use the western site driveway. The main site driveway can be used to exit the site at all other times.
	See Section VIII(G)(9) of the Amesbury Zoning bylaw for limitations on driveway width. A variance will likely be required for the layout as currently shown.	The existing driveway is 57.63' wide, and the proposed is 66' wide. If necessary, we will request a variance.
Sheet 1.3.04		
	The existing "Grass Path" between the Aponas property and Woodsom Farm – are considerations being made to maintain pedestrian connections in this area? Please review, in particular as this will have an effect on the adjacent Athletic Fields Project.	Pedestrian access through the school site will be on paved sidewalks rather than along and directly from the Aponas Property. Connections to the grass paths were discussed with DPW (3/18). It is their understanding that the grass paths are mowed each year by Mr. Woodsom. Mowed paths will need to be adjusted to make connections where possible. Where grading allows, the design will provide opportunities for connections near the current locations along the property line.
Sheet 1.3.05		
	Confirm drainage @ Canopy near building entrance; nothing is currently shown, but Plumbing drawings for this area (See Sheet 8.4.01) appear to require coordination.	The Civil Engineer will fully coordinate the roof drains at the entrance canopy with the plumbing plans.
	A 10" Storm drain currently exits the building near admin area/east wall; suggest relocating this piping such that it exits through the north wall (a large grade change to the east would otherwise require a much deeper DMH as currently shown; added cost doesn't seem justified. Proposed exit would also be located closer to the proposed "Recharge Chamber" served; might even be able to eliminate a DMH altogether and save the associated cost from the site package.	The Civil Engineer will coordinate this item with the Plumbing Engineer to see if this storm drain can be relocated as recommended.

Sheet 1.3.05 (CONT.)		
	Several drainage structures east of the proposed classroom wing are located within the 50' no-build wetlands buffer zone. Will this require a variance from Amesbury's Wetlands Protection Regulations?	Drainage structures are not included as "structures" under the Amesbury Wetland Ordinance. The project is currently under review of the Amesbury Conservation Commission. The stormwater design and Stormwater Report are set to be peer reviewed as part of this process.
	The Existing Wetlands and associated buffer zones shown west of the proposed building site appear to have shifted since this Sheet was issued for the SD submission in May of 2019 (though the buffers to the north and east of the building appear to remain the same). Has this area been re-surveyed since then? My understanding is that the ANRAD process was completed in the fall of 2018, so it's unclear why this has changed in the last ~8 months.	The change in wetland buffer zones noted is correct. The abutting property has recently filed a new ANRAD for this wetland area. Our new survey has located the new wetland delineation in this area of the site. We are using this new wetland line at this time as it is closer to our project. The new AES project and abutting ANRAD are currently under review by the Amesbury Conservation Commission and this item will be addressed as part of this process.
	Review invert of rain leader exiting the proposed building to the north near Stair 'C' on this plan (indicated as an 8" pipe on Sheet 8.4.01). Assuming the piping will have a minimum 4'-0" of soil cover as it exits the building (to prevent future freezing issues), the highest invert possible at this location should be ~114.48'.	The Civil Engineer will look into this and will coordinate with the Plumbing Engineer.
Sheet 1.3.06		
	Please confirm crosswalk relocation at enlarged Cashman entry driveway, it appears to be shown in the middle of the egress drive. Painted striping for new crosswalks are also not shown on Sheet 1.1.03.	The crosswalk will be relocated to the handicapped curb cut ramp at the new driveway. This will be shown in the CD Plans. The current crosswalk evident in the survey underlay will be removed as part of the work.

Sheet 1.3.07		
	Suggest relocating the fire hydrant at the secondary egress roadway so that it is 15-20' further up the driveway/towards the site. This would facilitate snow removal at the corner, as well as minimize potential damage due to vehicular traffic.	The Civil Engineer will coordinate the exact location with the Fire Department.
	There is also an existing hydrant literally across Lion's Mouth Road already (given the proximity, would it be possible to eliminate the proposed hydrant at this location entirely?).	This item was reviewed with the Fire Department at the Working Group meeting (03/24). The Fire Department requested that this hydrant be kept at this location so that hoses, when completely filled, would not block passage through Lions Mouth.
Sheet 1.3.08		
	Re: Exterior grease trap ▪ Is periodic vehicle access possible for cleaning the proposed 2,000 gal exterior grease interceptor? Is a frost-proof hose bibb being located nearby for ease of cleaning/re-filling the unit? ▪ Are there concerns of potential spills associated with locating this equipment directly next to the main play area? Would it make sense to re-locate this equipment (and the new sewer pump station) to the loading bay/maintenance court located west of the proposed building (subsequently running the 2" Force Main in front of the proposed school building)? ▪ Will residual odors or pavement staining from the interceptor be a concern? ▪ Will grease interceptor be provided with tie-downs/"dead men" to prevent the high water table from floating it out of the ground when it is emptied periodically?	The location of the grease trap is such that it is accessible from the paved playground area. An exterior hose is not necessary for regular maintenance. Spills are not a concern. The grease trap and sewer pump station are located in a grass area off the pavement. There are (4) wall hydrants shown on sheets 8.4.02 & 3 distributed around the building perimeter available for exterior cleaning operations. The plans call for the sewer pump station to have watertight and airtight covers. This should prevent odors from escaping. If necessary, we will call for deadmen to be installed. Buoyancy calculations will be done to determine if this is necessary. Full design of the sewer pump station will be coordinated with the Sewer Department.

Sheet 1.3.08 (CONT.)		
	▪ Has sizing of trap been coordinated with APS district plans/investigations re: warewashing? Per 248 CMR 10.09 Table 2, the maximum load for a 2000 gal capacity grease trap for a facility with warewashing is 400 meals per day (MPD); the maximum load for a 2000 gal capacity grease trap for a facility without warewashing is 533 MPD. If warewashing is added (or, if anticipated MPD exceeds 400, or BOTH,) this figure should be evaluated and the grease trap enlarged accordingly and also coordinated with the Plumbing Engineer for the Project. It should also be noted that between students and staff, the building has a proposed occupant load of ~550 people.	A 3,500 gallon grease trap is indicated on the plumbing drawings. We will revisit the sizing and confirm it is appropriate.
	It is unclear as to why there are (2) separate sanitary sewer lines exiting the proposed building. On review of the Plumbing plans (Sheet 8.4.01 in particular), it appears that these might easily be combined inside the structure and exit once; avoiding the need for a separate exterior piping run along the classroom wing. It would also save the cost of a SMH from the site package.	The original goal was to eliminate longer sewer runs. However, routing has changed, and it may make sense to combine. We will review this further with the Plumbing & Civil Engineers and determine the best approach.
	Coordinate new gas service to the proposed building with Plumbing Engineer and local gas company (Ngrid). I STRONGLY suggest relocating the gas meter away from the front of the building for aesthetic purposes – preferred location would be near the service bay (west side of building).	The Plumbing Engineer is coordinating the gas service for the new building. Once final locations of the gas meters and regulators are coordinated with the Plumbing Engineer and gas company, we will update all plans accordingly.
	It might be better to have the 6" Fire Service and 4" Domestic Water Service enter the building along the west elevation (i.e. along Column Line "AA"); this would avoid running water mains under the gymnasium floor slab and would also lower the risk of damage to the foundation from potential leaks under the slab.	The Civil Engineer will coordinate this item with the Plumbing Engineer to see if relocating the domestic water and fire protection services as recommended is possible.

Sheet 1.3.08 (CONT.)		
	Is it acceptable to have the foundation drainage (piping labeled 'FD') discharge to grade at the wetlands resource area north of the academic wing, as currently shown?	Discharging the foundation drain, as it is currently shown on the plans, is acceptable. This project is currently under review of the Amesbury Conservation Commission and this item will be addressed as part of this process.
Sheet 1.3.09		
	Existing fire hydrant at CES loading area is shown as being "salvaged" and a new one is being provided ~10' away. If this equipment is in salvageable condition, why not simply relocate it? Please review. Note: a similar condition is also shown at the relocated parking island in front of CES.	This item will be coordinated with the Amesbury Water Department to determine if they would accept reusing the 2 hydrants to be salvaged. If allowable, we will update the plans accordingly.
	Force Main piping is shown entering the "cleanout manhole" at an elevation with less than 4'-0" of cover (potential freezing issue). Please Review. Note: a similar condition also occurs at the proposed discharge manhole.	The force main is designed to drain completely back to the pump station. Freezing will not be an issue due to this condition.
	Why is an 8" water main being extended and capped across the CES driveway near the existing sewage pump station?	The Amesbury Water Department has requested this water main stub to be installed. They requested it be brought off the new pavement so that in the event that they need to connect to it, they do not have to disturb the school's driveway.
Sheet 1.3.15		
	Two (2) different details currently utilize the same title ("Stormwater Treatment Unit (STU) Detail"); suggest revising for clarity/ease of future reference.	Both details are for stormwater treatment units. The difference in details is for the different types of units. There are 8 STU units for this project. These are all labeled on sheets 1.3.04-06. The 2 details on sheet 1.3.15 specifically call out which detail is to be used for each of the 8 units.
Sheet 1.3.18		
	Review detail for grease trap – possible need for "dead-men" to prevent hydrostatic lift due to high groundwater table. Review with PC to determine whether internal baffles are required for the grease trap.	A buoyancy calculation will be done to determine if this is necessary. If necessary, we will call for deadmen to be installed.

Sheet 1.3.18 (CONT.)		
	Please review “Force Main Cleanout Manhole” detail. Are steps usable as shown? Is it possible to relocate the manhole cover/access to align with the top of the steps?	The manhole cover will be adjusted to align the steps.
Sheet 1.3.19 – A few notes regarding the proposed ejector pump station:		
	It appears that the ejector pumps are sized at only 29.5 gallons per minute. This number seems to be very low and should be reviewed with the Plumbing Engineer for the project. I would expect the peak sewage outflow for the building to be in the range of at least 250-300 gallons a minute or more, based on a quick overview of the fixtures being proposed. Further, these pumps should not start more than once every 5 minutes, in order to avoid excessive wear on the motor windings. Please keep this in mind, as failure to address this issue will cause early wear/failure of the pumps and increased maintenance/replacement costs to the City/School District.	Presently, the sewer pump station is designed to operate at 29.5 GPM and the dosing is set to be 648 gallons per dose. The total daily flow (based on current Title 5 requirements) is 4,360 gallons per day. This means that the pump will run of approximately 22 minutes in order to pump the 648 gallons, and the system will dose 7 times per day. The pump station is designed to keep enough liquid in the tank in order to keep the pumps submerged. The pumps operate much better when they are not constantly going from a wet condition to a dry condition. The design of the sewer pump station is being fully coordinated with the City Sewer Department and Engineering.

Sheet 1.3.19 – A few notes regarding the proposed ejector pump station: (CONT.)		
	Please confirm that the pump rating for the new exterior ejector station does not exceed the rating of the existing ejector station that it is pumping into. The existing pump station (located along the CES driveway) is around ~50 years old; its ratings appear to be 100-gpm on the original design plan and should be confirmed. The proposed routing plan should also be reviewed with the DPW; it is my understanding that the existing pump station serving CES is already undersized and may not be able to receive the additional load from this building. New/replacement pumps are being proposed, however a size increase is not noted.	The existing pump station is a 20,000 gallon tank. The total daily flow (based on current Title 5 requirements) from the new AES building and existing Cashman building is 8,560 gallons. This is more than enough capacity for both buildings. The size and capacity of the existing sewer pump station is well within the expected flow and will be confirmed with the City as we proceed into Construction Documents. In our initial review of this design with DPW, they confirmed that they would like new pumps, controls, etc. for the existing sewer pump station.
	Force Main piping at proposed new ejector station should include a gate valve above the discharge of each check valve for future maintenance (otherwise service of the check valves would require draining several hundred feet of pressurized sewage back into the basin). An additional option would be to provide a separate valve chamber to house the gates and check valves, which would eliminate the need for DPW staff to enter the hazardous confined space in order to open/close the valves during maintenance.	These are good suggestions that we will review with the DPW.
	There also appears to be discrepancy between the pump on/pump off elevations and a note indicating ~4,386 gallons of storage. However, as shown, it appears this pump station will cycle on/off after every 648 gallons enters the tank; this seems very excessive. Do we have an estimate on how much energy this pump station will use?	The 4,386 gallons of storage is only to show that between the pumps failing to turn on and the inlet pipe, there will be enough volume to hold the full design flow of 4,360 gallons. This is standard for designing sewer pump stations (24 hours of storage above the alarm on). However, this system will be connected to the building's emergency generator. So, in the event of power failure, the pump station will be fully operational. Further, in the event that there is no school due to power failure, flow into the tank will be minimal.

Sheet 1.3.19 (CONT.)		
	Review accessibility of steps from hatch as shown. Possible need to relocate hatch to align with top of steps in order to facilitate physical access for maintenance staff.	The system as designed does not have access steps. The pumps are to be installed on a guide bar with a lifting chain. This will allow the pumps to be disconnected from the surface and pulled up to the surface for any service to be performed. This will eliminate the need to enter the tank to work on the pumps.
	Also, the discharge piping appears to be buried at a depth of ~8'-0", which seems excessive; suggest raising it if conditions allow.	The discharge pipe will be adjusted to be ± 4 feet below grade.
	Will the proposed ejector tank require tie-downs / "dead men" to prevent hydrostatic lifting due to the high water table in the area? It is assumed that much of the tank will be located below the water table.	Buoyancy calculations will be done to determine if this is necessary. If necessary, we will call for deadmen to be installed or anti floatation collars.
	The vent for the ejector tank is currently proposed to be terminated 3'-0" above ground, in a location not far from the play area (as opposed to being brought back into the building and up to the roof, as the vent(s) for the adjacent exterior grease interceptor will be). Are there concerns with sewage odors emanating from this vent, in particular due to the proximity to the play area? Also – is use of exposed PVC piping wise in an area subject to UV light exposure and/or potential vandalism?	The vent is to be installed with an activated charcoal filter. This vent acts as the intake for the system. The pump station is vented back through the building and through the roof. Odors should not be an issue with this vent at the playground area. SCH-40 PVC pipe is the standard pipe used for vents. The Landscape Architect & Civil Engineer will coordinate plantings in this area to help hide the covers and vent pipe.
	Lastly, the walls of the chamber are indicated as being only 6" thick; is this appropriate for a basin/tank with a bottom that is located approximately 16'-0 below grade, or should the wall thickness be increased? For instance, the existing pump station near the CES entry driveway has walls 10" thick (per Sheet 1.3.20).	The design of the concrete tank is from a current precast concrete manufacturer. Wall thickness is standard with reinforcement in the walls, bottom and top of the tank and is sufficient for this application. If the buoyancy calculations show that we need more weight, we will adjust as necessary.

Sheet 1.4.01		
	Planting Note #5 refers to "geothermal well heads" – is this note relevant? Please Review.	Note removed.
Sheet 1.4.03		
	Any planting/screening needed at existing Cashman loading area now that the main driveway to the new school passes right by it? Please also review potential conflict between proposed cantilevered gate and a proposed "DT-A" (assumed to be a deciduous tree). Suggest maintaining at least 3' between plantings and gate/transit path for future maintenance.	The sliding gate provides screening at the dumpsters / loading area. Trees will be coordinated with the sliding gate.
Sheets 3.4.01 & 3.4.02		
	Is any drainage required @ vestibule "walk-off" mats? If so, coordinate requirements with Plumbing Drawings.	Specified walk-off mats do not require drainage.
Sheet 3.5.01		
	Are different roof drain types required at "Green Roof" areas (i.e. outside 2nd floor teacher's lounge, etc)? If so, please coordinate requirements with Plumbing Drawings.	The Green Roof System specified is planters sitting on top of the same PVC roof system as elsewhere in the building. No special drainage is required. The plantings are drought sensitive for which watering is not required.
	I recommend adding Plumbing vents to the roof drawings for coordination purposes. In particular, be aware of required separations from AHU air intakes to meet both 248 CMR, as well as LEED's indoor air requirements (which may be more stringent).	Vents will be added to sheet 8.4.05 during CD's. They will be transferred to sheet 3.5.01 & minimum distances from HVAC intakes verified.
	Review placement of radon vent within AHU enclosure – in particular @ ERU-2.	Location will be reviewed, and radon vent located away from air intakes.

Sheet 3.5.02		
	Detail 1 (i.e. ballasted roof) – where does this apply?	Decorative ballast is called for at low roofs above the Cafeteria, Administration and the Entry canopy where visible from public areas of the Lobby and Library. It will eliminate reflected glare off the roofs inside these spaces. The extent of the decorative ballast is shown on the Roof pPlan: 3.5.01 and First Floor Plan: 3.4.02. This was shown as a hatch pattern on the roof and floor plans.
Sheet 3.9.09		
	Plan does not appear to match the most recent Site Plan (Ramp near AES playground differs). Please review/revise accordingly.	The site signage drawing background will be updated.
Sheet 5.4.02		
	Confirm Impact-resistant glazing is being specified at gymnasium windows/curtainwall.	Tempered glass will be called for at all gymnasium glass
Sheet 5.4.07		
	Is a draft curtain/draft stop with closely-spaced sprinklers required to protect the floor opening around the “Open Exit Stair” (See 780 CMR Section 1019.3)? If so, please coordinate requirements with Project FP Engineer.	No draft curtain / draft stop is required. This will be confirmed with our Code Consultant.
Sheet 5.6.01		
	Will the projector currently being shown at the “Platform” in the Cafeteria function as shown? It appears to be either reversed, or it will require use of a back-lit /semi-transparent projection screen in order to function properly where indicated.	Back projection is the design intent. The correct screen will be specified.

Sheet 7.0.01		
	Standpipe Riser diagram indicates a 6" Fire Service entering through the floor; this conflicts with sheet 7.4.01, which implies the service will enter horizontally through the foundation wall. Also, the FDC, Electric Alarm Bell (EAB) and main drain are indicated at the ground floor – this should be reviewed and revised if necessary (FDC & EAB are likely going to be located at 1st Floor near the main entrance). Revise riser diagram to indicate FDVCs where shown on plans.	On drawing 7.4.01, Double line pipe indicates a buried sprinkler pipe. Note will be added to indicate pipe rise. We will coordinate FDC and Bell locations with the Fire Department.
	Standpipe shown at lobby stair appears to have been removed since the SD submission. However, Sheet G.0.02 appears to indicate the lobby stair as an "Open Exit Stair", implying it is a required means of egress. Please confirm if it is a required egress stair, and if so, provide standpipe per 780 CMR Section 905 with hose valves at top and bottom landings (likely in recessed valve cabinets, for aesthetic purposes at this location).	This will be coordinated and, if required, added during CD's.
Sheet 7.4.01		
	Confirm 4" FDC piping is acceptable in lieu of 6" (standpipe supply demand is anticipated to be between 750-1000 GPM, per NFPA 14); the higher figure will apply if an additional standpipe is required at the Open Exit Stair as noted above in comments for Sheet 7.0.01.	Calculations will be done during CD's and pipe sizing will adjusted as required.
	Confirm the "platform" at the cafeteria is not being treated as a formal "stage" with a curtain (as indicated in SBC Meeting notes dated 5-23-19). Doing so will likely require additional fire protection measures including hose valves at the stage in accordance with 780 CMR Sections 410 and 905.3.4 (these are not currently shown).	This will be coordinated during CD's. The platform is not a formal stage and is not greater than 1,000 SF, so FDV's are not required.
	The riser isolation valve for Stair "B" does not appear to be located in an accessible location (chase). Recommend locating the in the adjacent Custodian Workshop if necessary to ensure access.	The location will be coordinated.

Sheet 7.4.01 (CONT.)		
	The Floor Control assembly at Stair "B" does not appear to be located in an accessible location (above hard ceiling). Might require an access panel where shown. Location also needs to be coordinated with the recessed Fan Coil Unit (FCU) shown in this location on Sheet 9.4.01.	The location will be coordinated.
	The riser isolation valve for Stair "C" does not appear to be located in an accessible location (above soffit). Suggest either placing it above the ACT ceiling in the Stairwell, or alternatively, locating it above the adjacent GWB ceiling with an access panel as required.	The location will be coordinated.
	Stair "C" – recessed FDV cabinet is shown located in an exterior wall. This is a potential freezing risk and should be either addressed or relocated. Similar condition also shown at same location on Sheets 7.4.02 & 7.4.03.	FDV cabinet is recessed in a furred-out wall, not the exterior wall.
	At exterior vestibules, recommend utilizing dry pendant sprinkler heads. Reason: if an exterior door gets propped/stuck open, standard wet sprinkler heads can easily freeze and burst in winter, causing damage. This has happened several times in our area over the last few years, notably at Stop & Shop (several times), as well as at the newly-constructed library in Salisbury.	We will revise heads at vestibule to dry heads.
	At corridors, additional sprinkler coverage may be required above/below ceiling "clouds" at Project Areas in classroom wing (see Arch Reflected Ceiling Plans). Same note applies to Sheets 7.4.02 and 7.4.03. See also clouds at Cafeteria/Platform.	Sprinkler coverage will be added if required at ceiling clouds.
	Review sprinkler head spacing at Servery – coverage exceeds 7'-6" from the plan-north wall of the space; spacing also appears to exceed the 130SF maximum allowable for an Ordinary Hazard occupancy per NFPA 13.	Sprinkler heads will be added in this area.
	Recommend removing the sprinkler head currently shown in the Elevator Control Room (ECR) unless otherwise required.	This sprinkler head will be removed, it was shown in error.

Sheet 7.4.01 (CONT.)		
	Provide sprinkler protection below bottom of stairs at Stairs B & C. Review spacing of sprinkler coverage below Open Exit Stair at lobby (an additional sprinkler head is potentially required)	Sprinkler heads will be added if bottom of stairs is open.
	Confirm whether there are any sprinkler requirements (i.e. a dry sprinkler system, etc.) at the proposed overhang outside the loading dock. If storage is anticipated in this area (particularly in the adjacent, fenced enclosure), protection will likely be required.	This area will be coordinated further during CD's.
	Confirm with Project Architect whether a draft stop and closely-spaced sprinklers are required at the floor opening around the Open Exit Stair (See comments for Sheet 5.4.07 above for additional information).	This will be coordinated during CD's.
Sheet 7.4.02		
	It might be wise to relocate the FDC currently shown at the western wall of the Gym and instead have it located over along the western wall of the administration area. Doing so would likely make it easier to conceal the piping by furring-out the interior face of the wall. Note: the FDC as shown is also currently more than 100'-0" from the nearest fire hydrant as required by NFPA 14; this should be reviewed with the Civil Engineer as design progresses and revised as necessary to meet current Code. Final location/style of the FDC should be coordinated with the Amesbury Fire Department prior to the completion of design so that accurate specifications and drawings can be provided to potential Bidders. The Electric alarm Bell (EAB) should be shown mounted above the FDC once its final location is determined, and the EAB should be coordinated with the Electrical/Fire Alarm Engineer for the Project.	Locations of FDC's and hydrants were coordinated with the Fire Department during a user group meeting (3/24). A hydrant will be provided within 100' of all FDC's.
	Confirm whether there are any sprinkler requirements (i.e. a dry sprinkler system, etc.) at the proposed overhang located at the main building entrance.	Overhang is non-combustible and does not require sprinkler coverage.

Sheet 7.4.03		
	Recommend providing head guards on all exposed sprinkler heads located within the gymnasium to prevent potential damage due to contact with athletic equipment/balls.	This is covered in specifications.
Sheet 7.4.04		
	Confirm whether any roof hydrants are required, in particular at top of Stair “C”.	Typically, the Fire Department is okay with one FDV at the stair that exits onto the roof. This was confirmed with the Fire Department in a user meeting (3/24).
Sheet 8.0.01		
	PVI Water heaters are currently being specified. Please review this with the School Building Committee and the Director of Finance and Operations. The APS district recently removed a pair of PVI units from the Amesbury High School that were installed under the most recent renovation to that building because it was deemed too expensive to replace them in kind when they ultimately failed after their warranty period had expired. If PVIs are ultimately utilized for this project, possibly secure maximum extended warranty if available; the AHS heaters barely outlasted the standard warranty they were provided with and their replacement was a point of contention for the district (this pair of water heaters, for example, has a combined list price of over $47K without any additional “optional” accessories added). Please also note that depending on the design intent, PVIs may be considered a “proprietary” spec; ideally we will receive a better description of desired requirements (i.e. duplex stainless steel tank; 15-yr standard vs extended warranty, etc), as well as (2) approved equals in order to avoid a potential claim being raised by the Contractor.	Basis of design will be revised to LAARS, three equal manufactures will be listed in specifications.
	Confirm domestic water heaters will be ASME rated per 248 CMR Section 10.14(9)(g), as both the combined storage exceeds 120 gallons, AND inputs exceed 200 MBH.	Specified water heaters will be ASME rated.

Sheet 8.0.01 (CONT.)		
	Abbreviation “TR” as used on the Water Heater Schedule does not appear to be defined (perhaps “Temperature Rise”?). Suggest adding an abbreviation to clarify.	Yes, this is temperature rise. Clarification will be added to drawings.
	Water heaters will likely be set at 140 degrees for supplying the kitchen area; a master mixing valve should be provided so that 120 degree hot water is distributed to the rest of the building to avoid scalding. It may also be worthwhile to add a 140 deg hot water return loop and associated recirc pump for the kitchen HW feed.	Hot water heaters will be set at 140 degrees. However, temperature sent out from master mixing valve will be 120 degrees. Kitchens no longer require 140 degree water at pot sink and dishwasher.
	Regarding the Roof Drain Specification (for RD-1, RD-2, OD-1 & OD-2): a standard cast iron dome would be appropriate for these locations. Nickel-bronze finish (as specified in the SD submission) is a premium cost and is best suited for areas where aesthetics are important; however up on the high roof nobody will even see them so the added expense does not appear to be warranted. The standard drain as currently specified has a poly/plastic dome (which can become lost or damaged much more easily, particularly following roof shoveling operations after heavy snowfalls). A similar comment will apply to the finish on certain floor drains (FD-2), many of which appear to only be located in mechanical areas and not subject to public view.	This was a typo. Nickle-bronze finish is not required at roof drains.
	Condensate from Cooler (12B) and Freezer (12D) coils should be directed to storm drainage, not to a floor sink (i.e. sanitary) as indicated on the Kitchen Fixture Schedule, unless the volume limitations for clear water waste discharge under 248 CMR are being met (12.5 GPH max for the entire building).	The condensate for the cooler and freezer will not exceed 12.5 GPH. HVAC condensate will be running to storm system.
	An aquastat is indicated on the domestic water recirc pump; I suggest adding a timeclock to keep the pump from running overnight when the building is not occupied. This is likely also a requirement under LEED.	Time clock will be considered.

Sheet 8.0.01 (CONT.)		
	Kitchen equipment Tag # KE-55 “Detergent System” is indicated as having a watts LF7 backflow preventor; this type of equipment typically requires a reduced pressure backflow preventor (not a double-check as indicated) due to the higher risk to the public of cross-contamination. Confirm with the local plumbing inspector.	This will be reviewed with the plumbing inspector during CD’s.
	Confirm whether backflow preventors are required at 3-compartment sink or dishwasher(s).	Watts LF7 will be provided at these locations unless the plumbing inspector requires a reduced pressure backflow preventer.
	Abbreviations list is not in alphabetical order which tends to increase confusion. Please review/clarify.	This will be reviewed.
Sheet 8.4.01		
	Review pipe routing around columns/footings (in particular at columns AF:A3.5, BC:B8 to name a few). Recommend showing footings on this plan for coordination purposes. The waste piping shown running down the corridor of the academic wing will likely be impossible to physically install in this area, unless adjacent footings on each side of the hallway are dropped accordingly.	Closer coordination with columns and footings is required and will be addressed during CD’s.
	Review specification of FD-2 @ Kitchen areas. Floor sinks with a ¾ or ½ grate are usually more appropriate when receiving indirect waste (a full grate as specified can also exacerbate splashing issues).	This will be revised during CD’s
	Note: the warewasher/dishwasher (Item KE-53) at the plan north wall of the Kitchen likely requires a dedicated grease interceptor (see 248 CMR 10.09(2)(5) and the applicable sections of the referenced standard PDI-G101). If a separate grease trap is not required, please confirm that the flow restrictor at GI-1 will not cause the floor sink at KE-53 to overflow if the adjacent 3-comp sink is dumped at full capacity.	This will be reviewed.
	Confirm whether a second vent will be required for the discharge of the exterior grease interceptor to prevent siphonage (See Sheets 1.3.08 and 8.5.02).	Only 1 chamber vent is required for exterior grease trap.

Sheet 8.4.01		
	Piping labeled “KW” (presumably “Kitchen Waste”) does not correspond with the legend on Sheet 8.0.01; please review/clarify.	This will be added to the legend as required.
	Confirm roof drainage requirements at exterior canopy (main entrance). Provide Heat Trace and Insulation if freezing is a concern. Coordinate drainage with Civil (no provisions for connection are currently shown on Sheet 1.3.05).	This will be coordinated during CD’s.
Sheet 8.4.02 thru 8.4.03		
	Confirm backwater valves will be provided for roof drainage serving low roofs per 248 CMR.	Any lower roof drainage connecting to higher roof drainage will be provided with a backwater valve.
Sheet 8.4.02 thru 8.4.04		
	Hose bibbs at restrooms @ Academic Wing – are recessed/box-style being used? If not, these can be an injury hazard if placed along corridors. Locations differ between 2nd and 3rd floors, but 3rd floor locations are a larger concern currently. Please Review.	This will be reviewed further during CD’s.
	Sinks are proposed to be located in classrooms along Column Lines B2, B3, B4, B5, B6 &B8; please keep in mind that these locations are currently scheduled to have structural brace frames (with members predominantly 5-7” wide) buried inside the wall construction which will most likely conflict with vertical routing of waste/vent piping as currently designed. Suggest revising wall type/layout or type at these locations to include a furred-out space/chase for piping as needed. The most extreme instances noted were along Column Line 3B and 5B, where the brace members at the Ground Floor are approximately 7” wide. The interior clear space within the wall as currently designed leaves only ½” of clearance on either side of the framing, not enough room for Plumbing piping to pass. Also keep in mind that many of these locations also currently have grade beams scheduled, which may conflict with waste piping dropping below the ground floor slab at those locations if not properly coordinated. There are also wide flanged steel beams centered on the column lines below the fixtures on Floors 1 and 2 which can prevent penetrations in their immediate vicinity.	In general, water lines will rise in duct chase wall and run undercounter to the sinks. Further coordination will continue during CD’s.

Sheet 8.4.02 thru 8.4.04 (CONT.)		
	Is a secondary (overflow) roof drainage system required by code at the main/high roof? The wall sections do not appear to indicate parapets, which suggest that many of the overflows may not be needed; review and remove if possible to save unnecessary materials cost/labor (or alternatively, to avoid other less-acceptable VE items which may have greater detrimental effects on instruction, long-term maintenance, etc). If any overflows are provided (i.e. at the drains outside the 2nd floor teacher's lounge), extend piping discharges to ~18" above grade in conspicuous locations where discharge will not damage landscaping.	The decision has been made to eliminate secondary drainage. Roof structure will be designed to handle potential water ponding
Sheet 8.4.02		
	Confirm gas meter location shown (location shown is below grade on this plan and would otherwise be located in the middle of the gymnasium if located on the floor above). Locating it outside in the adjacent receiving area along Column Line AA (with bollards for vehicle protection) or alternatively, on the exterior wall east of the Receiving-Storeroom (along column line 4A) would appear to be better options, in particular against potentially locating it on the front of the building where it would otherwise be quite displeasing from an aesthetic standpoint. Coordinate relocation with the Civil/Utilities Plans.	Gas meter location will be revised.
	The incoming domestic water service is shown as being equipped with a 4" Reduced Pressure Backflow Preventor and associated relief vent. I recommend either directing this relief vent outside (preferred) or alternatively, specifying the valve with the optional flood protection kit. Reason: if the relief vent opens because one of the checks becomes fouled, this equipment is capable of dropping around 600-650 gallons per minute onto the floor, continuously, which could cause major damage (in particular due to the proximity of the valve to the main electrical room).	This will be reviewed during CD's.

Sheet 8.4.02 (CONT.)		
	Is a pressure reducing valve required on the incoming domestic service (i.e. is the incoming static pressure greater than 80 psi)? If so, the space allocation in the sprinkler room will get even more congested. I advise reviewing space requirements for the meter and backflow preventor to make sure everything fits as planned (Note: This also affects the Domestic Water Service Piping Detail on Sheet 8.5.01.). Further – the 11-21-19 SBC meeting minutes include notation regarding hydrant flow testing (See October Invoices), so it is assumed that this information is available.	Incoming water pressure is not greater than 80 PSI. Room dimensions have been coordinated.
	Recommend providing additional/separate shutoffs on gas feeds to generator and rest of building to allow utility to lock-out the structure without compromising its life safety functions.	This will be considered.
	Provide location of oil interceptor for sump pump discharge. Coordinate location with Project Architect and locate it as discretely as possible. Also, provide location for sump pump control panel.	This will located during CD's.
	It is unclear what the exterior downspouts on the exterior wall of the Gym are serving, or why they are being indicated on the Plumbing drawings.	This area is being revised during CD's.
	Confirm whether backwater valves are being provided on all low-roofs per 248 CMR.	Backwater valves will be provided as required.
Sheet 8.4.03		
	Confirm locating lavatories outside of the restroom is compliant with the MA Plumbing Code (248 CMR).	This will be reviewed.
Sheet 8.4.05		
	Plumbing vents through roof are not shown yet. Please confirm minimum separations required by code will be met. I believe indoor air quality for LEED may also require a larger separation than the 25' required under 248 CMR.	Vent locations will be coordinated and shown during CD's.
	A gas-fired, roof mounted generator is indicated, with corresponding notes also shown on Sheet 8.4.02. Confirm adequate minimum gas pressure is available from NGrid to operate the gen-set without the need for an expensive gas booster.	Gas pressure will be confirmed with gas company.

Sheet 8.5.01		
	The trap location on the 3-compartment sink shown on the “Grease Trap Piping Detail (Recessed)” is incorrect. The trap needs to be located under the central sink basin in order to comply with 248 CMR Section 10.08(1)(a)(2)(c).	Detail will be revised as required.
	The “Domestic Hot Water Heater Diagram” does not appear to indicate required neutralization kits for addressing the acidic condensate produced by the specified condensing water heaters (nor are they called for in the Gas-Fired Hot Water Heater Schedule on Sheet 8.0.01. Please add/clarify.	Neutralization kit will be specified with hot water heaters and detail will be revised.
Sheet 10.1.02		
	Review conduit feed deviation from roadway at secondary egress road. Stated intent by the design team previously has been not to disturb the hill; may be best to relocate conduit to follow path of the proposed egress roadway. Note: a similar path is also shown for an 8” water main on Sheets 1.3.04 & 1.3.07.	This routing was selected by the design team to minimize the length of the ductbank as a cost savings and to not have the electrical ducbtank work included in an early bid package. Following the curved road added over 50 ft. Now that the road has been straightened, the design team will review again.
Sheet 10.2.13		
	The roof plan on this detail calls for a 250 KW Emergency Generator, but the referenced detail calls for a 200 KW. Please review.	Generator is 250 KW natural gas driven and located on the roof. This will be coordinated on the drawings.
Sheet 10.3.12		
	Plans show power wiring for automatic flush valves + faucets at all toilet rooms. Strongly recommend this be Value Engineered out of scope in favor of either manual fixtures, or electronics with self-charging batteries.	Actual plumbing fixture selections will occur during the current CD phase and will be further reviewed.

Potential VE Items:

- Removal of overflow roof drains from areas not required.

  Response: Removed.

- The building has been made taller since the SD submission. If the distance from the Ground Floor to the 2nd Floor can be reduced to less than 30'-0", the entire standpipe system can likely be removed from the FP Scope. This would require shortening the Ground Floor and First floor each by a little over 4".

  Response: Height is required for HVAC systems to maintain ceiling heights. Note: It is our standard of practice to provide standpipes, regardless of floor to floor heights as a matter of Life Safety.

- Potentially reduce the use of stainless steel at handrail components in favor of painted galvanized steel.

  Response: In our experience, for these elements subject to heavy use, SS prevents frequent maintenance required with painted rail systems.

- Potentially remove each P-3 Sink fixture from the Plumbing scope at typical classrooms (keep P-3As for ADA requirements). Potentially also review provision of a pull-out sprayer at classroom sinks for filling buckets, etc. per discussion at 02-03-20 Working Group Meeting.

  Response: Sink is required under current MSBA guidelines.

- Potentially remove hardwiring for powered flush valves and faucets as noted above for Sheet 10.3.12

  Response: Hardwired devices are provided to reduce maintenance requirements inherent in battery operated units.

- Potentially reduce the number of janitor's closets in the building. 248 CMR Section 10.10 Table 1 requires (1) service sink per floor for this occupancy; There are (4) currently shown on the ground floor, and (2) each on Floors 1 and 2.

  Response: We believe that the number is appropriate. Separate closets to serve the Community and Educational sides. The separate sinks in the Kitchen are for the convenience of kitchen staff.