

Project Minutes

Project: New Stoneham High School Project No.: 20033
 Prepared by: Sarah Traniello Meeting Date: 4/22/2024
 Re: School Building Committee Meeting Time: 5:00pm
 Location: Central Middle School Media Center and Remote Participation Meeting No: 82
 Distribution: Attendees (MF)

Attendees:

PRESENT	NAME	AFFILIATION	MEMBER
✓	Marie Christie	Co-Chair, School Building Committee	Voting
✓	David Bois	Co-Chair, School Building Committee; Community Member with Architecture Experience	Voting
✓	Nicole Nial	School Committee Member	Voting
✓	Raymie Parker	Select Board Member	Voting
✓	Douglas Gove	Community Member with Engineering Experience	Voting
	Stephen O'Neill	Vice-Chair, Community Member with Engineering Experience	Voting
✓	Josephine Thomson	Community Member	Voting
✓	Jeanne Craigie	Town Moderator	Voting
✓	Lisa Gallagher	Community Member; School Secretary; Past member, Middle School Building Committee	Voting
✓	Sharon Iovanni	Community Member	Voting
	Cory Mashburn	Community Member, Finance and Advisory Board	Voting
		Community Member with Construction Experience	Voting
✓	David Pignone	Select Board, Athletic Director, Member knowledgeable in educational mission & function of facility	Voting
Remote	Kevin Yianacopolus	Local Official responsible for Building Maintenance	Voting
	Dennis Sheehan	Town Administrator	Non-Voting
	Leia DiLorenzo-Secor	Town Budget Director	Non-Voting
	David Ljungberg	Superintendent of Schools, Secretary of School Building Committee	Non-Voting
✓	Bryan Lombardi	Stoneham High School Principal	Non-Voting
✓	Brian McNeil	Town Facilities Director	Non-Voting
Remote	April Lanni	Town Procurement Officer / MCPPO Certified	Non-Voting
✓	Brooke Trivas	Perkins&Will	
✓	Stephen Messinger	Perkins&Will	
Remote	Adam Liu	Perkins&Will	
Remote	Brad Pineau	Perkins&Will	
Remote	Lizzy Dame	Perkins&Will	
	Katie Janson	Perkins&Will	
	Andrea White	Perkins&Will	
	Douglas Faria	Edvance Technology Design	
	Kalvin Cho	Consigli Construction	
✓	Andrew MacNeil	Consigli Construction	
✓	Todd McCabe	Consigli Construction	
	Kristy Lyons	Consigli Construction	
✓	Robert Smith	SMMA	
	John Cutler	SMMA	
✓	Sarah Traniello	SMMA	
✓	Julie Leduc	SMMA	
	David Warner	Warner Larson	
	Ti Johnson	Warner Larson	

Item #	Action	Discussion
82.1	Record	Call to Order 7:00 PM, Co-Chair M. Christie called the meeting to order. This meeting will be held via video conference and in person and will be posted on the Town's website.
82.2	Record	Approval of Meeting Minutes J. Craigie moved for the approval of the Meeting Minutes of the March 18, 2024, School Building Committee; R. Parker seconded the motion. The motion was carried by unanimous vote. J. Craigie moved for the approval of the Meeting Minutes of April 8, 2024, School Building Committee; R. Parker seconded the motion. The motion was carried by unanimous vote. L. Gallagher and M. Christie abstain from approval of the April 8, 2024, as neither were present for said meeting.
82.3	Record	Approval of Warrant No. 53 J. Leduc presented Warrant No. 53 with invoices from Sustainable Energy Advantage in the amount of \$249, Perkins&Will in the amount of \$123,025 for Construction Administration Services for March 2024 and \$8,750 for Branding Services under Designer Amendment No. 28, SMMA for \$99,500 for Construction Administration for March 2024; and Consigli Construction Co. for Requisition No. 21 in the amount of \$7,323,043 for March 2024. Total Warrant No. 53 in the amount of \$7,465,017 D. Gove for the Finance Working Group provided their motion recommending the approval of Warrant No. 53. J. Craigie seconded the motion. D. Bois asked questions regarding the percentages in backup detail on the trades being rather low and wondering if it is due to holding back on payment until further along. A. MacNeil advised that is correct. D. Bois confirmed he wanted confirmation that progress was being made and was moving along and the percentages were not a true representation of the status. R. Parker asked if payment should be held off and D. Bois advised no. Motion to approve was made by R. Parker and J. Craigie seconded. The motion carried by unanimous vote.
82.4	Record	Approval of Change Order No. 30 S. Messinger presented Change Order No. 30 with Change Request No. 270 which is a no-cost change to modify Phase 2 Substantial Completion Date from June 28, 2024, to July 31, 2024 <ul style="list-style-type: none">• S. Iovanni motioned to accept Change Order No. 30; J. Craigie seconded the motion. The motion was carried by unanimous vote.<ul style="list-style-type: none">○ T. McCabe advised that the Change Order is in alignment with what Consigli has been talking about with the Schedule Updates over the last 3-4 meetings with regards to the recovery schedule. Consigli is simply executing a contractual document to move the date of Substantial Completion Date from June 28, 2024, to July 31, 2024, to align with what is showing on Consigli's P6 schedule. It is not doing anything to the start day of school, but it is changing the end date for Consigli to turn the school over.○ N. Nial asked if moving this date affects the start date of the demolition of the existing High School building. <i>T. McCabe advised that it does not affect the existing building as the first activity that needs to start at the existing building is abatement which is not due to start until August. The third phase of this project, the abatement and demolition of the existing high school, is not changed or affected by the execution of this change order.</i>

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		<ul style="list-style-type: none"> ○ <i>J. Leduc also pointed out that the demolition also cannot commence until everything has been moved out of the existing building and the Police and Fire Departments will be utilizing the existing building for training. The Building Inspector has advised that she will allow items to be moved into the new building into the rooms and placed in the center of the room allowing for access to the perimeter of the rooms for flexibility to fit the needs of the school.</i>
82.5	Record	<p>Approval of Change Order No. 31</p> <p>S. Messinger reviewed Allowance Transfers 048 and 050; Budget Transfers 032 and 033; Hold Transfer 016; Contingency Transfers 043, 085, 086, 092, 095, 096, 097; Change Requests 192, 229, 232, 245, 248, 249, 251, 252, 253, 256, 259, 260, 261, 262, 268, and 272 for a total of \$677,819.21.</p> <p>D. Gove met with the Finance Working Group prior to the SSBC Meeting to review this Change Order. Further advised that \$600,000 of the \$677,819.21 Change Order are from the 3 Owner Requested Change Requests which are for the PreK Playground Surface Material, the sod for the baseball field and the branding. Those items came in \$20,000 under the budget that were already advised in the budget. The Finance Working Group recommends approval of Change Order No. 31. J. Craigie seconded the motion. The motion was carried by unanimous vote.</p> <ul style="list-style-type: none"> • D. Bois asked question regarding the footings for the Musco light poles which created discussion about the cost breakdown. <i>A. MacNeil advised that originally there was a million-dollar allowance set aside for blasting and instead spread footings were utilized for the task instead to minimize disruption. There is a \$875k allowance of blasting funding that is still remaining that will eventually be reconciled.</i>
82.6	Record	<p>Approval of Designer Amendment No. 31 for Hazardous Material Construction Monitoring</p> <p>J. Leduc reviewed Perkins&Will's Designer Amendment No. 31 for Hazardous Material Construction Monitoring in the amount of \$235,100.00 which will be encumbered if approved by the SSBC.</p> <p>D. Gove motioned that the Finance Working Group recommended approval of Designer Amendment No. 31 for the Hazardous Material Construction Monitoring in the amount of \$235,100. R. Parker seconded the motion. The motion carried by unanimous vote.</p>
82.7	Record	<p>Budget Update</p> <p>J. Leduc reviewed the Project Budget and advised that \$3,543,027 remains in Contingency. Forecasted items are listed and enumerated with an estimated cost that may be needed for the construction i.e. painting and/or repairs at adjacent neighbors, trees, and landscaping. The current risk being held on the project is \$4,344,088. That includes only \$600,000 for the Stadium Building. The \$4,344,088 is all the items that have not been approved to date. Those amounts that have been approved to date have already been encumbered. J. Leduc reviewed the budget forms and where all the amounts are generated from which are provided monthly. Questions from the Committee came forth regarding their desire to know the status of Owner's Contingency that is Hard Costs Contingency, Soft Cost Contingency and CM Contingency and the differences of what has been expended to date, currently held and how much remains. J. Leduc advised a meeting can be set up with those interested in reviewing these in more detail.</p>

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82.8		<p>Value Management Time Sensitive Decisions - Amphitheater</p> <p>J. Leduc was provided information needed for the State Grant in the amount of \$300k for Amphitheater which needs to have a contract in place before May 31, 2024. J. Leduc is working with the Town to provide the documentation.</p> <p>A. MacNeil will review the costs associated with amphitheater and the hard costs from the landscaping contractor which is the seating structure and sub grading at \$649,000 and awaiting concrete paving, sitework and electrical power which is tracking in the \$800,000 - \$850,000 range and better numbers are expected very soon as Consigli is expecting more pricing this coming week from a lot of subcontractors as the focus is primarily the stadium building over the past couple of weeks for more detailed pricing.</p> <p>S. Iovanni asked if there were any details about what is not covered under the grant and what is covered under the grant so that the project is working within the parameters set out for us. J. Leduc will follow up with D. Sheehan. J. Leduc advised that it involved getting an executed Contract underway with Consigli for the amount and working with getting the Change Requests together for approval for the next meeting's approval for the May 20, 2024, meeting in order to move forward. D. Pignone confirmed with T. McCabe that the \$850,000 amount includes the amphitheater and the stadium seating for the visiting side.</p> <p>J. Leduc continues to work with D. Sheehan on the \$500,000 Grant being put towards the new high school project.</p>
82.9	Record	<p>Construction Update</p> <ul style="list-style-type: none"> • March 13, 2024 – Aerial Drone Photo The biggest change is in Area D in the Auditorium Wing. • April 16, 2024 – Aerial Drone Photo The masonry façade is going around the west in the north side with the little bit of staging in the center is the last bit of masonry to be done there. In this image the construction trailers have been removed. The Konex boxes are starting to be moved away and the site contractors are back in there removing asphalt and installing all the drainage structure in that area. • April 16, 2024 – Aerial Drone Photo – Southwest Elevation The mechanical well is in there doing detailing of all the roofing on the Auditorium fly loft roof. The first hatch is about to be installed, two are installed and awaiting the next crane to install the next and get the next 2 up this week. South masonry has had their last bit of scaffolding removed today as the masonry on the South elevation is complete. • April 16, 2024 – Aerial Drone Photo – North Elevation Work on the Main Entrance area, Principal's office, first floor area masonry was finished this morning. Dynamic fan testing is being conducted in this picture in the bottom left. Testing of windows was performed last week, and all of the windows passed. Mechanical well final connections are being performed in Area A currently and Area B mechanical well connections have just finished. Continuing any roof penetrations or electrical conduit penetrations through the roof • Mechanical Room - Chiller Chiller arrived last week, and it is starting to be piped and all the pumps in the Mechanical Room

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		<ul style="list-style-type: none"> • Nurse's Suite Nurse's Suite has been painted and the bathrooms have been tiled. Door frames will start getting painted and then glass will be installed and then some floors. Progressing nicely. • Second Floor Classroom Floors are all covered and electrical finishes are going in with the clocks on the wall, switches in the wall, Public Address clock in, receptacles have been done and some of the PA speakers, occupancy sensors and recessed lighting has been installed and sprinkler heads have been dropped into the ceiling grid. The work is being performed in a U-shape starting in 2 West to the South and to the East side and 90% of the second floor is in this state currently. • Second Floor Science Room Cord rails have been installed and faucets are in. Work is being performed on all 3 of the science rooms right now finishing up all the above head electrical. • Third Floor Classroom This is the west side of the third floor, so they stopped doing the U-shape and started prepping the concrete decks, putting down the linoleum, and nearly two-thirds down the west side and starting to prep all the classrooms today. • Gymnasium – Track Level The backboards are up for the main court with projection screen and projector up and recessed lighting all around the track with the big pendant lighting in the main part of the gymnasium. Preparing for painting railings and floors are not far behind on the gym track. The gym is progressing nicely, and the gym floor is coming in on April 29, 2024. • North Field Here is the hole that D. Pignone dug the other day in the North Field to kick off the work to be performed for the Musco lights. This is the East side of the North Field and over-excavation was needed to remove the layer of urban fill that was present so that is 8 feet below so that it can be tested for compaction. As soon as this is done, it will be brought back up to grade.
82.10	Record	<p>Construction Schedule Update</p> <ul style="list-style-type: none"> • T. McCabe advised that the construction crew has worked 12 of the last 14 days since the last meeting. Averaging 186 workers onsite per day with a high of 200 workers over the past 10 days. On Saturdays, there is an average of 80 workers per day. These are the critical path activities shown on this schedule provided. These are milestones that Consigli gauges overall schedule progress on and these are the high-profile activity milestones identified and keep everything else on track. • Over the last 2 weeks, 6 more milestones came and were hit and #4 the gym equipment installation, Consigli beat the date that was expected of 4/22 as installing started 4/18. The primary basketball court has the basketball backboards and rims in place currently. • Items #14 and 15 are mechanical items and within the mechanical room chiller has been set which was the last major piece of equipment for the project and there was a major rooftop equipment set as well, both of which were beat. Item #14 was set for 4/15 was done 4/12 and Items #15 was the heat recovery/chiller units was set for 4/26 and it was set on 4/17, beat by 1 week. • Item #17 Permanent Power Available is one that has been watched for a while as it is the Eversource Transformer and the work that is being done on the secondaries and it was

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		<p>for 4/16 and Consigli has been working with Siemens and Eversource to make sure that it is on schedule for power next week.</p> <ul style="list-style-type: none"> • In the Auditorium, the staging for the dance floor had been in place to put in the equipment and the finishes at the highest level, ceiling level, and those were completed, and that staging has been moved down to the first floor level. This milestone was missed by 2 days as it was targeted for 4/15 and hit on 4/17. • Foundations start next week in the North Field with rebar starting with concrete forming the footings by the end of next week which is a big milestone. • Still holding the July 31, 2024, date, hitting the milestones that have been needed to be hit and have not lost any time and maintaining schedule. • Major activities happening over the next 2 weeks are gym floor and there is some prep work that needs to happen on the concrete floor to achieve some leveling that needs to happen prior to the gym floor being acclimated and installed. On 4/29, the wood floor will be moved in and let the material start to acclimate in its environment. • The kitchen walk-in cooler and the hoods will be installed next week, with the hoods coming in mid-week and having a little bit of time to install but those are 2 major pieces of equipment that support the kitchen activities. • Spartan Place curtain wall is something that is a priority as the tarps used for weather protection still cover those locations where the curtain wall will be installed when one drives up the driveway to the building. Curtainwall in Spartan Place is scheduled to start next Monday starting on the South side and working around to the front of the building as that is how the work has been progressing. This is a big milestone. <p>D. Bois requested that on the Critical Path Milestone Schedule that if the Project is tracking early completion, on time or delay, it would be preferred to see the dates reflected on the schedule that it was projected/planned for completion and actual completion.</p> <p>D. Bois advised if there are any items that are not being tracked currently and should be, please add them to the Milestone Schedule. <i>T.McCabe advised that half of the items on the Milestone Schedule have been completed as it was designed to track the progress through the months of March and April. A deeper dive will be made for May and June adding some of those critical activities to the Milestone Schedule, removing the completed items or greying them out to avoid it from getting too busy. D. Bois advised that they could be removed as the history has been provided.</i></p>
82.11	Record	<p>Discussion/Correspondence/New items</p> <p>S. Messinger reviewed the scope of the Stadium Building Expansion providing detail relating to items that were for Building Expansion costs highlighted in documents presented in a pale orange highlight color, those that were Owner Requests in a light purple highlight color and those that were Design/Coordination related in a light blue highlight.</p> <p>S. Messinger provided the information as a work in progress advising that the costs have not been fully vetted and approved by the Design Team, Owner’s Project Manager and CM. This is being presented to expedite the decision-making process to determine what optional changes will be made to Spartan Stadium, if any. Even if the Owner does not wish to expand the building or complete the Owner Requests, some of the Design/Coordination costs will be incurred due to life safety, coordination, or functionality of systems. The estimated cost of the “do nothing” option has been provided as requested. In addition to the memo showing the changes, coordinating drawings are provided highlighted using the color-coded key outlined above.</p>

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		<p>Building Expansion:</p> <ol style="list-style-type: none"> 1. Extended building footprint 16' north on both levels (approx. 34' x 16' = 1,088 gsf). 2. Bumped out the foundation wall at Level 00 adjacent to the LULA pit (approx. 16' x 11' = 176 gsf). 3. Modified the stadium bleachers to provide accessible outdoor storage space underneath. 4. Added structural shear walls at gridlines SB and SE. 5. Adjusted the locations of showers, toilets, and sinks to work with new structural elements. 6. Modified layouts for sprinklers, light fixtures, and ductwork. 7. Adjusted the façade and structural reinforcing, 8. Modified the surrounding landscape to adjust to new building dimensions. 9. Coordinated infrastructure such as drainage systems. 10. Adjusted the structural supports of the bleachers above. 11. Created a Storage Room on Level 01 adjacent to the Concessions space. 12. Provided a third garage door into Level 00 Open Storage (including associated heater and electrical panel). 13. Added ancillary and required elements such as additional roof drains, sprinkler heads, heating, and cooling. <p>Owner Requests:</p> <ol style="list-style-type: none"> 1. Modified main entry at the Locker Room on Level 01 to address line of sight issues (approx. 26' x 7' = 182 sf). 2. Provided a "switchback" stair at center of bleachers to address line of sight and functionality. 3. Added exterior electrical outlets for outdoor golf cart charging capabilities under bleachers. Review 4. Added lighting under bleachers for outdoor storage area. Review 5. Added shower to Coaches Office on Level 01. 6. Added a flat panel screen, data drops, and outlets in the Coaches Office on Level 01. 7. Added marker boards in Coaches Office and Locker Room on Level 01. 8. Removed the Storage Room on Level 01 to give space back to Main Locker Room. 9. Changed the Level 01 lockers to "open style". <p>Design/Coordination:</p> <ol style="list-style-type: none"> 1. Adjusted window and louver dimensions on west and north façade for coordination. Review 2. Replace two (2) concessions windows with single overhead coiling door for flexibility and durability. Review 3. Value add to widen overhead coiling doors in L00 storage from 8' to 10' for ease of use. Review 4. Value add to provide floor drains in Main Storage area at L00. Review 5. Value add to provide Oil Water Separator at Main Storage at L00. Review 6. Value add to provide interior and exterior outlets for convenience. Review 7. Value add to provide corner guards to protect wall edges. 8. Modified mechanical equipment (heaters, air exchangers) per coordination. Review 9. Replaced lighting with different fixtures to address mounting and coordination. Review 10. Modified structural support details around overhead coiling doors based on coordination from Main Building. Review 11. Provided separate rated room for Emergency Electrical Panels in L00. 12. Replaced door and window combination with door and sidelight at Trainer's Room for ADA requirements. 13. Switched several sprinkler head "styles" to meet space needs or for coordination purposes. 14. Documented some ductwork and piping that was not originally shown including supply and return grilles and several small trunk lines. 15. Relocated horizontal piping onto roof for coordination purposes. 16. Added panelboards, outlets, power, wiring, circuit tags to meet scope requirements. 17. Added exterior light fixtures at entry doors and Concessions windows. 18. Documented code required exit signs and several fire alarm devices not previously shown.

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		<p>J. Craigie advised that the project is going to need to either pay the \$1,072,837 for the storage building to be built because in the end it will result in the destruction of property when the Facilities staff does not have sufficient storage for their snow blower machines, equipment, supplies and golf carts as damage will be incurred with New England inclement weather exposure. N. Nial advised that \$400,000 is due to Design Coordination/Error and D. Bois further advised that \$600,000 of the \$1 Million is the cost to make these changes to the Spartan Stadium with \$581,000 + \$75,000 equating \$650,000.</p> <p>Cost Adjustment Measures</p> <table border="1"> <thead> <tr> <th>Item #</th> <th>Discipline</th> <th>Description</th> <th>Change</th> <th>Savings</th> </tr> </thead> <tbody> <tr> <td>A1</td> <td>Architectural</td> <td>Slope Roof</td> <td>Slope roof to drain + eliminate roof/overflow drains and associated piping and storm</td> <td>\$ 30,000.00</td> </tr> <tr> <td>A2</td> <td>Architectural</td> <td>Façade Material Under Bleachers</td> <td>Swap decorative brick to a utilitarian material</td> <td>\$ 2,500.00</td> </tr> <tr> <td>A3</td> <td>Architectural</td> <td>Remove Concession OHD</td> <td>Revert design change to original design with (2) sliding window units</td> <td>\$ 17,500.00</td> </tr> <tr> <td>A6</td> <td>Architectural</td> <td>Attic Stock in lieu of new items</td> <td>rubber base</td> <td>\$ 1,500.00</td> </tr> <tr> <td>A7</td> <td>Architectural</td> <td>Attic stock for new light fixtures</td> <td>confirm what we have available and where it could go in Stadium</td> <td>\$ 10,000.00</td> </tr> <tr> <td>E1</td> <td>Electrical</td> <td>Use original Lighting Fixtures</td> <td>Use original light fixtures; 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supplement with new fixtures only where needed.	\$ 75,000.00	E2	Electrical	Panelboard PL1SA is Amphitheater cost	Panelboard PL1SA was issued as scope for PR-123 - Amphitheater & Visitor Seating;	\$ 16,500.00	E3	Electrical	Electrical Outlets - Reduction	Remove exterior and interior electrical outlets	\$ 15,000.00	E4	Electrical	Remove all lighting in under bleacher storage		\$ 12,500.00	M1	Mechanical	Pressbox Temp Control System	Remove temperature control system (RFCUs, HPCU, piping & thermostats) and	\$ 11,000.00	M2	Mechanical	Remove Electric Unit Heater in L00 Storage	Remove (1) Electric Unit Heater from Storage S100 including associated power.	\$ 1,500.00	M3	Mechanical	EHC's - Revert to Original Models		\$ 6,500.00	M5	Mechanical	Vents in Concession Roof - Remove and block out	no block outs?	\$ 10,000.00	M6	Mechanical	Remove Electric Unit Heater in Concessions	Remove (1) Electric Unit Heater from Concessions including associated power.	\$ 1,500.00	P1	Plumbing	Remove one (1) water fountain	Vestibule S108 interior water fountain	\$ 8,500.00	P2	Plumbing	remove oil water separator and floor drains		\$ 25,000.00	S1	Structural	Reduce roof load to 40 psf	estimate 1 lb per sf for roof framing?	\$ 15,000.00	S3	Structural	reduce decking to 20 gauge		\$ 5,000.00	L1	Landscape	provide asphalt in lieu of concrete in accessible bleacher areas		\$ 16,000.00	L2	Landscape	provide gravel under inaccessible bleacher areas		\$ 10,000.00					\$ 290,500.00
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E3	Electrical	Electrical Outlets - Reduction	Remove exterior and interior electrical outlets	\$ 15,000.00																																																																																																												
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M1	Mechanical	Pressbox Temp Control System	Remove temperature control system (RFCUs, HPCU, piping & thermostats) and	\$ 11,000.00																																																																																																												
M2	Mechanical	Remove Electric Unit Heater in L00 Storage	Remove (1) Electric Unit Heater from Storage S100 including associated power.	\$ 1,500.00																																																																																																												
M3	Mechanical	EHC's - Revert to Original Models		\$ 6,500.00																																																																																																												
M5	Mechanical	Vents in Concession Roof - Remove and block out	no block outs?	\$ 10,000.00																																																																																																												
M6	Mechanical	Remove Electric Unit Heater in Concessions	Remove (1) Electric Unit Heater from Concessions including associated power.	\$ 1,500.00																																																																																																												
P1	Plumbing	Remove one (1) water fountain	Vestibule S108 interior water fountain	\$ 8,500.00																																																																																																												
P2	Plumbing	remove oil water separator and floor drains		\$ 25,000.00																																																																																																												
S1	Structural	Reduce roof load to 40 psf	estimate 1 lb per sf for roof framing?	\$ 15,000.00																																																																																																												
S3	Structural	reduce decking to 20 gauge		\$ 5,000.00																																																																																																												
L1	Landscape	provide asphalt in lieu of concrete in accessible bleacher areas		\$ 16,000.00																																																																																																												
L2	Landscape	provide gravel under inaccessible bleacher areas		\$ 10,000.00																																																																																																												
				\$ 290,500.00																																																																																																												
		<p>S. Messenger reviewed the Cost Adjustment Measure Items individually and it was identified that:</p> <ul style="list-style-type: none"> • A1, A2, A3 would be done as well as A6 and A7 with relation to Attic Stock where the stock would be used as needed. • E1 using the original Lighting Fixtures was agreed as they were owned already after WJGEI purchased them. • E2 Panelboard potential cost savings since it is related to the Amphitheater. • E3 Electrical Outlets will be reduced that were extra on the interior and exterior of the building. • E4 Removal of Lighting in Under Bleacher Storage was not something the Committee wanted eliminated due to safety as it is a locked area underneath the building. The number of lights could be reduced however underneath the bleachers in the Storage Area. Light dispensed greater than every 10 feet from one another. • M1 The Press Box Contractor already owns a minimal amount of temperature control and Designer is removing the excess. • M2 Unit Heaters will be kept as it is a small number of \$1,500. • M3 is going back to the original unit. • M5 it is recommended and if needed later it can be added but it is recommended to take it out. 																																																																																																														

Item #	Action	Discussion
		<ul style="list-style-type: none">● P1 Water fountains are locations are 2 exterior and 2 interior. This removal only makes the students must go outside of the Vestibule. Remove of both interior water fountains and keep both exterior water fountains was decided.● P2 Remove Oil Water Separator and Floor Drains was added by the Design team due to the potential functionality that is like a garage at Level 0 with gas and oil being present with the Gators and snowblowers.<ul style="list-style-type: none">○ Concern about its proximity to the wetlands. If it is an environmental issue and it is agreed to keep this and not remove it. It is a Code requirement to do them both. It is inside the building. If there are floor drains, then there is a need for an oil water separator. Vote needed. Motion made to keep the Oil Water Separator and Floor Drains. The vote did not pass. Yes 3: No 6.○ Need to further consult with B.McNeil to get his thoughts on snow coming off of the snow removal equipment.○ Motion to reconsider keeping the Oil Water Separator and Floor Drains made by D. Bois. Motion seconded by J. Thomson. Motion passes, Yes 7: No 1.● S1 Reduce Roof Load to 40 psf● S3 Reduce decking to 20 gauge.● L1 Provide asphalt in lieu of concrete in accessible bleacher areas – Approved.● L2 Provide gravel under inaccessible bleacher areas – Approved. Requested that a weed blocker textile is placed underneath the gravel. <p>Savings from the above need to be estimated.</p> <p>From a schedule standpoint, T. McCabe advised that it is already placing Phase 3 behind schedule because it was originally a turnover date of May 30, 2025, and now it is June 30, 2025 since these discussions and decisions needed to be had in March. With no direction or decision on these, it does not allow for any escalation or acceleration of activities as it gets pushed out each month and complicates the turnover date. Storage alternatives have been explored with Conex boxes and Miller Building over the last year as additional options. Conex boxes were already in use for storage during construction and the purchase of a Miller Building (\$550,000 estimated) was identified as a potential solution going on 1 of 3 locations on the site with a concrete pad. It was requested by Facilities that the location be right next to the building to accommodate the needs of the staff who would need to traverse the site during inclement weather to access the snow blowers and other storage equipment and items. Those locations are no longer available and there is no space available next to the building to place Conex boxes or a Miller Building.</p> <p>Discussions surrounding the PR075 Stadium Building were left with Committee concerns about getting the cost back down to the \$800k vicinity from costs that are over \$1M. T. McCabe was clear that Consigli needed to go back to the trade subs and get pricing for the next meeting as S. Messinger started an exercise during the meeting of attempting to update/revise/eliminate potential change costs. T. McCabe advised that the Stadium Building is at \$1,072,837 and the pricing has been received from the trades to achieve that number. There is still a list of Value Engineering Items that still need to be sent out for bid to the trades. R. Parker abstained from voting and others were on the fence to go forward now or wait for the next meeting. There was no vote in the end as the motion initiated did not pass. T. McCabe advised that sketches and drawings would need to be priced by the trades and brought forward. S. Messinger advised it could not be done in 2 weeks if there was going to be an interim meeting before May 20, 2024.</p>

Item #	Action	Discussion
		Presentation of updated costs would be held off until the May Meeting on May 20, 2024. S. Iovanni advised that the Committee could not vote because it is unknown what to be spending.
82.12	Record	<p>Working Group Updates</p> <ul style="list-style-type: none"> • Time Capsule Working Group <ul style="list-style-type: none"> ○ Journals are available for signatures and additions to be placed into the time capsule. ○ Time capsule to be purchased with assistance from S. Traniello of SMMA. ○ Location of the time capsule placement is outside the entry to the new school. ○ T. McCabe advised that window is closing for the date to place the time capsule into the ground. ○ D. Bois made a motion for a Not-To-Exceed and J. Leduc advised that D. Sheehan could approve anything up to \$10k in advance of the next meeting if approval was needed prior to the May 20, 2024, meeting. • Ribbon Cutting / Dedication Ceremony Working Group <ul style="list-style-type: none"> ○ Those that are interested in participating in the Working Group should reach out to Marie Christie via email. ○ Looking at dates to have the event. ○ MSBA would like to participate in the ceremony. ○ Dedication Plaque from Perkins&Will needs to be reviewed. <i>B. Trivas advised that a proof was distributed for review but needs comments. Needs follow up.</i>
82.13	Record	<p>Committee Questions</p> <p>There were no questions.</p>
82.14	Record	<p>Public Comment</p> <p>No members of the public made comments.</p>
82.15	Record	<p>Next SBC Meeting: Monday, May 20, 2024 at 7:00 pm</p>
82.16	Record	<p>R. Parker motioned to adjourn the meeting at 10:26pm. S. Iovanni seconded the motion. The motion was carried unanimously.</p>

Attachments: Agenda; Warrant No. 34, Change Order No. 30, Change Order No. 31, Designer Amendment No. 31 for Hazardous Materials and Construction Testing Monitoring; PR075 Documentation; Perkins & Will Presentation; Consigli Milestone Schedule

The information herein reflects the understanding reached. Please contact the author within 48 hours of receipt if you have any questions or are not in agreement with these Project Minutes

PROJECT MEETING SIGN-IN SHEET

Project: New Stoneham High School
 Prepared by: Julie Leduc
 Re: School Building Committee Meeting
 Location: Central Middle School Library and Remote Locations
 Distribution: Attendees, (MF)

Project No.: 20033.00
 Meeting Date: 4/22/2023
 Time: 7:00pm
 Meeting No: 82

SIGNATURE	ATTENDEES	EMAIL	AFFILIATION
	Maïte Christie	mariechristie@comcast.net	Co-Chair, Past Member of the School Committee/Middle School Building Committee
	David Bois	bois@arrowstreet.com	Co-Chair, Community Member with Architecture Experience
	Nicole Nial	nicole.nial@stonehamschools.org	School Committee Member
	Raymie Parker	rparker@stoneham-ma.gov	Select Board Member
	Douglas Gove	goved11@gmail.com	Vice-Chair, Community Member with Engineer Experience
	Stephen O'Neill	sonell@hayner-swanson.com	Community Member with Engineer Experience
	Josephine Thomson	jthomson315@yahoo.com	Community Member, Middle School Faculty
	Jeanne Craigie	jcraigie@stoneham-ma.gov	Town Moderator
	Lisa Gallagher	lgallagher@stonehamschools.org	Community Member; School Secretary; Past member, Middle School Building Committee
	Sharon Iovanni	sharon.iovanni@stonehambank.com	Community Member
	Cory Mashburn	cory.mashburn910@gmail.com	Community Member, Finance & Advisory Board
	David Pignone	dpignone@stonehamschools.org	Community Member with Construction Experience
Remote	Kevin Yianacopolus	kyianacopolus@stonehamschools.org	Select Board Member; Athletic Director; Member knowledgeable in educational mission & function of facility
	Dennis Sheehan	dsheehan@stoneham-ma.gov	Local Official responsible for Building Maintenance
	Leia DiLorenzo-Secor	lsecor@stonehamschools.org	Town Administrator / MCPPO Certified
	David Ljungberg	djungberg@stonehamschools.org	Town Budget Director
	Bryan Lombardi	blombardi@stonehamschools.org	Superintendent of Schools
	Brian McNeil	bmcneil@stonehamschools.org	Stoneham High School Principal
Remote	April Lanni	alanni@stoneham-ma.gov	Facilities Director
	Brooke Trivas	brooke.trivas@perkinswill.com	Town Procurement Officer / MCPPO Certified
	Kate Janson	kate.janson@perkinswill.com	Perkins&Will Architects
	Andrea White	andrea.white@perkinswill.com	Perkins&Will Architects
on line	Lizzy Dame	elizabeth.dame@perkinswill.com	Perkins&Will Architects
Remote	Stephen Messinger	stephen.messinger@perkinswill.com	Perkins&Will Architects
	Brad Pineau	brad.pineau@perkinswill.com	Perkins&Will Architects
	Patrick Cunningham	patrick.cunningham@perkinswill.com	Perkins&Will Architects
	Todd McCabe	tmccabe@consigli.com	Consigli Construction Co.
	Andrew MacNeil	amacneil@consigli.com	Consigli Construction Co.
	Kalvin Cho	kcho@consigli.com	Consigli Construction Co.
Remote	Sarah Traniello	straniello@smma.com	SMMA
	John Cutler	jcutler@smma.com	SMMA
	Robert Smith	rsmith@smma.com	SMMA
	Julie Leduc	jleduc@smma.com	SMMA

on line Adam lin pw.

Agenda

Project:	New Stoneham High School	Project No.:	20033
Re:	School Building Committee Meeting	Meeting Date:	4/22/2024
Prepared by:	Julie Leduc	Meeting Time:	7:00 PM
Meeting Location:	Central Middle School Library & Remote Participation	Meeting No.:	82
Distribution:	Attendees (MF)		

1. Call to Order
2. Approval of Minutes – March 18, 2024 and April 8, 2024
3. Approval of Invoices and Commitments
 - Approval of Warrant No. 53
 - Approval of Change Order No. 30
 - Approval of Change Order No. 31
 - Approval of Designer Amendment No. 31 – Hazardous Materials Consultancy
4. Budget and Schedule Update
 - Budget Update
 - Value Management Time Sensitive Decisions
 - Amphitheatre
5. Construction Update
 - Construction Progress Activities
 - Construction Schedule Update
6. Subcommittee Updates
 - PR Subcommittee Update
 - Ribbon Cutting / Open House
 - Dedication Plaque and Ribbon Cutting Working Group
 - Time Capsule Working Group Update
 - Time Capsule Approval
7. Discussion/Correspondence/New Items
 - PR075 Stadium Building
8. Committee Questions
9. Public Comments
10. Next Meeting: **May 20, 2024**

Join: <https://meet.goto.com/263944029>

Dial: [+1 \(224\) 501-3412](tel:+12245013412) Access Code: 263-944-029

The items listed are those reasonably anticipated by the Co-Chairs which may be discussed at the meeting. Not all items may in fact be discussed and other items not anticipated may also be brought up for discussion to the extent permitted by law.

1000 Massachusetts Avenue
Cambridge, MA 02138
617.547.5400

www.smma.com

Warrant No. 53

Project: Stoneham High School, Stoneham, Massachusetts Project No.: 20033
 Prepared by: Julie Leduc and Sarah Traniello Date: 4/22/2024

School Building Committee for the Stoneham High School hereby authorizes to draw against funds for the obligations incurred for value received in services and for materials shown below:

<u>Vendor</u>	<u>Invoice No.</u>	<u>Invoice Date</u>	<u>Invoice Amount</u>	<u>ProPay Code</u>	<u>Balance After Invoice</u>
Sustainable Energy Advantage, LLC	6389	3/31/2024	\$ 249.00	0203-9900	\$ 7,770.01
Perkins & Will	0207864	4/11/2024	\$ 123,025.00	0201-0700	\$ 1,845,375.00
Perkins & Will	0207864	AM28 4/11/2024	\$ 8,750.00	0203-9900	\$ 26,250.00
SMMA	61009	4/05/2024	\$ 99,500.00	0102-0000	\$ 1,493,601.68
Consigli Construction Co.	21	3/31/2024	\$ 7,323,043.00	See SOV	\$ 83,118,862.07
				RETAINAGE	
	CM Fee	0502-0010	\$ 110,805.04	0502-0010	\$ 5,831.84
	Bonds and Insurances	0502-0020	\$ 606,201.13	0502-0020	\$ 31,905.32
	General Requirements	0502-0100	\$ 434,258.87	0502-0100	\$ 22,855.73
	Concrete	0502-0300	\$ 3,027.84	0502-0300	\$ 159.36
	Masonry	0502-0400	\$ 506,597.00	0502-0400	\$ 26,663.00
	Metals	0502-0500	\$ 303,018.94	0502-0500	\$ 15,948.37
	Thermal & Moisture Protection	0502-0700	\$ 594,356.17	0502-0700	\$ 31,281.90
	Doors & Windows	0502-0800	\$ 375,979.01	0502-0800	\$ 19,788.37
	Finishes	0502-0900	\$ 1,055,281.22	0502-0900	\$ 55,541.12
	Specialties	0502-1000	\$ 53,713.00	0502-1000	\$ 2,827.00
	Equipment	0502-1100	\$ 53,043.25	0502-1100	\$ 2,791.75
	Furnishings	0502-1200	\$ 478,900.13	0502-1200	\$ 25,205.27
	Fire Suppression	0502-2100	\$ 216,049.00	0502-2100	\$ 11,371.00
	Plumbing	0502-2200	\$ 180,583.69	0502-2200	\$ 9,504.40
	HVAC	0502-2300	\$ 906,045.74	0502-2300	\$ 47,686.62
	Electrical	0502-2600	\$ 1,153,449.85	0502-2600	\$ 60,707.89
	Earthwork	0502-3100	\$ 128,250.00	0502-3100	\$ 6,750.00
	Change Order 4	0508-004	\$ 4,143.46	0508-004	\$ 218.08
	Change Order 6	0508-006	\$ 4,094.49	0508-006	\$ 215.50
	Change Order 7	0508-007	\$ 4,460.99	0508-007	\$ 234.79
	Change Order 9	0508-009	\$ 4,088.68	0508-009	\$ 215.19
	Change Order 10	0508-010	\$ 3,831.88	0508-010	\$ 201.68
	Change Order 12	0508-012	\$ 3,938.84	0508-012	\$ 207.31
	Change Order 14	0508-014	\$ 52,921.37	0508-014	\$ 2,785.34
	Change Order 16	0508-016	\$ 18,787.11	0508-016	\$ 988.80
	Change Order 18	0508-018	\$ 665.47	0508-018	\$ 35.02
	Change Order 20	0508-020	\$ 7,350.18	0508-020	\$ 386.85
	Change Order 21	0508-021	\$ 4,417.45	0508-021	\$ 232.50
	Change Order 22	0508-022	\$ 11,692.89	0508-022	\$ 615.42
	Change Order 24	0508-024	\$ 13,727.05	0508-024	\$ 722.48
	Change Order 25	0508-025	(\$ 6,540.80)	0508-025	(\$ 344.25)
	Change Order 26	0508-026	\$ 29,330.09	0508-026	\$ 1,543.69
	Change Order 27	0508-027	\$ 6,573.98	0508-027	\$ 346.00
		Total	\$ 7,465,017.00		

Marie Christie

David Bois

Nicole Nial

Raymie Parker

Kevin Yianacopolus

Douglas Gove

Stephen O'Neill

Josephine Thomson

1000 Massachusetts Avenue
Cambridge, MA 02138
617.547.5400

www.smma.com

Project: **New Stoneham High School**

Meeting Date: **4/22/2023**

Jeanne Craigie

Lisa Gallagher

Sharon Iovanni

Cory Mashburn

David Pignone

Sustainable Energy Advantage, LLC
 161 Worcester Rd Ste 503
 Framingham, MA 01701
 508-665-5857
 kcraddock@seadvantage.com
 www.seadvantage.com

Invoice



BILL TO

Town of Stoneham
 April Lanni
 35 Central Street
 Stoneham, MA 02180

INVOICE #	DATE	TOTAL DUE	DUE DATE	TERMS	ENCLOSED
6389	03/31/2024	\$249.00	04/30/2024	30 Days	

SEA CLIENT JOB CODE
 259.2.1

CUSTOMER CONTRACT ID
 SOW#2 04.25.22

DESCRIPTION	QTY	RATE	AMOUNT
Stoneham High School Solar Ongoing PPA Support			0.00
Task 1: Project Host and Offtaker Consultant			0.00
Tom Michelman, Sr. Director, hours for March 2024 per attached timesheet.	0.75	332.00	249.00

Thank you for your business!

BALANCE DUE

\$249.00



Time Entries by Project

Time Entry Date: From Friday, March 1, 2024 to Sunday, March 31, 2024

Approval Status	Date	Hours Worked	Description
Project: Stoneham, 259.2.1, Stoneham HS PPA Support			
Client: Stoneham, Town of			
Description:			
Employee: Michelman, Tom			
Task: Task 1: Project Host and Offtaker Consultant			
Approved	3/1/2024	0.17	Read and digest proposed contract revisions. Return call to Julie Leduc at SMMA and leave message.
Approved	3/1/2024	0.50	Dive into differences between current and proposed Exhibit D and draft recommendations for response to Nexamp including modifications
Approved	3/5/2024	0.08	Review and comment on Nexamp Exhibit
	Task Total	0.75	
	Employee Total	0.75	
	Project Total	0.75	
	Grand Total	0.75	

Perkins&Will

Invoice

April 11, 2024

Project No: 153010.000

Invoice No: 0207864

Dennis Sheehan
 Town of Stoneham
 Town Hall
 35 Central St
 Stoneham, MA 02180

Stoneham High School - FS-Closeout

Professional Services: through March 29, 2024

Fee

Billing Phase	Fee	Percent Complete	Earned	Previous Fee Billing	Current Fee Billing
Feasibility Phase	175,000.00	100.00	175,000.00	175,000.00	0.00
Schematic Design	245,000.00	100.00	245,000.00	245,000.00	0.00
Amendment #1	0.00	0.00	0.00	0.00	0.00
Survey/Wetlands-Nitsch	27,500.00	100.00	27,500.00	27,500.00	0.00
Phase 1 ESA	2,970.00	0.00	0.00	0.00	0.00
Geotechnical Services-Lahlaf	16,417.50	100.00	16,417.50	16,417.50	0.00
Hazardous Materials-UEC	4,950.00	100.00	4,950.00	4,950.00	0.00
Amendment #2	0.00	0.00	0.00	0.00	0.00
Traffic Analysis-Nelson Nygaard	18,150.00	0.00	0.00	0.00	0.00
Amendment #3	0.00	0.00	0.00	0.00	0.00
Hydrant Flow Testing-AE	1,760.00	100.00	1,760.00	1,760.00	0.00
Amendment #4	0.00	0.00	0.00	0.00	0.00
Traffic Analysis-Nelson Nygaard	-18,150.00	0.00	0.00	0.00	0.00
Amendment #5	0.00	0.00	0.00	0.00	0.00
Traffic Analysis-Nelson Nygaard	4,166.14	100.00	4,166.14	4,166.14	0.00
Amendment #6	0.00	0.00	0.00	0.00	0.00
Traffic Analysis - Vanasse	13,970.00	70.6693	9,872.50	9,872.50	0.00
Amendment #7	0.00	0.00	0.00	0.00	0.00
Geotechnical - Lahlaf	23,699.50	100.00	23,699.50	23,699.50	0.00

REMIT PAYMENTS TO Perkins&Will, Inc. PO Box 71181 Chicago, IL 60694-1181	WIRE/ACH TO BMO Harris Bank ABA# 071000288, Acct# 3769601 SWIFT HATRUS44	TERMS Net 30 Days
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Project	153010.000	Stoneham High School:FS-Closeout				Invoice	0207864
Amendment #8	0.00	0.00	0.00	0.00	0.00	0.00	
Geothermal - McPhail	55,000.00	67.4423	37,093.28	37,093.28	0.00	0.00	
Amendment #9	0.00	0.00	0.00	0.00	0.00	0.00	
Survey - Nitsch	23,760.00	100.00	23,760.00	23,760.00	0.00	0.00	
Amendment #10	0.00	0.00	0.00	0.00	0.00	0.00	
Walk Through	3,800.00	100.00	3,800.00	3,800.00	0.00	0.00	
Amendment #11	0.00	0.00	0.00	0.00	0.00	0.00	
Design Documents	3,233,800.00	100.00	3,233,800.00	3,233,800.00	0.00	0.00	
Construction Documents	4,921,000.00	100.00	4,921,000.00	4,921,000.00	0.00	0.00	
Bidding	1,124,800.00	100.00	1,124,800.00	1,124,800.00	0.00	0.00	
Construction Administration 3.125	3,936,800.00	53.125	2,091,425.00	1,968,400.00	123,025.00	0.00	
Completion	423,600.00	0.00	0.00	0.00	0.00	0.00	
Amendment #12	0.00	0.00	0.00	0.00	0.00	0.00	
Hazardous Materials - UEC	34,650.00	89.1111	30,877.00	30,877.00	0.00	0.00	
Amendment #13	0.00	0.00	0.00	0.00	0.00	0.00	
Geotechnical - LGLI	55,429.00	100.00	55,429.00	55,429.00	0.00	0.00	
Amendment #14	0.00	0.00	0.00	0.00	0.00	0.00	
Geo-environmental - FS Engineers	13,640.00	100.00	13,640.00	13,640.00	0.00	0.00	
Amendment #15	0.00	0.00	0.00	0.00	0.00	0.00	
Soil Testing - FS Engineers	85,690.00	87.2914	74,800.00	74,800.00	0.00	0.00	
Amendment #16	0.00	0.00	0.00	0.00	0.00	0.00	
Test Well - McPhail	122,650.00	99.958	122,598.46	122,598.46	0.00	0.00	
Amendment #17	0.00	0.00	0.00	0.00	0.00	0.00	
Survey Work - Nitsch	44,000.00	100.00	44,000.00	44,000.00	0.00	0.00	
Amendment #18	0.00	0.00	0.00	0.00	0.00	0.00	
Traffic Work - Vanasse	216,700.00	52.699	114,198.68	114,198.68	0.00	0.00	
Amendment #19	0.00	0.00	0.00	0.00	0.00	0.00	
Topographic Survey - Nitsch	8,800.00	100.00	8,800.00	8,800.00	0.00	0.00	
Amendment #21	0.00	0.00	0.00	0.00	0.00	0.00	
Geotech-Lahlaf	168,074.00	72.7567	122,285.17	122,285.17	0.00	0.00	
Amendment #22	0.00	0.00	0.00	0.00	0.00	0.00	
Geothermal-McPhail E2	154,000.00	52.4493	80,771.90	80,771.90	0.00	0.00	
Amendment #23	0.00	0.00	0.00	0.00	0.00	0.00	
Soil Samples - FS Engineers	5,500.00	100.00	5,500.00	5,500.00	0.00	0.00	
Amendment #24	0.00	0.00	0.00	0.00	0.00	0.00	
Additional CD approvals	184,588.00	100.00	184,588.00	184,588.00	0.00	0.00	
Amendment #25	0.00	0.00	0.00	0.00	0.00	0.00	
Amphitheater	45,000.00	50.00	22,500.00	22,500.00	0.00	0.00	
Amendment #26	0.00	0.00	0.00	0.00	0.00	0.00	

REMIT PAYMENTS TO Perkins&Will, Inc.
 PO Box 71181
 Chicago, IL 60694-1181

WIRE/ACH TO BMO Harris Bank
 ABA# 071000288, Acct# 3769601
 SWIFT HATRUS44

TERMS Net 30 Days



Project	153010.000	Stoneham High School:FS-Closeout				Invoice	0207864
Site Revised Grading	57,750.00	100.00	57,750.00	57,750.00	0.00	0.00	
Amendment #27	0.00	0.00	0.00	0.00	0.00	0.00	
Exhaust Dispersion	14,300.00	100.00	14,300.00	14,300.00	0.00	0.00	
Amendment #28	0.00	0.00	0.00	0.00	0.00	0.00	
Environmental Branding	175,000.00	85.00	148,750.00	140,000.00	8,750.00	8,750.00	
Amendment #29	0.00	0.00	0.00	0.00	0.00	0.00	
District/Storage Office Infill	27,000.00	87.5046	23,626.25	23,626.25	0.00	0.00	
Amendment #30	0.00	0.00	0.00	0.00	0.00	0.00	
Concession Building	64,800.00	2.8395	1,840.00	1,840.00	0.00	0.00	
Total Fee	15,715,564.14		13,070,298.38	12,938,523.38	131,775.00	131,775.00	
Total Fee						131,775.00	
Total this Invoice						\$131,775.00	

REMIT PAYMENTS TO Perkins&Will, Inc.
 PO Box 71181
 Chicago, IL 60694-1181

WIRE/ACH TO BMO Harris Bank
 ABA# 071000288, Acct# 3769601
 SWIFT HATRUS44

TERMS Net 30 Days





Mr. Dennis Sheehan
 Town Administrator
 Town of Stoneham
 35 Central St
 Stoneham, MA 02180

April 5, 2024
 Project No: 20033.00
 Invoice No: 0061009

Project 20033.00 Stoneham High School OPM Services
Professional Services from March 2, 2024 to March 29, 2024

Fee

Billing Phase	Fee	Percent Complete	Earned	Previous Fee Billing	Current Fee Billing
Feasibility Study	56,000.00	100.00	56,000.00	56,000.00	0.00
Schematic Design	49,000.00	100.00	49,000.00	49,000.00	0.00
Design Development	380,000.00	100.00	380,000.00	380,000.00	0.00
Construction Documents	640,000.00	100.00	640,000.00	640,000.00	0.00
Bidding	180,000.00	100.00	180,000.00	180,000.00	0.00
Construction Administration	3,185,100.00	53.1066	1,691,499.76	1,591,999.76	99,500.00
Closeout	220,000.00	0.00	0.00	0.00	0.00
Total Fee	4,710,100.00		2,996,499.76	2,896,999.76	99,500.00
Total Fee					99,500.00
Total this Invoice					\$99,500.00

Outstanding Invoices

Number	Date	Balance
0060827	3/11/2024	99,500.00
Total		99,500.00

Billings to Date

	Current	Prior	Total
Fee	99,500.00	2,896,999.76	2,996,499.76
Consultant	0.00	225,276.71	225,276.71
Expense	0.00	31,995.12	31,995.12
Totals	99,500.00	3,154,271.59	3,253,771.59

Authorized By: Julie Leduc

DIVISION	DESCRIPTION OF WORK	MSBA CODE	SCHEDULED VALUE	WORK COMPLETED		COMPLETED AND STORED TO DATE (D+E+F)	% (G/C)	BALANCE TO FINISH (C-G)	Retainage Held This Period	RETAINAGE HELD TO DATE	Retainage Billed This Period	Retainage Released To Date	RETAINAGE BALANCE REMAINING	MSBA CODE	
				PREVIOUS APPLICATION	WORK IN PLACE										STORED MATERIAL
				THIS APPLICATION											
01	CM Fee	0502-0010	2,731,542.94	1,413,573.47	116,636.88	-	1,530,210.35	56%	1,201,332.59	5,831.84	76,510.52		76,510.52	0502-0010	
02	Bonds and Insurances	0502-0020	4,241,096.99	2,699,305.51	638,106.45	-	3,337,411.96	79%	903,685.03	31,905.32	166,870.60		166,870.60	0502-0020	
03	Total GMP Construction Contingency	0502-0030	3,997,625.00	-	-	-	-	0%	3,997,625.00	-	-		-	0502-0030	
03	Subtotal Allowances	0502-0030	8,248.65	8,248.65	-	-	8,248.65	100%	-	-	412.43		412.43	0502-0030	
01A	CM Staffing	0502-0100	5,490,124.00	3,392,915.00	-	-	3,392,915.00	62%	2,097,209.00	-	169,645.75		169,645.75	0502-0100	
01A	General Requirements	0502-0100	6,670,117.35	4,500,065.43	457,114.60	-	4,957,180.03	74%	1,712,937.32	22,855.73	247,859.00		247,859.00	0502-0100	
02	Existing Conditions	0502-0200	5,300,000.00	-	-	-	-	0%	5,300,000.00	-	-		-	0502-0200	
03	Concrete Subtotal	0502-0300	7,000,100.00	4,851,564.79	3,187.20	-	4,854,751.99	69%	2,145,348.01	159.36	242,737.60		242,737.60	0502-0300	
04	Masonry	0502-0400	5,164,000.00	2,836,392.58	533,260.00	-	3,369,652.58	65%	1,794,347.42	26,663.00	168,482.63		168,482.63	0502-0400	
05	Metals Subtotal	0502-0500	15,492,044.00	12,653,824.70	138,190.80	180,776.50	15,922,792.00	84%	2,519,252.00	15,888.37	534,253.09	\$114,386.51	534,253.09	0502-0500	
06	Wood, Plastic, and Composites	0502-0600	1,440,504.00	-	-	-	-	0%	1,440,504.00	-	-		-	0502-0600	
07	Thermal & Moisture Protection Subtotal	0502-0700	7,065,613.00	4,191,155.71	568,638.07	57,000.00	4,816,793.78	68%	2,248,819.22	31,281.90	240,839.69		240,839.69	0502-0700	
08	Doors & Windows Subtotal	0502-0800	6,660,295.00	1,832,719.19	395,767.38	-	2,228,486.57	33%	4,431,808.43	19,788.37	111,424.33		111,424.33	0502-0800	
09	Finishes Subtotal	0502-0900	15,941,559.50	8,177,590.54	1,110,822.34	-	9,288,412.88	58%	6,653,146.12	55,541.12	464,420.64		464,420.64	0502-0900	
10	Specialties Subtotal	0502-1000	1,652,962.00	95,152.75	-	56,540.00	151,692.75	9%	1,501,269.25	2,827.00	7,584.64		7,584.64	0502-1000	
11	Equipment Subtotal	0502-1100	2,767,930.00	456,353.02	105.00	-	512,188.02	19%	2,255,741.98	2,791.75	25,609.40		25,609.40	0502-1100	
12	Furnishings Subtotal	0502-1200	3,873,767.00	904,423.27	504,105.40	-	1,408,528.67	36%	2,465,238.33	25,205.27	70,426.43		70,426.43	0502-1200	
13	Special Construction	0502-1300	-	-	-	-	-	#DIV/0!	-	-	-		-	0502-1300	
14	Elevator Sub	0502-1400	815,339.00	123,332.50	-	-	123,332.50	15%	692,006.50	-	6,166.63		6,166.63	0502-1400	
21	Fire Suppression	0502-2100	1,709,200.00	544,080.00	227,420.00	-	771,500.00	45%	937,700.00	11,371.00	38,575.00		38,575.00	0502-2100	
22	Plumbing	0502-2200	6,580,000.00	5,013,686.05	190,088.09	-	5,203,774.14	79%	1,376,225.86	9,504.40	260,188.71		260,188.71	0502-2200	
23	HVAC	0502-2300	19,545,248.00	14,080,616.20	953,732.36	-	15,034,348.56	77%	4,510,899.44	47,686.62	751,717.43		751,717.43	0502-2300	
25	Integrated Automation	0502-2500	-	-	-	-	-	#DIV/0!	-	-	-		-	0502-2500	
26	Electrical	0502-2600	19,894,220.00	11,387,492.96	1,175,746.74	38,411.00	12,601,650.70	63%	7,292,569.30	60,707.89	630,082.54		630,082.54	0502-2600	
27	Communications	0502-2700	-	-	-	-	-	#DIV/0!	-	-	-		-	0502-2700	
28	Electronic Safety and Security	0502-2800	-	-	-	-	-	#DIV/0!	-	-	-		-	0502-2800	
31	Earthwork Subtotal	0502-3100	22,003,053.00	11,774,282.62	40,000.00	95,000.00	11,909,282.62	54%	10,093,770.38	6,750.00	424,972.70	\$170,491.92	254,481.27	0502-3100	
32	Exterior Improvements Subtotal	0502-3200	7,671,484.00	-	-	-	-	-	7,671,484.00	-	-		-	0502-3200	
33	Utilities Subtotal	0502-3300	2,270,760.00	-	-	-	-	-	2,270,760.00	-	-		-	0502-3300	
-	TOTAL BASE GMP CONTRACT AMOUNT		175,986,832.93	90,936,774.94	7,052,921.31	483,457.50	98,473,153.75	56%	77,513,679.18	376,818.94	4,638,779.75	-	284,878.43	4,468,288.32	
	CO-01	0508-001	-	-	-	-	-	100%	-	-	-		-	0508-001	
	CO-02	0508-002	445,479.68	445,479.68	-	-	445,479.68	100%	-	-	22,273.98		22,273.98	0508-002	
	CO-03	0508-003	87,729.18	87,729.18	-	-	87,729.18	100%	-	-	4,386.46		4,386.46	0508-003	
	CO-04	0508-004	48,631.95	44,270.41	4,361.54	-	48,631.95	100%	-	218.08	2,431.60		2,431.60	0508-004	
	CO-05	0508-005	58,132.50	58,132.50	-	-	58,132.50	100%	-	-	2,906.63		2,906.63	0508-005	
	CO-06	0508-006	29,061.26	24,751.27	4,309.99	-	29,061.26	100%	-	-	1,453.06		1,453.06	0508-006	
	CO-07	0508-007	26,201.30	21,505.52	4,695.78	-	26,201.30	100%	-	234.79	1,310.07		1,310.07	0508-007	
	CO-08	0508-008	-	-	-	-	-	-	-	-	-		-	0508-008	
	CO-09	0508-009	29,067.25	24,763.38	4,303.87	-	29,067.25	100%	-	215.19	1,453.36		1,453.36	0508-009	
	CO-010	0508-010	5,629.56	1,596.00	4,033.56	-	5,629.56	100%	-	201.68	281.48		281.48	0508-010	
	CO-011	0508-011	-	-	-	-	-	-	-	-	-		-	0508-011	
	CO-012	0508-012	(197,221.38)	36,054.99	4,146.15	-	40,201.14	-20%	(237,422.52)	207.31	2,010.06		2,010.06	0508-012	
	CO-013	0508-013	-	-	-	-	-	-	-	-	-		-	0508-013	
	CO-014	0508-014	464,996.99	355,008.42	55,706.71	-	410,715.13	88%	54,281.86	2,785.34	20,535.76		20,535.76	0508-014	
	CO-015	0508-015	-	-	-	-	-	-	-	-	-		-	0508-015	
	CO-016	0508-016	16,072.91	-	19,775.91	-	19,775.91	123%	(3,703.00)	988.80	988.80		988.80	0508-016	
	CO-017	0508-017	-	-	-	-	-	-	-	-	-		-	0508-017	
	CO-018	0508-018	(80,762.91)	13,187.28	700.49	-	13,887.77	-17%	(94,650.68)	35.02	694.39		694.39	0508-018	
	CO-019	0508-019	-	-	-	-	-	-	-	-	-		-	0508-019	
	CO-020	0508-020	155,357.15	134,850.11	7,737.03	-	142,587.14	92%	12,770.01	386.85	7,129.36		7,129.36	0508-020	
	CO-021	0508-021	224,073.43	2,500.00	4,649.95	-	7,149.95	3%	216,923.48	232.50	357.50		357.50	0508-021	
	CO-022	0508-022	22,253.29	(7,006.94)	12,308.31	-	5,301.37	24%	16,951.92	615.42	265.07		265.07	0508-022	
	CO-023	0508-023	-	-	-	-	-	#DIV/0!	-	-	-		-	0508-023	
	CO-024	0508-024	10,412.87	768.00	14,449.53	-	15,217.53	146%	(4,804.66)	722.48	760.88		760.88	0508-024	
	CO-025	0508-025	139,735.91	(6,885.05)	(6,885.05)	-	(6,885.05)	-5%	146,620.96	(344.25)	(344.25)		(344.25)	0508-025	
	CO-026	0508-026	283,301.09	30,873.78	30,873.78	-	30,873.78	11%	252,427.31	1,543.69	-		-	0508-026	
	CO-027	0508-027	378,266.62	6,919.96	6,919.96	-	6,919.96	2%	371,346.64	346.00	-		-	0508-027	
	CO-028	0508-028	164,877.93	-	-	-	-	0%	164,877.93	-	-		-	0508-028	
-	TOTAL CHANGE ORDER AMOUNT	0508-0000	2,311,296.58	1,243,589.80	172,087.53	-	1,415,677.33	84%	895,619.25	8,388.88	70,783.87	\$0.00	\$0.00	\$68,894.18	
	TOTAL CONTRACT AMOUNT		178,298,129.51	92,180,364.74	7,225,008.84	483,457.50	99,888,831.08	56%	78,409,298.43	385,423.34	4,709,563.61	-	284,878.43	4,537,182.50	

TO OWNER: Town of Stoneham
ATTN: Symmes Maini & McKee
1000 Massachusetts Avenue
Cambridge, MA 02138

PROJECT: Stoneham High School

Invoice 21
Draw
Application date: 4/01/2024
Period ending date: 3/31/2024

DISTRIBUTE TO:
 OWNER
 ARCHITECT
 CONTRACTOR

FROM CONTRACTOR: Consigli Construction Co., Inc.
72 Summer Street
Milford, MA 01757

VIA ARCHITECT: Perkins + Will
225 Franklin Street
Boston, MA 02110

PROJECT NO: 2515

CONTRACT DATE:

CONTRACTOR'S APPLICATION FOR PAYMENT

Application is made for payment, as shown above, in connection with the Contract. Continuation Sheet, AIA Document G703, is attached.

1 ORIGINAL CONTRACT SUM	\$175,983,887.00
2. NET CHANGE BY CHANGE ORDERS	\$2,314,242.51
3. CONTRACT SUM TO DATE (Line 1 ± 2)	\$178,298,129.51
4. TOTAL COMPLETED & STORED TO DATE (Column G on G703)	\$99,888,831.08
5. RETAINAGE:	
a. 4.71 % of Completed Work (Column D + E on G703)	\$ 4,686,769.56
b. 4.71 % of Stored Material (Column F on G703)	\$ 22,794.08
Total Retainage (Lines 5a+5b or Total in Column I on G703)	\$4,709,563.64
6. TOTAL EARNED LESS RETAINAGE (Line 4 Less Line 5 Total)	\$95,179,267.44
7. LESS PREVIOUS CERTIFICATES FOR PAYMENT (Line 6 From Prior CERTIFICATE)	\$87,856,224.44
8. CURRENT PAYMENT DUE (Line 6 Less Line 7)	\$7,323,043.00
9. BALANCE TO FINISH INCLUDING RETAINAGE (Line 3 Less Line 6)	\$83,118,862.07

CHANGE ORDER SUMMARY	ADDITIONS	DEDUCTIONS
Total changes approved in previous months by Owner	2,149,364.58	
Total approved this Month	164,877.93	
TOTALS	2,314,242.51	
NET CHANGES by Change Order	2,314,242.51	

The undersigned Contractor certifies that to the best of the Contractor's knowledge, information and belief the Work covered by this Application for Payment has been completed in accordance with the Contract Documents, that all amounts have been paid by the Contractor for Work for which previous Certificates for Payment were issued and payments received from the Owner, and that current payment shown herein is now due.

CONTRACTOR: Consigli Construction Co., Inc.

By: Ben Cadria Date: 4/19/24

State of: MA County of: Worcester

On this the 19 day of April, 2024 before me,

proved to me through satisfactory evidence of identity, which was Personal Knowledge of Linda A. Whitermore to be the person(s) whose name(s) was/were signed on the Notary Public attached document in my presence, and who swore or affirmed that the contents of the said document are truthful and accurate to the best of his/her knowledge and belief. My Commission Expires December 2, 2027

Notary Public: [Signature]

My Commission expires: 12/2/2027

ARCHITECT'S CERTIFICATE FOR PAYMENT

In accordance with the Contract Documents, based on on-site observations and the data comprising the application, the Architect certifies to the Owner that to the best of the Architect's knowledge, information and belief the Work has progressed as indicated, the quality of the Work is in accordance with the Contract Documents, and the Contractor is entitled to payment of the AMOUNT CERTIFIED.

AMOUNT CERTIFIED:\$ 7,323,043.00

(Attach explanation if amount certified differs from the amount applied for. Initial all figures on this Application and on the Continuation Sheet that are changed to conform with the amount certified.)

ARCHITECT:

By: [Signature] Date: 2024.04.19

This Certificate is not negotiable. The AMOUNT CERTIFIED is payable only to the Contractor named herein. Issuance, payment and acceptance of payment are without prejudice to any rights of the Owner or Contractor under this Contract.

CONTINUATION SHEET

AIA Document G702, APPLICATION AND CERTIFICATION FOR PAYMENT, containing Contractor's signed certification is attached.

Project: **2515-01 / Stoneham High School**

Invoice **21**
 Draw
 Application date: **4/01/2024**
 Period ending date: **3/31/2024**

In tabulations below, amounts are stated to the nearest dollar.
 Use Column I on contracts where variable retainage for items may apply.

A ITEM NO.	B DESCRIPTION OF WORK	ORIGINAL BUDGET	APPROVED CHANGE ORDERS	APPROVED TRANSFERS	C SCHEDULED VALUE	D WORK COMPLETED		E MATERIALS PRESENTLY STORED (NOT IN D / E)	G TOTAL COMPLETED AND STORED TO DATE (D + E + F)		H BALANCE TO FINISH (C - G)	I RETAINAGE (IF VARIABLE RATE)
						FROM PREV. APPLICATION (D + E)	THIS PERIOD		%	(G / C)		
1-000	Stoneham High School	1-000										
1-001	General Conditions	1-001		-5,807.66	4,197,554.34	3,392,915.00			3,392,915.00	80.83	804,639.34	169,645.75
1-002	General Requirements	1-002		636,345.40	2,944,525.40	990,881.25	197,091.73		1,187,972.98	40.35	1,756,552.42	59,398.66
1-099	Riggs General Requirements	1-099		632,605.44	3,821,807.44	2,940,584.69	260,022.87		3,200,607.56	83.75	621,199.88	160,030.38
1-220	Temporary Fence	1-220		276,849.36	535,218.36	367,569.00			367,569.00	68.68	167,649.36	18,378.45
1-910	Consigli Payment & Perf Bond	1-910	171.72		943,846.72	943,846.72			943,846.72	100.00		47,192.34
1-920	Builder's Risk Insurance	1-920	47.72		267,452.72	187,936.00			187,936.00	70.27	79,516.72	9,396.80
1-930	General Liability	1-930	334.35		1,872,215.35	968,871.44	79,943.60		1,048,815.04	56.02	823,400.31	52,440.75
1-940	Subcontractor Default Insuranc	1-940	81.20		1,156,814.20	598,651.35	558,162.85		1,156,814.20	100.00		57,840.70
2-001	Selective Demolition Sub	2-001		344,000.00	5,157,000.00						5,157,000.00	
2-012	Vinyl Asbestos Tile (VAT)	2-012		-487,000.00								
2-014	AddedAbatement Testing - Hold	2-014		10,000.00	10,000.00						10,000.00	
2-401	General Site Excavation Sub	2-401	21,886,458.00	-695,767.57	21,190,690.43	9,739,382.62			9,739,382.62	45.96	11,451,307.81	316,477.62
2-402	Crane Pads	2-402		10,000.00	10,000.00						10,000.00	
2-403	Dewatering Test/Treat/Discharg	2-403		25,000.00	25,000.00						25,000.00	
2-404	Verify Ext Utility	2-404		15,000.00	15,000.00						15,000.00	
2-405	Utility Tie in Trailer	2-405		7,500.00	7,500.00						7,500.00	
2-406	Video Inspect Sewer	2-406		10,000.00	10,000.00						10,000.00	
2-407	Asphalt Paving	2-407		15,340.81	15,340.81						15,340.81	
2-408	Traffic Control / Signage	2-408		10,000.00	10,000.00						10,000.00	
2-409	Fire Watch - Blasting	2-409										
2-410	Temp Access to Lot	2-410										
2-411	Refeed Elect to Irrigation	2-411		7,500.00	7,500.00						7,500.00	
2-412	Rework Ext Irrigation	2-412		274.22	274.22						274.22	
2-414	Phase 2 Fence & Gates - Hold	2-414										
2-415	Ext Owner Salvage Items - Hold	2-415		10,000.00	10,000.00						10,000.00	
2-416	Steel Plate Prot at DBs - Hold	2-416		5,000.00	5,000.00						5,000.00	
2-417	Binder Course Maint - Hold	2-417		15,000.00	15,000.00						15,000.00	
2-418	Vibration Monitoring - Hold	2-418		40,000.00	40,000.00						40,000.00	
2-419	Main Erosion Control - Hold	2-419		15,000.00	15,000.00						15,000.00	
2-420	Dewater Testing-Treat - Hold	2-420		5,000.00	5,000.00						5,000.00	
2-422	Neighborhood Concerns - Hold	2-422		17,200.00	17,200.00						17,200.00	
2-423	Video Inspections - Hold	2-423		5,000.00	5,000.00						5,000.00	
2-424	Street Sweeping - Hold	2-424		39,000.00	39,000.00						39,000.00	
2-425	Furnish (2) El/Tele Manholes -	2-425		24,000.00	24,000.00						24,000.00	
2-426	Utility Verification - Hold	2-426		10,000.00	10,000.00						10,000.00	
2-790	Geothermal Wells	2-790	2,270,760.00	-162,860.00	2,107,900.00	2,034,900.00			2,034,900.00	96.54	73,000.00	101,745.02
2-792	HOLD - Additional Dewatering	2-792		100,000.00	100,000.00						100,000.00	

CONTINUATION SHEET

AIA Document G702, APPLICATION AND CERTIFICATION FOR PAYMENT, containing Contractor's signed certification is attached.

Project: **2515-01 / Stoneham High School**

Invoice **21**
 Draw
 Application date: **4/01/2024**
 Period ending date: **3/31/2024**

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A ITEM NO.	B DESCRIPTION OF WORK	ORIGINAL BUDGET	APPROVED CHANGE ORDERS	APPROVED TRANSFERS	C SCHEDULED VALUE	D WORK COMPLETED		E MATERIALS PRESENTLY STORED (NOT IN D / E)	G TOTAL COMPLETED AND STORED TO DATE (D + E + F)		H BALANCE TO FINISH (C - G)	I RETAINAGE (IF VARIABLE RATE)
						FROM PREV. APPLICATION (D + E)	THIS PERIOD		%	(G / C)		
7-101	Waterproofing Subcontractor -	7-101	53,453.00		93,125.09	146,578.09	72,754.20		72,754.20	49.64	73,823.89	3,637.71
7-102	WP & Sealants Trade Contractor	7-102	1,228,518.00		13,844.00	1,242,362.00	806,581.48	58,250.00	864,831.48	69.61	377,530.52	43,241.57
7-475	Metal Siding	7-475	723,000.00		186,429.86	909,429.86	11,000.00	21,070.00	57,000.00	9.79	820,359.86	4,453.50
7-501	Membrane Roofing Sub	7-501	3,396,000.00		2,977.92	3,398,977.92	2,373,865.97	323,865.97	2,697,731.94	79.37	701,245.98	134,886.60
7-810	Fireproofing	7-810	1,319,684.00		-168,128.34	1,151,555.66	871,744.96	97,511.20	969,256.16	84.17	182,299.50	48,462.81
7-811	Perimeter Fireproofing - Hold	7-811			20,000.00	20,000.00					20,000.00	
7-812	Fireproofing Patching - Hold	7-812			100,000.00	100,000.00					100,000.00	
7-813	FP Added Mobilizations - Hold	7-813			15,000.00	15,000.00					15,000.00	
7-840	Firestopping	7-840	243,500.00		-5,750.00	237,750.00	55,209.10	67,940.90	123,150.00	51.80	114,600.00	6,157.51
7-841	Addl Perimeter Firesafing-Hold	7-841			10,000.00	10,000.00					10,000.00	
7-842	Add Pene. Firesafing - Hold	7-842			36,000.00	36,000.00					36,000.00	
7-843	Putty Pads - Hold	7-843										
8-001	Doors/Frame/Hardware Supplier	8-001	1,505,576.00		175,546.00	1,681,122.00	435,926.69	21,727.63	457,654.32	27.22	1,223,467.68	22,882.71
8-002	Temp Exterior Doors - Hold	8-002			25,000.00	25,000.00		6,899.75	6,899.75	27.60	18,100.25	344.99
8-003	Temp Locks & Cores - Hold	8-003			5,000.00	5,000.00					5,000.00	
8-004	D/F/H Protection - Hold	8-004			7,500.00	7,500.00					7,500.00	
8-005	083483 - Floor Doors - Hold	8-005										
8-360	Overhead Doors	8-360	944,119.00		-141,969.00	802,150.00	375,000.00		375,000.00	46.75	427,150.00	18,750.00
8-361	Access Panels - Hold	8-361			10,000.00	10,000.00					10,000.00	
8-362	Low Voltage Wiring - Hold	8-362			25,000.00	25,000.00					25,000.00	
8-370	Accordian Fire Doors	8-370			120,411.00	120,411.00					120,411.00	
8-371	Vision Panels - Hold	8-371			5,000.00	5,000.00					5,000.00	
8-401	Alum Entrances/Storefront Sub	8-401	3,454,600.00		32,315.00	3,486,915.00	1,008,352.50	302,740.00	1,311,092.50	37.60	2,175,822.50	65,554.63
8-403	Sliding Entrances	8-403	20,000.00			20,000.00					20,000.00	
8-801	Glass & Glazing	8-801	736,000.00		43,963.00	779,963.00	13,440.00	64,400.00	77,840.00	9.98	702,123.00	3,892.00
9-220	Drywall Subcontractor	9-220	9,676,889.00		713,660.05	10,390,549.05	6,898,056.46	841,186.00	7,739,242.46	74.48	2,651,306.59	386,962.13
9-221	Trade Support	9-221	1,286,762.00			1,286,762.00	307,402.49	55,095.84	362,498.33	28.17	924,263.67	18,124.91
9-225	Hold - Added Blocking Unident	9-225			18,733.19	18,733.19					18,733.19	
9-226	Hold - Spray Insulation	9-226			4,165.00	4,165.00					4,165.00	
9-227	Hold - Acous Seal at MEP Pens	9-227			100,000.00	100,000.00					100,000.00	
9-228	Hold - Misc Patching	9-228			30,000.00	30,000.00					30,000.00	
9-229	Hold -Layout Track Prior to FP	9-229			25,000.00	25,000.00					25,000.00	
9-301	Tile Subcontractor	9-301	810,999.00		137,700.00	948,699.00	389,274.40	35,810.40	425,084.80	44.81	523,614.20	21,254.24
9-501	Acoustical Ceilings Sub	9-501	1,899,900.00			1,899,900.00	124,245.00	48,010.00	172,255.00	9.07	1,727,645.00	8,612.75
9-608	Polished Concrete Flooring	9-608	175,175.00		-47,082.00	128,093.00	18,248.00		18,248.00	14.25	109,845.00	912.40
9-609	Floor Protection - Hold	9-609			12,825.00	12,825.00		44,424.89	44,424.89	346.39	-31,599.89	2,221.24
9-640	Wood Flooring	9-640	602,258.00		-142,854.00	459,404.00					459,404.00	
9-642	Protect Gym Floor - Hold	9-642			15,716.00	15,716.00					15,716.00	
9-643	Protect Performance Flr - Hold	9-643			3,543.00	3,543.00					3,543.00	

CONTINUATION SHEET

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Project: **2515-01 / Stoneham High School**

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							FROM PREV. APPLICATION (D + E)	TOTAL COMPLETED AND STORED TO DATE (D + E + F)			% (G / C)			
9-650	Resilient Flooring Sub	9-650	985,975.00			985,975.00	347,675.68	27,617.06		375,292.74	38.06	610,682.26	18,764.63	
9-670	Seamless Flooring & Base	9-670	363,240.00		-131,950.00	231,290.00	89,177.00	21,235.15		110,412.15	47.74	120,877.85	5,520.61	
9-671	Floor Protection - Hold	9-671			9,975.00	9,975.00						9,975.00		
9-680	Carpet Subcontractor	9-680	338,123.00		2,276.00	340,399.00						340,399.00		
9-681	Floor Protection - Hold	9-681			23,674.00	23,674.00						23,674.00		
9-682	Additional Floor Prep - Hold	9-682			50,000.00	50,000.00						50,000.00		
9-901	Painting Subcontractor	9-901	889,000.00		1,890.00	890,890.00	204,542.00	47,300.00		251,842.00	28.27	639,048.00	12,592.10	
10-201	Louver Supply	10-201			28,500.00	28,500.00						28,500.00		
10-202	Louver Install	10-202			20,800.00	20,800.00						20,800.00		
10-401	Signage	10-401	105,012.00		-657.00	104,355.00						104,355.00		
10-605	Wire Mesh Partitions	10-605	81,130.00			81,130.00						81,130.00		
10-650	Operable Partitions	10-650	51,000.00		17,000.00	68,000.00	24,000.00			24,000.00	35.29	44,000.00	1,200.00	
10-949	NEIS Specialties	10-949			127,930.00	127,930.00						127,930.00		
10-950	Miscellaneous Specialties	10-950	1,415,820.00		-222,520.00	1,193,300.00	71,152.75		56,540.00	127,692.75	10.70	1,065,607.25	6,384.64	
10-951	Additional Blocking - Hold	10-951			10,000.00	10,000.00						10,000.00		
11-060	Theater Equipment	11-060	767,418.00		213,205.90	980,623.90						980,623.90		
11-061	Theater Low Volt Wiring - Hold	11-061			10,000.00	10,000.00						10,000.00		
11-062	Additional Scaffolding - Hold	11-062												
11-401	Food Service Equipment	11-401	1,377,274.00		-186,271.00	1,191,003.00	446,353.02	105.00	55,730.00	502,188.02	42.17	688,814.98	25,109.40	
11-402	FSE Connections - Hold	11-402			35,000.00	35,000.00						35,000.00		
11-403	FSE MEP Coordination - Hold	11-403			25,000.00	25,000.00						25,000.00		
11-404	FSE Kitchen Protection - Hold	11-404			25,000.00	25,000.00						25,000.00		
11-405	FSE- Low Voltage Wiring - Hold	11-405			25,000.00	25,000.00						25,000.00		
11-450	Residential Appliances	11-450	104,922.00		-37,879.00	67,043.00						67,043.00		
11-451	Res. Appliances - DEC	11-451			9,298.00	9,298.00						9,298.00		
11-452	Res. Appliance Install - Riggs	11-452			28,874.00	28,874.00						28,874.00		
11-453	Res. Appliance Esc. - Hold	11-453			6,800.00	6,800.00						6,800.00		
11-480	Gymnasium Equipment	11-480	518,316.00		367,649.30	885,965.30	10,000.00			10,000.00	1.13	875,965.30	500.00	
11-481	Add'l Layout - Gym Ep. - Hold	11-481			20,000.00	20,000.00						20,000.00		
11-482	Floor Protection - Hold	11-482			5,000.00	5,000.00						5,000.00		
11-483	Supplemental Steel - Hold	11-483			5,000.00	5,000.00						5,000.00		
11-484	Floor Protection - Hold	11-484			10,000.00	10,000.00						10,000.00		
11-485	Additional Blocking - Hold	11-485			7,500.00	7,500.00						7,500.00		
12-320	Wood Casework	12-320	1,626,800.00		773,110.57	2,399,910.57	781,800.00	399,000.00		1,180,800.00	49.20	1,219,110.57	59,040.00	
12-321	Additional Blocking - Hold	12-321			35,000.00	35,000.00						35,000.00		
12-322	Countertop Protection - Hold	12-322			15,000.00	15,000.00						15,000.00		
12-323	Humidity Control - Hold	12-323			35,000.00	35,000.00						35,000.00		
12-324	Premium Time - Hold	12-324			50,000.00	50,000.00						50,000.00		
12-325	Incubator-Autoclave Hold	12-325			40,000.00	40,000.00						40,000.00		

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CR-021	Boxwood Access Rd Water Line R	CR-021	20,644.96		20,644.96	20,644.96			20,644.96	100.00		1,032.25
CR-025	ASI-008 Building Geometry Plan	CR-025										
	<u>CO-05 TOTAL</u>		58,132.50	.00	58,132.50	58,132.50		.00	58,132.50	100.00		2,906.63
	<u>CO-06</u>											
CR-012	ASI-003 Framing Coordination a	CR-012										
CR-027	PR-006 South Foundation Wall	CR-027	5,275.99		5,275.99	966.00	4,309.99		5,275.99	100.00		263.80
CR-029	PR-010 Fire Alarm	CR-029										
CR-030	Coordination with BP#1 and BP#	CR-030	23,785.27		23,785.27	23,785.27			23,785.27	100.00		1,189.26
	<u>CO-06 TOTAL</u>		29,061.26	.00	29,061.26	24,751.27	4,309.99	.00	29,061.26	100.00		1,453.06
	<u>CO-07</u>											
CR-034	Added Rock Hammering within Bu	CR-034	14,573.49		14,573.49	14,573.49			14,573.49	100.00		728.67
CR-037	Existing School Foundation and	CR-037	3,480.56		3,480.56	3,480.56			3,480.56	100.00		174.03
CR-040	ASI-007 Beam Geometry & Locati	CR-040										
CR-041	PR-013 Revised HSS at EXT-1.1	CR-041	3,451.47		3,451.47	3,451.47			3,451.47	100.00		172.57
CR-044	PR-016 Canopy Deck Edge Clarif	CR-044										
CR-045	RFI-102 (PR-017) Conduit Mater	CR-045	4,695.78		4,695.78		4,695.78		4,695.78	100.00		234.79
	<u>CO-07 TOTAL</u>		26,201.30	.00	26,201.30	21,505.52	4,695.78	.00	26,201.30	100.00		1,310.06
	<u>CO-09</u>											
CR-013	PR-002R1 Canopy Framing Revisi	CR-013	10,594.03		10,594.03	6,290.16	4,303.87		10,594.03	100.00		529.70
CR-024	ASI-006R1 Conformed Set Clarif	CR-024										
CR-069	RFI-105 T&M Water Line Relocat	CR-069	18,473.22		18,473.22	18,473.22			18,473.22	100.00		923.66
	<u>CO-09 TOTAL</u>		29,067.25	.00	29,067.25	24,763.38	4,303.87	.00	29,067.25	100.00		1,453.36
	<u>CO-10</u>											
CR-039	PR-012 Grease Trap Footing &	CR-039	5,629.56		5,629.56	1,596.00	4,033.56		5,629.56	100.00		281.48
	<u>CO-10 TOTAL</u>		5,629.56	.00	5,629.56	1,596.00	4,033.56	.00	5,629.56	100.00		281.48
	<u>CO-11</u>											
CR-080	Subcontractor Change Order Mar	CR-080										
	<u>CO-11 TOTAL</u>		.00	.00				.00				
	<u>CO-12</u>											
CR-053	PR-020 Structural and Concrete	CR-053	-4,412.52		-4,412.52						-4,412.52	
CR-064	PR-028 Drainage North of Main	CR-064	34,705.90		34,705.90	34,705.90			34,705.90	100.00		1,735.30
CR-071	PR-030 & PR-039 Electrical VE	CR-071	-233,010.00		-233,010.00						-233,010.00	
CR-072	PR-034 Spartan Place Concrete	CR-072	2,590.11		2,590.11		2,590.11		2,590.11	100.00		129.51
CR-075	PR-035 - LULA Pit Changes	CR-075	1,556.04		1,556.04		1,556.04		1,556.04	100.00		77.80
CR-086	Landscape Boulder Sort-Stockpi	CR-086	1,349.09		1,349.09	1,349.09			1,349.09	100.00		67.45
	<u>CO-012 TOTAL</u>		-197,221.38	.00	-197,221.38	36,054.99	4,146.15	.00	40,201.14	20.38	-237,422.52	2,010.06
	<u>CO-014</u>											
CR-058	ASI-016 Elevator Sump Piping C	CR-058	10,076.05		10,076.05		10,076.05		10,076.05	100.00		503.80
CR-063	PR-022 Structural Scope Reduct	CR-063	-2,361.30		-2,361.30						-2,361.30	

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						L FROM PREV. APPLICATION (D + E)	M THIS PERIOD		N (G / C)	O (D + E + F)		
CR-068	PR-032 Thermal Coating & Struc	CR-068	-100,499.10		-100,499.10						-100,499.10	
CR-076	PR-038 Coating Revision - Aero	CR-076	-5,844.52		-5,844.52	4,463.00			4,463.00	76.36	-10,307.52	223.15
CR-082	PR-031 Area D Relieving Angle	CR-082	7,049.15		7,049.15		7,049.15		7,049.15	100.00		352.46
CR-089	PR-033 Scope Development	CR-089	329,086.56		329,086.56	329,086.56			329,086.56	100.00		16,454.33
CR-090	PR-049 Auditorium Concrete Ris	CR-090	-1,635.24		-1,635.24						-1,635.24	
CR-092	PR-023 Civil Drainage Update	CR-092	-3,487.00		-3,487.00						-3,487.00	
CR-093	PR-037 Electrical Site Plan Cl	CR-093	204,030.88		204,030.88	21,458.86	10,000.00		31,458.86	15.42	172,572.02	1,572.94
CR-099	CCD-001 Fire Protection System	CR-099	28,581.51		28,581.51		28,581.51		28,581.51	100.00		1,429.08
	CO-014 TOTAL		464,996.99	.00	464,996.99	355,008.42	55,706.71	.00	410,715.13	88.33	54,281.86	20,535.76
	<u>CO-016</u>											
CR-104	PR-062 - Glass Type Revisions	CR-104	-3,703.00		-3,703.00						-3,703.00	
CR-107	Site Security Camera	CR-107	19,775.91		19,775.91		19,775.91		19,775.91	100.00		988.80
	CO-016 TOTAL		16,072.91	.00	16,072.91		19,775.91	.00	19,775.91	123.04	-3,703.00	988.80
	<u>CO-018</u>											
CR-047	PR-014 Area D Facade Support R	CR-047	-35,202.24		-35,202.24						-35,202.24	
CR-078	PR-040R1 Foodservice Commercia	CR-078	-7,982.92		-7,982.92	-1,038.23			-1,038.23	13.01	-6,944.69	-51.91
CR-097	PR-052 AV RFIs 209 & 210	CR-097	5,847.49		5,847.49	5,847.49			5,847.49	100.00		292.37
CR-098	PR-055 Fireproofing Revisions	CR-098	-36,507.00		-36,507.00						-36,507.00	
CR-112	Power Study & Panel Revisions	CR-112	9,078.51		9,078.51	8,378.02	700.49		9,078.51	100.00		453.92
CR-114	PR-058 - Fan Coil Box Electric	CR-114	-996.75		-996.75						-996.75	
CR-131	Duct Credit	CR-131	-15,000.00		-15,000.00						-15,000.00	
	CO-018 TOTAL		-80,762.91	.00	-80,762.91	13,187.28	700.49	.00	13,887.77	17.20	-94,650.68	694.38
	<u>CO-020</u>											
CR-087	PR-043 Pipe Size Clarification	CR-087	7,978.03		7,978.03	7,978.03			7,978.03	100.00		398.90
CR-096	PR-042 Wall Revisions	CR-096	5,659.70		5,659.70		5,659.70		5,659.70	100.00		282.99
CR-115	PR-061 - Catwalk Railing Remov	CR-115	-5,844.02		-5,844.02						-5,844.02	
CR-117	Separate Existing Urban Fill -	CR-117	111,079.92		111,079.92	111,079.92			111,079.92	100.00		5,554.00
CR-122	RFI-221.1 BDA Rated Cable	CR-122	11,857.31		11,857.31						11,857.31	
CR-123	Deflection Requirement for Ext	CR-123	10,074.34		10,074.34	9,297.00			9,297.00	92.28	777.34	464.85
CR-126	PR074 Video Prod. Duct Reroute	CR-126	5,979.38		5,979.38						5,979.38	
CR-129	CCD-003 Infiltration at Turf F	CR-129	6,495.16		6,495.16	6,495.16			6,495.16	100.00		324.76
CR-138	PR-082 Hose Bibb in Area D Mec	CR-138	2,077.33		2,077.33		2,077.33		2,077.33	100.00		103.87
	CO-020 TOTAL		155,357.15	.00	155,357.15	134,850.11	7,737.03	.00	142,587.14	91.78	12,770.01	7,129.37
	<u>CO-021</u>											
CR-083	PR-036 Electrical RFI Implemen	CR-083	26,225.30		26,225.30		222.37		222.37	0.85	26,002.93	11.12
CR-102	PR-054 - Fans & Dryer Vent Rev	CR-102	8,243.24		8,243.24	2,500.00	2,951.97		5,451.97	66.14	2,791.27	272.60
CR-106	Structural Steel Detail Substi	CR-106	-19,765.00		-19,765.00						-19,765.00	
CR-108	PR-046 Security Window Trim -	CR-108	4,591.30		4,591.30						4,591.30	
CR-119	PR-063 Structural Scope Reduct	CR-119	-37,729.80		-37,729.80						-37,729.80	

CONTINUATION SHEET

AIA Document G702, APPLICATION AND CERTIFICATION FOR PAYMENT, containing Contractor's signed certification is attached.

Project: **2515-01 / Stoneham High School**

Invoice **21**
 Draw
 Application date: **4/01/2024**
 Period ending date: **3/31/2024**

In tabulations below, amounts are stated to the nearest dollar.

Use Column I on contracts where variable retainage for items may apply.

A ITEM NO.	B DESCRIPTION OF WORK	C ORIGINAL BUDGET	D APPROVED CHANGE ORDERS	E APPROVED TRANSFERS	F SCHEDULED VALUE	G WORK COMPLETED		H MATERIALS PRESENTLY STORED (NOT IN D / E)	I TOTAL COMPLETED AND STORED TO DATE (D + E + F)	J % (G / C)	K BALANCE TO FINISH (C - G)	L RETAINAGE (IF VARIABLE RATE)
						FROM PREV. APPLICATION (D + E)	THIS PERIOD					
CR-146	CCD-005 & PR-086 - Security Gl	CR-146	238,101.90		238,101.90						238,101.90	
CR-153	PR-071 Auditorium Soffit Frami	CR-153	1,455.28		1,455.28						1,455.28	
CR-155	ASI-052 Door B113 Relocation -	CR-155	2,951.21		2,951.21		1,475.61		1,475.61	50.00	1,475.60	73.78
CO-021 TOTAL			224,073.43	.00	224,073.43	2,500.00	4,649.95	.00	7,149.95	3.19	216,923.48	357.50
<u>CO-022</u>												
CR-070	PR-029 Area D Ext OH Door & Ar	CR-070	7,912.79		7,912.79	2,993.06	2,175.00		5,168.06	65.31	2,744.73	258.40
CR-127	PR-079 AV Paging Speaker Clari	CR-127	6,336.07		6,336.07						6,336.07	
CR-132	Credit for PR-028 Drainage Nor	CR-132	-10,000.00		-10,000.00	-10,000.00			-10,000.00	100.00		-500.00
CR-142	PR-081 Arch Updates per Coordi	CR-142	5,770.69		5,770.69		5,770.69		5,770.69	100.00		288.53
CR-149	ASI-046 Exterior Framing Adjus	CR-149	4,362.62		4,362.62		4,362.62		4,362.62	100.00		218.13
CR-154	PR-091 Lighting & AV Screen Cl	CR-154	1,527.06		1,527.06						1,527.06	
CR-160	PR-097 PV Conduit to Main MEP	CR-160	2,763.44		2,763.44						2,763.44	
CR-161	RFI-376 F18 Light Fixture Colo	CR-161	886.02		886.02						886.02	
CR-172	PR-104 Masonry Upper Corner De	CR-172	2,694.60		2,694.60						2,694.60	
CO-022 TOTAL			22,253.29	.00	22,253.29	-7,006.94	12,308.31	.00	5,301.37	23.82	16,951.92	265.06
<u>CO-024</u>												
CR-116	PR-066 - Misc Metals Framing R	CR-116	-21,572.18		-21,572.18						-21,572.18	
CR-128	PR-059 Parapet Framing Modific	CR-128	4,836.58		4,836.58		4,836.58		4,836.58	100.00		241.83
CR-144	PR-080 Catwalk Stair & F13 Att	CR-144	3,464.45		3,464.45		3,464.45		3,464.45	100.00		173.22
CR-176	PR-105 Bench Support Plates	CR-176	1,116.50		1,116.50		1,116.50		1,116.50	100.00		55.83
CR-178	RFI-390 FX1 Light Fixture Chan	CR-178	7,239.58		7,239.58						7,239.58	
CR-180	PR-103 WAP and AV Data Coordin	CR-180	7,938.22		7,938.22						7,938.22	
CR-183	PR-110 Soffits for Coordinatio	CR-183	5,032.00		5,032.00		5,032.00		5,032.00	100.00		251.60
CR-184	RFI-433 Aisle Lighting Drivers	CR-184				768.00			768.00		-768.00	38.40
CR-195	CCD-008 PreK Classroom Casewor	CR-195	2,357.72		2,357.72						2,357.72	
CO-024 TOTAL			10,412.87	.00	10,412.87	768.00	14,449.53	.00	15,217.53	146.14	-4,804.66	760.88
<u>CO-025</u>												
CR-113	PR-050 - LULA & Wheel Chair Li	CR-113	20,193.20		20,193.20						20,193.20	
CR-120	PR-067 Sink Type Changes	CR-120	-237,195.69		-237,195.69						-237,195.69	
CR-124	PR-065 Owner Changes per FFE M	CR-124	68,908.98		68,908.98		-3,775.29		-3,775.29	5.48	72,684.27	-188.76
CR-133	PR-073 Door Schedule Revisions	CR-133	2,755.62		2,755.62						2,755.62	
CR-137	PR-069 Power & Site Lighting C	CR-137	40,207.13		40,207.13						40,207.13	
CR-145	PR-085 Mechanical Fire Dampers	CR-145	-5,985.71		-5,985.71						-5,985.71	
CR-148	PR-083 Tile Revisions - Rev2	CR-148	9,313.03		9,313.03						9,313.03	
CR-152	PR-070 Theatrical-Electrical C	CR-152	58,766.55		58,766.55						58,766.55	
CR-157	PR-092 Elec Circuit Updates	CR-157	24,718.93		24,718.93						24,718.93	
CR-159	PR-095 Mech Heater Revision pe	CR-159	4,876.27		4,876.27						4,876.27	
CR-163	PR-096 Gym Elec Equip and Kitc	CR-163	70,632.06		70,632.06						70,632.06	
CR-169	PR-088 Door & Hardware Coordin	CR-169	11,145.12		11,145.12						11,145.12	

CONTINUATION SHEET

AIA Document G702, APPLICATION AND CERTIFICATION FOR PAYMENT, containing Contractor's signed certification is attached.

Project: **2515-01 / Stoneham High School**

Invoice **21**
 Draw
 Application date: **4/01/2024**
 Period ending date: **3/31/2024**

In tabulations below, amounts are stated to the nearest dollar.
 Use Column I on contracts where variable retainage for items may apply.

A ITEM NO.	B DESCRIPTION OF WORK	ORIGINAL BUDGET	APPROVED CHANGE ORDERS	APPROVED TRANSFERS	C SCHEDULED VALUE	D WORK COMPLETED		F MATERIALS PRESENTLY STORED (NOT IN D / E)	G		H BALANCE TO FINISH (C - G)	I RETAINAGE (IF VARIABLE RATE)	
						FROM PREV. APPLICATION (D + E)	E THIS PERIOD		TOTAL COMPLETED AND STORED TO DATE (D + E + F)	% (G / C)			
CR-150	PR-060 PH Recorder - Rev 1	CR-150	-11,827.40		-11,827.40						-11,827.40		
CR-162	PR-090 Area D Metal Trim & Cei	CR-162	3,781.53		3,781.53						3,781.53		
CR-200	PR-121 R1 Hose Bibbs per RFI-4	CR-200	6,945.16		6,945.16						6,945.16		
CR-203	PR-116R1 Wall Ceiling Revision	CR-203	5,818.75		5,818.75						5,818.75		
CR-210	PR-113 Flooring Material Chang	CR-210	2,862.71		2,862.71						2,862.71		
CR-216	PR-134 VAV Piping per RFI-473	CR-216	27,664.79		27,664.79						27,664.79		
CR-217	CCD-011 Added Lights Per RFI-4	CR-217	4,575.93		4,575.93						4,575.93		
CR-227	CCD-017 Turf Field Striping Re	CR-227	123,062.62		123,062.62						123,062.62		
CR-235	RFI-509 Ceiling at Exposed Col	CR-235	3,443.72		3,443.72						3,443.72		
CR-239	PR-142 Hardware Set #7 Hinges	CR-239	299.08		299.08						299.08		
CR-242	PR-136 Remove HSS Framing	CR-242	-1,748.96		-1,748.96						-1,748.96		
CO-028 TOTAL			164,877.93	.00	164,877.93			.00			164,877.93		
GRAND TOTALS			175,983,887.00	2,314,242.51	.00	178,298,129.51	92,180,364.74	7,225,008.84	483,457.50	99,888,831.08	56.02	78,409,298.43	4,709,563.64

Users may obtain validation of this document by requesting a completed AIA Document D401 - Certification of Document's Authenticity from the Licensee

NEW STONEHAM HIGH SCHOOL, STONEHAM, MASSACHUSETTS

Change Order Budget Summary

Change Order No.	Change Order Amount	Owner's Contingency Budget	
		\$7,670,933.00	Original PFA Budget - August 18, 2021
		-\$450,000.00	60% Construction Documents Cost Estimate Reallocation
		-\$1,422,792.00	90% Construction Documents Cost Estimate Reallocation
		\$1,872,792.00	Amendment No. 5 - GMP
1	\$0.00		CR-001
2	\$445,479.68		CR-008
3	\$87,729.18		CR-007
4	\$48,631.95		CR-003; CR-014; CR-017; CR-018
5	\$58,132.50		CR-005; CR-016; CR-021; CR-025
6	\$29,061.26		CR-012; CR-027; CR-029; CR-030
7	\$26,201.30		CR-034; CR-037; CR-040; CR-041; CR-044; CR-045
8	\$0.00		NA
9	\$29,067.25		CR-013; CR-024; CR-069
10	\$5,629.56		CR-039
11	\$0.00		CR-080
12	-\$197,221.38		BT-017; CR-064; CR-071; CR-072; CR-075; CR-086
13	\$0.00		NA
14	\$464,996.99		CR-058; CR-063; CR-068; CR-076; CR-082; CR-089; CR-090; CR-092; CR-093; CR-099
15	\$0.00		NA
16	\$16,072.91		CR-104; CR-107
17	\$0.00		NA
18	-\$80,762.91		CR-047; CR-078; CR-097; CR-098; CR-112; CR-114; CR-131
19	\$0.00		NA
20	\$155,357.15		CR-087; CT-096; CR-115; CR-117; CR-122; CR-123; CR-126; CR-129; CR-138
21	\$224,073.43		CR-083; CR-102; CR-106; CR-108; CR-119; CR-146; CR-153; CR-155;
22	\$22,253.29		CR-070; CR-127; CR-132; CR-142; CR-149; CR-154; CR-160; CR-161; CR-172
23	\$0.00		NA
24	\$13,358.80		CR-116; CR-128; CR-144; CR-176; CR-178; CR-180; CR-183; CR-184; CR-195
25	\$139,735.91		CR-113; CR-120; CR-124; CR-133; CR-137; CR-145; CR-148; CR-152; CR-157; CR-159; CR-163; CR-169; CR-181; CR-185; CR-186; CR-187; CR-189; CR-190; CR-197; CR-201; CR-202; CR-206; CR-207; CR-224
26	\$283,301.09		CR-134; CR-170; CR-175; CR-193; CR-194; CR-198; CR-204; CR-208; CR-212; CR-213; CR-214; CR-219; CR-221; CR-222; CR-223; CR-226; CR-228; CR-230; CR-233
27	\$378,266.62		CR-110
28	\$164,877.93		CR-150; CR-162; CR-200; CR-203; CR-210; CR-216; CR-217; CR-227; CR-235; CR-239; CR-242
29	\$0.00		NA
30	\$0.00		CR-270
31	\$677,819.21		CR-192; CR-229; CR-232; CR-245; CR-248; CR-249; CR-251; CR-252; CR-253; CR-256; CR-260; CR-261; CR-262; CR-268; CR-272
	Change Order Total	Budget Total	Budget Balance
TOTAL	\$2,992,061.72	\$7,670,933.00	\$4,678,871.28

NEW STONEHAM HIGH SCHOOL, STONEHAM, MASSACHUSETTS

GMP Contingency Budget Summary

Change Order No.	Contingency Transfer Amount	GMP Contingency Budget	
		\$224,845.00	Amendment No. 1 - Early Site Package
		\$430,413.00	Amendment No. 2 - Concrete and Steel
		\$118,778.00	Amendment No. 3 - Equipment PrePurchase
		\$28,268.00	Amendment No. 4 - Storm System and PV Ductbank
		\$3,195,321.00	Amendment No. 5 - GMP
1	\$ -		NA
2	\$ -		NA
3	\$ 33,300.00		CT-008
4	\$ 6,762.33		CT-006; CT-011
5	\$ 3,450.12		CT-003
6	\$ -		NA
7	\$ 6,000.00		CT-015
8	\$ -		NA
9	\$ 30,687.97		CT-001; CT-004; CT-005; CT-013; CT-014
10	\$ -		NA
11	\$ -		NA
12	\$ 12,264.95		CT-018; CT-020
13	\$ -		NA
14	\$ 233,750.00		CT-023
15	\$ -		NA
16	\$ (66,222.00)		CT-024
17	\$ -		NA
18	\$ 13,970.32		CT-026; CT-027; CT-028; CT-029; CT-030; CT-033; CT-035; CT-037
19	\$ -		NA
20	\$ 27,167.00		CT-031; CT-034
21	\$ 28,606.37		CT-040; CT-041
22	\$ 277,405.22		CT-036; CT-047; CT-052; CT-054; CT-055; CT-058; CT-059
23	\$ -		NA
24	\$ 77,370.11		CT-045; CT-048; CT-056; CT-057; CT-062; CT-063; CT-064
25	\$ 263,840.58		CT-021; CT-053; CT-060; CT-071; CT-072
26	\$ 117,168.36		CT-065; CT-073; CT-078
27	\$ -		NA
28	\$ 399,791.25		CT-061; CT-068; CT-074; CT-076; CT-080; CT-087; CT-088; CT-089; CT-090
29	\$ -		NA
30	\$ -		NA
31	\$ 153,639.31		CT-043; CT-085; CT-086; CT-092; CT-095; CT-096; CT-097
	Contingency Transfer Total	GMP Contingency Total	Contingency Balance
TOTAL	\$1,618,951.89	\$3,997,625.00	\$2,378,673.11

NEW STONEHAM HIGH SCHOOL, STONEHAM, MASSACHUSETTS

Allowance Budget Summary

Change Order No.	Allowance Amount	Allowance Budget	
		\$990,000.00	Amendment No. 1 - Early Site Package
		\$275,000.00	Amendment No. 2 - Concrete and Steel
		\$0.00	Amendment No. 3 - Equipment PrePurchase
		\$0.00	Amendment No. 4 - Storm System and PV Ductbank
		\$2,545,800.00	Amendment No. 5 - GMP
1	\$ 4,000.00		AT-001
2	\$ 685,000.00		AT-004; AT-007
3	\$ -		NA
4	\$ 5,164.00		AT-002; AT-003
5	\$ -		NA
6	\$ -		NA
7	\$ 44,535.77		AT001B; AT-009; AT-010; AT-013; AT-013; AT-015
8	\$ 46,746.28		AT-012; AT-016; AT-018; AT-019
9	\$ 493,218.07		AT-008; AT-014; AT-017; AT-021; AT-024
10	\$ 103,279.94		AT-022; AT-028
11	\$ -		NA
12	\$ 112,570.85		AT-029; AT-031
13	\$ -		NA
14	\$ 72,329.86		AT-030; AT-032; AT-033
15	\$ -		NA
16	\$ -		NA
17	\$ -		NA
18	\$ 3,213.00		AT-035
19	\$ -		NA
20	\$ 6,202.00		AT-034
21	\$ 137,700.00		AT-038
22	\$ 201,943.30		AT-036
23	\$ -		NA
24	\$ -		NA
25	\$ 16,401.00		AT-041
26	\$ 390,095.70		AT-039; AT-040; AT-046
27	\$ -		NA
28	\$ 35,720.16		AT-043; AT-045
29	\$ -		NA
30	\$ -		NA
31	\$ 5,855.82		AT-048; AT-050
	Allowance Total	Allowance Budget	Allowance Balance
TOTAL	\$2,363,975.75	\$3,810,800.00	\$1,446,824.25

Change Order Summary

DATE: April 18, 2024
 TO: Stoneham Building Committee
 SUBJECT: **Change Order Summary – CO-030**

Detailed Description	Value*	Cost**
Allowance Transfers (AT's)		
Budget Transfers (BT's)		
Hold Transfers (HT's)		
Contingency Transfers (CT's)		
Reconciled Buyouts (RB's)		
Change Requests (CR's)		
CR-270 Substantial Completion Extension This Change Request changes the date of Substantial Completion for the Main School Building from June 28 th to July 31 st 2024.	\$ 0	\$ 0
Total Change Order Value		\$0

- Notes:
- AT = Allowance Transfer
 - BT = Budget Transfer
 - HT = Hold Transfer
 - RB = Reconciled Buyout
 - CR = Change Request
 - CT = Contingency Transfer
 - OAL = Owner Approval Letter
 - PC = Pre-Construction Change Order
 - T&M = Time and Materials
 - GR = General Requirements
 - NA = Not Applicable
 - BP = Bid Package
 - * Value of the Change Request
 - ** Cost to the Project

End of Summary



Change Order

Project:

2515 Stoneham High School
149 Franklin Street
Stoneham, MA 02180

Change Order: CO030

Date: 4/18/2024

To Contractor:

Consigli Construction Co., Inc.

The Contract is changed as follows:

Change Order #030 - Extension of Substantial Completion

CR270 Extension of Substantial Completion - Phase 2 Building Complete

\$0.00

The original Contract Amount was	\$176,267,415.00
Net change by previously authorized Change Orders	\$2,314,242.51
The Contract Amount prior to this Change Order was	\$178,581,657.51
The Contract will be increased by this Change Order in the amount of	\$0.00
The new Contract Amount including this Change Order will be	\$178,581,657.51
The Contract Time will be unchanged.	

NOT VALID UNTIL SIGNED BY THE ARCHITECT, CONTRACTOR AND OWNER.

Perkins & Will, Inc.
ARCHITECT

Consigli Construction Co., Inc.
CONTRACTOR

Town of Stoneham
OWNER

(Signature)

(Signature)

(Signature)

By

By

By

Date

Date

Date

Consigli Construction Co., Inc.

Construction Managers and General Contractors

72 Sumner Street, Milford, MA 01757 • phone: 508-473-2580 • fax: 508-473-3588 • web: www.consigli.com

Albany NY • Boston MA • Caribbean • Hartford CT • Milford MA • New York NY • Pleasant Valley NY • Portland ME • Ronkonkoma NY • Washington DC • Westchester NY



Change Request

To: Julie Leduc
 Symmes Maini & Mckee
 1000 Massachusetts Ave.
 Cambridge, MA 02138
 Ph: (617)520-9299 Fax: (617)354-5758

Number: CR270
Date: 4/5/24
Job: 2515 Stoneham High School
Phone:

Description: Extension of Substantial Completion - Phase 2 Building Complete

We offer the following specifications and pricing to make the changes as described below:

This Change Request is for a no-cost modification to the Phase 2 Substantial Completion Date of the Stoneham High School Project from June 28, 2024 to July 31, 2024 with no liquidated damages. Any additional funds will be addressed in a separate CR.

Description	Labor	Material	Equipment	Subcontract	Other	Price
					Subtotal:	\$0.00
		Builders Risk (0.157%)				\$0.00
		General Liability (1.10%)				\$0.00
		SDI (Non-Trade Only) (1.40%)				\$0.00
		OH&P (5%)				\$0.00
		Bond (0.53%)				\$0.00
					Total:	\$0.00

SCHEDULE IMPACT

We have proceeded with this change to achieve schedule.

As directed, we will not proceed with this change until formal direction from OWNER is received.

ARCHITECT
 Consigli Construction Co., Inc.
 CONTRACTOR
 72 Sumner Street
 Milford, MA 01757
 OWNER

 (Signature)

 (Signature)

 (Signature)

 By

 By

 By

 Date

 Date

 Date

Change Order Summary

DATE: April 19, 2024
 TO: Stoneham Building Committee
 SUBJECT: **Change Order Summary – CO-031**

Detailed Description	Value*	Cost**
Allowance Transfers (AT's)		
AT-048 Beam Pens for Spartan Place FP and Gym Electrical (ASI-089) This Allowance Transfer covers the cost of beam penetrations in Spartan Place and the Gym for electrical and fire protection.	\$ 2,459.56	\$ 0
AT-050 Beam Penetration (RFI-554) This Allowance Transfer covers beam penetrations at the media bridge.	\$ 3,396.26	\$ 0
Budget Transfers (BT's)		
BT-032 Budget and Hold Reconciliation (March 2024) This Budget Transfer collects available budgets that are “unused” and will not be needed for the remainder of the project. They have been combined into a single transfer and reallocated to construction contingency to be used for CT's as necessary.	\$ 0	\$ 0
BT-033 Musco Light Pole & Foundation Changes This Budget Transfer reallocates funding for the sports lighting foundations at the fields. These poles were originally designed as pile foundations (thinner and deeper) but were modified to be spread footings by the Construction Team. This greatly reduces or removes the cost and/ or potential cost of blasting and replaces it with more manageable concrete work.	\$ 123,055.12	\$ 0
Hold Transfers (HT's)		
HT-016 Acoustical Penetrations This Hold Transfer captures sealant work done around penetrations through walls that requires acoustical properties. This is a portion of a larger hold for this work that will continue throughout the project.	\$ 37,123.02	\$ 0
Contingency Transfers (CT's)		
CT-043 Core Concrete Foundation Walls per MEP Coordination This Contingency Transfer captures costs associated with coring through foundation walls for MEPFP piping. This work was done by a concrete cutting subcontractor.	\$ 14,100.00	\$ 0
CT-085 Premium Time (March 2024) This Contingency Transfer captures costs for the month associated with Subcontractor premium time in an effort to maintain the project schedule.	\$ 94,744.00	\$ 0
CT-086 Chiller Vibration Isolation – Unprocured Scope This Contingency Transfer captures the cost for vibration isolation for the main building chiller in the Main Mechanical Room. This includes spring isolators and a stabilizing frame for the unit to sit on. This is unprocured scope that was not purchased as part of the Early Package for major MEP equipment.	\$ 17,533.00	\$ 0
CT-092 EZY Jams – Unprocured Scope This Contingency Transfer captures two door frame jambs that have invisible hinges that were modified before the Conformed Set was issued but not clouded and therefore not procured by the Subcontractor.	\$ 2969.00	\$ 0

Change Order Summary

<p>CT-095 Stage Light Support Coordination (RFI-576) This Contingency Transfer captures engineering and construction of small structural supports for stage lights. During MEP coordination a clash was identified and the solution proposed to slightly modify the supports to alleviate the issue.</p>	\$ 7,762.41	\$ 0
<p>CT-096 Accordion Door Height This Contingency Transfer captures the cost of the increased height of a fire rated accordion door. This height was modified before the Conformed Set was issued but not clouded and therefore considered a change as it was captured in submittal review.</p>	\$ 6,300.00	\$ 0
<p>CT-097 Stairwell Scaffolding This Contingency Transfer captures costs associated with temporary stairwell scaffolding erected to facilitate construction processes for Subcontractors.</p>	\$ 10,230.00	\$ 0
Reconciled Buyouts (RB's)		
<p>NONE</p>	\$ 0	\$ 0
Change Requests (CR's)		
<p>CR-192 Servery Countertop (PR-119) Reason Design This Change Request reduces the thickness of the servery countertop and modifies the edge profile. The subcontractor asked for the edge condition to be modified for constructability reasons.</p>	-\$ 2,400.00	-\$ 2,400.00
<p>CR-229 Branding Scope Confirmation (CCD-015) Reason Owner This Change Request memorializes the cost of branding for the project.</p>	\$ 227,000.00	\$ 227,000.00
<p>CR-232 Electrical and Theater Outlets (PR-139) Reason Design This Change Request captures electrical scope in the theater and servery. During coordination it was discovered that the (sloped) condensate piping could not be easily routed to a floor drain so an immediately adjacent electrical outlet was provided for the pump. In the theater, outlets were added that required routing from the control room to the catwalk. This change was due to coordination with theatrical lighting.</p>	\$ 18,018.36	\$ 18,018.36
<p>CR-245 Condensate Trap Chase (RFI-519) Reason Design This Change Request provides a small wall "bump out" to hide a pipe that did not fit within the originally defined wall chase. This was identified after the pipes were in place and as the walls were being erected.</p>	\$ 1,055.43	\$ 1,055.43
<p>CR-248 AV Device Color Verification (RFI-357) Reason Design This Change Request is to paint the main auditorium "front fill" speakers black. The speakers were approved and intended to be black, but upon review it was discovered that the selected vendor did not have an available black finish so the AV Contractor will paint them.</p>	\$ 1,417.63	\$ 1,417.63

Change Order Summary

<p>CR-249 Pendant Mount Speakers Substitution – Additional Quantity Reason Design</p> <p>This Change Request is a follow-up to CR-127 (PR-079). In that Change Request, twelve (12) ceiling mount pendant speakers were substituted, but there are nine (9) additional speakers that should also have been included. This cost captures those additional speakers that should have been included in the original CR.</p>	\$ 1,913.80	\$ 1,913.80
<p>CR-251 Auditorium AV Conduit Reason Design</p> <p>This Change Request provides coring, pathways, and conduit for wiring from the auditorium control room to the catwalk. This conduit was originally bought by the Electrical Subcontractor as the shortest direct path from the ceiling of the control room to the catwalk which would mean it would be exposed to view and immediately overhead in the auditorium entry area. This change re-routes that conduit, burying it within adjacent walls as intended.</p>	\$ 11,781.71	\$ 11,781.71
<p>CR-252 PreK Playground Surface Material (PR-153) Reason Owner</p> <p>This Change Request memorializes the Owner request to change the playground surface material from wood chips to a poured-in-place (PIP) rubber system.</p>	\$ 182,519.38	\$ 182,519.38
<p>CR-253 Sod for Baseball and Softball (PR-152) Reason Owner</p> <p>This Change Request memorializes that Owner request to change the baseball and softball field outfields from seed to sod. This change should allow the fields to be ready for use one full season earlier than if they remained seed.</p>	\$ 192,432.41	\$ 192,432.41
<p>CR-256 Kiln Power (CCD-018) Reason Design</p> <p>This Change Request captures the cost of changing the power feeds to the two (2) kilns in the kiln room. During coordination it was discovered that the power for the kilns did not match the equipment requirements and therefore had to be changed.</p>	\$ 6,934.64	\$ 6,934.64
<p>CR-259 Roof Access Stair Tread and Concrete Expansion (PR-144) Reason Design</p> <p>This Change Request covers the cost required to provide a concrete haunch at the Level 03 roof access in Area A. During coordination it was identified that this small section of exterior CMU veneer was technically only supported by the roof deck. The most efficient solution was a small lightweight concrete “shelf” to pick up the load.</p>	\$ 9,906.43	\$ 9,906.43
<p>CR-260 Safety Glazing Level 1 and 3 (PR-149) Reason Design</p> <p>This Change Request captures the cost associated with changing two pieces of glass from “typical” glazing to “safety” glazing. These windows were identified during coordination as being typical but were intended to be safety glazing due to proximity to the floor and to high traffic areas adjacent to the gymnasium.</p>	\$ 3,435.23	\$ 3,435.23
<p>CR-261 Ceiling in Electrical Closet A310a (PR-146) Reason Design</p> <p>This Change Request provides a ceiling in an electrical closet. The fire alarm is required to be within a maximum distance of the ceiling. Because there is no ceiling in the closet,</p>	\$ 1,095.53	\$ 1,095.53

Change Order Summary

<p>the device would be up high and very hard to maintain in the future. This ceiling allows the device to be much lower and more accessible for maintenance.</p>		
<p>CR-262 Copier Power (CCD-019) Reason Owner This Change Request provides dedicated power for copiers for the entire building. Once it was confirmed that the Owner intends to keep the existing copiers in the new building, the Design Team modified and added power in specific locations for these copiers.</p>	<p>\$ 17,884.00</p>	<p>\$ 17,884.00</p>
<p>CR-268 Area D Elec Closet Lights (PR-148, RFI-560) Reason Design This Change Request captures the cost to add light fixtures in Area D electrical closets adjacent to the Auditorium. These electrical closets should have light fixtures so they were added.</p>	<p>\$ 1,956.01</p>	<p>\$ 1,956.01</p>
<p>CR-272 ATM in School Store (PR-127) Reason Owner This Change Request captures the cost associated with providing power for an ATM in the School Store. Once the Owner confirmed that the ATM would be moved to the new school, the Design Team added dedicated power to the approved location.</p>	<p>\$ 2,868.65</p>	<p>\$ 2,868.65</p>
<p>Total Change Order Value</p>		<p>\$677,819.21</p>

Notes:

- AT = Allowance Transfer
- BT = Budget Transfer
- HT = Hold Transfer
- RB = Reconciled Buyout
- CR = Change Request
- CT = Contingency Transfer
- OAL = Owner Approval Letter
- PC = Pre-Construction Change Order
- T&M = Time and Materials
- GR = General Requirements
- NA = Not Applicable
- BP = Bid Package
- * Value of the Change Request
- ** Cost to the Project

End of Summary



Change Order

Project:

2515 Stoneham High School
149 Franklin Street
Stoneham, MA 02180

Change Order: CO031

Date: 4/19/2024

To Contractor:

Consigli Construction Co., Inc.

The Contract is changed as follows:

Change Order #031

AT048	ASI-089 Beam Pens for Spartan Place FP and Gym Elec	\$0.00
AT050	RFI-554 Beam 30B9 Penetration	\$0.00
BT032	Budget and Hold Reconciliation, March 2024	\$0.00
BT033	Musco Light Pole & Foundation Changes	\$0.00
CR192	PR-119 Revised Servery Countertop - Rev	\$-2,400.00
CR229	CCD-015 Branding Scope Confirmation	\$227,000.00
CR232	PR-139 Elec and Theater Outlets	\$18,018.36
CR245	RFI-519 Condensate Trap Chase	\$1,055.43
CR248	RFI-357 AV Device Color Verification	\$1,417.63
CR249	Additional Pendant Mount Speakers Substitution	\$1,913.80
CR251	Auditorium AV Conduit	\$11,781.71
CR252	PR-153 Playground Surface Materials	\$182,519.38
CR253	PR-152 Sod for Baseball and Softball	\$192,432.41
CR256	CCD-018 Kiln Power - Rev	\$6,934.64
CR259	PR-144 Roof Access Stair Tread and Concrete Expansion	\$9,906.43
CR260	PR-149 Safety Glazing Level 1 and 3	\$3,435.23
CR261	PR-146 Ceiling in A310a	\$1,095.53
CR262	CCD-019 Copier Power - Rev	\$17,884.00
CR268	PR-148 Area D Elec Closet Lights - Rev	\$1,956.01
CR272	PR-127 ATM in School Store - Rev2	\$2,868.65
CT043	Core Concrete Foundation Walls per MEP Coordination Rev	\$0.00
CT085	Premium Time - March 2024	\$0.00
CT086	Chiller Vibration Isolation - Unprocured Scope	\$0.00
CT092	EZY Jambs - Unprocured Scope	\$0.00
CT095	Stage Light Support Conflict with Ductwork	\$0.00
CT096	Accordion Door Height Discrepancy	\$0.00
CT097	Stairwell Scaffolding	\$0.00
HT016	Acoustical Penetrations	\$0.00
Total:		\$677,819.21

Consigli Construction Co., Inc.

Construction Managers and General Contractors

72 Sumner Street, Milford, MA 01757 • phone: 508-473-2580 • fax: 508-473-3588 • web: www.consigli.com

Albany NY•Boston MA•Caribbean•Hartford CT•Milford MA•New York NY•Pleasant Valley NY•Portland ME•Ronkonkoma NY•Washington DC•Westchester NY



Change Order

Project:

2515 Stoneham High School
149 Franklin Street
Stoneham, MA 02180

Change Order: CO031

Date: 4/18/2024

To Contractor:

Consigli Construction Co., Inc.

The original Contract Amount was	\$176,267,415.00
Net change by previously authorized Change Orders	\$2,314,242.51
The Contract Amount prior to this Change Order was	\$178,581,657.51
The Contract will be increased by this Change Order in the amount of	\$677,819.21
The new Contract Amount including this Change Order will be	\$179,259,476.72
The Contract Time will be unchanged.	

NOT VALID UNTIL SIGNED BY THE ARCHITECT, CONTRACTOR AND OWNER.

Perkins & Will, Inc.
ARCHITECT

Consigli Construction Co., Inc.
CONTRACTOR

Town of Stoneham
OWNER

(Signature)

(Signature)

(Signature)

By

By

By

Date

Date

Date

Consigli Construction Co., Inc.

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ATTACHMENT F

CONTRACT FOR DESIGNER SERVICES

AMENDMENT NO. 31

WHEREAS, the Town of Stoneham (“Owner”) and Perkins & Will, (the “Designer”) (collectively, the “Parties”) entered into a Contract for Designer Services for the Stoneham High School Project (Project Number 201802840505) at the Stoneham High School on July 10, 2020 “Contract”; and

WHEREAS, effective as of April 22, 2024, the Parties wish to amend the Contract:

NOW, THEREFORE, in consideration of the promises and the mutual covenants contained in this Amendment, and other good and valuable consideration, the receipt and legal sufficiency of which are hereby acknowledged, the Parties, intending to be legally bound, hereby agree as follows:

1. For the performance of services required under the Contract, as amended, the Designer shall be compensated by the Owner in accordance with the following Fee for Basic Services:

Fee for Basic Services:

	Original Contract	Prior Amendments	This Amendment	After this Amendment
Feasibility Study Phase	\$ 175,000.00	\$ 71,733.64	\$ 0.00	\$ 246,733.64
Schematic Design Phase	\$ 245,000.00	\$ 106,259.50	\$ 0.00	\$ 351,259.50
Design Development Phase	\$ 0.00	\$ 3,815,359.00	\$ 0.00	\$ 3,815,359.00
Construction Document Phase	\$ 0.00	\$ 5,273,662.00	\$ 0.00	\$ 5,273,662.00
Bidding Phase	\$ 0.00	\$ 1,124,800.00	\$ 0.00	\$ 1,124,800.00
Construction Phase	\$ 0.00	\$ 4,480,150.00	\$ 235,100.00	\$ 4,715,250.00
Completion Phase	\$ 0.00	\$ 423,600.00	\$ 0.00	\$ 423,600.00
Total Fee	\$420,000.00	\$ 15,295,564.14	\$ 235,100.00	\$15,950,664.14

This Amendment is a result of: Providing additional services for construction monitoring, air sampling and laboratory services during the hazardous materials abatement of the existing Stoneham High School to be funded out of MSBA ProPay 0204-0200, Hazardous Materials.

2. The Construction Budget shall be as follows:

Original Budget:	\$ <u>153,418,660.00</u>
Amended Budget	\$ <u>153,418,660.00</u>

3. The Project Schedule shall be as follows:

Original Schedule:	<u>June 2025</u>
Amended Schedule	<u>June 2025</u>

4. This Amendment contains all of the terms and conditions agreed upon by the Parties as amendments to the original Contract. No other understandings or representations, oral or otherwise, regarding amendments to the original Contract shall be deemed to exist or bind the Parties, and all other terms and conditions of the Contract remain in full force and effect.

IN WITNESS WHEREOF, the Owner, with the prior approval of the Authority, and the Designer have caused this Amendment to be executed by their respective authorized officers.

OWNER

Dennis J. Sheehan
(print name)

Town Administrator, Town of Stoneham
(print title)

By _____
(signature)

Date _____

DESIGNER

Yanel de Angel, FAIA
(print name)

Managing Director, Principal, Perkins & Will
(print title)

By _____
(signature)

Date _____

4.10.2024

Mr. Dennis J. Sheehan, Town Administrator
Stoneham Town Hall
35 Central Street, Second Floor
Stoneham, MA 02180

Re: Stoneham High School / Additional Services #31 Attachment F

Dear Mr. Sheehan,

As requested, and noted herein, are the additional services for UEC to provide construction monitoring, air sampling and laboratory services during the hazardous materials abatement of the existing Stoneham High School in accordance with scope of work outlined in the asbestos remediation section and environmental procedure section (see UEC proposal dated May 3, 2021)

Project Overview

TASK IV (CONSTRUCTION MONITORING AND AIR SAMPLING SERVICES):

UEC will provide construction monitoring, air sampling and laboratory services during the hazardous materials abatement project in accordance with scope of work outlined in the asbestos remediation section and environmental procedure section.

- A. The Designer will review submittals provided by the Contractor.
- B. The Designer will prepare an abatement plan for review by the Department of Environmental Protection (DEP).
- C. The Project Monitor will attend a pre-construction conference prior to the start of work. The conference establishes specific scheduling requirements, logistical arrangements, chain of command, emergency procedures and phone numbers.
- D. The Project Monitor will provide on-site asbestos abatement project monitoring and observe the contractor's practices and procedures during the removal process.
- E. The Project Monitor will attend meetings during asbestos abatement activities.
- F. The Project Monitor will collect and analyze air samples in accordance with Federal and State regulations as follows:
 - Background air samples by Phase Contrast Microscopy (PCM) prior to the commencement of abatement activities in each area to establish the ambient levels of airborne fibers.
 - General area air samples by PCM during abatement activities both inside and outside abatement work areas to verify airborne fiber levels do not exceed required limits.
 - Clearance air samples by PCM as required by Federal and State regulations. PCM samples will be collected and analyzed on-site in using the NIOSH method 7400.
- G. The Project Monitor will perform air sampling on the exterior of the school during demolition as required by the DEP since ACM damproofing was assumed to exist on the exterior and foundations walls.
- H. Produce a final report including daily logs, sample results, contractor logs and waste manifests, based on EPA compliance audit protocol.

4.10.2024
Stoneham High School /
Additional Services #31
Attachment F

Schedule

When the Town of Stoneham authorizes UEC to proceed with the work noted herein UEC will mobilize within 14 days of notification unless otherwise agreed.

Compensation

Compensation for the design through construction documentation, Task IV, is noted below:

TASK IV (CONSTRUCTION MONITORING AND AIR SAMPLING SERVICES):

Fees for services will be charged on time and material basis with an estimated fee as follows. The following fees are based on work being performed in 2021.

Pre-Construction Meeting x 2	\$ 500.00	\$ 1,000.00
DEP Abatement Plan	\$ 2,500.00	\$ 2,500.00
Submittals Review for Asbestos	\$ 700.00	\$ 700.00
Industrial Hygienist per Shift (regular time) x 150 Shifts	\$ 600.00	\$ 90,000.00
Industrial Hygienist per Shift (overtime, weekends) x 30 shifts	\$ 900.00	\$ 27,000.00
Per additional hour (overtime, weekends) x 100 Hours	\$ 110.00	\$ 11,000.00
Designer and Project Manager (per hour) x 120 Hours	\$ 135.00	\$ 16,200.00
Per PCM air samples x 10 Samples per Shift	\$ 30.00	\$ 63,000.00
Per PLM bulk samples x 30	\$ 30.00	\$ 900.00
Closure Document	\$ 1,500.00	\$ 1,500.00

The estimated not to exceed fee for Task IV \$ 213,800.00

Construction UEC Services

UEC	\$ 213,800
10% Mark-up Perkins&Will	\$ 21,300

Total Add Service #31 **\$ 235,100**

Any change in regulations and deviations to the above scope will be at an additional charge to the below fee. We will await your approval and later notification of this additional service before proceeding.

Thank you,



Brooke Trivas
Principal, Practice Leader for Perkins&Will

cc: Perkins&Will Team, Julie Leduc– SMMA, file

May 3, 2021

Ms. Brooke Trivas
Perkins + Will
225 Franklin Street, Suite 1100
Boston, MA 02110

Reference: **Proposal for Hazardous Materials Design, Construction Monitoring and Air Sampling Services at the Stoneham High School**

Dear Ms. Trivas:

Thank you for the opportunity for Universal Environmental Consultants (UEC) to provide professional services.

We are pleased to submit our proposal for the above referenced project.

Should this proposal meet with your approval, kindly execute, and return the enclosed proposal.

Please do not hesitate to call me at (508) 628-5486 if you have questions about this proposal or our services.

Very truly yours,

Universal Environmental Consultants



Ammar M. Dieb
President

UEC:\Proposals\IDM\P&W-Stoneham High School-IDM.DOC

Enclosure

**PROPOSAL
FOR
HAZARDOUS MATERIALS CONSULTING SERVICES
AT THE
STONEHAM HIGH SCHOOL
STONEHAM, MA**

UEC will provide professional engineering services as follows.

SCOPE OF WORK:

TASK I (DESTRUCTIVE TESTING SERVICES):

Services will be provided by Massachusetts licensed asbestos inspectors.

- A. Retain the services of a demolition/site contractor (Contractor) to excavate around the foundations walls to expose any suspect Asbestos Containing Materials (ACM) that might be found below grade. Backfill using the same excavated soil. The contractor will also perform selective destructive demolition of the exterior walls to expose any suspect ACM that might be found. Patch the exterior walls with similar or equivalent.
- B. Collect and analyze bulk samples of any suspect materials and analyze for asbestos.

TASK II (ROOFING SURVEY AND SAMPLING SERVICES):

Services will be provided by Massachusetts licensed asbestos inspectors.

- A. Retain the services of a licensed roofer to cut and patch the roof.
- B. Collect and analyze bulk samples of any suspect materials and analyze for asbestos.

TASK III (INSPECTION AND DESIGN SERVICES):

Services will be provided by Massachusetts licensed asbestos inspectors and designer.

- A. **Inspection for ACM** – Conduct an EPA NESHAP inspection of the building and collect data for design.
- B. **Bulk Samples Collection** – Collect additional bulk samples from suspect materials and analyze these samples for asbestos by Polarized Light Microscopy (PLM) using the Point Count Method (if needed).
- C. **Meetings** - Meet with representatives of the Client, OPM and Construction Manager to present recommendations for specifications.
- D. **Contract Documents** - Prepare Contract Specifications based on the recommendations as accepted by the Client, OPM and Construction Manager.
- E. **Addenda Preparation** - Prepare addenda and provide any additional information required during the bid period.

TASK IV (CONSTRUCTION MONITORING AND AIR SAMPLING SERVICES):

UEC will provide construction monitoring, air sampling and laboratory services during the hazardous materials abatement project in accordance with scope of work outlined in the asbestos remediation section and environmental procedure section.

- A. The Designer will review submittals provided by the Contractor.

- B. The Designer will prepare an abatement plan for review by the Department of Environmental Protection (DEP).
- C. The Project Monitor will attend a pre-construction conference prior to start of work. The conference establishes specific scheduling requirements, logistical arrangements, chain of command, and emergency procedures and phone numbers.
- D. The Project Monitor will provide on-site asbestos abatement project monitoring and observe the contractor's practices and procedures during the removal process.
- E. The Project Monitor will attend meetings during asbestos abatement activities.
- F. The Project Monitor will collect and analyze air samples in accordance with Federal and State regulations as follows:
 - ◆ Background air samples by Phase Contrast Microscopy (PCM) prior to the commencement of abatement activities in each area to establish the ambient levels of airborne fibers.
 - ◆ General area air samples by PCM during abatement activities both inside and outside abatement work areas to verify airborne fiber levels do not exceed required limits.
 - ◆ Clearance air samples by PCM as required by Federal and State regulations. PCM samples will be collected and analyzed on-site in using the NIOSH method 7400.
- G. The Project Monitor will perform air sampling on the exterior of the school during demolition as required by the DEP since ACM damproofing was assumed to exist on the exterior and foundations walls.
- H. Produce a final report, including daily logs, sample results, contractor logs and waste manifests, based on EPA compliance audit protocol.

PAYMENT:

UEC will submit invoices every thirty (30) days based on percentage of work completed. Invoices shall be paid within ten (10) days from client's receipt of payment from the owner. This proposal is subject to UEC Standard Agreement and Payments Terms and Conditions.

FEES FOR SERVICES:

TASK I (DESTRUCTIVE TESTING SERVICES):

Fees for services will be charged on a lump sum basis as follows:

Lump Sum Fee	\$ 4,500.00
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TASK II (ROOFING SURVEY AND SAMPLING SERVICES):

Fees for services will be charged on a lump sum basis as follows:

Lump Sum Fee	\$ 2,500.00
--------------	-------------

TASK III (INSPECTION AND DESIGN SERVICES):

Fees for services will be charged on a lump sum basis as follows:

Design Development:	
Lump Sum Fee	\$ 12,500.00

Construction Document:	
Lump Sum Fee	\$ 8,500.00

Bidding:
Lump Sum Fee \$ 3,500.00

TASK IV (CONSTRUCTION MONITORING AND AIR SAMPLING SERVICES):

Fees for services will be charged on time and material basis with an estimated fee as follows. The following fees are based on work being performed in 2021.

Pre-Construction Meeting x 2	\$ 500.00	\$ 1,000.00
DEP Abatement Plan	\$ 2,500.00	\$ 2,500.00
Submittals Review for Asbestos	\$ 700.00	\$ 700.00
Industrial Hygienist per Shift (regular time) x 150 Shifts	\$ 600.00	\$ 90,000.00
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Designer and Project Manager (per hour) x 120 Hours	\$ 135.00	\$ 16,200.00
Per PCM air samples x 10 Samples per Shift	\$ 30.00	\$ 63,000.00
Per PLM bulk samples x 30	\$ 30.00	\$ 900.00
Closure Document	\$ 1,500.00	\$ 1,500.00

The estimated not to exceed fee for Task IV \$ 213,800.00

(The fee will not be exceeded without prior authorization). UEC might request additional funds that might be due to changes of regulations.

Proposal Authorized By:



Ammar M. Dieb
President

Proposal Accepted by:

Signature: _____

Name: _____

**Town of Stoneham
Stoneham High School**

Project Budget and Cost Summary

April 19, 2024



Description	BUDGET			COST				CASH FLOW	
	PFA Approved Budget	Authorized Changes	Approved Budget	Committed Costs	Uncommitted Costs	Forecast Costs	Total Project Costs	Expenditures to Date	Balance To Spend
20 Construction									
Pre-Construction Services	\$258,528	\$29,250	\$287,778	\$287,778	\$0	\$0	\$287,778	\$287,778	\$0
Construction	\$153,418,660	\$22,565,227	\$175,983,887	\$175,983,887	\$0	\$0	\$175,983,887	\$86,686,379	\$89,297,508
CMR Contingency (5.%)		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Change Orders		\$2,314,243	\$2,314,243	\$2,314,243	\$0	\$4,344,088	\$6,658,331	\$1,182,598	\$5,475,733
Subtotal	\$153,677,188	\$24,908,720	\$178,585,908	\$178,585,908	\$0	\$4,344,088	\$182,929,996	\$88,156,754	\$94,773,241
30 Architectural & Engineering									
Designer - Feasibility	\$175,000	\$0	\$175,000	\$175,000	\$0	\$0	\$175,000	\$175,000	\$0
Schematic Design	\$245,000	\$0	\$245,000	\$245,000	\$0	\$0	\$245,000	\$245,000	\$0
Design Development	\$3,233,800	\$0	\$3,233,800	\$3,233,800	\$0	\$0	\$3,233,800	\$3,233,800	\$0
Construction Documents	\$4,921,000	\$184,588	\$5,105,588	\$5,105,588	\$0	\$0	\$5,105,588	\$5,105,588	\$0
Bidding / Negotiations	\$1,124,800	\$0	\$1,124,800	\$1,124,800	\$0	\$0	\$1,124,800	\$1,123,675	\$1,125
Closeout	\$423,600	\$0	\$423,600	\$423,600	\$0	\$0	\$423,600	\$0	\$423,600
Construction Administration	\$3,936,800	\$0	\$3,936,800	\$3,936,800	\$0	\$0	\$3,936,800	\$1,968,400	\$1,968,400
Geotech/GeoEnvironmental Consultant	\$657,170	\$0	\$657,170	\$591,343	\$65,827	\$0	\$657,170	\$480,800	\$176,370
Site Survey	\$44,000	\$0	\$44,000	\$44,000	\$0	\$0	\$44,000	\$44,000	\$0
Wetlands	\$20,000	\$0	\$20,000	\$13,640	\$6,360	\$0	\$20,000	\$0	\$20,000
Hazardous Materials	\$269,830	\$15,000	\$284,830	\$48,950	\$235,880	\$0	\$284,830	\$45,177	\$239,653
Feasibility Environmental and Site	\$160,000	\$14,193	\$174,193	\$174,193	\$0	\$0	\$174,193	\$149,219	\$24,974
Other Feasibility Costs	\$65,000	-\$39,193	\$25,807	\$19,051	\$6,756	\$0	\$25,807	\$19,051	\$6,756
Traffic Studies	\$209,000	\$7,700	\$216,700	\$216,700	\$0	\$0	\$216,700	\$114,199	\$102,501
Other Reimbursable Costs	\$320,000	\$259,100	\$579,100	\$411,396	\$167,704	\$0	\$579,100	\$285,412	\$293,688
Printing (Over the Minimum)	\$40,000	-\$15,000	\$25,000	\$0	\$25,000	\$0	\$25,000	\$0	\$25,000
Testing & Inspections	\$60,000	-\$4,250	\$55,750	\$0	\$55,750	\$0	\$55,750	\$0	\$55,750
Subtotal	\$15,905,000	\$422,138	\$16,327,138	\$15,763,861	\$563,277	\$0	\$16,327,138	\$12,989,321	\$3,337,818

**Town of Stoneham
Stoneham High School**

Project Budget and Cost Summary

April 19, 2024



Description	BUDGET			COST				CASH FLOW	
	PFA Approved Budget	Authorized Changes	Approved Budget	Committed Costs	Uncommitted Costs	Forecast Costs	Total Project Costs	Expenditures to Date	Balance To Spend
40 Administrative Costs									
OPM Feasibility Study	\$105,000	\$0	\$105,000	\$105,000	\$0	\$0	\$105,000	\$105,000	\$0
OPM Design Development	\$380,000	\$0	\$380,000	\$380,000	\$0	\$0	\$380,000	\$380,000	\$0
OPM Construction Contract Documents	\$640,000	\$0	\$640,000	\$640,000	\$0	\$0	\$640,000	\$640,000	\$0
OPM Bidding	\$180,000	\$0	\$180,000	\$180,000	\$0	\$0	\$180,000	\$180,000	\$0
OPM Construction Contract Administration	\$3,185,100	\$0	\$3,185,100	\$3,185,100	\$0	\$0	\$3,185,100	\$1,592,000	\$1,593,100
OPM Closeout	\$220,000	\$0	\$220,000	\$220,000	\$0	\$0	\$220,000	\$0	\$220,000
OPM Testing and Inspections	\$560,000	\$0	\$560,000	\$385,000	\$175,000	\$0	\$560,000	\$214,277	\$345,723
OPM Supplemental Services	\$140,000	\$0	\$140,000	\$23,819	\$116,181	\$0	\$140,000	\$23,819	\$116,181
OPM Reimbursable & Other Services	\$80,000	\$10,500	\$90,500	\$20,069	\$70,431	\$0	\$90,500	\$14,569	\$75,931
Advertising	\$20,000	\$0	\$20,000	\$3,829	\$16,171	\$0	\$20,000	\$3,829	\$16,171
Other Administrative Costs	\$260,000	-\$10,500	\$249,500	\$10,220	\$239,280	\$0	\$249,500	\$692	\$248,808
Utility Fees	\$200,000	\$75,000	\$275,000	\$251,658	\$23,342	\$0	\$275,000	\$243,469	\$31,531
Legal	\$120,000	\$0	\$120,000	\$6,660	\$113,340	\$0	\$120,000	\$6,660	\$113,340
Permitting	\$120,000	\$0	\$120,000	\$28,059	\$91,942	\$0	\$120,000	\$28,059	\$91,942
Owner's Insurance (OCIP)	\$200,000	-\$75,000	\$125,000	\$0	\$125,000	\$0	\$125,000	\$0	\$125,000
Other Project Costs (Moving, etc.)	\$360,000	\$0	\$360,000	\$92,630	\$267,370	\$0	\$360,000	\$130	\$359,870
Subtotal	\$6,770,100	\$0	\$6,770,100	\$5,532,045	\$1,238,055	\$0	\$6,770,100	\$3,432,504	\$3,337,596
50 Furniture, Fixtures and Equipment									
Furniture, Fixtures and Equipment	\$1,251,000	\$1,685,201	\$2,936,201	\$2,936,201	\$0	\$0	\$2,936,201	\$0	\$2,936,201
Technology/Computer Equipment	\$1,251,000	\$250,000	\$1,501,000	\$1,224,461	\$276,539	\$0	\$1,501,000	\$0	\$1,501,000
Subtotal	\$2,502,000	\$1,935,201	\$4,437,201	\$4,160,662	\$276,539	\$0	\$4,437,201	\$0	\$4,437,201
Project Sub-Total	\$178,854,288	\$27,266,059	\$206,120,347	\$204,042,476	\$2,077,871	\$4,344,088	\$210,464,435	\$104,578,579	\$105,885,856
70 Project Contingency									
Construction Contingency (Hard Cost) (5%)	\$7,670,933	-\$2,314,242	\$5,356,691						\$1,012,603
Owner's Contingency (Soft Cost) (2%)	\$3,068,373	-\$461,589	\$2,606,784						\$2,530,424
Subtotal	\$10,739,306	-\$2,775,831	\$7,963,476						\$3,543,027
Project Total	\$189,593,594	\$24,490,228	\$214,083,822	\$204,042,476	\$10,041,346	-\$76,361	\$214,007,462	\$104,578,579	\$109,428,883

SMMA

Project Management



Town of Stoneham

New Stoneham High School

Construction Update

4.22.2024





Drone Aerial – March 13, 2024



Drone Aerial – April 16, 2024



Drone Aerial – April 16, 2024 – Southwest Elevations



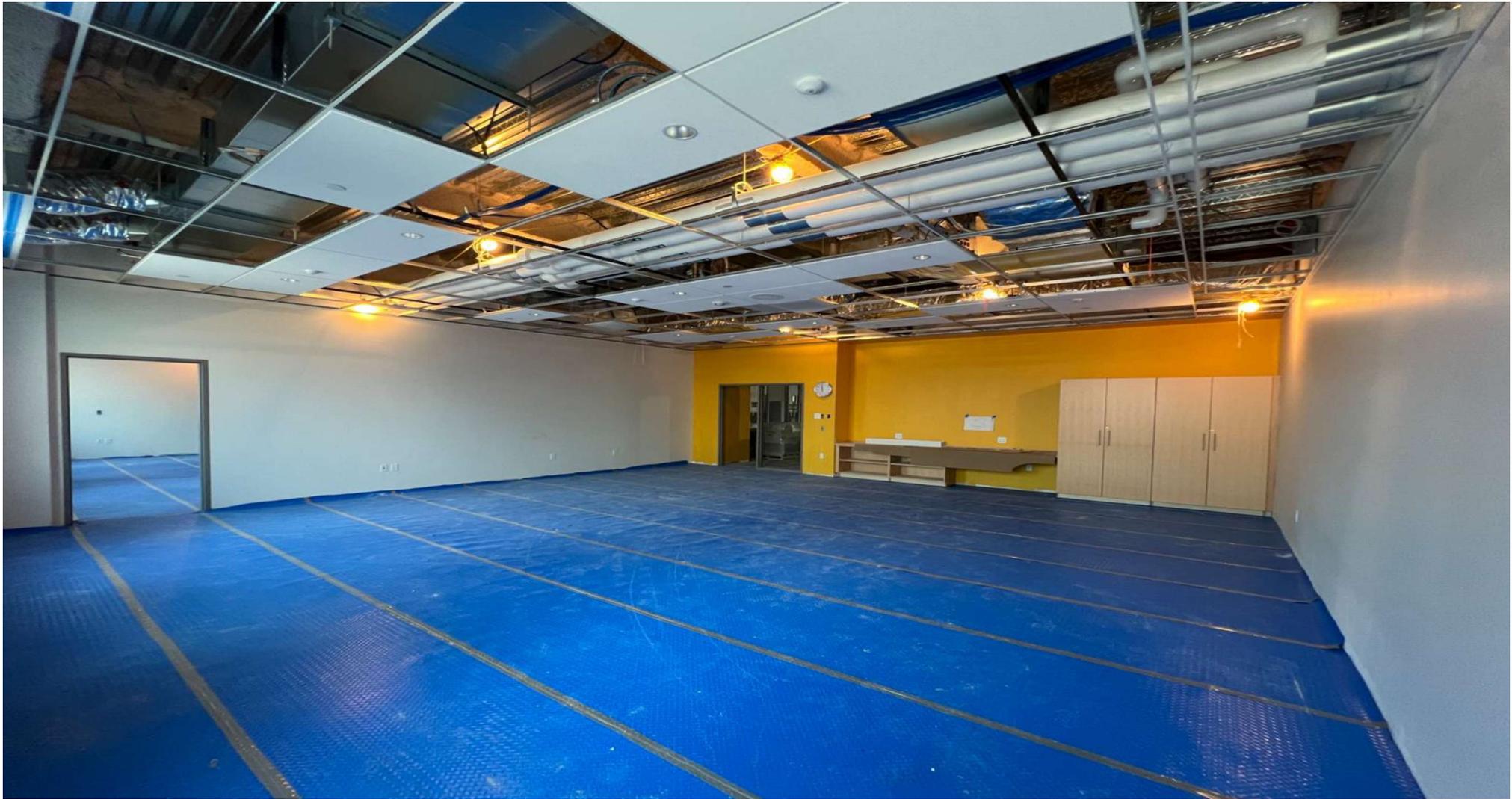
Drone Aerial – April 16, 2024 – North Elevation



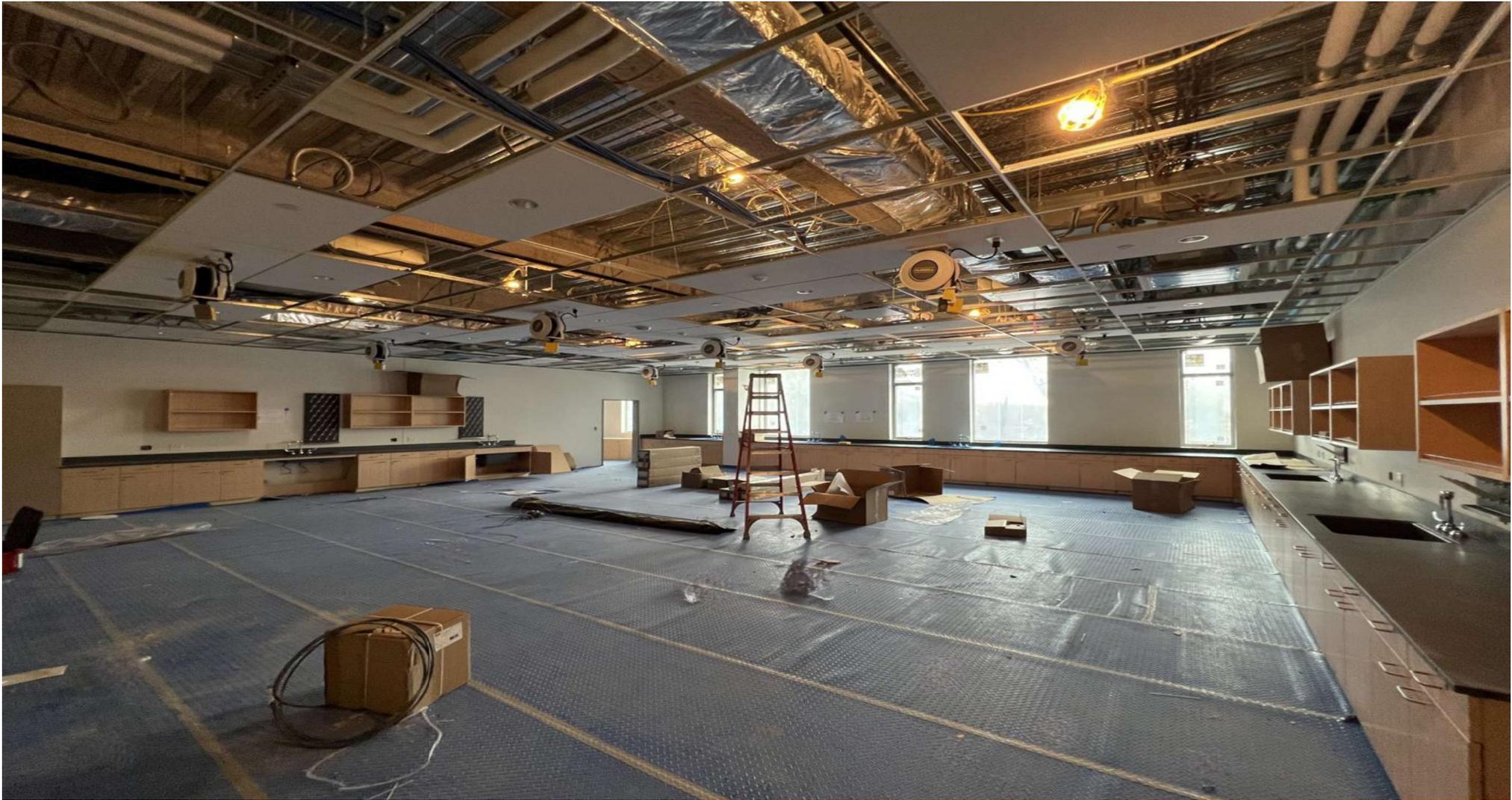
Mechanical Room – Chiller



First Floor – Nurses' Suite



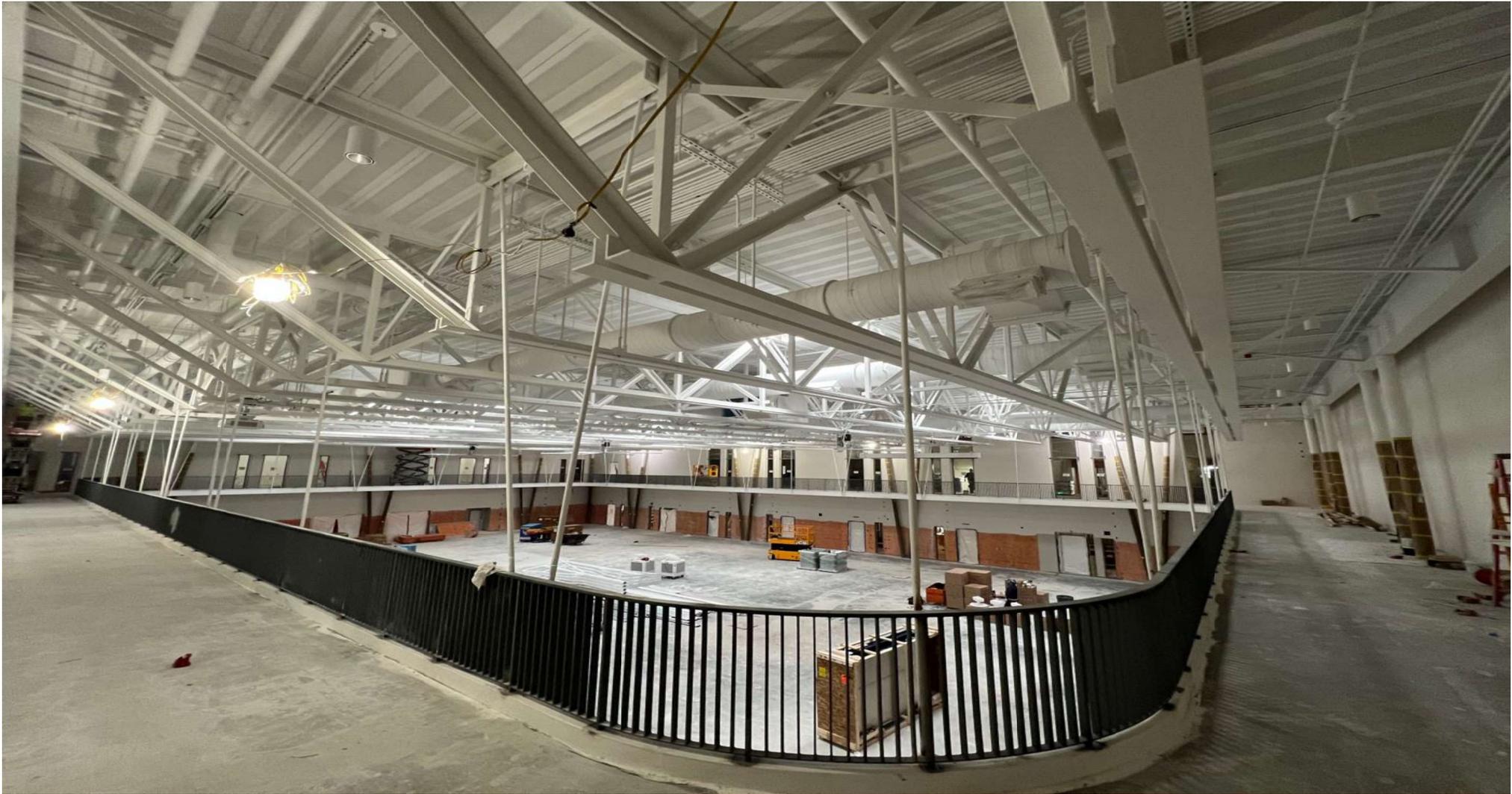
Second Floor Classroom



Science room – Second Floor



Third Floor Classroom

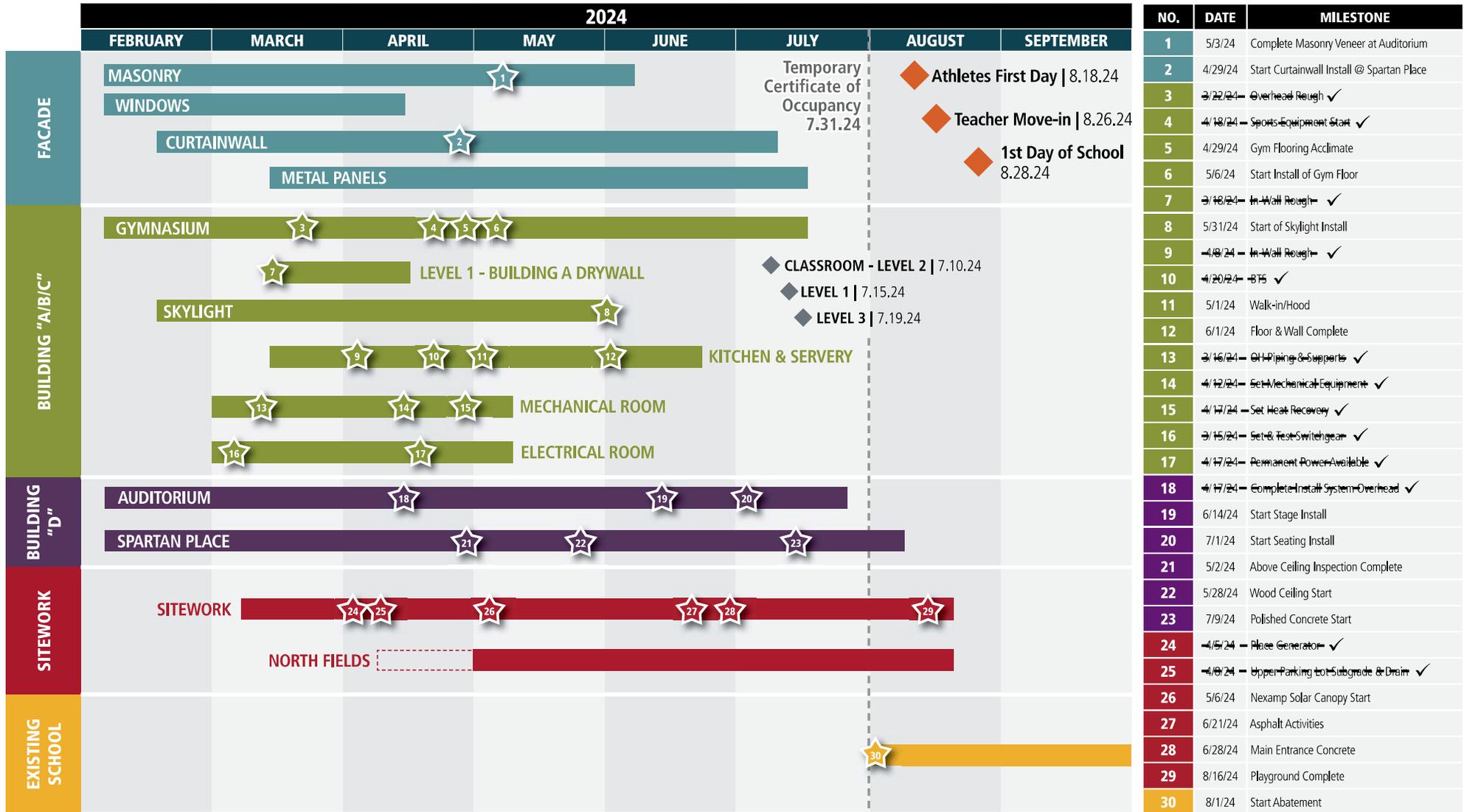


Gymnasium – Track Level



North Field

SCHEDULE: 4/22/24 UPDATE



NO.	DATE	MILESTONE
1	5/3/24	Complete Masonry Veneer at Auditorium
2	4/29/24	Start Curtainwall Install @ Spartan Place
3	3/22/24	Overhead Rough ✓
4	4/18/24	Sports Equipment Start ✓
5	4/29/24	Gym Flooring Acclimate
6	5/6/24	Start Install of Gym Floor
7	3/18/24	In-Wall Rough ✓
8	5/31/24	Start of Skylight Install
9	4/8/24	In-Wall Rough ✓
10	4/20/24	RFI ✓
11	5/1/24	Walk-in/Hood
12	6/1/24	Floor & Wall Complete
13	3/16/24	OH Piping & Supports ✓
14	4/12/24	Set Mechanical Equipment ✓
15	4/17/24	Set Heat Recovery ✓
16	3/15/24	Set & Test Switchgear ✓
17	4/17/24	Permanent Power Available ✓
18	4/17/24	Complete Install System Overhead ✓
19	6/14/24	Start Stage Install
20	7/1/24	Start Seating Install
21	5/2/24	Above Ceiling Inspection Complete
22	5/28/24	Wood Ceiling Start
23	7/9/24	Polished Concrete Start
24	4/5/24	Place Generator ✓
25	4/8/24	Upper Parking to Subgrade & Drain ✓
26	5/6/24	Nexamp Solar Canopy Start
27	6/21/24	Asphalt Activities
28	6/28/24	Main Entrance Concrete
29	8/16/24	Playground Complete
30	8/1/24	Start Abatement

STONEHAM HIGH SCHOOL

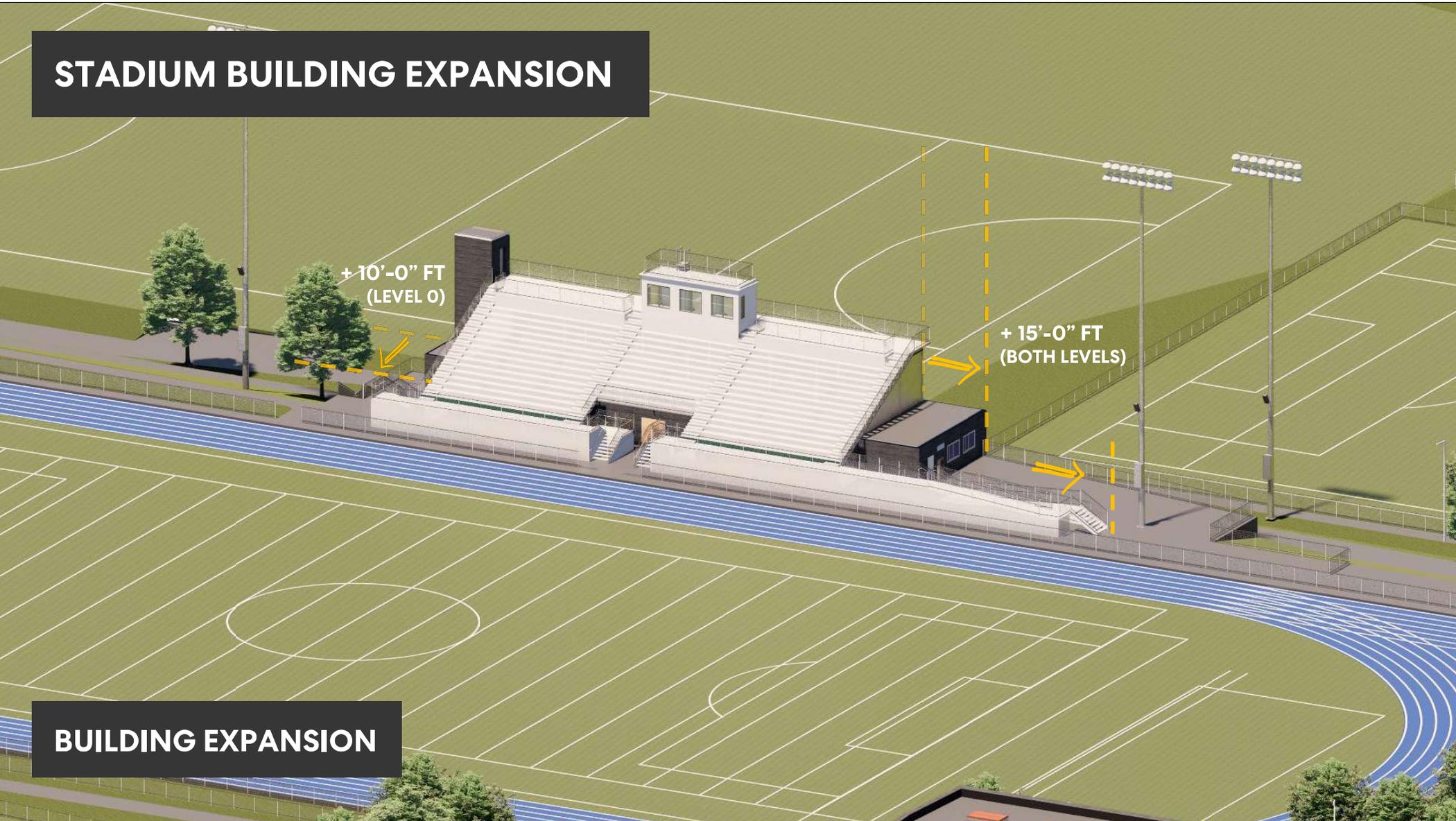
Spartan Stadium



02.07.2024

Spartan Stadium Building Update

STADIUM BUILDING EXPANSION



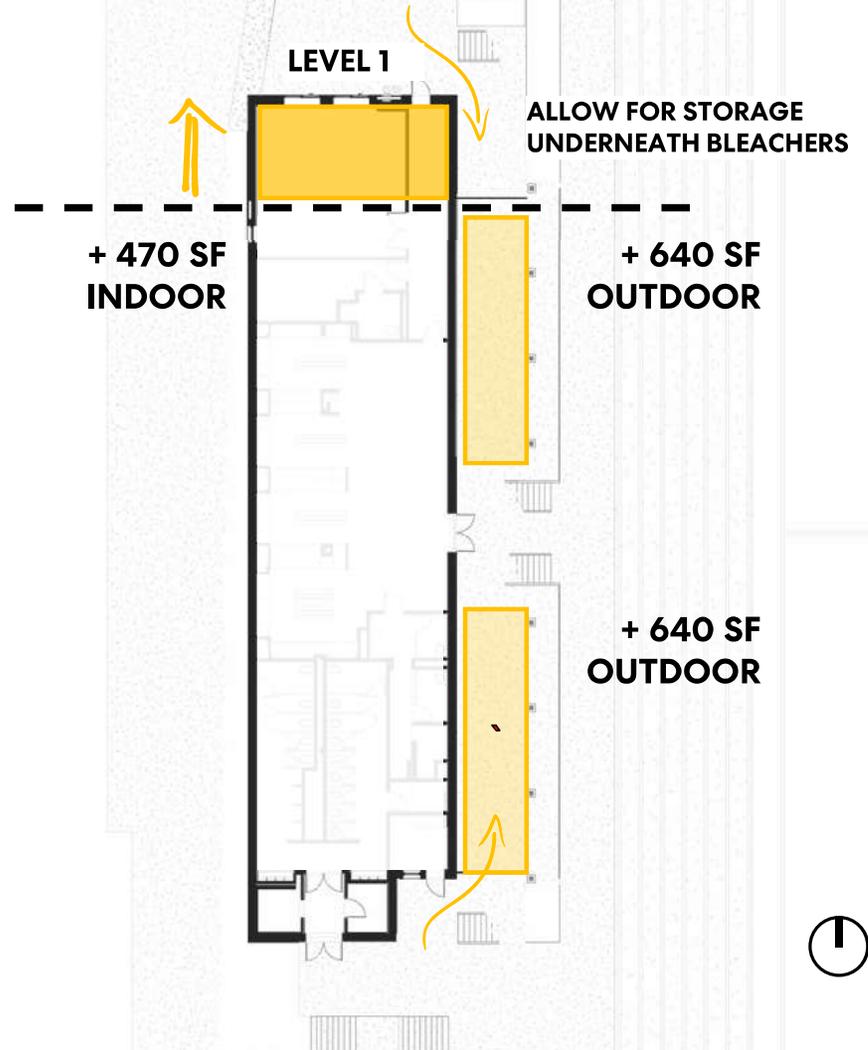
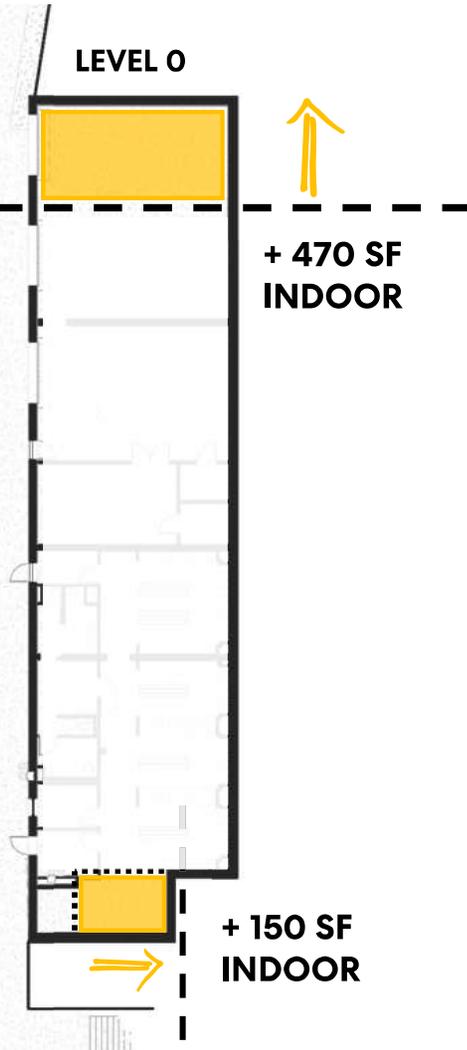
+ 10'-0" FT
(LEVEL 0)

+ 15'-0" FT
(BOTH LEVELS)

BUILDING EXPANSION

STADIUM BUILDING EXPANSION: OVERALL

**STORAGE:
+ 2300 SF**



STADIUM BUILDING EXPANSION: LEVEL 0



ORIGINAL

EXPANDED



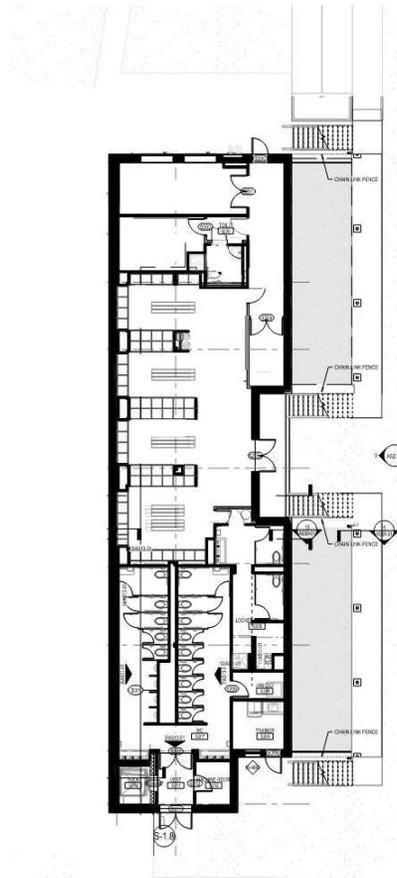
- INCREASED EXISTING STORAGE BY 470 SQ FT
- ADDED ONE OVERHEAD COILING DOOR



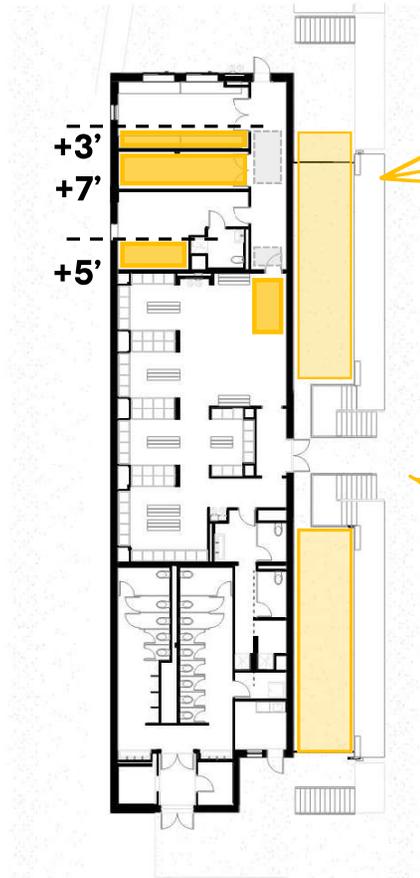
- ALIGNED STRUCTURE WITH ABOVE
- ADDED 150 SQFT STORAGE TO LOCKER ROOM



STADIUM BUILDING EXPANSION: LEVEL 1



ORIGINAL



EXPANDED

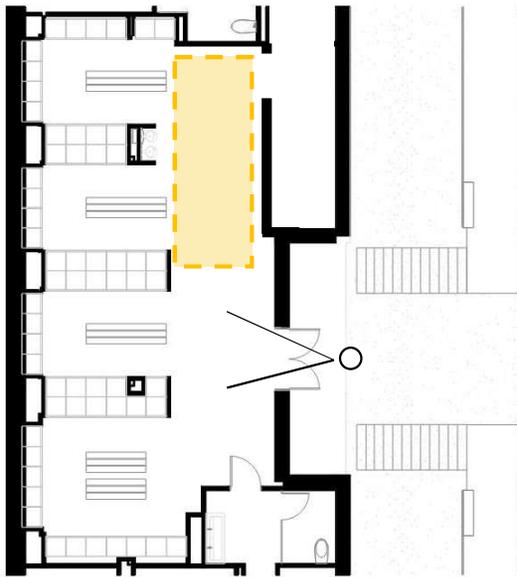
- LOCKER ROOM (80 SQFT TO 170 SQFT)
- COACHES ROOM (120 SQFT)
- CONCESSIONS (90 SQFT)

- PROVIDED ACCESS TO STORAGE UNDERNEATH BLEACHERS (USED TO BE DEAD SPACE)
- IMPROVED SIGHTLINES INTO LOCKER ROOM
- MAINTAIN SAME NUMBER OF LOCKERS

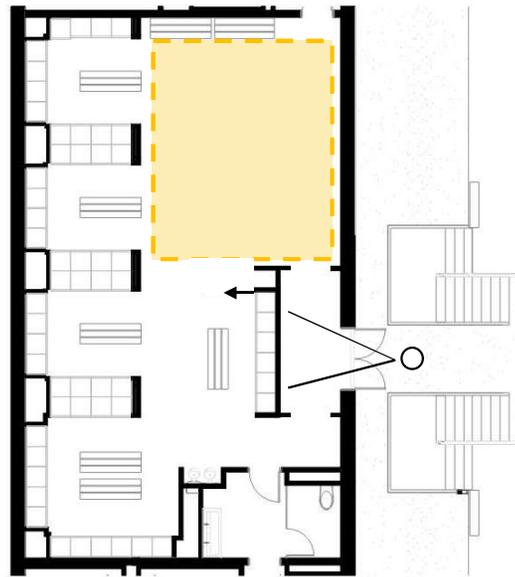


STADIUM BUILDING EXPANSION: LEVEL 1 LOCKER ROOM

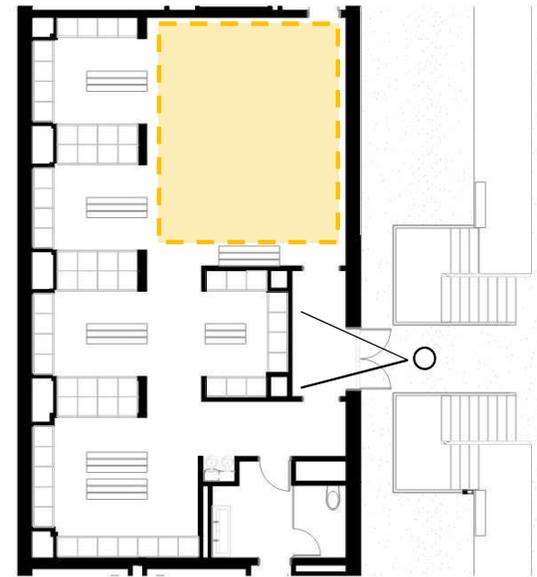
- IMPROVED SIGHTLINES INTO LOCKER ROOM
- INCREASED HUDDLE ZONE FROM 200 TO 500 SQ FT
- INCREASED WALL SPACE FOR SCREEN, SEATING, ETC.



ORIGINAL



OPTION #1



OPTION #2





THANK YOU!

Spartan Stadium Building Expansion – Cost Memo

To: Stoneham Building Committee

Date: 4.19.2024

From: Stephen Messinger

Project Name: Stoneham High School

Subject: Stadium Building Expansion

Project Number: 153010.000

As requested by the Owner at the April 8th Stoneham Building Committee Meeting, below is both a general and detailed description of the cost changes associated with Spartan Stadium. **The building footprint increases in size by 1,446 gsf** which is mostly storage. These costs have been organized into three categories:

- Building Expansion.** This includes all costs associated with: (a) extending the building 16' north on Level 00 and Level 01, (b) adding a storage area on the south end of Level 00 adjacent to the LULA, and (c) providing outdoor storage underneath the bleachers on the east side of Level 01.
- Owner Requests.** This includes all Owner requests for design changes that were made after the Guaranteed Maximum Price (GMP) documents were issued on December 12, 2022.
- Design/ Coordination.** This category covers any changes that were not explicitly part of the Building Expansion or Owner Requests. This includes any changes related to: (a) updates to the documents after December 12, 2022, (b) items encountered during the coordination process, (c) responses to RFI's from the Contractors, (d) submittal reviews, (e) underdeveloped or under-detailed scope, and (f) design improvements.

Review: In addition to these three categories, the Team is working on **estimated cost adjustments** with a mission to reduce unnecessary, extraneous, or inefficient changes. These items are denoted with **Review** (Team is reviewing possible reductions in scope or cost). See Cost Adjustment spreadsheet for approximated savings values.

Notes:

- The information within, including the design itself, the costs provided by the Construction Manager (CM) and Subcontractors, and the descriptions of the changes, is a **work in progress**. None of the costs have been fully vetted and approved by the Design Team, Owner's Project Manager (OPM), and CM.*
- This is being presented to the Owner to **expedite the decision-making process** to determine what, if any, optional changes will be made to Spartan Stadium.*
- Even if the Owner does not wish to expand the building or complete the Owner Requests, some of the Design/ Coordination costs will be incurred due to life safety, coordination, or functionality of systems. The estimated cost of the **"do nothing" option** has been provided as requested.*
- In addition to this memo that verbally describes changes, please see corresponding **highlighted color-coded drawings for reference**.*

Details:

- Building Expansion:**
 - Extended building footprint 16' north on both levels (approx. 34' x 16' = 1,088 gsf).
 - Bumped out the foundation wall at Level 00 adjacent to the LULA pit (approx. 16' x 11' = 176 gsf).
 - Modified the stadium bleachers to provide accessible outdoor storage space underneath.
 - Added structural shear walls at gridlines SB and SE.
 - Adjusted the locations of showers, toilets, and sinks to work with new structural elements.

Spartan Stadium Building Expansion

Stoneham High School

Date: 4.19.2024

6. Modified layouts for sprinklers, light fixtures, and ductwork.
7. Adjusted the façade and structural reinforcing,
8. Modified the surrounding landscape to adjust to new building dimensions.
9. Coordinated infrastructure such as drainage systems.
10. Adjusted the structural supports of the bleachers above.
11. Created a Storage Room on Level 01 adjacent to the Concessions space.
12. Provided a third garage door into Level 00 Open Storage (including associated heater and electrical panel).
13. Added ancillary and required elements such as additional roof drains, sprinkler heads, heating, and cooling.

2. Owner Requests:

1. Modified main entry at the Locker Room on Level 01 to address line of sight issues (approx. 26' x 7' = 182 sf).
2. Provided a "switchback" stair at center of bleachers to address line of sight and functionality.
3. Added exterior electrical outlets for outdoor golf cart charging capabilities under bleachers. **Review**
4. Added lighting under bleachers for outdoor storage area. **Review**
5. Added shower to Coaches Office on Level 01.
6. Added a flat panel screen, data drops, and outlets in the Coaches Office on Level 01.
7. Added marker boards in Coaches Office and Locker Room on Level 01.
8. Removed the Storage Room on Level 01 to give space back to Main Locker Room.
9. Changed the Level 01 lockers to "open style".

3. Design/ Coordination:

1. Adjusted window and louver dimensions on west and north façade for coordination. **Review**
2. Replace two (2) concessions windows with single overhead coiling door for flexibility and durability. **Review**
3. Value add to widen overhead coiling doors in L00 storage from 8' to 10' for ease of use. **Review**
4. Value add to provide floor drains in Main Storage area at L00. **Review**
5. Value add to provide Oil Water Separator at Main Storage at L00. **Review**
6. Value add to provide interior and exterior outlets for convenience. **Review**
7. Value add to provide corner guards to protect wall edges.
8. Modified mechanical equipment (heaters, air exchangers) per coordination. **Review**
9. Replaced lighting with different fixtures to address mounting and coordination. **Review**
10. Modified structural support details around overhead coiling doors based on coordination from Main Building. **Review**
11. Provided separate rated room for Emergency Electrical Panels in L00.
12. Replaced door and window combination with door and sidelight at Trainer's Room for ADA requirements.
13. Switched several sprinkler head "styles" to meet space needs or for coordination purposes.
14. Documented some ductwork and piping that was not originally shown including supply and return grilles and several small trunk lines.
15. Relocated horizontal piping onto roof for coordination purposes.
16. Added panelboards, outlets, power, wiring, circuit tags to meet scope requirements.
17. Added exterior light fixtures at entry doors and Concessions windows.
18. Documented code required exit signs and several fire alarm devices not previously shown.

Stoneham High School Building Project

Stoneham, Massachusetts

Consigli Project No. 2515



CONSIGLI
Est. 1905

PR-075: Stadium Building - Scope Review

#	Scope of Work		Cost	1. Building Expansion		2. Owner Request		3. Design/Coordination	
				%	\$	%	\$	%	\$
1	Norgate	Structural Steel	\$ 47,600.93	100%	\$ 47,600.93		\$ -		\$ -
2	General Mechanical	Mechanical	\$ 117,998.29	35%	\$ 41,299.40		\$ -	65%	\$ 76,698.89
3	WJGEI	Electrical	\$ 281,000.28	15%	\$ 42,150.04	10%	\$ 28,100.03	75%	\$ 210,750.21
4	Araujo Bros	Plumbing	\$ 89,497.85	50%	\$ 44,748.93	10%	\$ 8,949.79	40%	\$ 35,799.14
5	Hampshire	Fire Protection	\$ 15,572.26	85%	\$ 13,236.42		\$ -	15%	\$ 2,335.84
6	Fernandes	Masonry	\$ 67,682.24	100%	\$ 67,682.24		\$ -		\$ -
7	PJ Spillane	Waterproofing	\$ 13,307.00	85%	\$ 11,310.95		\$ -	15%	\$ 1,996.05
8	Century	Drywall/Framing	\$ 20,830.00	40%	\$ 8,332.00	40%	\$ 8,332.00	20%	\$ 4,166.00
9	Homer	Painting	\$ 10,287.00	90%	\$ 9,258.30		\$ -	10%	\$ 1,028.70
10	Allegheny	Resilient Flooring	\$ 5,000.00	100%	\$ 5,000.00		\$ -		\$ -
11	Marois	Sitework	\$ 33,055.00	60%	\$ 19,833.00	10%	\$ 3,305.50	30%	\$ 9,916.50
12	Greenwood	Roofing	\$ 39,530.97	100%	\$ 39,530.97		\$ -		\$ -
13	Dant Clayton	Bleachers	\$ 22,030.00	40%	\$ 8,812.00	60%	\$ 13,218.00		\$ -
14	Emanouil	Landscaping	\$ (7,460.00)	100%	\$ (7,460.00)		\$ -		\$ -
15	Union Fence	Fencing	\$ 15,900.00	75%	\$ 11,925.00	25%	\$ 3,975.00		\$ -
16	S&F	Concrete	\$ 88,219.00	100%	\$ 88,219.00		\$ -		\$ -
17	Specified Building	Overhead Doors	\$ 37,800.00	67%	\$ 25,326.00		\$ -	33%	\$ 12,474.00
18	Thompson	Doors/Frames/Hardware	\$ 10,590.00	60%	\$ 6,354.00		\$ -	40%	\$ 4,236.00
19	Avid	Miscellaneous Metals	\$ 51,455.22	75%	\$ 38,591.42		\$ -	25%	\$ 12,863.81
20	Specialty Services	Specialties	\$ 5,000.00	50%	\$ 2,500.00	50%	\$ 2,500.00		\$ -
21	Buckley	Louvers	\$ (100.00)	100%	\$ (100.00)		\$ -		\$ -
22	Lockheed	Windows/Curtainwall	\$ -		\$ -		\$ -		\$ -
23	General Requirements		\$ 29,391.49	54%	\$ 15,967.69	7%	\$ 2,083.13	39%	\$ 11,340.66
	SUBTOTAL		\$ 994,187.53		\$ 540,118.29		\$ 70,463.45		\$ 383,605.80
	ADDERS		\$ 78,649.79		\$ 41,800.86		\$ 5,397.76		\$ 31,451.16
	TOTAL		\$ 1,072,837.32		\$ 581,919.15		\$ 75,861.21		\$ 415,056.96
	Potential Cost Reductions		\$ 290,500.00		\$ 21,300.00		\$ 26,600.00		\$ 242,600.00
	TOTAL w/ All Cost Reductions		\$ 782,337.32		\$ 560,619.15		\$ 49,261.21		\$ 172,456.96

Cost Adjustment Measures

4/19/2024

Item #	Discipline	Description	Change	Savings
A1	Architectural	Slope Roof	Slope roof to drain + eliminate roof/overflow drains and associated piping and storm	\$ 30,000.00
A2	Architectural	Façade Material Under Bleachers	Swap decorative brick to a utilitarian material	\$ 2,500.00
A3	Architectural	Remove Concession OHD	Revert design change to original design with (2) sliding window units	\$ 17,500.00
A6	Architectural	Attic Stock in lieu of new items	rubber base	\$ 1,500.00
A7	Architectural	Attic stock for new light fixtures	confirm what we have available and where it could go in Stadium	\$ 10,000.00
E1	Electrical	Use original Lighting Fixtures	Use original light fixtures; supplement with new fixtures only where needed.	\$ 75,000.00
E2	Electrical	Panelboard PL1SA is Amphitheater cost	Panelboard PL1SA was issued as scope for PR-123 - Amphitheater & Visitor Seating;	\$ 16,500.00
E3	Electrical	Electrical Outlets - Reduction	Remove exterior and interior electrical outlets	\$ 15,000.00
E4	Electrical	Remove all lighting in under bleacher storage		\$ 12,500.00
M1	Mechanical	Pressbox Temp Control System	Remove temperature control system (RFCUs, HPCU, piping & thermostats) and	\$ 11,000.00
M2	Mechanical	Remove Electric Unit Heater in L00 Storage	Remove (1) Electric Unit Heater from Storage S100 including associated power.	\$ 1,500.00
M3	Mechanical	EHC's - Revert to Original Models		\$ 6,500.00
M5	Mechanical	Vents in Concession Roof - Remove and block out	no block outs?	\$ 10,000.00
M6	Mechanical	Remove Electric Unit Heater in Concessions	Remove (1) Electric Unit Heater from Concessions including associated power.	\$ 1,500.00
P1	Plumbing	Remove one (1) water fountain	Vestibule S108 interior water fountain	\$ 8,500.00
P2	Plumbing	remove oil water separator and floor drains		\$ 25,000.00
S1	Structural	Reduce roof load to 40 psf	estimate 1 lb per sf for roof framing?	\$ 15,000.00
S3	Structural	reduce decking to 20 gauge		\$ 5,000.00
L1	Landscape	provide asphalt in lieu of concrete in accessible bleacher areas		\$ 16,000.00
L2	Landscape	provide gravel under inaccessible bleacher areas		\$ 10,000.00
				\$ 290,500.00

OCCUPANT LOAD SUMMARY TABLE - STADIUM LOWER LEVEL

FUNCTION OF SPACE	AREA (SQ FT)	OCCUPANT LOAD FACTOR	OCCUPANT LOAD
LOCKER ROOMS	1,500 SF	10	150
COACHES	100 SF	1	10
MEP	300 SF	1	30
STORAGE	500 SF	1	50

OCCUPANT LOAD SUMMARY TABLE - STADIUM LEVEL #1

FUNCTION OF SPACE	AREA (SQ FT)	OCCUPANT LOAD FACTOR	OCCUPANT LOAD
LOCKER ROOMS	1,500 SF	10	150
COACHES	100 SF	1	10
CONCESSION	200 SF	1	20
MEP	100 SF	1	10
STORAGE	300 SF	1	30

OCCUPANT LOAD SUMMARY TABLE - STADIUM TOP LEVEL

FUNCTION OF SPACE	AREA (SQ FT)	OCCUPANT LOAD FACTOR	OCCUPANT LOAD
STADIUM SEATING	341,500 SF	10	3,415

EXIT CAPACITY SUMMARY TABLE - STADIUM LOWER LEVEL

DOOR CLEAR WIDTH (INCHES)	DOOR CAPACITY (PERSONS)	LIMITING CAPACITY (PERSONS)	ACTUAL CAPACITY (PERSONS)
EXIT 1	170	170	170
EXIT 2	170	170	170
EXIT 3	170	170	170

EXIT CAPACITY SUMMARY TABLE - STADIUM LEVEL #1

DOOR CLEAR WIDTH (INCHES)	DOOR CAPACITY (PERSONS)	LIMITING CAPACITY (PERSONS)	ACTUAL CAPACITY (PERSONS)
EXIT 1	170	170	170
EXIT 2	170	170	170
EXIT 3	170	170	170

EXIT CAPACITY SUMMARY TABLE - STADIUM TOP LEVEL

EXIT #	ABLE WIDTH (INCHES)	ABLE FACTOR	ABLE CAPACITY (PERSONS)	STAIR WIDTH (INCHES)	STAIR FACTOR	STAIR CAPACITY (PERSONS)	LIMITING CAPACITY (PERSONS)	ACTUAL CAPACITY (PERSONS)
EXIT 1	48	0.2	240	48	0.2	240	240	240
EXIT 2	48	0.2	240	48	0.2	240	240	240
EXIT 3	48	0.2	240	48	0.2	240	240	240
TOTAL			720			720	720	720

Level 1 - Bleacher Distance Calculations - Medium

Required Seating	Required Seating Factors	Provided Seating Factors	Provided Seating Factors
Stadium Seating	1.00	1.00	1.00
Stadium	1.00	1.00	1.00
TOTAL	1.00	1.00	1.00

*Actual occupant load of this function is 1,000 occupants. Version 22 P.006 was generated by user a link within the file planning file for calculations.

LIFE SAFETY LEGEND

WALL FINISHES

- SMOKE TIGHT CONSTRUCTION (NON-RATED) - ST
- 1 HOUR FIRE BARRIER (45 MIN) - 1H
- 2 HOUR FIRE BARRIER (90 MIN) - 2H

WALL FINISHES SHOWN FOLLOWED BY OPENING PROTECTION REQUIREMENTS IN PARENTS

TRAVEL FINISHES

- TRAVEL DISTANCE TO EXIT - XX
- COMMON PATH OF TRAVEL - XX

ROOM NAME

AREA(S)

OCCUPANT LOAD

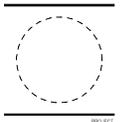
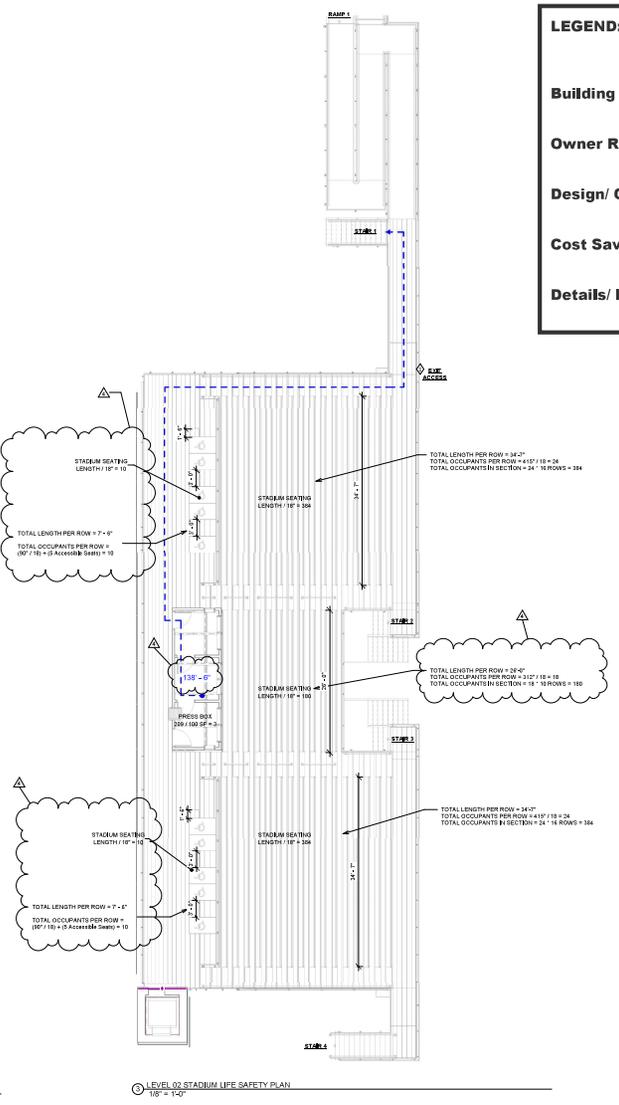
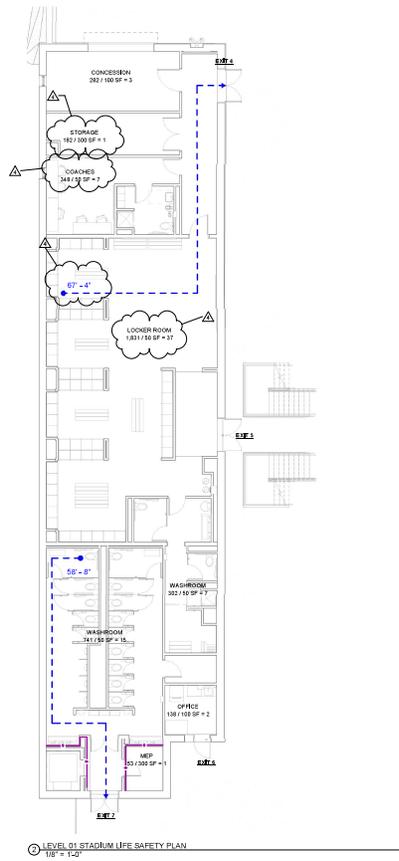
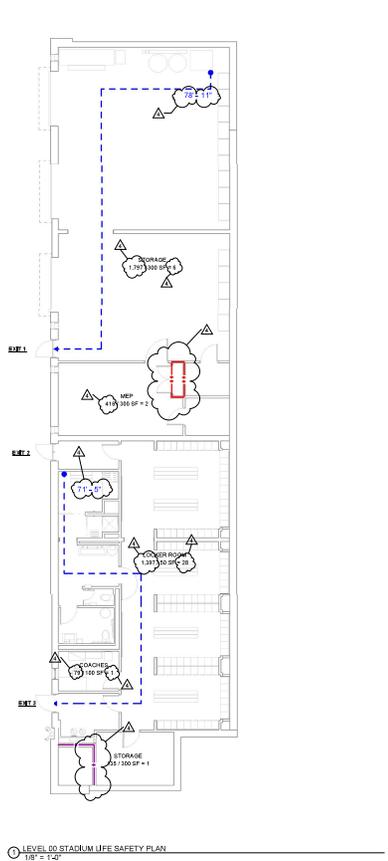
OCCUPANT LOAD FACTOR

EXIT TAG

EXIT DESIGNATION

LEGEND:

- Building Expansion** (Orange)
- Owner Request** (Purple)
- Design/ Coordination** (Blue)
- Cost Savings** (Green)
- EXPLANATION, NOTES & INFORMATION** (Red arrow)



STONEHAM HIGH SCHOOL
100 Park Street
Stoneham, MA 02159

Town of Stoneham
NEPTUNIA



REVISIONS

NO.	DATE	DESCRIPTION
1		
2		
3		
4		
5		

CONSTRUCTION DOCUMENTS - CONFORMED
DECEMBER 12, 2022

2021 HARBOR 1000 10/20
DRAWN: [Name] 05
CHECKED: [Name] 07
DATE: 12/12/22

STADIUM LIFE SAFETY PLAN



MATCH LINE SEE SHEET C5-04

MATCH LINE SEE SHEET C5-06

Ntech Engineering
 www.ntech.com
 2 Center Plaza, Suite 430
 Boston, MA 02108
 T: (617) 338-4063
 F: (617) 338-6472

- Civil Engineering
- Land Surveying
- Transportation Engineering
- Structural Engineering
- Green Infrastructure
- Planning
- GIS

Stoneham High School
 145 South Street
 Stoneham, MA 02120

Town of Stoneham

NO.	DATE	DESCRIPTION
1	12/22/22	ISSUED FOR PERMIT
2	12/22/22	FINAL PERMIT SET
3	12/22/22	AS SHOWN
4	12/22/22	AS SHOWN
5	12/22/22	AS SHOWN
6	12/22/22	AS SHOWN
7	12/22/22	AS SHOWN
8	12/22/22	AS SHOWN
9	12/22/22	AS SHOWN
10	12/22/22	AS SHOWN

CONSTRUCTION DOCUMENTS
 FINAL PERMIT SET
 DECEMBER 12, 2022

DESIGNED BY	DATE
DRAWN BY	DATE
CHECKED BY	DATE
SCALE	DATE

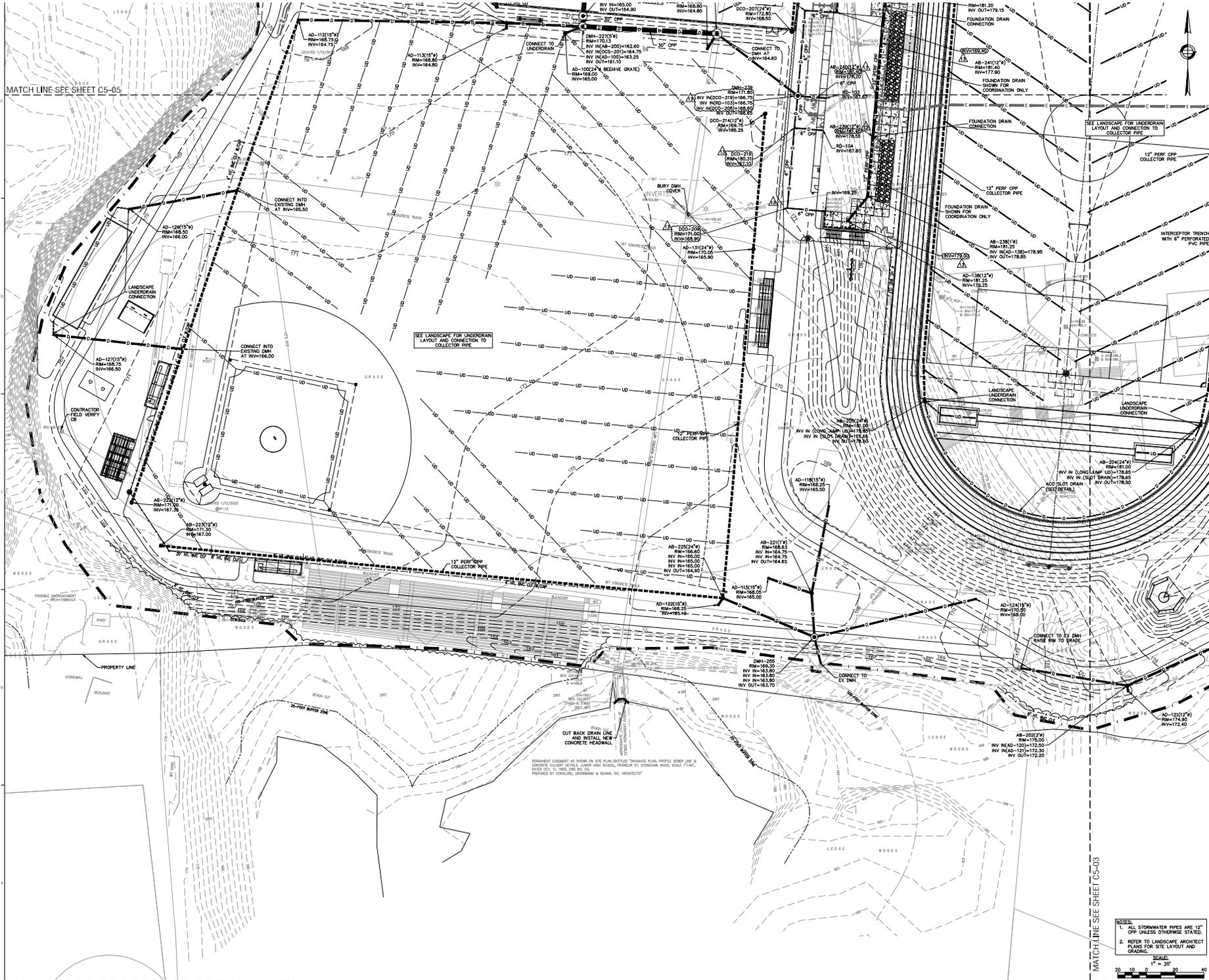
SITE DRAINAGE PLAN

C5-05

SCALE: 1" = 20'

- NOTES:**
- ALL STORMWATER PIPES ARE 12" CIP UNLESS OTHERWISE STATED.
 - REFER TO LANDSCAPE ARCHITECT PLANS FOR SITE LAYOUT AND GRADING.

MATCH LINE SEE SHEET C5-05



PERMANENT ELEVATION AS SHOWN ON SITE PLAN ENTITLED "DRAINAGE PLAN PROFILE CENTER LINE & CENTERLINE TO CENTERLINE OF HIGHWAY CORRIDOR, FROM ST. STONEHAM, MASS. SCALE 1\"/>

MATCH LINE SEE SHEET C5-03

- NOTES:**
1. ALL STORMWATER PIPES ARE 12\"/>
 2. REFER TO LANDSCAPE ARCHITECT PLANS FOR SITE LAYOUT AND GRADING.

SCALE:
1" = 20'
0 20 40

22514-1
Sheet C5-06
Date: 10/20/22
1577-0000
www.nitach.com

Nitach Engineering
www.nitach.com
2 Center Plaza, Suite 430
Boston, MA 02108
T: (617) 338-0065
F: (617) 338-6472

- Civil Engineering
- Land Surveying
- Transportation Engineering
- Structural Engineering
- Green Infrastructure
- Planning
- GIS

PROJECT
Stoneham High School
155 South Street
Stoneham, MA 02152

Town of Stoneham

NO.	DATE	DESCRIPTION
1	10/20/22	ISSUED FOR PERMIT
2	10/20/22	ISSUED FOR PERMIT
3	10/20/22	ISSUED FOR PERMIT
4	10/20/22	ISSUED FOR PERMIT
5	10/20/22	ISSUED FOR PERMIT
6	10/20/22	ISSUED FOR PERMIT
7	10/20/22	ISSUED FOR PERMIT
8	10/20/22	ISSUED FOR PERMIT
9	10/20/22	ISSUED FOR PERMIT
10	10/20/22	ISSUED FOR PERMIT

CONSTRUCTION DOCUMENTS
FINAL PERMIT SET
DECEMBER 12, 2022

JOB LEADER: []
DRAWN: []
CHECKED: []

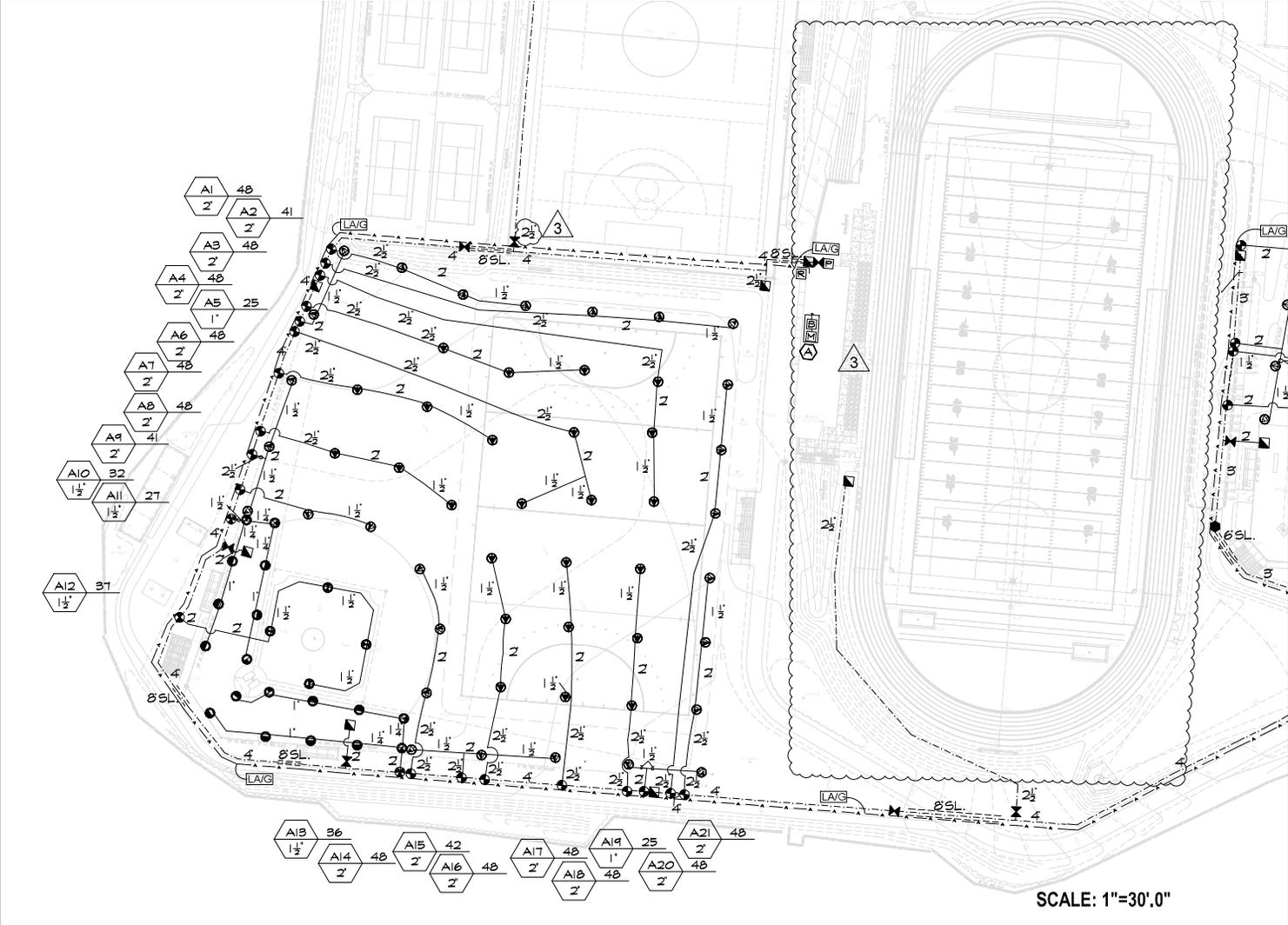
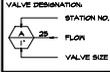
SITE DRAINAGE PLAN
C5-06



IRRIGATION LEGEND			
SYMBOL	PSI	SPACING	DESCRIPTION
	80	8'	LARGE ROTARY SPRINKLER WITH CHECK VALVE (STANDARD NOZZLES)
	50	8'	MEDIUM ROTARY SPRINKLER WITH CHECK VALVE (STANDARD NOZZLES)
			24 VOLT ELECTRIC ZONE VALVE (SEE VALVE DESIGNATOR FOR FLOW AND SIZE)
			24 VOLT ELECTRIC ZONE VALVE WITH PRESSURE REGULATOR (SEE VALVE DESIGNATOR FOR FLOW AND SIZE)
			ISOLATION GATE VALVE (LINE SIZE)
			1" QUICK COUPLING VALVE
			CLASS-300 PVC LATERAL PIPING (SIZE AS INDICATED) (SIZE AS INDICATED)
			CLASS-300 PVC MAINLINE PIPING
			COMMUNICATION AND CONTROL PATH A
			CLASS-300 PVC PIPE SLEEVE (SIZE AS INDICATED)
			AUTOMATIC WEATHER SENSOR
			LIGHTNING ARRESTOR WITH GROUND
			AUTOMATIC CONTROLLER
			8" INCH ENCLOSURE WATER METER IN ENCLOSURE (BY OTHERS)
			8" INCH RPS BACK FLOW PREVENTION DEVICE IN ENCLOSURE (BY OTHERS)
			POINT OF CONNECTION (BY OTHERS)
			AIR RELEASE VALVE

IRRIGATION NOTES

- COORDINATE FINAL LOCATION OF SPRINKLERS AND NOZZLE SELECTION W/ FINAL FIELD LAYOUT.
- PIPE AND VALVE LOCATIONS ARE DIAGNOSTIC. CONTRACTOR SHALL FIELD VERIFY BOX LOCATIONS.
- INSTALL VALVES A MINIMUM OF TEN (10) FEET FROM FINISH SURFACES.
- CONTROL WIRE FROM DECOUPLERS TO VALVES SHALL BE #14 GAUGE SINGLE STRAND WITH ORANGE COLOR OUTER JACKET, AND COMMON WIRE SHALL BE #12 GAUGE SINGLE STRAND WITH WHITE COLOR OUTER JACKET. NO VALVE SHALL BE MORE THAN 120 FEET FROM ANY DECOUPLER. ALL CONTROL LINES FROM DECOUPLERS TO DECOUPLERS AND LIGHTNING ARRESTORS SHALL BE THROUGH TWO WIRE DOUBLE JACKETED, TWO CONDUCTOR, SOLID #14 GAUGE COPPER WIRE, DESIGNED FOR DIRECT BURIAL AND CONTROL WIRE APPROVED.
- QUICK COUPLING VALVES SHALL BE INSTALLED ON 1" HIGH PVC SPONG JOINTS WITH BRASS WRENCHES AND TIGHTENERS. (SEE DETAIL)
- LARGE ROTARY SPRINKLERS SHALL BE INSTALLED ON 1" HIGH SPONG JOINT ASSEMBLIES WITH INTERNAL ORANGE POLYURETHANE SPRINKLERS SHALL BE INSTALLED ON POLY PIPE WITH 1/2" HIGH POLY SILL.
- IRRIGATION SYSTEM IS DESIGNED TO PROVIDE UP TO 100 GPM AT 100 PSI OPERATING PRESSURE AT POINT OF CONNECTION.
- INSTALL NEW CONTROLLER FOR BASEBALL SOCCER AND SOFTBALL FIELDS IN MECHANICAL ROOM OF NEW STADIUM BUILDING WEST OF FOOTBALL FIELD TRACK. WIRING TO BE INSTALLED TO 120 VOLT, DECATED TO 24 VOLT, THROUGH TWO WIRE DOUBLE JACKETED, TWO CONDUCTOR, SOLID #14 GAUGE COPPER WIRE, DESIGNED FOR DIRECT BURIAL AND CONTROL WIRE APPROVED.
- ALL WIRE TO BE INSTALLED INSIDE AND OUTSIDE OF BUILDING SHALL BE INSTALLED IN RIGID SCHEDULE 40 PVC CONDUIT.
- COORDINATE LOCATION OF SPRINKLERS AND PIPING UTILITIES ON SITE AND CONTACT PROPER AUTHORITIES AND UTILITY COMPANIES BEFORE THE START OF WORK.
- FLUSH ALL LATERAL LINES BEFORE INSTALLING SPRINKLERS.
- INSTALL AIR VACUUM RELEASE VALVE AT HIGH POINT, GENERALLY WHERE SHOWN ON THE DRAWING.
- CONTRACTOR MUST SUBMIT CUT SHEETS AS PER THE WRITTEN SPECIFICATIONS TO THE OWNER'S REPRESENTATIVE FOR APPROVAL PRIOR TO ORDERING MATERIAL AND BEGINNING WORK.
- ANY MATERIAL SUBSTITUTIONS MUST BE APPROVED BY THE OWNER'S REPRESENTATIVE PRIOR TO THE START OF WORK.
- ONCE APPROVED SUBSTITUTIONS HAVE BEEN RETURNED TO THE CONTRACTOR, WORK MAY BEGIN. THE OWNER'S REPRESENTATIVE MUST BE NOTIFIED A MINIMUM OF 7-DAYS IN ADVANCE OF THE START OF WORK TO COORDINATE ON-SITE SUPERVISION AND ADMINISTRATION.



Stoneham High School
400 Frank Blvd
Chicago, IL 60610

Town of Stoneham
100 Frank Blvd
Chicago, IL 60610

NO.	DATE	DESCRIPTION
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2	12/07/22	ISSUED FOR PERMITS
3	12/07/22	ISSUED FOR PERMITS

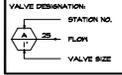
CONSTRUCTION DOCUMENTS
CONFORMED
DECEMBER 7, 2022

DESIGNED BY: JRM/CPW
DRAWN BY: JRM/CPW
CHECKED BY: JRM/CPW

IRRIGATION PLAN

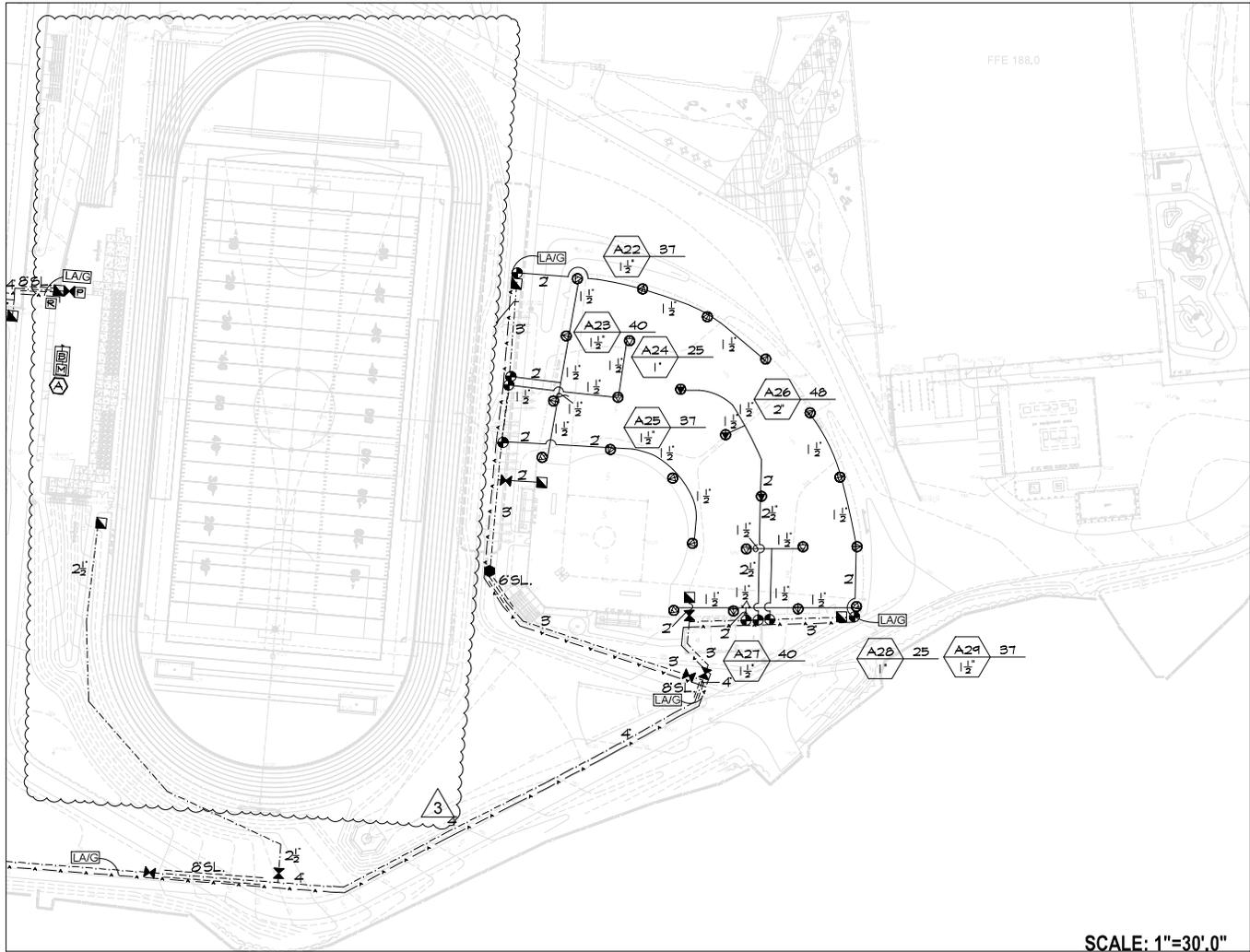
IR01-01

IRRIGATION LEGEND		
SYMBOL	PIPE SPACING	DESCRIPTION
	80'	50'
	40'	50'
	20'	50'
		24 VOLT ELECTRIC ZONE VALVE (SEE VALVE DESIGNATOR FOR FLOOR AND SIZES)
		24 VOLT ELECTRIC ZONE VALVE WITH PRESSURE REGULATOR (SEE VALVE DESIGNATOR FOR FLOOR AND SIZES)
		ISOLATION GATE VALVE (LINE SIZE)
		1" QUICK COUPLING VALVE
		GLASS-300 PVC LATERAL PIPING (SIZE AS INDICATED) SIZE AS INDICATED
		GLASS-200 PVC MAINLINE PIPING
		COMMUNICATION AND CONTROL PATH A
		GLASS-300 PVC PIPE SLEEVE (SIZE AS INDICATED) INSTALL 8" BOND PVC PIPE CONDUIT ADJACENT TO ALL MAINLINE PIPE SLEEVES MINIMUM PIPE CONDUIT SIZE TO BE INDICATED UNLESS OTHERWISE NOTED. SEE SLEEVING DETAIL.
		AUTOMATIC WEATHER SENSOR
		LIGHTNING ARRESTER WITH GROUND
		AUTOMATIC CONTROLLER
		8-INCH ENCLOSURE WATER METER (IN ENCLOSURE BY OTHERS)
		8-INCH BACKFLOW PREVENTION DEVICE (IN ENCLOSURE BY OTHERS)
		FRONT OF CONVERSION (BY OTHERS)
		AIR RELEASE VALVE



IRRIGATION NOTES

- COORDINATE FINAL LOCATION OF SPRINKLERS AND NOZZLE SELECTION IN FINAL FIELD LAYOUT.
- INSTALL VALVES A MINIMUM OF TEN (10) FEET FROM PLAYING SURFACES. VERIFY BOX LOCATIONS.
- INSTALL VALVES A MINIMUM OF TEN (10) FEET FROM PLAYING SURFACES.
- CONTROL PIPING FROM DECKERS TO VALVES SHALL BE #1/2 GAUGE SINGLE STRAND WITH ORANGE COLOR OUTER JACKET AND COPPER PIPE SHALL BE #1/2 GAUGE SINGLE STRAND WITH WHITE COLOR OUTER JACKET. NO VALVE SHALL BE NO MORE THAN 50 FEET FROM ANY DECKER. ALL CONTROL PIPING FROM CONTROLLERS TO DECKERS AND LIGHTNING ARRESTORS SHALL BE THROUGH TWO WIRE DOUBLE JACKETED TWO CONDUCTOR BOND #1/2 GAUGE COPPER PIPE JOINTS FOR DIRECT BURIAL AND CONTROLLER MANUFACTURER APPROVED.
- QUICK COUPLING VALVES SHALL BE INSTALLED ON 1" RIGID PVC SPRING JOINTS WITH BRASS SEPTS AND STABILIZED. SEE DETAIL.
- LARGE ROTARY SPRINKLERS SHALL BE INSTALLED ON 1" RIGID PVC SPRING JOINTS WITH BRASS SEPTS AND STABILIZED. SEE DETAIL.
- ROTARY SPRINKLERS SHALL BE INSTALLED ON POLY PIPE WITH 3/4" NPT POLY ELLS.
- INSTALL NEW CONTROL PIPING TO PROVIDE UP TO 100 GPM AT 100 PSI. DAMAGE PRESSURE AS BOUND BY CONTRACT.
- INSTALL NEW CONTROL PIPING TO PROVIDE UP TO 100 GPM AT 100 PSI. DAMAGE PRESSURE AS BOUND BY CONTRACT.
- INSTALL NEW CONTROL PIPING TO PROVIDE UP TO 100 GPM AT 100 PSI. DAMAGE PRESSURE AS BOUND BY CONTRACT.
- INDICATE WEATHER SENSOR ON OUTSIDE OF CORNER OF BUILDING FRAME COORDINATED BY OWNER'S REP.
- ALL ABOVE GROUND PIPING, INSIDE AND OUTSIDE OF BUILDING SHALL BE INSTALLED IN RIGID SCHEDULE 40 PVC CONDUIT.
- COORDINATE LOCATION OF ALL CURBING AND PAVING UTILITIES ON SITE AND CONTACT PROPER AUTHORITIES AND UTILITY COMPANIES BEFORE THE START OF WORK.
- FLUSH ALL LATERAL LINES BEFORE INSTALLING SPRINKLERS.
- INSTALL AIR VACUUM RELEASE VALVE AT HIGH POINT, GENERALLY WHERE SHOWN ON THE DRAWING.
- CONTRACTOR MUST SUBMIT CUT SHEETS AS PER THE WRITTEN SPECIFICATIONS TO THE OWNER'S REPRESENTATIVE FOR APPROVAL PRIOR TO ORDERING MATERIAL AND BEGINNING WORK.
- MATERIAL SUBSTITUTIONS WHICH VARY FROM THE SPECIFIED PRODUCTS MUST BE SUBMITTED TO THE OWNER'S REPRESENTATIVE FOR APPROVAL AS PART OF THE SUBMITTAL PROCESS.
- NO PRICE APPROVALS OR SUBMITTALS HAVE BEEN RETURNED TO THE CONTRACTOR, WORK SHALL BEHALF. THE OWNER'S REPRESENTATIVE MUST BE NOTIFIED WITHIN 7-DAYS IN ADVANCE OF THE START OF WORK TO COORDINATE ON-SITE SUPERVISION AND ADMINISTRATION.



SCALE: 1"=30'0"

NO.	DATE	DESCRIPTION

CONSTRUCTION DOCUMENTS -
CONFORMED
DECEMBER 7, 2022

DESIGNED BY: []
DRAWN BY: []
CHECKED BY: []

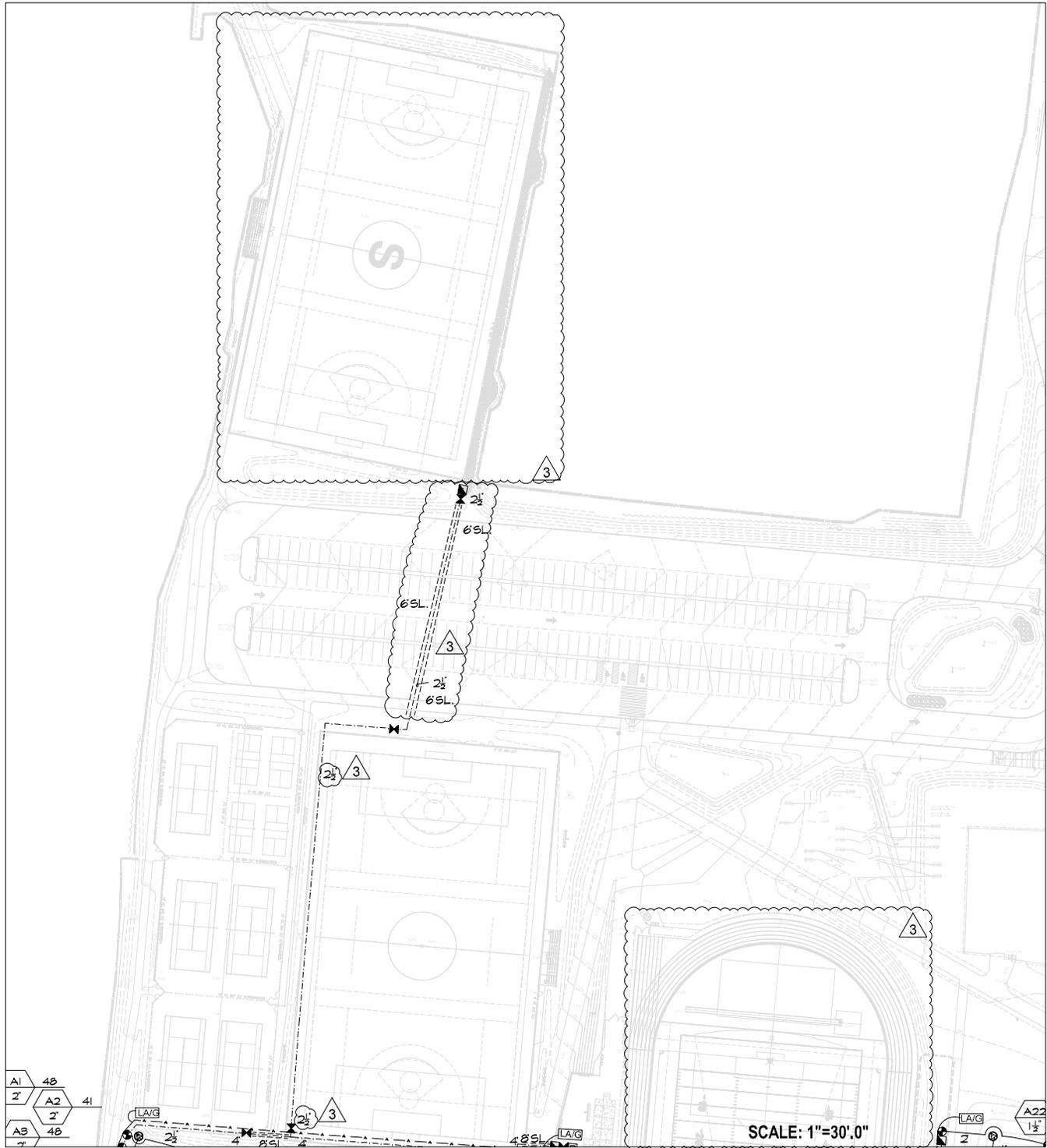
IRRIGATION PLAN



IRRIGATION LEGEND		
SYMBOL	PSI	SPACING
	40	50'
	40	50'
	40	50'
	40	50'

IRRIGATION NOTES

- COORDINATE FINAL LOCATION OF SPRINKLERS AND NOZZLE SELECTION W/ FINAL FIELD LAYOUT.
- PIPE AND VALVE LOCATIONS ARE DIAGNOSTIC. CONTRACTOR SHALL FIELD VERIFY BOX LOCATIONS.
- INSTALL VALVES A MINIMUM OF TEN (10) FEET FROM PLAYING SURFACES.
- CONTROL WIRE FROM PRECEDERS TO VALVES SHALL BE #14 GAUGE SINGLE STRAND WITH ORANGE COLOR OUTER JACKET. AND CONTROL WIRE SHALL BE #12 GAUGE SINGLE STRAND WITH WHITE COLOR OUTER JACKET. NO VALVE SHALL BE NO MORE THAN 10 FEET FROM ANY PRECEDER. ALL CONTROL WIRE FROM CONTROLLER TO PRECEDERS AND LIGHTING ARRESTORS SHALL BE THROUGH TWO WIRE DOUBLE JACKETED TWO CONDUCTOR SOLID #14 GAUGE COPPER WIRE DESIGNED FOR DIRECT BURIAL AND CONTROLLER MANUFACTURER APPROVED.
- 3/4" INCH GROUND VALVES SHALL BE INSTALLED ON 1" HIGH PVC SWING JOINTS WITH BRASS INSERTS AND 2" BOLLARDS. SEE DETAIL.
- LARGE ROTARY SPRINKLERS SHALL BE INSTALLED ON HIGH SWING JOINT ASSEMBLED WITH INTERNAL ORDNANCE. MEDIUM ROTARY SPRINKLERS SHALL BE INSTALLED ON POLY PIPE WITH 3/4" INCH POLY ELB.
- IRRIGATION SYSTEM IS DESIGNED TO PROVIDE UP TO 100 GPM AT 100 PSI DYNAMIC PRESSURE AT POINT OF CONNECTION.
- INSTALL NON CONTROLLER FOR MAINLINE CONTROL AND OPTIMAL FILLER IN MECHANICAL ROOM OF NEW STADIUM BUILDING WEST OF FOOTBALL FIELD TRACK. LEAD WIRE TO 120 VOLT DESIGNATED 20 AMP CIRCUIT POWER SUPPLY.
- WEATHER SENSORS ON OUTSIDE OF CORNER OF BUILDING WERE DIRECTED BY OWNER'S REPRESENTATIVE.
- ALL ABOVE GROUND PIPING INSIDE AND OUTSIDE OF BUILDING SHALL BE INSTALLED IN RIGID, SCHEDULE 40 PVC CONDUIT.
- COORDINATE LOCATION OF ALL EXISTING AND FUTURE UTILITIES ON SITE AND CONTACT PROPER AUTHORITIES AND UTILITY COMPANIES BEFORE THE START OF WORK.
- FLUSH ALL LATERAL LINES BEFORE INSTALLING SPRINKLERS.
- INSTALL AIR VACUUM RELEASE VALVE AT HIGH POINT, GENERALLY WHERE SHOWN ON THE DRAWING.
- CONTRACTOR MUST SUBMIT CUT SHEETS AS PER THE WRITTEN SPECIFICATIONS TO THE OWNER'S REPRESENTATIVE FOR APPROVAL PRIOR TO ORDERING MATERIAL AND BEGINNING WORK.
- MATERIAL SUBSTITUTIONS WHICH VARY FROM THE SPECIFIED PRODUCTS MUST BE SUBMITTED TO THE OWNER'S REPRESENTATIVE FOR APPROVAL AS PART OF THE SUBMITTAL. APPROVED SUBSTITUTIONS MUST BE RETURNED TO THE CONTRACTOR WORK AREA BEFORE THE OWNER'S REPRESENTATIVE MUST BE NOTIFIED A MINIMUM OF 7-DAYS IN ADVANCE OF THE START OF WORK TO COORDINATE ON-SITE SUPERVISION AND ADMINISTRATION.



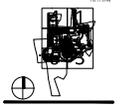
SCALE: 1"=30'0"



PROJECT

Stoneham High School
48 Park Street
Stoneham, MA 02158

Town of Stoneham
100 Park St.



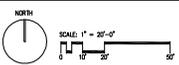
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01	10/15/22	ISSUED FOR PERMIT
02	10/15/22	ISSUED FOR PERMIT
03	10/15/22	ISSUED FOR PERMIT
04	10/15/22	ISSUED FOR PERMIT

CONSTRUCTION DOCUMENTS
CONFORMED
DECEMBER 7, 2022

DESIGNED BY: [Name]
CHECKED BY: [Name]

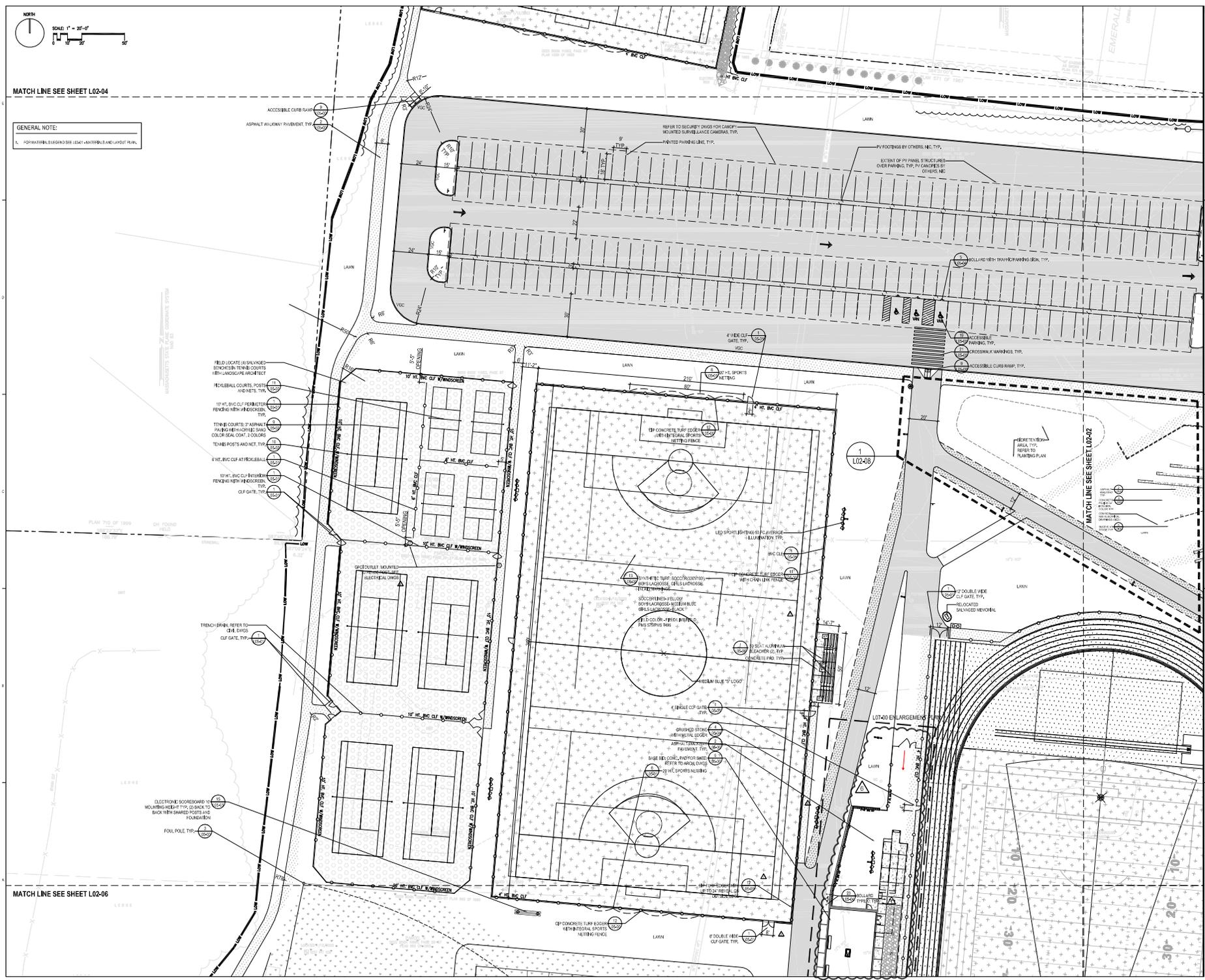
IRRIGATION PLAN

IR01-03

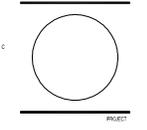


MATCH LINE SEE SHEET L02-04

GENERAL NOTE:
 1. REFER TO THE GENERAL NOTES AND LAYOUT PLAN.



MATCH LINE SEE SHEET L02-06



Stonham High School
 1000 S. Stonham
 Stonham, IL 62280

Town of Stonham
 ILLINOIS

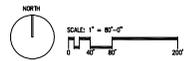


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8	2022.07.07	ISSUED FOR PERMITS
9	2022.07.07	ISSUED FOR PERMITS
10	2022.07.07	ISSUED FOR PERMITS

CONSTRUCTION DOCUMENTS
 CONFORMED
 DECEMBER 7, 2022

DESIGNER: PERKINS & WILL
 ARCHITECT: WARNER LARSON
 DATE: 2022.07.07
 SHEET: L02-05

L02-05

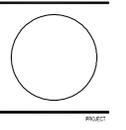
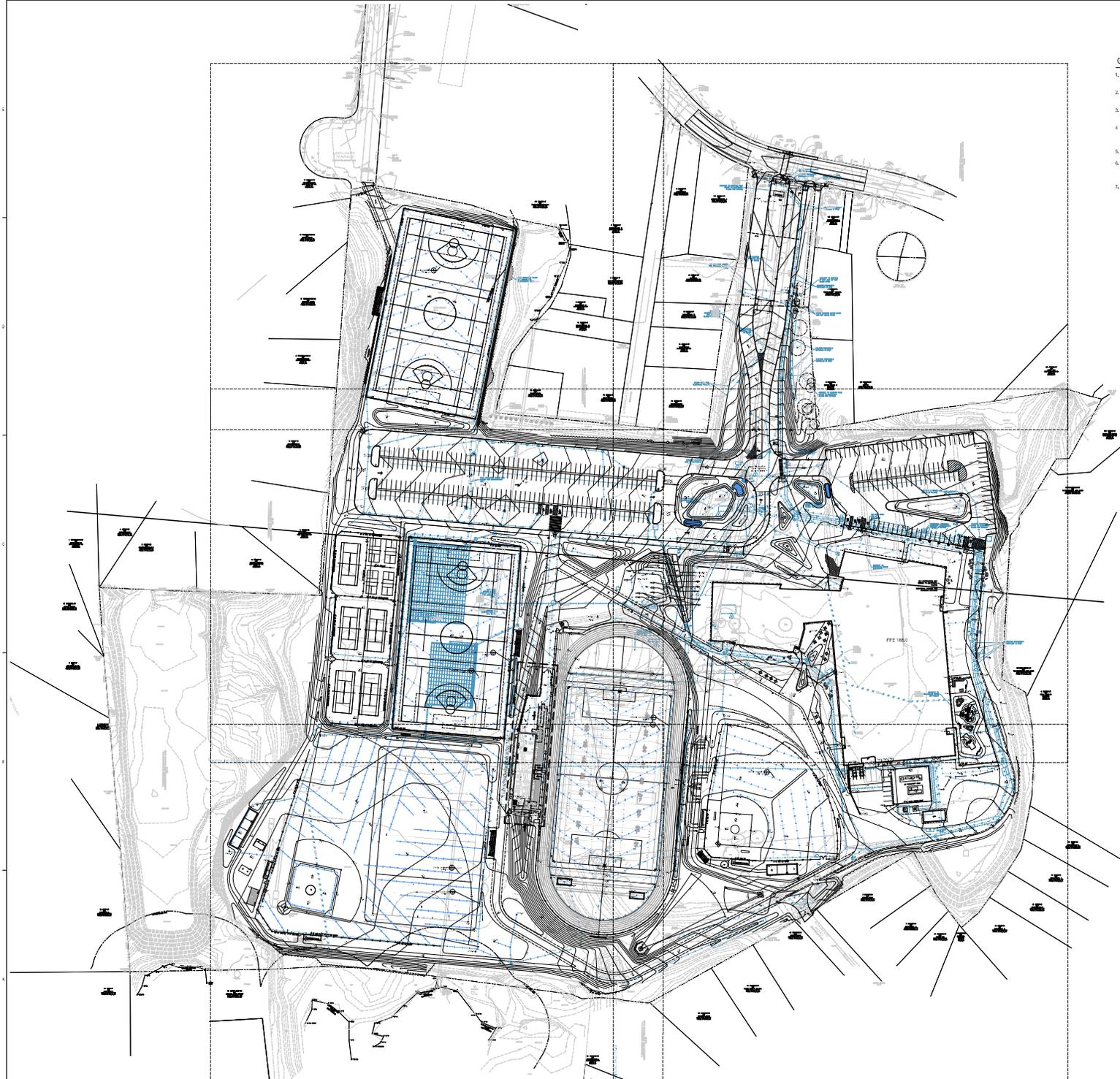


GRADING NOTES

1. CONTRACTOR SHALL SET OUT ALL SITE IMPROVEMENTS BOTH HORIZONTAL AND VERTICAL IN THE FIELD AND BUSH STAKEOUT TO BE APPROVED BY THE ARCHITECT PRIOR TO CONSTRUCTION.
2. SPOT GRADES AND CONTOURS INDICATED ON THIS PLAN DESCRIBE FINAL SURFACE ELEVATIONS FOR COMPLETED CONSTRUCTION.
3. ALL CHANGES IN PAVEMENT MATERIALS SHALL BE FLUSH WITH EACH OTHER UNLESS OTHERWISE SHOWN.
4. IF EXISTING TREE LITERIES OR STRUCTURES INTERFERE WITH EXCAVATION ACTIVITIES IN ANY MANNER, CONTRACTOR SHALL INFORM THE ARCHITECT AND OWNER PRIOR TO CONTINUING WITH CONSTRUCTION ACTIVITIES.
5. SLOPES SHALL NOT EXCEED 3% SLOPE EXCEPT AS SHOWN ON THE PLANS.
6. EXTERIOR CONCRETE PAVING AT DOOR THRESHOLDS SHALL BE FLUSH WITH FINISH FLOOR ELEVATION UNLESS OTHERWISE SHOWN AND SHALL SLOPE AT 1/8" PER FOOT AWAY FROM THE BUILDING. REFER TO STRUCTURAL DRAWINGS FOR DETAIL OF PAVEMENT FINISHING CONNECTION.
7. ALL PAVED WALKWAY AREAS, PLAZAS, CROSSWALKS, ACCESSIBLE PARKING SPACES, AND ASCENDED ACCESSIBLES AND ACCESSIBLE ROLLED SHALL BE GRADED SUCH THAT THEY ARE IN FULL COMPLIANCE WITH THE MASSACHUSETTS ARCHITECTURE, ACCESS BOARD RULES AND REGULATIONS.

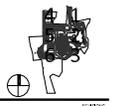
LEGEND:

---	APPROXIMATE LIMIT OF WORK LINE
---	EXISTING CONTOUR
---	PROPOSED CONTOUR
+	EXISTING SPOT ELEVATION
*	PROPOSED SPOT ELEVATION
---	PROPOSED SLOPE
TS	TOP OF STAIR
BS	BOTTOM OF STAIR
TW	TOP OF WALL
BW	BOTTOM OF WALL
TC	TOP OF CURB
BC	BOTTOM OF CURB
TR	TOP OF RAMP
BR	BOTTOM OF RAMP
TH	DOOR THRESHOLD
HP	HIGH POINT
LP	LOW POINT
FBM	FBM ELEVATION



Stoneham High School
Location: 18612/20

Town of Stoneham



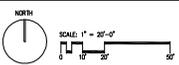
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1	ISSUE	12/07/22	PER/202
2	REVISED	12/07/22	PER/202

CONSTRUCTION DOCUMENTS
CONFORMED
DECEMBER 7, 2022

DESIGNED BY	PER/202
CHECKED BY	PER/202
DATE	12/07/22

L03-00 GRADING OVERALL

L03-00

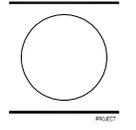


SEE L03-01 FOR GRADING NOTES AND LEGEND

MATCH LINE SEE SHEET L03-04



MATCH LINE SEE SHEET L03-06



Stoneham High School
 Boston, MA 02120

Town of Stoneham

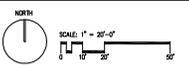


DATE	DESCRIPTION
11/11/2021	ISSUE FOR PERMITS

CONSTRUCTION DOCUMENTS
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 DECEMBER 7, 2022

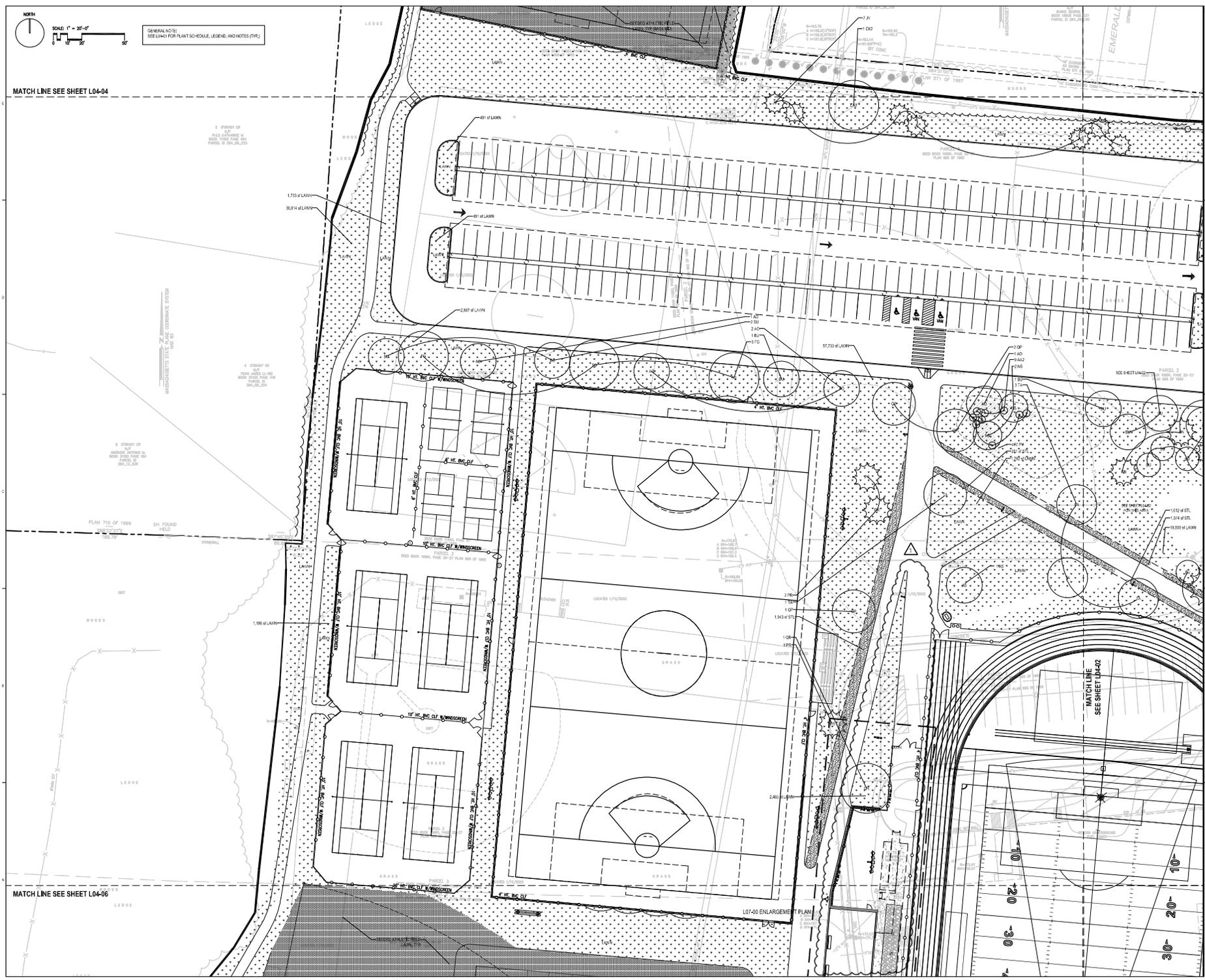
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PROJECT	7/7/2022
DATE	7/7/2022
DATE	7/7/2022

GRADING PLAN

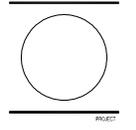


GENERAL NOTE:
SEE LAYOUT FOR PLANT SCHEDULE, LEGEND, AND NOTES (IF APPLICABLE)

MATCH LINE SEE SHEET L04-04



MATCH LINE SEE SHEET L04-06



Stoneham High School
Boston, MA 02108

Town of Stoneham

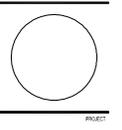


NO.	DATE	DESCRIPTION

CONSTRUCTION DOCUMENTS
CONFORMED
DECEMBER 7, 2022

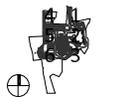
DESIGNER	PERKINS+WILL
OWNER	TOWN OF STONEHAM
DATE	NOV 2022

PLANTING PLAN



Stoneham High School
Stoneham, MA 02158

Town of Stoneham



458876

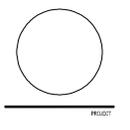
NO.	DATE	DESCRIPTION
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2	12/07/2022	ISSUED FOR CONSTRUCTION

CONSTRUCTION DOCUMENTS
CONFORMED
DECEMBER 7, 2022

DESIGNER	PERKINS+WILL
ARCHITECT	WARNER LARSON
DATE	12/07/2022

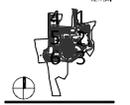
PLANTING PLAN





Stoneham High School
101 Park Street
Stoneham, MA 02158

Town of Stoneham

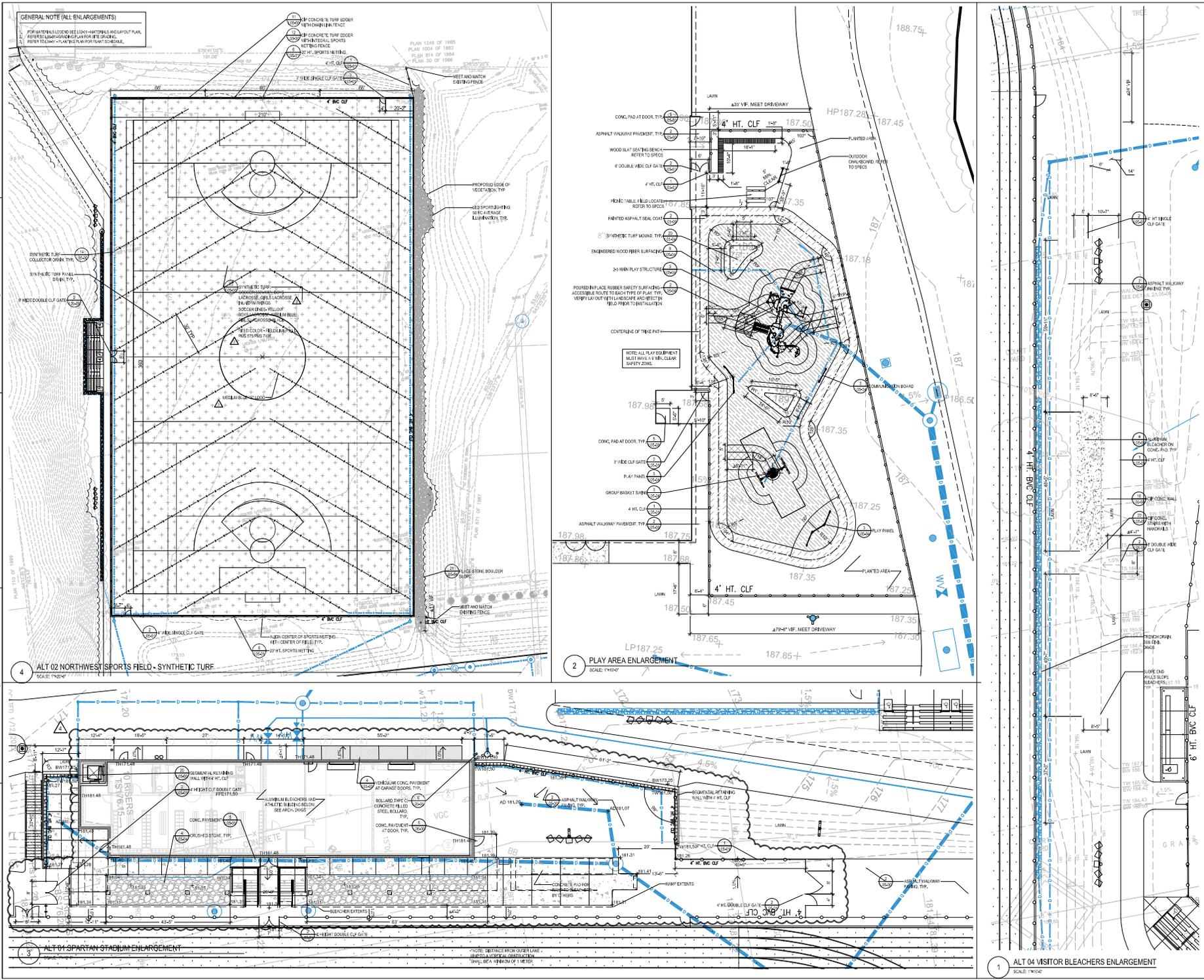


NO.	DATE	DESCRIPTION
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CONSTRUCTION DOCUMENTS
CONFORMED
DECEMBER 7, 2022

NO.	DATE	DESCRIPTION
1	10/12/22	ISSUED FOR PERMITS
2	10/12/22	ISSUED FOR PERMITS
3	10/12/22	ISSUED FOR PERMITS
4	10/12/22	ISSUED FOR PERMITS
5	10/12/22	ISSUED FOR PERMITS
6	10/12/22	ISSUED FOR PERMITS
7	10/12/22	ISSUED FOR PERMITS
8	10/12/22	ISSUED FOR PERMITS
9	10/12/22	ISSUED FOR PERMITS
10	10/12/22	ISSUED FOR PERMITS

LANDSCAPE ENLARGEMENTS



A GENERAL

A1 STRUCTURAL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE MASSACHUSETTS BUILDING CODE, NINTH EDITION AND THE INTERNATIONAL BUILDING CODE (IBC) 2006 EDITION.

A2 VERIFY AND COORDINATE ALL NOTED AND EXISTING DIMENSIONS RELATED TO THIS PROJECT.

A3 TYPICAL DETAILS AND NOTES SHOWN ON STRUCTURAL DRAWINGS SHALL BE APPLICABLE TO ALL PARTS OF THE STRUCTURAL WORK EXCEPT WHERE SPECIFICALLY NOTED OTHERWISE.

A4 DETAILS NOT SPECIFICALLY SHOWN SHALL BE TAKEN AS BEING SIMILAR TO THE DRAWINGS FOR THE MOST NEARLY SIMILAR CONDITION AS DETERMINED BY THE ARCHITECT.

A5 EXAMINE ARCHITECTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS FOR VERIFICATION OF LOCATION AND DIMENSIONS OF CHASES, INSERTS, OPENINGS, SLEEVES, WASHES, DRIPS, REVEALS, DEPRESSIONS, AND OTHER PROJECT REQUIREMENTS NOT SHOWN ON STRUCTURAL DRAWINGS.

A6 THE BASE BUILDING STRUCTURE IS DESIGNED TO RESIST THE LOADS DESCRIBED IN GENERAL NOTES. STRUCTURAL DESIGN LOAD IN THE COMPLETED CONSTRUCTION THE CONTRACTOR SHALL RESPONSIBLY VERIFY THE CAPACITY OF THE EXISTING COMPLETED STRUCTURE TO RESIST CONSTRUCTION LOADS TO EQUIPMENT, COVERED MATERIALS, SHORING, ETC.

A7 OPENINGS IN WALLS AND WALLS LESS THAN 2" MAXIMUM DIMENSION ARE GENERALLY NOT SHOWN ON STRUCTURAL DRAWINGS, BUT SHALL REMAIN SUBJECT TO THE TYPICAL PROVISIONS OF THE CONTRACT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING WITHOUT PRIOR WRITTEN APPROVAL OF THE ARCHITECT.

A8 PROVIDE AND INSTALL NECESSARY MATERIALS TO CONNECT ELEVATOR SUPPORT BEAMS AND GUIDE RAILS. LOCATION AND SIZE OF MEMBERS AND ANY INSERTS REQUIRED SHALL BE DETERMINED BY THE ELEVATOR MANUFACTURER.

A9 THE CONTRACTOR SHALL SUBMIT COMPLETED SHOP DRAWINGS FOR ALL PARTS OF THE WORK, INCLUDING DESCRIPTION OF DEMOLITION, AND CONNECTIONS AND REINFORCEMENTS WHERE APPLICABLE. NO PERFORMANCE OF THE WORK INCLUDING, BUT NOT LIMITED TO, DEMOLITION OF EXISTING STRUCTURE, OR FABRICATION OF NEW STRUCTURAL ELEMENTS, SHALL COMMENCE WITHOUT APPROVED REVIEW OF THE SHOP DRAWINGS BY THE ARCHITECT.

A10 IF IN THE COURSE OF EXECUTION OF THE STRUCTURAL WORK, AN PORTION OF THE COMPLETED STRUCTURE DOES NOT MEET THE REQUIREMENTS OF THE CONTRACT DOCUMENTS AS DETERMINED BY THE ARCHITECT, THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE DESIGN AND IMPLEMENTATION OF REMEDIAL ACTION THAT THE COMPLETED WORK IS IN CONFORMANCE WITH THE CONTRACT DOCUMENTS. A DESCRIPTION OF THE NON-COMPLYING WORK SHALL BE SUBMITTED ALONG WITH THE PROPOSED REMEDIAL ACTION TO THE ARCHITECT FOR REVIEW AND APPROVAL PRIOR TO IMPLEMENTATION.

A11 UNLESS OTHERWISE SPECIFICALLY STATED IN WRITING, MARK-UPS ON REVIEWED OR APPROVED SHOP DRAWINGS OR SIMILAR SUBMISSIONS ARE TO COMMUNICATE AND CONFIRM THE INTENT OF CONTRACT DOCUMENTS AND SHALL NOT BE CONSIDERED AS CHANGES OR REQUESTS TO CHANGE CONTRACT PRICE. IF A FABRICATOR OR CONTRACTOR BELIEVES THAT A CHANGE TO ANY CONTRACT PRICE SHOULD BE MADE, A WRITTEN REQUEST SHALL BE SUBMITTED FOR A RECOMMENDATION BY AN ITEM FABRICATED OR SUPPLIED BY THE OWNER UNDER THE CONTRACT. WRITTEN REQUESTS FOR FABRICATION OR INSTALLATION OF AN ITEM FABRICATED OR SUPPLIED BY THE OWNER UNDER THE CONTRACT PRICE IS REQUESTED. ANY CLAIM FOR ADDITIONAL COMPENSATION FOR AN ITEM FABRICATED OR SUPPLIED WITHOUT PRIOR WRITTEN APPROVAL, OR A CHANGE IN CONTRACT PRICE FOR SUCH FABRICATION AND/OR INSTALLATION WILL NOT BE ALLOWED.

A12 INFORMATION REGARDING EXISTING CONSTRUCTION IS BASED UPON AVAILABLE CONSTRUCTION DOCUMENTS PREPARED BY THE ARCHITECT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE ACCURACY OF ALL INFORMATION DISCOVERED DURING THE COURSE OF CONSTRUCTION BEFORE PROCEEDING WITH WORK IN THE AREA.

B FOUNDATIONS

B1 GEOTECHNICAL INFORMATION FOR THIS PROJECT IS FROM A REPORT BY LHM&G GEOTECHNICAL AND GEOTECHNICAL CONSULTING, INC. GEOTECHNICAL REPORT PROPOSED STONHAM HIGH SCHOOL, DATED APRIL 28, 2023 AND UPDATED FEBRUARY 23, 2022.

B2 FOUNDATIONS FOR THIS PROJECT CONSIST OF SHALLOW FOUNDATIONS, BEARING ON UNDISTURBED NATIVE OR STRUCTURAL FILL OR CRUSHED STONE.

B3 NO REDUCTION IS ALLOWED TO THE ARCHITECT FOR THE SUBSURFACE CONDITIONS DESCRIBED ON THE DRAWINGS, SPECIFICATIONS, TEST REPORTS, OR TEST PILES. THESE DATA ARE TO BE USED TO VERIFY THE BEARING CAPACITY AND SUBSEQUENT CONSTRUCTION, AND REPRESENT CONDITIONS ONLY AT THESE SPECIFIC LOCATIONS AT THE PARTICULAR TIME THEY WERE MADE.

B4 FOUNDATION UTILITY SHALL BE CENTERED UNDER SUPPORTED STRUCTURAL MEMBERS UNLESS NOTED OTHERWISE ON THE DRAWINGS.

B5 EXTERIOR CONSTRUCTION SHALL BE CARRIED DOWN BELOW FINISHED EXTERIOR GRADE TO A MINIMUM DEPTH OF 4'-0". UNLESS NOTED OTHERWISE.

B6 PROVIDE TEMPORARY OR PERMANENT SUPPORTS, WEATHER SHIELDING, SHEETING, OR BRACING, SO THAT NO HORIZONTAL MOVEMENT OR VERTICAL SETTLEMENT OCCURS TO EXISTING STRUCTURES, STREETS, OR UTILITIES ADJACENT TO THE PROJECT SITE.

B7 BOTTOM 3 INCHES OF EXCAVATIONS SHALL BE FINISHED BY HAND SHOVEL OR SMOOTH-SOURED EXCAVATOR BUCKET. FINAL SUBSURFACE SHALL BE FIRM AND FREE OF LOOSE AND/OR DISTURBED MATERIALS.

B8 CARRY OUT CONSTRUCTION OF SURFACE AND SUBSURFACE WATER DRAINAGE DURING CONSTRUCTION SUCH THAT FOUNATION WORK IS DONE ON DRY AND UNDISTURBED SUBSURFACE MATERIAL.

B9 BACKFILL UNDER ANY PORTION OF THE STRUCTURE SHALL BE COMPACTED IN 6" LIFTS PER SPECIFICATION THAT FOUNDATION WORK IS DONE ON DRY AND UNDISTURBED SUBSURFACE MATERIAL.

B10 FOUNDATION UTILITY SHALL BE CENTERED UNDER SUPPORTED STRUCTURAL MEMBERS UNLESS NOTED OTHERWISE ON THE DRAWINGS.

B11 PROTECT IN-PLACE FOUNDATIONS AND SLABS FROM FROST PENETRATION UNTIL THE PROJECT IS COMPLETED. REMOVE FROZEN SUBGRADE MATERIALS AND REPLACE WITH GRANULAR FILL AS NECESSARY PRIOR TO PLACING NEW FILL MATERIALS AND/OR PLACING FOUNDATION UTILITY.

B12 SHEETING, SHORING AND BRACING FOR THE LATERAL SUPPORT OF EXCAVATION SHALL REMAIN IN PLACE UNTIL ALL PERMANENT STRUCTURAL SYSTEMS BELOW GRADE LEVEL ARE COMPLETE. FOR FURTHER INFORMATION ON LATERAL SUPPORT OF EXCAVATION, SEE SPECIFICATIONS.

B13 NO UTILITIES, PIPES, OR OTHER ELEMENTS SHALL PENETRATE A FOUNDATION ELEMENT EXCEPT AS SPECIFICALLY SHOWN ON THE DRAWINGS.

B14 WHERE SUITABLE BEARING MATERIAL IS NOT ENCOUNTERED AT THE SPECIFIED BOTTOM OF FOUNDATION ELEVATION, OVEREXCAVATE TO SUITABLE MATERIAL, AND PLACE LAYER OF CONCRETE OR ENGINEERED FILL AS APPROVED BY GEOTECH ENGINEER TO THE SPECIFIED BOTTOM OF FOUNDATION ELEVATION. IN ALL INSTANCES, THE SUITABILITY OF THE BEARING MATERIAL SHALL BE DETERMINED BY THE GEOTECHNICAL ENGINEER.

C CONCRETE

C1 CONCRETE WORK SHALL CONFORM TO "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE" (ACI 308-14J) AND "SPECIFICATIONS FOR STRUCTURAL CONCRETE" (ACI 308-05).

C2 CONCRETE SHALL BE CONTROLLED CONCRETE, PROPORTIONED, MIXED, AND PLACED IN THE PRESENCE OF A REPRESENTATIVE OF AN APPROVED TESTING AGENCY.

C3 UNLESS NOTED OTHERWISE, CONCRETE SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH AND BE OF A TYPE AS FOLLOWS:

(A)	ALL CONCRETE WORKS, UNDO	4000 PSI (NORMALWEIGHT)
(B)	ALL COMPOSITE SLAB/DOGS	5000 PSI (LIGHTWEIGHT) (AIR DRY UNIT WEIGHT 109 TO 115 PCF)

C4 CONSTRUCTION JOINTS SHOWN ON DRAWINGS ARE MANDATORY. ADDITIONS, OMISSIONS, OR CHANGES SHALL NOT BE MADE EXCEPT WITH THE SUBMITTAL OF A WRITTEN REQUEST TOGETHER WITH DRAWINGS OF THE PROPOSED JOINT LOCATIONS FOR APPROVAL OF THE ARCHITECT.

C5 WHERE CONNECTION JOINTS ARE NOT SHOWN, OR WHEN ALTERNATE LOCATIONS ARE PROPOSED, DRAWINGS SHOWING LOCATION OF CONNECTION AND CONNECTION JOINTS AND CONNECTION PLACING SEQUENCE SHALL BE SUBMITTED TO THE ARCHITECT FOR APPROVAL PRIOR TO PREPARATION OF THE REINFORCEMENT SHOP DRAWINGS.

C6 CONCRETE SHALL BE PLACED WITHOUT HORIZONTAL CONSTRUCTION JOINTS EXCEPT AT JOINTS OF MINIMUM VERTICAL CONSTRUCTION JOINTS AND STOPS IN CONCRETE WORK SHALL BE MADE AT MIDSPAN OR AT POINTS OF MOMENT SHEAR.

C7 SIZE OF CONCRETE PLACEMENTS, UNLESS NOTED OTHERWISE, SHALL BE AS FOLLOWS:

	MAX LENGTH (FEET)	MAX AREA (SQ. FT.)
(A)	FOOTINGS AND WALLS	30'
(B)	SLABS ON GRADE	30'
(C)	FRAMED/SUSPENDED SLABS	60
(D)	CONCRETE ON STEEL DECK	90

* EXCEED ONLY WHERE INTERMEDIATE CONNECTION JOINTS ARE PROVIDED

C8 MINIMUM OF 72 HOURS SHALL ELAPSE BETWEEN ADJACENT CONCRETE PLACEMENTS.

C9 NO CONDUITS, PIPES, OR OTHER SIMILAR ITEMS OF ANY TYPE SHALL BE CAST IN THE CONCRETE SLABS, BEAMS, COLUMNS, WALLS, CHASES, OR IN ANY OTHER STRUCTURAL CONCRETE ELEMENT WITHOUT THE APPROVAL OF THE ARCHITECT.

C10 CONCRETE TO BE EXPOSED TO FREQUENT TEMPERATURES IN THE FINISHED PROJECT SHALL BE AIR-ENTRAINED PER SPECIFICATIONS REQUIREMENTS AND HAVE A 28-DAY COMPRESSIVE STRENGTH NOT LESS THAN THAT SPECIFIED.

C11 STRUCTURAL STEEL AT OR BELOW GRADE SHALL BE ENCASED IN CONCRETE WITH A MINIMUM COVER OF 2".

C12 ALLOW ADEQUATE TIME FOR CONCRETE TO CURE AND DRY TO PROPERLY BEFORE APPLYING ALL FINISHES DIRECTLY ADHERED TO FINISHED CONCRETE SURFACES.

C13 CONCRETE SLABS, INCLUDING CONCRETE PLACED ON STEEL DECK, SHALL BE PLACED SO THAT THE SLAB THICKNESS IS AT NO POINT LESS THAN THAT INDICATED ON THE DRAWINGS. THIS WILL REQUIRE THAT THE SLAB NOT BE CAST OVER GRADE WHEN SUPPORTING BEAMS, GIRDERS, OR TRUSSES HAVING A CHAMFER.

C14 PROVIDE VAPOR BARRIER UNDER INTERIOR SLABS CAST ON GRADE.

D REINFORCEMENT

D1 REINFORCEMENT WORK OF DESIGNATION, FABRICATION, AND ERECTION SHALL CONFORM TO "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" (ACI 308-14J) AND "ACI DETAILS MANUAL - 2009" (SP-08) AND "CONCRETE MANUAL OF STANDARD PRACTICE, 23TH EDITION (2009)" AND "STRUCTURAL WELDING CODE - REINFORCING STEEL" (AWS D1.4:88).

D2 STEEL REINFORCEMENT, UNLESS NOTED OTHERWISE, SHALL CONFORM TO THE FOLLOWING:

(A)	STEEL REINFORCEMENT	ASTM A615 GRADE 60 (YIELD STRESS 60,000 PSI)
(B)	WELDABLE STEEL REINFORCEMENT	ASTM A776 GRADE 60 (YIELD STRESS 60,000 PSI)
(C)	EPOXY-CURED STEEL REINFORCEMENT	ASTM A775
(D)	WELDED WIRE FABRIC (W/W)	ASTM A185

D3 WHERE REINFORCEMENT IS NOT SHOWN ON DRAWINGS, PROVIDE REINFORCEMENT IN ACCORDANCE WITH APPLICABLE DETAILS AS DETERMINED BY THE ARCHITECT. IN NO CASE SHALL REINFORCEMENT BE LESS THAN THE MINIMUM REINFORCEMENT PERMITTED BY THE APPLICABLE CODES, NOT LESS THAN THE FOLLOWING:

(A)	STRUCTURAL SLABS	0.0025 - GROSS CONCRETE AREA IN EACH DIRECTION DISTRIBUTED TO TOP AND BOTTOM BARS
(B)	CONCRETE WALLS	SPACING NOT TO EXCEED 5" IN EACH DIRECTION
(C)	COLUMNS	0.0025 - GROSS CONCRETE AREA IN EACH DIRECTION
(D)	COLUMN TIES	0.0010 - GROSS CONCRETE AREA (MINIMUM 4 BARS FOR RECTANGULAR COLUMNS, MINIMUM 4 BARS FOR CIRCULAR COLUMNS)
(E)	COLUMN TIES	PROVIDE TIES AT EVERY OTHER LONGITUDINAL BAR, WITH SPACING 5" OR AS SPECIFIED IN REFERENCED STANDARD

D4 WHERE REINFORCEMENT IS REQUIRED IN CONCRETE, REINFORCEMENT IS CONSIDERED TYPICAL WHEREVER THE SECTION APPLIES.

D5 DOWELS SHALL MATCH BAR SIZE AND NUMBER, UNLESS NOTED OTHERWISE.

D6 WHERE CONTINUOUS REINFORCEMENT IS CALLED FOR, IT SHALL BE EXTENDED CONTINUOUSLY AROUND CORNERS AND LAPPEL AT NECESSARY PLACES OR HOOKED AT DISCONTINUOUS ENDS.

D7 LAPS SHALL BE CLASS 3 TENSION LAP SPICES, UNLESS NOTED OTHERWISE.

D8 MINIMUM CONCRETE PROTECTIVE COVERING FOR REINFORCEMENT, UNLESS NOTED OTHERWISE, SHALL BE AS FOLLOWS:

(A)	UNFORMED SURFACES CAST AGAINST AND PERMANENTLY IN CONTACT WITH EARTH	3.0"
(B)	FORMED SURFACES IN CONTACT WITH EARTH OR EXPOSED TO WEATHER	2.0"
(C)	<ul style="list-style-type: none"> 45 BARS, 1/2" DIAMETER WELLS, AND SMALLER WELLS, SLABS, JOISTS, #11 BARS AND SMALLER BEAMS, GIRDERS, AND COLUMNS, PRINCIPAL REINFORCEMENT, TIES, STRIPS, OR SPIRALS 	0.75"
(D)	WHERE THERE IS A CONFLICT BETWEEN LOCATIONS OF COLUMN VERTICAL BARS AND BEAM OR SLAB HORIZONTAL BARS, THE COLUMN BARS SHALL REMAIN IN THEIR DESIGNATED POSITIONING AND BEAM OR SLAB BARS LOCATIONS SHALL BE ADJUSTED.	1.5"

D9 REINFORCEMENT SHALL BE CONTINUOUS THROUGH CONNECTIONS.

D10 COLUMN DOWELS SHALL BE SET WITH A TEMPLATE AND POSITIONED SO AS TO BE ENCLOSED BY THE COLUMN TIES.

D11 DOWELS UNDER BEAMS PAVING THROUGH GROUND JOINTS OR CONNECTION JOINTS SHALL BE SET PRIOR TO THE INITIAL CONCRETE PLACEMENT. BARS SHALL NOT BE WET-STUCK IN PLACE AFTER INITIAL CONCRETE PLACEMENT.

D12 WELDED WIRE FABRIC SHALL LAP AT 4'-0" TO 4'-2" SPACINGS, AND SHALL BE WELDED TOGETHER.

D13 REINFORCEMENT SHALL NOT BE TACKLED. FIELD BENDING OF REINFORCEMENT AT 90° IS NOT ALLOWED UNLESS SHOWN ON THE DRAWINGS OR APPROVED BY THE ARCHITECT.

D14 PROVIDE AND CONSIDER ON SHOP DRAWINGS THE NECESSARY ACCESSORIES TO HOLD REINFORCEMENT IN POSITION.

D15 MINIMUM REQUIREMENTS SHALL BE: HIGH CHAIRS, 4'-0" C/C WITH CONTINUOUS 9/8 SUPPORT BARS, SLAB BOLTERS, CONTINUOUS AND 3/4" C/C - BEAM BOLTERS, 5'-0" C/C.

D16 INSTALLATION OF REINFORCEMENT SHALL BE COMPLETED AT LEAST 24 HOURS PRIOR TO THE SCHEDULED CONCRETE PLACEMENT. NOTIFY ARCHITECT OF COMPLETION AT LEAST 24 HOURS PRIOR TO THE SCHEDULED COMPLETION OF THE INSTALLATION OF REINFORCEMENT.

E STRUCTURAL STEEL

E1 STANDARD PRACTICE FOR STEEL BUILDINGS & BRIDGES" (AISC 308-10); "SEISMIC PROVISIONS FOR STRUCTURAL STEEL BUILDINGS, INCLUDING SUPPLEMENT NO. 1 DATED 2009" (AISC 341-10); AND "STRUCTURAL WELDING CODE - 2010" (AWS D1.1:10).

E2 STRUCTURAL STEEL SHALL BE FABRICATED AND WELDED WITH "TESTING FOR STEEL CONSTRUCTION AND CORROSION" (ASTM A 970), AND WHERE REQUIRED, DEFERRED IN ACCORDANCE WITH REFERENCED STANDARDS.

E3 THE STEEL FRAME INTERACTIONS WITH HOW TO RESIST WIND AND SEISMIC FORCES AND TO PROVIDE GENERAL STRUCTURAL STABILITY. PROVIDE TEMPORARY BRACING AND SUPPORTS TO HOLD THE BEARING LATERAL FRAMEWORK IN POSITION, SUCH TEMPORARY BRACING AND SUPPORTS SHALL NOT BE REMOVED UNTIL THE PERMANENT LATERAL FORCE RESISTING SYSTEM IS COMPLETELY INSTALLED, INCLUDING THE FOLLOWING CONSTRUCTIONAL STEEL ELEMENTS:

(A)	STEEL DECK DIAPHRAGMS	
(B)	CONCRETE FILL STEEL DECK DIAPHRAGMS. CONCRETE MUST ATTAIN 75 PERCENT OF ITS SPECIFIED COMPRESSIVE STRENGTH.	
(C)	CONCRETE GRADE SLABS. CONCRETE MUST ATTAIN 75 PERCENT OF ITS SPECIFIED COMPRESSIVE STRENGTH.	

E4 STRUCTURAL STEEL SHALL BE NEW STEEL CONFORMING TO THE FOLLOWING:

(A)	UNLESS NOTED OTHERWISE	ASTM A992 OR A588 GRADE 50 (Fy = 50 ksi)
(B)	ANGLES, CHANNELS, PLATES, FLAT PLATES, AND BARS	ASTM A36, Fy = 48 ksi, UNDO
(C)	SQUARE AND RECTANGLE HOLLOW STRUCTURAL SECTIONS (HSS)	ASTM A500, GRADE B (Fy = 46 ksi)
(D)	ROUND HOLLOW STRUCTURAL SECTIONS (HSS)	ASTM A500, GRADE B (Fy = 42 ksi)
(E)	PIPE	ASTM A53, GRADE B (Fy = 35 ksi)
(F)	ANCHOR BOLTS	ASTM F1554, UNDO
(G)	HIGH STRENGTH BOLTS	ASTM A325, UNDO

E5 STEEL CONNECTIONS SHALL BE DESIGNED CONSIDERING THAT BOLTS WILL NOT SHARE LOAD WITH CONNECTIONS WITH WELDS.

E6 BOLTED CONNECTIONS SHALL BE AS FOLLOWS:

(A)	MINIMUM BOLT SIZE: 3/4" - TWO BOLT BOLTS
(B)	STANDARD OVERLAPS: DO HORIZONTAL, SHORT-SLOTTED HOLES IN WEBS OF BEAMS
(C)	SHEAR CONNECTIONS BETWEEN MOMENT-CONNECTED MEMBERS - FRICTION TYPE HIGH STRENGTH BOLTS IN SINGLE SHEAR
(D)	SHEAR CONNECTIONS FOR OTHER MEMBERS - SMALLE SHEAR CONNECTIONS WITH EITHER FRICTION TYPE HIGH STRENGTH BOLTS IN SINGLE SHEAR OR BEARING TYPE HIGH STRENGTH BOLTS IN SINGLE OR DOUBLE SHEAR
(E)	SINGLE OR DOUBLE SHEAR SMALLE SHEAR CONNECTIONS SHALL BE CAPABLE OF END ROTATION PER ASH REQUIREMENTS FOR "UNRESTRAINED MEMBERS"

E7 WELDED CONNECTIONS SHALL BE MADE BY APPROVED CERTIFIED WELDERS USING FILLER METAL CONFORMING TO TYPE E70X OR F70X/EXX.

E8 WELDS SHALL DEVELOP THE FULL STRENGTH OF THE MATERIALS BEING WELDED, UNLESS NOTED OTHERWISE. EXCEPT FILL WELDS SHALL BE A MINIMUM OF 1/4".

E9 REACTIONS FOR STEEL BEAM SHOWN ON PLAN ARE GIVEN IN WORKING STRESS LEVELS (UNDO) UNLESS NOTED OTHERWISE.

E10 BEAM CONNECTIONS, UNLESS NOTED OTHERWISE, SHALL PROVIDE CONNECTION CAPACITY AS FOLLOWS, OR AS SHOWN ON THE PLAN:

(A)	NON-COMPOSITE BEAMS: SUPPORT A REACTION "R" EQUAL TO 1/2 THE TOTAL UNIFORM LOAD CAPACITY OF BEAM FOR A GIVEN SHEAR, SPAN, AND GRADE OF STEEL TABLE 3.6 "MAXIMUM TOTAL UNIFORM LOAD OF A BEAM" (ACI 308-14J) AND "ACI 308-05"	
(B)	COMPOSITE BEAMS: SUPPORT A REACTION "R" = MULTIPLES "R" (AS DEFINED ABOVE) <ul style="list-style-type: none"> Rc = 1.5D + R FOR BEAM DEPTH GREATER THAN 21" Rc = 2.0D + R FOR BEAM DEPTH GREATER THAN 36" BUT LESS THAN OR EQUAL TO 21" Rc = 2.5 + R FOR BEAM DEPTH GREATER THAN 36" BUT LESS THAN OR EQUAL TO 12" 	
(C)	ADD TO "R" OR "Rc" WHEN LOADS OR REACTIONS OF MEMBERS SUPPORTED BY THE BEAM ARE NOT SYMMETRICALLY APPLIED TO THE BEAM. ADD TO "R" OR "Rc" WHEN LOADS OR REACTIONS OF MEMBERS SUPPORTED BY THE BEAM ARE NOT SYMMETRICALLY APPLIED TO THE BEAM. ADD TO "R" OR "Rc" (AS DEFINED ABOVE), ALSO THE VERTICAL COMPONENTS OF FORCES IN DIAGONAL BRACING MEMBERS FRAMING TO COLUMNS SHALL BE INCLUDED.	

E11 BEAM AND GIRDER SHEAR CONNECTIONS TO WALLS SHALL CONSIST OF ONLY SIMPLE SHEAR CONNECTIONS CAPABLE OF END ROTATION AS REQUIRED. UNLESS DETAIL NOTED ON THE DRAWINGS, ANY CONNECTION TO COLUMNS THAT ARE NOT CAPABLE OF END ROTATION SHALL BE DESIGNED TO BE RIGID TO THE COLUMN CENTERLINE. ANY MOMENT DEVELOPED DUE TO THE ECCENTRICITY OF THE CENTER OF GRAVITY OF THE CONNECTION GROUP ABOUT THE COLUMN CENTERLINE SHALL BE RESISTED BY THE END CONNECTIONS AND SUPPLEMENTARY CONNECTIONS.

E12 CONNECTIONS WITH HORIZONTAL THROUGH FORCES SHALL BE DESIGNED FOR BOTH AXIAL AND THROUGH FORCES ACTING SIMULTANEOUSLY. THESE CONNECTIONS SHALL BE CAPABLE OF END ROTATION, ANY THROUGH FORCE CONNECTIONS THAT ARE NOT CAPABLE OF END ROTATION SHALL BE DESIGNED TO BE RIGID TO THE MEMBER. LOCAL PERIODS OF END ROTATION SHALL BE AMPLIFIED BY 1.5.

E13 ANCHOR BOLTS, EMBED PLATES, LEVELING PLATES, OR BEARING PLATES SHALL BE LOCATED AND BUILT INTO CONNECTING WORK, PRESET BY TEMPORARY OR SIMILAR METHODS. PLATES SHALL BE SET FULL BEARS OF NON-SHANK HIGH.

E14 ENDS OF COLUMNS AT JOINTS AND AT OTHER BEARING CONNECTIONS SHALL BE "FINISHED TO BEAR" TO COMPLETE TRUE BEARING.

E15 PROVIDE STIFFENERS "FINISHED TO BEAR" UNDER ALL LOAD CONCENTRATIONS ON SUPPORTING MEMBERS, OVER COLUMNS, AND WHERE SHOWN ON DRAWINGS.

E16 WHERE SHOWN ON DRAWINGS, STEEL SHALL BE COVERED WITH MASTIC COATING PER SPECIFICATIONS.

E17 STRUCTURAL STEEL MEMBERS SHALL BE REINFORCED PER SPECIFICATIONS.

E18 STRUCTURAL STEEL MEMBERS AND CONNECTIONS EXPOSED TO THE WEATHER SHALL BE GALVANNEED. REGIONS OF FIELD WELDS TO BE GALVANNEED SHALL BE TACKLED UP WITH A ZINC HOT DIPPING AFTER COMPLETION AND INSPECTION OF THE WELD.

E19 CAMBER SHALL BE BY COLD-FORMED STEEL IN CONFORMANCE WITH ASH SPECIFICATIONS AND TOLERANCE.

E20 MEMBERS NOT DESIGNED TO SUPPORT LATERAL LOADS AT THE BOTTOM FLANGE BEAMS THAT ARE SUBJECTED TO OUT OF PLANE BENDING SHALL BE BRACED/SUPPORTED FOR SUCH FORCES, UNLESS SPECIFICALLY NOTED OTHERWISE. COORDINATE WITH RELATED TRADES FOR DESIGN FORCES AND SUBMIT FOR APPROVAL.

E21 TRAVELERS FOR MEMBERS NOT DESIGNED TO SUPPORT LATERAL LOADS ARE FINALLY BOLTED OR WELDED.

E22 TRAILERS SHALL BE TEMPORARILY SHORNT UNTIL MOMENT CONNECTION IS INSTALLED TO FULL STRENGTH.

E23 HOLLOW CUTTING OF STRUCTURAL STEEL OR FROM FIELD MODIFICATIONS OF STRUCTURAL STEEL SHALL NOT BE MADE WITHOUT PRIOR WRITTEN APPROVAL BY ARCHITECT FOR SPECIFIC CASES.

E24 ALL BEAMS ARE TO BE LOCATED MIN 6" FROM FIELD MODIFICATIONS OF STRUCTURAL STEEL SHALL NOT BE MADE WITHOUT PRIOR WRITTEN APPROVAL BY ARCHITECT FOR SPECIFIC CASES.

E25 PREVENT COLLECTION OF ENVIRONMENTAL OR OTHER WATER SOURCES IN CLOSED WALL, BOX-SHAPED OR OTHER BUILT-UP STEEL MEMBERS. IN THE TEMPORARY CONNECTION BEFORE THE PERMANENT ONE IS ESTABLISHED, THESE SECTIONS SHALL BE SEALED ELSE COVER SHALL BE PLACED OVER ENDS OF CLOSED WALL, BOX-SHAPED OR BUILT-UP MEMBERS. ADDITIONALLY, PROVIDE A DRAIN HOLE AT BASE OF MEMBER. TO ALLOW WATER TO BE COLLECTED AND STANDING WITH THESE MEMBERS.

E26 COORDINATE WITH ARCHITECT, DRAWINGS FOR PAINT AND FINISH LOCATIONS FOR TIES INCLUDING BUT NOT LIMITED TO THE INTERNAL REPAIR AND TREATMENT. PREP AND PAINT SHALL BE "FINISHED TO BEAR" TO COMPLETE TRUE BEARING.

E27 WELDS SHOWN MAY BE SHOP OR FIELD WELDS AS REQUIRED FOR CONSTRUCTIBILITY, COORDINATION AND MEANS AND METHODS.

F STEEL DECK AND SHEAR CONNECTORS

F1 STEEL DECK AND SHEAR CONNECTOR WORK SHALL CONFORM TO THE "NORTH AMERICAN SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS, INC. 2004 SUPPLEMENT" (AS/NZS 1013) "SPECIFICATION FOR STRUCTURAL STEEL" (AS/NZS 1013); "STRUCTURAL STEEL DESIGN MANUAL - 2009" (SP-08) AND "CONCRETE MANUAL OF STANDARD PRACTICE, 23TH EDITION (2009)"; "STANDARD FOR NON-COMPOSITE STEEL DECK" (ANSI/AISC 809); AND "STANDARD FOR STEEL DECK" (ANSI/AISC 809-04).

F2 STEEL DECK PANELS SHALL BE FORMED FROM STEEL SHEETS CONFORMING TO ASTM A583, 30; (2) ASTM A1013 (J) (ANSI/AISC 809-04); GRADE 33, OR (3) ASTM A1013 (J) (ANSI/AISC 809-04), GRADE C-44; THREE OPTIONS FURTHER CONFORMING WITH A MINIMUM YIELD POINT OF 33,500 PSI.

F3 STEEL DECK SUPPORTING CONCRETE SLABS SHALL BE DESIGNED TO SUPPORT THE WEIGHT OF THE CONCRETE ALONG WITH TEMPORARY CONSTRUCTION LOADS WITHIN THE USE OF TEMPORARY SHORING AS DESCRIBED IN THE PROJECT SPECIFICATIONS, UNLESS SPECIFICALLY NOTED OTHERWISE ON THE DRAWINGS. ALL CONNECTIONS SHALL BE DESIGNED TO BE RIGID TO THE JOINT.

F4 STEEL DECK CROSS SECTIONS ARE ONLY REPRESENTED DIAGRAMMATICALLY ON THE DRAWINGS.

F5 PENETRATIONS THROUGH STEEL DECK PANELS, INCLUDING SHIP ON STEEL DECK ASSEMBLIES, SHALL BE COORDINATED AND SHOWN ON SHOP DRAWINGS SUBMITTED TO THE ARCHITECT FOR APPROVAL. ALL PENETRATIONS SHALL BE SOXED OUT AND REINFORCED PER THE APPLICABLE TECHNICAL DETAILS PRIOR TO PLACEMENT OF THE STEEL.

F6 SHEAR CONNECTORS TO BE USED TO HOLD STEEL DECK PANELS TOGETHER SHALL BE SOXED OUT AND REINFORCED PER THE APPLICABLE TECHNICAL DETAILS PRIOR TO PLACEMENT OF THE STEEL.

F7 THE NUMBER OF SHEAR CONNECTORS REQUIRED PER BEAM IS INDICATED BY "32" ETC. ON THE DRAWINGS. (SEE BEAM EXPLANATION DIAGRAM IN TECHNICAL DETAILS.)

F8 WHERE NO SHEAR CONNECTORS ARE INDICATED FOR ALL BEAMS WHICH ARE PART OF THE LATERAL FORCE RESISTING SYSTEM, PROVIDE SHEAR CONNECTORS AT 24 INCHES ON CENTER, UNDO. FOR ALL BEAMS WHICH ARE PART OF THE LATERAL FORCE RESISTING SYSTEM, PROVIDE SHEAR CONNECTORS AT 32 INCHES ON CENTER, UNDO.

F9 SHEAR CONNECTORS SHALL BE EQUALLY SPACED OVER THE LENGTH OF THE BEAM. WHERE THE NUMBER OF STEEL DECK CORRUGATIONS AVAILABLE IS LESS THAN THE NUMBER OF SHEAR CONNECTORS, USE PAIRS OF SHEAR CONNECTORS STARTING FROM EACH END OF BEAM AND CENTERING THE CENTER LINE OF EACH PAIR TO BEHIND A SINGLE SHEAR CONNECTION IN EACH CORRUPTION. SHEAR CONNECTORS SHALL BE SPACED NOT CLOSER THAN 3" TRANSVERSELY AND 4'-0" LONGITUDINALLY. SHEAR CONNECTOR SPACING SHALL NOT EXCEED 24 INCHES ON CENTER.

F10 HORIZONTAL CLEARANCE SHALL BE A MINIMUM OF 1" FROM THE EDGE OF ANY SHEAR CONNECTOR TO THE FACE OF CONNECTION. SHEAR CONNECTORS SHALL BE SPACED NOT CLOSER THAN 3" TRANSVERSELY AND 4'-0" LONGITUDINALLY. SHEAR CONNECTOR SPACING SHALL NOT EXCEED 24 INCHES ON CENTER.

F11 EDGE DISTANCE FROM THE CENTER LINE OF A SHEAR CONNECTOR TO THE EDGE OF A STRUCTURAL STEEL BEAM SHALL PREFERABLY BE 2", BUT IN NO CASE LESS THAN 1/4".

G STRUCTURAL DESIGN LOADS

G1 WEIGHT OF BUILDING COMPONENTS AS REQUIRED

(A)	ROOFING ALLOWANCE	15 PSF
(B)	HUNG ALLOWANCE	10 PSF
(C)	FLOOR FINISHES	10 PSF

G2 RISK CATEGORY

(A)	RISK CATEGORY	125 PSF
(B)	CORRIDORS	100 PSF
(C)	PARTITION ALLOWANCE	15 PSF
(D)	BEST ROOM	100 PSF
(E)	BLEACHER	100 PSF
(F)	STADIUM ROOF	100 PSF
(G)	MECHANICAL ROOM	100 PSF

G3 EXPOSURE CATEGORY

(A)	EXPOSURE CATEGORY	1.0
(B)	GROUND SNOW LOAD	40 PSF
(C)	WIND SPEED	110 MPH
(D)	WIND EXPOSURE CATEGORY	1.0
(E)	WIND PROTECTION FACTOR (Kz)	0.85
(F)	WIND PROTECTION FACTOR (Kd)	0.85
(G)	WIND PROTECTION FACTOR (Kf)	0.85
(H)	INTERNAL PRESSURE COEFFICIENT (Cpi)	-0.18 / +0.18
(I)	EXTERNAL PRESSURE COEFFICIENT (Cpe) (WINDWARD)	0.0
(J)	EXTERNAL PRESSURE COEFFICIENT (Cpe) (ELEVATED) - SHORT DIRECTION	-0.9
(K)	EXTERNAL PRESSURE COEFFICIENT (Cpe) (ELEVATED) - LONG DIRECTION	-0.9
(L)	WIND SURFACE PRESSURE	4.3 PSF
(M)	BASE SHEAR DUE TO WIND LOADS	235 KIPS (SHORT) / 71 KIPS (LONG)
(N)	STADIUM BUILDING BASE SHEAR	235 KIPS (SHORT) / 71 KIPS (LONG)

G4 WIND LOADS

(A)	WIND LOADS	137 MPH / 206 MPH
(B)	WIND VELOCITY PRESSURE (Q) (Kz) (Kd)	1.04
(C)	DIRECTIONAL FACTOR (Kd)	0.85
(D)	TOPOGRAPHIC FACTOR (Kt)	1.0
(E)	GUST FACTOR (Gf)	0.85
(F)	INTERNAL PRESSURE COEFFICIENT (Cpi)	-0.18 / +0.18
(G)	EXTERNAL PRESSURE COEFFICIENT (Cpe) (WINDWARD)	0.0
(H)	EXTERNAL PRESSURE COEFFICIENT (Cpe) (ELEVATED) - SHORT DIRECTION	-0.9
(I)	EXTERNAL PRESSURE COEFFICIENT (Cpe) (ELEVATED) - LONG DIRECTION	-0.9
(J)	WIND SURFACE PRESSURE	4.3 PSF
(K)	BASE SHEAR DUE TO WIND LOADS	235 KIPS (SHORT) / 71 KIPS (LONG)
(L)	STADIUM BUILDING BASE SHEAR	235 KIPS (SHORT) / 71 KIPS (LONG)

H MASONRY CONSTRUCTION

H1 CLAY BRICK AND CONCRETE MASONRY UNIT (CMU) CONSTRUCTION SHALL CONFORM TO "BUILDING CODE REQUIREMENTS FOR STRUCTURAL MASONRY" (ACI 530-08) AND "SPECIFICATIONS FOR MASONRY STRUCTURES" (ACI 530-10) AND "MASONRY STRUCTURES" (ACI 530-08) AND "MASONRY STRUCTURES" (ACI 530-10).

H2 MATERIAL STRENGTH SHALL BE AS FOLLOWS:

(A)	FACE BRICK SHALL CONFORM TO ASTM C-90 GRADE SW WITH COMPRESSIVE STRENGTH OF 2000 PSI.
(B)	COMMON BRICK SHALL CONFORM TO ASTM C-90 GRADE SW WITH COMPRESSIVE STRENGTH OF 2000 PSI.
(C)	CONCRETE MASONRY UNITS SHALL CONFORM TO ASTM C-90.
(D)	MORTAR SHALL CONFORM TO ASTM C-270, TYPE M OR S.

H3 MASONRY SHALL CONFORM TO ASTM C-90 GRADE SW WITH COMPRESSIVE STRENGTH OF 2000 PSI.

H4 WALL BEARING BEAMS SHALL HAVE BEARING PLATES OF SUFFICIENT SIZE TO DEVELOP THE MAXIMUM END REACTION OF THE BEAM.

H5 PLATES SHALL BE CAST ON CONCRETE FLOOR BLOCKS HAVING A COMPRESSIVE STRENGTH OF 2000 PSI.

H6 PRECAST CONCRETE PLANS BEARING ON STRUCTURAL STEEL SHALL HAVE WELDED JOINTS.

H7 FILL CORES ON CONCRETE BLOCKS UNDER ALL BEARING PLATES WITH CONCRETE FOR A WIDTH EQUAL TO 3 TIMES THE BEARING PLATE.

H8 STEEL DECK SUPPORTING CONCRETE SLABS SHALL BE DESIGNED TO SUPPORT THE WEIGHT OF THE CONCRETE ALONG WITH TEMPORARY CONSTRUCTION LOADS WITHIN THE USE OF TEMPORARY SHORING AS DESCRIBED IN THE PROJECT SPECIFICATIONS, UNLESS SPECIFICALLY NOTED OTHERWISE ON THE DRAWINGS. ALL CONNECTIONS SHALL BE DESIGNED TO BE RIGID TO THE JOINT.

H9 PREVENT COLLECTION OF ENVIRONMENTAL OR OTHER WATER SOURCES IN CLOSED WALL, BOX-SHAPED OR OTHER BUILT-UP STEEL MEMBERS. IN THE TEMPORARY CONNECTION BEFORE THE PERMANENT ONE IS ESTABLISHED, THESE SECTIONS SHALL BE SEALED ELSE COVER SHALL BE PLACED OVER ENDS OF CLOSED WALL, BOX-SHAPED OR BUILT-UP MEMBERS. ADDITIONALLY, PROVIDE A DRAIN HOLE AT BASE OF MEMBER. TO ALLOW WATER TO BE COLLECTED AND STANDING WITH THESE MEMBERS.

H10 COORDINATE WITH ARCHITECT, DRAWINGS FOR PAINT AND FINISH LOCATIONS FOR TIES INCLUDING BUT NOT LIMITED TO THE INTERNAL REPAIR AND TREATMENT. PREP AND PAINT SHALL BE "FINISHED TO BEAR" TO COMPLETE TRUE BEARING.

H11 WELDS SHOWN MAY BE SHOP OR FIELD WELDS AS REQUIRED FOR CONSTRUCTIBILITY, COORDINATION AND MEANS AND METHODS.

H12 ANCHOR BOLTS, EMBED PLATES, LEVELING PLATES, OR BEARING PLATES SHALL BE LOCATED AND BUILT INTO CONNECTING WORK, PRESET BY TEMPORARY OR SIMILAR METHODS. PLATES SHALL BE SET FULL BEARS OF NON-SHANK HIGH.

H13 ENDS OF COLUMNS AT JOINTS AND AT OTHER BEARING CONNECTIONS SHALL BE "FINISHED TO BEAR" TO COMPLETE TRUE BEARING.

H14 PROVIDE STIFFENERS "FINISHED TO BEAR" UNDER ALL LOAD CONCENTRATIONS ON SUPPORTING MEMBERS, OVER COLUMNS, AND WHERE SHOWN ON DRAWINGS.

H15 WHERE SHOWN ON DRAWINGS, STEEL SHALL BE COVERED WITH MASTIC COATING PER SPECIFICATIONS.

H16 STRUCTURAL STEEL MEMBERS SHALL BE REINFORCED PER SPECIFICATIONS.

H17 STRUCTURAL STEEL MEMBERS AND CONNECTIONS EXPOSED TO THE WEATHER SHALL BE GALVANNEED. REGIONS OF FIELD WELDS TO BE GALVANNEED SHALL BE TACKLED UP WITH A ZINC HOT DIPPING AFTER COMPLETION AND INSPECTION OF THE WELD.

H18 CAMBER SHALL BE BY COLD-FORMED STEEL IN CONFORMANCE WITH ASH SPECIFICATIONS AND TOLERANCE.

H19 MEMBERS NOT DESIGNED TO SUPPORT LATERAL LOADS AT THE BOTTOM FLANGE BEAMS THAT ARE SUBJECTED TO OUT OF PLANE BENDING SHALL BE BRACED/SUPPORTED FOR SUCH FORCES, UNLESS SPECIFICALLY NOTED OTHERWISE. COORDINATE WITH RELATED TRADES FOR DESIGN FORCES AND SUBMIT FOR APPROVAL.

H20 TRAVELERS FOR MEMBERS NOT DESIGNED TO SUPPORT LATERAL LOADS ARE FINALLY BOLTED OR WELDED.

H21 TRAILERS SHALL BE TEMPORARILY SHORNT UNTIL MOMENT CONNECTION IS INSTALLED TO FULL STRENGTH.

H22 HOLLOW CUTTING OF STRUCTURAL STEEL OR FROM FIELD MODIFICATIONS OF STRUCTURAL STEEL SHALL NOT BE MADE WITHOUT PRIOR WRITTEN APPROVAL BY ARCHITECT FOR SPECIFIC CASES.

H23 ALL BEAMS ARE TO BE LOCATED MIN 6" FROM FIELD MODIFICATIONS OF STRUCTURAL STEEL SHALL NOT BE MADE WITHOUT PRIOR WRITTEN APPROVAL BY ARCHITECT FOR SPECIFIC CASES.

H24 PREVENT COLLECTION OF ENVIRONMENTAL OR OTHER WATER SOURCES IN CLOSED WALL, BOX-SHAPED OR OTHER BUILT-UP STEEL MEMBERS. IN THE TEMPORARY CONNECTION BEFORE THE PERMANENT ONE IS ESTABLISHED, THESE SECTIONS SHALL BE SEALED ELSE COVER SHALL BE PLACED OVER ENDS OF CLOSED WALL, BOX-SHAPED OR BUILT-UP MEMBERS. ADDITIONALLY, PROVIDE A DRAIN HOLE AT BASE OF MEMBER. TO ALLOW WATER TO BE COLLECTED AND STANDING WITH THESE MEMBERS.

H25 COORDINATE WITH ARCHITECT, DRAWINGS FOR PAINT AND FINISH LOCATIONS FOR TIES INCLUDING BUT NOT LIMITED TO THE INTERNAL REPAIR AND TREATMENT. PREP AND PAINT SHALL BE "FINISHED TO BEAR" TO COMPLETE TRUE BEARING.

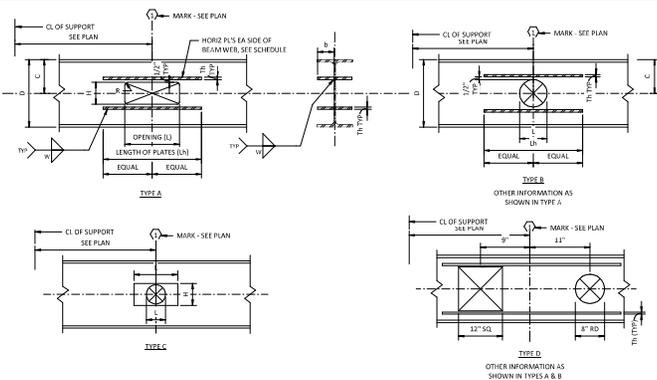
H26 WELDS SHOWN MAY BE SHOP OR FIELD WELDS AS REQUIRED FOR CONSTRUCTIBILITY, COORDINATION AND MEANS AND METHODS.

I STEEL DECK AND SHEAR CONNECTORS

I1 STEEL DECK AND SHEAR CONNECTOR WORK SHALL CONFORM TO THE "NORTH AMERICAN SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS, INC. 2004 SUPPLEMENT" (AS/NZS 1013) "SPECIFICATION FOR STRUCTURAL STEEL" (AS/NZS 1013); "STRUCTURAL STEEL DESIGN MANUAL - 2009" (SP-08) AND "CONCRETE MANUAL OF STANDARD PRACTICE, 23TH EDITION (2009)"; "STANDARD FOR NON-COMPOSITE STEEL DECK" (ANSI/AISC 809); AND "STANDARD FOR STEEL DECK" (ANSI/AISC 809-04).

I2 STEEL DECK PANELS SHALL BE FORMED FROM STEEL SHEETS CONFORMING TO ASTM A583, 30; (2) ASTM A1013 (J) (ANSI/AISC 809-04); GRADE 33, OR (3) ASTM A1013 (J) (ANSI/AISC 809-04), GRADE C-44; THREE OPTIONS FURTHER CONFORMING WITH A MINIMUM YIELD POINT OF 33,500 PSI.

I3 STEEL DECK SUPPORTING CONCRETE SLABS SHALL BE DESIGNED TO SUPPORT THE WEIGHT OF THE CONCRETE ALONG WITH TEMPORARY CONSTRUCTION LOADS WITHIN THE USE OF TEMPORARY SHORING AS DESCRIBED IN THE PROJECT SPECIFICATIONS,

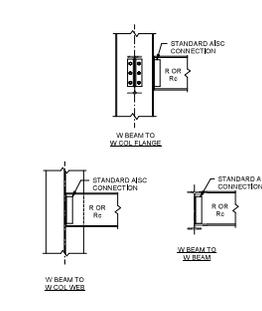


MARK	WEB OPENING				HORIZONTAL PLATES		WELD SIZE (W)	TYPE
	L	H	C	TH	D	LENGTH OF PLATES		
(1)	10" DIA	-	-	3/8"	2"	1'-8"	1/4"	B
(2)	5" / 7" DIA	-	-	-	-	-	-	C
(3)	14"	14"	1/2"	3"	2'-6"	5/16"	-	A
(4)	24"	16"	1/2"	3"	4'-0"	5/16"	-	A
(5)	-	-	-	-	-	-	-	-
(6)	-	-	-	-	-	-	-	-
(7)	-	-	-	-	-	-	-	-
(8)	-	-	-	-	-	-	-	-
(9)	-	-	-	-	-	-	-	-
(10)	-	-	-	-	-	-	-	-

NOTES:
1. SEE PLANS FOR LOCATIONS OF BEAM OPENINGS.
2. WHERE NO C DIMENSIONS PROVIDED USE C = 4D/2.
3. DIMENSIONS GIVEN IN SCHEDULE ARE IN INCHES.
4. R = 2x WEB THICKNESS.
5. STEEL PLATES AND OTHER ACCESSORIES REQUIRED FOR THE REINFORCING OF OPENINGS IN THE WEBS OF STEEL BEAMS SHALL MEET ASTM A572 STANDARDS.

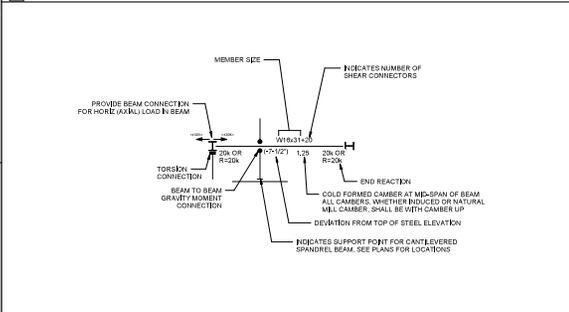
PROVIDE AN ALLOWANCE FOR THE FOLLOWING FIELD OPENINGS:
MARK (1) = 15
MARK (2) = 15

NOTES:
1. FOR R AND RC, SEE REACTION ON PLAN.
2. PROVIDE REACTION ANGLES AS REQUIRED PER OSHA.
3. PER ABC TYPICAL BEAM CONNECTIONS SHALL GENERALLY CONSIST OF DOUBLE ANGLE CONNECTIONS, BEO PL CONNECTIONS, BRIGLE PL CONNECTIONS, OR TEE CONNECTIONS.

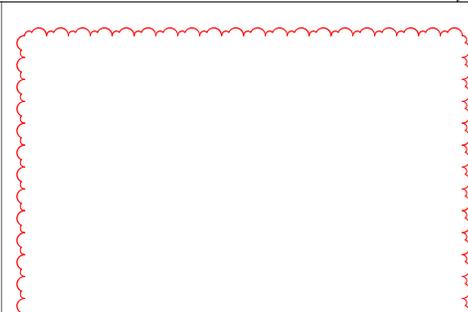


1 DETAILS OF OPENINGS IN STEEL BEAMS

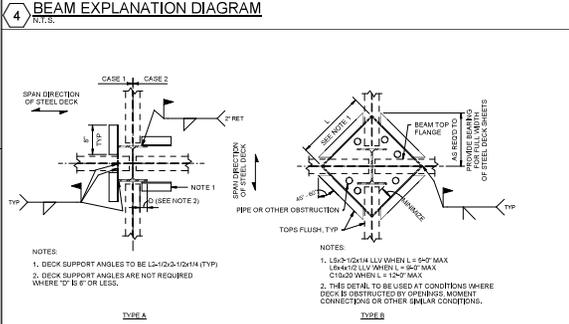
3 TYPICAL BEAM CONNECTIONS



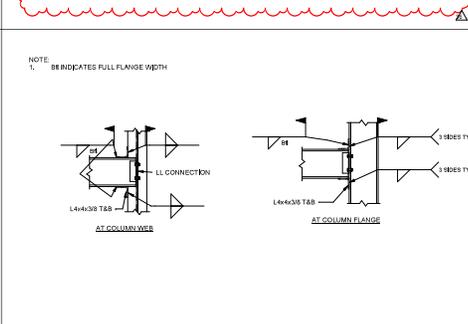
4 BEAM EXPLANATION DIAGRAM



6 REINFORCING AT OPENINGS IN SLABS WITH COMPOSITE STEEL DECK

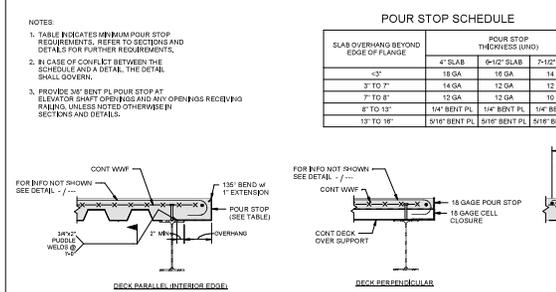


7 PLAN OF DECK SUPPORT AT COLUMNS

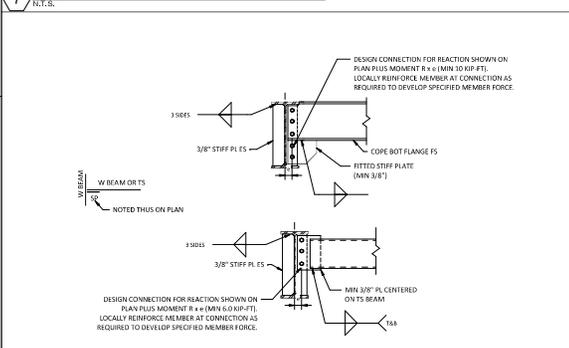


8 TORSION CONNECTION AT COLUMN

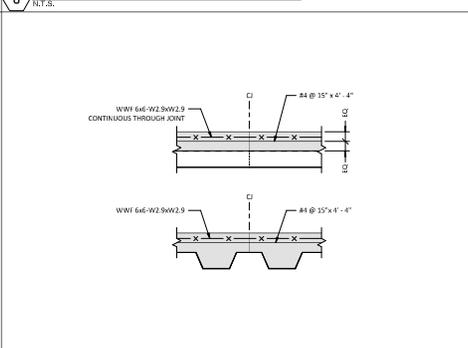
9 TYPICAL COMPOSITE SLAB EDGE DETAILS



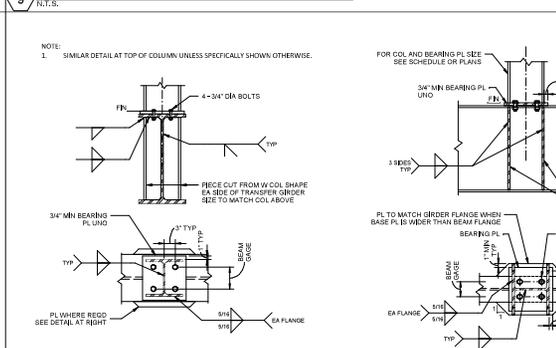
12 TYPICAL BASE PLATE OF COLUMN TRANSFER



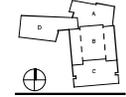
10 SHEAR PLATE CONNECTION



11 CONSTRUCTION JOINT IN SLAB ON DECK



12 TYPICAL BASE PLATE OF COLUMN TRANSFER

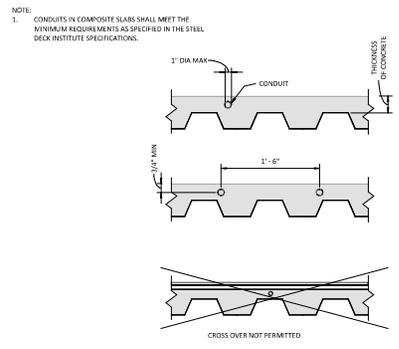
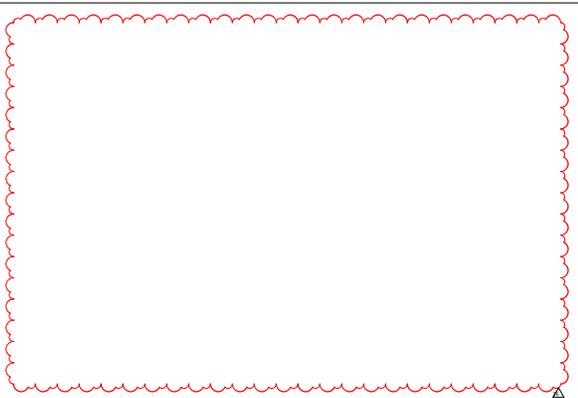


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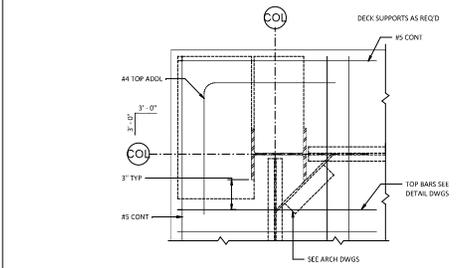
CONFORMED SET
DECEMBER 12, 2022

JOB NAME: 220208
DRAWN: AUC
CHECKED: DUC
DATE: 12-12-22

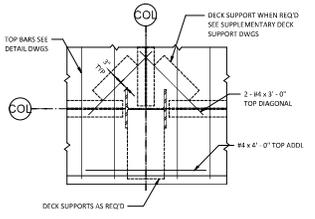
ALT-01 SPARTAN STADIUM
TYPICAL DETAILS



2 CONDUITS IN COMPOSITE SLAB
N.T.S.

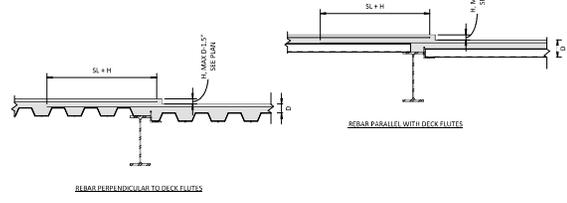


3 COMPOSITE METAL DECK SLAB REINFORCING AT CORNER COLUMNS
N.T.S.



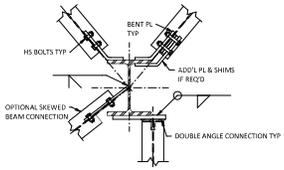
4 COMPOSITE METAL DECK SLAB REINFORCING AT EXTERIOR COLUMNS
N.T.S.

- NOTE:
1. SEE PLANS FOR REINFORCING.
2. SL INDICATES CLASS B TYPICAL LAP SPLICE UNID.
3. SEE TYPICAL DETAILS FOR DECK SUPPORT AS REQ'D.



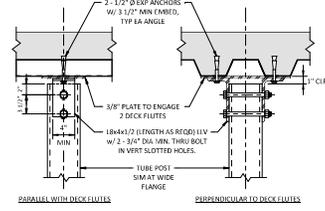
6 REBAR SPLICE AT SLAB DEPRESSION
N.T.S.

- NOTES:
1. DESIGN CONNECTION TO CARRY THE REACTIONS AS INDICATED ON THE DRAWINGS AND GENERAL NOTES WITH EFFECTS OF CONCENTRATED LOADS ACCOUNTED FOR.
2. DESIGN OF CONNECTIONS SHALL INCLUDE THE EFFECTS OF ECCENTRIC LOADING.
3. DESIGN CONNECTIONS IN ACCORDANCE WITH THE AISC MANUAL FOR STEEL CONSTRUCTION AND THE AISC STRUCTURAL STEEL DESIGNING MANUAL. SPECIAL ATTENTION SHALL BE PAID FOR ONE SIZED, SLOPED, OFFSET AND BENT BEAM TO COLUMN AND BEAM TO BEAM CONNECTIONS IN ACCORDANCE WITH THE AISC STEEL DESIGNING MANUAL.



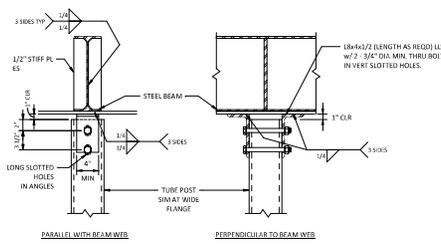
7 TYPICAL OFFSET AND SKEWED BEAM TO COLUMN DETAIL
N.T.S.

- NOTES:
1. THIS DETAIL SHALL BE APPLIED TO POST LOCATIONS WHERE SLIP CONNECTION IS CALLED FOR. SEE PLANS - NOTED BY "SL".

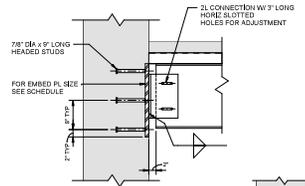


8 VERTICAL SLIP JOINT DETAILS AT SLAB
N.T.S.

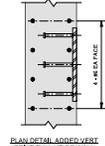
- NOTES:
1. THIS DETAIL SHALL BE APPLIED TO POST LOCATIONS WHERE SLIP CONNECTION IS CALLED FOR. SEE PLANS - NOTED BY "SL".
2. ANGLES MAY BE BOLTED OR WELDED TO SUPPORTING BEAM.



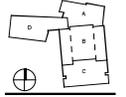
8 VERTICAL SLIP CONNECTION AT TOP OF TUBE POSTS
N.T.S.



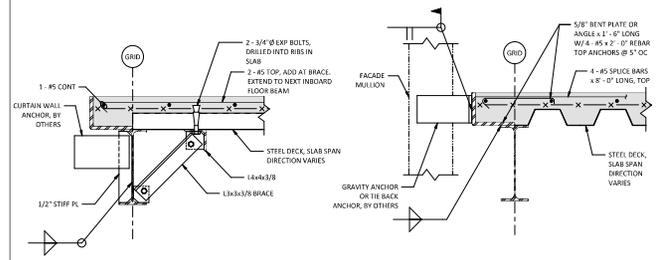
EMBEDDED PLATE SCHEDULE			
BEAM SIZE	PLATE SIZE (TYPICAL)	TOTAL NUMBER OF STUDS	NUMBER OF HORIZ ROWS
W10 & W12	8x4x4x1/4	8	3
W14	8x4x4x3/8	8	3
W16	8x4x20x3/8	9	3
W18	1x20x20x1	9	3
W21	1x20x20x1	10	4



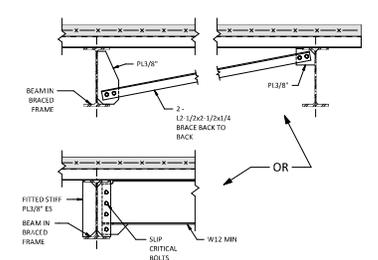
10 STEEL BEAM SUPPORT AT CONCRETE WALL
1" = 1'-0"



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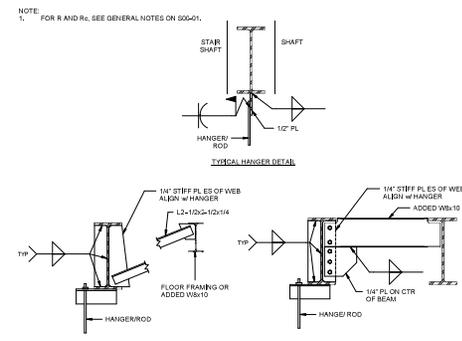


1 BRIDGING BETWEEN BEAMS OF DISSIMILAR DEPT SECTION AT FACADE ANCHORSHS
 N.T.S.

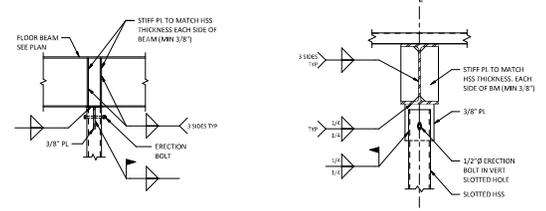


WHERE BEAM FRAMES INTO BRACING BEAM

2 TYPICAL CONNECTION AT ALL BRACE NODE POINTS
 N.T.S.



3 BRACING OF BEAMS AT STAIR AND OTHER HANGERS
 N.T.S.



4 TYPICAL HSS HANGER CONNECTION
 N.T.S.

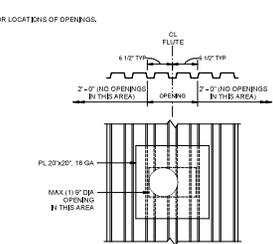
STEEL ANGLE LINTEL SCHEDULE

MAXIMUM CLEAR SPAN MASONRY OPENING	MINIMUM SET-BACK (NOTE 2)	WALL THICKNESS		
		4" WALL	6" WALL	8" WALL
3'-0"	0'-0"	2-L3-1/2x3-1/2x5/16	2-L3x2-1/2x5/16	2-L3-1/2x3-1/2x5/16
4'-0"	0'-0"	1-L4x3-1/2x5/16	2-L3x2-1/2x5/16	2-L4x3-1/2x5/16
5'-0"	0'-0"	1-L4x3-1/2x5/16	2-L3-1/2x2-1/2x5/16	2-L4x3-1/2x5/16
6'-0"	0'-0"	1-L5x3-1/2x5/16	2-L3-1/2x2-1/2x5/16	2-L5x3-1/2x5/16
8'-0"	0'-0"	2-L3-1/2x2-1/2x5/16	2-L4x3-1/2x5/16	2-L3x2-1/2x5/16
10'-0"	1'-0"	2-L3x2-1/2x5/16	2-L4x3-1/2x5/16	2-L3x2-1/2x5/16

NOTE: SEE SET-BACK TO REMOVE SET-BACK

- NOTES:
1. PROVIDE AND INSTALL LINTEL ANGLES FOR MASONRY OPENINGS IN ACCORDANCE WITH THE SCHEDULE ABOVE. INSTALL LONG LEG VERTICAL. SEE ARCHT DRAWINGS FOR LOCATIONS.
 2. PROVIDE 6" MINIMUM BEARING AT EACH END BUT NOT LESS THAN 3" PER FOOT OF SPAN. FILL 2 COURSES OF MASONRY BELOW BEARING WITH MORTAR.
 3. WHERE MINIMUM BEARING CANNOT BE PROVIDED, ATTACH SECURELY TO ADJACENT STRUCTURAL MEMBERS BY BOLTING, SEATING, WELDING OR PROVIDE SEPARATE SUPPORTS.
 4. WHERE LINTELS OCCUR IN EXTERIOR WALLS, MINIMUM THICKNESS SHALL BE 5/16" AND ANGLES SHALL BE HOT-DIP GALVANIZED.
 5. WHERE WALL THICKNESS EXCEEDS 8", PROVIDE 1 ADDITIONAL ANGLE FOR EACH ADDITIONAL 4" THICKNESS OF WALL.

6 STEEL ANGLE LINTEL SCHEDULE
 N.T.S.



7 DECK REINFORCING FOR SMALL ROOF PENETRATIONS
 N.T.S.



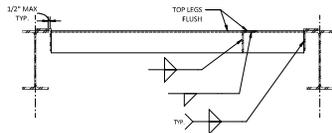
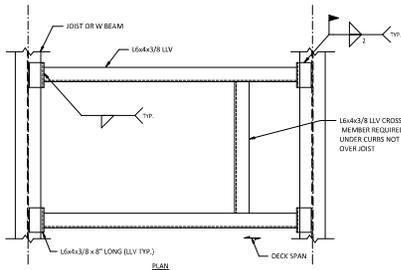
DATE: 12/12/22

NO.	DATE	BY	CHKD BY
1	12/12/22	ASAC	ASAC
2	12/12/22	ASAC	ASAC
3	12/12/22	ASAC	ASAC
4	12/12/22	ASAC	ASAC
5	12/12/22	ASAC	ASAC

CONFORMED SET
 DECEMBER 12, 2022

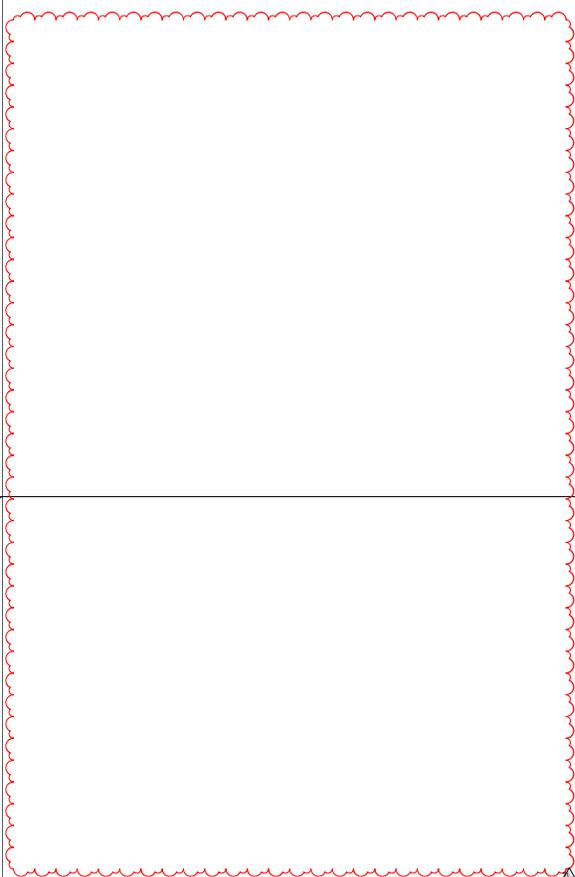
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 DRAWN: ASAC
 CHECKED: ASAC
 DATE: 12/12/22

ALT-01 SPARTAN STADIUM
 TYPICAL DETAILS

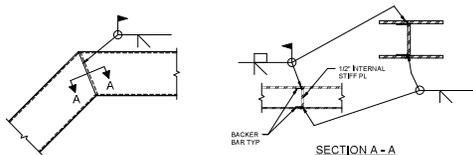


SECTION

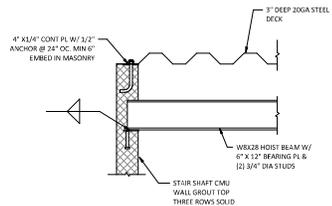
1 TYP. DROP-IN FRAME MEMBER UNDER CURB OF ROOF TOP MECH. UNITS
N.T.S.



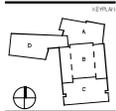
NOTE:
1. USE SIMILAR DETAIL FOR W, C AND OTHER SHAPES.



10 TYPICAL KINKED TUBE CONNECTION
N.T.S.



11 TYP. ELEVATOR SHAFT ROOF
N.T.S.



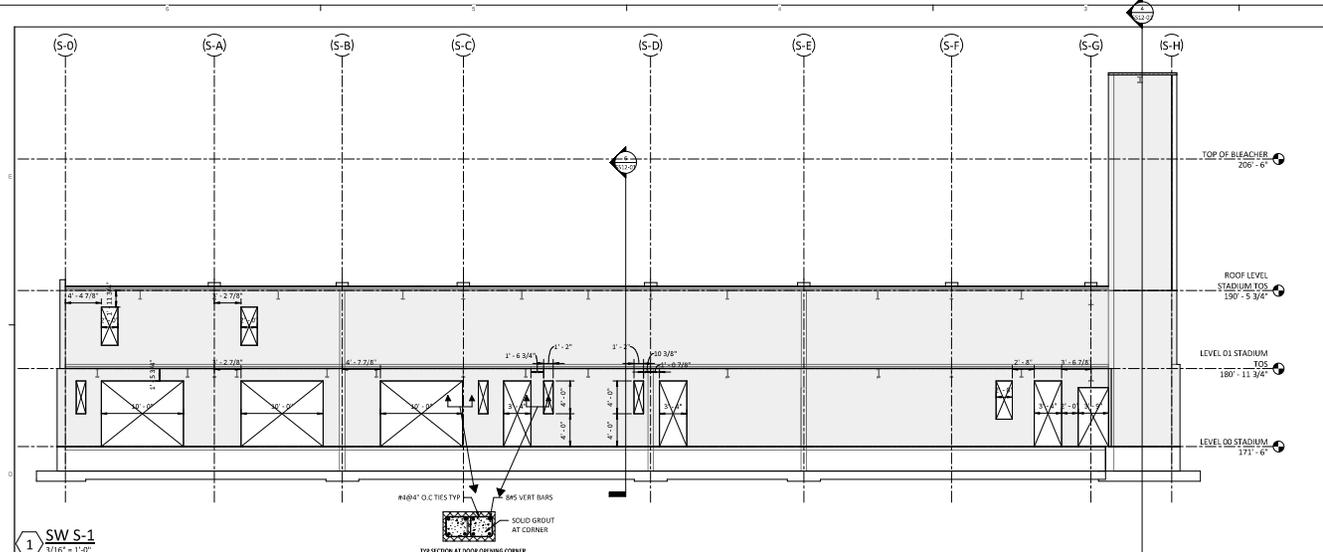
NO.	DATE	DESCRIPTION

CONFORMED SET
DECEMBER 12, 2022

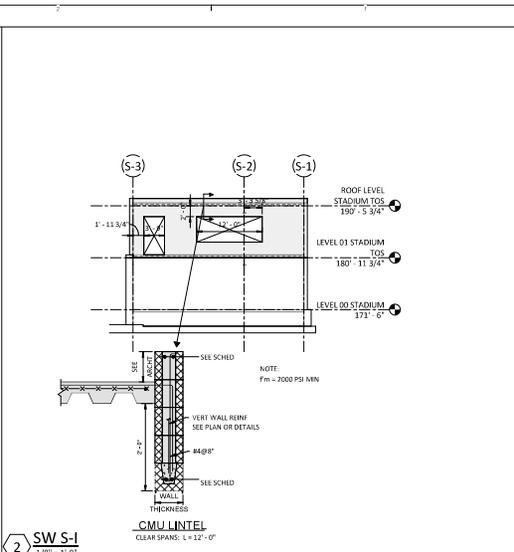
JOB NAME: 202008
SCALE: ARCH
DESIGN: 11/16

AL1-01 SPARTAN STADIUM
TYPICAL DETAILS

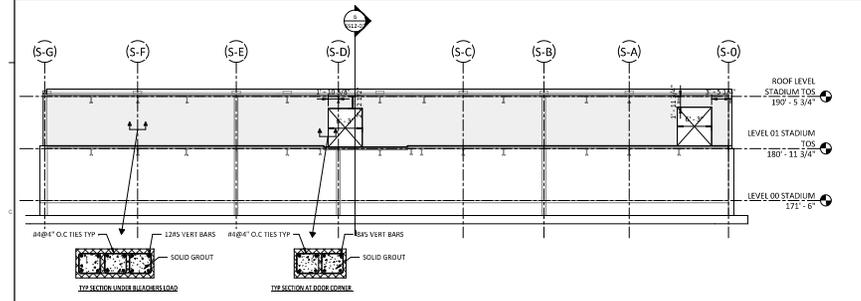
SS00-08



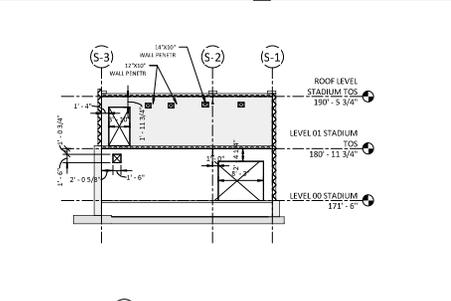
1 SW S-1
3/16" = 1'-0"



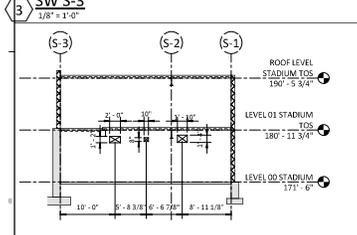
2 SW S-1
1/8" = 1'-0"



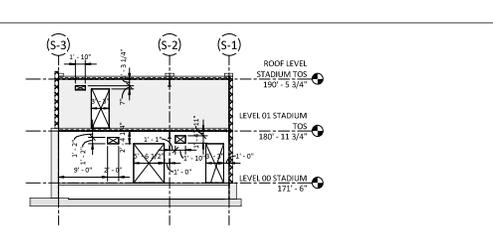
3 SW S-3
1/8" = 1'-0"



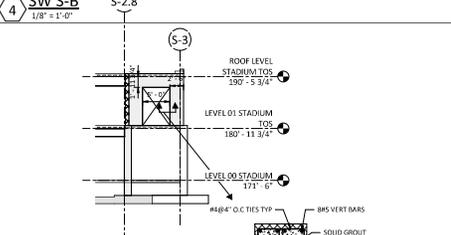
4 SW S-B
1/8" = 1'-0"



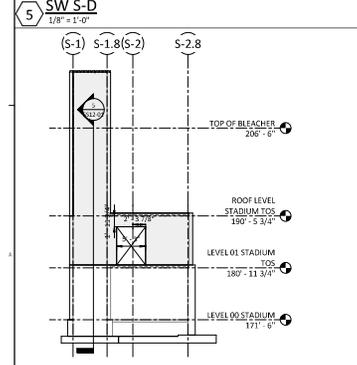
5 SW S-D
1/8" = 1'-0"



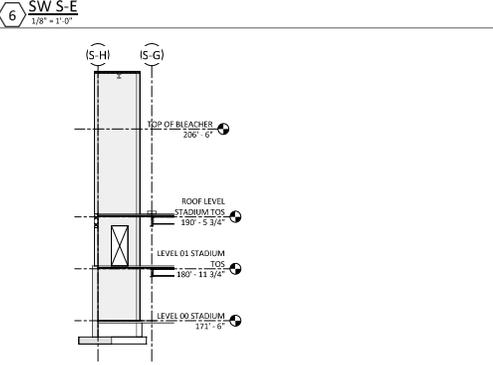
6 SW S-E
1/8" = 1'-0"



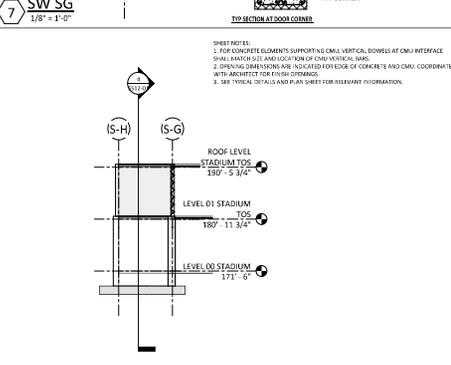
7 SW SG
1/8" = 1'-0"



8 SW S-H
1/8" = 1'-0"



9 SW S-1.8
1/8" = 1'-0"



10 SW S-2.8
1/8" = 1'-0"

- SHEET NOTES:**
- FOR CONCRETE ELEMENTS SUPPORTING CMU, VERTICAL BOWELS AT CMU INTERFACE SHALL BEVER SCHEMATIC TO FORM OR TEND VERTICAL BOWLS.
 - OPENING DIMENSIONS ARE INDICATED FOR EDGE OF CONCRETE AND CMU. COORDINATE WITH ARCHITECT FOR FINISH DIMENSIONS.
 - SEE TYPICAL DETAILS AND PLAN SHEET FOR FURTHER INFORMATION.

PROJECT
STONEHAM HIGH SCHOOL
100 BROADWAY
STONEHAM, MA 02150

TOWN OF STONEHAM



NO.	DATE	DESCRIPTION

CONFORMED SET
DECEMBER 12, 2022

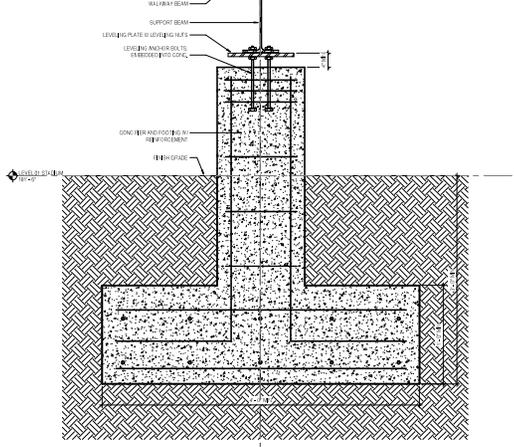
JOB NAME: STONEHAM HIGH SCHOOL
DRAWN: AUCO
CHECKED: DIRECTOR

STADIUM WALL ELEVATIONS

SS12-02

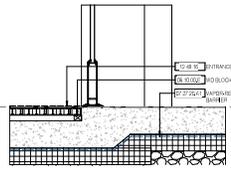
17/03/24 12:59:00 AM Autodesk Docs Autodesk - Stoneham High School Slab Edge Details - Document

1. FOR STRUCTURAL LOADS REFER TO STRUCTURAL DRAWINGS
2. FOR THE FINISHING, SEE SECTION S-4

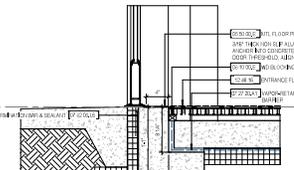


5 STADIUM BLEACHER FOUNDATION FOOTING @ GRADE

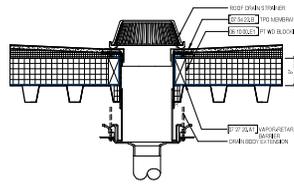
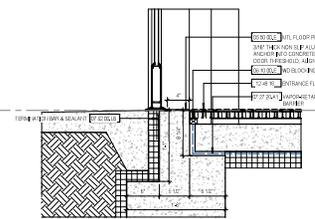
7 SECTION - VEST @ HIT ENTRY DOOR BASE



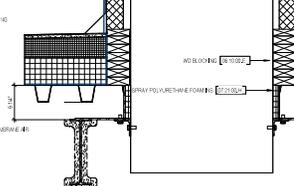
8 SECTION - VEST @ EXIT ENTRY DOOR BASE



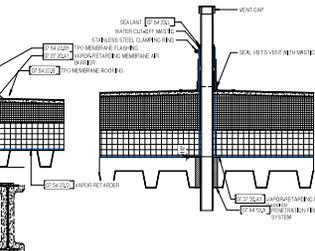
4 SECTION DETAIL - VESTIBULE @ EXIT ENTRY DOOR BASE



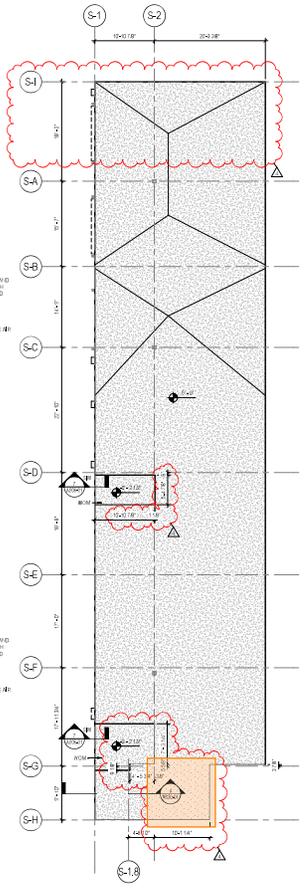
10 TYPICAL ROOF DRAIN DETAIL - STADIUM



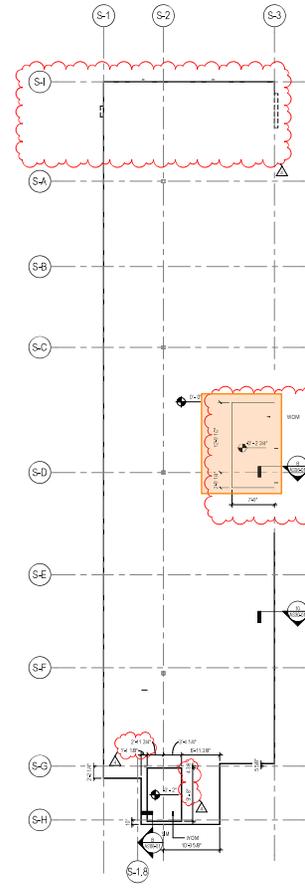
9 TYPICAL MECH DUCT ROOF PENETRATION - STADIUM



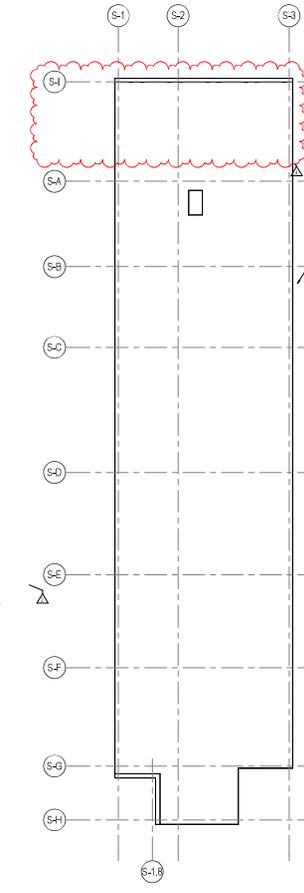
6 TYPICAL PLUMBING VENT - STADIUM



1 LEVEL S1 STADIUM SLAB EDGE PLAN



2 LEVEL S2 STADIUM SLAB EDGE PLAN



3 ROOF LEVEL STADIUM SLAB EDGE PLAN

LEGEND:

- Building Expansion
- Owner Request
- Design/ Coordination
- Cost Savings
- Details/ Info

SLAB EDGE PLAN GENERAL NOTES

- 1. ALL SLAB EDGES SHALL BE FINISHED WITH A 1/2" THICK CONCRETE CURB OR OTHER FINISH AS SHOWN IN THE DRAWINGS.
- 2. ALL SLAB EDGES SHALL BE FINISHED WITH A 1/2" THICK CONCRETE CURB OR OTHER FINISH AS SHOWN IN THE DRAWINGS.
- 3. ALL SLAB EDGES SHALL BE FINISHED WITH A 1/2" THICK CONCRETE CURB OR OTHER FINISH AS SHOWN IN THE DRAWINGS.
- 4. ALL SLAB EDGES SHALL BE FINISHED WITH A 1/2" THICK CONCRETE CURB OR OTHER FINISH AS SHOWN IN THE DRAWINGS.
- 5. ALL SLAB EDGES SHALL BE FINISHED WITH A 1/2" THICK CONCRETE CURB OR OTHER FINISH AS SHOWN IN THE DRAWINGS.

SLAB EDGE PLAN LEGEND

	CONCRETE SLAB OVERCAST OR CONCRETE CURB. SEE STRUCTURAL DRAWINGS.
	APPROXIMATE LOCATION OF FINISH SLAB EDGE. SEE MECH DRAWINGS.
	CONCRETE CURB. REFER TO STRUCTURAL DRAWINGS FOR TYPE & DESCRIPTION.
	MECH DUCT. REFER TO STRUCTURAL DRAWINGS FOR TYPE & DESCRIPTION.
	PLUMBING VENT. REFER TO STRUCTURAL DRAWINGS FOR TYPE & DESCRIPTION.
	ROOF DRAIN. REFER TO STRUCTURAL DRAWINGS FOR TYPE & DESCRIPTION.

STONEHAM HIGH SCHOOL
100 STONEHAM AVENUE
STONEHAM, MA 02154

Town of Stoneham
REPLANT



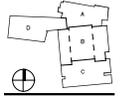
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2	12/12/23	ISSUED FOR PERMIT
3	12/12/23	ISSUED FOR PERMIT
4	12/12/23	ISSUED FOR PERMIT

CONSTRUCTION DOCUMENTS -
CONFORMED
DECEMBER 12, 2023

JOB NUMBER	10010000
DESIGN	ARCH
CHECKED	DRW
DATE	12/12/23

STADIUM SLAB EDGE AND
DETAILS

AS06-01



REVISIONS

NO.	DESCRIPTION	DATE
1	ISSUED FOR PERMITS	12/12/22
2	ISSUED FOR CONSTRUCTION	12/12/22
3	ISSUED FOR RECORD	12/12/22

CONSTRUCTION DOCUMENTS -
CONFORMED
DECEMBER 12, 2022

2021	ARCHITECT	PERKINS+WILL
2021	ENGINEER	IMEG
2021	DATE	12/12/22
2021	BY	JAC
2021	CHECKED	JAC

FIRE PROTECTION
STADIUM PLANS

GENERAL NOTES

1. REFER TO ALL OTHER SHEETS IN THIS SET FOR ALL INFORMATION.

2. ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) STANDARDS.

3. COORDINATE THE PROTECTION WITH ALL OTHER TRADES IN STRUCTURE.

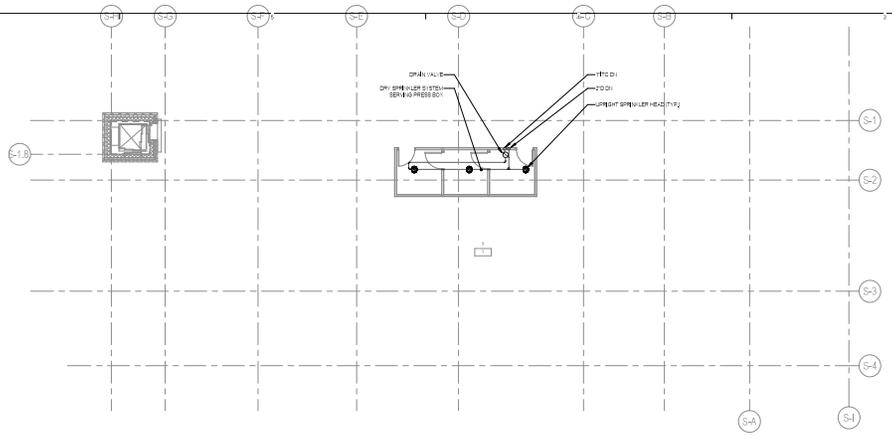
MINIMUM RATED PROTECTION

JOINT PROTECTION BY PER SPINNER HEAD WALL SPRINKLER PRESS BOY, VENTILATES

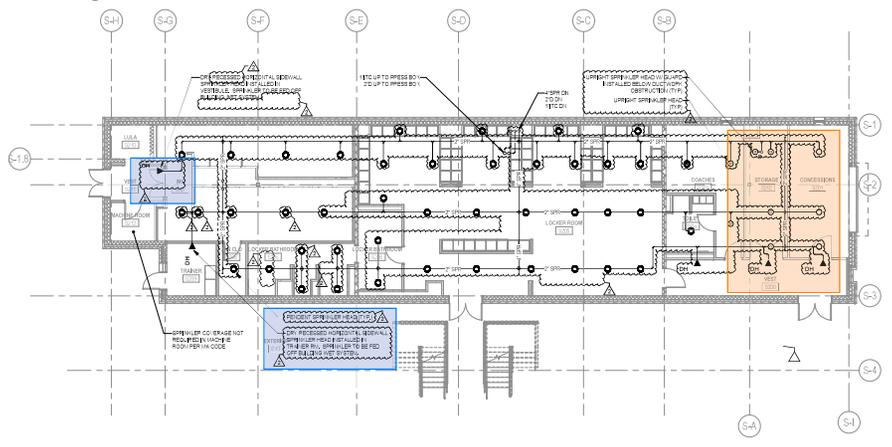
GROUP 1 HAZARD - GROUP 1 (100 SF PER SPINNER HEAD) (KITCHENS, ELECTRICAL ROOMS, CONCESSIONS)

GROUP 2 HAZARD - GROUP 2 (100 SF PER SPINNER HEAD) (KITCHENS, MECHANICAL ROOMS, JANITORS CLOSETS, STORAGE)

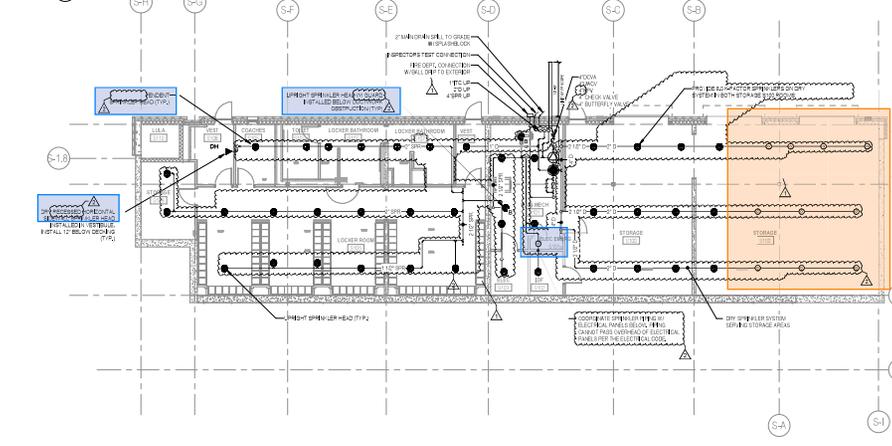
GROUP 3 HAZARD - GROUP 3 (200 SF PER SPINNER HEAD) (STORAGE)



FIRE PROTECTION CONCESSIONS - TOP LEVEL
1/8" = 1/4"

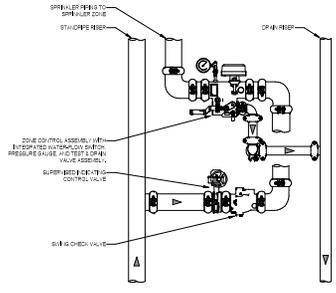


FIRE PROTECTION CONCESSIONS - LEVEL 01
1/8" = 1/4"

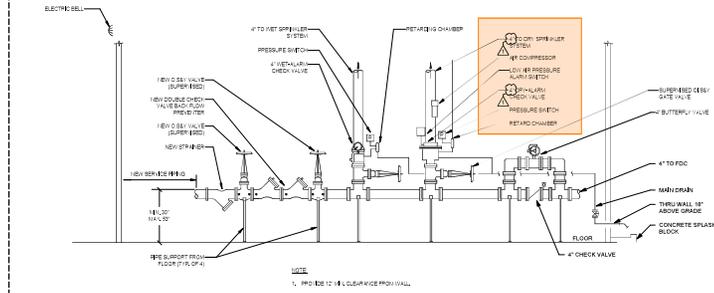


FIRE PROTECTION CONCESSIONS - LOWER LEVEL
1/8" = 1/4"

NOTE:
INFORMATION ON THIS SHEET IS PART OF THE SCOPE OF WORK FOR ALL CONTRACTORS. REFER TO SPEC SECTION 41.23 OR ALTERNATES FOR INFORMATION.

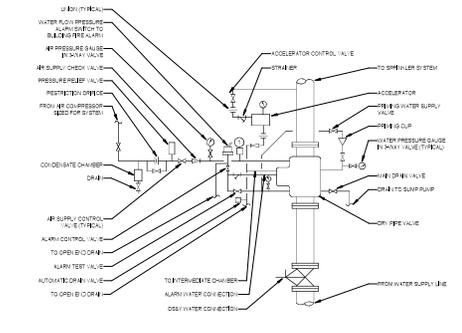


1 ZONE CONTROL ASSEMBLY IN CHASE

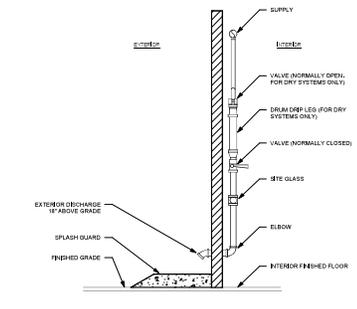


2 FIRE PROTECTION SERVICE ENTRANCE DIAGRAM - STADIUM BUILDING

NOTE:
1. INFORMATION IN THIS AREA IS PART OF THE SCOPE OF WORK FOR AL-01 SPARTAN STADIUM, REFER TO SPEC SECTION 01 21 00 - ALTERNATES FOR INFORMATION.



3 DRY ALARM VALVE



4 INSPECTOR'S TEST CONNECTION FOR DRY SYSTEM

PROJECT
STONEHAM HIGH SCHOOL
100 Park Street
Stoneham, MA 02159



REVISIONS

NO.	DATE	DESCRIPTION

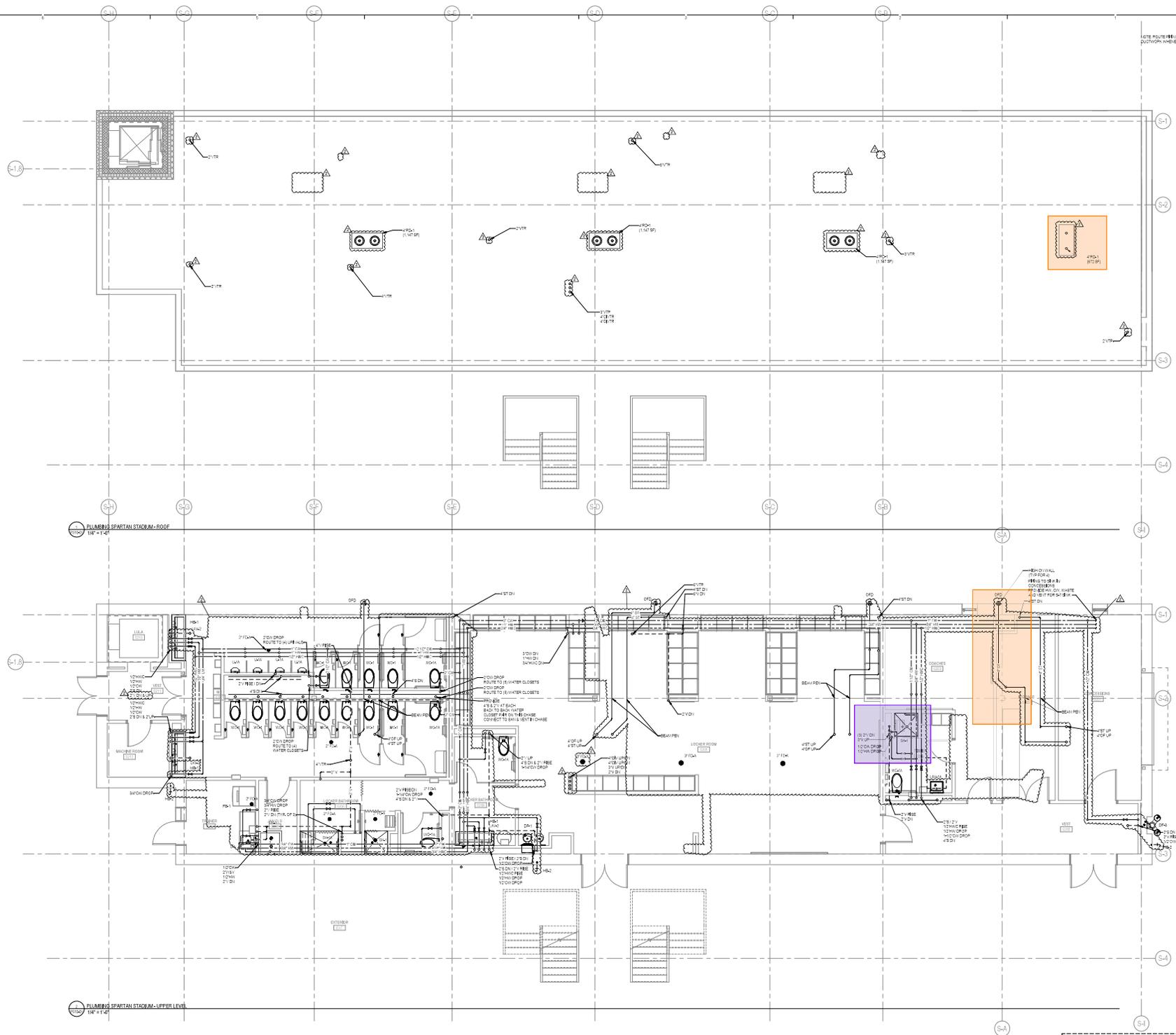
CONSTRUCTION DOCUMENTS -
CONFORMED
DECEMBER 12, 2022

2021	10/12/2021	
DESIGNED		
CHECKED		

FIRE PROTECTION
DETAILS

FP60-01

NOTE: ROUTE #1 IS ABOVE
DOCTORS' AND WHERE POSSIBLE.



PROJECT
STONEHAM HIGH SCHOOL
148 First Street
Stoneham, MA 02154



REVISIONS

NO.	DESCRIPTION	DATE

CONSTRUCTION DOCUMENTS -
CONFORMED
DECEMBER 12, 2022

DATE	12/12/2022
DRAWN	ABC
CHECKED	ABC
DATE	12/12/2022

PLUMBING SPARTAN STADIUM PLANS

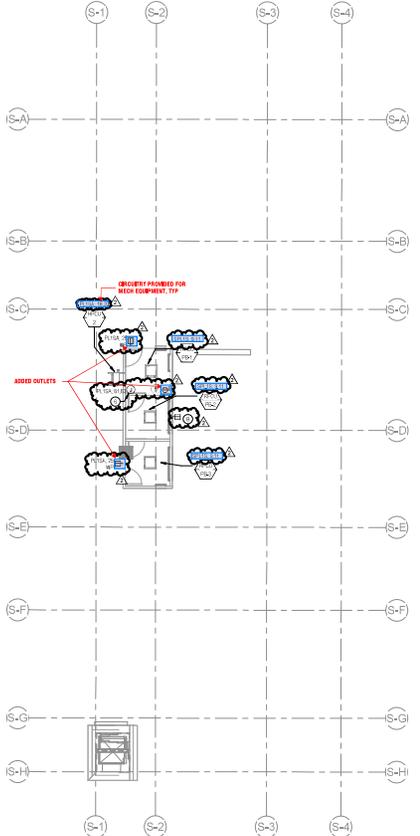
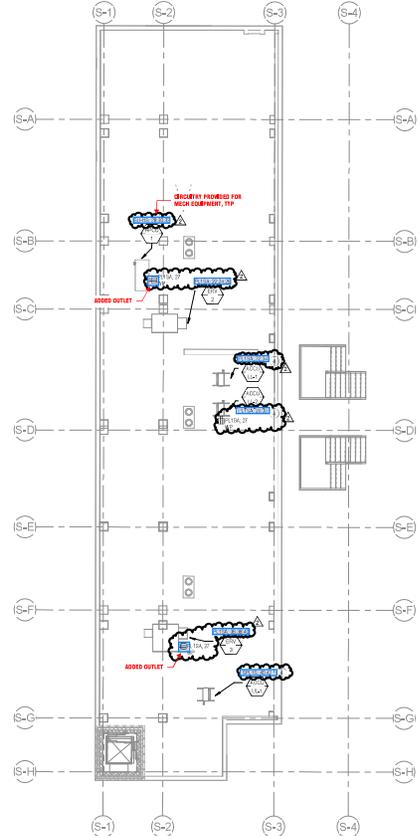
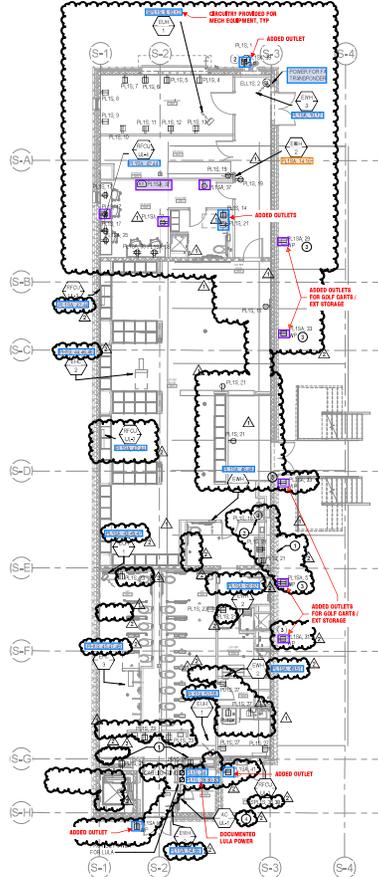
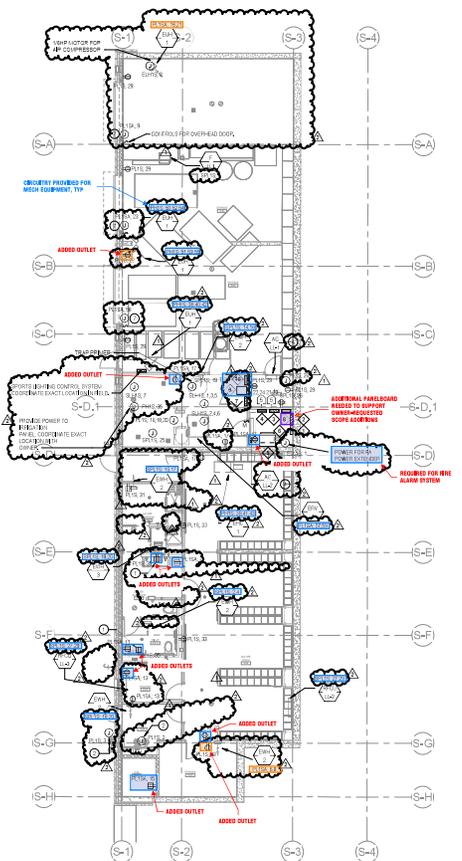
PS10-01

NOTE:
INFORMATION ON THIS SHEET IS PART OF THE SCOPE
OF WORK FOR ALICE SPARTAN STADIUM. REFER TO SPEC
SECTION 41 23 01 - ALTERNATES FOR INFORMATION.

13/2022 12:21 PM Autodesk DWGWRITE: Stoneham_High_School_Plan_01.dwg (P:\Projects\2022\13\130000\130000.dwg)

GENERAL NOTES:

1. PROVIDE ALL POWER AND SIGNALING EQUIPMENT TO BE INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (NEC) AND ALL APPLICABLE REGULATIONS.
2. PROVIDE ALL POWER AND SIGNALING EQUIPMENT TO BE INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (NEC) AND ALL APPLICABLE REGULATIONS.
3. PROVIDE ALL POWER AND SIGNALING EQUIPMENT TO BE INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (NEC) AND ALL APPLICABLE REGULATIONS.
4. PROVIDE ALL POWER AND SIGNALING EQUIPMENT TO BE INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (NEC) AND ALL APPLICABLE REGULATIONS.
5. PROVIDE ALL POWER AND SIGNALING EQUIPMENT TO BE INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (NEC) AND ALL APPLICABLE REGULATIONS.
6. PROVIDE ALL POWER AND SIGNALING EQUIPMENT TO BE INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (NEC) AND ALL APPLICABLE REGULATIONS.
7. PROVIDE ALL POWER AND SIGNALING EQUIPMENT TO BE INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (NEC) AND ALL APPLICABLE REGULATIONS.
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11. PROVIDE ALL POWER AND SIGNALING EQUIPMENT TO BE INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (NEC) AND ALL APPLICABLE REGULATIONS.
12. PROVIDE ALL POWER AND SIGNALING EQUIPMENT TO BE INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (NEC) AND ALL APPLICABLE REGULATIONS.
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14. PROVIDE ALL POWER AND SIGNALING EQUIPMENT TO BE INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (NEC) AND ALL APPLICABLE REGULATIONS.
15. PROVIDE ALL POWER AND SIGNALING EQUIPMENT TO BE INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (NEC) AND ALL APPLICABLE REGULATIONS.



PROJECT

STONEHAM HIGH SCHOOL
160 Park Street
Stoneham, MA 02158



DATE: 12/12/22

NO.	DATE	BY	DESCRIPTION
1	12/12/22	BA	ISSUED FOR PERMIT
2	12/12/22	BA	ISSUED FOR PERMIT
3	12/12/22	BA	ISSUED FOR PERMIT
4	12/12/22	BA	ISSUED FOR PERMIT
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6	12/12/22	BA	ISSUED FOR PERMIT
7	12/12/22	BA	ISSUED FOR PERMIT
8	12/12/22	BA	ISSUED FOR PERMIT
9	12/12/22	BA	ISSUED FOR PERMIT
10	12/12/22	BA	ISSUED FOR PERMIT

CONSTRUCTION DOCUMENTS -
CONFIRMED
DECEMBER 12, 2022

PROJECT MANAGER: [Name]
DESIGNER: [Name]
CHECKED: [Name]

POWER AND SYSTEMS
STADIUM PLANS

Panelboard: PLM3C

Location: Supply From: 75KVA TRANSFORMER
Mounting SURFACE
End-Use: TYPE 1

Distribution System: 120/208 Vry
Phase: 3
Wires: 4

A/C Rating: 200kV
Main Type: MCB
Main Rating: 225 A
MCB Rating: 225 A

Wire	Breaker	CK No.	Lead Description	Trg	Phs	LOAD PHASE(B) (VA)	LOAD PHASE(C) (VA)	Phs	Trg	Lead Description	CK No.	Wiring Notes
100	100	100	100	100	100	720,1500	720,1500	100	100	100	100	
101	101	101	101	101	101	300,1500	300,1500	101	101	101	101	
102	102	102	102	102	102	150,1500	150,1500	102	102	102	102	
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Panelboard: LH2C

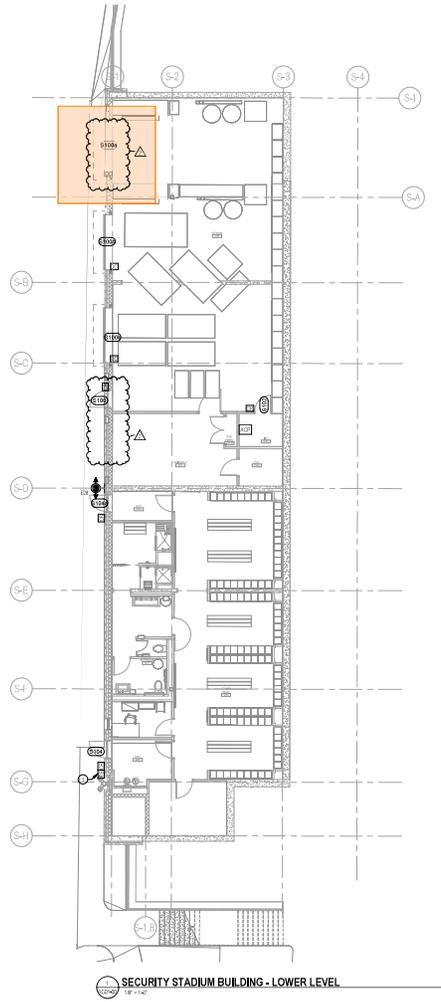
Location: Supply From: MEAS Mounting: SURFACE End-use: TYPE 1

Distribution System: 480/277 V_{LN} Phase: 3

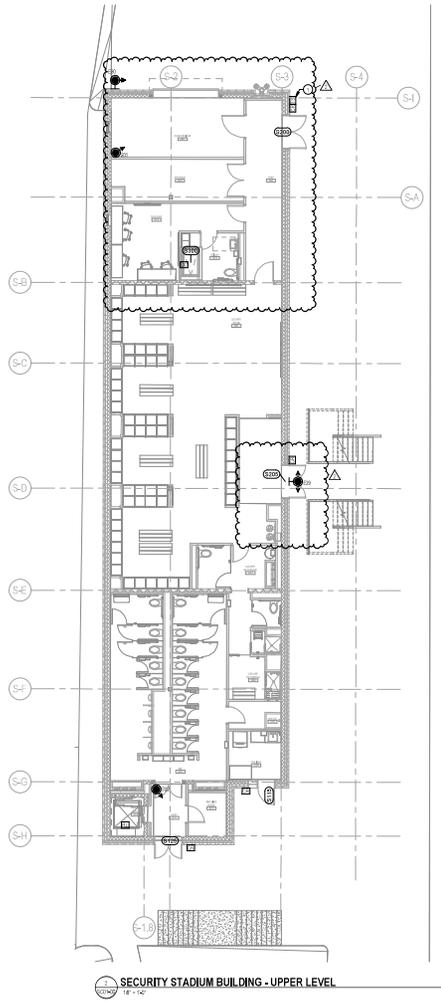
A.I.C. Rating: 65KAC Main Type: M.C.O. Main Rating: 100 A

Item No.	Qty	Lead Description	Trk	Panel	LOAD PHASE(C) (VA)	LOAD PHASE(C) (VA)	LOAD PHASE(C) (VA)	Trk	Panel	Lead Description	Qty	Wiring Notes
1	1	100V	0.0	1	3447.7108	3447.7108	0.0	1	100V	1	100V	
2	1	100V	0.0	1	0.0	0.0	0.0	1	100V	1	100V	
3	1	100V	0.0	1	0.0	0.0	0.0	1	100V	1	100V	
4	1	100V	0.0	1	0.0	0.0	0.0	1	100V	1	100V	
5	1	100V	0.0	1	0.0	0.0	0.0	1	100V	1	100V	
6	1	100V	0.0	1	0.0	0.0	0.0	1	100V	1	100V	
7	1	100V	0.0	1	0.0	0.0	0.0	1	100V	1	100V	
8	1	100V	0.0	1	0.0	0.0	0.0	1	100V	1	100V	
9	1	100V	0.0	1	0.0	0.0	0.0	1	100V	1	100V	
10	1	100V	0.0	1	0.0	0.0	0.0	1	100V	1	100V	
11	1	100V	0.0	1	0.0	0.0	0.0	1	100V	1	100V	
12	1	100V	0.0	1	0.0	0.0	0.0	1	100V	1	100V	
13	1	100V	0.0	1	0.0	0.0	0.0	1	100V	1	100V	
14	1	100V	0.0	1	0.0	0.0	0.0	1	100V	1	100V	
15	1	100V	0.0	1	0.0	0.0	0.0	1	100V	1	100V	
16	1	100V	0.0	1	0.0	0.0	0.0	1	100V	1	100V	
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19	1	100V	0.0	1	0.0	0.0	0.0	1	100V	1	100V	
20	1	100V	0.0	1	0.0	0.0	0.0	1	100V	1	100V	
21	1	100V	0.0	1	0.0	0.0	0.0	1	100V	1	100V	
22	1	100V	0.0	1	0.0	0.0	0.0	1	100V	1	100V	
23	1	100V	0.0	1	0.0	0.0	0.0	1	100V	1	100V	
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25	1	100V	0.0	1	0.0	0.0	0.0	1	100V	1	100V	
26	1	100V	0.0	1	0.0	0.0	0.0	1	100V	1	100V	
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31	1	100V	0.0	1	0.0	0.0	0.0	1	100V	1	100V	
32	1	100V	0.0	1	0.0	0.0	0.0	1	100V	1	100V	
33	1	100V	0.0	1	0.0	0.0	0.0	1	100V	1	100V	
34	1	100V	0.0	1	0.0	0.0	0.0	1	100V	1	100V	
35	1	100V	0.0	1	0.0	0.0	0.0	1	100V	1	100V	
36	1	100V	0.0	1	0.0	0.0	0.0	1	100V	1	100V	
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106	1	100V	0.0	1	0.0	0.0	0.0	1	100V	1	100V	
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108	1	100V	0.0	1	0.0	0.0	0.0	1	100V	1	100V	
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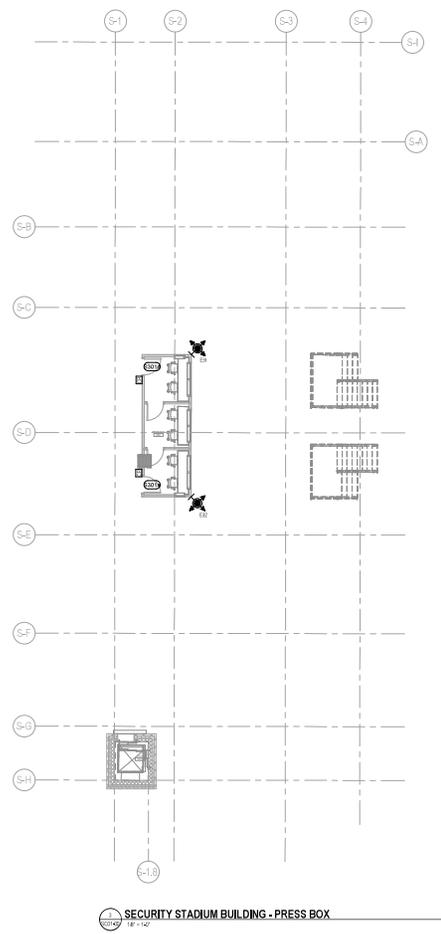
KEY NOTES
 1. CONTACT STONEHAM SOIL TESTER FOR ALL EXTERIOR FOUNDATION NOTES



SECURITY STADIUM BUILDING - LOWER LEVEL
1/8" = 1'-0"

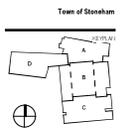


SECURITY STADIUM BUILDING - UPPER LEVEL
1/8" = 1'-0"



SECURITY STADIUM BUILDING - PRESS BOX
1/8" = 1'-0"

PROJECT
STONEHAM HIGH SCHOOL
 160 Forest Street
 Stoneham, MA 02158



NO.	DATE	DESCRIPTION

CONSTRUCTION DOCUMENTS
 CONFORMED
 DECEMBER 12, 2022

DESIGNED BY: [Name]
 DRAWN BY: [Name]
 CHECKED BY: [Name]

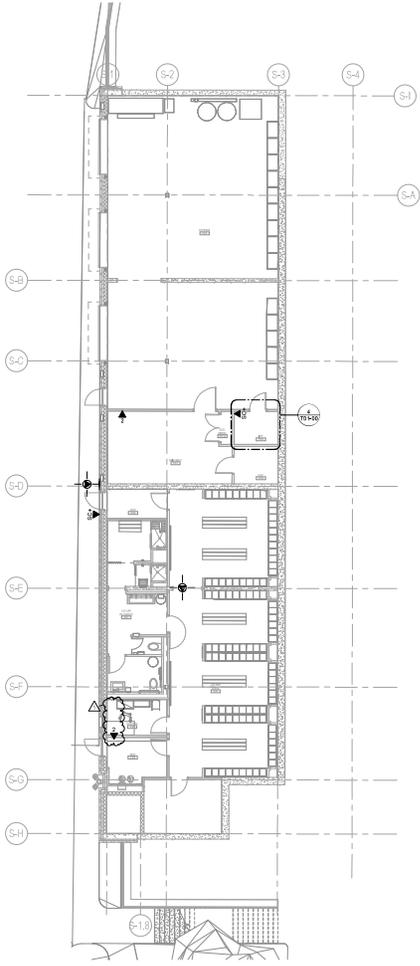
SECURITY - STADIUM
 PLANS - ADD ALTERNATE
 #1

TELECOM SHEET NOTES:

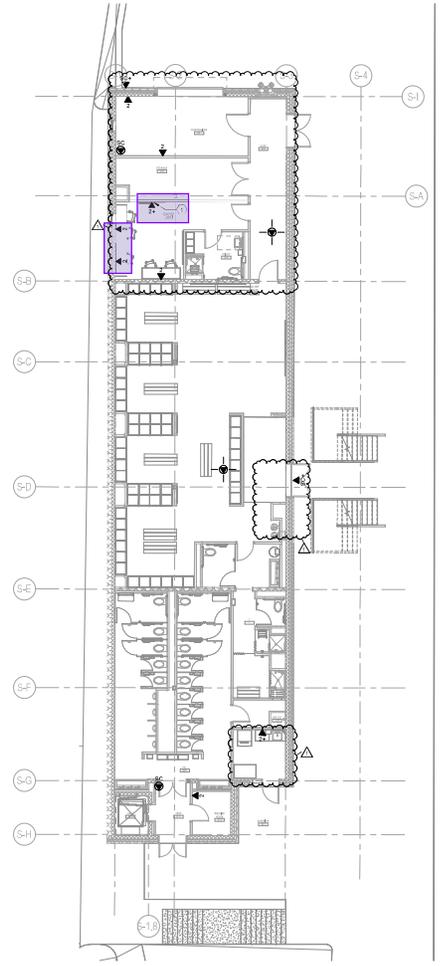
- ALL TELECOM OUTLET INFORMATION SHOWN IN THESE PLANS SHALL BE SUBJECT TO THE DESIGNER'S DISCRETION TO BE ADDED OR DELETED AS NECESSARY TO ACCOMMODATE THE PROJECT'S REQUIREMENTS.
- ALL TELECOM OUTLET INFORMATION SHOWN IN THESE PLANS SHALL BE SUBJECT TO THE DESIGNER'S DISCRETION TO BE ADDED OR DELETED AS NECESSARY TO ACCOMMODATE THE PROJECT'S REQUIREMENTS.

TELECOM INFRASTRUCTURE KEYED NOTES:

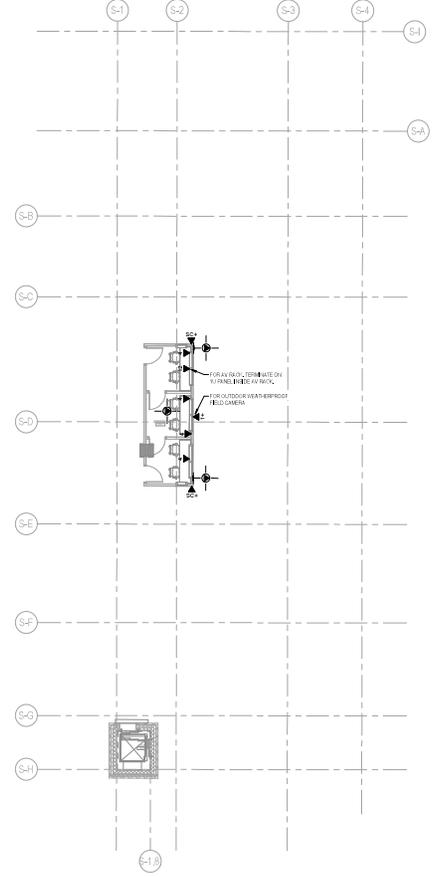
- CONCRETE SHALL BE CAST IN PLACE FOR ALL TELECOM INFRASTRUCTURE. ALL TELECOM INFRASTRUCTURE SHALL BE CAST IN PLACE CONCRETE. ALL TELECOM INFRASTRUCTURE SHALL BE CAST IN PLACE CONCRETE. ALL TELECOM INFRASTRUCTURE SHALL BE CAST IN PLACE CONCRETE. ALL TELECOM INFRASTRUCTURE SHALL BE CAST IN PLACE CONCRETE.



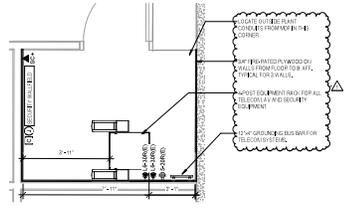
1 TELECOM STADIUM BUILDING - LOWER LEVEL
18" x 1/4"



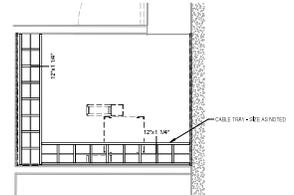
2 TELECOM STADIUM BUILDING - UPPER LEVEL
18" x 1/4"



3 TELECOM STADIUM BUILDING - PRESS BOX
18" x 1/4"



4 TELECOM - STADIUM IDF PLAN
18" x 1/4"



5 TELECOM - STADIUM IDF RCP
18" x 1/4"

PROJECT
STONEHAM HIGH SCHOOL
160 Front Street
Stoneham, MA 02186



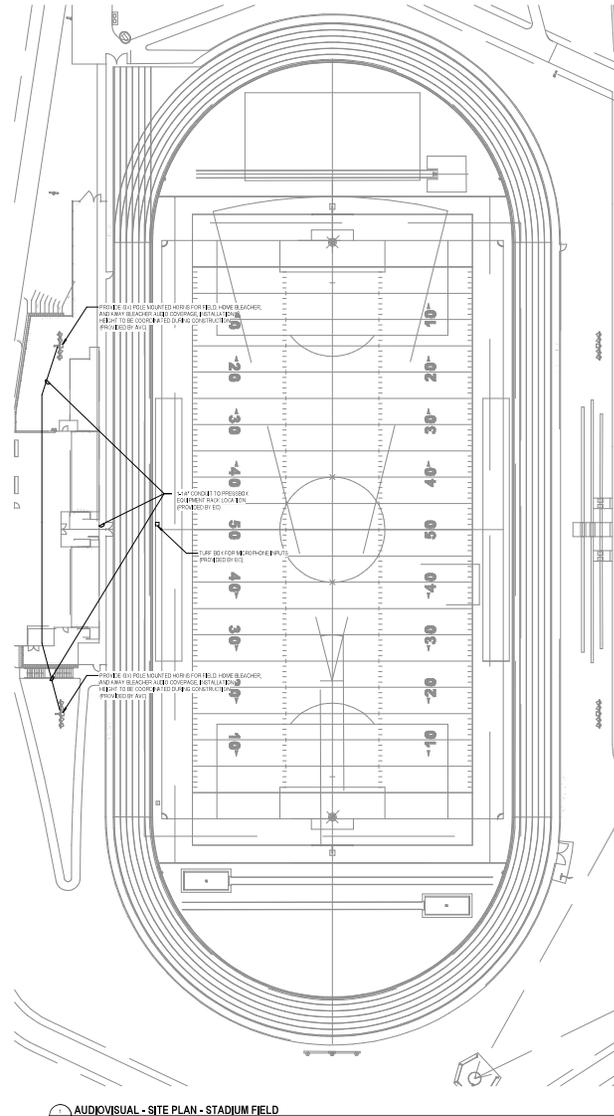
REVISIONS

NO.	DATE	DESCRIPTION

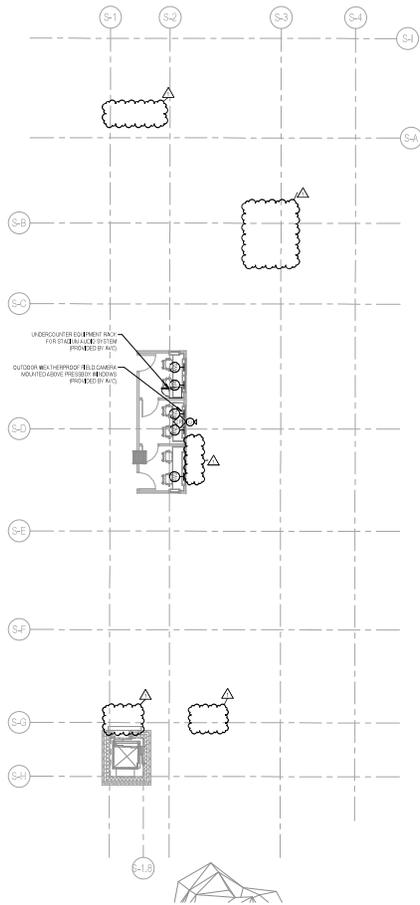
CONSTRUCTION DOCUMENTS
CONFORMED
DECEMBER 12, 2022

DESIGNED BY: [Name]
CHECKED BY: [Name]
DATE: [Date]

TELECOM - STADIUM PLANS - ADD ALTERNATE #1

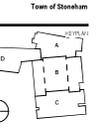


AUDIOVISUAL - SITE PLAN - STADIUM FIELD



AUDIOVISUAL STADIUM BUILDING - PRESS BOX

PROJECT
STONEHAM HIGH SCHOOL
160 Franklin Street
Stoneham, MA 02158



DATE APPROVED FOR CONSTRUCTION: 12/12/2022

NO.	DATE	BY	FOR

CONSTRUCTION DOCUMENTS
CONFORMED
DECEMBER 12, 2022

DESIGNER: PERKINS & WILL
DRAWN: BALA
CHECKED: BALA
APPROVED: BALA

AUDIOVISUAL - STADIUM PLANS - ADD ALTERNATE #1

