

2/20/2017

Request for Proposal Classroom Audio/Video (A/V) Display Project

For

TSD Bid # 9839

**Troy School District
1140 Rankin Drive
Troy, MI 48083**

Prepared by

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SECTION 00 30 00 – BIDDING REQUIREMENTS – INSTRUCTION TO BIDDERS

PART 1 - GENERAL

1.1 TROY SCHOOL DISTRICT IS SEEKING BIDS AND PROPOSALS FOR CLASSROOM AUDIO/VIDEO DISPLAY PROJECT:

A. Classroom Audio/Video Project

1. A complete list of the buildings (“Sites”) and equipment requirements are provided in **Appendix A** and incorporated herein by reference. **Bid documents may be obtained from the Purchasing page (under Departments, Business Services) of the District’s web site at www.troy.k12.mi.us.**

1.2 **Due on or before 1:30 p.m. (local time) on March 10, 2017 (“Due Date”)**, the Owner will receive bid proposals for the project. The Owner will not consider or accept a bid proposal received after the due date for bid proposal submission. All bid proposals received after the due date will be returned by making them available to the respective Bidder, unopened, for said Bidder to pick-up at their sole cost and expense. Bid proposals shall be submitted to:

Todd Hensley, Purchasing Supervisor
Troy School District
Purchasing Department
Facility Operations Building
1140 Rankin
Troy, Michigan 48083

1.3 PROPOSALS/QUOTES

- A. Four (4) “hard” copies and one (1) “soft” (electronic) copy on a USB “flash” drive of the proposals are to be submitted in sealed packaging, clearly marked: **“CLASSROOM A/V DISPLAY PROJECT - SEALED BID”** for Troy School District and shall be identified with the Bidder’s name and address and the date and time of the bid proposal opening. The Owner is not responsible for any postal or delivery delays. No email, facsimile or other electronic bid proposals will be accepted.
- B. Proposals will be opened publicly immediately following the due date of the proposals

1.4 PROPOSAL FORMAT

- A. The Bid response shall be structured as follows:
 1. Section 1 – Submittal Letter, Executive Summary and Bid Bond
 2. Section 2 – Proposal Forms and Pricing
 3. Section 3 – Narratives, System Description, Information, and Brochures

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4. Section 4 - Bidder Qualifications, References

5. Section 5 – Bidder’s Maintenance Contract

- B. The “hard copy” Bids shall be submitted on 8 1/2" by 11" paper, single sided, single spaced using 10 to 12-point print, in 3 ring binders, clearly labeled to show the Bidder's name.
- C. The “soft copy” Bid shall be in the same structure as the “hard copy” Bids, bound in a .pdf file, submitted on an USB “flash”, “Thumb” or similar drive with the hard copies.

1.5 SECURITY

- A. Each bid proposal must be accompanied by bid security in the form of a certified check or bid bond in the amount not less than 5% of the bid proposal amount, made payable to Troy School District or naming Troy School District as the obligee. Bid bonds shall be issued by a company licensed to do business in the State of Michigan

1.6 FAMILIAL DISCLOSURE AFFIDAVIT

- A. Each bid proposal must be accompanied by a sworn and notarized statement disclosing any familial relationship that exists between the owner or any employee of the Bidder and any member of the Board of Education or the Superintendent of Troy School District. The Board of Education will not accept a bid proposal that does not include this sworn and notarized disclosure statement.

1.7 AFFIDAVIT OF COMPLIANCE – IRAN ECONOMIC SANCTIONS

- A. Each bid proposal must be accompanied by the Iran Economic Sanctions Affidavit of Compliance in compliance with Michigan Public Act No. 517 of 2012. The Board of Education will not accept a bid proposal that does not include this sworn and notarized disclosure statement.

1.8 RESERVATION OF RIGHTS

- A. The Owner reserves the right, in its sole and absolute discretion (for this provision and all other provisions contained in this RFP), to accept or reject, in whole or in part, any or all bid proposal with or without cause, to waive any irregularities or informalities in this RFP process or any bid proposal, and to award the contract to other than the low bidder, when in the opinion of the Owner, such action will best serve the Owner's interests.

1.9 WITHDRAWAL OF BID PROPOSALS/QUOTES

- A. All bid proposals submitted shall not be withdrawn and shall be irrevocable for a minimum period of ninety (90) calendar days following the due date for receipt of bid proposals set forth above.

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1.10 REQUESTS FOR CLARIFICATION

- 1.11 Bidders may request that the School District clarify information contained in this RFP. All such requests must be made in writing via email to **Scott Brune, Convergent Technology Partners, at sbrune@wrighthunter.com**. Requests for Clarifications and inquiries may only be made via email. The deadline for all Requests for Clarification is by the end of the business day on the date indicated in the schedule of events. The aggregated answers to all Requests for Clarification will be provided in an addendum to the RFP which will be issued and posted on the Purchasing page (under Departments, Business Services) of the District website at www.troy.k12.mi.us no later than **March 7, 2017** for all potential proposers to view.

1.12 RESTRICTION ON COMMUNICATION

- A. From the issue date of this RFP until a Contractor is selected and the contract is awarded a prospective Contractor shall not communicate about the subject of this RFP or a Contractor's bid proposal with the Owner, its Board of Education, or any individual member, administrators, faculty, staff, students, or employees, except for additional requests for clarification in accordance with the paragraph above.

1.13 RELEASE OF CLAIMS

- A. Each Bidder by submitting its Proposal releases the Owner from any and all claims arising out of, and related to, this RFP process and selection of a Contractor.

1.14 PROPOSAL COST

- A. Respondents of this RFP are responsible for any and all costs incurred by them or others acting on their behalf in preparing or submitting a bid proposal, or otherwise responding to this RFP, or any negotiations incidental to its bid proposal or this RFP.

1.15 COLLUSIVE BIDDING

- A. All Bidders certify that its bid proposal is made without any previous understanding, agreement or connection with any person, firm or corporation making a bid proposal for the same project and is in all respects fair, without outside control, collusion, fraud or otherwise illegal action.

1.16 DEFINITIONS

- A. Bid Documents are defined as the Instructions to Bidders, Schedule of Events, this RFP, including all Supplemental forms, Attachments, Appendices, Specifications, Drawings and Addenda and the Contract.
- B. Addenda are written or graphic instruments issued prior to the due date of bid proposals which modify or interpret the Bid Documents by additions, deletions, clarifications or corrections. All Addenda issued to Bidders prior to the due date of bid proposals shall become part of the Bid Documents and all bid proposals are to include the Project/Work therein described. Each Bid

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Proposal submitted shall list all Addenda that have been received prior to the due date of bid proposals.

- C. As used in these Instructions to Bidders, the term "Bid Proposal" means a bid proposal prepared and submitted in response to this RFP.
- D. As used in these Instructions to Bidders, the term "PSC" refers to the Professional Service Contractor and means Convergent Technology Partners and its assigned representative.
- E. Throughout this RFP and Contract, the "Owner" or "District" will be used to refer to Troy School District and bidders submitting bid proposals will be referred to as "Bidders" or "Vendors" and a successful Bidder or Vendor will be referred to as a "Contractor".

1.17 BIDDER'S REPRESENTATION

- A. Each Bidder, by submitting a Bid Proposal, represents that the Bidder has read and understands the Bid Documents and is familiar with the local conditions under which the project is to be performed. Bidders will be held to have compared the Sites with Bid Documents and have satisfied themselves to all conditions affecting the execution of the Work/Project.

1.18 EXAMINATION OF BID DOCUMENTS

- A. A **mandatory** Bidder's conference will be held on **Thursday, February 23, 2017 at 2:00 p.m. (EST)** for the purpose of answering any questions from the Vendors and visiting the Sites. The location of the Bidder's conference is:

Troy School District
Services Building
4420 Livernois Road
Troy, Michigan 48098

- B. Before submitting a Bid Proposal, each Bidder shall examine the RFP documents carefully and shall read the Specifications and the Bid Documents. Each Bidder shall gather complete information prior to bidding as to existing conditions and limitations under which the Work/Project is to be performed, and shall include in its Bid Proposal a sum to cover the cost of items necessary to perform the Work/Project as set forth in the Bid Documents.
- C. No allowance or additional fees will be made to a Bidder because of lack of such examination or knowledge. The submission of a Bid Proposal will be considered as conclusive evidence that the Bidder has made such examination. An on-site-inspection of the Sites during the Bidder's Conference will be for all Bidders and their subcontractors, if any. Vendors may use subcontractors in connection with the Work/Project performed under this RFP provided the Owner has approved the subcontractors. In using subcontractors, the Vendor agrees to be responsible for all their acts and omissions to the same extent as if the subcontractors were employees of the Vendor.

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- D. Bidders may make written request to the PSC for interpretation or correction of any ambiguity, inconsistency or error in the Bid Documents that are discovered. These questions shall be submitted to the PSC no later than **March 1, 2017**. Only a written interpretation or correction by Addendum shall be binding on Bidders. No explanations or interpretations requested or made orally will be considered binding. All questions will be responded to in writing and all addenda will be posted to the Purchasing page of the District website at www.troy.k12.mi.us.

1.19 SUBSTITUTIONS

- A. Each Bid Proposal shall be based upon the materials and equipment described in the Bid Documents.
- B. Voluntary alternates as substitutions for materials and equipment will be considered and evaluated if the Base Bid includes specified materials and equipment. In addition to the Base Bid, the submission of voluntary alternates is acceptable. If a voluntary alternate is submitted for consideration, it shall be expressed on the Bid Form as an “add” or “deduct” amount from the Base Bid. If a voluntary alternate is submitted, the Bidder shall also submit sufficient information in the form of drawings, specifications, and a complete description of the proposed substitute, the cost savings or advantages. Additionally, provide the name of the material or equipment for which it is substituted, drawings, cuts, performance and test data and any other data or information necessary for a complete evaluation, sufficient for analysis of the alternate. The Owner reserves the right to unilaterally accept or reject, in whole or in part, any voluntary alternates.

1.20 BIDDING PROCEDURES

- A. All Bids Proposal must be submitted on the Bid Proposal Forms provided as part of the Bid Documents and in accordance with the Advertisement to Bid and Instructions to Bidders. Bidders must provide a complete list of proposed subcontractors (one per discipline) as indicated on the Bid Forms. Listing two or more subcontractors per discipline will be grounds for disqualification.
- B. All Bidders must provide a proposal for the Base Bid that meets or exceeds the specifications set forth in this RFP. However, all Bidders may suggest Alternates if it is felt that the alternate proposal better suits the intent of this RFP. Any Alternate must be listed as such with separate pricing sheets. Any variance of the feature/functionality of the Base Bid must be identified in any Alternates proposed.
- C. Prior to the due date for bid proposals, any Addenda will be available for inspection wherever the Bid Documents are kept available for that purpose. No Addendum will be issued later than March 7, 2017. It is each Bidders responsibility to ascertain prior to submitting a Bid Proposal that he/she has received all Addenda issued and shall acknowledge their receipt in their Bid Proposal Form.

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- D. All Bids must be signed as follows:
1. Corporations: Signature of an officer of the firm who is authorized to bind the corporation.
 2. Partnerships: Signature of one partner who is authorized to bind the firm and all of its Partners.
 3. Bids submitted by Joint Ventures shall be signed by one of the Joint Ventures and shall be accompanied by a certified copy of the Power of Attorney authorizing the individual signing to bind all the Joint Ventures. If a certified copy of the Joint Venture's certificate submitted with the Bid Proposal indicates that all Joint Ventures have signed, no authorization is required.
 4. Individuals signing on own behalf: No authorization is required.
 5. Individual signing on behalf of another: Power of Attorney or comparable evidence of authority shall accompany Bid.
- E. Bid proposals shall be prepared on unaltered Bid Forms, which are a part of this RFP. Bidders shall make no additional stipulations on the Bid Form nor qualify the Bid Proposal in any other manner. Unauthorized conditions, limitations, or provisions attached to the Bid Proposal will be cause for rejection of the Bid Proposal. If alterations by erasure or interlineations are made for any reason, explain over such erasure or interlineations with a signed statement from the Bidder. No additional charges, other than those listed on the Bid Proposal Form and Bid Supplemental Forms, shall be made. Prices quoted will include verification/coordination of order, all costs for shipping, delivery to all Sites, insurance, payment and performance bonds, unpacking, setup, installation, operation, testing, cleanup, training and all other requirements contained in the bid documents.
- F. Bids shall be submitted in a sealed envelope. Identified on the face of the envelope:
1. Project name
 2. Name and address of Bidder
 3. Notation **"CLASSROOM A/V DISPLAY PROJECT - SEALED BID"**
- G. No responsibility shall attach to the PSC, the Owner, or the authorized representatives of either one, for the premature opening of any Bid Proposal which is not properly addressed, delivered and/or identified. In such event, that Bid Proposal will not be considered and the Bidder will be automatically disqualified from consideration.
- H. Negligence in preparation, improper preparation, errors in and/or omissions in the Bid Proposal shall not relieve the Bidder from fulfillment of any and all applicable obligations and requirements of contained in the Bid Documents.

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- I. The Owner or PSC in making copies available of the Bid Documents to Bidders do so only for the purpose of obtaining bid proposals on the project and do not confer a license or grant of use to a Bidder for any other purpose.
- J. All Bidders must complete, sign and return the attached "FAMILIAL DISCLOSURE" and "IRAN ECONOMIC SANCTIONS AFFIDAVITS" with their Bid Proposal.
- K. Bidders must include a Bill of Material (BOM), along with line item pricing for all components proposed, including, but not limited to, access points, electronics, peripherals, maintenance and support with the total listed where indicated in the Bid Proposal Forms. Failure to provide the BOM with line item pricing will result in disqualification of the Bid proposal. This does not preclude filling out the Unit Pricing Form Attachment B.
- L. The Owner considers this RFP legally binding and will require that this Request for Proposal and the Bid Proposal be incorporated by reference into any subsequent Contract between the Contractor and the Owner. It should be understood by the Bidder that this means that the Owner expects the Bidder to satisfy all of the requirements and specifications contained in the RFP. Any exceptions to the RFP must be explicitly noted in the Bid Proposal. Lack of listing all exceptions will be considered acceptance of all of the specifications as presented in this RFP

1.21 CONSIDERATION OF BIDS

- A. The Bidder acknowledges the right of the Owner to accept or reject any or all Bid proposals, in whole or in part, with or without cause, to waive any irregularities or informalities in this RFP process or any Bid Proposal, and to award the contract to other than the low bidder. In addition, the Bidder recognizes the right of the Owner to reject a Bid Proposal:
 - 1. If the Bidder fails to furnish any required Bid Security, or to submit the data required by the Bid Documents; or
 - 2. If the Bid Proposal is in any way incomplete or irregular; or
 - 3. If the Bidder's performance was unsatisfactory under a prior contract for the construction, repair, modification, or demolition of a facility with the Owner, or a contractor in privacy of contract with the Owner, which was funded, directly or indirectly, by the Owner.
 - 4. If the Bidder was an employer of construction mechanics working on the construction of facilities funded, directly or indirectly, by the Owner through contracts under 1984 PA 431, MCL 18.1101 et seq; MSA 3.516 (101) et seq, and was determined by the Michigan Department of Labor to have failed to comply with a contractual provision requiring the payment of Department of Labor's prevailing wage or the maintenance of Department of Labor's prevailing wage or the maintenance of Department of Labor's apprentice-journeyman ratio determinations for construction mechanics for that facility.

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- B. The Owner shall have the right to accept alternates in any order or combination and to determine the lowest responsible Bidder on the basis of the sum of the base bid and the alternates accepted.
- C. Once the contract is awarded to the Contractor, the contract is contingent upon Troy School District Board of Education approval and the Contractor providing the Owner with any and all documents required by the RFP prior to commencement of the Work/Project (i.e. Insurance Certificates, Labor and Material Payment Bond and Performance Bond, etc.). Further, the Owner reserves the unrestricted right to reduce the contract amount by reducing the scope of Work/project and/or components. Any such action will be taken before specific work on a building or on a project component has commenced. Contract amount shall be reduced or increased based on the unit pricing values.
- D. Bidders to whom an award of a contract is under consideration shall submit to the Owner upon his/her request a properly executed Contractor's Qualification Statement, AIA Document A305 or other information format specified by the Owner.

1.22 BID SECURITY

- A. The Bid Proposal shall be accompanied by a Bid Security of a certified check or cashier's check payable to the Owner or by a satisfactory Bid Bond Entity naming the Owner as the obligee and executed by the Bidder and a surety company authorized to do business in the State of Michigan, in an amount identified in the Instructions to Bidders. The check or amount of Bid Bond shall be forfeited to the Owner upon failure of the Contractor to enter into the Contract. The Contractor's Bid security will be retained until the Contractor has signed the contract and has furnished the required Certificates of Insurance and other required Bonds and documents required by the RFP. Bonds signed by an Attorney-In-Fact must be accompanied by a certified and effectively dated copy of their Power of Attorney.
- B. The Owner reserves the right to retain the Bid security of all Bidders until the Contractor enters into the contract or until ninety (90) days after bid opening, whichever is later. If the Contractor refuses to enter into the Contract, the Owner may retain their Bid Security as liquidated damages but not as a penalty.

1.23 PERFORMANCE AND LABOR AND MATERIAL PAYMENT BONDS

- A. At or prior to delivery of the signed Contract, the Owner will require the Contractor to secure and post a Labor and Material Payment Bond and a Performance Bond including bonding for all subcontractors, each in the amount of 100% of the Contract Sum including bonding for all subcontractors for all quotes or proposals equal to or in excess of \$50,000. Surety shall be a company incorporated in the United States and must appear on the U.S. Treasury Departments approved surety list and be adaptable to the Owner. The Contractor shall obtain such bonds in a manner consistent with Michigan law.

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1.24 TAXES

- A. Installation services for the tangible personal property purchased by the Owner is not subject to sales taxation. Moreover, the Owner is exempt from taxation on all tangible personal property purchased by the Owner for its use and consumption; however, this exemption would not apply to any materials required under the Bid Documents that are deemed to be a component of a construction/improvement project to the Owner's Sites/Facilities. All prices submitted on the Bid Proposal Form shall be inclusive of any and all applicable taxes.

1.25 PERMITS AND FEES

- A. All prices submitted on the Bid Proposal Form shall be inclusive of any and all applicable/required permits and fees.

1.26 MICHIGAN RIGHT-TO-KNOW LAW

- A. All Contractors must conform to the provisions of the Michigan Right-To-Know Law, 1986 PA 80, which requires employers to:
 - 1. Develop a communication program designed to safeguard the handling of hazardous chemicals through labeling of chemical containers, and development and availability of Material Safety Data Sheets.
 - 2. Provide training for employees who work with these chemicals; and
 - 3. Develop a written hazard communications program.
- B. The law also provides for specific employee rights. These include:
 - 1. The right to be notified (by employer or Contractor posting) of the location of Material Safety Data Sheet (MSDS);
 - 2. The right to be notified (by employer or Contractor posting) of new or revised MSDS no later than five working days after receipt; and
 - 3. The right to request copies of MSDS from their employers or Contractors.
- C. Provisions of Michigan's Right-to-Know Law may be found in those sections of the Michigan Occupational Safety and Health Act (MIOSHA), which contain Right-to-Know provisions, and the Federal Hazard Community Standard, which is part of the MIOSHA Right-to-Know Law through adoption.

1.27 WITHDRAWAL OF BIDS

- A. A Bidder may withdraw its Bid Proposal by written request from an authorized Bidder representative, at any time prior to the due date of bid proposals.

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- B. No Bidder may withdraw a Bid Proposal for a period of ninety (90) calendar days, following the due date for receipt of bid proposals, and all bid proposals shall be subject to acceptance by the Owner during this ninety (90) day period.

1.28 EXECUTION OF CONTRACT

- A. The Contractor to whom the contract is awarded shall, within ten (10) calendar days after Notice of Award and receipt of the contract from the Owner, execute and deliver required copies to the Owner.
- B. At or prior to delivery of the executed Contract, the Contractor to whom the contract is awarded shall deliver to the Owner those Certificates of Insurance required by the Bid Documents and such Labor and Materials Payment Bonds and Performance Bond as are required by Owner and any other documents required by this RFP.
- C. The Owner shall approve the provided Bonds and Certificates of Insurance before the Contractor may proceed with the Work/Project. Failure or refusal to provide Bonds, Certificates of Insurance or any other documents required by this RFP in a form(s) satisfactory to the Owner shall subject the Contractor to loss of time from the allowable construction period equal to the time of delay in furnishing the required material.

1.29 POST BID INFORMATION

- A. Bid Form(s) shall be submitted as indicated in the Bid Documents. The Bid Form(s) requires all proposed subcontractors for the project to be named; no more than one per discipline.

1.30 TIME OF COMPLETION

- A. The Bidder agrees to complete the Work within the timeframes listed in the Schedule of Events.

1.31 PREVAILING WAGE REQUIREMENTS

- A. In any contract entered into pursuant to this RFP, the Contractor shall comply with the provisions of the PREVAILING WAGE LAW.
 - 1. The Contractor will pay the latest prevailing wages and fringe benefits for all Work as required by State of Michigan/Public Act 166 dated 1965, as amended. The prevailing wage and fringe benefit rates under Michigan law are required for this project.
- B. Additionally, the Contractor is required to comply with all other provisions of the governing prevailing wage law, and shall ensure its subcontractors' compliance therewith.
- C. Allegations that individuals working on this project are not receiving compensation required by law are considered serious by the Owner. In order to expedite the resolution of prevailing wage complaints related to this project, the Owner has determined that the Michigan Fair Contracting Center ("MFCC") is the organization best equipped to expedite the investigation of these matters. Any person or entity (the "Complainant") who reasonably believes that a particular

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contractor, subcontractor, sub-subcontractor, supplier or other person or entity providing labor, materials, goods or services on this project (each, an "Employer") is not paying prevailing wages as required by applicable law may ask the MFCC to determine whether proper rates are being paid either by completing and submitting to MFCC a request for assistance (the "RFA") or by contacting MFCC by telephone at (734) 462-2330 or (877) 611-6322. The RFA can be downloaded electronically at <http://mifcc.org/Brochures/KnowYourRights.pdf> and delivered to MFCC by facsimile to (734) 462-2318 or by mail to P.O. Box 530492, Livonia, Michigan 48153-0492.

- D. Each and every Employer who is subject to an audit by MFCC pursuant to any RFA shall cooperate and comply fully with all requests, requirements and inquiries of MFCC. If, after investigation, MFCC determines that a Complainant's allegations are meritorious and the Complainant, MFCC and the Employer are unable to resolve the dispute following MFCC's determination, then, under the direction and with the assistance of MFCC, the Complainant shall file a Prevailing Wage Complaint (the "PWC") with the State of Michigan Department of Labor and Economic Growth Wage and Hour Division (the "Wage and Hour Division"). The PWC can be downloaded electronically at <http://mifcc.org/Brochures/PrevailingWageComplaint.pdf> and delivered by facsimile to (517) 322-6352 or by mail to 7150 Harris Drive, P.O. Box 30476, Lansing, Michigan 48909-7076.
- E. Upon commencement of the audit from MFCC, the Owner reserves the right to hold all payments, pending the conclusion of the audit. If the Wage and Hour Division determines that the Employer has violated any applicable prevailing wage law, then the Owner shall automatically be entitled to and will (a) withhold from such Employer any and all payments due and owing until the Employer remedies any and all violations cited by the Wage and Hour Division, and (b) back charge the Employer for all costs actually incurred in MFCC's audit of the Employer.
 - 1. The Owner shall keep a hard copy of these requirements posted at the project site at all times.
- F. The Contractor shall be financially responsible for the payment of prevailing wages by all subcontractors that are subject to the governing prevailing wage law for Work on the project.
- G. Because Work on this project is covered by the Michigan Prevailing Wage Act ("Act") the Contractor and its subcontractors that are governed by the applicable prevailing wage law shall pay all hours at the prevailing wage rates at the applicable hourly rate; no Work performed by or on behalf of the Contractor on this project will be paid on a lump sum basis or a piece rate basis in violation of the Act.
 - 1. The Contractor will pay its workers at wage and fringe benefit rates consistent with the Act regardless of whether the workers are classified as employees or independent contractors.
 - 2. The Contractor shall not misclassify any work assignments, but shall in each and every case follow proper jurisdictional assignments in compliance with the Act.

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3. The Contractor shall assure that any persons paid at apprentice rates under the Act are properly classified as apprentices by actual participation in a BAT certified program or as may otherwise be permitted by the Act.

1.32 EQUAL OPPORTUNITY

- A. The Contractor and all of its subcontractors shall not discriminate against any employee or applicant for employment because of race, religion, color, sex or national origin.

PART 2 - EXECUTION

2.1 SITE REQUIREMENTS

- A. The Owner Sites are both instructional and administrative facilities that provide year-round services to their students, staff and the community. As such, activities in all buildings are critical to the provisioning of services to the students, staff and the community and shall not be interrupted by the Contractor's Work activities.
- B. The Contractor will be required to work around all of the conditions listed above, as well as working with the Owner's staff to minimize disruptions to normal Owner activities.
- C. Installation Guidelines
 1. All Work performed on this Project will be installed in accordance with the current edition of the National Electrical Code®, the current edition of the National Electrical Safety Code®, the current edition of the BICSI Telecommunications Distribution Methods Manual, the current edition of the BICSI Cabling Installation Manual, the latest issue of the ANSI/TIA/EIA Standards as published by Global Engineering Documents as TIA/EIA Commercial Building Telecommunications Standard, and all local codes and ordinances.

2.2 QUALITY ASSURANCE

- A. Project Manager
 1. The Contractor will provide a full-time Project Manager who will act as a single point of contact for all activities regarding this Project. The Project Manager must be a management employee and will not be involved in personally performing craft installation Work
 2. The Project Manager is required to attend necessary technology and construction meetings for coordination before Work is started and construction meetings once Work is in progress.
 3. The Project Manager will be required to make on-site decisions regarding the scope of the Work and any changes required by the Work.

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4. The Project Manager will be totally responsible for all aspects of the Work and shall have the authority to make immediate decisions regarding implementation or Owner approved changes to the Work.

B. Compliance with Laws and Regulations

1. The Contractor performance of the Work shall comply with all applicable federal, state, and local laws, rules, and regulations and Owner policies, procedure, rules and regulations. The Contractor shall give required notices, shall procure necessary governmental licenses and inspections, and shall pay without burden to the Owner, all fees and charges in connection therewith unless specifically provided otherwise. In the event of violation, the Contractor shall pay all fines and penalties; including attorney's fees and other defense costs and expenses in connection therewith.

C. Federal Communications Commission

1. Equipment requiring FCC registration or approval shall have received such approval and shall be appropriately identified.

D. Codes, Standards, and Ordinances

1. All Work shall conform to the latest edition of the National Electrical Code®, the Building Code, and all local codes and ordinances, as applicable. ANSI/TIA/EIA-568-B and ANSI/TIA/EIA-569-A shall be adhered to during all installation activities. Methodologies outlined in the latest edition of the BICSI Telecommunications Distribution Methods Manual shall also be used during all installation activities. Should conflicts exist with the foregoing, the authority having jurisdiction for enforcement will have responsibility for making interpretation. The Contractor is wholly responsible to meet or exceed all codes, standards, regulation, manufacturer installation standards and industry best practices.

2.3 SAFETY

- A. The Contractor shall take the necessary precautions and bear the sole responsibility for the safety of the methods employed in performing the Work. The Contractor shall at all times comply with the regulations set forth by federal, state, and local laws, rules, and regulations concerning "OSHA" and all applicable state labor laws, regulations, and standards. The Contractor shall indemnify and hold harmless the Owner from and against all liabilities, suits, damages, costs, and expenses (including attorney's fees and court costs) that may be imposed on the Owner because of the Contractor, or its subcontractor, or supplier's failure to comply with the regulations stated herein.

2.4 INSPECTION, ACCEPTANCE, AND TITLE

- A. Inspection and Acceptance will be upon successful installation unless otherwise provided. Title to/or risk of loss or damage to all items shall be the responsibility of the Contractor until acceptance by the Owner, unless loss or damage results from negligence by the Owner. If the

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materials or services supplied to the Owner are found to be defective or do not conform to the specifications, the Owner reserves the right to cancel the Contract upon written notice to and return products at the Contractor's expense, based upon the terms of the Contract.

1. When the Owner is referred to in this section of the RFP relative to inspections, the Owner has designated the PSC as the party to perform such inspections on behalf of the Owner. Notwithstanding the above, the Owner may also perform such inspections along with the PSC.
- B. The Owner shall at all times have access to the Work wherever it is in preparation or progress, and shall provide proper facilities for such access and for inspection.
- C. The Contractor shall not close up any Work until the Owner has inspected the Work. Should the Contractor close up the work prior to inspection by The Owner, the Contractor shall uncover the Work for inspection by the Owner at no cost to the Owner, and then recover the Work according to the specifications contained herein. The Contractor shall notify the Owner in writing when the Work is ready for inspection. The Owner will inspect the Work as expeditiously as possible after receipt of notification from the Contractor.

2.5 STATUS REPORTS, MEETINGS AND CONSTRUCTION COORDINATION

- A. It shall be the Contractor's responsibility to provide the Owner / PSC with written weekly project status reports while actively engaged in craft work and a summary report at the beginning of periods of inactivity between phases or construction delays noting status at that time and expected date of return to work in addition to the requirements listed below. These reports are required and shall include, but not be limited to:
- B. Project completion percentage.
- C. Any and all problems that were encountered.
- D. Any foreseeable problems that may arise.
- E. General status of the project
- F. The Owner / PSC reserves the right to hold additional status meetings on a regular basis with the Contractor's Project Manager.

END OF SECTION

Troy School District
Bid # 9839

SECTION 00 30 10 - SCHEDULE OF EVENTS

The following is a projected schedule of events for this project. The schedule may change depending upon the results of the responses and a final schedule will be established prior to contracting with the Contractor. Additionally, the final schedule shall be subject to change based on construction schedule and progress.

EVENT	DATE
Bid Release	Feb 20, 2017
Mandatory Bidder's Conference Date and time – 2:00 p.m.	Feb 23, 2017
Final Date and time for Questions – 1:30 p.m.	Mar 1, 2017
Bid Due Date/time and Public Opening – 1:30 p.m.	Mar 10, 2017
Interviews	Mar 20 & 21, 2017
Contract Award	Apr 18, 2017
Project Start Date	May 15, 2017
Project Completion	Oct 30, 2017

End of Section



STATE OF MICHIGAN

Wage and Hour Division

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Informational Sheet: Prevailing Wages on State Projects

REQUIREMENTS OF THE PREVAILING WAGES ON STATE PROJECTS ACT, PUBLIC ACT 166 OF 1965

The State of Michigan determines prevailing rates pursuant to the Prevailing Wages on State Projects Act, Public Act 166 of 1965, as amended. The purpose of establishing prevailing rates is to provide minimum rates of pay that must be paid to workers on construction projects for which the state or a school district is the contracting agent and which is financed or financially supported by the state. By law, prevailing rates are compiled from the rates contained in collectively bargained agreements which cover the locations of the state projects. The official prevailing rate schedule provides an hourly rate which includes *wage and fringe benefit totals* for designated construction mechanic classifications. The overtime rates also include *wage and fringe benefit totals*. Please pay special attention to the overtime and premium pay requirements. Prevailing wage is satisfied when wages plus fringe benefits paid to a worker are equal to or greater than the required rate.

State of Michigan responsibilities under the law:

- The department establishes the prevailing rate for each classification of construction mechanic ***requested by a contracting agent*** prior to contracts being let out for bid on a state project.

Contracting agent responsibilities under the law:

- If a contract is not awarded or construction does not start within 90 days of the date of the issuance of rates, a re- determination of rates must be requested by the contracting agent.
- Rates for classifications needed but not provided on the Prevailing Rate Schedule, ***must*** be obtained ***prior*** to contracts being let out for bid on a state project.
- The contracting agent, by written notice to the contractor and the sureties of the contractor known to the contracting agent, may terminate the contractor's right to proceed with that part of the contract, for which less than the prevailing rates have been or will be paid, and may proceed to complete the contract by separate agreement with another contractor or otherwise, and the original contractor and his sureties shall be liable to the contracting agent for any excess costs occasioned thereby.

Contractor responsibilities under the law:

- Every contractor and subcontractor shall keep posted on the construction site, in a conspicuous place, a copy of all prevailing rates prescribed in a contract.
- Every contractor and subcontractor shall keep an accurate record showing the name and occupation of and the actual wages and benefits paid to each construction mechanic employed by him in connection including certified payroll, as used in the industry, with said contract. This record shall be available for reasonable inspection by the contracting agent or the department.
- Each contractor or subcontractor is separately liable for the payment of the prevailing rate to its employees.
- The prime contractor is responsible for advising all subcontractors of the requirement to pay the prevailing rate prior to commencement of work.
- The prime contractor is secondarily liable for payment of prevailing rates that are not paid by a subcontractor.
- A construction mechanic ***shall only*** be paid the apprentice rate if registered with the United States Department of Labor, Bureau of Apprenticeship and Training and the rate is included in the contract.

Enforcement:

A person who has information of an alleged prevailing wage violation on a state project may file a complaint with the State of Michigan. The department will investigate and attempt to resolve the complaint informally. During the course of an investigation, if the requested records and posting certification are not made available in compliance with Section 5 of Act 166, the investigation will be concluded and a referral to the Office of Attorney General for civil action will be made. The Office of Attorney General will pursue costs and fees associated with a lawsuit if filing is necessary to obtain records.



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General Information Regarding Fringe Benefits

Certain fringe benefits **may** be credited toward the payment of the Prevailing Wage Rate:

- If a fringe benefit is paid directly to a construction mechanic
- If a fringe benefit contribution or payment is made on behalf of a construction mechanic
- If a fringe benefit, which may be provided to a construction mechanic, is pursuant to a written contract or policy
- If a fringe benefit is paid into a fund, for a construction mechanic

When a fringe benefit is not paid by an hourly rate, the hourly credit will be calculated based on the annual value of the fringe benefit divided by 2080 hours per year (52 weeks @ 40 hours per week).

The following is an example of the types of fringe benefits allowed and how an hourly credit is calculated:

Vacation	40 hours X \$14.00 per hour = \$560/2080 =	\$.27
Dental insurance	\$31.07 monthly premium X 12 mos. = \$372.84 /2080 =	\$.18
Vision insurance	\$5.38 monthly premium X 12 mos. = \$64.56/2080 =	\$.03
Health insurance	\$230.00 monthly premium X 12 mos. = \$2,760.00/2080 =	\$1.33
Life insurance	\$27.04 monthly premium X 12 mos. = \$324.48/2080 =	\$.16
Tuition	\$500.00 annual cost/2080 =	\$.24
Bonus	4 quarterly bonus/year x \$250 = \$1000.00/2080 =	\$.48
401k Employer Contribution	\$2000.00 total annual contribution/2080 =	\$.96
Total Hourly Credit		\$3.65

Other examples of the types of fringe benefits allowed:

- Sick pay
- Holiday pay
- Accidental Death & Dismemberment insurance premiums

The following are examples of items that **will not** be credited toward the payment of the Prevailing Wage Rate

- Legally required payments, such as:
 - Unemployment Insurance payments
 - Workers' Compensation Insurance payments
 - FICA (Social Security contributions, Medicare contributions)
- Reimbursable expenses, such as:
 - Clothing allowance or reimbursement
 - Uniform allowance or reimbursement
 - Gas allowance or reimbursement
 - Travel time or payment
 - Meals or lodging allowance or reimbursement
 - Per diem allowance or payment
- Other payments to or on behalf of a construction mechanic that are not wages or fringe benefits, such as:
 - Industry advancement funds
 - Financial or material loans



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OVERTIME PROVISIONS for MICHIGAN PREVAILING WAGE RATE COMMERCIAL SCHEDULE

- Overtime is represented as a nine character code. Each character represents a certain period of time after the first 8 hours Monday thru Friday.

	Monday thru Friday	Saturday	Sunday & Holidays	Four 10s
First 8 Hours		4	8	9
9th Hour	1	5		
10th Hour	2	6		
Over 10 hours	3	7		

Overtime for Monday thru Friday after 8 hours:

the 1st character is for time worked in the 9th hour (8.1 - 9 hours)

the 2nd character is for time worked in the 10th hour (9.1 - 10 hours)

the 3rd character is for time worked beyond the 10th hour (10.1 and beyond)

Overtime on Saturday:

the 4th character is for time worked in the first 8 hours on Saturday (0 - 8 hours)

the 5th character is for time worked in the 9th hour on Saturday (8.1 - 9 hours)

the 6th character is for time worked in the 10th hour (9.1 - 10 hours)

the 7th character is for time worked beyond the 10th hour (10.01 and beyond)

Overtime on Sundays & Holidays

The 8th character is for time worked on Sunday or on a holiday

Four Ten Hour Days

The 9th character indicates if an optional 4-day 10-hour per day workweek can be worked **between Monday and Friday without paying overtime after 8 hours worked, unless otherwise noted in the rate schedule. To utilize a 4 ten workweek, notice is required from the employer to employee prior to the start of work on the project.**

- Overtime Indicators Used in the Overtime Provision:

H - means TIME AND ONE-HALF due

X - means TIME AND ONE-HALF due after 40 HOURS worked

D - means DOUBLE PAY due

Y - means YES an optional 4-day 10-hour per day workweek can be worked without paying overtime after 8 hours worked

N - means NO an optional 4-day 10-hour per day workweek *cannot* be worked without paying overtime after 8 hours worked

- EXAMPLES:

HHHHHHHDN - This example shows that the 1½ rate must be used for time worked after 8 hours Monday thru Friday (*characters 1 - 3*); for all hours worked on Saturday, 1½ rate is due (*characters 4 - 7*). Work done on Sundays or holidays must be paid double time (*character 8*). The N (*character 9*) indicates that 4 ten-hour days is not an acceptable workweek at regular pay.

XXXHHHHHDY - This example shows that the 1½ rate must be used for time worked after 40 hours are worked Monday thru Friday (*characters 1-3*); for hours worked on Saturday, 1½ rate is due (*characters 4 – 7*). Work done on Sundays or holidays must be paid double time (*character 8*). The Y (*character 9*) indicates that 4 ten-hour days is an acceptable alternative workweek.



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ENGINEERS - CLASSES OF EQUIPMENT LIST

UNDERGROUND ENGINEERS

CLASS I

Backfiller Tamper, Backhoe, Batch Plant Operator, Clam-Shell, Concrete Paver (2 drums or larger), Conveyor Loader (Euclid type), Crane (crawler, truck type or pile driving), Dozer, Dragline, Elevating Grader, End Loader, Gradall (and similar type machine), Grader, Power Shovel, Roller (asphalt), Scraper (self propelled or tractor drawn), Side Broom Tractor (type D-4 or larger), Slope Paver, Trencher (over 8' digging capacity), Well Drilling Rig, Mechanic, Slip Form Paver, Hydro Excavator.

CLASS II

Boom Truck (power swing type boom), Crusher, Hoist, Pump (1 or more 6" discharge or larger gas or diesel powered by generator of 300 amps or more, inclusive of generator), Side Boom Tractor (smaller than type D-4 or equivalent), Tractor (pneu-tired, other than backhoe or front end loader), Trencher (8' digging capacity and smaller), Vac Truck.

CLASS III

Air Compressors (600 cfm or larger), Air Compressors (2 or more less than 600 cfm), Boom Truck (non-swinging, non-powered type boom), Concrete Breaker (self-propelled or truck mounted, includes compressor), Concrete Paver (1 drum, ½ yard or larger), Elevator (other than passenger), Maintenance Man, Mechanic Helper, Pump (2 or more 4" up to 6" discharge, gas or diesel powered, excluding submersible pump), Pumpcrete Machine (and similar equipment), Wagon Drill Machine, Welding Machine or Generator (2 or more 300 amp or larger, gas or diesel powered).

CLASS IV

Boiler, Concrete Saw (40HP or over), Curing Machine (self-propelled), Farm Tractor (w/attachment), Finishing Machine (concrete), Firemen, Hydraulic Pipe Pushing Machine, Mulching Equipment, Oiler (2 or more up to 4", exclude submersible), Pumps (2 or more up to 4" discharge if used 3 hrs or more a day-gas or diesel powered, excluding submersible pumps), Roller (other than asphalt), Stump Remover, Vibrating Compaction Equipment (6' wide or over), Trencher (service) Sweeper (Wayne type and similar equipment), Water Wagon, Extend-a-Boom Forklift.

HAZARDOUS WASTE ABATEMENT ENGINEERS

CLASS I

Backhoe, Batch Plant Operator, Clamshell, Concrete Breaker when attached to hoe, Concrete Cleaning Decontamination Machine Operator, Concrete Pump, Concrete Paver, Crusher, Dozer, Elevating Grader, Endloader, Farm Tractor (90 h.p. and higher), Gradall, Grader, Heavy Equipment Robotics Operator, Hydro Excavator, Loader, Pug Mill, Pumpcrete Machines, Pump Trucks, Roller, Scraper (self-propelled or tractor drawn), Side Boom Tractor, Slip Form Paver, Slope Paver, Trencher, Ultra High Pressure Waterjet Cutting Tool System Operator, Vactors, Vacuum Blasting Machine Operator, Vertical Lifting Hoist, Vibrating Compaction Equipment (self-propelled), and Well Drilling Rig.

CLASS II

Air Compressor, Concrete Breaker when not attached to hoe, Elevator, End Dumps, Equipment Decontamination Operator, Farm Tractor (less than 90 h.p.), Forklift, Generator, Heater, Mulcher, Pigs (Portable Reagent Storage Tanks), Power Screens, Pumps (water), Stationary Compressed Air Plant, Sweeper, Water Wagon and Welding Machine.



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CARPENTER CRAFT JURISDICTION

Michigan recognizes the Carpenters for any and all work related to weatherization that has historically been the work of the Carpenter. This work shall include, but not be limited to: all work defined under the Federal Weatherization Assistance Program.

The jurisdiction of Carpenters, as to all work that has historically and traditionally been performed consisting of the milling, fashioning, joining, assembling, erecting, fastening or dismantling of all materials of wood, plastic, metal, fiber, cork, or composition and all other substitute materials, as well as the handling, cleaning, erecting, installing and dismantling of all machinery, equipment and all materials used by Carpenters.

The jurisdiction, therefore, extends over the following divisions and subdivisions of the trade: Carpenters and Joiners, Millwrights, Pile Drivers, Bridge, Dock and Wharf Carpenters, Underpinners, Timbermen, and Core-drillers, Shipwrights, Boat Builders, Ship- hand, Stair-Builders, Millmen, Wood and Resilient Floor Decorators, Floor Finishers, Carpet-layers, Shinglers, Siders, Insulators, Acoustic and Drywall Applicators, Sharers and House Movers, Loggers, Lumber and Sawmill Workers, Reed and Rattan Workers, Shingle Weavers, Casket and Coffin Makers, Railroad Carpenters and Car Builders, regardless of material used and all those engaged in the operation of woodworking or other machinery required in fashioning, milling or manufacturing of products used in the trade, and the handling, erecting and installing materials on any of the above divisions or sub-divisions, burning, welding and rigging incidental to the trade. When the term "Carpenter and Joiner" is used, it shall mean all the subdivisions of the trade. The trade autonomy of Carpenters therefore extends over the divisions and subdivisions of the trade, which are set forth as follows:

- (a) The framing, erecting and prefabrication of roofs, partitions, floors and other parts of buildings of wood, metal, plastic or other substitutes; application of all metal flashing used for hips, valleys and chimneys; the erection of Stran Steel section or its equal. The building and setting of all forms and centers for brick and masonry. The fabrication and erection of all forms for concrete and decking, the dismantling of same (as per International Agreement) when they are to be re-used on the job or stored for re-use. The cutting and handling of all falsework for fireproofing and slabs. Where power is used in the setting or dismantling of forms, all signaling and handling shall be done by carpenters. The setting of templates for anchor bolts for structural members and for machinery, and the placing, leveling and bracing of these bolts. All framing in connection with the setting or metal columns. The setting of all bulkheads, footing forms and the setting of and fabrication of, screeds and stakes for concrete and mastic floors where the screed is notched or fitted, or made up of more than one member. The making of forms for concrete block, bulkheads, figures, posts, rails, balusters and ornaments, etc.
- (b) The handling and erecting of rough material and drywall, the handling, assembly, setting and leveling of all fixtures, display cases, all furniture such as tables, chairs, desks, coat racks, etc., all de-mountable or moveable partitions such as Von wall, E Wall, Steel Case, Herman Miller, Haworth, American Seating, Westinghouse, Lazy Boy, rosewood, etc. All rebuilding, remodeling and setting up of all kinds of partitions, finished lumber, metal and plastic trim to be erected by Carpenters shall be handled from the truck or vehicle delivering same to the job by Carpenters.



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CARPENTER CRAFT JURISDICTION

- (c) The building and moving of all scaffolding runways and staging where carpenters' tools are used, the building from the ground up of all scaffolds over fourteen (14) feet in height including metal and specially designed scaffolding. The building and construction of all hoists and derricks made of wood; the making of mortar boards, boxes, trestles, all shoring, razing and moving of buildings. Lift type trucks are to be considered a tool of the trade. Metal siding and metal roofing fall within the scope of jurisdiction for the carpenters.
- (d) The cutting or framing and fireproofing of the openings for pipes, conduits, ducts, etc., where they pass through floors, partitions, walls, roofs or fixtures composed in whole or in part of wood. The laying out of making and installation of all inserts and sleeves for pipes, ducts, etc., where carpenters' tools and knowledge are required. The making and installing of all wooden meter boards, crippling and backing for fixtures. The welding of studs and other fastenings to receive material being applied by carpenters.
- (e) The installation of all grounds, furring or stripping, ceilings and sidewalks, application of all types of shingling and siding, etc.
- (f) The installation of all interior and exterior trim or finish of wood, aluminum, kalamein, hollow or extruded metal, plastic, doors, transoms, thresholds, mullions and windows. The setting of jambs, bucks, window frames of wood or metal where braces or wedges are used. The installation of all wood, metal or other substitutes of casing, molding, chair rail, wainscoting, china closets, base of mop boards, wardrobes, metal partitions as per National Decisions or specific agreements, etc. The complete laying out, fabrication and erection of stairs. The making and erecting of all fixtures, cabinets, shelving, racks, louvers, etc. The mortising and application of all hardware in connection with our work. The sanding and refinishing of all wood, cork or composition floors to be sanded or scraped, filled, sized and buffed, either by hand or power machines. The assembling and setting of all seats in theaters, halls, churches, schools, auditorium, grandstands and other buildings. All bowling alley work.
- (g) The manufacture, fabrication and installation of all screens, storm sash, storm doors and garage doors; the installation of wood, canvas, plastic or metal awnings or eye shades, door shelters, jalousies, etc. The laying of wood, wood block and wood composition in floors.
- (h) The installation of all materials used in drywall construction, such as plasterboard, all types of asbestos boards, transite and other composition board. The application of all material which serves as base for acoustic tile, except plaster. All acoustical applications as per National Agreement or specific agreement.
- (i) The building and dismantling of all barricades, hand rails, guard rails, partitions and temporary partitions. The erection and dismantling of all temporary housing on construction projects.
- (j) The installation of rock wool, cork and other insulation material used for sound or weatherproofing. The removal of caulking and placing of staff bead and brick mold and all Oakum caulking, substitutes, etc., and all caulking in connection with carpentry work.
- (k) The installation of all chalk boards/marker boards.



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CARPENTER CRAFT JURISDICTION

- (l) The operation of all hand operated winches used to raise wooden structures.
- (m) The erection of porcelain enameled panels and siding.
- (n) The unloading and distribution of all furnished, prefabricated and built-up sections such as door bucks, window frames, cupboards, cabinets, store fixtures, counters and show cases or comparably finished or prefabricated materials, to the job sites or points of installation as used in the construction, alteration and remodeling industry.
- (o) The handling of doors, metal, wood or composite, partitions and other finished bulk materials used for trim from the point of delivery.
- (p) All processing of these materials and handling after processing.
- (q) The making up of panels and fitting them into walls, all bracing and securing, all removal of panels from the casting including all braces, whalers, hairpins, etc.
- (r) The handling and setting of all metal pans and sections from the stock piles of reasonable distance as required by job needs shall be performed by carpenters. The stripping of such metal pans, panels or sections is to be performed by carpenters.
- (s) The sharpening of all carpenter hand or power tools, or those used by carpenters.
- (t) The layout, fabrication, assembling of and erection and dismantling of all displays made of wood, metal, plastic, composition board or any substitute material; the covering of same with any type of material, the crating and un-crating, the handling from the point of unloading and back to the point of loading of all displays and other materials or components.
- (u) The same shall apply to all other necessary component parts used for display purposes such as turntables, platforms, identification towers and fixtures, regardless of how constructed, assembled or erected or dismantled.
- (v) The make-up, handling, cutting and sewing of all materials used in buntings, flags, banners, decorative paper, fabrics and similar materials used in the display decorative industry for draperies and back drops. The decorative framing of trucks, trailers and autos used as floats or moving displays. The slatting of walls to hand fabrics and other decorative materials, drilling of all holes to accommodate such installations. Setting up and removal of booths constructed of steel or aluminum tubing as stanchions, railings, etc., handling and placing of furniture, appliances, etc., which are being used to complete the booth at the request of the exhibitor. Fabricating and application of leather, plastic and other like materials used for covering of booths. The handling of all materials, fabricating of same. The loading and unloading, erecting and assembling at the exhibit of show area, also in or out of storage when used in booth decorations.



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CARPENTER CRAFT JURISDICTION

- (w) A display shall be construed as any exhibit or medium of advertising, open to private or public showing, which is constructed of wood, metal, plastic or any other substitute to accomplish the objectives of advertising or displaying.
- (x) Handling, fitting, draping, measuring and installation of fixtures and other hardware for draperies, all manner of making, measuring, repairing, sizing, hanging and installation of necessary fixtures and hardware for shades and Venetian blinds.
- (y) Work consisting of cutting and/or forming of all materials in preparation for installing of floors, walls and ceilings; the installation of all resilient floor and base; wall and ceiling materials to include cork, linoleum, prefabricated, laminated, rubber, asphalt, vinyl, metal, plastic, seamless floors and all other similar materials in sheet, interlocking liquid or tile form; the installation of all artificial turf, the installation, cutting and/or fitting of carpets; installation of padding, matting, linen crash and all preformed resilient floor coverings; the fitting of all devices for the attachment of carpet and other floor, wall and ceiling coverings; track sewing of carpets, drilling of holes for sockets and pins, putting in dowels and slats; and all metal trimmings used; the installation of all underlayments, sealants in preparation of floors, walls and ceilings, the unloading and handling of all materials to be installed and the removal of all materials in preparing floors when contracted for by the employer, shall be done only by employees covered under this Agreement.
- (z) The installation of all sink-tops and cabinets, to include all metal trim and covering for same. All cork, linoleum, congo-wall, linewall, veos tile, plexiglass, vinawall tile, composition tile, plastic tile, aluminum tile and rubber in sheets or tile form and the application thereof. All bolta-wall and bolta-wall tile and similar products.
- (aa) The handling and placing of all pictures and frames and the assembly of bed frames and accessories. The hanging and placing of all signage.
- (bb) The installation of all framework partitions and trim materials for toilets and bathrooms made of wood, metal, plastics or composition materials; fastening of all wooden, plastic or composition cleats to iron or any other material for accessories.
- (cc) The erection of cooling towers and tanks.
- (dd) The setting, lining, leveling and bracing of all embedded plates, rails and angles. The setting of all stay in place forms.
- (ee) Environmental: Clean room, any type of environmental chamber, walk in refrigerated coolers and all refrigerated rooms or buildings.



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CARPENTER CRAFT JURISDICTION

PILE DRIVING AND CAISSON DRILLING

(ff) All unloading, handling, signaling and driving of piles, whether wood, steel, pipe, beam pile, composite, concrete or molded in place, wood and steel sheeting, cofferdam work, trestle work, dock work, floating derricks, caisson work, foundation work, bridge work, whether old or new, crib work, pipe line work and submarine work. Cutting of all wood, steel or concrete pile, whether by machine or hand; welding and cutting, peeling, and heading of all wood pile, steel sheeting and wood sheeting. The erecting and dismantling of all pile driving rigs, also derricks whether on land or water; also the moving, shoring and underpinning of all buildings. The loading and unloading of all derricks, cranes and pile driving materials. The tending, maintenance and operation of all valves pertaining to the operation of driving of pile. All diving and tending essential to the completion of jurisdictional claims.

All work done in the established yards of the Company and all work not enumerated above, shall be handled and manned as the Employer decides.

The pile driver will unload all material shipped in by rail from the point that the rail car is spotted.

All cleaning and preparation of all piling prior to driving.

The welding and attachment of all boot plates, pile points, splice plates, connectors, rock crosses, driving crosses, driving rigs, point reinforcements and overboots.

The construction, reconstruction, repair, alteration, demolition and partial or complete removal of all marine work including, but not limited to, docks, piers, wharves, quays, jetties, cribs, causeways, breakwaters, lighthouses and permanent buoys, etc. (mixing and placing of concrete excepted).

The driving and pulling of all wood, steel and concrete foundation piles and sheet piling.

The heading, pointing, splicing, cutting and welding of all piles.

The placing of all wales, bolts, studs, lagging, rods and washers including the cutting, drilling, boring or breaking of all holes or openings thereof.

The removal of all materials and/or obstructions of any nature (rip-rap included) that retard or interfere with the driving of piles or with the placing of wales, bolts and rods.



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This is to be subject to the discretion of the contractor who may choose to use blasting specialists or other demolition specialists.

The handling on the job of all materials used in the work.

The manning of all floating equipment (towing equipment excepted) engaged in the work enumerated, including deck engines, except machinery manned by Operating Engineers.

The placing of all rip-rap, fill stone, bedding stone, cover stone and concrete blocks in connection with marine construction. Work normally performed by Employers, such as soil tests, shoring, underpinning of buildings, cribbing, driving of sheet piling, marine divers, tenders, underwater construction workers and similar operations shall continue to be included in the jurisdiction of this Agreement.

All burning, cutting, welding and fabrication of pipe, H-beams, sheet pile (metal or wood), done on the job site or in the yard of the Employer shall be done by pile drivers. The driving of bearing piles, sheet piling with heavy equipment, caissons, pile caps, auger drilling and boring, the setting up for load testing for any type of piling, all layout and spotting for piling, caisson and boring work, all earth retention, ditch boarding, installing tiebacks.

ASBESTOS ABATEMENT CARPENTERS

- (gg) All erection and maintenance of barriers and partitions used in the removing of asbestos or any abatement work. The abatement of any materials previously installed by the carpenter such as transite, ceiling and floor tiles. All operating and maintaining of current equipment used in any abatement work.

State of Michigan

WHPWRequest@michigan.gov

Official Request #: 228

Requestor: Troy School District

Project Description: Purchase, installation & cabling for Classroom Audio/Visual Displays various schools

Project Number: Bid 9839 –Classroom AV Display Project

Oakland County

Official 2017 Prevailing Wage Rates for State Funded Projects

Issue Date: 2/14/2017

Contract must be awarded by: 5/15/2017

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<u>Classification</u>		Last	Straight Time and a Double		Overtime
Name	Description	Updated	Hourly	Half	Time Provision
=====					

Asbestos & Lead Abatement Laborer

Asbestos & Lead Abatement Laborer	MLDC	\$41.25	\$55.00	\$68.75	H H H X X X D Y
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4 ten hour days @ straight time allowed
Monday-Saturday, must be consecutive

9/16/2016

Asbestos & Lead Abatement, Hazardous Material Handler

Asbestos and Lead Abatement, Hazardous Material Handler	AS207	\$40.75	\$54.25	\$67.75	H H H X X X D Y
--	-------	---------	---------	---------	-----------------

4 ten hour days @ straight time allowed
Monday-Saturday, must be consecutive

10/30/2015

Boilermaker

Boilermaker	BO169	\$54.70	\$81.08	\$107.45	H H H H H H D Y
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2/17/2015

Apprentice Rates:

1st 6 months	\$40.31	\$59.49	\$78.67
2nd 6 months	\$41.45	\$61.21	\$80.95
3rd 6 months	\$42.57	\$62.88	\$83.19
4th 6 months	\$43.69	\$64.57	\$85.43
5th 6 months	\$44.81	\$66.24	\$87.67
6th 6 months	\$48.63	\$72.50	\$96.36
7th 6 months	\$49.32	\$73.01	\$96.69
8th 6 months	\$51.58	\$76.40	\$101.21

Official Request #: 228

Requestor: Troy School District

Project Description: Purchase, installation & cabling for Classroom Audio/Visual

Project Number: Bid 9839 –Classroom AV Display Project

County: Oakland

Official Rate Schedule

Every contractor and subcontractor shall keep posted
on the construction site, in a conspicuous place, a copy
of all prevailing wage and fringe benefit rates
prescribed in a contract.

Page 1 of 34

Official 2017 Prevailing Wage Rates for State Funded Projects

Issue Date: 2/14/2017

Contract must be awarded by: 5/15/2017

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<u>Classification</u>		Last	Straight Time and a Double			Overtime
Name	Description	Updated	Hourly	Half	Time	Provision
=====						
Bricklayer						
Bricklayer, stone mason, pointer, cleaner,	BR1		\$52.43	\$78.65	\$104.86	H H D H D D D D Y
<i>Make up day allowed comment</i>		10/15/2014				
Saturday for 5 day 8 hour week						
Friday for 4 day 10 hour week						
4 10s allowed M-TH						

Apprentice Rates:

First 6 months	\$31.87	\$47.81	\$63.74
2nd 6 months	\$33.72	\$50.60	\$67.44
3rd 6 months	\$35.57	\$53.37	\$71.14
4th 6 months	\$37.42	\$56.14	\$74.84
5th 6 months	\$39.27	\$58.92	\$78.54
6th 6 months	\$41.12	\$61.70	\$82.24
7th 6 months	\$42.97	\$64.46	\$85.94
8th 6 months	\$44.82	\$67.24	\$89.64

Carpenter

Diver	CA 687 D	\$67.75	\$87.50	\$107.25	X	X	H	X	X	H	H	D	Y
Four 10s allowed M-Sat; double time due when over 12 hours worked per day													
Make up day allowed comment		8/12/2016											
Saturday													

Official Request #: 228

Requestor: Troy School District

Project Description: Purchase, installation & cabling for Classroom Audio/Visual

Project Number: Bid 9839 –Classroom AV Display Project

County: Oakland

Official Rate Schedule

Every contractor and subcontractor shall keep posted on the construction site, in a conspicuous place, a copy of all prevailing wage and fringe benefit rates prescribed in a contract.

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Official 2017 Prevailing Wage Rates for State Funded Projects

Issue Date: 2/14/2017

Contract must be awarded by: 5/15/2017

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Classification		Last	Straight	Time and a	Double	Overtime
Name	Description	Updated	Hourly	Half	Time	Provision
=====						
Carpet and Resilient Floor Layer, (does not include installation of prefabricated formica & parquet flooring which is to be paid carpenter rate)	CA1045		\$51.11	\$72.33	\$93.54	X X H X X X X D Y

7/26/2016

Apprentice Rates:

1st 6 months	\$25.41	\$34.28	\$43.14
2nd 6 months	\$29.40	\$40.26	\$51.12
3rd 6 months	\$31.57	\$43.52	\$55.46
4th 6 months	\$33.74	\$46.77	\$59.80
5th 6 months	\$35.91	\$50.03	\$64.14
6th 6 months	\$38.08	\$53.28	\$68.48
7th 6 months	\$40.25	\$56.54	\$72.82
8th 6 months	\$42.42	\$59.79	\$77.16

Carpenter CA687Z1 \$57.69 \$73.27 \$88.85 X X H X X H H D Y
four 10s allowed Mon-Sat; double time due
when over 12 hours worked per day
Make up day allowed comment 8/12/2016
Saturdays

Apprentice Rates:

1st year	\$35.37	\$43.94	\$52.51
3rd 6 months	\$37.86	\$47.21	\$56.56
4th 6 months	\$40.32	\$50.45	\$60.57
5th 6 months	\$42.81	\$53.72	\$64.62
6th 6 months	\$45.29	\$56.98	\$68.66
7th 6 months	\$47.77	\$60.24	\$72.70
8th 6 months	\$50.26	\$63.51	\$76.75

Piledriver CA687Z1P \$57.69 \$73.27 \$88.85 X X H X X H H D Y
Four 10s allowed Monday-Saturday; double
time due when over 12 hours worked per day
Make up day allowed comment 8/12/2016
Saturday
Subdivision of county .

Official Request #: 228

Requestor: Troy School District

Project Description: Purchase, installation & cabling for Classroom Audio/Visual

Project Number: Bid 9839 –Classroom AV Display Project

County: Oakland

Official Rate Schedule

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Official 2017 Prevailing Wage Rates for State Funded Projects

Issue Date: 2/14/2017

Contract must be awarded by: 5/15/2017

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<u>Classification</u>		Last	Straight Time and a Double	Overtime
Name	Description	Updated	Hourly Half Time	Provision

=====

Cement Mason

Cement Mason	br1cm	\$50.05	\$71.17	\$92.28	X X H H H H H D N
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10/15/2014

Apprentice Rates:

1st 6 months	\$29.13	\$39.45	\$49.77
2nd 6 months	\$31.20	\$42.54	\$53.87

3rd 6 months	\$35.31	\$48.67	\$62.01
4th 6 months	\$39.46	\$54.85	\$70.23
5th 6 months	\$41.52	\$57.91	\$74.30
6th 6 months	\$45.67	\$64.10	\$82.52

Cement Mason CE514 \$48.55 \$68.40 \$88.24 H H D H H H D N

8/17/2016

Apprentice Rates:

1st 6 months	\$28.17	\$38.03	\$47.88
2nd 6 months	\$30.14	\$40.98	\$51.82
3rd 6 months	\$34.09	\$46.91	\$59.72
4th 6 months	\$38.03	\$52.82	\$67.60
5th 6 months	\$39.99	\$55.75	\$71.52
6th 6 months	\$43.94	\$61.68	\$79.42

Drywall

Drywall Taper PT-22-D \$45.91 \$59.74 \$73.56 H H D H D D D D Y

Four 10s allowed Monday-Thursday

Make up day allowed comment

8/25/2016

Friday make-up day for bad weather or holidays

Apprentice Rates:

First 3 months	\$32.08	\$38.99	\$45.90
Second 3 months	\$34.85	\$43.14	\$51.44
Second 6 months	\$37.62	\$47.30	\$56.98
Third 6 months	\$40.38	\$51.44	\$62.50
4th 6 months	\$41.76	\$53.51	\$65.26

Official Request #: 228

Requestor: Troy School District

Project Description: Purchase, installation & cabling for Classroom Audio/Visual

Project Number: Bid 9839 –Classroom AV Display Project

County: Oakland

Official Rate Schedule

Every contractor and subcontractor shall keep posted on the construction site, in a conspicuous place, a copy of all prevailing wage and fringe benefit rates prescribed in a contract.

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Official 2017 Prevailing Wage Rates for State Funded Projects

Issue Date: 2/14/2017

Contract must be awarded by: 5/15/2017

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<u>Classification</u>		Last	Straight Time and a Double	Overtime
Name	Description	Updated	Hourly Half Time	Provision

=====

Electrician

Inside Wireman	EC-58-IW	\$61.78	\$82.23	\$102.67	H	H	H	H	H	H	H	D	N
10/25/2016													

Apprentice Rates:

0-1000 hours	\$39.84	\$49.32	\$58.80
1000-2000 hours	\$41.84	\$52.32	\$62.79
2000-3500 hours	\$43.83	\$55.30	\$66.77
3500-5000 hours	\$45.83	\$58.30	\$70.76
5000-6500 hours	\$47.82	\$61.28	\$74.74
6500-8000 hours	\$51.81	\$67.28	\$82.73

Sound and Communication Installer	EC-58-SC	\$40.25	\$53.87	\$67.48	H	H	H	H	H	H	H	D	N
1/3/2017													

Apprentice Rates:

Period 1	\$26.64	\$33.45	\$40.26
Period 2	\$28.00	\$35.49	\$42.98
Period 3	\$29.36	\$37.53	\$45.70
Period 4	\$30.73	\$39.58	\$48.44
Period 5	\$32.09	\$41.62	\$51.16
Period 6	\$33.44	\$43.65	\$53.86

Elevator Constructor

Elevator Constructor	EL 36	\$56.46	\$94.99	D	D	D	D	D	D	D	D	D	Y
Elevator Constructor													
Make up day allowed 8/7/2007													

Apprentice Rates:

1st Year Apprentice	\$37.74	\$58.93
2nd Year Apprentice	\$41.90	\$66.94
3rd Year Apprentice	\$43.98	\$70.95
4th Year Apprentice	\$48.14	\$78.96

Official Request #: 228

Requestor: Troy School District

Project Description: Purchase, installation & cabling for Classroom Audio/Visual

Project Number: Bid 9839 –Classroom AV Display Project

County: Oakland

Official Rate Schedule

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Official 2017 Prevailing Wage Rates for State Funded Projects

Issue Date: 2/14/2017

Contract must be awarded by: 5/15/2017

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Classification		Last	Straight Time and a Double			Overtime
Name	Description	Updated	Hourly	Half	Time	Provision
=====						
Glazier						
Glazier	GL-357		\$49.50	\$65.23	\$80.95	H H H H H H D Y
If a four 10 hour day workweek is scheduled,						
four 10s must be consecutive, M-F.						

8/24/2016

Apprentice Rates:

1st 6 months	\$33.77	\$41.63	\$49.49
2nd 6 months	\$35.35	\$44.00	\$52.65
3rd 6 months	\$38.49	\$48.71	\$58.93
4th 6 months	\$40.06	\$51.07	\$62.07
5th 6 months	\$41.64	\$53.43	\$65.23
6th 6 months	\$43.21	\$55.79	\$68.37
7th 6 months	\$44.78	\$58.15	\$71.51
8th 6 months	\$47.93	\$62.87	\$77.81

Heat and Frost Insulator

Spray Insulation	AS25S	\$25.29	\$36.51	X X X H H H H H N
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6/2/2016

Heat and Frost Insulator and Asbestos Worker

Heat and Frost Insulators and Asbestos Workers	AS25	\$62.65	\$78.41	\$94.16	H H H H H H H D Y
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Four 10s must be worked for a minimum of 2 weeks consecutively, Monday thru Thursday. All hours worked in excess of 10 will be paid at double time. All hours worked on the fifth day,

comment

6/3/2016

Four 10s must be worked for a minimum of 2 consecutive weeks. OVERTIME is different on a four 10 week. OT is 2x for hours beyond 10. All hours on fifth day, M-F require time and one half. Sat first 8 hours, 1.5, all hours after 8 require double time.

Apprentice Rates:

1st Year	\$46.90	\$54.78	\$62.66
2nd Year	\$50.05	\$59.50	\$68.96
3rd Year	\$53.20	\$64.23	\$75.26
4th Year	\$56.35	\$68.96	\$81.56

Official Request #: 228

Requestor: Troy School District

Project Description: Purchase, installation & cabling for Classroom Audio/Visual

Project Number: Bid 9839 –Classroom AV Display Project

County: Oakland

Official Rate Schedule

Every contractor and subcontractor shall keep posted on the construction site, in a conspicuous place, a copy of all prevailing wage and fringe benefit rates prescribed in a contract.

Page 6 of 34

Official 2017 Prevailing Wage Rates for State Funded Projects

Issue Date: 2/14/2017

Contract must be awarded by: 5/15/2017

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Classification		Last	Straight	Time and a	Double	Overtime
Name	Description	Updated	Hourly	Half	Time	Provision
=====						
Ironworker						
Fence, Sound Barrier & Guardrail	IR-25-F1		\$35.95	\$48.05	\$60.15	X X H X X X H D Y
erection/installation and Exterior Signage work						
Four ten hour work days may be worked during						
Monday-Saturday.						

2/1/2017

Apprentice Rates:

60% Level	\$25.39	\$32.65	\$39.91
65% Level	\$26.71	\$34.58	\$42.44
70% Level	\$28.03	\$36.51	\$44.98
75% Level	\$29.35	\$38.42	\$47.50
80% Level	\$30.67	\$40.35	\$50.03
85% Level	\$31.99	\$42.28	\$52.56

Siding, Glazing, Curtain Wall	IR-25-GZ2	\$47.16	\$58.82	\$70.48	X X H H H H D D Y
4 tens may be worked Monday thru Thursday					
@ straight time.					

Make up day allowed comment

6/5/2015

Friday

Apprentice Rates:

Level 1	\$30.23	\$36.84	\$43.43
Level 2	\$32.34	\$39.58	\$46.80
Level 3	\$34.46	\$42.33	\$50.19
Level 4	\$36.58	\$45.08	\$53.57
Level 5	\$38.69	\$47.82	\$56.95
Level 6	\$40.81	\$50.57	\$60.33

Official Request #: 228

Requestor: Troy School District

Project Description: Purchase, installation & cabling for Classroom Audio/Visual

Project Number: Bid 9839 –Classroom AV Display Project

County: Oakland

Official Rate Schedule

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Official 2017 Prevailing Wage Rates for State Funded Projects

Issue Date: 2/14/2017

Contract must be awarded by: 5/15/2017

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Classification		Last	Straight Time and a	Double	Overtime	
Name	Description	Updated	Hourly	Half	Time	Provision
=====						
Pre-engineered Metal Work	IR-25-PE-Z1		\$47.49	\$58.03	\$68.56	X X H X X X D Y
Make up day allowed comment		4/6/2016				
4 tens allowed M-Th with Saturday make up day						
Apprentice Rates:						
1st Year			\$28.36	\$34.09	\$39.81	
3rd 6 month period			\$30.48	\$36.95	\$43.43	
4th 6 month period			\$32.61	\$39.84	\$47.08	
5th 6 month period			\$34.73	\$42.72	\$50.70	
6th 6 month period			\$36.86	\$45.60	\$54.34	
Reinforced Iron Work	IR-25-RF		\$56.98	\$85.28	\$113.57	H H D H D D D N
Make up day allowed		8/19/2016				
Apprentice Rates:						
Level 1			\$37.63	\$54.83	\$72.77	
Level 2			\$40.00	\$58.38	\$77.51	
Level 3			\$42.36	\$63.05	\$83.73	
Level 4			\$44.90	\$66.86	\$88.81	
Level 5			\$47.43	\$69.53	\$92.37	
Level 6			\$49.97	\$74.46	\$98.95	

8/19/2016

Structural, ornamental, welder and pre-cast	IR-25-STR	\$62.96	\$94.11	\$125.26	H	H	H	H	H	H	D	D	Y
4 tens may be worked Monday thru Thursday @ straight time. If bad weather, Friday may be a make up day. If holiday celebrated on a Monday, 4 10s may be worked Tuesday thru Friday. Work in excess of 12 hours per day													

must be paid @ double time.

Make up day allowed

8/19/2016

Apprentice Rates:

Levels 1 & 2	\$38.13	\$56.87	\$75.60
Level 3	\$40.96	\$61.12	\$81.26
Level 4	\$43.78	\$65.34	\$86.90
Level 5	\$46.61	\$69.59	\$92.56
Level 6	\$49.44	\$73.83	\$98.22
Level 7	\$52.26	\$78.06	\$103.86
Level 8	\$55.09	\$82.31	\$109.52

Industrial Door erection & construction IR-25-STR-D \$43.05 \$64.25 \$85.45 H H H H H H D D Y

Make up day allowed comment

8/19/2016

Friday for bad weather when 4 tens scheduled for M-Th. If holiday celebrated on M, 4 tens may be worked T-F. Work in excess of 12 hours per day must be paid @ double time.

Official Request #: 228

Requestor: Troy School District

Project Description: Purchase, installation & cabling for Classroom Audio/Visual

Project Number: Bid 9839 –Classroom AV Display Project

County: Oakland

Official Rate Schedule

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Official 2017 Prevailing Wage Rates for State Funded Projects

Issue Date: 2/14/2017

Contract must be awarded by: 5/15/2017

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<u>Classification</u>	Last Updated	Straight Time and a Half	Double Time	Overtime Provision
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Laborer

Construction Laborer, Demolition Laborer, Mason Tender, Carpenter Tender, Drywall Handler, Concrete Laborer, Cement Finisher tender, concrete chute and concrete Bucket Handler, Concrete Laborer	L1076-A-A	\$44.35	\$63.10	\$81.85	H H H H H H D Y
---	-----------	---------	---------	---------	-----------------

If conditions beyond the employer/employee's control prevent one or more hours of working during Mon-Fri, the employer may choose to work up to 10 hour straight time weekdays. Work may be scheduled up to 10 hours per Mon-Fri for the purpose of reaching 40 hours @ straight time. Make up days may also include 8 hours of work on Saturdays @ straight time.

Make up day allowed comment

6/16/2016

Saturday

Apprentice Rates:

0-1,000 work hours	\$38.33	\$54.07	\$69.81
1,001-2,000 work hours	\$39.53	\$55.87	\$72.21
2,001-3,000 work hours	\$40.73	\$57.67	\$74.61
3,001-4,000 work hours	\$43.15	\$61.30	\$79.45

Signal man (on sewer & caisson work);
air,electric or gasoline tool operator (including
concrete vibrator operator,acetylene torch & air
hammer operator); scaffold builder, caisson
worker

L1076-A-B

\$44.62 \$63.51 \$82.39 H H H H H H D Y

If conditions beyond the employer/employee's control prevent one or more hours of working during Mon-Fri, the employer may choose to work up to 10 hour straight time weekdays. Work may be scheduled up to 10 hours per Mon-Fri for the purpose of reaching 40 hours @ straight time. Make up days may also include 8 hours of work on Saturdays @ straight time.

Make up day allowed comment

6/16/2016

Saturday

Official Request #: 228

Requestor: Troy School District

Project Description: Purchase, installation & cabling for Classroom Audio/Visual

Project Number: Bid 9839 –Classroom AV Display Project

County: Oakland

Official Rate Schedule

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Official 2017 Prevailing Wage Rates for State Funded Projects

Issue Date: 2/14/2017

Contract must be awarded by: 5/15/2017

Official Request #: 228

Requestor: Troy School District

Project Description: Purchase, installation & cabling for Classroom Audio/Visual

Project Number: Bid 9839 –Classroom AV Display Project

County: Oakland

Official Rate Schedule

Every contractor and subcontractor shall keep posted on the construction site, in a conspicuous place, a copy of all prevailing wage and fringe benefit rates prescribed in a contract.

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Official 2017 Prevailing Wage Rates for State Funded Projects

Issue Date: 2/14/2017

Contract must be awarded by: 5/15/2017

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Classification		Last	Straight Time and a Double		Overtime
Name	Description	Updated	Hourly	Half	Time Provision
=====					
Expediter man, topman and/or bottom man (blast furnace work or battery work)	L1076-A-F		\$45.64	\$65.04	\$84.43 H H H H H H D Y

If conditions beyond the employer/employee's control prevent one or more hours of working during Mon-Fri, the employer may choose to work up to 10 hour straight time weekdays. Work may be scheduled up to 10 hours per Mon-Fri for the purpose of reaching 40 hours @ straight time. Make up days may also include 8 hours of work on Saturdays @ straight time.

comment

6/16/2016

Saturday

Plasterer Tender, Plastering Machine Operator	LPT-1		\$44.35	\$63.10	\$81.85 H H H H H H D Y
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If conditions beyond the employer/employee's control prevent one or more hours of working during Mon-Fri, the employer may choose to work up to 10 hour straight time weekdays. Work may be scheduled up to 10 hours per Mon-Fri for the purpose of reaching 40 hours @ straight time. Make up days may also include 8

Make up day allowed comment

6/17/2016

Saturday

Apprentice Rates:

1,001 - 2,000 hours	\$39.53	\$55.87	\$72.21
---------------------	---------	---------	---------

2,001 - 3,000 hours	\$40.73	\$57.67	\$74.61
3,001 - 4,000 hours	\$43.15	\$61.30	\$79.45

Official Request #: 228

Requestor: Troy School District

Project Description: Purchase, installation & cabling for Classroom Audio/Visual

Project Number: Bid 9839 –Classroom AV Display Project

County: Oakland

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Every contractor and subcontractor shall keep posted on the construction site, in a conspicuous place, a copy of all prevailing wage and fringe benefit rates prescribed in a contract.

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Official 2017 Prevailing Wage Rates for State Funded Projects

Issue Date: 2/14/2017

Contract must be awarded by: 5/15/2017

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Classification	Name	Description	Last Updated	Straight Time and a Half Hourly	Double Time	Overtime Provision
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Laborer - Hazardous

Class A Laborer - performing work in conjunction with site preparation and other preliminary work prior to actual removal, handling, or containment of hazardous waste substances not requiring use of personal protective equipment required by state or federal regulations; or a laborer performing work in conjunction with the removal, handling, or containment of hazardous waste substances when used of personal protective equipment level "D" is required.

Make up day allowed comment

11/1/2013

4 10s allowed M-Th or T-F; inclement weather makeup day Friday

Apprentice Rates:

0-1,000 work hours	\$37.60	\$53.03	\$68.45
1,001-2,000 work hours	\$38.79	\$54.81	\$70.83
2,001-3,000 work hours	\$39.98	\$56.60	\$73.21

3,001-4,000 work hours \$42.35 \$60.15 \$77.95

Class B Laborer - performing work in conjunction LHAZ-Z2-B \$44.54 \$63.44 \$82.33 H H H H H H D Y
with the removal, handling, or containment of
hazardous waste substances when the use of
personal protective equipment levels "A", "B" or
"C" is required.

Make up day allowed comment 11/7/2014

4 10s allowed M-Th or T-F; inclement weather makeup day Friday

Apprentice Rates:

0-1,000 work hours \$38.36 \$54.17 \$69.97
1,001-2,000 work hours \$39.59 \$56.01 \$72.43
2,001-3,000 work hours \$40.83 \$57.87 \$74.91
3,001-4,000 work hours \$43.30 \$61.58 \$79.85

Official Request #: 228

Requestor: Troy School District

Project Description: Purchase, installation & cabling for Classroom Audio/Visual

Project Number: Bid 9839 –Classroom AV Display Project

County: Oakland

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Official 2017 Prevailing Wage Rates for State Funded Projects

Issue Date: 2/14/2017

Contract must be awarded by: 5/15/2017

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<u>Classification</u>	Last	Straight Time and a Double	Overtime
Name Description	Updated	Hourly Half Time	Provision

Laborer Underground - Tunnel, Shaft & Caisson

Class I - Tunnel, shaft and caisson laborer, LAUCT-Z1-1 \$37.87 \$48.66 \$59.44 X X X X X X D Y
dump man, shanty man, hog house tender,
testing man (on gas), and watchman.

9/6/2013

Apprentice Rates:

0-1,000 work hours \$33.05 \$41.43 \$49.80
1,001-2,000 work hours \$34.02 \$42.88 \$51.74

2,001-3,000 work hours		\$34.98	\$44.32	\$53.66															
3,001-4,000 work hours		\$36.91	\$47.21	\$57.52															
Class II - Manhole, headwall, catch basin builder, bricklayer tender, mortar man, material mixer, fence erector, and guard rail builder.	LAUCT-Z1-2	\$37.98	\$48.82	\$59.66	X	X	X	X	X	X	X	D	Y						

9/6/2013

Apprentice Rates:

0-1,000 work hours	\$33.14	\$41.56	\$49.98
1,001-2,000 work hours	\$34.10	\$43.00	\$51.90
2,001-3,000 work hours	\$35.07	\$44.45	\$53.84
3,001-4,000 work hours	\$37.01	\$47.37	\$57.72

Official Request #: 228

Requestor: Troy School District

Project Description: Purchase, installation & cabling for Classroom Audio/Visual

Project Number: Bid 9839 –Classroom AV Display Project

County: Oakland

Official Rate Schedule

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Official 2017 Prevailing Wage Rates for State Funded Projects

Issue Date: 2/14/2017

Contract must be awarded by: 5/15/2017

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<u>Classification</u>		Last	Straight Time and a Double	Overtime															
Name	Description	Updated	Hourly	Half	Time	Provision													
Class III - Air tool operator (jack hammer man, bush hammer man and grinding man), first bottom man, second bottom man, cage tender,	LAUCT-Z1-3		\$38.04	\$48.91	\$59.78	X	X	X	X	X	X	D	Y						

car pusher, carrier man, concrete man, concrete form man, concrete repair man, cement invert laborer, cement finisher, concrete shoveler, conveyor man, floor man, gasoline and electric tool operator, gunnite man, grout operator, welder, heading dinky man, inside lock tender, pea gravel operator, pump man, outside lock tender, scaffold man, top signal man, switch man, track man, tugger man, utility man, vibrator man, winch operator, pipe jacking man, wagon drill and air track operator and concrete saw operator (under 40 h.p.).

9/6/2013

Apprentice Rates:

0-1,000 work hours	\$33.18	\$41.62	\$50.06
1,001-2,000 work hours	\$34.15	\$43.07	\$52.00
2,001-3,000 work hours	\$35.12	\$44.53	\$53.94
3,001-4,000 work hours	\$37.07	\$47.45	\$57.84

Class IV - Tunnel, shaft and caisson mucker, bracer man, liner plate man, long haul dinky driver and well point man.

LAUCT-Z1-4

\$38.22 \$49.18 \$60.14 X X X X X X X D Y

9/6/2013

Apprentice Rates:

0-1,000 work hours	\$33.32	\$41.83	\$50.34
1,001-2,000 work hours	\$34.30	\$43.30	\$52.30
2,001-3,000 work hours	\$35.28	\$44.77	\$54.26
3,001-4,000 work hours	\$37.24	\$47.71	\$58.18

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Issue Date: 2/14/2017

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Classification		Last	Straight	Time and a	Double	Overtime
Name	Description	Updated	Hourly	Half	Time	Provision
=====						
Class V - Tunnel, shaft and caisson miner, drill runner, keyboard operator, power knife operator, reinforced steel or mesh man (e.g. wire mesh, steel mats, dowel bars)	LAUCT-Z1-5		\$38.47	\$49.56	\$60.64	X X X X X X D Y
		9/6/2013				
Apprentice Rates:						
	0-1,000 work hours		\$33.50	\$42.10	\$50.70	
	1,001-2,000 work hours		\$34.50	\$43.60	\$52.70	
	2,001-3,000 work hours		\$35.49	\$45.09	\$54.68	
	3,001-4,000 work hours		\$37.48	\$48.07	\$58.66	
Class VI - Dynamite man and powder man.	LAUCT-Z1-6		\$38.80	\$50.05	\$61.30	X X X X X X D Y
		9/6/2013				
Apprentice Rates:						
	0-1,000 work hours		\$33.75	\$42.47	\$51.20	
	1,001-2,000 work hours		\$34.76	\$43.99	\$53.22	
	2,001-3,000 work hours		\$35.77	\$45.51	\$55.24	
	3,001-4,000 work hours		\$37.79	\$48.53	\$59.28	
Class VII - Restoration laborer, seeding, sodding, planting, cutting, mulching and topsoil grading and the restoration of property such as replacing mail boxes, wood chips, planter boxes and flagstones.	LAUCT-Z1-7		\$32.08	\$39.97	\$47.86	X X X X X X D Y
		9/6/2013				
Apprentice Rates:						
	0-1,000 work hours		\$28.71	\$34.91	\$41.12	
	1,001-2,000 work hours		\$29.38	\$35.92	\$42.46	
	2,001-3,000 work hours		\$30.06	\$36.94	\$43.82	
	3,001-4,000 work hours		\$31.41	\$38.97	\$46.52	

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Requestor: Troy School District

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Official 2017 Prevailing Wage Rates for State Funded Projects

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Classification		Last	Straight	Time and a	Double	Overtime								
Name	Description	Updated	Hourly	Half	Time	Provision								
=====														
Landscape Laborer														
	Landscape Specialist includes air, gas, and diesel equipment operator, skidsteer (or equivalent), lawn sprinkler installer on landscaping work where seeding, sodding, planting, cutting, trimming, backfilling, rough grading or maintenance of landscape projects occurs.	LLAN-Z1-A	\$28.98	\$40.04	\$51.09	X	X	H	X	X	X	H	D	Y
Sundays paid at time & one half. Holidays paid at double time.														
10/13/2015														
	Skilled Landscape Laborer: small power tool operator, lawn sprinkler installers' tender, material mover, truck driver when seeding, sodding, planting, cutting, trimming, backfilling, rough grading or maintaining of landscape projects occurs	LLAN-Z1-B	\$24.76	\$33.71	\$42.65	X	X	H	X	X	X	H	D	Y
Sundays paid at time & one half. Holidays paid at double time.														
10/13/2015														
Marble Finisher														
	Marble Finisher	BR1-MF	\$43.48	\$54.29	\$65.10	H	H	D	H	D	D	D	D	Y
A 4 ten workweek may be worked Monday thru Thursday or Tuesday thru Friday.														

10/20/2014

Apprentice Rates:

Level 1	\$19.04	\$25.12	\$31.20
Level 2	\$20.24	\$26.92	\$33.60
Level 3	\$27.01	\$33.96	\$40.90
Level 4	\$28.47	\$36.14	\$43.82
Level 5	\$29.99	\$37.84	\$45.70
Level 6	\$31.61	\$39.86	\$48.10
Level 7	\$33.30	\$41.59	\$49.87
Level 8	\$34.79	\$43.48	\$52.17

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Official 2017 Prevailing Wage Rates for State Funded Projects**Issue Date:** 2/14/2017**Contract must be awarded by:** 5/15/2017**Page 18 of 34**

<u>Classification</u>		Last	Straight Time and a Double			Overtime
Name	Description	Updated	Hourly	Half	Time	Provision
=====						
Marble Mason						
Marble Mason	BR1-MM		\$50.29	\$64.51	\$78.72	H H D H D D D D Y
A 4 ten workweek may be worked Monday thru Thursday or Tuesday thru Friday.						

10/17/2014

Apprentice Rates:

Level 1	\$25.14	\$32.65	\$40.15
Level 2	\$28.20	\$36.49	\$44.78
Level 3	\$33.41	\$41.97	\$50.53
Level 4	\$36.15	\$45.66	\$55.17
Level 5	\$38.42	\$48.17	\$57.92
Level 6	\$42.07	\$53.56	\$65.05
Level 7	\$42.74	\$54.38	\$66.02
Level 8	\$43.67	\$55.78	\$67.88

[illegible]

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County: Oakland

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Issue Date: 2/14/2017
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Classification		Last	Straight	Time and a	Double	Overtime							
Name	Description	Updated	Hourly	Half	Time	Provision							
=====													
Crane with boom & jib or leads 400' or longer	EN-324-A400		\$62.73	\$82.55	\$102.37	X	X	H	H	D	D	D	Y
Work in excess of 12 per day M-F shall be paid at double time.													
7/28/2016													
Compressor or welding machine	EN-324-CW		\$47.76	\$60.10	\$72.43	X	X	H	H	D	D	D	Y
Work in excess of 12 per day M-F shall be paid at double time.													

7/28/2016

Forklift, lull, extend-a-boom forklift EN-324-FL \$55.07 \$71.06 \$87.05 X X H H D D D D Y
 Work in excess of 12 per day M-F shall be paid
 at double time.

7/28/2016

Fireman or oiler EN-324-FO \$46.73 \$58.55 \$70.37 X X H H D D D D Y
 Work in excess of 12 per day M-F shall be paid
 at double time.

7/28/2016

Regular crane, job mechanic, concrete pump EN-324-RC \$57.75 \$75.08 \$92.41 X X H H D D D D Y
 with boom

 Work in excess of 12 per day M-F shall be paid
 at double time.

7/27/2016

Regular engineer, hydro-excavator, remote EN-324-RE \$56.78 \$73.63 \$90.47 X X H H D D D D Y
 controlled concrete breaker
 Work in excess of 12 per day M-F shall be paid
 at double time.

7/27/2016

Apprentice Rates:

0-999 hours	\$46.35	\$58.48	\$70.61
1,000-1,999 hours	\$48.09	\$61.10	\$74.09
2,000-2,999 hours	\$49.82	\$63.68	\$77.55
3,000-3,999 hours	\$51.55	\$66.28	\$81.01
4,000-4,999 hours	\$53.29	\$68.90	\$84.49
5,000-5,999 hours	\$55.01	\$71.47	\$87.93

Official Request #: 228

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Official 2017 Prevailing Wage Rates for State Funded Projects

Issue Date: 2/14/2017

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<u>Classification</u>		Last	Straight Time and a Double		Overtime
Name	Description	Updated	Hourly	Half Time	Provision

=====

Operating Engineer - DIVER

Diver/Wet Tender/Tender/Rov Pilot/Rov Tender	GLF D	\$52.80	\$79.20	\$105.60	H	H	H	H	H	H	H	D	N
--	-------	---------	---------	----------	---	---	---	---	---	---	---	---	---

4/2/2014

Operating Engineer - Marine Construction

Diver/Wet Tender, Engineer (hydraulic dredge)	GLF-1	\$72.32	\$93.82	\$115.32	X	X	H	H	H	H	H	D	Y
---	-------	---------	---------	----------	---	---	---	---	---	---	---	---	---

Make up day allowed 1/23/2017

Subdivision of county all Great Lakes, islands therein, & connecting & tributary waters

Crane/Backhoe Operator, 70 ton or over Tug Operator, Mechanic/Welder, Assistant Engineer (hydraulic dredge), Leverman (hydraulic dredge), Diver Tender	GLF-2	\$70.82	\$91.57	\$112.32	X	X	H	H	H	H	H	D	Y
---	-------	---------	---------	----------	---	---	---	---	---	---	---	---	---

Holiday pay = 2.5 times the straight hourly rate

Make up day allowed 1/23/2017

Subdivision of county All Great Lakes, islands therein, & connecting & tributary waters

Friction, Lattice Boom or Crane License Certification	GLF-2B	\$72.32	\$93.82	\$115.32	X	X	H	H	H	H	H	D	Y
--	--------	---------	---------	----------	---	---	---	---	---	---	---	---	---

Holiday pay = 2.5 times the straight hourly rate

Make up day allowed 1/23/2017

Subdivision of county All Great Lakes, islands, therein, & connecting & tributary waters

Deck Equipment Operator, Machineryman, Maintenance of Crane (over 50 ton capacity) or Backhoe (115,000 lbs or more), Tug/Launch Operator, Loader, Dozer on Barge, Deck Machinery	GLF-3	\$66.27	\$84.75	\$103.22	X	X	H	H	H	H	H	D	Y
--	-------	---------	---------	----------	---	---	---	---	---	---	---	---	---

Holiday pay = 2.5 times the straight hourly rate

Make up day allowed 1/23/2017

Subdivision of county All Great Lakes, islands therein, & connecting & tributary waters

Official Request #: 228

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Official 2017 Prevailing Wage Rates for State Funded Projects**Issue Date:** 2/14/2017**Contract must be awarded by:** 5/15/2017**Page 21 of 34**

<u>Classification</u>		Last	Straight Time and a Double		Overtime	
Name	Description	Updated	Hourly	Half	Time	Provision
=====						
Deck Equipment Operator, (Machineryman/Fireman), (4 equipment units or more), Off Road Trucks, Deck Hand, Tug Engineer, & Crane Maintenance 50 ton capacity and under or Backhoe 115,000 lbs or less, Assistant Tug Operator	GLF-4		\$60.07	\$75.45	\$90.82	X X H H H H D Y

Holiday pay = 2.5 times the straight hourly rate

Make up day allowed

1/23/2017

Subdivision of county

All Great Lakes, islands therein, & connecting & tributary waters

Operating Engineer Steel Work

Forklift, 1 Drum Hoist	EN-324-ef		\$59.66	\$78.12	\$96.58	H H D H H H D D Y
<i>Make up day allowed comment</i>		8/4/2016				
4 10s allowed M-Th with Friday makeup day because of bad weather						
Crane w/ 120' boom or longer	EN-324-SW120		\$62.36	\$82.17	\$101.98	H H D H H H D D Y
<i>Make up day allowed comment</i>		8/5/2016				
4 10s allowed M-Th with Friday makeup day because of bad weather						
Crane w/ 120' boom or longer w/ Oiler	EN-324-SW120-O		\$63.36	\$83.67	\$103.98	H H D H H H D D Y
<i>Make up day allowed comment</i>		8/5/2016				
4 10s allowed M-Th with Friday makeup day because of bad weather						
Crane w/ 140' boom or longer	EN-324-SW140		\$63.54	\$83.94	\$104.34	H H D H H H D D Y
<i>Make up day allowed comment</i>		8/5/2016				
4 10s allowed M-Th with Friday makeup day because of bad weather						
Crane w/ 140' boom or longer W/ Oiler	EN-324-SW140-O		\$64.54	\$85.44	\$106.34	H H D H H H D D Y
<i>Make up day allowed comment</i>		8/5/2016				
4 10s allowed M-Th with Friday makeup day because of bad weather						
Boom & Jib 220' or longer	EN-324-SW220		\$63.81	\$84.35	\$104.88	H H D H H H D D Y
<i>Make up day allowed comment</i>		8/5/2016				
4 10s allowed M-Th with Friday makeup day because of bad weather						
Crane w/ 220' boom or longer w/ Oiler	EN-324-SW220-O		\$64.81	\$85.85	\$106.88	H H D H H H D D Y

Make up day allowed comment

8/5/2016

4 10s allowed M-Th with Friday makeup day because of bad weather

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Classification	Last	Straight Time and a Double	Overtime
Name Description	Updated	Hourly Half Time	Provision
=====			
Boom & Jib 300' or longer	EN-324-SW300	\$65.31 \$86.60 \$107.88	H H D H H D D Y
Make up day allowed comment	8/5/2016		
4 10s allowed M-Th with Friday makeup day because of bad weather			
Crane w/ 300' boom or longer w/ Oiler	EN-324-SW300-O	\$66.31 \$88.10 \$109.88	H H D H H D D Y
Make up day allowed comment	8/5/2016		
4 10s allowed M-Th with Friday makeup day because of bad weather			
Boom & Jib 400' or longer	EN-324-SW400	\$66.81 \$88.80 \$110.82	H H D H H D D Y
Make up day allowed comment	8/5/2016		
4 10s allowed M-Th with Friday makeup day because of bad weather			
Crane w/ 400' boom or longer w/ Oiler	EN-324-SW400-O	\$67.81 \$90.35 \$112.88	H H D H H D D Y
Make up day allowed comment	8/5/2016		
4 10s allowed M-Th with Friday makeup day because of bad weather			
Crane Operator, Job Mechanic, 3 Drum Hoist & Excavator	EN-324-SWCO	\$62.00 \$81.63 \$101.26	H H D H H D D Y
Make up day allowed comment	8/5/2016		
4 10s allowed M-Th with Friday makeup day because of bad weather			

Apprentice Rates:

0-999 hours	\$49.22	\$62.96	\$76.70
1,000-1,999 hours	\$51.18	\$65.90	\$80.62
2,000-2,999 hours	\$53.15	\$68.85	\$84.56
3,000-3,999 hours	\$55.11	\$71.80	\$88.48
4,000-4,999 hours	\$57.07	\$74.74	\$92.40
5,000 hours	\$59.04	\$77.69	\$96.34

Crane Operator w/ Oiler	EN-324-SWCO-O	\$63.00	\$83.13	\$103.26	H H D H H H D D Y
<i>Make up day allowed comment</i>		8/5/2016			
4 10s allowed M-Th with Friday makeup day because of bad weather					

Compressor or Welder Operator	EN-324-SWCW	\$54.55	\$70.46	\$86.36	H H D H H H D D Y
<i>Make up day allowed comment</i>		8/5/2016			
4 10s allowed M-Th with Friday makeup day because of bad weather					

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Official 2017 Prevailing Wage Rates for State Funded Projects

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Classification		Last	Straight Time and a Double		Overtime
Name	Description	Updated	Hourly	Half	Time Provision
=====					
Hoisting Operator, 2 Drum Hoist, & Rubber Tire Backhoe	EN-324-SWHO		\$61.36	\$80.67	\$99.98 H H D H H H D D Y
<i>Make up day allowed comment</i>		8/5/2016			
4 10s allowed M-Th with Friday makeup day because of bad weather					
Oiler	EN-324-SWO		\$53.14	\$68.34	\$83.54 H H D H H H D D Y
<i>Make up day allowed comment</i>		8/5/2016			
4 10s allowed M-Th with Friday makeup day because of bad weather					
Tower Crane & Derrick where work is 50' or less	EN-324-SWTD50		\$63.09	\$83.27	\$103.44 H H D H H H D D Y
<i>Make up day allowed comment</i>		8/5/2016			
4 10s allowed M-Th with Friday makeup day because of bad weather					
Tower Crane & Derrick 50' or more w/ Oiler	EN-324-SWTD50-O		\$64.09	\$84.77	\$105.44 H H D H H H D D Y
<i>Make up day allowed comment</i>		8/5/2016			
4 10s allowed M-Th with Friday makeup day because of bad weather					

Operating Engineer Underground

Class I Equipment	EN-324A1-UC1	\$54.54	\$70.33	\$86.12	H H H H H H H D Y
12/6/2016					

Apprentice Rates:

Year 1	\$31.04	\$37.68	\$44.32
Year 2	\$33.70	\$41.67	\$49.64
Year 3	\$36.35	\$45.64	\$54.94
Year 4	\$40.34	\$51.63	\$62.92
Fifth 6 months	\$38.36	\$48.79	\$59.21
Final 6 months	\$39.66	\$50.73	\$61.81

Pipe and Manhole Rehab

General Laborer for rehab work or normal cleaning and cctv work-top man, scaffold man, CCTV assistant, jetter-vac assistant TM247 \$28.20 \$38.20 H H H H H H H N

4/17/2015

Tap cutter/CCTV Tech/Grout Equipment Operator: unit driver and operator of CCTV; grouting equipment and tap cutting equipment TM247-2 \$32.70 \$44.95 H H H H H H H N

4/17/2015

CCTV Technician/Combo Unit Operator: unit driver and operator of cctv unit or combo unit in connection with normal cleaning and televising work TM247-3 \$31.45 \$43.07 H H H H H H H N

4/17/2015

Official Request #: 228

Requestor: Troy School District

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County: Statewide

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Classification		Last	Straight Time and a Double	Overtime
Name	Description	Updated	Hourly Half Time	Provision
=====				
Boiler Operator: unit driver and operator of steam/water heater units and all ancillary equipment associated	TM247-4		\$33.20 \$45.70	H H H H H H H N
=====				
Combo Unit driver & Jetter-Vac Operator	TM247-5		\$33.20 \$45.70	H H H H H H H N

4/17/2015

4/17/2015

Pipe Bursting & Slip-lining Equipment Operator TM247-6 \$34.20 \$47.20 H H H H H H H N

4/17/2015

Pipefitter

Pipefitter PF-636 \$69.83 \$91.03 \$108.23 H H D H D D D D Y

comment

7/12/2016

Four 10s allowed during the week preceding, following and/or the week of a holiday.

Apprentice Rates:

1st & 2nd periods	\$29.93	\$38.28	\$45.28
3rd period	\$31.93	\$41.28	\$49.28
4th period	\$33.18	\$43.16	\$51.78
5th period	\$34.43	\$45.03	\$54.28
6th period	\$35.68	\$46.90	\$56.78
7th period	\$36.93	\$48.78	\$59.28
8th period	\$37.93	\$50.28	\$61.28
9th period	\$38.93	\$51.78	\$63.28
10th period	\$40.36	\$53.92	\$66.14

Official Request #: 228

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Official 2017 Prevailing Wage Rates for State Funded Projects

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<u>Classification</u>	Last	Straight Time and a Double	Overtime
Name Description	Updated	Hourly Half Time	Provision

=====

Plasterer

Plasterer	BR1P	\$45.04	\$67.56	\$90.08	H	H	H	H	H	H	H	D	N
<i>Make up day allowed comment</i>													
Saturday													

11/1/2012

Apprentice Rates:

1st 6 months	\$32.11	\$48.17	\$64.22
2nd 6 months	\$33.40	\$50.10	\$66.80
3rd 6 months	\$34.69	\$52.04	\$69.38
4th 6 months	\$37.28	\$55.92	\$74.56
5th 6 months	\$39.87	\$59.81	\$79.74
6th 6 months	\$42.45	\$63.68	\$84.90

Plasterer	PL67	\$44.72	\$60.11	\$75.50	H	H	H	X	D	D	D	D	N
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9/8/2010

Apprentice Rates:

1st 6 months	\$29.33	\$37.02	\$44.72
2nd 6 months	\$30.87	\$39.34	\$47.80
3rd 6 months	\$32.41	\$41.64	\$50.88
4th 6 months	\$35.49	\$46.26	\$57.04
5th 6 months	\$38.56	\$51.16	\$63.76
6th 6 months	\$41.64	\$55.49	\$69.34

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Issue Date: 2/14/2017
Contract must be awarded by: 5/15/2017

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<u>Classification</u>		Last	Straight Time and a	Double	Overtime
Name	Description	Updated	Hourly	Half	Time Provision
=====					
Plumber					
Plumber		PL-98	\$64.45	\$84.87	\$101.29 H H D H D D D Y
	<i>comment</i>	7/18/2013			
4 tens allowed M-Th or T-F; OT of time and one half required on 11th & 12th hour of any ten hour days					

Apprentice Rates:

Period 1	\$19.93	\$26.43	\$32.93
Period 2	\$23.90	\$31.40	\$38.90
Period 3	\$30.60	\$39.19	\$47.77
Period 4	\$31.23	\$40.13	\$49.03
Period 5	\$32.39	\$41.87	\$51.35
Period 6	\$33.54	\$43.59	\$53.65
Period 7	\$34.69	\$45.32	\$55.95
Period 8	\$35.86	\$47.07	\$58.29
Period 9	\$37.01	\$48.80	\$60.59
Period 10	\$38.16	\$50.53	\$62.89

Roofer

Commercial Roofer		RO-149-WOM	\$55.93	\$70.93	\$85.93 X X H X X H H D N
		9/27/2016			

Apprentice Rates:

new apprentice	\$37.34	\$45.07	\$52.80
Apprentice 1	\$41.85	\$49.81	\$57.77
Apprentice 2	\$42.36	\$50.57	\$58.79
Apprentice 3	\$43.87	\$52.84	\$61.81
Apprentice 4	\$45.37	\$55.09	\$64.81
Apprentice 5	\$46.88	\$57.35	\$67.83
Apprentice 6	\$48.29	\$59.47	\$70.65
Apprentice 7	\$49.90	\$61.89	\$73.87
Apprentice 8	\$51.41	\$64.15	\$76.89

Requestor: Troy School District
 Project Description: Purchase, installation & cabling for Classroom Audio/Visual
 Project Number: Bid 9839 –Classroom AV Display Project
 County: Oakland

Every contractor and subcontractor shall keep posted on the construction site, in a conspicuous place, a copy of all prevailing wage and fringe benefit rates prescribed in a contract.

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Official 2017 Prevailing Wage Rates for State Funded Projects

Issue Date: 2/14/2017

Contract must be awarded by: 5/15/2017

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<u>Classification</u>		Last	Straight	Time and a	Double	Overtime	
Name	Description	Updated	Hourly	Half	Time	Provision	
=====							
Sewer Relining							
Class I-Operator of audio visual CCTV system including remote in-ground cutter and other equipment used in conjunction with CCTV	SR-I		\$43.66	\$59.01	\$74.36	H H H H H H D N	
		11/24/2015					
Class II-Operator of hot water heaters and circulation system; water jetters; and vacuum and mechanical debris removal systems and those assisting.	SR-II		\$42.13	\$56.72	\$71.30	H H H H H H D N	
		11/24/2015					
Sheet Metal Worker							
Sheet Metal Worker A 4 10 schedule may be worked, 4 consecutive days Monday thru Friday.	SHM-80		\$64.50	\$82.20	\$99.89	H H D X H H H D Y	
		8/30/2016					

Apprentice Rates:

1st & 2nd Periods	\$40.99	\$48.95	\$56.92
3rd & 4th Periods	\$42.75	\$51.60	\$60.44
5th & 6th Periods	\$44.52	\$54.26	\$63.98
7th & 8th Periods	\$46.29	\$56.91	\$67.52

Official Request #: 228

Requestor: Troy School District

Project Description: Purchase, installation & cabling for Classroom Audio/Visual

Project Number: Bid 9839 –Classroom AV Display Project

County: Oakland

Official Rate Schedule

Every contractor and subcontractor shall keep posted on the construction site, in a conspicuous place, a copy of all prevailing wage and fringe benefit rates prescribed in a contract.

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Official 2017 Prevailing Wage Rates for State Funded Projects

Issue Date: 2/14/2017

Contract must be awarded by: 5/15/2017

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Classification		Last	Straight Time and a Double	Overtime
Name	Description	Updated	Hourly Half Time	Provision
=====				
Sprinkler Fitter				
Sprinkler Fitter	SP 704		\$66.92 \$85.66 \$104.39	H H D H D D D Y
4 ten hour days allowed Monday-Friday				
Double time pay due after 12 hours worked M-F				

1/3/2017

Apprentice Rates:

1st Period	\$29.27	\$37.92	\$46.57
2nd Period	\$43.13	\$52.86	\$62.59
3rd Period	\$45.29	\$56.10	\$66.91
4th Period	\$47.45	\$59.34	\$71.23
5th Period	\$49.62	\$62.59	\$75.57
6th Period	\$51.78	\$65.83	\$79.89
7th Period	\$53.94	\$69.07	\$84.21
8th Period	\$56.10	\$72.31	\$88.53

9th Period	\$58.27	\$75.57	\$92.87
10th Period	\$60.43	\$78.81	\$97.19

Terrazzo

Terrazzo Finisher BR1-TRF \$43.97 \$55.03 \$66.08 H H D H D D D D Y
A 4 ten workweek may be worked Monday
thru Thursday or Tuesday thru Friday.

10/17/2014

Apprentice Rates:

Level 1	\$19.04	\$25.12	\$31.20
Level 2	\$20.24	\$26.92	\$33.60
Level 3	\$27.01	\$33.96	\$40.90
Level 4	\$28.47	\$36.14	\$43.82
Level 5	\$29.99	\$37.84	\$45.70
Level 6	\$31.61	\$39.86	\$48.10
Level 7	\$33.30	\$41.59	\$49.87
Level 8	\$34.79	\$43.48	\$52.17

Official Request #: 228

Requestor: Troy School District

Project Description: Purchase, installation & cabling for Classroom Audio/Visual

Project Number: Bid 9839 –Classroom AV Display Project

County: Oakland

Official Rate Schedule

Every contractor and subcontractor shall keep posted
on the construction site, in a conspicuous place, a copy
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prescribed in a contract.

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Official 2017 Prevailing Wage Rates for State Funded Projects

Issue Date: 2/14/2017

Contract must be awarded by: 5/15/2017

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Classification		Last	Straight Time and a Double	Overtime
Name	Description	Updated	Hourly Half Time	Provision
=====				
Terrazzo Worker	BR1-TRW	\$49.73	\$63.67	\$77.60 H H D H D D D D Y
A 4 ten workweek may be worked Monday				
thru Thursday or Tuesday thru Friday.				

10/17/2014

Apprentice Rates:

Level 1	\$25.14	\$32.65	\$40.15
Level 2	\$28.20	\$36.49	\$44.78
Level 3	\$33.41	\$41.97	\$50.53

Level 4	\$36.15	\$45.66	\$55.17
Level 5	\$38.42	\$48.17	\$57.92
Level 6	\$42.07	\$53.56	\$65.05
Level 7	\$42.74	\$54.38	\$66.02
Level 8	\$43.67	\$55.78	\$67.88

Tile

Tile Finisher BR1-TF \$43.50 \$54.32 \$65.14 H H D H D D D D Y
A 4 ten workweek may be worked Monday
thru Thursday or Tuesday thru Friday.

10/17/2014

Apprentice Rates:

Level 1	\$19.04	\$25.12	\$31.20
Level 2	\$20.24	\$26.92	\$33.60
Level 3	\$27.01	\$33.96	\$40.90
Level 4	\$28.47	\$36.14	\$43.82
Level 5	\$29.99	\$37.84	\$45.70
Level 6	\$31.61	\$39.86	\$48.10
Level 7	\$33.30	\$41.59	\$49.87
Level 8	\$34.79	\$43.48	\$52.17

Official Request #: 228

Requestor: Troy School District

Project Description: Purchase, installation & cabling for Classroom Audio/Visual

Project Number: Bid 9839 –Classroom AV Display Project

County: Oakland

Official Rate Schedule

Every contractor and subcontractor shall keep posted on the construction site, in a conspicuous place, a copy of all prevailing wage and fringe benefit rates prescribed in a contract.

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Official 2017 Prevailing Wage Rates for State Funded Projects

Issue Date: 2/14/2017

Contract must be awarded by: 5/15/2017

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Classification		Last	Straight Time and a Double	Overtime
Name	Description	Updated	Hourly Half Time	Provision
=====				
Tile Layer	BR1-TL	\$49.68	\$63.59	\$77.50 H H D H D D D D Y
A 4 ten workweek may be worked Monday				

thru Thursday or Tuesday thru Friday.

10/17/2014

Apprentice Rates:

Level 1	\$25.14	\$32.65	\$40.15
Level 2	\$28.20	\$36.49	\$44.78
Level 3	\$33.41	\$41.97	\$50.53
Level 4	\$36.15	\$45.66	\$55.17
Level 5	\$38.42	\$48.17	\$57.92
Level 6	\$42.07	\$53.56	\$65.05
Level 7	\$42.74	\$54.38	\$66.02
Level 8	\$43.67	\$55.78	\$67.88

Truck Driver

on all trucks of 8 cubic yard capacity or less (except dump trucks of 8 cubic yard capacity or over, tandem axle trucks, transit mix and semis, euclid type equipment, double bottoms and low boys)	TM-RB1	\$44.10	\$48.81	H H H H H H H Y
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6/7/2016

of all trucks of 8 cubic yard capacity or over	TM-RB1A	\$44.20	\$48.96	H H H H H H H Y
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6/7/2016

on euclid type equipment	TM-RB1B	\$44.35	\$49.19	H H H H H H H Y
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Make up day allowed

6/7/2016

Official Request #: 228

Requestor: Troy School District

Project Description: Purchase, installation & cabling for Classroom Audio/Visual

Project Number: Bid 9839 –Classroom AV Display Project

County: Oakland

Official Rate Schedule

**Every contractor and subcontractor shall keep posted
on the construction site, in a conspicuous place, a copy
of all prevailing wage and fringe benefit rates
prescribed in a contract.**

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Official 2017 Prevailing Wage Rates for State Funded Projects

Issue Date: 2/14/2017

<u>Classification</u>		Last	Straight Time and a Double		Overtime
Name	Description	Updated	Hourly	Half	Time Provision
=====					

Underground Laborer Open Cut, Class I

Construction Laborer	LAUC-Z1-1		\$37.72	\$48.43	\$59.14	X	X	X	X	X	X	X	D	Y
		9/5/2013												

Apprentice Rates:

0-1,000 work hours	\$32.94	\$41.26	\$49.58
1,001-2,000 work hours	\$33.90	\$42.70	\$51.50
2,001-3,000 work hours	\$34.85	\$44.13	\$53.40
3,001-4,000 work hours	\$36.76	\$46.99	\$57.22

Underground Laborer Open Cut, Class II

Mortar and material mixer, concrete form man, signal man, well point man, manhole, headwall and catch basin builder, guard rail builders, headwall, seawall, breakwall, dock builder and fence erector.	LAUC-Z1-2		\$37.83	\$48.60	\$59.36	X	X	X	X	X	X	X	D	Y
		10/25/2013												

Apprentice Rates:

0-1,000 work hours	\$33.02	\$41.38	\$49.74
1,001-2,000 work hours	\$33.98	\$42.82	\$51.66
2,001-3,000 work hours	\$34.95	\$44.27	\$53.60
3,001-4,000 work hours	\$36.87	\$47.15	\$57.44

Underground Laborer Open Cut, Class III

Air, gasoline and electric tool operator, vibrator operator, drillers, pump man, tar kettle operator, bracers, rodger, reinforced steel or mesh man (e.g. wire mesh, steel mats, dowel bars, etc.), cement finisher, welder, pipe jacking and boring man, wagon drill and air track operator and concrete saw operator (under 40 h.p.), windlass and tugger man, and directional boring man.	LAUC-Z1-3		\$37.88	\$48.67	\$59.46	X	X	X	X	X	X	X	D	Y
		9/5/2013												

Apprentice Rates:

0-1,000 work hours	\$33.06	\$41.44	\$49.82
1,001-2,000 work hours	\$34.02	\$42.88	\$51.74
2,001-3,000 work hours	\$34.99	\$44.33	\$53.68
3,001-4,000 work hours	\$36.92	\$47.23	\$57.54

Requestor: Troy School District
 Project Description: Purchase, installation & cabling for Classroom Audio/Visual
 Project Number: Bid 9839 –Classroom AV Display Project
 County: Oakland

Every contractor and subcontractor shall keep posted on the construction site, in a conspicuous place, a copy of all prevailing wage and fringe benefit rates prescribed in a contract.

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Official 2017 Prevailing Wage Rates for State Funded Projects

Issue Date: 2/14/2017

Contract must be awarded by: 5/15/2017

Page 33 of 34

<u>Classification</u>		Last	Straight Time and a Double	Overtime
Name	Description	Updated	Hourly Half Time	Provision
=====				

Underground Laborer Open Cut, Class IV

Trench or excavating grade man. LAUC-Z1-4 \$37.96 \$48.79 \$59.62 X X X X X X D Y
 9/5/2013

Apprentice Rates:

0-1,000 work hours	\$33.12	\$41.53	\$49.94
1,001-2,000 work hours	\$34.09	\$42.99	\$51.88
2,001-3,000 work hours	\$35.06	\$44.44	\$53.82
3,001-4,000 work hours	\$36.99	\$47.33	\$57.68

Underground Laborer Open Cut, Class V

Pipe Layer LAUC-Z1-5 \$38.02 \$48.88 \$59.74 X X X X X X D Y
 9/5/2013

Apprentice Rates:

0-1,000 work hours	\$33.16	\$41.59	\$50.02
1,001-2,000 work hours	\$34.14	\$43.06	\$51.98
2,001-3,000 work hours	\$35.11	\$44.51	\$53.92
3,001-4,000 work hours	\$37.05	\$47.43	\$57.80

Underground Laborer Open Cut, Class VI

Grouting man, top man assistant, audio visual LAUC-Z1-6 \$35.47 \$45.06 \$54.64 X X X X X X D Y
 television operations and all other operations in
 connection with closed circuit television
 inspection, pipe cleaning and pipe relining work
 and the installation and repair of water service
 pipe and appurtenances.
 9/5/2013

Apprentice Rates:

0-1,000 work hours	\$31.25	\$38.73	\$46.20
1,001-2,000 work hours	\$32.10	\$40.00	\$47.90

2,001-3,000 work hours	\$32.94	\$41.26	\$49.58
3,001-4,000 work hours	\$34.63	\$43.79	\$52.96

Official Request #: 228

Requestor: Troy School District

Project Description: Purchase, installation & cabling for Classroom Audio/Visual

Project Number: Bid 9839 –Classroom AV Display Project

County: Oakland

Official Rate Schedule

Every contractor and subcontractor shall keep posted on the construction site, in a conspicuous place, a copy of all prevailing wage and fringe benefit rates prescribed in a contract.

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Official 2017 Prevailing Wage Rates for State Funded Projects

Issue Date: 2/14/2017

Contract must be awarded by: 5/15/2017

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<u>Classification</u>		Last	Straight Time and a Double	Overtime		
Name	Description	Updated	Hourly	Half	Time	Provision

Underground Laborer Open Cut, Class VII

Restoration laborer, seeding, sodding, planting, cutting, mulching and topsoil grading and the restoration of property such as replacing mail boxes, wood chips, planter boxes, flagstones etc.	LAUC-Z1-7	\$32.09	\$39.99	\$47.88	X	X	X	X	X	X	X	D	Y
---	-----------	---------	---------	---------	---	---	---	---	---	---	---	---	---

9/5/2013

Apprentice Rates:

0-1,000 work hours	\$28.72	\$34.93	\$41.14
1,001-2,000 work hours	\$29.39	\$35.93	\$42.48
2,001-3,000 work hours	\$30.07	\$36.95	\$43.84
3,001-4,000 work hours	\$31.42	\$38.98	\$46.54

Official Request #: 228

Requestor: Troy School District

Project Description: Purchase, installation & cabling for Classroom Audio/Visual

Project Number: Bid 9839 –Classroom AV Display Project

County: Oakland

Official Rate Schedule

Every contractor and subcontractor shall keep posted on the construction site, in a conspicuous place, a copy of all prevailing wage and fringe benefit rates prescribed in a contract.

Troy School District
Classroom A/V Display Project - Bid # 9839

SECTION 00 40 10 - BID PROPOSAL FORM

OWNER: Todd Hensley, Purchasing Supervisor
Troy School District
Purchasing Department
Facility Operations Building
1140 Rankin
Troy, Michigan 48083

PROJECT: Classroom A/V Displays Project TSD # 9839

NAME OF BIDDER: _____

BASE BID:

Lump sum bid for all work specified and shown on the drawings as indicated for base bid in the amount of:

_____ Dollars (\$ _____)

The Bid Proposal amount shall be shown in both words and figures. In the case of discrepancy, the amount shown in words shall govern.

BASE BID: The undersigned, having examined the Bid Documents and examined the conditions affecting the Work/Project, hereby proposes and agrees to furnish all of the labor, materials, and equipment and perform all work necessary to complete the Work/Project as required by the Bid Documents for the stipulated sum identified above and detailed in Supplemental A (Cost Analysis Worksheet). The Bid Documents set forth the terms and conditions upon which the Bidder will provide a "turnkey" solution for the installation and operation of the project for use by the Owner and represents and warrants that the design, operation and functionality of the project are in accordance with the Bid Documents. All prices provided by the Bidder on this Bid Proposal Form must include all cables, connectors, equipment etc. that are necessary to make the project fully operational for the intent and purpose stated in the Bid Documents

BID SECURITY

Enclosed herewith find (Certified Check)/(Bid Bond) in the amount of \$_____ being five percent (5%) of the maximum Bid Proposal herein, made payable to Troy School District or naming Troy School District as obligee. The proceeds of which are to remain the property of Troy School District, if the Bidder does not, within ten (10) days after notice of the acceptance of Bid Proposal, enter into the Contract.

Troy School District
Classroom A/V Display Project - Bid # 9839

TAXES

Please identify the amount, if any, of this Bid Proposal that has been attributed to sales or use tax. If an amount has been attributed to such tax, please identify which components of the Bid to which the tax has been attributed.

SUBCONTRACTORS

Bidders must provide attach complete list of proposed subcontractors (one per discipline), if any are proposed to be utilized on the project. Listing two or more subcontractors per discipline will be grounds for disqualification.

EXCEPTIONS

Any Exceptions to the terms and conditions contained in the RFP or contract are identified below:

ADDENDA

This RFP incorporates the following Addenda:

Addendum No. ____	Dated _____	Addendum No. ____	Dated _____
Addendum No. ____	Dated _____	Addendum No. ____	Dated _____
Addendum No. ____	Dated _____	Addendum No. ____	Dated _____

Troy School District
Classroom A/V Display Project - Bid # 9839

BID PROPOSAL FORM SUPPLEMENTS:

The following Bid Form Proposal Supplements are attached hereto and are considered an integral part of this Bid Proposal Form:

- SUPPLEMENTAL A – Cost Analysis Worksheet
- SUPPLEMENTAL B – Unit Pricing
- SUPPLEMENTAL C – Mandatory Alternates
- SUPPLEMENTAL D – Voluntary Alternates
- SUPPLEMENTAL E – Familial Disclosure Affidavit
- SUPPLEMENTAL F – Iran Economic Sanctions Act Compliance Affidavit

BIDDER NAME: _____

ADDRESS: _____

DATE: _____

TELEPHONE: _____

EMAIL ADDRESS: _____

If award is made to our firm based upon our Bid Proposal, we agree to enter into the form of Contract with the School District in accordance with this Request for Proposal, the contract and our Bid Proposal.

My signature certifies that the Bid Proposal as submitted complies with all terms and conditions as set forth in this Request for Proposal, unless specifically enumerated as an exception as part of this Bid Proposal Form.

I hereby certify that I am authorized to sign as a Representative for the Firm:

(Authorized Signature)

(Title)

Troy School District
Classroom A/V Display Project - Bid # 9839

SUPPLEMENTAL A - COST ANALYSIS WORKSHEET

OWNER: Todd Hensley, Purchasing Supervisor
Troy School District
Purchasing Department
Facility Operations Building
1140 Rankin
Troy, Michigan 48083

BIDDER: _____

ADDRESS: _____

BASE BID BREAKDOWN

Building	Component	Cost
Athens High School	Material	
	Labor	
	Sub-Total	
Troy High School	Material	
	Labor	
	Sub-Total	
Troy College & Career High School	Material	
	Labor	
	Sub-Total	
Baker Middle School	Material	
	Labor	
	Sub-Total	
Boulan Park Middle School	Material	
	Labor	
	Sub-Total	
Larson Middle School	Material	
	Labor	
	Sub-Total	

Troy School District
Classroom A/V Display Project - Bid # 9839

Smith Middle School	Material	
	Labor	
	Sub-Total	
Project	Materials Sub Total	
Project	Labor Sub Total	
Project	Total	
Project	Bid Bond	
Project	Base Bid Total	

Troy School District
Classroom A/V Display Project - Bid # 9839

SUPPLEMENTAL B - UNIT PRICING

All bid proposals shall include a detailed Bill of Materials that notes each item, part number, and unit price.

Provide this Bill of Materials, attached to and submitted with the Bid Proposal. These unit costs, which shall be considered firm pricing during the contract period and not subject to change, will be used to determine costs (Inclusive of both labor and material) for additions and deletions during the contract period. The Owner reserves the right to adjust any or all quantities at any time.

In addition to the required Bill of Materials, include the following Unit Prices (also include cost of associated licenses).

UP	Item	Part Number(s)	Unit Price
1	Price for one 75" Smart 6275 LCD complete classroom, as specified		
2	Price for one 65" Smart 6265 LCD complete classroom, as specified		
3	Price to substitute one 75" Smart 6275 LCD with one 65" Smart 6265 LCD, including mount		
4	Price to substitute one 65" Smart 6265 LCD with one 75" Smart 6275 LCD, including mount		
5	Price for one 75" non-interactive LCD complete classroom, as specified		
6	Price for one 65" non-interactive LCD complete classroom, as specified		
7	Price to substitute one 75" non-interactive LCD with one 65" non-interactive LCD, including mount		
8	Price to substitute one 65" non-interactive LCD with one 75" non-interactive LCD, including mount		
9	Price to substitute standard length power cord for LCD to extra-long power cord.		
10	Price for one speaker bar with mount(s) and optical digital audio cable to the LCD, as specified		
11	Price for one HDMI 2.0 cable from LCD to Teacher PC, as specified		
12	Price for one USB 3.0 cable from LCD to Teacher PC, as specified		

Troy School District
Classroom A/V Display Project - Bid # 9839

13	Price for one HDMI 2.0 and one USB 3.0 cable from LCD to Teacher PC with surface raceway, as specified		
14	Price for LD10 surface mount raceway from LCD to Teacher PC, as specified		
15	Price for one USB 3.0 signal booster to extend interactive signal between the interactive Smart LCD and the Teacher PC, as specified		
16	Price for one surge suppressor, as specified		
17	Price for one traditional 77" Smart Board SBM680 with Ultra-Short Throw projector U100 or equivalent, one spare lamp (bulb), with HDMI and USB cabling from the Smart Board to the Teacher PC, as specified		
18	Price for one lamp (bulb) for UP #17 Projector		
19	Price for ten lamp (bulb) for UP #17 Projector		
20	Price for one traditional 87" Smart Board SBM685IX3 with Ultra-Short Throw projector U100W or equivalent, one spare lamp (bulb), with HDMI and USB cabling from the Smart Board to the Teacher PC, as specified		
21	Price for one lamp (bulb) for UP #20 Projector		
22	Price for ten lamp (bulb) for UP #20 Projector		
23	Price for one ultra-short throw Epson BrightLink 695Wi or equivalent interactive projector that projects onto an existing marker board. Include one spare lamp (bulb), with HDMI and USB cabling from the interactive projector to the Teacher PC, as specified		
24	Price for one lamp (bulb/lamp) for UP #23 Projector		
25	Price for ten lamp (bulb/lamp) for UP #23 Projector		
26	Price for one ultra-short throw Epson PowerLite 675W non-interactive projector or equivalent that projects onto an existing marker board or screen. Include one spare lamp (bulb), with HDMI cabling from the projector to the Teacher PC, as specified		
27	Price for one lamp (bulb) for UP #26 Projector		
28	Price for one lamp (bulb) for UP #26 Projector		

SUPPLEMENTAL B UNIT PRICING

00 40 12 - 2 of 2

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Troy School District
Classroom A/V Display Project - Bid # 9839

SUPPLEMENTAL C - MANDATORY ALTERNATES

Mandatory Alternate 1: In lieu of 75" Interactive LCD Flat Panels, provide 65" Interactive LCD Flat Panels, as specified

Deduct _____ Dollars (\$ _____)

Mandatory Alternate 2: In lieu of 75" Non-Interactive LCD Flat Panels, provide 65" Non-Interactive LCD Flat Panels, as specified.

Deduct _____ Dollars (\$ _____)

Mandatory Alternate 3: In lieu of 75" Non-Interactive LCD Flat Panels, provide Non-Interactive Ultra-Short Throw Projectors, as specified.

Deduct _____ Dollars (\$ _____)

Mandatory Alternate 4: In lieu of 75" Interactive LCD Flat Panels, provide Epson Interactive Ultra-Short Throw Projector, as specified.

Deduct _____ Dollars (\$ _____)

Mandatory Alternate 5: In lieu of 75" Interactive LCD Flat Panels, provide 77" traditional Smart Interactive Whiteboard with an Ultra-Short Throw Projector, as specified.

Deduct _____ Dollars (\$ _____)

Mandatory Alternate 6: In lieu of 75" Interactive LCD Flat Panels, provide 87" traditional Smart Interactive Whiteboard with an Ultra-Short Throw Projector, as specified.

Deduct _____ Dollars (\$ _____)

Troy School District
Classroom A/V Display Project - Bid # 9839

SUPPLEMENTAL D - VOLUNTARY ALTERNATES

VOLUNTARY ALTERNATE 1:

Add/Deduct/No Change

_____ Dollars (\$_____)

VOLUNTARY ALTERNATE 2:

Add/Deduct/No Change

_____ Dollars (\$_____)

VOLUNTARY ALTERNATE 3:

Add/Deduct/No Change

_____ Dollars (\$_____)

Troy School District
Classroom A/V Display Project - Bid # 9839

SUPPLEMENTAL E - FAMILIAL DISCLOSURE AFFIDAVIT

The undersigned, the owner or authorized officer of _____ (the "Bidder"), pursuant to the familial disclosure requirement provided in the Troy School District (the "District") Request for Proposal(s), hereby represents and warrants that, except as provided below, no familial relationships exist between the owner or any employee of the Bidder, and any member of the Board of Education of the School District or the Superintendent of the School District.

List any Familial Relationships:

BIDDER:

By:

Title:

STATE OF MICHIGAN
COUNTY OF _____

This instrument was acknowledged before me on the ____ day of _____, 2017, by

_____.

, Notary Public

_____ County, Michigan

My Commission Expires: _____

Acting in the County of: _____

SUPPLEMENTAL E FAMILIAL DISCLOSURE AFFADAVIT

00 40 15 - 1 of 1

Troy School District
Classroom A/V Display Project - Bid # 9839

SUPPLEMENTAL F - AFFIDAVIT OF COMPLIANCE – IRAN ECONOMIC SANCTIONS ACT

Michigan Public Act No. 517 of 2012

The undersigned, the owner or authorized officer of the below named applicant (the "Applicant"), pursuant to the compliance certification requirement provided in the Troy School District (the "District") Request For Proposals for Classroom Audio Video Systems (the "RFP"), hereby certifies, represents and warrants that the Applicant (including its officers, directors and employees) is not an "Iran linked business" within the meaning of the Iran Economic Sanctions Act, Michigan Public Act No. 517 of 2012 (the "Act"), and that in the event Applicant is awarded a contract as a result of the aforementioned RFP, the Applicant will not become an "Iran linked business" at any time during the course of performing the Work or any services under the contract.

The Applicant further acknowledges that any person who is found to have submitted a false certification is responsible for a civil penalty of not more than \$250,000.00 or 2 times the amount of the contract or proposed contract for which the false certification was made, whichever is greater, the cost of the School District's investigation, and reasonable attorney fees, in addition to the fine. Moreover, any person who submitted a false certification shall be ineligible to bid on a request for proposal for three (3) years from the date it is determined that the person has submitted the false certification.

APPLICANT:

Name of Applicant

By:

Title:

Date:

STATE OF Michigan

COUNTY OF _____)

This instrument was acknowledged before me on the _____ day of _____, _____, by

_____.

_____, Notary Public _____ County, _____

My Commission Expires: _____

Acting in the County of: _____

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SECTION 27 05 28 – PATHWAYS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.
- B. All references to codes and standards herein shall be of the stated reference's current version.

1.2 DESCRIPTIONS AND ABBREVIATIONS

- A. Pathway: Shafts, conduits, surface mounted raceway, boxes, sleeves, floor boxes, cable tray, and floor penetrations that provide routing space for communications cabling.
- B. PSC: Professional Services Contractor – Convergent Technology Partners

1.3 SUMMARY

- A. This Section includes, but is not limited to the pathways for communications systems:
 - 1. Surface mount raceway
 - 2. Surface mount boxes
 - 3. Braided flexible cable sleeving
 - 4. Cable supports
 - 5. Cable ties
 - 6. Hook and Loop Fasteners
 - 7. Fabric cable
- B. Related Sections includes the following:
 - 1. Division 01 General Requirements
 - 2. Division 27 Communications

1.4 SCOPE OF WORK

- A. Provide and install raceway, boxes, supports, cable ties, sleeves, etc. and associated equipment, hardware and accoutrements as indicated herein and on project drawings.

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1.5 DESCRIPTION OF WORK

- A. Provide and install raceway and supports to route, organize and protect low voltage cabling between technology spaces and/or equipment and end devices as indicated herein and on project drawings.

1.6 QUALITY ASSURANCE

- A. Materials shall be new, complete with manufacturer's guarantee or warranty, and shall be approved by the Underwriters' Laboratories, Inc.
- B. Materials shall comply with applicable standards of the National Electrical Manufacturers' Association, Insulated Power Cable Engineers Association, National Safety Code, National Fire Protection Act (NFPA) and the American Institute of Electrical Engineers.
- C. Work shall be executed in a workmanlike manner and shall present a neat and aesthetically pleasing appearance when completed. Methods and techniques of installation shall be subject to the approval of the PSC and Owner.
- D. Materials of the same type or class shall be the product of the same manufacturer.

1.7 PROJECT CONDITIONS

- A. Contractor shall be responsible for the accurate location of this Work and for informing himself of the nature and arrangement of the materials, equipment, and construction to which his Work attaches or passes through.
- B. In general, work shall be concealed in walls in conduit and above ceilings in wire management system, conduit in chases, in equipment rooms, and the like, insofar as is practical; so that such work will not interfere with the proper coordinated installation work of other trades or Contractors.
- C. In general, wiring and conduit shall be installed parallel (or at right angles) to the building walls and other architectural features, and at such heights as not to obstruct portions of windows, doorways, stairways, pipe space, tunnel, or passageway, and properly concealed to not interfere with the proper coordinated installation of other trades or Contractors. Where interferences develop in the field, the Work shall be offset or routed as required to clear such interferences. Consult Electrical Technology Drawings, other Contractors, and other details before installing work.
- D. Contractor shall determine definite locations and connections before rough-in or installation. The Contractor shall then lay out the Work and is responsible for determining proper elevations, routing, measurements, and locations required for the installation of his Work.

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1.8 COORDINATION

- A. Coordinate arrangement, mounting, and support of wires, cabling and equipment so connecting raceways, cables, wire ways, cable trays, and busways will be clear of obstructions and of the working and access space of other equipment and systems.

PART 2 - PRODUCTS

2.1 NON-METALLIC SURFACE RACEWAY

- A. Approved Manufacturers:
 - 1. Panduit
 - 2. Wiremold
 - 3. Approved equal
- B. Color: Field coordinate with PSC/Owner to match existing space
- C. Description: Hinged latching duct, non-metallic single channel, a one-piece design, adhesive backed, hinged cover surface raceway; used to route, protect and conceal low voltage data, voice, and fiber optic cabling.
 - 1. The raceway will include a full complement of bend radius control and standard fittings consisting of, but not limited to: elbows (internal and external), couplings for joining raceway sections, blank end fittings for closing open ends of the raceway, entrance fittings, reducer fittings, and tee fittings. The bend radius control fittings shall incorporate a minimum bend radius as recommended by the cabling manufacturer for the rating of the UTP cables enclosed and fiber optic cables in TIA/EIA 568.
 - 2. Raceway will be manufactured in 3 different lengths from impact-resistant material with a flammability rating of UL94V-0.
 - 3. Raceway finish shall be pure color and will resist scratches and dents and will not peel or corrode.
- D. Panduit Nominal Sizes
 - 1. 1.51" wide x .94" deep (LD10) with an inside area of 1.00" ²
- E. Wiremold Nominal Sizes
 - 1. 1 ½" wide x 3/4" deep (Series 2900) with an inside area of .869" ²

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2.2 SURFACE MOUNT BOXES

A. Approved Manufacturers

1. Panduit
2. Approved equal

B. Color: Field coordinate with PSC/Owner to match existing space

C. Double Gang One-Piece or Two-Piece Snap Together Outlet Box with adhesive backing. Box accepts Pan-Way® Snap-On Faceplates. For use with Pan-Way® T-45 or LD profile raceway. 5.00"L x 3.26"W x 1.62"H (127.1mm x 82.7mm x 41.1mm). Breakouts for 1/2", 3/4", or 1" diameter conduit.

D. Sizes

1. Deep Double Gang - 5.19"L x 5.19"W x 2.75"H (131.9mm x 131.9mm x 69.8mm). Breakouts for 1/2", 3/4", or 1" diameter conduit.

2.3 BRAIDED FLEXIBLE CABLE SLEEVING

A. Flexible and expandable fabric

B. Color shall be white. Confirm color selection with Owner, prior to ordering or installing.

C. Sleeve shall be installed to enclose the LCD flat panel and speaker bar power cords only. Sleeve shall extend from the LCD and speaker bar to the power outlet to mask the power cable.

D. Sleeve shall be secured to marker board and wall with hook and loop fasteners.

E. Provide one (1) braided flexible cable sleeving for each LCD flat panel and sound bar speaker power cord.

F. Approved Manufacturers:

1. Bentley Harris
2. Kable Kontrol
3. Tech Flex
4. Approved equal

2.4 CABLE TIES

A. Provide plenum rated cable ties for cables in/or above ceiling.

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- B. Cable ties shall be 4, 8, or 12 inches long.
- C. Cable ties shall be hook and loop style (Velcro)
- D. Cable ties shall meet UL 94V-O.
- E. Approved Manufacturers:
 - 1. Panduit
 - 2. Hubbell
 - 3. Leviton

2.5 CABLE HOOK AND LOOP FASTENERS

- A. Approved Manufacturers:
 - 1. Panduit
 - 2. Hubbell
 - 3. Leviton
 - 4. Velcro
- B. Provide cable hook and loop fasteners to secure cable bundle to walls (not to be used above ceiling).
- C. Color shall be white. Confirm color selection with Owner, prior to ordering or installing.
- D. UL listed.

PART 3 - EXECUTION

3.1 General

- A. Comply with EIA/TIA-569, "Commercial Building Standard for Telecommunications Pathways and Spaces."

3.2 EXAMINATION

- A. Examine pathway elements intended for cables. Check raceways, cable trays, and other elements for compliance with space allocations, installation tolerances, hazards to cable installation, and other conditions affecting installation. Proceed with installation only after unsatisfactory conditions have been corrected.

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3.3 SEPARATION FROM EMI SOURCES

- A. Comply with BICSI TDMM and TIA/EIA-569-A recommendations for separating unshielded copper voice and data communication cable from potential EMI sources, including electrical power lines and equipment.
- B. Separation between open communications cables or cables in nonmetallic raceways and unshielded power conductors and electrical equipment shall be as follows:
 - 1. Electrical Equipment Rating Less Than 2 kVA: A minimum of 5 inches.
 - 2. Electrical Equipment Rating between 2 and 5 kVA: A minimum of 12 inches.
 - 3. Electrical Equipment Rating More Than 5 kVA: A minimum of 24 inches.

3.4 INSTALLATION

- A. Materials installed under this Division of Work shall be supported from the building structure, independent of other pipe, duct, equipment, ceiling grid, etc.
- B. Contractor shall install communications equipment and shall make connections to major and secondary control equipment and/or apparatus, complete and assume full responsibility for the connections.
- C. Surface Mounted Raceway
 - 1. All surface mounted raceway, boxes and other devices shall be installed flush to the mounting surface, plumb and level.
 - 2. No gaps shall be seen between sections of raceway, or between junctions of raceway and boxes or other devices.
 - 3. Surface mounted raceway in occupied spaces shall be installed as unobtrusively and in the most aesthetically pleasing manner as possible.
 - 4. In areas where surface raceway extends into ceiling areas, proper ceiling fittings shall be used. The Contractor is responsible for cutting ceiling material (including tiles, metal grid, etc.) for proper fit and function with no degradation to the final look, function or strength of the ceiling assembly.
- D. Adhesive Backed Pathway
 - 1. All adhesive backed raceway, boxes and other pathway devices shall be additionally secured with mechanical anchors and fasteners to prevent eventual failure of the products adhesive or two sided tape.

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2. Straight sections of raceway shall be secured at intervals of no greater than 36" in each. Raceway sections between 18" and 40" in length shall have a minimum of 2 fasteners.
3. Adhesive backed boxes shall have a minimum of 2 fasteners.

E. Boxes

1. Install jacks, fitting, and connectors in properly selected outlet boxes and junction boxes.
2. Comply with TIA/EIA-569-A for pull-box sizing and length of conduit and number of bends between pull points. Telecommunications conduits shall be installed with no more than two (2) 90-degree bends or the equivalent of 180 degrees of bends. A pull box is required at every 100ft in length of conduit run and shall be installed in a straight section of conduit. The pull box shall not be utilized as a directional transition in the conduit pathway.
3. If it is not practical to install a pull box in the run due to field conditions, the conduit size shall be increased to the next trade size for each additional 90-degree bend. Offsets shall be considered as equivalent to a 90-degree bend.

F. Protection

1. Cover and protect equipment, materials, enclosures, boxes, cabinets, racks, DVD, video projectors, sound systems, speakers, cameras, telephones, routers, switches, DA amplifiers, AV equipment, etc., before and after installation to prevent injury and to prevent entrance of grit, dirt, and foreign matter. If the contractor failed to do so, they are responsible for cleaning all the equipment or replacing it at NO cost to the owner.
2. Cabling infrastructure shall be supported by cable supports that meet BICSI, EIA, TIA requirements and or in cable tray and must be provided by the cabling contractors unless otherwise noted. (NO cable shall be allowed to be supported at or on the building structure steel, ceiling grid, ceiling supports, mechanical piping, HVAC ductwork, etc.).

3.5 CLEANING AND RESTORATION

- A. Prior to final acceptance, clean system components
- B. Provide adequate protection to Owner facilities to protect from damage.
- C. All spaces associated with this work shall be left clean at the end of each day's work, and at the end of the project. Trash, boxes, packing material, debris and litter shall be removed daily and disposed of.
 1. Large quantities (l.e.- equipment boxes and packing material) shall be disposed of off-site

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- D. Restoration of, or compensation for, damage to the facility or Owner's contents by the Vendor is the Vendor's sole responsibility. Examples include paint, wall and ceiling damage.

End of Section 27 05 28

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SECTION 27 41 16 - INTEGRATED AUDIO/VIDEO SYSTEMS AND EQUIPMENT

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section

1.2 SUMMARY

- A. Section Includes:
 - 1. All equipment, mounting hardware, cables and other equipment as indicated herein and as required for a complete installation per industry norms, standards and best practices

1.3 SCOPE OF WORK

- 1. Provide, install and set up all Integrated Audio/Video Systems including Interactive Flat Panels indicated herein and per Attachment A "Quantities and Locations"
- 2. Wall mounts and support plates as required
- 3. USB and HDMI cabling
- 4. Powered signal boosters, as required
- 5. Miscellaneous hardware and equipment, as required

1.4 REFERENCES

- A. The contractor shall comply with the latest edition or revision of all applicable codes, standards and regulations

1.5 DEFINITIONS

- A. IFP – Interactive Flat Panel
- B. NIFP – Non-Interactive Flat Panel
- C. PSC – Professional Services Contractor – Convergent Technology Partners

1.6 QUALITY ASSURANCE

- A. Bidder qualifications:
 - 1. Bidders supplying Interactive Flat Panels shall indicate which manufacturer approved reseller will source the Smart® equipment from Smart Technologies

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2. Bidders for labor and cabling only shall indicate if they plan to partner with a particular manufacturer approved reseller that will source the Smart® equipment from Smart Technologies or indicate they have not identified a reseller
 - B. The contractor shall be a firm which is regularly and professionally engaged in the business of the applications, installation, and testing of the specified technology systems and equipment. The contractor shall demonstrate experience in providing successful systems and equipment within the past 3 years of similar scope and size
 - C. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application
 - D. Regulatory Requirements - In each of the publications referred to herein, consider the advisory provisions to be mandatory, as though the word, "shall" had been substituted for "should" wherever it appears. Equipment, materials, installation, and workmanship shall be in accordance with the mandatory and advisory provisions of NFPA 70 unless more stringent requirements are specified or indicated
 - E. Standard Products - Provide materials and equipment that are products of manufacturers regularly engaged in the production of such products which are of equal material, design and workmanship unless specific manufacturer and/or part numbers is included herein
 - F. Material and Equipment Manufacturing Date - Products manufactured more than 1 year prior to date of delivery to site shall not be used, unless specified otherwise
- 1.7 PROJECT CONDITIONS
- A. The Owner Sites are both instructional and administrative facilities that provide year-round services to their students, staff and the community. As such, activities in all buildings are critical to the provisioning of services to the students, staff and the community and shall not be interrupted by the Contractor's Work activities
 - B. The Contractor will be required to work around all of the conditions listed above, as well as working with the Owner's staff to minimize disruptions to normal Owner activities

1.8 COORDINATION

- A. Coordinate delivery and setup/installation of equipment at each location with Owner or Owner's representative (PSC)

PART 2 - PRODUCTS

2.1 PRODUCT CERTIFICATION

- A. Components shall be UL or third party certified. Where equipment or materials are specified to conform to industry and technical society reference standards of the organizations, submit proof of such compliance. The label or listing by the specified organization will be acceptable evidence of compliance. In lieu of the label or listing, submit a certificate from an independent

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testing organization, competent to perform testing, and approved by the Owner. The certificate shall state that the item has been tested in accordance with the specified organization's test methods and that the item complies with the specified organization's reference standard. Provide a complete system of telecommunications cabling and pathway components using star topology. Provide support structures and pathways, complete with outlets, cables, connecting hardware and telecommunications cabinets/racks. Cabling and interconnecting hardware and components for telecommunications systems shall be UL listed or third party independent testing laboratory certified, and shall comply with NFPA 70 and conform to the requirements specified herein.

2.2 INTERACTIVE FLAT PANELS

- A. General Requirements: Provide equipment as specified herein
- B. Manufacturer and Model:
 - 1. Smart® SPNL-6275 Interactive Flat Panels with Kapp IQ – Base Bid
 - 2. Smart® SPNL-6265 Interactive Flat Panels with Kapp IQ – Mandatory Alternate Bid #1
- C. Extended length power cords, as required

2.3 INTERACTIVE FLAT PANEL WALL MOUNTS

- A. General Requirements: Provide equipment as specified herein
- B. Manufacturers: Subject to compliance with requirements
 - 1. Smart Technologies WM-SBID-501
 - 2. Chief, Peerless, or Smart Technologies
 - 3. Approved equal
- C. Mount and backing shall meet or exceed 1.5 times the weight of the equipment mounted

2.4 NON-INTERACTIVE FLAT PANELS

- A. General Requirements: Provide equipment as specified herein
- B. Manufacturers: Subject to compliance with requirements
 - 1. Dukane, Samsung, Sharp, or Smart Technologies
 - 2. Approved equal
- C. 75-inch diagonal LCD display
 - 1. LED backlit

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2. 16:9 flat panel
3. UHD 4K (2160p) resolution
4. Input ports: (2) HDMI 2.0 (HDCP and EDID compliant), (1) USB 3.0
5. Output ports: (1) 3.5mm, (1) Optical Digital Audio
6. Extended length power cords, as required

2.5 NON-INTERACTIVE FLAT PANEL WALL MOUNTS

- A. General Requirements: Provide equipment as specified herein
- B. Manufacturers: Subject to compliance with requirements
 1. Chief, Peerless, or Smart Technologies
 2. Approved equal
- C. Mount and backing shall meet or exceed 1.5 times the weight of the equipment mounted

2.6 NON-INTERACTIVE FLAT PANEL CEILING MOUNTS

- A. General Requirements: Provide equipment as specified herein
- B. Manufacturers: Subject to compliance with requirements
 1. Chief, Peerless, or Smart Technologies
 2. Approved equal
- C. Mount and backing shall meet or exceed 1.5 times the weight of the equipment mounted

2.7 ULTRA-SHORT THROW NON-INTERACTIVE PROJECTOR

- A. Approved Manufacturers – Epson, Hitachi, NEC, Dukane
- B. Ultra-Short Throw Non-Interactive Projector shall meet or exceed the following minimum specifications,
 1. Based on the Epson PowerLite 675W Projector:
 - a. **Projection System** 3LCD, 3-chip technology
 - b. **Projection Method** Wall
 - c. **Driving Method** Poly-silicon TFT Active Matrix
 - d. **Color Brightness** Color Light Output: 3,200 lumens
 - e. **White Brightness** White Light Output: 3,200 lumens

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- f. **Aspect Ratio** 16:10
- g. **Native Resolution** 1280 x 800 (WXGA)
- h. **Lamp Life** Up to 10,000 hours (ECO Mode) Up to 5,000 hours (Normal Mode)
- i. **Keystone Correction (Manual)** Vertical: ± 3 degrees Horizontal: ± 3 degrees
- j. **Mac Connectivity** Projector is Mac compatible via USB; DVI to HDMI or VGA adapter (not included); DP to HDMI or VGA adapter (not included)
- k. **Contrast Ratio** Up to 14,000:1
- l. **Speaker** 16 W (mono)
- m. **Fan Noise** 35 dB (Normal Mode) 28 dB (ECO Mode)
- n. **Security** Kensington-style lock padlock and security cable hole
- o. **Projector Inputs**
 - 1) Wireless LAN Port 802.11(USB) b/g/n (equipped with required USB module)
 - 2) Microphone: 1x
 - 3) RS-232c: 1x
 - 4) Video: 1x
 - 5) Audio in: 3x Mini Stereo
 - 6) USB (Type B): 1x
 - 7) USB (Type A Power): 1x
 - 8) Audio-out: 1x
 - 9) Monitor-out: 1x / Computer 2
 - 10) Computer: 2x
 - 11) Network: 1x RJ-45
 - 12) 3x HDMI (1x MHL)

2. Other Requirements

- a. Provide one (1) additional projector lamp per installed unit. All spare lamps shall be delivered to the Technology Department in the Services Building
3. Provide all mounting hardware as required for a complete installation.
- a. Mount and backing shall meet or exceed 1.5 times the weight of the equipment mounted

2.8 SURGE SUPPRESSOR

- A. Provide one (1) 4- to 6-outlet surge suppressor for every interactive and non-interactive LCD flat panel
- B. Wall mounted to power outlet
- C. Manufacturers: Subject to compliance with requirements
 - 1. APC, Belkin, or Tripp Lite
 - 2. Approved equal

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2.9 SOUND BAR SPEAKER - POWERED

- A. Approved Manufacturers – Audio Source, JBL, Samsung, Sony, Yamaha
- B. Approved equivalent
- C. Provide (1) one powered sound bar speaker mounted above each LCD flat panel.
 - 1. The sound bar shall be powered by 110-volt outlet and have a minimum power rating of 100-watts
 - 2. The audio connection will be Optical Digital Audio from the LCD Flat Panel audio out to the sound bar audio in.
 - 3. Provide and install necessary components to mute the sound bar speaker if an overhead page announcement is made into the classroom. After the announcement is complete, the sound bar speaker will continue to operate as it did prior to the announcement.
 - 4. Wall mount bracket(s) shall secure the speaker to the wall independent of the television
 - 5. Extended length power cords, as required

2.10 HDMI CABLE

- A. General Requirements: Provide equipment as specified herein
- B. Manufacturers: Subject to compliance with requirements
- C. HDMI 2.0 Cable
 - 1. 3M long, longer as required
 - 2. Transport for audio and video signals
 - 3. 4K Ultra HD (2160p) resolution
 - 4. Active Optical Cable (AOC) high speed Fiber HDMI
 - 5. HDCP and EDID compliant
 - 6. Plenum-rated, if routed above finished ceiling
 - 7. Provide and install one (1) per Non-Interactive and Interactive Flat Panel indicated in Attachment A

2.11 USB CABLE

- A. General Requirements: Provide equipment as specified herein

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- B. Manufacturers: Subject to compliance with requirements
- C. USB 3.0 Cable
 - 1. 3M long, longer as required
 - 2. Provide and install one (1) per Interactive Flat Panel indicated in Attachment A
 - 3. Cable must be fully-functional for interactive connectivity between the teacher PC and interactive display, at the distances required in each classroom.
 - 4. Cable must include an active (powered) USB 3.0 booster, as required, to achieve proper signal strength between the teacher PC and the projector via the ceiling space
 - 5. Any USB cable over 3M in length shall require an active booster
 - 6. For bidding purposes, assume a total of **twenty (20) active (powered) USB 3.0 boosters** are required. Unit pricing will be used to adjust to the actual quantities required

2.12 PATCH CABLES

- A. General Requirements: Provide equipment as specified herein
- B. Provide (1) USB 3.0 patch cord at each Teacher PC location
- C. Provide (1) HDMI 2.0 patch cord at each Teacher PC location
- D. Provide (1) Optical Digital Audio patch cord at each Speaker Bar to connect to Flat Panel
- E. Length as required to install cables from the new outlet plate to the existing Teacher PC location

2.13 INTERACTIVE WHITEBOARD AND PROJECTOR SYSTEM (UNIT PRICING ONLY)

- A. General Requirements: Provide equipment as specified herein
- B. Manufacturers: Subject to compliance with requirements
 - 1. Smart Technologies for Interactive Whiteboard (SBM685IX3) and (SBM680)
 - 2. Epson or Smart Technologies (U100W and U100) for Projector
 - 3. Chief, Epson, Peerless, or Smart Technologies for Mounts
 - a. Mount and backing shall meet or exceed 1.5 times the weight of the equipment mounted

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2.14 ULTRA-SHORT THROW INTERACTIVE PROJECTOR (UNIT PRICING ONLY)

- A. Approved Manufacturers – Dukane, Epson, NEC, or Smart Technologies
- B. Ultra-Short Throw Interactive Projector shall meet or exceed the following minimum specifications
 - 1. Based on the Epson BrightLink 695Wi Projector:
 - a. **Projection System** 3LCD, 3-chip technology
 - b. **Projection Method** Wall
 - c. **Driving Method** Poly-silicon TFT Active Matrix
 - d. **Color Brightness** Color Light Output: 3,200 lumens
 - e. **White Brightness** White Light Output: 3,200 lumens
 - f. **Interactive Color Brightness** Color Light Output: 3,500 lumens
 - g. **Interactive White Brightness** White Light Output: 3,500 lumens
 - h. **Aspect Ratio** 16:10
 - i. **Native Resolution** 1280 x 800 (WXGA)
 - j. **Lamp Life** Up to 10,000 hours (ECO Mode) Up to 5,000 hours (Normal Mode)
 - k. **Contrast Ratio** Up to 14,000:1
 - l. **Speaker** 16 W (mono)
 - m. **Fan Noise** 35 dB (Normal Mode) 28 dB (ECO Mode)
 - n. **Security** Kensington-style lock padlock and security cable hole
 - o. **Interactive Technology** Infrared, 850 nm
 - p. **Interactive Area (Image Size)** 60" – 100" diagonal (16:10, WXGA)
 - q. **Interactive Modes** Computer Interactivity/Input, PC-free with Whiteboard Annotation, Pen: Dual User, Finger Touch: Up to 6 points of touch
 - r. **PC-free Annotation** Two pens and two fingers
 - s. **Interactive Tools** Epson Easy Interactive Tools, Dual User
 - t. **PC Interactive Sources** USB, HDMI, Computer 1, Computer 2, LAN
 - u. **PC-free Annotation Devices** Document Cameras, DVD/Blu-ray Disc player, iPod/iPad devices, Chromebooks
 - v. **Projector Inputs**
 - 1) Wireless LAN Port 802.11(USB) b/g/n (equipped with required USB module)
 - 2) Microphone: 1x
 - 3) RS-232c: 1x
 - 4) Video: 1x
 - 5) Audio in: 3x Mini Stereo
 - 6) USB (Type B): 1x
 - 7) USB (Type A Power): 1x
 - 8) Audio-out: 1x
 - 9) Monitor-out: 1x / Computer 2
 - 10) Computer: 2x
 - 11) Network: 1x RJ-45
 - 12) 3x HDMI (1x MHL)
 - 2. Mount and backing shall meet or exceed 1.5 times the weight of the equipment mounted

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2.15 WARRANTY

- A. Provide 5-year manufacturer warranty on all interactive flat panels. The warranty shall commence upon final acceptance by the Owner. The warranty shall include labor and material to replace all components that fails or do not comply with the performance specifications.
- B. Provide a minimum 3-year manufacturer warranty on all non-interactive flat panels and/or projectors. The warranty shall commence upon final acceptance by the Owner. The warranty shall include labor and material to replace all components that fails or do not comply with the performance specifications.
- C. Provide a minimum 1-year manufacturer warranty on all other materials. The warranty shall commence upon final acceptance by the Owner. The warranty shall include labor and material to replace all components that fails or do not comply with the performance specifications.

PART 3 - EXECUTION

3.1 GENERAL

- A. Provide and install interactive flat panels per requirements herein and per Attachment A
- B. This work shall be performed in accordance with acknowledged industry standards and professional practices
- C. Provide all necessary equipment cords for all HDMI, USB and other required connectivity for full functionality

3.2 COORDINATION

- A. Coordinate exact location for installation and final setup in each building listed in Attachment A with Owner or Owner Representative (PSC)
- B. Delivery of equipment shall be direct to each building. Delivery shall not be prior to the start of installation. The Contractor must be on-site for any deliveries to each building.
- C. Delivery trucks shall be equipped with an appropriate lift gate, as no buildings have delivery wells or lifts to move materials.
- D. Secure storage of materials is the responsibility of the contractor.

3.3 WALL MOUNT INSTALLATION

- A. Install wall mount hardware per manufacturer recommendations and requirements, using properly rated mounting hardware to support the manufacturer's listed maximum loading (weight)

Troy School District
Classroom A/V Display Project - Bid # 9839

1. Ensure wall being mounted to is able to support flat panel and all other associated hardware prior to mounting
 2. Ensure walls that require additional backing and/or mounting plates to support flat panel weight are included and installed, as required
 3. All additional backing or mounting plates shall be painted to match surrounding surfaces
 4. Backing and/or plate supports shall be approved by the Owner prior to installation beyond the model classroom
 5. All backing and/or support plates shall meet or exceed 1.5 times the weight of the equipment mounted to it
- B. Deliver flat panels, install on wall mount hardware in each space as coordinated in part 3.2
- C. Install surface-mount raceway and device box at the Teacher PC location
- D. Connect HDMI and USB cables (to be included with flat panel) to Owner provided PC or Laptop in each location and perform final setup
- 3.4 FIELD QUALITY CONTROL
- A. Perform tests and inspections
1. Visually inspect installation to confirm adherence to these specifications and manufacturer's requirements and recommendations
 2. Visually inspect all installations to ensure all required documentation and material has been left with each Flat panel (remote controls, manuals, etc.)
- B. Test functionality and operation of each interactive flat panel prior to demonstration to the Owner or Owner's Representative (PSC). See part 3.7
- C. Documentation and inventory
1. Original documentation provided with all equipment shall be collected for each room and placed in a large zip lock baggie in each room. This shall include the remote control and miscellaneous cables or adaptors.
 2. Contractor shall provide a complete electronic inventory of all materials.
 3. Inventory shall include building, room/location, manufacturer, description, serial number, and other relevant information to operations, troubleshooting, management and warranty claims.
 4. Inventory is not required for raceway, boxes, or cabling.

Troy School District
Classroom A/V Display Project - Bid # 9839

3.5 CLEAN UP AND RESTORATION

- A. All spaces associated with this work shall be left clean at the end of each day's work, and at the end of the project. Trash, boxes, packing material, debris and litter shall be removed daily and disposed of
 - 1. Large quantities (i.e.- equipment boxes and packing material) shall be disposed of off-site
- B. Restoration of, or compensation for, damage to the facility or Owner's contents by the contractor is the contractor's sole responsibility. Examples include paint, wall and ceiling damage

3.6 TESTING AND DEMONSTRATION

- A. Upon completion of the installation, each interactive flat panel shall be fully tested for all functionality (including KAPP IQ connectivity to the Owner's wireless system and full functionality / operation) and demonstrated the same to the Owner or Owner's Representative (PSC) for final acceptance

END OF SECTION

Building	Room	Non-Interactive		Interactive	Power/Raceway		Additional Scope of Work
		LCD Monitor	Ultra Short Throw Projector	LCD Monitor	New Display	Teacher Station	
Baker MS	100	1			Wall	CCP	Remove screen. Long cords
Baker MS	104	1			Wall	CCP	Remove screen. Long cords
Baker MS	106	1			Wall	CCP	Remove screen. Long cords
Baker MS	107	1			Wall	CCP	Remove screen. Long cords
Baker MS	108	1			Wall	CCP	Remove screen. Long cords
Baker MS	110	1			Wall	CCP	
Baker MS	115	1			Wall / Wall	Wall / CCP	
Baker MS	116	1			Wall CCP	CCP	Remove screen
Baker MS	200	1			Wall	CCP	Remove screen
Baker MS	204	1			Wall	CCP	Remove screen. Long cords
Baker MS	205	1			Wall	CCP	Remove screen. Long cords
Baker MS	206	1			Wall	CCP	Remove screen. Long cords
Baker MS	207	1			Wall	CCP	Remove screen. Long cords
Baker MS	210	1			Wall	CCP	Remove screen
Baker MS	212	1			Wall	CCP	Remove screen
Baker MS	216	1			Wall	CCP	Remove screen
Baker MS	218	1			Wall	CCP	Remove screen
Baker MS	Total	17	0	0			
Boulan Park MS	202	1			Wall	CCP	
Boulan Park MS	401	1			Wall	CCP	Remove screen. Back plate support.
Boulan Park MS	402	1			Wall	CCP	
Boulan Park MS	404	1			CCP	CCP	
Boulan Park MS	408	1			Wall	CCP	Back plate support
Boulan Park MS	504	1			Wall	CCP	Remove screen
Boulan Park MS	513	1			V4000	CCP	Right of tack board. V4000 to right of TV.
Boulan Park MS	701	1			CCP	CCP	Long cords
Boulan Park MS	703	1			CCP	CCP	Remove screen
Boulan Park MS	704	1			CCP / Wall	CCP	Remove screen. Back plate support.
Boulan Park MS	705	1			Wall	CCP	
Boulan Park MS	709	1			CCP	CCP	Remove screen
Boulan Park MS	710	1			V4000	V4000	
Boulan Park MS	712	1			CCP	CCP	Remove screen
Boulan Park MS	801	1			Wall / CCP	CCP	Remove screen and map
Boulan Park MS	807		1		Wall	Wall / CCP	Remove screen
Boulan Park MS	904	1			CCP	CCP	Remove screen
Boulan Park MS	907	1			Wall / CCP	CCP	Back plate support
Boulan Park MS	910	1			Wall / CCP	CCP	Remove screen
Boulan Park MS	911	1			CCP	CCP	Remove wall map. Back support plate.
Boulan Park MS	912	1			Wall	CCP	Remove screen. Back plate support.
Boulan Park MS	Total	20	1	0			
Larson MS	102		1		V4000	CCP	
Larson MS	202	1			V4000	CCP	Remove tack board
Larson MS	402	1			CCP	CCP	Remove projection screen
Larson MS	404	1			CCP or Plug Strip	CCP	Remove projection screen
Larson MS	405	1			CCP or N. V4000	CCP	Remove projection screen
Larson MS	513	1			Wall	CCP	Move shelves & surge strip
Larson MS	701	1			V4000	CCP	Remove tack strip
Larson MS	703	1			N. Wall V4000	CCP	Ceiling mount
Larson MS	704	1			V4000	CCP	
Larson MS	710	1			V4000	CCP	Remove projection screen
Larson MS	711	1			V4000	CCP	Remove projection screen
Larson MS	712	1			V4000	CCP	Ceiling mount
Larson MS	807		1		Wall 18" AFF	CCP	
Larson MS	902	1			V4000	CCP	
Larson MS	905	1			V4000	CCP	Remove easitouch board. Install backplate for support.
Larson MS	907	1			V4000	CCP	
Larson MS	910	1			V4000	CCP	
Larson MS	912	1			Wall	CCP	Remove easitouch board. Install backplate for support.
Larson MS	Total	16	2	0			
Smith MS	5	1			Counter/V4000	CCP/CCP	Remove map
Smith MS	9	1			Wall	CCP	Remove screen
Smith MS	10	1			Wall / CCP	CCP	
Smith MS	11	1			V4000	CCP	Booster required
Smith MS	15	1			V4000	CCP	Remove screen
Smith MS	18	1			V4000	V4000 / CCP	Remove tackboard or mount over.
Smith MS	19	1			Wall	CCP	Remove screen
Smith MS	27	1			Wall	CCP	Remove screen
Smith MS	29	1			Wall	CCP	Remove screen
Smith MS	30	1			CCP	Wall / V4000	Remove screen. Long cords
Smith MS	31	1			V4000	CCP	Remove screen. Long cords
Smith MS	32	1			Wall	V4000	Remove screen
Smith MS	35	1			Wall	CCP	Remove screen
Smith MS	37	1			Wall / V4000	CCP	Remove screen. Remove tack strip
Smith MS	Total	14	0	0			
Athens HS	103			1	V4000	V4000	
Athens HS	104			1	V4000 @ TV	CCP	
Athens HS	108			1	Wall	Wall at CCP	Remove screen. Remove ceiling projector/mount

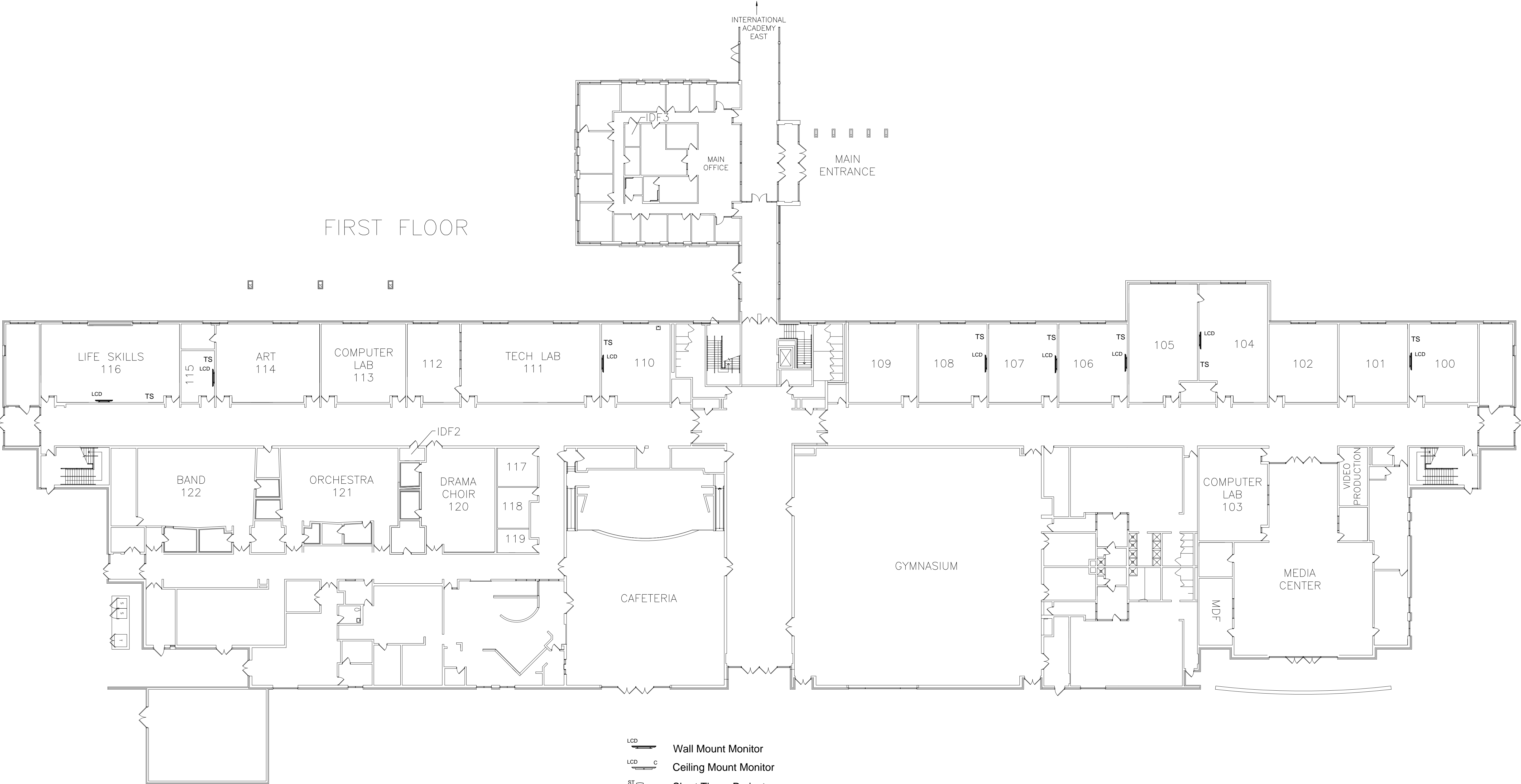
Building	Room	Non-Interactive		Interactive	Power/Raceway		Additional Scope of Work
		LCD Monitor	Ultra Short Throw Projector	LCD Monitor	New Display	Teacher Station	
Athens HS	108			1	Wall	Wall at CCP	Remove screen. Remove ceiling projector/mount
Athens HS	122			1	V4000	V4000 TS	Remove Screen.
Athens HS	Preschool			1	Wall	CCP?	
Athens HS	133			1	CCP	V4000	
Athens HS	134			1	V4000	V4000	
Athens HS	Art 2		1		Wall TS	Wall TS	
Athens HS	Music 1			1	V4000 TV		Long cord. Northwest wall. Below fire strobe
Athens HS	200			1	Wall	V4000 @ TS	
Athens HS	204			1	Wall	V4000 @ TS	
Athens HS	205	1			Wall	Wall	
Athens HS	207			1	CCP	CCP	
Athens HS	243			1	Wall	CCP @ TS	
Athens HS	248			1	V4000 @ TV	CCP	Next to Teacher Workstation
Athens HS	B27			1	Wall	CCP Wall	
Athens HS	Total	1	1	15			
Troy HS	103			1	Wall	V4000 @ TV/TS	
Troy HS	106			1	Wall	V4000 @ TS	
Troy HS	107			1	Wall	V4000 @ TS	
Troy HS	112			1	V4000	V4000 @ TS	
Troy HS	113			1	V4000	V4000 @ TS	
Troy HS	115			1	Wall	V4000 @ TS	Remove screen
Troy HS	123			1	Wall	V4000 @ TS	Screen in corner to remain
Troy HS	126			1	Wall	V4000 @ TS	Remove screen
Troy HS	128			1	Wall	V4000 @ TV/TS	Between front 2 windows
Troy HS	132			1	Wall	V4000 @ TS	Between front 2 windows. Screen in corner to remain.
Troy HS	135			1	Wall	V4000 @ TS	Screen in corner to remain
Troy HS	136			1	Wall	V4000 @ TS	Remove front screen. Screen in corner to remain
Troy HS	137			1	Wall	V4000 @ TS	Remove front screen. Screen in corner to remain
Troy HS	201			1	Wall	V4000 @ TV	Remove screen
Troy HS	203			1	Wall	V4000 @ TV	Remove screen
Troy HS	204			1	Wall	V4000 @ TS	
Troy HS	209			1	Wall	V4000 @ TV	Remove screen
Troy HS	212			1	Wall	V4000 @ TV	Remove screen
Troy HS	215			1	Wall	V4000 @ TV	
Troy HS	216			1	Wall	V4000 @ TV/TS	Remove screen
Troy HS	223			1	V4000	V4000	
Troy HS	232			1	Wall	V4000 @ TV/TS	Remove screen. Long cords
Troy HS	233			1	Wall	V4000 @ TV/TS	Remove screen. Long cords
Troy HS	235			1	Wall	V4000 @ TV/TS	Remove screen. Long cords
Troy HS	237			1	Wall	V4000 @ TV/TS	Remove screen. Long cords
Troy HS	238			1	Wall	V4000 @ TV/TS	Remove screen. Long cords
Troy HS	240			1	Wall	V4000 @ TV/TS	Remove screen. Long cords
Troy HS	242			1	Wall - under CCP	Wall - under CCP	Remove screen. Long cords
Troy HS	258 CAD			1	Wall	V4000	Remove screen. Long cords
Troy HS	272			1	Wall	V4000 @ TS	Remove TV
Troy HS	273			1	Wall	V4000 @ TS	
Troy HS	274			1	Wall	V4000 @ TS	
Troy HS	276			1	Wall	V4000 @ TS	
Troy HS	277			1	V4000 @ TV	V4000 @ TV	Remove ceiling projector
Troy HS	278			1	V4000 @ TV	V4000 @ TS	Last Install. Water damaged wall. Roofing repairs summer.
Troy HS	279A			1	Wall	CCP TS	Use CCP Chase
Troy HS	280			1	V4000 @ TV	V4000 @ TV	Remove screen
Troy HS	281 Band			1	Wall	V4000 Wall	Left of TC window. New TS raceway E wall
Troy HS	283 Orch			1	Rear NW Wall	Rear NW Wall	New TS raceway NW wall
Troy HS	290			1	Wall	V4000 @ TS	
Troy HS	292			1	Wall	V4000 @ TS	
Troy HS	293			1	Wall	V4000 @ TS	
Troy HS	301			1	V4000 @ TV	V4000 @ TS	Remove screen
Troy HS	305			1	V4000 @ TV	V4000 @ TS	
Troy HS	306			1	V4000 @ TV	V4000 @ TV	Remove screen
Troy HS	307			1	V4000 @ TV	V4000 @ TS	Remove screen
Troy HS	315			1	V4000 @ TV	V4000 @ TV	Remove screen
Troy HS	Total	0	0	47			
TCC HS	313			1	V4000	CCP	Remove screen
TCC HS	402			1	V4000	CCP	Mount on wall left of whiteboard
TCC HS	405			1	V4000	CCP	
TCC HS	408			1	V4000	CCP	
TCC HS	Total	0	0	4			

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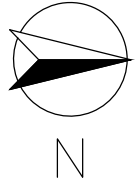
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66

FIRST FLOOR



- LCD Wall Mount Monitor
- LCD C Ceiling Mount Monitor
- ST Short Throw Projector
- TS Teacher Station



	ISSUE	2/20/17
No.	Revision/Issue	Date

Firm Name and Address

 **CONVERGENT**
TECHNOLOGY PARTNERS
111 E. COURT STREET
SUITE 202
FLINT, MI 48502



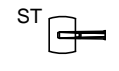

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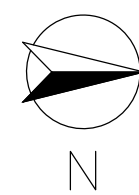
 **BAKER MIDDLE SCHOOL**
FIRST FLOOR
1359 TORPEY DRIVE
TROY, MI 4809834
(248) 823-4600

Project	Sheet
CLASSROOM A/V DISPLAY PROJECT	TT2.13A
Date	02/20/17
Scale	1"=20'

SECOND FLOOR




-  Wall Mount Monitor
-  Ceiling Mount Monitor
-  Short Throw Projector
-  Teacher Station



	ISSUE	2/20/17
No.	Revision/Issue	Date

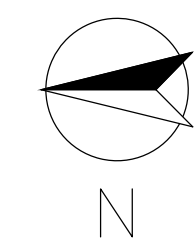
Firm Name and Address

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TECHNOLOGY PARTNERS
111 E. COURT STREET
SUITE 202
FLINT, MI 48502

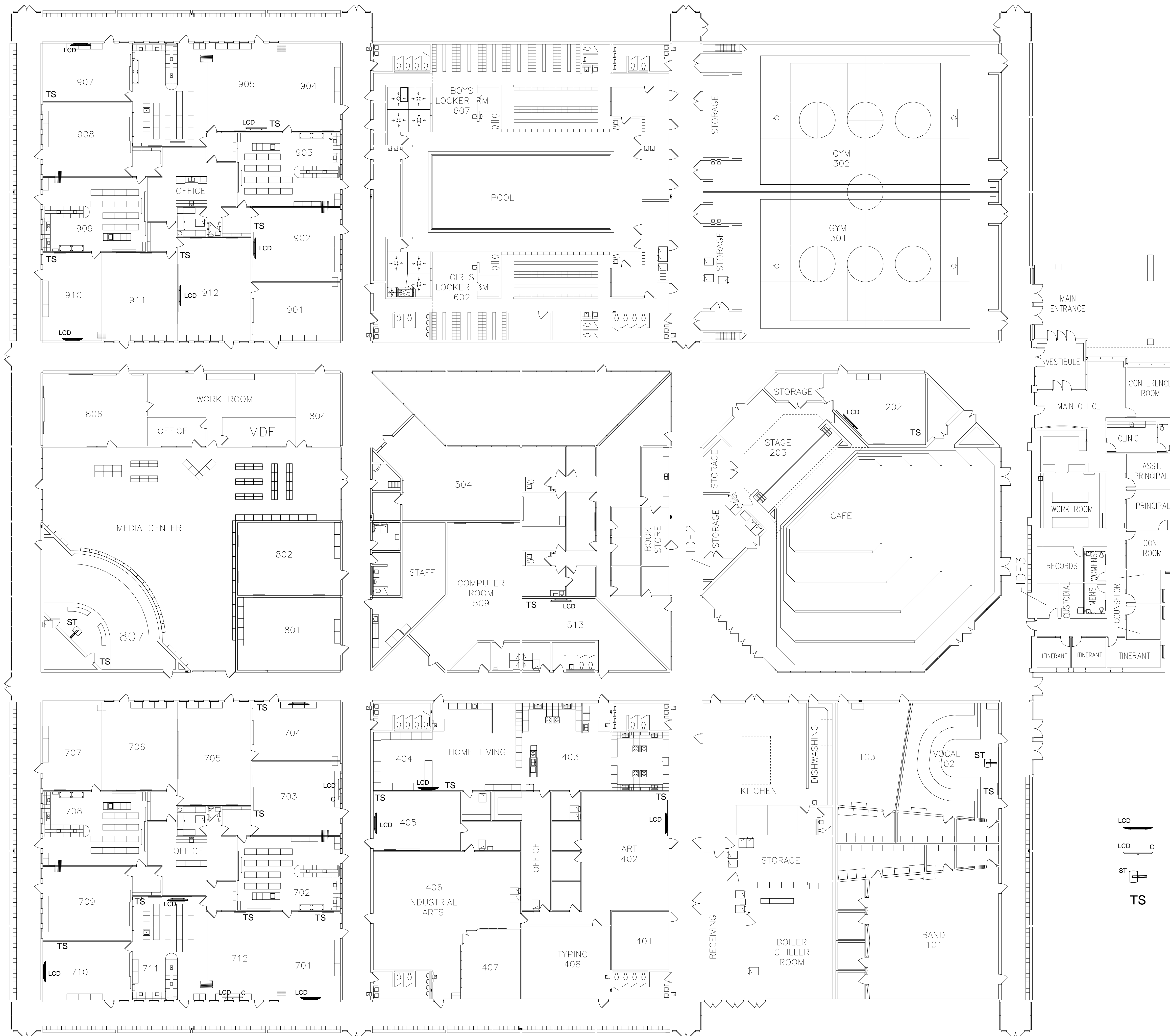
Project Name and Address

TROY SCHOOL DISTRICT
BAKER MIDDLE SCHOOL
SECOND FLOOR
1359 TORPEY DRIVE
TROY, MI 4809834
(248) 823-4600

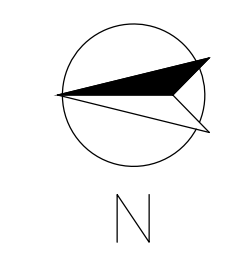
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Date	02/20/17		
Scale	1"=20'		



Project CLASSROOM A/V DISPLAY PROJECT	Sheet TT2.14
Date 02/20/17	
Scale $\frac{1}{16}" = 1'$	



- LCD Wall Mount Monitor
- LCD C Ceiling Mount Monitor
- ST Short Throw Projector
- TS Teacher Station



No.	Revision/Issue	Date
	ISSUE	2/20/17

Firm Name and Address

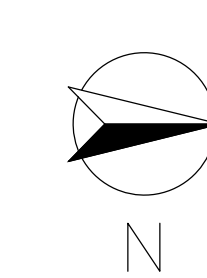
CONVERGENT
TECHNOLOGY PARTNERS
111 E. COURT STREET
SUITE 202
FLINT, MI 48502

Project Name and Address

TROY SCHOOL DISTRICT
LARSON MIDDLE SCHOOL
2222 LONG LAKE RD.
TROY, MI 48085
(248) 823-4800

Project CLASSROOM A/V DISPLAY PROJECT
Date 02/20/17
Scale 1/8" = 1'

Sheet TT2.15



	ISSUE	2/20/
No.	Revision/Issue	Date

Firm Name and Address

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TECHNOLOGY PARTNERS

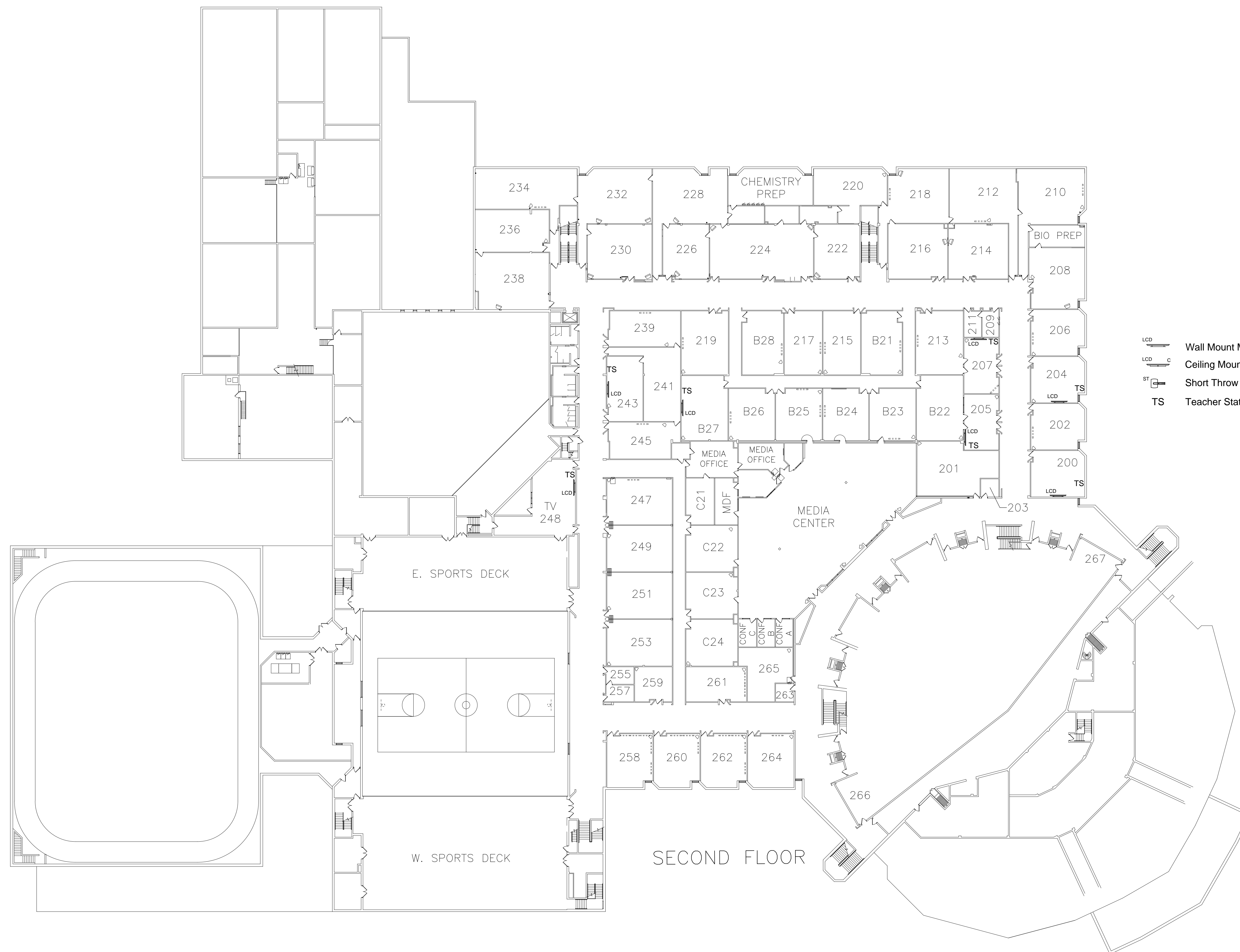
111 E. COURT STREET
SUITE 202
FLINT, MI 48502

Project Name and Address

TROY SCHOOL DISTRICT

SMITH MIDDLE SCHOOL
5835 DONALDSON
TROY, MI 48085
(248) 823-4700

Project	CLASSROOM A/V DISPLAY PROJECT	Sheet	TT2.16
Date	02/20/17		
Scale	$\frac{1}{4}'' = 1'$		




	ISSUE	2/20/17
No.	Revision/Issue	Date

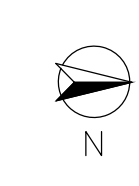
Firm Name and Address

 **CONVERGENT**
TECHNOLOGY PARTNERS
111 E. COURT STREET
SUITE 202
FLINT, MI 48502

Project Name and Address

 **TROY SCHOOL DISTRICT**
ATHENS HIGH SCHOOL
SECOND FLOOR
4333 JOHN R RD.
TROY, MI 48085
(248) 823-2900

Project	Sheet
CLASSROOM A/V DISPLAY PROJECT	TT2.17B
Date	02/20/17
Scale	1"=25'



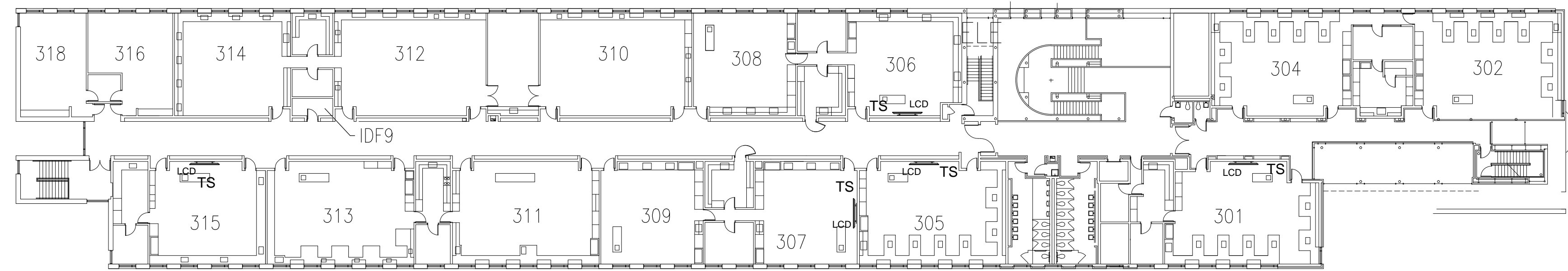
Firm Name and Address

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TECHNOLOGY PARTNERS

111 E. COURT STREET
SUITE 202
FLINT, MI 48502

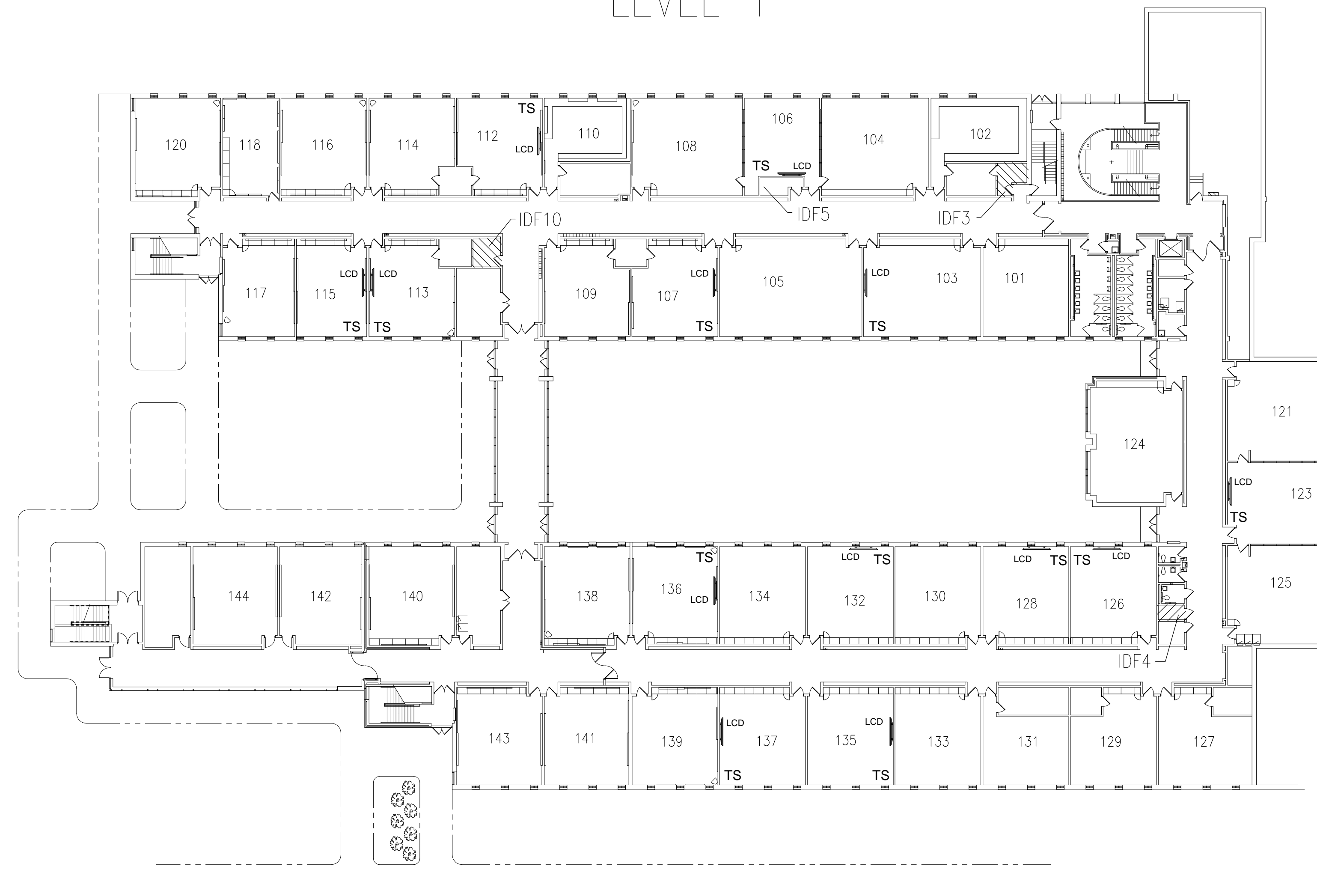
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Date 02/20/17	
Scale 1/32"=1'	

LEVEL 3



- LCD Wall Mount Monitor
- LCD Ceiling Mount Monitor
- ST Short Throw Projector
- TS Teacher Station

LEVEL 1



	ISSUE	2/20/17
No.	Revision/Issue	Date

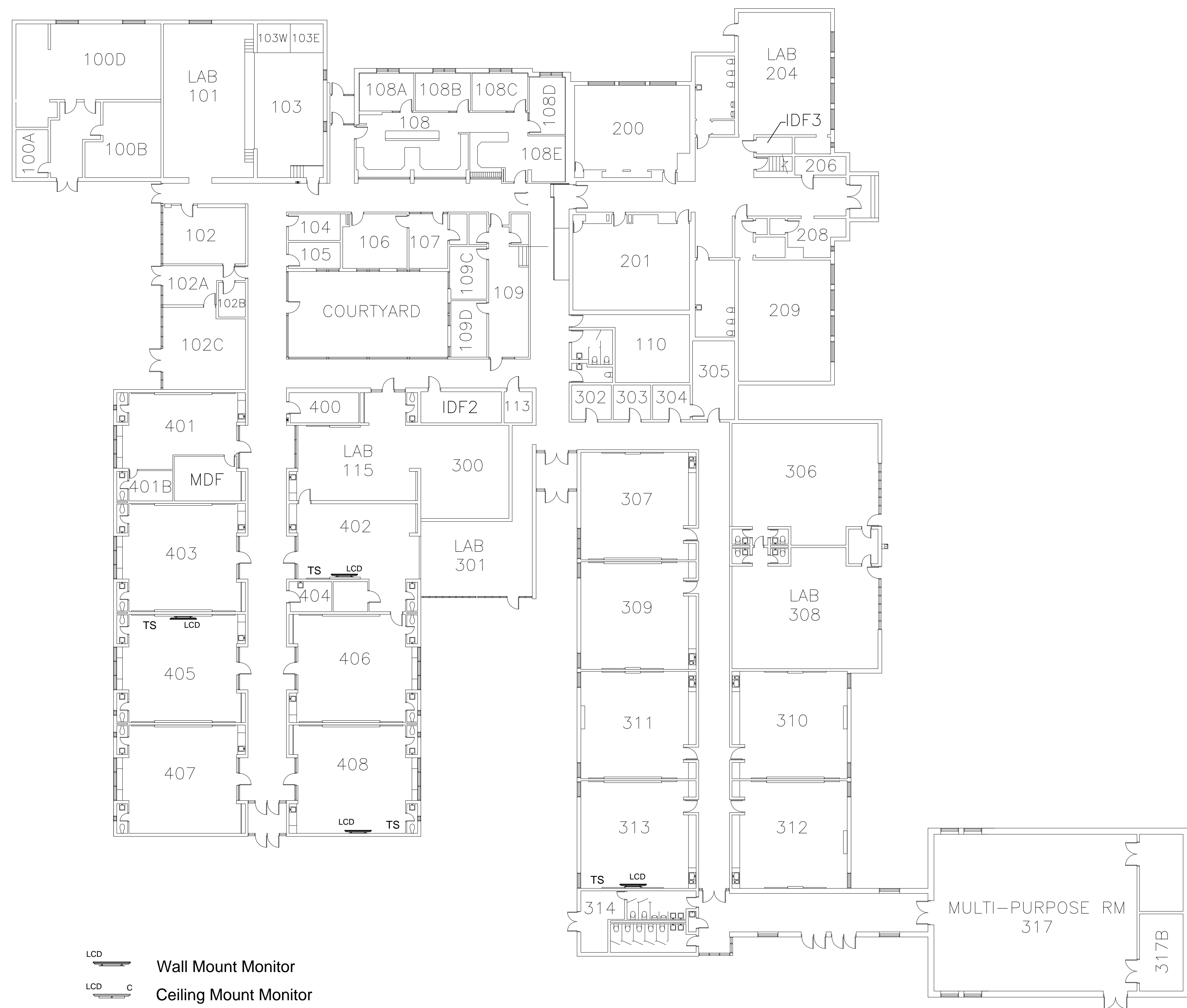
Firm Name and Address





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TECHNOLOGY PARTNERS
111 E. COURT STREET
SUITE 202
FLINT, MI 48502

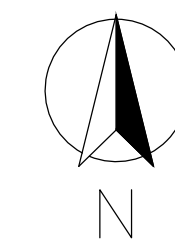
Project Name and Address

TROY SCHOOL DISTRICT
TROY HIGH SCHOOL
LEVELS 1 & 3
4777 NORTHFIELD PKWY.
TROY, MI 48098
(248) 823-2700

Project	CLASSROOM A/V DISPLAY PROJECT	Sheet	TT2.18B
Date	02/20/17		
Scale	1"=25'		



-  LCD Wall Mount Monitor
-  LCD C Ceiling Mount Monitor
-  ST Short Throw Projector
-  TS Teacher Station

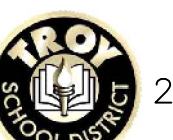


	ISSUE	2/20/17
No.	Revision/Issue	Date

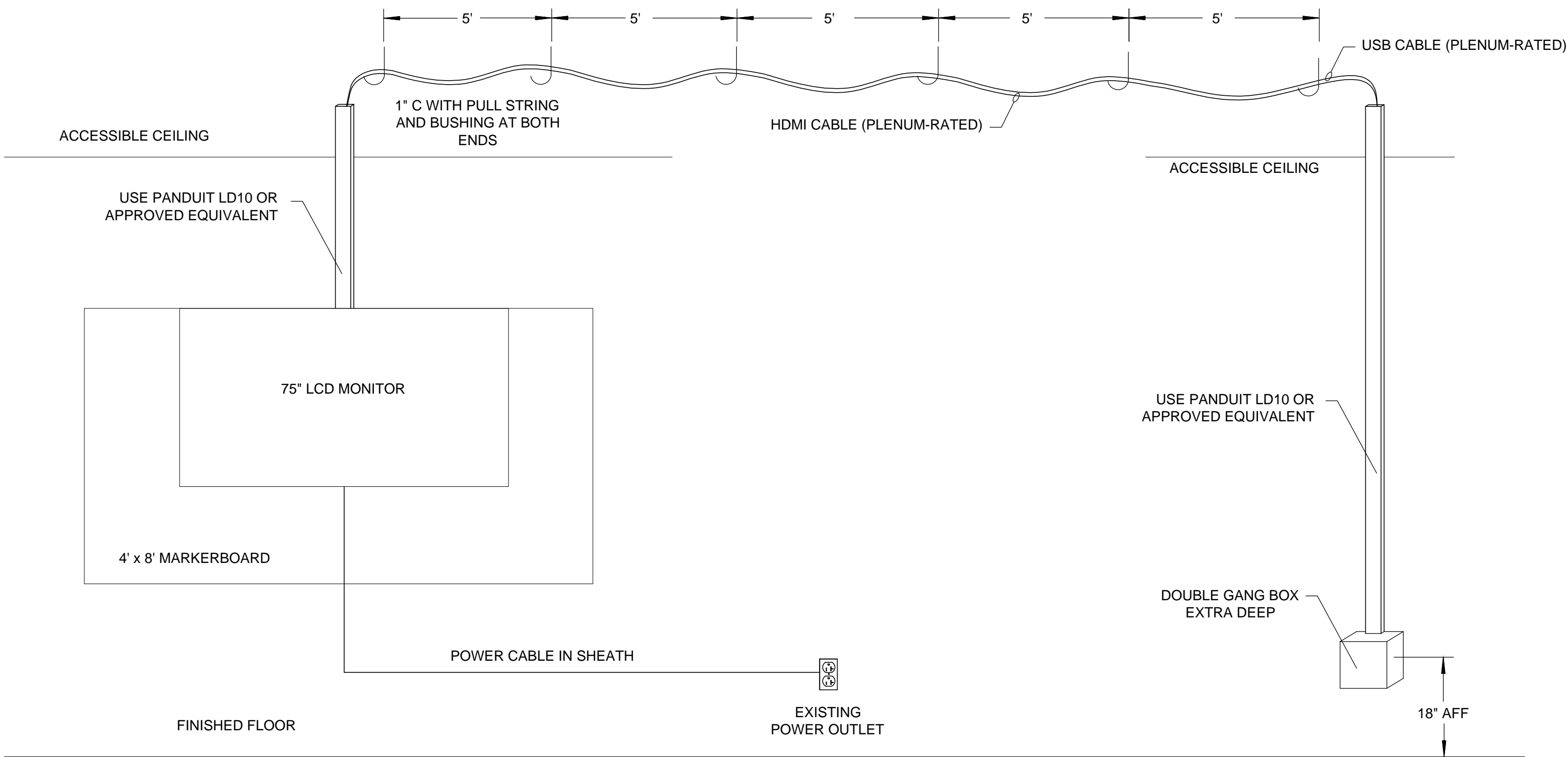
Firm Name and Address

 **CONVERGENT**
TECHNOLOGY PARTNERS
111 E. COURT STREET
SUITE 202
FLINT, MI 48502

Project Name and Address

 **TROY SCHOOL DISTRICT**
TROY COLLEGE &
CAREER HIGH SCHOOL
201 W.SQUARE LAKE RD.
TROY, MI 480984
(248) 823-5156

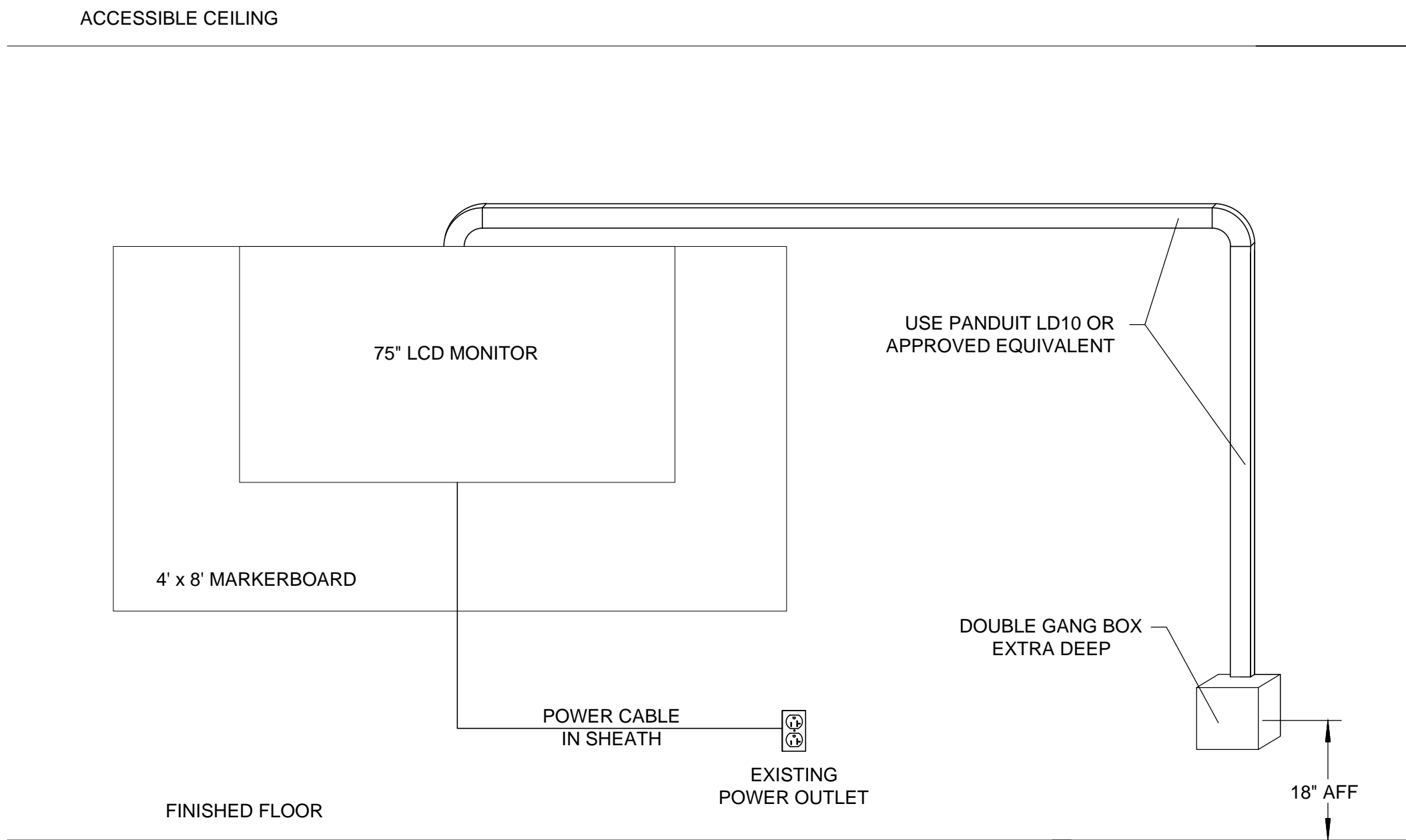
Project	Sheet
CLASSROOM A/V DISPLAY PROJECT	TT2.20
Date	02/20/17
Scale	1/16"=1'



LCD WALL MOUNT
75" LCD MONITOR
NOT TO SCALE

TS TEACHER'S STATION
NOT TO SCALE

TYPICAL CLASSROOM DETAIL



LCD WALL MOUNT
75" LCD MONITOR
NOT TO SCALE

TS TEACHER'S STATION
NOT TO SCALE

TYPICAL CLASSROOM DETAIL

GENERAL NOTES

1. THE CONTRACTOR SHALL PROVIDE A BLANK FACEPLATE AND APPROPRIATE INSERTS FOR BOXES AND RACEWAYS AT ALL LOCATIONS.
2. ALL USB AND HDMI CABLES BEING INSTALLED ABOVE ACCESSIBLE CEILING REQUIRE J-HOOKS EVERY 5 FEET ABOVE CEILING BETWEEN TEACHERS STATION AND PROJECTOR.
3. CAREFULLY LAY ALL CABLE WITH APPROPRIATE RADIUS OF CURVATURE AND PROTECT AT BENDS AND CORNERS. OBSERVE MINIMUM BEND RADIUS AND TENSION LIMITATIONS AS SPECIFIED BY TIA/EIA FOR FIBER OPTIC CABLES.
4. THE CONTRACTOR SHALL ASSURE THAT AT THE COMPLETION OF CABLE INSTALLATION, CABLES ARE FREE FROM TWISTS, KINKS SHARP BENDS, CUTS, GOUGES OR ANY OTHER PHYSICAL DAMAGE.
5. THESE DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL EXTENT OF THE WORK. THE CONTRACTOR SHALL PROVIDE ALL INCIDENTAL MATERIALS AND LABOR FOR A COMPLETE AND FUNCTIONAL SYSTEM.
6. NOTIFY DESIGNER OF ANY CONFLICTS BETWEEN EQUIPMENT SUBMITTALS AND TECHNOLOGY DRAWINGS.


	ISSUE	2/20/17
No.	Revision/Issue	Date

Firm Name and Address

 **CONVERGENT**
TECHNOLOGY PARTNERS
111 E. COURT STREET
SUITE 202
FLINT, MI 48502

Project Name and Address

TROY SCHOOL DISTRICT

 TECHNICAL DETAIL
SHEET AND
GENERAL NOTES

Project	CLASSROOM A/V DISPLAY PROJECT	Sheet	TT8.1
Date	02/20/17		
Scale	NONE		

BIDDER	Bid Bond	Familial Disclosure Affadavit Sup. E	Iran Economic Sanctions Sup. F	Base Bid (MS)	Base Bid (HS)	Mandatory Alternate 1	Mandatory Alternate 2	Mandatory Alternate 3	Mandatory Alternate 4	Mandatory Alternate 5	Mandatory Alternate 6
Digital Age Technologies (DAT)	Yes	Yes	Yes	\$307,368.00	No Bid						
Tierney Brothers	Yes	Yes	Yes	\$	808,219.31						
VSC	Yes	Yes	Yes	\$	655,270.67						