

REQUEST FOR QUOTATION		<b>TROY SCHOOL DISTRICT</b>  <b>1140 RANKIN, TROY, MICHIGAN 48083</b>  <b>248-823-4052</b>  <b>FAX: 248-823-4077</b>	REQUISITION
No.	<b>9535</b>		
DUE DATE	NO LATER THAN <b>6-30-08</b>		3 p.m.
			DATE <b>6-12-08</b>

**REQUEST FOR QUOTE – NOT AN ORDER**

THIS FORM MUST BE UTILIZED WHEN RESPONDING TO THIS REQUEST  
BID ENVELOPE ENCLOSED

**THE RFQ NUMBER MUST APPEAR ON ALL QUOTATIONS AND RELATED CORRESPONDENCE, THIS IS NOT AN ORDER**

Quantity	DESCRIPTION	UNIT PRICE	AMOUNT
	<p>Please supply us with your bid to furnish the Troy School District with <b>Playground Structures and Improvements</b> for district elementary schools as per the attached bid specifications.</p> <p align="center">Copies of the bid are available at:  <a href="http://www.troy.k12.mi.us/purchasing/items_out_for_bid.htm">www.troy.k12.mi.us/purchasing/items_out_for_bid.htm</a></p> <p align="center">Bid recaps will be available at:  <a href="http://troy.k12.mi.us/purchasing/index.htm">troy.k12.mi.us/purchasing/index.htm</a></p> <p align="center"><u>FACSIMILE BID IS NOT ACCEPTABLE</u></p> <p>Bids will not be accepted if submitted after the deadline specified (local time) in the advertisement to bid or in the information to bidders. The late submission of a bid makes the bid nonrepsonsive and is a material defect which shall not be waived by the Board of Education. Delays in the mail will not be considered. All Late bids in the mail will be returned to the bidder unopened.</p> <p>Proposal for the submission of alternatives by vendors will be accepted and reviewed. However, if any substitution or departure is not clearly noted and described, it will be understood that the bid intends to exactly meet the specifications.</p> <p>The Board of Education shall be the sole judge as to whether the proposed goods are "equal" or "approved". Quotations must be mailed or delivered to the Purchasing Office, 1140 Rankin, Troy, MI 48083 no later than 3 p.m. on the date shown above. Michigan State Sales and Use Taxes and Federal Excise Taxes do not apply unless otherwise indicated. Exemption certificates will be furnished when necessary. This request imposes no obligations on the buyer. The Board of Education reserves the right to accept or reject any or all bids or to split awards by items or to accept bids, which will best serve the Board of Education.</p>		

**THIS AREA MUST BE FILLED IN**

DELIVERY TIME	PRICES FIRM FOR	NAME OF COMPANY	TELEPHONE NO.
TERMS		NO. & STREET	FAX #
FOB	ALL DELIVERY CHARGES MUST	CITY, STATE & ZIP CODE	E-MAIL
DELIVERED	BE INCLUDED IN PRICES SHOWN		
CONTACT PERSON (PLEASE PRINT)		SIGNATURE	DATE

**Note:** All bidders are specifically reminded that a completed Affidavit of Bidder (Familial Disclosure) MUST be completed and submitted with the bid response. Failure to include a completed copy will be grounds for disqualification of bid. The Affidavit of Bidder is required to be notarized for construction bids only. All others only require completion and signature.

**AFFIDAVIT OF BIDDER**

The undersigned, the owner or authorized officer of \_\_\_\_\_  
(the "Bidder"), pursuant to the familial disclosure requirement provided in the \_\_\_\_\_  
\_\_\_\_\_ (the "School District") advertisement for construction bids, hereby  
represent and warrant except as provided below, that no familial relationships exist  
between the over(s) or any employee of \_\_\_\_\_  
\_\_\_\_\_ 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: \_\_\_\_\_

Its: \_\_\_\_\_

STATE OF MICHIGAN    )  
  )ss.  
COUNTY OF \_\_\_\_\_)

This instrument was acknowledged before me on the \_\_\_\_\_ day of \_\_\_\_\_, 2008,  
by \_\_\_\_\_.

\_\_\_\_\_

,Notary Public

\_\_\_\_\_County, Michigan

My Commission Expires: \_\_\_\_\_

Acting in the County of: \_\_\_\_\_



## ADVERTISEMENT TO BID

The **Troy School District** is seeking qualified bids for playground structures and improvements at its twelve elementary schools. Bid proposals will be received by Troy School District, 1140 Rankin, Troy, MI 48083 delivery or mail, to the attention of Frank Lams by 3:00 p.m. local time on Monday, June 30, 2008. (The clock used for receiving bids is located at the Rankin office in the main office area). Proposals must be sealed with Bidder's name on the outside of the envelope and designated as follows:

**Sealed Proposal**  
**Playground Structures and Improvements**  
**Bid Package 9535**  
**Contractor Name, Address, Phone Number**

Proposals shall be based on the requirements set forth in this bid package specification. Any resultant contract shall be based on these specifications.

Accepted Bidders will be required, as a condition precedent to award of Contract, to furnish in the amount of 100% of the contract price, satisfactory Performance Bond and Payment Bond and Certificates of Insurance as required.

Unless otherwise specifically set forth, this Project is subject to state sales and/or use taxes and Bidder is required to include such taxes in its Bid Proposal.

Bid Proposals will be publicly opened immediately following receipt of bids by the Troy School District and evaluated by Owner with awards subsequently made by Troy School District.

***The Owner shall not open, consider or accept a Bid Proposal that is received after the date and time specified for bid submission in this Advertisement for Bids.***

Bidding Documents will be available for examination and distribution on or after Friday, June 13, 2008. Examination made be made at the following locations:

- Troy School District, 1140 Rankin, Troy, MI 48083
- Construction Association of Michigan, 43636 Woodward Ave., Bloomfield, MI 48302
- F.W. Dodge, 21415 Civic Center Drive, Suite 115, Southfield, MI 48076

A pre-bid conference (ATTENDANCE STRONGLY ENCOURAGED) and site tour will be held at International Academy East (1291 Torpey, Troy, MI 48083) on **Wednesday, June 18, 2008 at 1:00 p.m.** All Bidders should plan to attend the pre-bid conference. Troy School District is not responsible for providing information to those who do not attend the pre-bid conference.

Bid Proposals shall be on forms furnished by **Troy School District**. Bidders will be required to submit with their Bid Proposals, a notarized Familial Relationship Disclosure Form, a Bid Security by a qualified surety authorized to do business in the State of Michigan where the Project is located, an OSHA Form 300 for the most recent completed year, their worker's compensation Experience Modification Rate (EMR) factor and any other information required in the Instructions to Bidders. Bidders shall not withdraw Bid Proposals for a period of **ninety (90)** days after date for receipt of Bid Proposals.

The right to accept or reject any or all Bid Proposals, either in whole or in part, to waive any informalities or irregularities therein and to award the contract to other than the low bidder is reserved by Troy School District.

All Bid Proposals shall be accompanied by the sworn and notarized statement disclosing any familial relationship that exists between the owner or any employee of the Bidder and any member of the School Board or the superintendent of the School District. Bid proposals that do not include this sworn and notarized disclosure statement will not be considered accepted.

The successful bidder and its subordinate parties shall comply with the Prevailing Wage Requirements for all work as required by the State of Michigan Public Act 166 Dated 1965 As Amended.

**End of Advertisement**

## **BID SECURITY**

- A. Bid security in the form of a bid bond issued by a qualified surety, certified check or cashier's check in the amount of five percent (5%) of the Base Bid amount will be required at the time of submission of the Bid Proposal. Bid bonds shall be duly executed by the bidder, as principal and by a surety that is properly licensed and authorized to do business in the state in which the Work is to be performed. All sureties providing bonds for this Project must be listed in the latest version of the Department of Treasury's Circular 570, entitled "Companies Holding Certificates of Authority as Acceptable Sureties on Federal bonds and as Acceptable Reinsuring Companies", with the bond amount less than or equal to the underwriting limitation, and/or have an A.M. best rating of A- or better.
- B. Bid bond shall pledge that the Bidder, with the understanding that if its Bid Proposal is accepted, will enter into the Agreement with Troy School District for any of the Bid Category(ies) accepted from its Bid Proposal and will, if required, furnish performance and payment bonds covering the faithful performance of the Agreement and the payment of all obligations arising there under. The attorney-in-fact, who signs the surety bond, must submit along with the bond, a certified and effectively dated copy of his/her power of attorney.
- C. Bid bond form AIA Document A310 is approved for use on this Project.
- D. The bid security obligees shall be **Troy School District** and the amount of the bid security shall become their property in the event that the Bidder fails, within Sixty (60) days of notice of award or receipt of the Agreement form, to execute the Agreement, and deliver the performance and payment bonds as described. In such case, the bid security shall be forfeited to Troy School District as liquidated damages, not as a penalty.
- E. The Owner will have the right to retain the bid security(ies) of Bidders to whom an award is being considered until either (a) the Agreement has been executed and bonds, if required, have been furnished, or (b) the specified time has elapsed so that Bid Proposals may be withdrawn, or (c) all Bid Proposals have been rejected.
- F. Bid security will be returned to the successful bidders after the Agreement has been executed, and acceptance of required performance and payment bonds. The bid security of Bidders that are not under consideration for award of the Agreement will be returned to those Bidders.

## **SUBMISSION OF BIDS**

- A. All copies of the Bid Proposal, the bid security and any other documents required to be submitted with the Bid Proposal shall be enclosed in a sealed opaque envelope. The envelope shall be addressed to the party receiving the bids and shall be identified with the Project name, the bidder's name and address, if applicable, the designated portion of the Work for which the Bid Proposal is submitted. If the Bid Proposal is sent by mail, the sealed envelope shall be enclosed in a separate mailing envelope with the notation "SEALED BID ENCLOSED" on the face of the envelope.
- B. Bid Proposals shall be deposited at the designated location prior to the time and date for receipt of Bid Proposals indicated in the Advertisement to Bid, or any extension thereof

made by Addendum. Bid Proposals received after the date and time for receipt of bids will be returned unopened.

- C. The Bidder shall assume full responsibility for timely delivery at the location designated for receipt of Bid Proposals.
- D. Oral, telephonic, facsimile, emailed or telegraphic Bid Proposals or bid securities are invalid and will not receive consideration.
- E. Bid Proposals will only be accepted for individual Bid Categories. Bidders are required to bid an entire Bid Category. Bidders may bid more than one Bid Category. Combined bids covering several Bid Categories may not be accepted unless separate bid amounts are listed for each Bid Category making up the combined bid amount. The amount for a combined bid, however, need not be equal in amount to the total of the individual category bids.

### **MODIFICATION OR WITHDRAWAL OF BID PROPOSAL**

- A. A Bid Proposal may not be modified, withdrawn or canceled by the Bidder after the stipulated time period and date designated for the receipt of Bid Proposals, and each Bidder so agrees in submitting its Bid.
- B. Prior to the time and date designated for receipt of Bid Proposals, any Bid Proposal submitted may be modified or withdrawn by notice to the party receiving Bid Proposals at the place designated for their receipt. Such notice shall be in writing over the signature of the Bidder.
- C. Withdrawn Bid Proposals may be submitted up to the time designated for the receipt of bids provided that they are then fully in conformance with these Instructions to Bidders.
- D. Bid security under B. or C., above shall be in an amount for the Base Bid as modified or resubmitted.

### **CONSIDERATION OF BIDS**

#### **OPENING OF BIDS**

- A. Bid Proposals received on time will be open publicly.
- B. Bid Proposals shall be held open and irrevocable for **Forty-five (45)** days after the receipt of bids.

#### **REJECTION OF BIDS**

- A. **Troy School District** shall have the right to reject any or all bid Proposals and to reject a Bid Proposal not accompanied by the required bid security or by other information required by the Bidding Documents, or to reject a Bid Proposal which is in any way incomplete or irregular.
- B. Bid Proposals are considered irregular and may be rejected for any of the following reasons unless otherwise provided by law:
  - 1. If Bid Proposal Form furnished is not used or is altered.

2. If there are unauthorized additions, qualified or conditional Bid Proposals, or irregularities of any kind which may make the Bid Proposal incomplete, indefinite, or ambiguous as to its meaning.
3. If Bidder adds any provisions reserving right to accept or reject any award, or enter into the Agreement pursuant to an award.
4. If Unit or Lump Sum prices or Alternates contained in the Bid Proposal are obviously unbalanced either in excess of, or below, reasonable cost analysis values.
5. If Bidder fails to complete the Bid Proposal Form where information is requested so the Bid Proposal form cannot be properly evaluated.
6. Bidder is deemed to not be the Lowest Responsive, Responsible Bidder by definition and prevailing statutes.
7. Bidder does not submit with its Bid Proposal a sworn and notarized statement of Familial Disclosure.

### **ACCEPTANCE OF BID (AWARD)**

- A. It is the intent of the **Troy School District** to award the Agreement to the Lowest Responsive and Responsible Bidder provided the Bid Proposal has been submitted in accordance with the requirements of the bidding Documents and does not exceed the funds available. **Troy School District** shall have the right to waive any informality or irregularity in any bid Proposal received and to accept Bid Proposals which, in its judgment, are in its own best interest which includes not awarding to the low bidder. **Troy School District** reserves the right to reject any bid Proposal in its sole discretion except where otherwise provided by law.
- B. **Troy School District** shall have the right to accept any Alternates in any order or combination and to determine the low bidder on the basis of the sum of the Base Bid, Voluntary Alternates and Alternates accepted.
- C. **Troy School District reserves the right to award this bid on an individual site basis. Bidders are encouraged to bid all work at all sites, however, no disqualification will be made on bids which opt to bid on less than all sites providing that the submitted bid is complete on a *per site basis*.**

### **INSURANCE REQUIREMENTS**

As a condition of performing work under the Agreement, Contractor will keep in force, at all times during performance of the Work, policies of insurance covering all Basic Insurance Requirements and any applicable Supplemental Insurance Requirements. The requirements identified below are minimum requirements. If the Agreement or other Contract Documents impose additional or higher standards, contractor shall meet those as well. Where a Controlled Insurance Program ("CIP") is specified in the Contract Documents, these insurance requirements shall not apply to coverage supplied by the CIP, but shall apply to coverage which Contractor is required to carry outside the scope of the CIP.

#### **Basic Insurance Requirements**

Workers' Compensation covering Contractor's statutory obligations in the State(s) in which the Work is to be performed or Federal statutory obligations, if applicable to the Project and Employers' Liability insurance with limits of liability of \$1,000,000 per accident. Where

applicable, a US Longshore and Harborworker's Compensation Act endorsement must be included.

If Contractor employs the services of leased employees for the Work or for a portion of the Work, it will be required to submit evidence, to the satisfaction of the Troy School District, that such leased employees are fully covered by the minimum limits of Workers' Compensation and Employers' Liability Insurance. Such evidence shall include, but not be limited to, submission of the applicable leasing agreement.

Automobile Liability insurance with the limit of \$1,000,000 per accident covering Contractor's owned, non-owned and hired automobiles.

Commercial General Liability Insurance written on the 1988 ISO OCCURRENCE policy form or subsequent versions with the limits of liability as follows:

General Aggregate	\$2,000,000
Products-Completed Operations Aggregate	\$2,000,000
Personal/Advertising Injury	\$2,000,000
Each Occurrence	\$2,000,000

This coverage shall include coverage for premises-operations, independent contractors' protective products and completed operations, personal injury and broad form property damage (including coverage for explosion, collapse, and underground hazards), and Contractual Liability protection with respect to Contractor's indemnification obligations under the Contract Documents. Products-completed operations coverage must be maintained for at least two years after final completion of the Project.

### **General Provisions**

Every policy must be written by an insurance company licensed in the state of Michigan and is reasonably acceptable to the Troy School District.

For Employer's Liability, Commercial General Liability and Automobile Liability may be attained by a combination of an underlying policy with an umbrella or excess liability policy.

The Troy School District shall be endorsed as additional insureds on Contractor's liability insurance (including general liability, excess liability, automobile liability and pollution liability, where applicable, with respect to liability arising out of activities performed by or on behalf of Contractor. The coverage provided by the additional insured endorsement shall be at least as broad as the Insurance Service Office, Inc.'s Additional insured, Form B CG 20 10 11 85 or CG 20 26 11 85. Forms that do not provide additional insured status for completed operations will not be accepted.

Contractor will furnish, before any work is started, certificates of insurance showing the required coverage Receipt by Troy School District of a non-conforming certificate of insurance without objection, or Troy School District's failure to collect a certificate of insurance, shall not waive or alter Contractor's duty to comply with the insurance requirements. Modifications to these insurance will not be effective unless made in a writing executed by an authorized representative of the Troy School District. Upon written request by Troy School District, contractor will provide copies of its insurance policies.

Evidence of the required insurance is to be provided to Troy School District on ACORD Certificate Form 25-S and must indicate:

Any coverage exclusions or deviations from the 1988 ISO commercial general liability form or subsequent versions;

Best's rating for each insurance carrier at A minus VII or better;

That the issuing insurance company will provide thirty (30) days written notice of cancellation to the certificate holder and the words "endeavor to" and "but failure to mail such notice shall impose no obligation or liability of any kind upon the company, its agents or representatives" do not apply or have been removed;

That additional insured endorsements have been provided as required under the Contract Documents;

and

Any deductibles over \$10,000 applicable to any coverage.

All coverage must be primary and not excess over or contributory with any other valid, applicable and collectible insurance in force for Troy School District, or other insureds.

Contractor will provide full coverage for all of Contractor's equipment, property and tools used in the Work.

Contractor shall waive, and shall require (by endorsement or otherwise) its insurers providing the coverage required by these insurance requirements to waive, subrogation rights against Troy School District, and all other additional insureds for losses and damages incurred and/or paid under the insurance policies required by these insurance requirements or other insurance applicable to Contractor or its Subordinate Parties, and will include this same requirement in contracts with its Subordinate Parties. If the policies of insurance referred to in this paragraph require an endorsement to provide for continued coverage where there is a waiver of subrogation, the owners of each policies will cause them to be so endorsed.

Contractor will send or fax a copy of these insurance requirements to its agent when an insurance certificate is requested to assure that the policies comply with the insurance requirements.

If Contractor requires its Subordinate Parties to provide additional insured endorsements in favor of Contractor, those endorsements shall be extended to Troy School District and all other required additional insureds.

Contractor's duty to provide the insurance coverage set forth in these insurance requirements is a severable obligation from Contractor's indemnification obligations under the Contract Documents. Nothing in these insurance requirements shall be deemed to limit Contractor's liability under the Agreement.

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**DIVISION 1**

**GENERAL REQUIREMENTS**



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## **SPECIAL REQUIREMENTS**

### **1.01 CONSULTANTS and/or ARCHITECTS**

The term "Consultants" and/or "Architects" as used in the Construction Manual -including General Conditions, Supplementary Conditions, Division 1 - Contract Documents shall mean LANDSCAPE ARCHITECTS AND PLANNERS, INC., their employees and authorized representatives, and their Sub-Consultants and their employees and authorized representatives.

### **1.02 ADDITIONAL INSURED**

In addition to the Owner, the Contractor's Certificates of Insurance shall name the Consultants and/or Architects as additional insured.

### **1.03 INDEMNIFICATION**

In addition to the Owner, the Contractor shall indemnify and hold harmless the Consultants, the Sub-consultants, and their agents and employees from and against all claims, damages, losses, and expenses including attorneys' fees arising out of or resulting from the performance of the Work, provided that any such claim, damage, loss, or expense (1) is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the work itself) including the loss of use resulting there from, and (2) is caused in whole or in part by any negligent act or omission of the Contractor, any Subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, regardless of whether or not it is caused in part by a party indemnified hereunder.

### **1.04 CONTRACT DOCUMENTS**

The Contract Documents shall consist of General Conditions, Detailed Specifications, Contractor's Declaration, Contractor Evaluation Data, General Specifications, Bonds, Agreement, Contract Drawing(s), and any additional documents that may be made a part of the Contract.

The Contract Documents are complimentary, and what is called for by any one shall be as binding as if called for by all. The intention of the Contract Documents is to include in the contract price the cost of all superintendence, labor and materials, and all other expense necessary for the proper execution of the work.

The specifications, schedules and plans and drawings herein referred to shall be taken together to explain each other and to make the whole, taken together, consistent. Work on the plan and not mentioned in the specification, or vice versa, shall be done the same as if shown by both, and in case of conflict, the Owner will determine which will govern. In case of ambiguity in the plans or specifications, the Owner will decide as to the correct interpretation thereof.

In interpreting the Contract Documents, words describing materials or work which have a well-known technical or trade meaning, unless otherwise specifically defined in the Contract Documents, shall be construed in accordance with such well-known meaning recognized by landscape architects, architects, engineers, and the trade.

### **1.05 TIME LINE**

Contractor to submit a time line and sequence of work to be done with a completion date based upon the project timeline included in this package. Liquidated damages will be assessed at the rate of \$500.00 per calendar day for unauthorized delays beyond the Contract time. The Contractor hereby agrees upon this amount by execution of the proposal form and other contract documents.

### **1.06 SUB-CONTRACTORS**

Contractor will provide the Owner and Architect with a list of all sub-contractors; name, address, phone#, fax#, cell phone and/or pager.

**1.07 SITE INSPECTION NOTICE**

Contractor will give Owner and Architect 48 hours notice to arrange to inspect layout, depth of holes for footings, concrete formwork, at 90% completion on playground installation and for final inspections.

**1.08 SITE MAINTENANCE**

Contractor is responsible for maintenance of the site unless the owner signs a written agreement prior to the start of construction.

**1.09 MANDATORY MEETINGS**

After contract is awarded or letter of intent is received, prior to any excavation installation or any other related work on site, the manufacturers sales representative, contractors and all sub-contractors will meet the Owner, and the Owners authorized representative(s) on site for a preconstruction meeting. Meeting to be determined by the Owner.

**1.10 EXCAVATED MATERIAL**

All excavated material is to be reused on site for site restoration and any excess material beyond what can be used on site is to be removed at the Contractors expense unless otherwise indicated by the Owner. Topsoil is to be used for site restoration, any excess topsoil that cannot be used on site is to be removed at the Contractors expense.

**1.11 PLANS AND SPECIFICATIONS**

The work shall be executed in strict conformity with the plans and specifications, and the Contractor shall do no work without proper drawings and instructions.

No person except the Owner shall have authority to revoke, alter, enlarge or change any provisions of these specifications or the plans for the work, and if the Contractor deviates from them in any particular, without written authorization from the Owner, he does so at his own risk, and such work and payment therefore may not be approved.

**1.12 DRAWINGS**

Unless otherwise provided in the Contract Documents, the Owner will furnish the Contractor free of charge all copies of drawings and specifications reasonably necessary to carry out the work.

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**FIELD ENGINEERING****1.01 General**

Spot elevations are given for the general available area for playground equipment and any points required beyond these will be the responsibility of the Contractor.

All costs for layout shall be paid by the Contractor and shall be considered incidental to each item of work.

The Contractor must exercise precaution to verify figures shown on the drawings before layout of work and will be responsible for any error resulting from failure to do so. Architect is to approve all layout items prior to construction. Layout approval will be treated in the same manner as shop drawings are viewed and approved.

**1.02 Layout Requirements**

All layout is subject to field approval by the Architect.

1. Miss dig is to be contacted a minimum of 72 hours in advance of construction to commence. It is the contractor's responsibility to retain a current Miss Dig number on the project. Neither the owner, nor the consultant will obtain Miss Dig number on the behalf of the contractor. Each trade is responsible for contacting Miss Dig. Failure to obtain a Miss Dig number in accordance with the construction schedule will result in lost workdays subject to liquidated damages.
2. Underground Utilities: All utilities shall be staked for line and grade at all structures, all pipe ends and at no more than 50 foot intervals. The Contractor shall contact all proper agencies as to the exact location of all utilities, sewers, waterlines, etc.
3. Earthwork and Fields: All earth work and fields shall be staked to shown location of all high points, low points, swale lines, turf and skin areas.

**1.03 Survey Monuments**

The Contractor shall protect and preserve all land survey monuments or property corners along the line of his work. Where monuments or irons are unavoidably disturbed or removed due to operations under this contract, the Contractor, at his own expense, shall employ the services of a registered Land Surveyor to establish, reset or replace such monuments or irons.

**1.04 Report of Error and Discrepancies**

If, in the course of the work, the Contractor finds any discrepancies between the plans and the physical conditions encountered in the work, or any error or omissions in the plans or in the layout, it shall be his duty to immediately inform the Architect in writing. Any work performed after such discovery, until authorized by the Architect, will be at the Contractor's risk.

**1.05 Drainage**

The Contractor is responsible for proper drainage from the new installation. They cannot create a problem with other nearby facilities.

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**ABBREVIATIONS AND SYMBOLS**

AIA	American Institute of Architects
ACI	American Concrete Institute
ADA	Americans with Disabilities Act
AISC	American Institute of Steel Construction
ANSI	American National Standards Institute
ASTM	American Society of Testing Materials
BOCA	Building Officials And Code Administration
CPSC	Consumer Product Safety Commission
CPSI	Certified Playground Safety Inspector
DOL	Department of Labor
IPEMA	International Play Equipment Manufacturer's Association
MDNR	Michigan Department of Natural Resources
MDOT	Michigan Department of Transportation
NEC	National Electric Code
NFPA	Fire Protection Association
NRCA	National Roofing Contractors Association
OSHA	Occupational Health Safety Act
SMACNA	Sheet Metal and Air-conditioning Contractors National Association

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**DEFINITIONS**

- A. OWNER – Troy School District
- B. CONTRACTOR - The corporation, firm or individual who has contracted to construct this project. "Contractor" shall be construed to mean any subcontractors, material dealers, or manufacturers who may develop incidental responsibilities because of the construction project.
- C. SUBCONTRACTOR - The corporation, firm or individual that has a direct contract with the Contractor to perform a portion of the construction on this project or to furnish machinery and equipment to be incorporated into the completed work.
- D. ENGINEER - Any representatives or the person(s) of a company holding a seal in the State of Michigan for the purpose of Civil or Structural Engineering.
- E. ARCHITECT - Any representatives or the person(s) of a company holding a seal in the State of Michigan for the purpose of Landscape Architecture.
- F. INSPECTOR - An authorized representative of the Engineer, Landscape Architect or Owner assigned to make any or all necessary inspections of the work performed and materials furnished by the Contractor.
- G. PROPOSAL - The approved, prepared form on which the bidder is to submit or has submitted an offer and a schedule of prices for the work contemplated.
- H. BIDDER - Any corporation, firm or individual who submits a proposal for the performance of this contract.
- I. SURETY - Any corporation, firm or individual who is bound with and for the contractor and is primarily liable for the proper performance of this contract and the payment of wages and materials.
- J. WORK - All labor, materials, equipment, transportation, and all other facilities necessary to complete this project.
- K. PROJECT - The entire improvement proposed by the Owner to be constructed in part or in whole according to this contract.
- L. WORK DAY - A minimum of 8 hours in one 24 hour period dedicated to the completion of the scope of work associated with the project as identified in the working documents.
- M. WORK WEEK - A minimum of 5 working days in a seven day period starting on a Monday.
- N. WEATHER DAY - A work day in which no work can take place due to prohibiting atmospheric conditions for the safe execution of task aim toward the completion of the project. All weather days are subject to approval by the owner and its' consultant.

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## SUMMARY OF WORK

### 1.01 WORK INCLUDED

The following work is to be included:

#### WORK TASK ONE - SITE PREPARATION

Equipment Storage – Contractor shall provide equipment storage on site, if equipment is to remain on site. Contractor is to secure equipment before and during construction. Troy School District assumes no liability for lost or stolen equipment.

Playground Equipment Removal – Contractor is responsible for the removal of existing playground equipment.

Erosion Control – Contractor to install silt fencing as/if shown on the plan.

Temporary Barriers – Contractor to install barrier around construction site, if necessary.

Tree protection – Contractor to install tree protection around all trees within 20' of work area, if necessary and as indicated.

#### WORK TASK TWO – SITE WORK

Earthwork – Contractor is to excavate and grade for playground areas and paving.

Drainage – Contractor is to install drainage as indicated on the plans and specifications.

Playground Timbers and Safety Surfacing – Contractor is to install playground timbers and playground safety surfacing according to specifications. This task may occur before or after playground equipment installation depending on the construction schedule. Contractor is to preserve existing safety surfacing and top-dress as indicated on the plans.

Concrete Walks and Asphalt Paving – Contractor to install concrete walks and asphalt play areas.

Asphalt Games – Contractor to layout and paint asphalt games on existing and proposed paved areas.

Soccer Goals and Amenities – Contractor is to install soccer goals and other amenities according to plans, project specifications and manufacturers specifications.

#### WORK TASK THREE - PLAYGROUND EQUIPMENT AND SIGN INSTALLATION

Equipment Layout -Layout all equipment and age appropriate signage within area indicated by Layout Plan. Final layout of equipment and sign is to be approved on site by Owner or Owner's Representative. Layout approval will be treated in the same manner as shop drawings are viewed and approved.

Equipment Installation- Supply and install all equipment as per manufactures specifications and those specifications, which have been addressed in this package. Contractor is to push existing safety surfacing to the side to avoid contamination during the installation of playground equipment, signs or other amenities.

#### WORK TASK FOUR - SITE RENOVATION

Placement of Topsoil - Spread topsoil in areas scheduled for seeding or areas that have been disturbed by construction of this project.

Fine Grade, Seed, Mulch and Rope - As specified on the drawing, in this document, and or as disturbed during construction of this project.

Remove and properly dispose of excess soil and other materials related to the construction of this project.

Rake safety surfacing around playground equipment.

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**ALTERNATES, "OR EQUAL" CLAUSE****PART 1 GENERAL****1.01 DESCRIPTION**

If the Contractor wishes to substitute into the work materials or equipment other than those specified, the Contractor shall notify the Owner or the Architect in advance. The Owner must agree with the substitution and be one hundred percent satisfied prior to authorizing the change.

Such items shall be the standards product of a responsible manufacturer who is fully established in the production of such items when applicable, readily provide experienced personnel for the servicing and repair of such equipment.

Such items shall be equal in all respects to that specified in function, efficiencies, ease in maintenance and overall quality and performance. Alternates must be equal to standards set forth within this document and industry standards or equal to or better than the specified product. All alternates are subject to review and approval by the Owner and Architect to determine if such an alternate is in the best interest of the Owner.

Playground equipment substitutions will be evaluated for play value and must meet the basic specifications in this package.

If such items require any change in the design or an increase in the cost of the work to that specified, the Contractor shall incur all such costs with no additional expense to the Owner.

**1.02 RELATED WORK SPECIFIED ELSEWHERE**

- A. Bid Documents, Proposal: Schedule of Items and/or Equipment.
- B. Contract Documents: Schedule of Submittals.
- C. Drawings: As Shown and/or Noted.

**1.03 SUBMISSION REQUIREMENTS**

For those items of work, which the Contractor proposed to perform which were not specified, the Bidder shall submit with the proposal, for the Architect's review, detailed specifications, diagrams, working drawings, samples, etc., for the particular item that is proposed as a substitute.

It is the responsibility of the Contractor to furnish all information requested by the Landscape Architect to show that the substitute equals or exceeds all requirements of the Contract Documents.

**PART 2 PRODUCTS****2.01 MATERIALS**

Comply with all current industry standards and all manufacturer's specifications and standards for each product, service or equipment involved.

**PART 3 EXECUTION****3.01 PERFORMANCE**

If the Contractor incorporates a substitute into the finished work, he/she does so at his/her own risk, even though the Architect has reviewed the submittals. If during construction or during the warranty period it becomes evident that the product is not equal in all respects, then the Contractor shall correct such deficiencies or replace the item at no cost to the Owner; or if the Owner accepts a deficient product, a change order shall be submitted by the Contractor reducing the price as agreed to.

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**MEASUREMENT AND PAYMENT****1.01 Lump Sum Bid Items**

Quantities provided with the Contract Documents are for informational purposes only. The Contractor shall prepare this lump sum bid amount based on his own examination of the plans and determination of the work necessary to complete the item as specified on the plans.

**Unit Price Items**

Quantities listed in the Proposal may be approximate and are stated solely to provide a uniform base of calculation for comparison of bids and award of Contract. No guarantee is made by the Owner that actual quantities will correspond with the Proposal quantities.

**1.02 Payment of Work**

Payment to the Contractor will be made based on a Schedule of Values submitted and approved by the Construction Manager and Owner prior to the first payment request. Proposal quantities of work to be performed or materials to be furnished may be increased, decreased or deleted as stipulated elsewhere in the Contract Documents.

**1.03 Extras**

Except as otherwise herein provided, no charge for any extra work or material will be allowed unless the same has been ordered in writing by the Owner and the price stated in such order.

**1.04 Changes in Work - Payment Adjustments****General**

The Owner may authorize changes in, additions to, or deductions from the work to be performed or the materials to be furnished pursuant to the provisions of the contract.

**Adjustments**

Adjustments, if any, in the amounts to be paid to the Contractor by reason of any such change, addition or deduction shall be determined by one or more of the following methods:

1. By unit prices contained in the Contractor's original bid and incorporated in the construction contract.
2. By a supplemental schedule of prices contained in the Contractor's original bid and incorporated in the construction contract.
3. By an acceptable lump sum proposal from the Contractor.
4. On a cost-plus-limited basis not to exceed a specified limit. A cost-plus-limited basis is defined as the cost of labor, materials, equipment, and insurance, plus 15% of the said cost to cover superintendence, general expense and profit.

**1.05 Estimates and Payments**

The Owner shall pay and the Contractor shall receive the prices bid in the proposal, or agreed upon, less any deduction for any uncompleted portion, based upon measurements made by the Owner or as otherwise herein stipulated, and such measurements shall be final and conclusive.

By the first day of each month the Contractor shall submit to the Construction Manager an application for each payment and shall submit a Contractor's Declaration declaring that he has not performed any work, furnished any material, sustained any loss, damage or delay, for any reasons, including soil conditions encountered or created, or otherwise done anything for which he will ask, demand, sue for, or claim compensation from the Owner and, if required, shall submit receipts or other vouchers showing his payments for materials and labor, including payments to subcontractors.



The Owner may withhold the payment of any estimate or portion of estimate until the Contractor shall have furnished satisfactory evidence that he has paid all claims of every nature.

No payment shall be considered as acceptance of the work or any portion thereof prior to the final completion of the work, and the payment of the final estimate.

Within thirty (30) days after the completion of the work under this contract to the satisfaction of the Owner in accordance with all and singular terms and stipulations herein contained, the Owner shall make final payments, from a final estimate made by the Owner's Engineer. Before final payment is made, the Contractor shall, as directed by the Owner make Contractor's affidavit that he has paid all claims of every nature, or secured a release from the surety or sureties approving payment of final estimate by the Owner. In the event that the completed work must be finally accepted by any corporation, firm, individual, or governmental unit other than the Owner, the completed work must be "approved and accepted" by such entity other than the Owner prior to final payment.

The acceptance by the Contractor of the final payment aforementioned, shall operate as and shall be a release to the Owner and his agents from all claim and liability to the Contractor for anything done or furnished for, relating to the work, or for any act or neglect of the Owner or of any person relating to or affecting the work.

#### **1.06 Payments Withheld**

The Owner may withhold or, on account of subsequently discovered evidence, nullify the whole or a part of any certificate for progress payment to such extent as may be necessary to protect itself from loss on account of:

- A. Defective work not remedied.
- B. Claims filed or reasonable evidence indicating probable filing of claims.
- C. Failure of the Contractor to make payments properly to subcontractors or for material or labor.
- D. A reasonable doubt that the contract can be completed for the balance then unpaid.
- E. Damage to another Contractor.

When the above grounds are removed, payment shall be made for amounts withheld because of them.

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## QUALITY CONTROL

### 1.0 Inspection of Work and Materials

The Owner and his representatives shall at all times have access to the work wherever it is in progress or preparation, and the Contractor shall provide proper facilities for such access and for inspection.

If the Specifications, the Landscape Architect's instruction, laws, ordinances, or any public authority require any work to be specially tested or approved, the Contractor shall give the Landscape Architect timely notice of its readiness for inspection. If any work should be covered up without approval or consent of the Landscape Architect, it must, if required by the Landscape Architect, be uncovered for examination at the contractor's expense.

All materials used in this project are subject to tests for quality, strength, durability, soundness, etc., to meet the requirement of these Specifications for the various materials. The number of tests for each material shall be as specified or as directed by the Landscape Architect.

The tests will be made by a qualified independent testing laboratory at the expense of the contractor. The Contractor shall furnish all samples of the materials necessary for this testing as required by the Landscape Architect, without extra compensation.

All specifications of any society, institute, association, or governmental agency hereinafter referred to are hereby made a part of the Contract the same as if written in full. Where reference is made to standard specification, such as the American Society for Testing and Materials (ASTM), these references refer to the Standards and Tentative Standards of said Society in force on the date when bids on this Contract are received.

No inspection shall relieve the Contractor from any obligation to furnish materials and equipment and to perform the work strictly in accordance with the Contract Documents. Any material or workmanship or equipment which may be discovered to be defective, prior to the final acceptance of the work, shall be removed and made good by the Contractor regardless of previous inspection.

The Contractor shall promptly remove from the site of the work, or from any premises where materials are being prepared, fabricated or worked, expressly for the work under this Contract, all materials condemned by the Landscape Architect as failing to conform to the Contract.

All shop drawings as request are to be submitted in duplicate to the Consultant for review. All shop drawings are to be reviewed and approved via written notification citing the submitted drawing. Installation of products with out the approval of shop drawings is done at the contractor's own risk.

The Contractor is not required to have a third party of inspection of playground equipment and surfacing if it meets ASTM F1487-05 guidelines, CPSC 1997 Playground Standards, and are IPEMA certified.

### 2.0 Materials and Workmanship

Unless otherwise stipulated in the specifications, all equipment, materials, and articles incorporated in the work covered by this contract are to be new and of the best grade of their respective kinds for the purpose. Quality of material is subject to review in the field by the Landscape Architect.

If not otherwise provided, material or work called for in this contract shall be furnished and performed in accordance with well-known established practice and standards recognized by Landscape Architects, Engineers and the trade.

When required by the specifications, or when called for by the Owner, the Contractor shall furnish the Owner for approval, full information concerning the materials or articles which he contemplates incorporating in the work. Samples of materials shall be submitted for approval when so directed. Machinery, equipment, materials, and articles installed or used without such approval shall be at the risk of subsequent rejection.

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## **TEMPORARY FACILITIES AND CONTROLS**

### **1.01 GENERAL**

The Contractor shall be responsible for arranging for and providing general services and temporary facilities as may be required for the proper prosecution of the work. Temporary facilities shall include, but are limited to, temporary toilets, electricity, enclosures, openings, protective barricades and fences, walkways and ramps, fire protection, coverings and security surveillance. The Contractor shall pay all costs for such general services and temporary facilities. All protective measures are to be in accordance with local city safety standards and OSHA.

### **1.02 TEMPORARY STORAGE**

Suitable weather tight storage shall be provided for materials that may be damaged by storage in the open. The Contractor shall submit a complete description of any temporary buildings for the Landscape Architect and Owner's approval as to appearance, size and location. The Contractor must have approval of the Owner prior to constructing temporary storage facilities. All temporary buildings shall remain the property of the Contractor and shall be removed from the site upon the completion of the work.

### **1.03 WATER**

All water required during construction operations shall be provided by the Contractor and/or his or her Subcontractor(s), unless otherwise indicated by the Owner.

### **1.04 FIRE PROTECTION**

Construction practices including cutting, welding and protection during construction shall be in accordance with the published standards of the Factory Insurance Association and the National Fire Protection Association which, by reference, are made a part of this specification. A sufficient number of approved portable fire extinguishers must be provided. Gasoline, diesel fuel and other flammable liquids shall be stored in and dispensed from Underwriters Laboratories listed safety containers in conformance with the National Board of Fire Underwriters recommendations. Inspections may be made by State and local fire protection and safety authorities and insurance underwriters. The Contractor shall cooperate with authorities and promptly carry out their recommendations. All tarpaulins that may be used for any purpose during the construction of the work shall be made of material which is resistant to fire, water and weather. All tarpaulins shall have the Underwriters Laboratories approval and shall comply with applicable Federal standards. Fires of any kind must not be lighted on or about the premises.

### **1.05 PROTECTIVE COVERING**

Tight wood sheathing or plywood shall be laid under any materials that are stored on finished paved surfaces. Reinforced non-staining kraft building paper must be laid over all types of finished floor surface in traffic areas and where otherwise directed by the Landscape Architect to prevent damage to these surfaces. Before moving any materials over such finished areas or performing any subsequent work that might damage them, lay plywood or planking over the kraft paper. Wheelbarrows used over such areas shall have rubber-tired wheels. The Contractor shall provide any and all temporary structures to all the safe movement of pedestrians, service vehicles, or other temporary or permanent access areas regarding the project.

### **1.06 PUMPING AND DRAINAGE**

The Contractor shall be responsible for dewatering, pumping and drainage of pits, trenches, etc. as necessary for installation of the work.

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**TREE AND PLANT PROTECTION**

Except as expressly provided by the Plans and Specifications the Contractor shall protect from damage and preserve all trees and shrubs, on both public and private property, in the vicinity of his operation. Failing this in any instance, the Contractor shall replace any damaged tree or shrub with like kind, size and quality, except as may be otherwise expressly approved by the Landscape Architect. The cost to replace a tree is a minimum of \$500.00 per tree, \$100.00 per shrub, and \$50 per non-woody plant.

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**GENERAL****PART 1 GENERAL****1.01 INCLUDES BUT NOT LIMITED TO**

All Conditions of the Contract apply to this Division.

**1.02 PRODUCT OPTIONS**

**Products Specified by Reference Standards or by Description Only** - Approved products meeting those standards or description.

**1.03 CONSTRUCTION ENGINEERING**

It shall be the responsibility of the Contractor to provide all instrumental surveying required to layout and construct the work.

**1.04 CONTRACTOR RESPONSIBILITIES**

**Barricades** - The Contractor shall provide and maintain barricades where necessary for the protection of his work and persons.

**Laws, Codes, and Ordinances** - The Contractor's attention is directed to the fact that all applicable State laws, Federal laws, Municipal Ordinances, and the rules and regulations of all authorities having jurisdiction over construction of the project shall apply to the contract throughout, and they will be deemed to be included in the contract the same as though herein written out in full.

**Safety** - It shall be the responsibility of the Contractor to familiarize himself with the latest safety laws, rules and regulations of Federal, State and Local governmental agencies and to comply with their requirements.

**1.05 PROTECTION OF UNDISTURBED SECTIONS OF SITE**

**Protection** - All items and areas designated for removal, relocation or regrading shall be protected from damage or injury; this includes existing structures, staircases, fire escapes, fences, grounds, plant materials, and underground utilities. If damage does occur during construction, repair and compensation shall be made by the Contractor. Damaged item shall be returned to its original state at no extra cost to the Owner.

**Miss Dig** - Contractor is required to call MISS DIG prior to any excavation of any type. Call must be made at least three (3) business days prior to excavation. Documentation of the contractor's Miss Dig number for the project is to be presented to the owner and Landscape Architect for the construction file.

**Prior to Construction** - Before the work of clearing and rough grading begins, the necessary precautions shall be taken to prevent needless and avoidable injury to trees during construction. Tree trunks shall be wrapped with burlap and protected with 2x4's extending from grade to the lowest limbs. The 2x4's shall be placed close together and secured in place by at least three bands of stapled wire. In addition, erect a protective barrier made of sound lumber, with posts securely driven or dug into ground, placed no closer than the dripline of the tree. Barrier may be removed after heavy construction or when necessary to facilitate grading work. All care possible must be used when working near existing trees.

**Under Trees** - Do not work in areas under the tree equal to the spread of the branches.

Specifically:

1. Do not light or maintain fires.
2. Do not place or store materials or debris.
3. Do not operate or store mechanical equipment of any kind. Do not repair or perform maintenance service.
4. Do not permit traffic.
5. Do not permit or perform excavating, grading, or other operations unless specifically by drawings and/or other parts of the specifications.

**Damage to Trees** - If any trees, marked or noted to remain, are permanently damaged, the Contractor shall pay the Owner the minimum sum of \$500.00 as liquidated damages per tree damaged.

**Removal of Debris** - All shrubs, vines, stumps, and trees which have been cut down shall be properly removed from the site. No vegetation or debris may be buried or burned at the site. All non-vegetative debris is to be kept in approved container which is to be emptied prior to mounding out from the containment potential of receptacle.

**Housekeeping** - Throughout all operations under this contract, the Contractor shall keep adjoining streets, driveways and walks clean from truck dropping and debris. The site is to be kept in a clean and orderly fashion such that it is presentable to the owner. Removal of waste material is to be handled and discarded in a manner which in keeping with all local, state and federal guidelines for waste disposal. All recycling options are to be exercised. The site is to remain safe at all times.

## **1.06 DELIVERY, STORAGE AND HAULING**

Deliver all materials in the manufacturers packaging with tags and labels intact and legible. Handle and store materials to prevent damage, deterioration and rust. All equipment assembly must occur on site.

## **PART 2 - PRODUCTS**

### **2.01 MATERIALS AND EQUIPMENT**

All materials shall meet or exceed with the following applicable standards and others listed herein:

1. The American Society for Testing and Materials (ASTM), etc.
2. 2008 Consumer Product Safety Commission (CPSC)
3. The Americans with Disabilities Act (ADA)
4. The Uniform Federal Accessibility standards (UFAS)
5. Michigan's Barrier Free Design Law

## **PART 3 - EXECUTION**

### **3.01 PREPARATION**

Examine the areas and conditions under which site work is performed prior to beginning any portion of the work. If unsatisfactory conditions are found, contact the Architect. Do not proceed with the work until such conditions are corrected.

### **3.02 CLEANING**

The Contractor shall remove from site all rubbish and debris found thereon and all materials and debris resulting from the work. All Manufacturer's shipping labels shall be removed from equipment. Throughout all operations under this contract, the Contractor shall keep adjoining streets, driveways and walks clean from truck dropping and debris. The site shall be left in a safe and clean condition upon completion of the work. In the case of dispute, the Owner may remove the rubbish and charge the cost to the Contractor as the Owner shall determine.

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**DIVISION 2**

**SITE WORK**



## SITE PREPARATION

### PART 1 GENERAL

#### 1.01 DESCRIPTION OF WORK

The extent of site preparation work required includes, but is not limited to, all labor, material, equipments, and services necessary for:

- Protection of existing trees and vegetation
- Protection of existing structures
- Related work as required

#### 1.02 SOIL SEDIMENTATION AND EROSION CONTROL

**Purpose:** The purpose of this section is due to legislation requiring the control of soil sedimentation and erosion by Public Act 347 of 1972 of the State of Michigan as adopted and by any amendments.

**Permit:** Owner shall obtain All permits relative to this section prior to construction. Such permit shall be based upon an Erosion Control Plan prepared for this project.

**Implementation:** It shall be the responsibility of the Contractor to implement the Erosion Control Plan for this project in strict accordance with the permit. All materials for the implementation of temporary and permanent soil sedimentation and erosion control measures shall be as per plan or as per other relative sections of the specifications such as seeding, etc. Unless specified within other sections of the specifications, all work under this section shall be in strict accordance with the construction methods as prescribed by the State of Michigan Department of Natural Resources for the implementation of this legislation. Refer to Michigan Guidebook for Soil Erosion and Sedimentation Control, prepared for and distributed by the Water Resources Commission of the Department of Natural Resources, State of Michigan.

#### 1.03 JOB CONDITIONS

**Protection of Existing Improvements:** Provide barricades, coverings or other types of protection necessary to prevent damage to existing improvements indicated to remain in place. Protect improvements on adjoining properties and on the Owner's property. Restore any improvements damaged by this work to the original condition as acceptable to the Owner and other parties or authorities having jurisdiction.

**Protection of Existing Trees and Vegetation:** Protect existing trees and other vegetation indicated to remain in place, against unnecessary cutting, breaking or skinning of roots, skinning and bruising of bark, smothering of trees by stockpiling construction materials or excavated materials within drip line, excess foot or vehicular traffic, or parking of vehicles within drip line. Provide temporary fences, barricades or guards as required to protect trees and vegetation to be left standing. Water trees and other vegetation to remain within the limits of the contract work as required to maintain their health during the course of construction operations. Provide protection for roots over 1.5" diameter cut during construction operations. Coat the cut faces with an acceptable coating formulated for horticultural use on cut or damaged plant tissues. Temporarily cover exposed roots with wet burlap to prevent roots from drying out and cover with earth as soon as possible. Repair or replace trees and vegetation damaged by construction operations in a manner acceptable to the Landscape Architect. Tree damage shall be repaired by a qualified tree surgeon. The selected tree surgeon shall be subject to the written approval of the Landscape Architect. Replace trees that cannot be repaired and restored to full growth status as determined by the tree surgeon.

**PART 2 PRODUCTS [Not Applicable]****PART 3 EXECUTION****3.01 SITE CLEARING AND GRUBBING**

Remove vegetation, improvements or obstruction interfering with the installation of new construction. Clear the project site of trees, shrubs and other vegetation except for those indicated to be left standing. Removal includes new and old stumps of trees and their roots. Carefully and cleanly cut roots and branches of trees indicated to be left standing, where such roots and branches obstruct new construction. Completely remove stumps, roots and other debris protruding through the ground surface. Use only hand methods for grubbing inside the drip line of trees indicated to be left standing. Fill depressions caused by clearing and grubbing operations with satisfactory soil material, unless further excavation or earthwork is indicated. Place fill material in horizontal layers not exceeding 0.5' loose depth, and thoroughly compact to a density equal to adjacent original ground.

**3.02 DISPOSAL OF WASTE MATERIALS**

Burning of combustible cleared and grubbed materials is not permitted on the Owner's property. Remove from the Owner's property and legally dispose of all waste materials and unsuitable or excess soils.

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## **EARTHWORK**

### **PART 1 - GENERAL**

#### **1.01 DESCRIPTION OF WORK**

The extent of Earthwork required is shown on the drawings. This work includes, but is not limited to, all labor, material, equipment and services necessary for:

- Site grading
- Excavation
- Placement of fill materials
- Related work as required

Excavating and backfilling for storm drainage and other utilities are not included as a part of this work and, as may be applicable, may be specified elsewhere in these documents.

#### **1.02 QUALITY ASSURANCE**

**Codes and Standards** - Perform excavation work in compliance with applicable requirements of governing authorities having jurisdiction.

**Lines and Grades** - The Contractor shall provide all instrumental surveying required to lay out and construct this work in conformance with the drawings. Verify all subgrades by staking on section lines before installing topsoil or other surfacing material.

#### **1.03 JOB CONDITIONS**

**Site Information** - The Contractor shall make his or her own investigation, as he or she deems necessary prior to the bid opening. Data on surface or subsurface conditions is not intended as representations or warranties of accuracy or continuity of actual site conditions. It is expressly understood that the Owner and project consultants employed as representatives of the work will not be responsible for interpretations or conclusions drawn there from by the Contractor. Data made available for the convenience of the Contractor.

**Existing Utilities** - Locate existing underground utilities in the areas of work. If utilities are to remain in place, provide adequate means of protection during earthwork operations. Should uncharted, or incorrectly charted, piping or other utilities be encountered during excavation, consult the utility owner immediately for directions. Cooperate with the Owner and utility companies in keeping respective services and facilities in operation. Repair damaged utilities to the satisfaction of the utility owner. Do not interrupt existing utilities serving facilities occupied and used by the Owner or others, except when permitted in writing by the Owner, and then only after acceptable temporary utility services have been provided.

**Explosives** - The use of explosives is not permitted.

**Protection of Persons and Property** - Barricade open excavations occurring as part of this work and post with warning lights. Operate warning lights as recommended by authorities having jurisdiction. Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washouts and other hazards created by earthwork operations.

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## PART 2 - PRODUCTS

### 2.01 DEFINITIONS

**Standards** - Satisfactory soil materials are defined as those complying with American Association of State Highway and Transportation Officials (AASHTO) M145, soil classification Groups A\_1, A\_2\_4, A\_2\_5 and A\_3. Unsatisfactory soil materials are those defined in AASHTO M145 Soil Classification Groups A\_2\_6, A\_2\_7, A\_4, A\_6 and A\_7. Also listed as unsatisfactory are peat and other highly organic soils. Cohesion less soil materials include gravel, sand gravel mixture and gravelly sands. Cohesive soil materials include clayey and silty gravel, sand clay mixtures, gravel silt mixtures, clayey and silty sands, sand silt mixtures, clays, silts and very fine sands.

**Subbase Material** - Subbase material shall be properly graded mixtures of natural or crushed gravel, crushed stone, crushed slag, or natural or processed sand that will readily compact to the required density complying with AASHTO M147, Grade A, unless otherwise indicated or acceptable to the Owner.

**Stone Aggregate** - Crushed Stone Aggregate shall be as per MDOT 22A Specification.

**Topsoil** - Topsoil shall be fertile, friable organic soil, characteristic of the soils in the project area, which will produce heavy growths of vegetation. Topsoil shall be capable of supporting a healthy and vigorous stand of turf (lawn) grass. The following mechanical analysis shall be met:

1"	Sieve	100% Passing
1/4"	Sieve	97_99% Passing
#100	Sieve	40_60% Passing

The Ph level shall be between 5.5 and 7.5. Organic material shall not be less than 4% by weight nor greater than 25%. Topsoil shall be free of any matter, which will retard or prevent healthy growth of plant material. Slag, cinders, subsoil, and stone shall not exceed 5% by volume. Topsoil shall be free of viable seeds of noxious weeds and/or illegal plants, and herbicide chemicals. Contractor shall provide a representative sample of proposed topsoil and shall identify the original and current location from which the material will be obtained.

## PART 3 - EXECUTION

### 3.01 INSPECTION

Examine the areas and conditions under which excavation, filling and grading is to be performed and notify the Owner, in writing, of conditions detrimental to the proper and timely completion of the work. Do not proceed with the work until unsatisfactory conditions have been corrected in an acceptable manner.

### 3.02 EXCAVATION

Excavation consists of removal and disposal of material encountered when establishing required grade elevations. Earth excavation includes removal and disposal of pavements and other obstructions visible on the ground surface, underground structures and utilities indicated to be demolished and removed, material of any classification indicated in data on subsurface conditions, and other materials encountered that are not classified as rock excavation or unauthorized excavation. Unauthorized excavation consists of removal of materials beyond indicated subgrade elevations or dimensions without specific direction of the Owner. Unauthorized excavation, as well as remedial work directed by the Owner, shall be at the expense of the Contractor.

**Dewatering** - Prevent surface water and subsurface or groundwater from flowing into excavations and from flooding project site and surrounding area. Convey water removed from excavations and rain water to collecting or run off areas. Establish and maintain temporary drainage ditches and other diversions outside excavation limits for each structure. Do not use trench excavations as temporary drainage ditches.

**Materials Storage** \_ Stockpile satisfactory excavated materials where directed, until required for fill. Place grade and shape stockpiles for proper drainage. Locate and retain soil materials away from the edge of excavations. Dispose of excess soil material and waste materials as directed.

**Excavations for Paved Areas** - Cut surface under pavements to comply with cross sections, elevations and grades as shown.

### 3.03 COMPACTION

Control soil compaction during construction providing minimum percentages of density specified for each area classification. Compact soil to not less than the following percentages of maximum dry density for soils which exhibit a well defined moisture density relationship determined in accordance with ASTM D 1557.

**Turf or Unpaved Areas** - Compact top 0.5 foot of subgrade and each layer of backfill or fill material not to exceed 80% maximum density.

**Paved Areas** - Compact top 1.0 foot of subgrade and each layer of backfill or fill material to ASTM D\_1557 value at 95% maximum density, for walks and at 98% maximum density for bituminous paving.

**Moisture Control** - Where subgrade or layer of soil material must be moisture conditioned before compaction, uniformly apply water to surface of subgrade or layer of soil materials. Prevent free water from appearing on surface during or subsequent to compaction operations. Remove and replace or scarify and air dry oil material that is too wet to permit compaction to specified density.

### 3.04 BACKFILL AND FILL

Place acceptable soil material in layers to required subgrade elevations, for each area classification listed below:

**Walks and Paved Areas** - Use subbase material, satisfactory excavated or borrow material or combination of both. **Turf or Unpaved Areas** - Use satisfactory excavated or borrow materials.

**Ground Surface Preparation** - Remove vegetation, debris, unsatisfactory soil materials, obstructions and deleterious materials from ground surface prior to placement of fills. Plow strip or break up sloped surface steeper than one vertical to four horizontal so that fill materials will bond with existing surface. When existing ground surface has a density less than that specified under "Compaction" for the particular area classification, break up the ground surface, pulverize, moisture condition to the optimum moisture content and compact to required depth and percentage of maximum density.

**Placement and Compaction** - Place fill materials in layers not more than 0.6 foot in loose depth for material compaction by heavy construction equipment and not more than 0.3 foot in loose depth for material compacted by hand operated tampers.

**At Existing Trees to Remain** - Remove vegetation within drip line and fill with a single layer of uncompacted topsoil. Hand grade to attain required finish grade.

### 3.05 DISTRIBUTION OF TOPSOIL

Prior to topsoil placement, the subgrade shall be prepared to uniform levels and slope between points where elevations are shown. Abrupt changes in slope are to be rounded off. Loosen subgrade to a minimum depth of 0.4 foot. Remove stones over 1.0" in any dimension and sticks, roots, rubbish and other extraneous matter. Fine rake by York Rake\, Viking Roller Blade\, or approved equal or by hand to produce a smooth even surface that conforms to the grades established on the drawings. Any irregularities shall be corrected in order to prevent the formation of depressions or water pockets. Topsoil shall be uniformly distributed to a minimum depth of 0.4 foot after firming, unless otherwise indicated. Topsoil in planting bed areas, if applicable, shall

placed to a minimum depth of 1.0 foot. Topsoil shall be spread in such a manner that finish grading, seeding or sodding, and landscape planting operations can proceed with a minimum of additional soil preparation. Topsoil shall not be placed while in a frozen or muddy condition, when the subgrade is excessively wet or in a condition that may otherwise be detrimental to proper grading. Irregularities in the surface resulting from topsoil spreading or other operations shall be corrected in order to prevent the formation of depressions or water pockets. Provide additional clean topsoil subject to approval of the Owner as may be required to complete work. Remove any excess topsoil from the site, or distribute it and grade it as directed by Owner on site if approved by Owner.

### **3.06 MAINTENANCE**

**Protection of Graded Areas** - Protect newly graded areas from traffic and erosion. Keep free of trash and debris. Repair and reestablish grades in settled, eroded and rutted areas to specified tolerances.

**Reconditioning of Compacted Areas** - Where completed compacted areas are disturbed by subsequent construction operation or adverse weather, scarify surface, reshape and compact to required density prior to further construction.

### **3.07 DISPOSAL OF EXCESS AND WASTE MATERIALS**

Remove excess excavated material, soil, trash, debris and waste materials and legally dispose of such off the property, except as otherwise specifically noted.

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**STORM DRAINAGE****PART 1 - GENERAL****1.01 DESCRIPTION OF WORK**

The extent of storm drainage work is shown on the drawings. The work of this Section includes, but is not limited to furnishing all labor, materials, tools, equipment, incidentals, and services necessary for:

- Excavation and trenching
- Disposal of unsuitable or excess excavated materials
- Dewatering of excavations
- Temporary or permanent sheeting, bracing, and shoring of trenches and excavations as may be required
- Subgrade preparation
- Installation and testing of storm sewers, manholes, catch basins, outflow control structures, and appurtenances as may be required
- Foundations, bedding, backfill and fill materials
- Soil erosion & sedimentation control measures
- Restoration of finished surfaces
- Related work as required

**1.02 SITE CONDITIONS**

The Contractor shall examine the subgrade, verify the elevations, observe the conditions under which the work is to be performed, and notify the Landscape Architect of any unsatisfactory conditions prior to bid preparation. Storm drainage system shall NOT be installed until all unsatisfactory conditions are corrected.

**1.03 REQUIREMENTS OF REGULATORY AGENCIES**

Work of this Section shall be constructed in accordance with all laws, ordinances, rules, regulations and orders of any public authority having jurisdiction. When such work is required to be constructed in a manner differing from the Contract Documents, the Contractor shall so notify the Landscape Architect, in writing, prior to proceeding with the work.

**1.04 QUALITY ASSURANCE**

- A. Codes and Standards** - Perform storm sewer system work in compliance with applicable requirements of governing authorities having jurisdiction. Materials - pipe, structures and other system materials - shall be certified by the Manufacturer. Contractor shall be responsible for a light or reflected light test for alignment and visible inspection for leakage and workmanship, if applicable.
- B. Lines and Grades** - Provide all instrumental surveying required to lay out and construct the work. Verify all subgrades by staking on section lines before installing topsoil or other surface materials.
- C. Materials** - Materials shall be uniform in quality at all times for all portions of the project. Testing, as may be required to settle disputes regarding acceptability, shall be at the expense of the Contractor. Material containing organic matter, frozen lumps, rocks, paving, refuse, or other deleterious material shall NOT be used for foundations, bedding, backfill, or fill.
- D. Quality of Work** - The Contractor is responsible for correction of work that does not conform to the specified requirements. Compaction testing shall be performed at Contractor's expense to determine Contract Document compliance. Failure to achieve required density shall result in removing and recompacting of the material in question. Such removal and recompaction shall be at the expense of the Contractor. Depressions resulting from settlement shall be brought to grade at the expense of the Contractor.

**1.05 SUBMITTALS**

**Certification of System:** The Contractor shall submit two copies of "certification"

signed by the Contractor and system installer that the installed materials and workpersonship conform to specified requirements that the system was successfully checked and tested prior to backfilling, if applicable.

## 1.06 JOB CONDITIONS

- A. **Site Information** - Data on indicated subsurface conditions, if provided, is not intended as representations or warranties of accuracy or continuity of actual site conditions. It is expressly understood that the Owner and project consultants employed as representatives of the Owner, will not be responsible for interpretations or conclusions drawn there from by the Contractor. Data is made available only for the convenience of the Contractor. Additional test data and other exploratory operation may be made by the Contractor, either prior to submitting his or her bid and during construction, if at no additional cost to the Owner.
- B. **Existing Utilities** – Contractor shall locate existing underground utilities in the areas of work. If utilities are to remain in place, provide adequate means of protection during earthwork operations. Should uncharted, or incorrectly charted, piping or other utilities be encountered during excavation, consult the utility owner immediately for directions. Cooperate with the Owner and utility companies in keeping respective services and facilities in operation. Repair damaged utilities to the satisfaction of the utility owner. Do not interrupt existing utilities serving facilities occupied and used by Owner or others - except when permitted in writing by the Landscape Architect and then only after acceptable temporary utility services have been provided. Demolish and completely remove from the site existing underground utilities indicated to be removed. Coordinate with utility companies for shut off of services if lines are active.
- C. **Explosives** - The use of explosives is not permitted.
- D. **Protection of Persons and Property** - Barricade open excavations occurring as part of this work and post with warning lights. Operate warning lights as recommended by authorities having jurisdiction. Protect structures, utilities, sidewalks, pavements and other facilities from damage caused by settlement, lateral movement, undermining, washout and other hazards created by earthwork operation.

## PART 2 – PRODUCTS

### 2.01 PIPE AND JOINT (NOT APPLICABLE)

### 2.02 OUTLET ENDINGS (NOT APPLICABLE)

### 2.03 MANHOLES & CATCH BASINS – AS SPECIFIED

- A. **Catch Basins & Manholes** – As specified
- B. **Catch Basin frames/covers** – As mfd by East Jordan Iron Works unless otherwise indicated of drawings.
- C. **Manhole frames/ covers** - As mfd by East Jordan Iron Works unless otherwise indicated of drawings.

### 2.04 FOUNDATIONS

As required shall be as follows:

- Native Materials - when acceptable
- Sand - 0.375" sieve with 100% passing sand less than 10% wash loss
- Granular Material - as per 1996 MDOT Spec. Section 902.08 for Class II  
Granular Material
- Crushed Stone - 1.5" size maximum.
- Concrete – Grade P2 or S3, 1996 MDOT Sections 601, & 701.
- Timber Piles - as per 1996 MDOT Spec. Section 912.07

### 2.05 BEDDING

As required shall be as follows:



Sand - 0.375" sieve with 100% passing sand less than 10% wash loss  
Granular Material - as per 1996 MDOT Spec. Section 902.08 for Class II  
Granular Material  
Peas Stone - 0.375" sieve with 100% passing and #8 sieve 100%  
retained.  
Crushed Stone - 1.5" size maximum.

**2.06 BACKFILL**

As required shall be as follows:

Excavated soil – free from foreign matter or debris may be used in lawn and unpaved areas when acceptable and required compaction can be met.

Sand - 0.375" sieve with 100% passing sand less than 10% wash loss  
Granular Material - as per 1996 MDOT Spec. Section 902.08 for Class II  
Granular Material

**PART 3 - EXECUTION****3.01 GENERAL**

Maximum length of open trench shall not exceed 200 linear feet. Cutting paved surfaces shall be as follows:

Concrete - remove concrete as required at joint if within 3.0 feet, otherwise sawcut.  
Sidewalks - remove to joints.  
Bituminous Paving - saw cutting shall be required.  
Width of Cut - shall be a minimum of 1.0 foot wider than each side of  
required trenches.  
Legally dispose of all materials removed.

**3.02 EXCAVATION****A. STORM SEWERS**

1. Begin the trench excavation at the downstream of the sewer and proceed toward the upstream. Excavation and trenching shall be by open cut from the surface.
2. The slope of trenches shall adequately allow for the safety of both workperson and work. The Contractor is solely responsible for safety. The trench depth shall be on line and to the grade required for pipe and structure installation. The bottom of the trench shall be shaped so the pipe will be uniformly supported. The width of the trench shall allow for a minimum side clearance of 0.5 foot on each side of the pipe.
2. In the case of structures, allow for adequate room to form construction and for proper backfill. The trench bottom shall be dry and frost free and shall provide for a firm continuous support. The minimum clearances below pipes for bedding shall be 0.4 foot.
3. If excavation below the required grade is necessary due to unstable soil conditions or other reasons, the Contractor shall notify the Landscape Architect in writing. If required to improve the foundation for pipe due to unstable soil conditions is required due to inadequate dewatering, all excavation and refill below the pipe shall be at the expense of the Contractor.

**B. CATCH BASINS/ MANHOLES/ STRUCTURES**

1. The minimum clearances below catch basin, man holes, and structures for bedding shall be 0.4 foot. If excavation below the required grade is necessary due to unstable soil conditions or other reasons, the Contractor shall notify the Landscape Architect in writing.
2. If required to improve the foundation for catch basins, manholes, or structures due to unstable soil conditions is required due to inadequate dewatering, all excavation and refill

below the catch basins, manholes, and structures shall be at the expense of the Contractor.

**3.03 DEWATERING**

- A. Excavations shall be kept dry during construction. The Contractor shall remove water by the use of wells, well points, pumps, underdrains and other acceptable methods. Stone or granular materials used to aid in dewatering operations are incidental to construction.
- B. Existing sewers, drainage, and discharge lines shall be diverted, or temporarily re-routed to provide adequate and acceptable outlets during construction. Surface water shall be diverted from entering excavations by the construction and maintenance of channels, berms, etc. Sediment traps and soil erosion control measures shall be used to prevent soil from entering any sewer or watercourse.
- C. New concrete shall be adequately protected from damage by water. All pipes and structures - existing and new - shall be protected from hydrostatic uplift.

**3.04 SHEETING SHORING AND BRACING**

- A. The Contractor shall furnish, install, maintain, and remove all sheeting, shoring, and bracing as may be required. The Contractor shall be solely responsible for the safety of persons and property. The installation of sheeting by jetting is not allowed.
- B. Timber sheeting shall be as per 1996 MDOT Spec. 5.13.03 - 5.15.07. Unless required to be left in place, sheeting shall be removed at the time of backfilling. When sheeting is left in place, written approval of the Landscape Architect is required. Sheeting to be left in place shall be cut to a minimum of 2.0 feet below finish grade.

**3.05 FOUNDATIONS, BEDDING, BACKFILLING**

- A. If suitable normal foundation may be native material below the pipe or structure. The Contractor shall retain responsibility for the integrity of the completed pipeline and structures. The density and placement requirements for foundation materials shall be 95% Maximum Unit Density for sand and granular materials. Bedding shall be placed the full width of the trench from a minimum of 0.33 foot below the pipeline to a point .33 foot above the pipe.
- B. Sand or granular material shall be compacted to 95% Maximum Unit Density. Stone materials shall be placed in such a manner as to obtain the best compaction possible. Stones no larger than 2.0" in size shall be allowed within 1.0 foot of the pipeline. Backfill shall extend from the top of the bedding in pipe trenches to the bottom of the finish grade for surface restoration. Fill shall be placed in a maximum depth of 0.6 foot per lift. Backfill around structures and in areas scheduled for paving shall be sand or granular material compacted to 95% Maximum Unit Density.

**3.06 LAYING AND JOINTING PIPE**

- A. Lay all storm sewers true to the lines and grades indicated with the bells or grooves upgrade, ends fully and closely jointed, and each section with a full firm bearing throughout its length.
- B. All pipe section/joint assemblies for use in sewers shall be installed per 1996 MDOT Section 402.03 except as otherwise indicated on the drawings.

**3.07 OUTLET ENDINGS**

Install all outlet endings indicated on drawings in accordance with 1996 MDOT Section 404.

**3.08 SEWER TAPS**

Sewer taps shall be per 1996 MDOT Specifications Section 402.03, Subsection D, except where any conflict may exist between those specifications and the Owner's requirements, then comply with the Owner's requirements.

**3.09 INSTALLING CATCH BASINS & MANHOLES**

Install catch basins as indicated on drawings, and as per 1996 MDOT Specifications, Section 403.03.

**3.10 DISPOSAL OF WASTE, UNSUITABLE AND EXCESS MATERIALS**

The Contractor is responsible for the legal disposal of all waste, unsuitable, and excess materials (including soil) off project site.

**3.11 CLEANING**

Upon completion of sewer installation work, clean all sediment and debris from structures and lines.

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**SUBSURFACE DRAINAGE****PART 1 - GENERAL****1.01 DESCRIPTION OF WORK**

The extent of subsurface drainage work is shown on the drawings. This work includes, but is not limited to furnishing all labor, materials, equipment, tools, incidentals, and services necessary for:

- Excavation and trenching
- Disposal of unsuitable or excess excavated materials
- Dewatering of excavations
- Temporary or permanent sheeting, bracing, and shoring of trenches and excavations as may be required
- Subgrade preparation
- Drainage pipes and outlets
- Foundations, bedding, backfill and fill materials
- Restoration of finished surfaces
- Related work as required

**1.02 SITE CONDITIONS**

The Contractor shall examine the subgrade, verify the elevations, observe the conditions under which the work is to be performed, and notify the Landscape Architect of any unsatisfactory conditions prior to bid preparation. Subsurface drainage systems shall not be installed until all unsatisfactory conditions are corrected.

**1.03 REQUIREMENTS OF REGULATORY AGENCIES**

Work of this Section shall be constructed in accordance with all laws, ordinances, rules, regulations and orders of any public authority having jurisdiction. When such work is required to be constructed in a manner differing from the Contract Documents, the Contractor shall so notify the Landscape Architect, in writing, prior to proceeding with the work.

**1.04 QUALITY ASSURANCE**

- A. Workpersonship** - The Contractor is responsible for correction of work that does not conform to the specified requirements. Compaction testing shall be performed at the Contractor's expense to determine Contract Document compliance. If testing indicates that the density does not match or exceed the required density of the material, then the Contractor shall take such remedial actions as necessary to achieve the required compaction. Such remedial actions shall be at the Contractor's expense. Depressions resulting from settlement shall be brought to grade at the expense of the Contractor.
- B. Manufacturer's Test Data** - The Contractor shall submit the manufacturer's test data demonstrating that materials to be used on this project meet applicable ASTM, ANSI and similar specifications.

**1.05 JOB CONDITIONS**

- A. Site Information** - Data on indicated subsurface conditions, if provided, is not intended as representations or warranties of accuracy or continuity between soil boring locations. It is expressly understood that the Owner and project consultant employed as representatives of the Owner, will not be responsible for interpretations or conclusions drawn therefrom by the Contractor. Data is made available only for the convenience of the Contractor. Additional test data and other exploratory operation may be made by the Contractor, either prior to submitting his or her bid and during construction, if at no additional cost to the Owner.
- B. Existing Utilities** - Contractor shall locate existing underground utilities in the areas of work. If utilities are to remain in place, provide adequate means of protection during earthwork operations. Should uncharted, or incorrectly charted, piping or other utilities be encountered during

excavation, consult the utility owner immediately for directions. Cooperate with the Owner and utility companies in keeping respective services and facilities in operation. Repair damaged utilities to the satisfaction of the utility owner. Do NOT interrupt existing utilities serving facilities occupied and used by Owner or others - except when permitted in writing by the Landscape Architect and then only after acceptable temporary utility services have been provided. Demolish and completely remove from the site existing underground utilities indicated to be removed. Coordinate with utility companies for shut off of services if lines are active.

**C. Explosives** - The use of explosives is not permitted.

**D. Protection of Persons and Property** - Barricade open excavations occurring as part of this work and post with warning lights. Operate warning lights as recommended by authorities having jurisdiction. Protect structures, utilities, sidewalks, pavements and other facilities from damage caused by settlement, lateral movement, undermining, washout and other hazards created by earthwork operations.

## **PART 2 - PRODUCTS**

### **2.01 PIPE, DRAINAGE COUPLERS, AND FITTINGS**

Drainage pipe, and standard drainage and custom fabricated fittings as may be required, shall be as manufactured by Advanced Drainage Systems, Inc., 4640 Truman Blvd., Hilliard, OH 43026, (Ph. 800-821-6710), or approved equal.

All material shall meet or exceed the U.S. Soil Conservation Service (SCS) Engineering Practice Standards for Tile Drain, SCS Code 606, ASTM D1248, ASTM F-405, and ASTM D3350.

Size: 4" and 6" as indicated on the drawings.

Type: perforated corrugated single-wall HDPE pipe, as indicated on the drawings with ADS Sock, or approved equal.

Outlet fittings: As indicated on drawings.

### **2.02 OUTLETS**

Polyvinyl chloride pipe underdrain outlet : 1996 MDOT Section 909.07C.

Corruigated steel pipe: 1996 MDOT Subsection 909.05A.

### **2.03 RODENT SCREENS**

Provide rodent screens as per 1996 MDOT Section 909.11.

### **2.04 BACKFILL**

**Class II Granular Material**, as per 1996 MDOT Specification 902 and Table 902-3. The Contractor shall provide to the Landscape Architect a sample of the proposed backfill material for approval prior to delivery of the backfill to the site. Clean excavated material free from foreign material or debris may be used for non-perforated pipe when indicated on drawings, or approved by Landscape Architect.

**Series/Class 34R Open- Graded Aggregate** per 1996 MDOT Specification 902 and Table 902-2. The Contractor shall provide to the Landscape Architect a sample of the proposed backfill material for approval prior to delivery of the backfill to the site.

## **PART 3 - EXECUTION**

### **3.01 TRENCHING**

Trenching shall be by open cut from the surface. The trench depth shall be on line and to the grade required for pipe installation. The width of the trench shall allow for a minimum side clearance as indicated on the drawings, or if not indicated, 4" minimum on each side of the pipe.

The trench bottom shall be dry and frost free and shall provide for a firm continuous support. Where the trench bottom is unstable, the contractor shall excavate to a depth determined by the Landscape Architect, and replace with Class I Material.

**3.02 LAYING SUBSURFACE DRAIN PIPE**

Lay the subsurface drain pipe to the line and grade indicated on the Drawings starting at the outlet and working upstream at a consistent and even slope.

Place granular material as indicated on drawings in the bottom of the trench and compact to 95% of Maximum Unit Weight prior to placement of the pipe.

Securely install and seal caps on the upgrade ends of all pipe lines.

Pipe shall not be covered or backfilled until the Landscape Architect has inspected and approved the pipe installation.

**3.03 CONNECTIONS**

Install all drainage couplers and fittings as required to make connections and prevent joint separation of the pipes.

Mortar joints at the points where drain pipe enters the structures to provide a complete seal.

**3.04 OUTLET ENDINGS AND RODENT SCREENS**

A. Install outlet endings with rodent screens at the line outlets where indicated on the drawings as follows:

**3.05 BACKFILL AND COMPACTION**

A. Backfill trenches with aggregate material as indicated on drawings in maximum layers of 12" to within 4" of finish grade in open turf areas, to subgrade in paved areas, and to subgrade as indicated in other areas, unless otherwise indicated on the drawings.

B. Compact granular material in the trenches to 95% of Maximum Unit Weight, or as otherwise indicated on drawings.

**3.06 DISPOSAL OF UNSUITABLE AND EXCESS MATERIALS**

A. The Contractor is responsible for the legal disposal of unsuitable or excess materials and soil.

B. The Owner may establish disposal sites, however, may opt not to accept certain materials. The disposal of materials shall not violate laws, rules, regulations, etc. regarding the filling of flood plains, wetlands, and other environmentally sensitive areas.

C. Adequate controls shall be provided by the Contractor to maintain disposal sites in a neat and safe condition by periodic leveling, erosion control, and other practices as necessary for the public health, safety, and welfare.

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**BITUMINOUS AGGREGATE PAVING****PART 1 - GENERAL****1.01 DESCRIPTION OF WORK**

The extent of the bituminous paving work for the asphalt play areas shown on the drawings. The work of this section includes, but is not limited to, the furnishing of all labor, materials, equipment, tools, incidentals, and services necessary to install plant materials as indicated on the proposal, drawings, schedules, and specified herein for:

- Preparation of subgrade
- Adjustment of structures
- Placement of 22A Aggregate Base Course, MDOT Spec. Section 902.06
- Placement of MDOT Bituminous Pavements, Spec. Section 501.02, and 502
- Leveling Course
- Top Course.
- Related work as required

**1.02 PROTECTION**

The Contractor shall protect all trees, walks, drives, paving, curbs, lawns, etc. from damage. All damage shall be corrected to the satisfaction of the Owner and the Landscape Architect.

**1.03 REMOVAL**

The Contractor shall completely remove from the site and legally dispose of all debris, trash, trees, stumps, limbs, rocks, etc. encountered in the execution of this work within the contract limits unless otherwise specified.

**1.04 LAYOUT**

The Contractor shall provide all instrumental surveying required to lay out and construct this work in conformance with the drawings. The Landscape Architect shall be notified two (2) days prior to staking.

**1.05 SOIL EXPLORATION**

Bidders shall make his or her own investigation, as he or she deems necessary prior to the bid opening.

**PART 2 - PRODUCTS****2.01 AGGREGATE BASE**

Aggregate base shall conform to 1996 MDOT Spec. Section 902.06 for 22A Gravel.

**2.02 BITUMINOUS CONCRETE**

Hot mix bituminous aggregate paving mix shall conform to 1996 MDOT Spec. Section 501, Bituminous Plant Mixture No. 13 for the Leveling Base Course, and 13A for the Top Course.

**2.03 BOND COAT**

Bond Coat shall conform to 1996 MDOT Spec. Subsection 904C for Emulsified Asphalt, SS-1h and CSS-1h.

**2.04 SOIL STERILANT**

For use under bituminous concrete paving areas shall be Dow Hyvar X-L or approved equal.

**2.05 GEOTEXTILE FABRIC SEPARATOR (NOT REQUIRED)**

**2.06 TRAFFIC MARKING PAINT**

Traffic marking paint shall be a chlorinated rubber base traffic lane and marking paint, factory mixed, and quick drying and non-bleeding. Paint shall comply with FS TT-P-115, Type III. Color shall be yellow for everything (except handicap lane and symbol marking which shall be blue) unless otherwise indicated on the drawing(s).

**PART 3 - EXECUTION****3.01 SUBGRADE**

Topsoil shall be stripped and all vegetation shall be removed from all areas to be paved.

**3.02 SUBGRADE FILL**

Where subgrade fill must be brought in and laid to raise the grade to the proper subgrade elevation for the granular base specified, Contractor shall use Granular Material, Class II. Contractor shall notify Landscape Architect prior to installing any extra fill required and will be paid based upon the Unit Prices bid in the proposal.

**3.03 COMPACTION**

Compaction of the subgrade shall be not less than 95% maximum unit weight for its entire thickness at a moisture content less than saturation.

**3.04 GRANULAR SUBBASE**

The subbase material shall be evenly spread to the depth indicated on the plans (not less than 6") and compacted to not less than 98% of the Maximum Unit Weight for its entire thickness at a moisture content less than saturation. Lay base in layer or layers as required.

**3.05 GRADES**

Grade shall be prepared to uniform levels and slope between points where elevations are shown. Abrupt changes in slope are to be rounded off. Grade to provide drainage and permit uniform placement of bituminous aggregate paving.

**3.06 STRUCTURE ADJUSTMENTS**

Set frames for manholes, catch basins and other structures, within areas to be paved, to final grade as a part of this work. Include existing frames or new frames specified elsewhere in these specifications. Surround frames set to grade with a ring of compacted bituminous prior to paving. Place to 0.1 foot below top of frame, slope to grade and compact as may be required. Adjust frames as required for paving. Provide temporary closing or openings until completion of rolling operations. Remove closures at completion of the work. Set cover frames to grade, flush with surface of adjacent pavement.

**3.07 SOIL STERILANT**

On the properly prepared gravel subbase apply the specified soil sterilant as recommended by the manufacturer to prevent vegetative growth through the bituminous paving.

**3.08 GEOTEXTILE FABRIC**

After the subgrade has been graded and brought to the required grade, Contractor shall install a layer of geotextile fabric (if specified on plans) prior to installing the aggregate base.

**3.09 DEPTH OF BITUMINOUS PAVING**

The placement shall be such as to not leave pockets or sags greater than 0.125" in depth over the surface of the paved area. Bituminous paving shall be placed as follows:

Trail and Asphalt Play Area:

Base (Leveling) Course - 1996 MDOT Spec. 501 Section #13A - 1.5"

Surface (Wearing) Course - 1996 MDOT Spec. 501 Section #13A - 1.5"



The placement shall be such as to not leave pockets or sags greater than 0.125 inches in depth over the surface of the paved area.

### **3.10 BITUMINOUS PLACEMENT**

Contractor shall not lay any bituminous mixture until the Landscape Architect has inspected and approved of the condition of the gravel subbase or the pavement to be paved. Before any bituminous paving is placed on paving, the surface of the pavement shall be thoroughly cleaned of all dirt and debris using a method approved by the Landscape Architect. Contractor shall notify the Landscape Architect when the surface is ready to be inspected. Place bituminous mixture at a temperature of not less than 225 degrees F, spread, and strike off. Place each lift to the required grade, cross section, and compacted thickness. Provide joints between existing and new pavement and between each workday's completion points for a continuous bond between adjoining work. Thoroughly clean contact surfaces and apply specified tack (bond) coat.

### **3.11 ROLLING**

Begin rolling when bituminous mixture will bear roller weight without excessive displacement. Repair surface defects with hot bituminous material as the rolling progresses. Cut and patch defective areas and roll to blend with adjacent paving. Continue rolling operations until maximum density is attained and the roller marks are eliminated. Protect paving from damage and vehicular traffic until bituminous mixture has cooled and attained the maximum degree of hardness.

### **3.12 TRAFFIC MARKING**

After the bituminous paving has thoroughly cured, marking shall be neatly painted as indicated on the drawings. Sweep, blow with compressed air, and clean surfaces to eliminate loose material and dust. Apply paint with mechanical equipment to produce lines with uniform straight edges. Non-handicapped stall lines and markings shall be yellow in color and lines shall be 4" wide unless otherwise indicated. Mark handicap stalls with 4" blue lines and with blue handicap symbols. Apply paint as per manufacturer's recommended rates as required to give complete opaque coverage.

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**FINISH GRADING****PART 1 GENERAL****1.01 DESCRIPTION OF WORK**

The work of this section includes, but is not limited to, the furnishing of all labor, materials, equipment, and services necessary for:

Site Restoration  
Related work as required

**1.02 LANDSCAPE SUBCONTRACTOR**

The selection of the landscape subcontractor if applicable is subject to the written approval of the Landscape Architect.

**1.03 SITE CONDITIONS**

The Contractor shall examine the soils, verify elevations, observe the conditions under which the work is to be performed and notify in writing the Landscape Architect of any unsatisfactory conditions prior to bid preparation. All unsatisfactory topsoil quantities or qualities or other unsatisfactory conditions encountered during construction shall be reported in writing to the Landscape Architect. Finish grading of landscape areas shall not continue prior to correction of or written acceptance of the encountered condition by the Owner.

**PART 2 PRODUCTS**

Not applicable

**PART 3 EXECUTION****3.01 GRADING**

The topsoil shall be fine graded to uniform levels and slope between points where elevations are shown. Abrupt changes in slope are to be rounded off. Loosen lawn areas to a minimum depth of 0.4 foot. Remove stones over 1.0" in any dimension and sticks, roots, rubbish, and other extraneous matter. Fine rake to produce a smooth even surface that conforms to the grades established by drawings. Any irregularities in the surface from topsoil spreading or other operations shall be corrected in order to prevent the formation of depressions or water pockets. Topsoil shall not be graded while in a frozen or muddy condition, when the subgrade is wet, or in a condition that may otherwise be detrimental to proper grading. Compaction shall not exceed 80% maximum density. Manually install topsoil at tree roots to remain to avoid damage to root systems.

**3.02 CLEANUP**

After the final grades are approved, remove all grade stakes, surface trash and other objects that would hinder maintenance of turf and planted areas.

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**SEEDING WITH MULCH****PART 1 GENERAL****1.01 DESCRIPTION OF WORK**

Seeding is to be done around the project area and in areas damaged from construction. The work of this section includes, but is not limited to, all labor, material, equipment, and services necessary for:

Seeding for site restoration  
Mulching of all seeded areas  
Related work as required

**1.02 LANDSCAPE SUBCONTRACTOR**

The selection of the landscape subcontractor if applicable is subject to the written approval of the Landscape Architect.

**1.03 DELIVERY, STORAGE, AND HANDLING**

Seed and fertilizer materials shall be in original unopened containers and shall indicate weight, analysis, name, and date code of the manufacture. Materials shall be stored in an orderly manner, at location acceptable to the Landscape Architect, in a manner to prevent wetting and/or deteriorated.

**1.04 PROJECT CONDITIONS**

Seed Blend - Submit proposed Seed Blend to the Landscape Architect for approval.  
Seeding - Perform seeding work only after other work affecting ground surface has been completed.  
Watering - Provide adequate hose and watering equipment as required.  
Germination - Within thirty (30) days after seeding, it is expected that 60-80% of the seed will have germinated and grown.

**1.05 SITE CONDITIONS**

All unsatisfactory topsoil quantities or qualities or other unsatisfactory conditions detrimental to seeding shall be reported in writing to the Landscape Architect. Seeding shall not continue prior to correction of or written acceptance of the encountered conditions by the Owner.

**1.06 WARRANTY**

The Contractor shall provide a uniform stand of grass and shall provide watering, mowing, and maintenance of all seeded areas prior to final acceptance by the Owner. The Contractor shall reseed all areas that fail with specified materials to provide a uniform stand of grass until all affected areas are accepted by the Landscape Architect. If the Owner is to take on the responsibility of maintaining the grass then they must have that decision made in writing prior to the start of construction

**PART 2 PRODUCTS****2.01 SEED**

Seed shall be a consistent mixture of the following varieties or approved equal:

<u>Seed</u>	<u>%/Wt.</u>
Kentucky Bluegrass	15%
Kentucky Bluegrass 98/85	15%
Creeping Red Fescue	35%
Turf Type Perennial Ryegrass	35%

This seed mix is available as Spartan Brand, "Quick-2-Grow Mixture" through Michigan State Seed Solutions, (517) 627-2164, (800) 647-8873.

The seeding rate shall be 4 to 5 pounds per 1,000 square-foot or 175-200 pounds per acre.

**2.02 FERTILIZER**

Fertilizer for turf areas shall have a chemical analysis shall be at least 12% available nitrogen, 12% readily available phosphoric acid, and 12% total available potash (12-12-12).

**2.03 MULCH**

Mulch shall be hydro mulch, matted straw, free of noxious weed seed or other approved organic material commonly used by the industry for the purpose of the mulching of seeding and approved by the Landscape Architect. Mulch shall be held in place with an approved tackifier agent intended for such application. The rate of application shall be in accordance with manufacturers specifications. Mulch type is to be approved by the Landscape Architect in writing prior to installation.

**2.04 WATER**

Water shall be free of substance harmful to seed growth. Hoses and other methods of water transportation and application shall be furnished by the Contractor.

**PART 3 EXECUTION****3.01 SURFACE PREPARATION**

Topsoil shall be fine raked to produce a smooth even surface that conforms to established grades. All stones larger than .75" in diameter shall be removed from the surface of areas to be seeded. The area shall be made smooth and uniform and parallel to the finished grade. The tops and bottoms of all slopes shall be rounded to blend into the natural ground or adjacent slopes by vertical curves.

**3.02 TOLERANCE**

Seeded areas will be allowed a tolerance of 0.1 foot. Slope for drainage over turf areas shall have a minimum grade of 1.0%

**3.03 CHEMICAL TREATMENT**

Seeding shall not be done on soil that has been chemically treated until sufficient time has elapsed to permit dissipation of all toxic materials. The Contractor shall assume full responsibility for any loss or damage to turf arising from improper dissipation of toxic residues, whether or not such materials are specified herein.

**3.04 FERTILIZER APPLICATION**

Fertilizer shall be applied uniformly over the entire area to be seeded and incorporated into the topsoil. Application rate shall be 15# per 1000 square feet.

**3.05 SEEDING**

Seed shall be applied evenly over the entire area. This Mixture shall be evenly applied by seeding or drilling with a Brillion Seeder, Viking Roller Blade, or approved equal at the rate of 4-5 pounds per 1000 square feet.

**3.06 MULCHING**

Roll straw mat to obtain continuous coverage over the seeded area. Straw shall be mechanically crimped. As an alternate method, approved organic fibrous material may be applied at the rate of 1000# per acre by hydro seeder. Refer to tackifier requirement above.

**3.07 HYDRO SEEDING**

This method may be used only when authorized in writing by the Landscape Architect. When such authorization is given, the finish grading and surface treatment is as previously specified.

**3.08 WATERING**

To the point of acceptance, the Contractor shall be responsible for providing adequate water and application to assure the establishment of a dense permanent turf, unless the Owner agrees to water the area in writing prior to the start of construction.

**3.09 MAINTENANCE**

Duration - The Contractor shall maintain newly seeded turf until the final acceptance of the entire project. Maintenance Included - Maintain newly seeded turf areas, including watering, spot weeding, application of herbicides, fungicides, insecticides, and reseeding until a full, uniform stand of grass free of weed, undesirable grass species, disease, and insects is achieved and accepted by the Landscape Architect.

1. Water to maintain a healthy and vigorous stand of turf.
2. Repair, rework, and/or reseed all areas what have washed out and/or eroded or areas which turf has not established.
3. If infestation of weeds or crabgrass develops, treat infested area by hand weeding or herbicidal control. Furnish and install weed chemical control as per manufacturer's recommendation. All herbicidal controls - including renovation before reseeding operations - shall be acceptable to the Landscape Architect.

**3.10 ACCEPTANCE**

An inspection to determine acceptance of installed lawns will be made by the Landscape Architect upon the Contractor's request. Provide notification at least five (5) working days prior to the requested inspection.

1. New lawn areas will be acceptable provided all requirements - including maintenance - have been complied with, and a healthy uniform stand of specified grasses is established, and is free of weeds of undesirable grass species, disease, and insects.
2. Turf areas shall NOT have bare spots or unacceptable cover totaling more than 2% of the individual areas, in areas requested to be inspected.
3. Upon final acceptance, the Owner will assume turf maintenance responsibility.

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**PLAYGROUND SAFETY SURFACES****PART 1 GENERAL****1.01 DESCRIPTION OF WORK**

The extent of Playground Safety Surface work is to include installing approved safety surfaces within "Safety Use Zones" under all playground equipment.

Unitary Rubber safety surfacing is to be included in the use zone of all equipment and as indicated on the drawings. The surfacing must meet ASTM, ADA and CPSC Standards.

This work includes, but is not limited to, all labor, material, equipment, and services necessary for:

- Excavation and trenching
- Disposal of unsuitable or excess excavated materials
- Dewatering of Excavations
- Subgrade Preparation
- Subsurface Drainage
- Foundations, bedding, backfill and fill materials
- Restoration of finished surfaces
- Related work as required

**1.02 REQUIREMENTS OF REGULATORY AGENCIES**

Work of this section shall be constructed in accordance with all standards, guidelines, laws, ordinances, rules, regulations and orders of any public authority having jurisdiction. When such work is required to be constructed in a manner differing from the Contract Documents, the Contractor shall so notify the Architect, in writing, prior to proceeding with the work. Work of this section shall specifically meet or exceed the 2008 Consumer Product Safety Commission (CPSC), the American Society for Testing Materials (ASTM F1487-07), the Americans with Disabilities Act (ADA), Uniform Federal Accessibility Standards (UFAS) Michigan's Barrier Free Design Law, and any other applicable standard, guidelines, law, ordinance, rule, regulation and/or order of any public jurisdiction having authority.

If fall heights for any equipment and surfacing exceed the test data supplied by CPSC's, "Playground Surfacing: Technical Information Guide", additional test data shall be provided by the manufacturer/supplier of the product to support the proposed products compliance and safety with the standards and guidelines. The manufacturer/supplier shall also provide a written waiver to the Owner and the Owner's Representative(s) holding them harmless.

**1.03 SITE CONDITIONS**

The Contractor shall examine the subgrade, verify the elevations, observe the conditions under which the work is to be performed, and notify the Owner and the Architect of any unsatisfactory conditions prior to bid preparation. Safety Surface Systems shall not be installed until all unsatisfactory conditions are corrected.

**1.04 QUALITY ASSURANCE****A. Workmanship**

The Contractor is responsible for correction of work that does not conform to the specified requirements.

**B. Source Limitations**

Obtain specified safety surface from one manufacturer and one source.

**C. Manufacturer's Test Data**

The Contractor shall submit the manufacturer's test data demonstrating that materials to be used on this project meet applicable requirements of regulatory agencies, as listed in 1.02.

**D. Test Results**

Tests conducted to determine shock-absorbing properties of surfacing materials shall be in accordance with ASTM test method, ASTM F355-86.

**E. Test Method Results:**

Test method results of safety surfaces shall meet or exceed standards for Impact Attenuation (G-Max and Head Injury Criteria (HIC)).

**1.05 JOB CONDITIONS****A. Site Information**

Data on indicated surface and subsurface conditions, if provided, is not intended as an exact representation or warranty of accuracy or continuity of the site. It is expressly understood that the Owner and the Owner's Representative(s) are employed as representatives of the Owner, and will not be responsible for interpretations or conclusions drawn there from by the Contractor. Data is made available only for the convenience of the Contractor. Additional test data and other exploratory operation may be made by the Contractor, either prior to submitting his or her bid and during construction, if at no additional cost to the Owner.

**B. Existing Utilities**

Contractor shall locate existing underground utilities in the areas of work. If utilities are to remain in place, provide adequate means of protection during earthwork operations. Should uncharted, or incorrectly charted, piping or other utilities be encountered during excavation, consult the utility owner immediately for directions. Cooperate with the Owner and utility companies in keeping respective services and facilities in operation. Repair damaged utilities to the satisfaction of the utility owner. Do NOT interrupt existing utilities serving facilities occupied and used by Owner or others - except when permitted in writing by the Architect and then only after acceptable temporary utility services have been provided. Demolish and completely remove from the site existing underground utilities indicated to be removed. Coordinate with utility companies for shut off of services if lines are active.

**C. Explosives.**

The use of explosives is not permitted.

**D. Protection of Persons and Property**

Barricade open excavations occurring as part of this work and post with warning lights. Operate warning lights as recommended by authorities having jurisdiction. Protect structures, utilities, sidewalks, pavements and other facilities from damage caused by settlement, lateral movement, undermining, washout and other hazards created by sub-drainage operations.



**1.06 SUBMITTALS**

Contractor shall submit the following safety surface product information to the Owner and the Owner's Representative:

Reference List

Source of the surfacing

Name of the company

Address, Phone, E-mail

Product Samples

A written guarantee from the manufacturer for the proposed product against all defects in material and/or workmanship.

Impact Attenuation (G-max) (per fall height requirements), Head Injury Criteria (HIC), coefficient of friction, permeability and flammability test results from reputable independent testing laboratories

**PART 2 - PRODUCTS****2.01 WOOD FIBER SURFACING**

Wood fiber surfacing shall be a commercially prepared mix of random-sized wood fibers specifically manufactured for playgrounds. Standard wood chips or bark mulch will not be acceptable. Wood fiber shall not exceed 3" in length, 1/2" in width, and 1-1/4" in depth.

The following mechanical analysis shall be met:

3/8" sieve	85% passing
#60 sieve	50% passing

Wood fiber shall have no foreign matter, or twigs, bark, leaf, debris or other organic or inorganic material incorporated within. Provide "Shop Drawings", product specifications and product safety and test data for proposed shredded wood fiber system.

Contractor must provide the following:

1. Source of the wood product  
Name of the company  
Address, Phone, and E-mail
2. A minimum sample of 1 cubic-yard of material for Owner and Landscape Architect's approval.
3. Product specifications and product safety and test data for proposed engineered wood fiber.

In the event where contaminants have been discovered, all fiber will be replaced at the Contractors expense.

**2.02 SYNTHETIC SURFACING**

Provide "Shop Drawings", product specifications, and product safety and test data for proposed synthetic safety surface system. All synthetic surfacing shall be installed as per manufacturer's specifications to assure maximum impact protection.

**2.03 GEOTEXTILE FABRIC**

Geotextile fabric shall be a Terrabond Polyester Drainage Fabric, non-woven, meeting a grade of 1114.

**2.04 PEA STONE**

Pea stone used for Subsurface drainage - See Section 02510.

**2.05 SUBSURFACE DRAINAGE PIPE**

Drainage Pipe used in play areas – See Section 02510.

**PART 3 - EXECUTION****3.01 INSPECTION**

Contractor shall thoroughly examine the areas and conditions under which excavation, filling, and grading are to be performed. Architect is to be notified, in writing, of conditions detrimental to the proper and timely completion of the work. Do not proceed with the work until unsatisfactory conditions have been corrected in an acceptable manner.

**3.02 SUBGRADE**

- A. The subgrade shall be graded to a minimum of 0.5% and a maximum of 5%.
- B. All roots, stones and vegetation shall be removed.
- C. The subgrade shall be compacted to 95% of the dry density, as determined by the provisions of AASHTO or T 205.
- D. Subgrade shall be level with existing grade, or excavated below existing grade as determined necessary by the Architect.

**3.03 APPLICATION****A. WOOD FIBER SURFACING****Geotextile Fabric**

- a) Geotextile fabric shall be used as separation between the pea stone drainage course and wood fiber material and between the pea stone drainage course and subbase. In areas where equipment exists, it is necessary to cut the fabric to fit. Once fitted, any cuts should be overlapped with fabric wherever possible.
- b) Geotextile fabric shall be placed on smooth subgrade and all wrinkles removed. All seams shall overlap a minimum of 12". Machinery shall not disturb or travel on the geotextile fabric.

**Drainage Course**

Four inches (min.) of pea stone gravel shall be placed on the subbase with a layer of geotextile fabric separating the pea stone from the subbase.

Four inch (or larger as indicated on plans) perforated corrugated PVC pipe shall be placed across the playground area and along the edges of the playground area with a minimum slope of 0.5%.

All installation sites shall have positive grade to facilitate drainage away from the playground area.

**Wood Fiber**

Wood fiber material shall be placed on top of the pea stone drainage course, separated by a layer of geotextile fabric.

The wood fiber surfacing shall be spread to a uniform depth of 15" uncompressed (12" is a minimum compressed depth). All material must be installed to allow for settling and natural compaction.

Geotextile fabric shall be placed on smooth subgrade and all wrinkles removed. All seams shall overlap a minimum of 12". Machinery shall not disturb or travel on the geotextile fabric.

**B. SYNTHETIC SURFACING**

1. Provide Shop Drawings, product specifications and product safety and test data to the Owner and the Owner's Representative(s) for proposed synthetic surface system.
2. All synthetic surfaces shall be installed as per the manufacturer's specifications to assure maximum impact protection for proposed equipment.
3. Wear Mats shall be placed in the Safety Use Zones of the following following new equipment and as called out on the plans:
  - Whirls (2- 4'x6')
  - Swings (3'x3' pad directly under each swing)
  - Slide (3'x3' pad under the exit end)

**3.04 DISPOSAL OF EXCESS AND WASTE MATERIALS**

Remove excess excavated material, trash, debris and waste materials and legally dispose of such off the property, except as otherwise specifically noted or approved in writing by Owner.

**3.05 GUARANTEE and MAINTENANCE**

All Materials and Installations shall be guaranteed by the manufacturer/supplier for a period of two years beyond the date of final acceptance by the Owner. The manufacturer/supplier shall provide a written maintenance plan to the Owner that describes in detail any and all maintenance requirements, inspections, etc. which will need to be accomplished during the life of the surfacing. For the purpose of this project the term "life" shall be defined as for a period of seven years from the date of substantial completion.

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**PLAYGROUND AND PARK EQUIPMENT****PART 1 - GENERAL****1.01 DESCRIPTION OF WORK**

Provide playground equipment in area as shown on the drawings and as specified. Work shall include playground equipment, age appropriate signage where indicated in the bid forms, installation, future inspection, future maintenance and guaranties.

**1.02 STANDARDS**

All play equipment shall be specified to meet or exceed the 2008 Consumer Product Safety Commission (CPSC) Guidelines, the American Society for Testing and Materials (ASTM F1487-07) Standards, the Americans with Disabilities Act (ADA), Uniform Federal Accessibility Standards (UFAS) and Michigan's Barrier Free Design Law.

If a conflict occurs between any two or more of the above listed standards, guidelines and/or data, the stricter shall take precedence.

If any part of the proposed playground is not supported by the standards, guidelines and or test data listed above, the manufacturer shall provide all of the following to the Owner and to the Owner's Representative(s):

1. Test data to support the proposed product(s) compliance and safety with the standards and guidelines listed above.
2. A signed waiver holding the Owner and Owner's Representative(s) harmless.

**1.04 SUBMITTALS**

- A. Shop Drawings** - Detailed construction drawings shall be furnished for each play structure and for the signage. Drawings shall include technical data necessary for correct assembly.
- B. Detailed Specifications** - Manufacturer Specifications for decks, uprights, clamps, barrier/railing tubing, hardware, footings, safety surfacing, surface retainer, wear pads and powder coated finish must be submitted with bid.

**1.05 DELIVER AND STORAGE**

Equipment delivered and stored at the site shall be immediately piled in stacks to insure drainage and free circulation. No two pieces in contact; lay on skids, placed to give slope of not less than 1/2" per foot to the stack and minimum clearance of 6" above grade. Cover stacks with suitable roof covering tarpaulins. Contractor responsible for inventory of manufactured play equipment delivered to the site and checking material for cracks, warping, scratches or other defects and arranging with the manufacturer for replacements, if necessary. The Landscape Architect has the right to reject any material which is defective or in generally poor condition. Contractor responsible for proper and secure storage. Owner shall not be held responsible for theft vandalism or damage to equipment regardless of storage location, manufacturer assumes all responsibility.

**1.05 MEASUREMENTS**

Verify all measurements required for the proper execution and fit of work. Includes manufacturer's equipment relative to CPSC safety zones, heights, decks, platforms, rails, spacing, gaps, protrusions, entrapments, access ramps, vertical or horizontal obstructions and all potential hazards. All dimensions shall be checked and verified with field conditions. Any discrepancies and/or conflicts including choice between different installations involving changes shall be reported to the Landscape Architect for correction and adjustment before materials are fabricated.

**1.06 WORKMANSHIP**

All fabrication and installation work required under this section of the Specifications shall be executed in accordance with the best standard of practice for each type of work. Only new materials shall be used. All construction shall be of the best quality to ensure durability. All edges, surfaces, connections and exposed fittings shall be finished to avoid sharp edges and similar hazards.

**1.07 JOB CONDITIONS****A. Site Information**

The Contractor shall make an onsite investigation prior to the bid opening. Data on surface or subsurface conditions is not intended as representation or warranties of accuracy or continuity of actual site conditions. It is expressly understood that the Owner and project consultants employed as representatives of the work will not be responsible for interpretations or conclusions drawn there from by the Contractor. Data made available by the Landscape Architect or Owner for the Contractor to utilize and verify independently.

**B. Existing Utilities**

Locate existing underground utilities in the work area. At least 48 hours prior to excavation- call Miss Dig. If utilities are to remain in place, provide adequate means of protection during earthwork operations. Should uncharted, or incorrectly charted, piping or other utilities be encountered during excavation, consult the utility owner immediately for direction. Cooperate with the Owner and utility companies in keeping respective services and facilities in operation. Repair damaged utilities to the satisfaction of the utility owner. Do not interrupt existing utilities serving facilities occupied and used by the Owner or others, except when permitted in writing by the Architect or utility company, and then only after acceptable temporary utility services have been provided.

**C. Protection of Persons and Property**

Barricade open excavations occurring as part of this work. Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washouts and other hazards created by this work.

**1.08 DESIGN REQUIREMENTS**

All proposed equipment must meet the requirements as listed below:

1. All uprights are to be aluminum unless otherwise noted on the drawings or bid forms.
2. Bridge railings/barriers shall curve, following the line of the bridge surface unless otherwise approved.
3. Tops of post caps shall be rounded.
4. All decks are to be a single piece of sheet steel, which is PVC coated and slip resistant unless otherwise approved.
5. All slides shall have hoods or means to channel user into a sitting position.
6. Wear pads are to be placed under engineered wood fiber surfacing in the following situations: 3'x3' wear pads are to be placed at the end of all slides, 6" below the engineered wood fiber, and beneath all single rail swings except tot. 4'x6' wear pads are to be placed under tire swings and 2-4'x6' wear pads are to be placed around whirls.

**PART 2 – PRODUCTS****2.01 MAXIMUM EQUIPMENT HEIGHTS**

Equipment heights are not to exceed those, which have been tested by CPSC and ASTM to be above the Critical Fall Height for safety surfacing (head impact attenuation). If the equipment exceeds the critical fall height, the manufacturer will provide test data to support the proposed safety surfacing material's product safety and compliance with the standards and guidelines. A waiver shall be written and signed by the manufacturer to the Owner and the Owner's Representative(s) holding them harmless from any future litigation.

**2.02 POSTS / UPRIGHTS****A. Structures for 5-12 year olds**

All posts shall be aluminum with an outside diameter of 3.5" minimum. Posts shall have a minimum wall thickness of .118" extruded from aluminum alloy conforming to ASTM-B-221 and QQ-A-200/8. Minimum yield strength shall be 35,000 psi. Minimum tensile strength shall be 38,000 psi. Posts shall have a minimum 50-year warranty.

**B. Caps**

Caps shall be aluminum. All upright caps are to be permanently installed at the factory with 2 to 3 rivets, Compression Fit, or approved equal. Caps shall have a minimum 50-year warranty.

**2.03 DECKS**

Decks shall be manufactured from a single piece of 10-13 gauge sheet steel. The steel shall be perforated for drainage. Holes are to be no larger than 1-5/16". Four sided decks are to have a minimum surface area of 2111 square inches. Three sided decks are to have a minimum surface area of 985 square inches. Decks shall support a minimum of 1.5 PSI when assembled. All deck connections are to be made from the underside of the deck with no exposed fasteners on the deck perimeter. Decks shall conform to ASTM F-1487-01 and have a minimum 15-year warranty.

**2.04 PIPE WALL BARRIERS/HANDRAILS/HANDLOOPS/HANDHOLDS/HAND RUNGS**

The rung enclosure shall be fabricated of 1.029-1.315" O.D., wall thickness of .075"-.125", galvanized 14 gauge steel tubing. The rung enclosure shall be an all welded assembly and shall be coated with a polyester powder coating in conformance with the specifications outlined herein, after fabrication. All welds are to be cleaned and galvanized after welding is complete. PVC coated 11 gauge steel is an acceptable alternative. The minimum warrant shall be 10 years.

**2.05 ROTATIONALLY MOLDED PRODUCTS**

All polyethylene shall be first quality linear low-density material with UV-stabilized color and an anti-static compound additive. Wall thickness shall be at least .25" with a tensile strength of 2,500-2,900 PSI. All rotationally molded products shall meet or exceed the following specifications: ASTM D-1248, type 2, class A and Federal specification LP-390C, type 1, class M, grade 2, category 3; Density (ASTM D-1505); Brittleness Temperature (ASTM D-746); Tensile Values (ASTM D-638); Flexural Modulus (ASTM D-790).

**2.06 STEEL TUBING**

All tubing used to manufacture components shall be an electrical resistance welded, cold rolled, high strength steel tubing. The minimum yield strength is 50,000 psi and the minimum tensile strength is 55,000 psi. The exterior coating will consist of an in line hot-dipped uniform zinc galvanizing, chromate conversion, and powder coated.

**2.07 HARDWARE**

All nuts, bolts, screws, inserts, and lock washers used in the assembly of all play equipment shall be yellow dichromate plated steel, stainless steel, mechanically galvanized or powder coated/yellow dichromate plated steel. Yellow dichromate treatment includes an electro-deposited, 99.9% pure zinc substrate applied from a specially formulated solution sealed with a yellow dichromate topcoat designed to work in conjunction with the zinc plating. Yellow dichromate has a 320% longer life to white corrosion and 275% longer to red corrosion than does hot-dip galvanizing. Hardware shall be button-pin-in head, hex socket cap screws with a two-part epoxy-locking patch added to the threads. The two part-locking patch shall consist of one part resin and one part catalyst which is activated during installation. After curing, the material shall require a minimum of five times the installation torque to remove the fastener. Manufacturer shall provide special installation tools for pinned fasteners. Hardware shall have a minimum 50-year warranty.

**2.08 POWDER COAT FINISH**

Shall be an electrostatically applied custom formula of TGIC polyester powder. All components will be free of sharp edges and excess weld spatter and shall be cleaned in a three to six stage bath system with an iron phosphate wash, as a rust inhibitor, and a sealer to prevent flash rusting before coating. The coating shall have a super tough finish with maximum exterior durability and will have superior adhesion characteristics. Typical characteristics are: 3.0-5.0 mil thickness and oven cured between 375 to 425 degrees Fahrenheit. Pencil Hardness H (ASTM D-3363), Abrasion (ASTM 1907), Impact (ASTM D-2794-69), Wedge Bend (ASTM D-522-68), Adhesion (Cross Hatch ASTM D-3359 & Knife Scratch ASTM D-2197), Environmental (Stain Resistance ASTM D-1308, Humidity ASTM D-2242, Salt Spray ASTM B-117 & Fadometer 300 hours with no loss of gloss), and Oven bake Stability 100% at 400 degrees Fahrenheit.

**PART 3 - EXECUTION****3.01 PRE-CONSTRUCTION**

Prior to any excavation, installation or any other related work on site, the manufacturers sales representative, installation contractor and all sub-contractors will meet at the Owner and the Owner's Representative(s) request on site for a pre-construction meeting.

**3.02 ASSEMBLY**

To avoid transport damage, all playground and park equipment shall be unpacked from shipping containers and assembled on each playground site. Exceptions must be approved in writing by Owner or Landscape Architect.

**3.03 FOOTINGS**

Bottom depth of concrete footings shall be installed at a minimum depth of 3'6" (42") below the finish grade of the safety surface.

**3.04 CONSTRUCTION INSPECTION**

During the course of construction, the contractor, manufacturer, supplier and manufacturer's designer shall supervise the installation. The Architect is to be notified 48 hours in advance for footing inspections and once the installation is complete, the manufacturer shall certify in writing to the Owner that the installation has been completed in strict accordance with the manufacturer's specifications and requirements.

The Owner and Owner's Representative(s) shall at all times have access to the work wherever work is in progress or preparation, and the Contractor shall provide proper facilities for such access and inspection.

If any work or material was not observed during construction and covered without approval or consent of the Owner or Owner's Representative, it must, if required by the Owner or Owner's Representative(s), be uncovered for examination at the Contractor's expense.

No inspection shall relieve the Contractor from any obligation to furnish materials and equipment and to perform the work strictly in accordance with the Contract Documents. Any Material or workmanship or equipment which may be discovered to be defective, prior to the final acceptance of the work, shall be removed and made good by the Contractor regardless of previous inspection.

The Contractor shall promptly remove from the site all materials condemned by the Owner or Owner's Representative(s) as failing to conform to the Contract.

The manufacturer/ supplier shall conduct a site inspection of the installation one year and two years following the completion of the work. A written inspection report shall be provided to the Owner regarding the condition of the installation and any special problems, which need to be addressed. Contractor must correct any latent defects.

**3.05 WARRANTY**

- A. All aluminum posts, clamps, hardware and caps shall have a minimum 50-year warranty against structural failure due to corrosion, deterioration or workmanship.
- A. All decks shall have a minimum 15-year warranty against failure due to corrosion, deterioration, or workmanship.
- B. All rotationally molded parts, steel components, polyethylene timbers, rubber or plastic coated components shall have a minimum 10-year warranty against failure due to corrosion, deterioration or workmanship.
- C. All other parts shall be warranted for a period of one year.
- D. The manufacturer must carry at least 2 million dollars in product liability insurance.

**3.06 MAINTENANCE**

The manufacturer/supplier shall provide a written maintenance plan to the Owner, which describes in detail any and all maintenance requirements, inspections, etc. which will need to be accomplished during the life of the equipment (for the purpose of this project the term "life" shall be defined as for a period of seven years from the date of substantial completion).

Following the installation, the manufacturer/supplier shall provide a maintenance kit. The kit is to include touch up paint in colors, which match the structure and are compatible with the powder coating, a chemical cleanser of adequate strength to remove paint, ink and other common forms of graffiti from most material surfaces on the structure. The manufacturer shall provide wrenches or other tools needed to adjust or replace special vandal resistant fasteners - not commonly found in local stores.

The manufacturer/supplier shall provide As Builts for the Project.

**3.07 DISPOSAL OF EXCESS AND WASTE MATERIALS**

Remove excess excavated material, pea stone, trash, debris and waste materials and legally dispose of off the property, except as otherwise specifically noted. Excess topsoil is to be stock piled on site in a location specified by the Owner.

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**DIVISION 3**  
**CONCRETE**

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**CONCRETE FORMWORK****PART 1 GENERAL****1.01 DESCRIPTION OF WORK**

The work covered by this Section shall include the furnishing of all labor, materials, plant, equipment and appliances to complete concrete form work as specified, complete, in strict ordinance with this Section of the Specification, the Drawings, and referenced standards.

**1.02 RELATED WORK SPECIFIED ELSEWHERE**

Section 03310 Cast-In-Place Concrete

**1.03 FORM MATERIAL**

Formwork will be of wood, plywood, metal, or other materials that will not adversely affect the surface of the concrete and that will produce or facilitate obtaining the specified surface finish of the concrete may be used. Damaged forms will not be reused for exposed work. In general, the design of the formwork, as well as its construction, will be the responsibility of the Contractor, with the prime requirement that it gives the approved finish desired when the concrete conditioned is exposed. Lumber for use, as forms will be free from warps, loose knots, rot or like defects. For unexposed rough work, undressed lumber may be used.

**1.04 QUALITY ASSURANCE**

- A. General Design Criteria: Conform to ACT 347, Chapter 1, Design.
- B. Requirements of Regulatory Agencies: Erect forms to meet requirements of the Local Building Code.
- C. Allowable Tolerances
  - 1. Non-Architectural Concrete: Conform to ACT 347, 2.4.
    - a. Variation from the Level of from Grades Indicated:  
(1) Slabs: Less than 6 inches: -0, +1/4 inches; 6 inches or more: -1/4 inch, +1/2 inch

**1.05 PRODUCT DELIVERY, STORAGE AND HANDLING**

On delivery to job site, place materials in area protected from the weather. Store materials above ground on framework or blocking and cover with protective waterproof covering providing for adequate air circulation or ventilation. Handle all materials to prevent damage.

**PART 2 PRODUCTS****2.01 MATERIAL CONFORMANCE**

- A. Conform with ACI 347, Chapter 3, Materials and Formwork.
- B. Studs and Wales: "Construction Grade" or "Standard Grade" Douglas Fir or other species of equal strength characteristics not less than 2 inches by 4 inches and selected for straightness.
- C. Plywood Sheathing: Exterior type, concrete form grade, 5 ply Douglas Fir, not less than 5/8 inch thick, and conforming to CS 45.
- D. Lumber Sheathing: No. 2 common or better lumber tongued and grooved or ship lap boards of uniform thickness and evenly matched, surfaced all sides.
- E. Form oil shall be light clear paraffin base oil that will not discolor or otherwise injure the surface of the concrete and shall be approved for form use.

**PART 3 EXECUTION****3.01 FORMS AND CENTERING**

Construct forms complete with centering, cores and molds. Forms shall conform to the shape, lines and dimensions of the concrete members as shown on the Drawings, and shall be made substantial and sufficiently tight to prevent leakage of mortar. All forms shall be cleaned of all debris before concrete is placed. Formwork approved for concrete shall be properly protected until concrete is poured. Coatings of

dust shall be removed from contact surfaces of forms before placing concrete. Provide live steam for ice and snow removal. All reinforcement shall be free of ice. Whenever the Formwork is removed during the curing period, the exposed concrete shall be cured by one of the methods specified under "Curing Concrete" in Section 03310 - Cast-In Place Concrete.

### **3.02 CONCRETE STRENGTH BEFORE FORM REMOVAL**

When Formwork removal or reshoring is based on the concrete reaching its specified 28-day strength, the concrete shall be presumed to have reached this strength when either of the following conditions have been met:

- A. When test cylinders, field cured under the most unfavorable conditions for any portion of the concrete represented, has reached the required strength. Except for the field curing and age at test, the cylinders shall be molded and tested as specified under "Tests for Concrete", Section 03310.
- B. When concrete has been cured, as specified under "Curing Concrete", Section 03310, for the same length of time as the age of test of laboratory cured cylinders, it will reach the required strength. The length of time the concrete has been cured in the field shall be determined by the cumulative hours or fractions thereof, not necessarily consecutive, during which the temperatures of the air in contact with the concrete is above 50F degrees, and the concrete has been damp or thoroughly sealed from evaporation or loss of moisture.

### **3.03 REMOVAL OF DEFECTIVE CONCRETE**

After forms have been removed, any concrete which is not formed as shown on the Drawings, or which is out of alignment, or level beyond required tolerances, or which shows a defective surface which cannot be properly repaired or patched shall be removed and replaced without extra cost to the Owner.

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**CAST-IN-PLACE CONCRETE****PART 1 GENERAL****1.01 DESCRIPTION OF WORK**

The work covered by this Section consists of, but is not necessarily limited to, placing concrete for footings and sidewalk. Also included are required forms, reinforcing, finishing and curing as specified herein.

**1.02 QUALITY ASSURANCE****A. Qualifications of Workers:**

1. Provide at least one person who shall be present at all times during execution of this portion of the work and who shall be thoroughly familiar with the type of materials being installed, the reference standards, and the requirements of this work, and who shall direct all work performed under this Section.

**1.03 PRODUCT HANDLING****A. Protection:**

Use all means necessary to protect materials before, during and after installation and to protect the installed work and materials of all other trades.

**B. Replacements:**

In event of damage, immediately make all repairs and replacements necessary to the approval of the Project Manager and at no additional cost to the Owner.

**PART 2 PRODUCTS****2.01 MATERIAL****A. Form Work:**

1. General:
  - a. Forms shall be of sound and tight materials.
  - b. Forms for all exposed parts of concrete shall be made of plywood or metal, or of structural backing with plywood or metal liners to produce a smooth surface on the concrete.
  - c. Forms for unexposed parts may be of sound wood boarding, salvaged plywood or of other approved material herein specified.
2. Sealers:
  - a. All form sealers shall be first quality of their respective kinds and subject to the approval of the Project Manager.

**B. Concrete:**

1. Concrete Reinforcement:
  - a. All concrete reinforcement materials shall be new, free from rust and comply with the following reference standards:
  - b. Specifications for "Deformed and Plain Billet Steel Bars for Concrete Reinforcement", ASTM A 615, A 616, or A 617, Grade 60
  - c. Cement:
    1. Cement shall be Portland cement, Type 1A, conforming to ASTM C-150.
    2. All exterior concrete and exposed concrete shall receive air entrainment conforming to MDOT Standard Specifications, Section 8.2403, and shall be measured at 4-6% by volume.

**D. Aggregate:**

1. General:
  - a. All aggregate shall meet the requirements of ASTM C-33 and MDOT Standard Specifications, Section 8.02.
2. Coarse Aggregate:
  - a. Coarse aggregate shall meet MDOT Specifications for class 6A or 6AA, and be composed of stone or crushed rock of hard durable pieces, well graded, and free from clay or organic substance.
  - b. Maximum size not to exceed one-fifth of the minimum dimension of the concrete member in which placed and not to exceed three-fourths of clear spacing between reinforcing steel.
  - c. Maximum size aggregate for floor slabs and sidewalks shall be  $\frac{3}{4}$  inch.
3. Fine aggregate:
  - a. Fine aggregate shall meet MDOT Specifications for class 2NS, and be composed of hard natural sand, free of clay or other material that will have a deleterious effect on the finished product.

**E. Concrete:**

1. Unless otherwise noted, concrete shall have a 28-day compressive strength of 4000psi.
2. Cement content shall be 564 lbs/cy.
  - a. Maximum slump shall be 3".
  - b. Entrained air content shall be 6.5% +/- 1%.

**F. Water:**

1. Water shall be clean and free from injurious amounts of foreign matter.

**G. Miscellaneous Concrete Accessories:**

1. Expansion Joint Material:
  - a. Fiber-type Federal Specifications No. HHF-341F, Type III.

**PART 3 EXECUTION****3.01 SURFACE CONDITIONS****A. Inspection:**

1. Prior to all work of this Section, carefully inspect the installed work of all other trades and verify that all such work is complete to the point where this installation may properly commence.

**B. Discrepancies:**

1. In the event of discrepancy, immediately notify the Contractor related to any deficiencies.
2. Do not proceed with installation in areas of discrepancy until all such discrepancies have been fully resolved.

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**PROPOSAL FORM  
FOR  
TROY SCHOOL DISTRICT  
PLAYGROUND IMPROVEMENTS – BID #95**

Troy School District  
4400 Livernois Road  
Troy, Michigan 48098-4799

Dear Troy School District:

1. The undersigned having familiarized him/herself with the existing conditions of the Project Area affecting the cost of the work, and with the Bidding Documents, which include the Invitation for Bids, Instructions to Bidders, the Proposal Form, Addenda (if any), Statement of Bidder's Qualifications, General Conditions, Supplementary Conditions, Technical Specifications (including General Requirements) and Drawings as prepared by Landscape Architects and Planners, Inc., hereby proposes to furnish all permits, materials, labor, supervision, equipment, tools, incidentals, appurtenances, services, and insurance required to complete the work in accordance with the specifications and conditions contained herein in consideration of the sum or sums stated below. The Owner reserves the right to remove line items that are within the best interest of the District.

<b>BARNARD ELEMENTARY SCHOOL</b>	
<b>EQUIPMENT DESCRIPTION (Furnish and Install) – Attach List</b>	<b>COST</b>
Climbing Boulder similar to the Pinnacle, Landscape Structures, Model #156065A	
Climbing Boulder similar to the Pointe, Landscape Structures, Model #156067A	
3-Bay Single Post Swing with galvanized chains, Landscape Structures #122837A with belt seats #132385A	
3-Bay Single Post Swing with galvanized chains, Landscape Structures #122837A with belt seats #132385A	
Climbing Boulder similar to Playworld Systems Mountain Boulder, Model #ZZBD0002	
Climbing Boulder similar to Playworld Systems Hill Boulder, Model #ZZBD0003	
Pair Soccer Goals and Nets, similar to Bison 12'x6-1/2' Goals model #126516 with nets #SC055N	

**LUMP SUM BASE BID WORK – PLAYGROUND EQUIPMENT AND INSTALLATION WORK:** Includes all work indicated in the Project Manual and on the Drawings for this Project for furnish and install of new playground equipment. All work for this site will be awarded under one contract.

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Dollars(\$ \_\_\_\_\_)

<b>BARNARD ELEMENTARY SCHOOL</b>	
<b>SITE WORK DESCRIPTION (Furnish and Install)</b>	<b>COST</b>
Mobilization	
Site Preparation	
Excavation and Grading	
Demolition and Repairs to Existing Equipment (new components including barriers for Composite #13 and caps for Composite Climber #12, see Layout Plan)	
Concrete Walks	
Safety Surfacing (12" compacted Engineered Wood Fiber, geotextile fabric and peastone)	
Topdress Existing Safety Surfacing (4" compacted Engineered Wood Fiber)	
Wear Pads	
Play Edging - 2 tier with 5" gravel base	
Asphalt Color Coat Games	
Temporary Construction Barrier Fencing and Lock Box	
Site Restoration - topsoil, seeding, mulching and roping	

**LUMP SUM BASE BID WORK – SITE WORK:** Includes all work indicated in the Project Manual and on the Drawings for this Project. All work for this site will be awarded under one contract.

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Dollars(\$ \_\_\_\_\_)

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<b>BEMIS ELEMENTARY SCHOOL</b>	
<b>EQUIPMENT DESCRIPTION (Furnish and Install) – Attach List</b>	<b>COST</b>
4-Bay Single Post Swing with galvanized chains, Landscape Structures #122837A with belt seats #132385A	
Merry-Go-Round similar to GameTime Miniature Whirl, model #325	
Music Panel similar to Little Tikes Bongo Panel	
Elevated Sand Box similar to GameTime Elevated Sand Box, model #9835	
Climber similar to GameTime Satellite Climber, model #P607	
Double Slide similar to GameTime Dueling Wave Slide, model #18396	
2-Bay Single Post Swing with galvanized chains, Landscape Structures #122837A with 3-belt seats #132385A and 1-ADA swing similar to GameTime Zero-G Seat	
Spinner similar to GameTime Tilted Sky Runner, model #6201	
3-Bay Single Post Swing with galvanized chains, Landscape Structures #122837A with belt seats #132385A	
(2) Spinning Seats GameTime Whirlwind Seats, model #6142	

**LUMP SUM BASE BID WORK – PLAYGROUND EQUIPMENT AND INSTALLATION WORK:** Includes all work indicated in the Project Manual and on the Drawings for this Project for furnish and install of new playground equipment. All work for this site will be awarded under one contract.

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Dollars(\$ \_\_\_\_\_)



<b>BEMIS ELEMENTARY SCHOOL</b>	
<b>SITE WORK DESCRIPTION (Furnish and Install)</b>	<b>COST</b>
Mobilization	
Site Preparation	
Excavation and Grading	
Demolition and Repairs to Existing Equipment (new components including Guardrail for Composite #5, Overhead Event for Composite #11, see Layout Plan)	
Drainage	
Concrete Walks	
Safety Surfacing (12" compacted Engineered Wood Fiber, geotextile fabric and peastone)	
Topdress Existing Safety Surfacing (4" compacted Engineered Wood Fiber)	
Play Sand (Sand boxes)	
Wear Pads	
Play Edging - 2 tier with 5" gravel base	
Asphalt Color Coat Games	
Temporary Construction Barrier Fencing and Lock Box	
Site Restoration - topsoil, seeding, mulching and roping	

**LUMP SUM BASE BID WORK – SITE WORK:** Includes all work indicated in the Project Manual and on the Drawings for this Project. All work for this site will be awarded under one contract.

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<b>COSTELLO ELEMENTARY SCHOOL</b>	
<b>EQUIPMENT DESCRIPTION (Furnish and Install) – Attach List</b>	<b>COST</b>
Climber similar to Landscape Structures Escalator Climber, model #160692	
Climber similar to Landscape Structures Triple Starburst Climber, model #158426A	
Composite Structure similar to Landscape Structures composite as detailed in the layout plans	
Cable Climber similar to Burke Super Nova, model #560-0433	
(2) 12'x12' Sand Boxes with covers similar to Burke #580052	

**LUMP SUM BASE BID WORK – PLAYGROUND EQUIPMENT AND INSTALLATION WORK:** Includes all work indicated in the Project Manual and on the Drawings for this Project for furnish and install of new playground equipment. All work for this site will be awarded under one contract.

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Dollars(\$ \_\_\_\_\_)

<b>COSTELLO ELEMENTARY SCHOOL</b>	
<b>SITE WORK DESCRIPTION (Furnish and Install)</b>	<b>COST</b>
Mobilization	
Site Preparation	
Excavation and Grading	
Demolition and Repairs to Existing Equipment (new components including Tic-Tac-Toe Panel for Composite #20 see layout plan)	
Concrete Walks	
Safety Surfacing (12" compacted Engineered Wood Fiber, geotextile fabric and peastone)	
Topdress Existing Safety Surfacing (4" compacted Engineered Wood Fiber)	
Wear Pads	
Play Edging - 2 tier with 5" gravel base	
Temporary Construction Barrier Fencing and Lock Box	
Site Restoration - topsoil, seeding, mulching and roping	

**LUMP SUM BASE BID WORK – SITE WORK:** Includes all work indicated in the Project Manual and on the Drawings for this Project. All work for this site will be awarded under one contract.

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Dollars(\$\_\_\_\_\_)

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<b>HAMILTON ELEMENTARY SCHOOL</b>	
<b>EQUIPMENT DESCRIPTION (Furnish and Install) – Attach List</b>	<b>COST</b>
Spinner similar to Landscape Structures Orbiter 3 Spinner, model #154359	
Composite Structure similar to proposed Little Tikes composite	
(2) Cable Climbers similar to Landscape Structures Web Climber, model #136159A	
2-Bay Single Post Swing with galvanized chains, Landscape Structures #122837A with belt seats #132385A	
Climber similar to Little Tikes Infinity Quad Climber, model #200200179	

**LUMP SUM BASE BID WORK – PLAYGROUND EQUIPMENT AND INSTALLATION WORK:** Includes all work indicated in the Project Manual and on the Drawings for this Project for furnish and install of new playground equipment. All work for this site will be awarded under one contract.

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Dollars(\$ \_\_\_\_\_)

HAMILTON ELEMENTARY SCHOOL	
SITE WORK DESCRIPTION (Furnish and Install)	COST
Mobilization	
Site Preparation	
Excavation and Grading	
Demolition and Repairs to Existing Equipment (including new components: Spiral Slide for Composite #4, see Layout Plan)	
Drainage	
Concrete Walks	
Safety Surfacing (12" compacted Engineered Wood Fiber, geotextile fabric and peastone)	
Topdress Existing Safety Surfacing (4" compacted Engineered Wood Fiber)	
Wear Pads	
Play Edging - 2 tier with 5" gravel base	
Temporary Construction Barrier Fencing and Lock Box	
Site Restoration - topsoil, seeding, mulching and roping	

**LUMP SUM BASE BID WORK – SITE WORK:** Includes all work indicated in the Project Manual and on the Drawings for this Project. All work for this site will be awarded under one contract.

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Dollars(\$ \_\_\_\_\_)

The undersigned having familiarized him/herself with the existing conditions of the Project Area affecting the cost of the work, and with the Bidding Documents, which include the Invitation for Bids, Instructions to Bidders, the Proposal Form, Addenda (if any), Statement of Bidder's Qualifications, General Conditions, Supplementary Conditions, Technical Specifications (including General Requirements) and Drawings as prepared by Landscape Architects and Planners, Inc., hereby proposes to furnish all permits, materials, labor, supervision, equipment, tools, incidentals, appurtenances, services, and insurance required to complete the work in accordance with the specifications and conditions contained herein in consideration of the sum or sums stated below. The Owner reserves the right to remove line items that are within the best interest of the District.

<b>HILL ELEMENTARY SCHOOL</b>	
<b>EQUIPMENT DESCRIPTION (Furnish and Install) – Attach List</b>	<b>COST</b>
(2) Spinner similar to Landscape Structures Orbiter 3 Spinner, model #154359	
Composite Structure similar to Landscape Structures Composite per the Layout Plan	
Climber similar to Landscape Structures Escalator Climber, model #160692	
2-Bay Single Post Swing with galvanized chains, Landscape Structures #122837A with belt seats #132385A	
Pair Soccer Goals and Nets, similar to Bison 12'x6-1/2' Goals model #126516 with nets #SC055N	

**LUMP SUM BASE BID WORK – PLAYGROUND EQUIPMENT AND INSTALLATION WORK:** Includes all work indicated in the Project Manual and on the Drawings for this Project for furnish and install of new playground equipment. All work for this site will be awarded under one contract.

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Dollars(\$\_\_\_\_\_)

<b>HILL ELEMENTARY SCHOOL</b>	
<b>SITE WORK DESCRIPTION (Furnish and Install)</b>	<b>COST</b>
Mobilization	
Site Preparation	
Excavation and Grading	
Demolition and Repairs to Existing Equipment (including new components: barriers for Composite #2, see Layout Plan)	
Concrete Walks	
Safety Surfacing (12" compacted Engineered Wood Fiber, geotextile fabric and peastone)	
Topdress Existing Safety Surfacing (4" compacted Engineered Wood Fiber)	
Wear Pads	
Play Edging - 2 tier with 5" gravel base	
Asphalt Color Coat Games	
Temporary Construction Barrier Fencing and Lock Box	
Site Restoration - topsoil, seeding, mulching and roping	

**LUMP SUM BASE BID WORK – SITE WORK:** Includes all work indicated in the Project Manual and on the Drawings for this Project. All work for this site will be awarded under one contract.

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Dollars(\$ \_\_\_\_\_)

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<b>LEONARD ELEMENTARY SCHOOL</b>	
<b>EQUIPMENT DESCRIPTION (Furnish and Install) – Attach List</b>	<b>COST</b>
Climber similar to Landscape Structures Triple Starburst Climber, model #158426C	
Triple Climbers similar to Playworld Systems Whirlwind Climbers, model #ZZUN6740, ZZUN6739 and ZZUN6738	
Web Climber similar to Playworld Systems Play Web Small, model #ZZXX0018	
Horizontal Loop Ladder similar to Park Structures Horizontal Loop Ladder, model #67532	
3-Bay Single Post Swing with galvanized chains, Landscape Structures #122837A with belt seats #132385A 6' Bench	
3-Bay Single Post Swing with galvanized chains, Landscape Structures #122837A with belt seats #132385A 6' Bench	

**LUMP SUM BASE BID WORK – PLAYGROUND EQUIPMENT AND INSTALLATION WORK:** Includes all work indicated in the Project Manual and on the Drawings for this Project for furnish and install of new playground equipment. All work for this site will be awarded under one contract.

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Dollars(\$ \_\_\_\_\_)

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<b>LEONARD ELEMENTARY SCHOOL</b>	
<b>SITE WORK DESCRIPTION (Furnish and Install)</b>	<b>COST</b>
Mobilization	
Site Preparation	
Excavation and Grading	
Demolition and Repairs to Existing Equipment (including new components: Barriers for Composite #10 and 2-belt seats for Swing #18, see Layout Plan)	
Concrete Walks	
Safety Surfacing (12" compacted Engineered Wood Fiber, geotextile fabric and peastone)	
Topdress Existing Safety Surfacing (4" compacted Engineered Wood Fiber)	
Wear Pads	
Play Edging - 2 tier with 5" gravel base	
Temporary Construction Barrier Fencing and Lock Box	
Site Restoration - topsoil, seeding, mulching and roping	

**LUMP SUM BASE BID WORK – SITE WORK:** Includes all work indicated in the Project Manual and on the Drawings for this Project. All work for this site will be awarded under one contract.

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Dollars(\$\_\_\_\_\_)

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<b>MARTELL ELEMENTARY SCHOOL</b>	
<b>EQUIPMENT DESCRIPTION (Furnish and Install) – Attach List</b>	<b>COST</b>
Spiral Slide similar to Park Structures Hurricane Slide, model #67723	
Climber similar to Landscape Structures Double Humpty Climber, model #100037A	
4-Seat Spring Toy similar to Park Structures 4-Seat Bouncer, model #67535	
2-Bay Single Post Swing with galvanized chains, Landscape Structures #122837A with belt seats #132385A	
3-Bay Single Post Swing with galvanized chains, Landscape Structures #122837A with belt seats #132385A	
Curved Balance Beam similar to Landscape Structures, model #10041A	
(3) Ball Toss similar to Landscape Structures Drop Shot, model #100042A	
Climbing Wall similar to Landscape Structures Climbing Wall, model #153354A	
Parallel Bars similar to Landscape Structures model #100065A	
Horizontal Ladder similar to Landscape Structures model #100064A	

**LUMP SUM BASE BID WORK – PLAYGROUND EQUIPMENT AND INSTALLATION WORK:** Includes all work indicated in the Project Manual and on the Drawings for this Project for furnish and install of new playground equipment. All work for this site will be awarded under one contract.

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Dollars(\$ \_\_\_\_\_)

MARTELL ELEMENTARY SCHOOL	
SITE WORK DESCRIPTION (Furnish and Install)	COST
Mobilization	
Site Preparation	
Excavation and Grading	
Demolition and Repairs to Existing Equipment (including new components: Cable Climber for Composite #14 and Double Slide for Composite #22, see Layout Plan)	
Concrete Walks	
Safety Surfacing (12" compacted Engineered Wood Fiber, geotextile fabric and peastone)	
Topdress Existing Safety Surfacing (4" compacted Engineered Wood Fiber)	
Wear Pads	
Play Edging - 2 tier with 5" gravel base	
Asphalt Color Coat Games	
Temporary Construction Barrier Fencing and Lock Box	
Site Restoration - topsoil, seeding, mulching and roping	

**LUMP SUM BASE BID WORK – SITE WORK:** Includes all work indicated in the Project Manual and on the Drawings for this Project. All work for this site will be awarded under one contract.

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Dollars(\$\_\_\_\_\_)

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<b>MORSE ELEMENTARY SCHOOL</b>	
<b>EQUIPMENT DESCRIPTION (Furnish and Install) – Attach List</b>	<b>COST</b>
Spinner similar to Landscape Structures Orbiter 2 Spinner, model #154358A	
Spring Toy similar to Landscape Structures Spring Ring, model #117961A	
Curved Track Ride similar Landscape Structures model #12874A	
Climbing Composite similar to GameTime Astro Wave, model #27017	
Stationary Cyclor similar to Landscape Structures, model #16055C	
Climber similar to Landscape Structures 4-Panel Cascade Climber, model #150977A	
(2) Elevated Sand Table similar to GameTime model #9835	
Spring Toy similar to Landscape Structures Spring Ring, model #117961A	

**LUMP SUM BASE BID WORK – PLAYGROUND EQUIPMENT AND INSTALLATION WORK:** Includes all work indicated in the Project Manual and on the Drawings for this Project for furnish and install of new playground equipment. All work for this site will be awarded under one contract.

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Dollars(\$\_\_\_\_\_)

<b>MORSE ELEMENTARY SCHOOL</b>	
<b>SITE WORK DESCRIPTION (Furnish and Install)</b>	<b>COST</b>
Mobilization	
Site Preparation	
Excavation and Grading	
Demolition and Repairs to Existing Equipment (including components: Disc Challenge Pod Composite #14 and Bushings for Spring Ring #15 and stair Barriers on Composite #5, see Layout Plan)	
Drainage	
Concrete Walks	
Safety Surfacing (12" compacted Engineered Wood Fiber, geotextile fabric and peastone)	
Topdress Existing Safety Surfacing (4" compacted Engineered Wood Fiber)	
Play Sand (Sand boxes)	
Wear Pads	
Play Edging - 2 tier with 5" gravel base	
Temporary Construction Barrier Fencing and Lock Box	
Site Restoration - topsoil, seeding, mulching and roping	

**LUMP SUM BASE BID WORK – SITE WORK:** Includes all work indicated in the Project Manual and on the Drawings for this Project. All work for this site will be awarded under one contract.

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Dollars(\$ \_\_\_\_\_)

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<b>SCHROEDER ELEMENTARY SCHOOL</b>	
<b>EQUIPMENT DESCRIPTION (Furnish and Install) – Attach List</b>	<b>COST</b>
Spinner similar to Kompan Supernova, model #GXY916	
Composite similar to GameTime Carnival, model #11788	
Expansion to Composite #13 including Landscape Structures Slide Winder model #124863AG, Cyclor model #160054A and Curved Track Ride model #121874A	
Spinner similar to Landscape Structures Orbiter 2 Spinner, model #154358A	
Spring Toy similar to Landscape Structures Spring Ring, model #117961A	
Slide similar to GameTime Rumbler model #18392 or Zip Slide model #18393	
Composite Structure similar to Little Tikes Composite (see Kindergarten Composite Detail)	
Sand Box with cover similar to Playworld System model #ZZXX1261	
(3) 6' Bench similar to Landscape Structures model #28009	

**LUMP SUM BASE BID WORK – PLAYGROUND EQUIPMENT AND INSTALLATION WORK:** Includes all work indicated in the Project Manual and on the Drawings for this Project for furnish and install of new playground equipment. All work for this site will be awarded under one contract.

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Dollars(\$ \_\_\_\_\_)

SCHROEDER ELEMENTARY SCHOOL	
SITE WORK DESCRIPTION (Furnish and Install)	COST
Mobilization	
Site Preparation	
Excavation and Grading	
Demolition and Repairs to Existing Equipment (including components: Clover Leaf Climber for Composite #4, see Layout Plan)	
Concrete Walks	
Safety Surfacing (12" compacted Engineered Wood Fiber, geotextile fabric and peastone)	
Topdress Existing Safety Surfacing (4" compacted Engineered Wood Fiber)	
Wear Pads	
Play Edging - 2 tier with 5" gravel base	
Temporary Construction Barrier Fencing and Lock Box	
Site Restoration - topsoil, seeding, mulching and roping	

**LUMP SUM BASE BID WORK – SITE WORK:** Includes all work indicated in the Project Manual and on the Drawings for this Project. All work for this site will be awarded under one contract.

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Dollars(\$ \_\_\_\_\_)

The undersigned having familiarized him/herself with the existing conditions of the Project Area affecting the cost of the work, and with the Bidding Documents, which include the Invitation for Bids, Instructions to Bidders, the Proposal Form, Addenda (if any), Statement of Bidder's Qualifications, General Conditions, Supplementary Conditions, Technical Specifications (including General Requirements) and Drawings as prepared by Landscape Architects and Planners, Inc., hereby proposes to furnish all permits, materials, labor, supervision, equipment, tools, incidentals, appurtenances, services, and insurance required to complete the work in accordance with the specifications and conditions contained herein in consideration of the sum or sums stated below. The Owner reserves the right to remove line items that are within the best interest of the District.

<b>TROY UNION ELEMENTARY SCHOOL</b>	
<b>EQUIPMENT DESCRIPTION (Furnish and Install) – Attach List</b>	<b>COST</b>
Slide Composite with slides similar to Miracle 420 Funnel Slide Left Exit model #65-742 and 420 Funnel Slide Right Exit model #65742-1	
Triple Slide similar to Miracle Flippopotamus Convertible Slide model #714-180	
Composite Structure similar to Park Structures School Spirit, model #62415 without the Log Roll or Visor Roofs	
2-Bay Single Post Swing with galvanized chains, Landscape Structures #122837A with belt seats #132385A	
Pair of 12'x6-1/2' Soccer Goals with Nets similar to Bison goals model #SC12651G and nets model #SC055N	

**LUMP SUM BASE BID WORK – PLAYGROUND EQUIPMENT AND INSTALLATION WORK:** Includes all work indicated in the Project Manual and on the Drawings for this Project for furnish and install of new playground equipment. All work for this site will be awarded under one contract.

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Dollars(\$ \_\_\_\_\_)



<b>TROY UNION ELEMENTARY SCHOOL</b>	
<b>SITE WORK DESCRIPTION (Furnish and Install)</b>	<b>COST</b>
Mobilization	
Site Preparation	
Excavation and Grading	
Demolition and Repairs to Existing Equipment (including components: 32x36 deck for Track Ride #7, see Layout Plan)	
Concrete Walks	
Safety Surfacing (12" compacted Engineered Wood Fiber, geotextile fabric and peastone)	
Topdress Existing Safety Surfacing (4" compacted Engineered Wood Fiber)	
Wear Pads	
Play Edging - 2 tier with 5" gravel base	
Temporary Construction Barrier Fencing and Lock Box	
Site Restoration - topsoil, seeding, mulching and roping	

**LUMP SUM BASE BID WORK – SITE WORK:** Includes all work indicated in the Project Manual and on the Drawings for this Project. All work for this site will be awarded under one contract.

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Dollars(\$\_\_\_\_\_)

The undersigned having familiarized him/herself with the existing conditions of the Project Area affecting the cost of the work, and with the Bidding Documents, which include the Invitation for Bids, Instructions to Bidders, the Proposal Form, Addenda (if any), Statement of Bidder's Qualifications, General Conditions, Supplementary Conditions, Technical Specifications (including General Requirements) and Drawings as prepared by Landscape Architects and Planners, Inc., hereby proposes to furnish all permits, materials, labor, supervision, equipment, tools, incidentals, appurtenances, services, and insurance required to complete the work in accordance with the specifications and conditions contained herein in consideration of the sum or sums stated below. The Owner reserves the right to remove line items that are within the best interest of the District.

<b>WASS ELEMENTARY SCHOOL</b>	
<b>EQUIPMENT DESCRIPTION (Furnish and Install) – Attach List</b>	<b>COST</b>
Climber similar to Burke Satellite Climber, model #600-0056	
Climber Composite similar to Burke Dual Adventure Climb with Atom and Coil, model #300-0042	
2-Seat Spring Bouncer similar to Burke, model #570-0041	
2-Bay Single Post Swing with galvanized chains, Landscape Structures #122837A with belt seats #132385A	
2-Bay Single Post Swing with galvanized chains, Landscape Structures #122837A with belt seats #132385A	
Climber similar to Burke Climb Odyssey, model #967	
Install Fitness Climber similar to Burke Challenge Course, model #915	

**LUMP SUM BASE BID WORK – PLAYGROUND EQUIPMENT AND INSTALLATION WORK:** Includes all work indicated in the Project Manual and on the Drawings for this Project for furnish and install of new playground equipment. All work for this site will be awarded under one contract.

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Dollars(\$ \_\_\_\_\_)

WASS ELEMENTARY SCHOOL	
SITE WORK DESCRIPTION (Furnish and Install)	COST
Mobilization	
Site Preparation	
Excavation and Grading	
Demolition and Repairs to Existing Equipment (including components: Chain Walk for Composite #21)	
Concrete Walks	
Safety Surfacing (12" compacted Engineered Wood Fiber, geotextile fabric and peastone)	
Topdress Existing Safety Surfacing (4" compacted Engineered Wood Fiber)	
Wear Pads	
Play Edging - 2 tier with 5" gravel base	
Temporary Construction Barrier Fencing and Lock Box	
Site Restoration - topsoil, seeding, mulching and roping	

**LUMP SUM BASE BID WORK – SITE WORK:** Includes all work indicated in the Project Manual and on the Drawings for this Project. All work for this site will be awarded under one contract.

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Dollars(\$ \_\_\_\_\_)

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The undersigned having familiarized him/herself with the existing conditions of the Project Area affecting the cost of the work, and with the Bidding Documents, which include the Invitation for Bids, Instructions to Bidders, the Proposal Form, Addenda (if any), Statement of Bidder's Qualifications, General Conditions, Supplementary Conditions, Technical Specifications (including General Requirements) and Drawings as prepared by Landscape Architects and Planners, Inc., hereby proposes to furnish all permits, materials, labor, supervision, equipment, tools, incidentals, appurtenances, services, and insurance required to complete the work in accordance with the specifications and conditions contained herein in consideration of the sum or sums stated below. The Owner reserves the right to remove line items that are within the best interest of the District.

<b>WATTLES ELEMENTARY SCHOOL</b>	
<b>EQUIPMENT DESCRIPTION (Furnish and Install) – Attach List</b>	<b>COST</b>
Install Climber similar to Burke Satellite Loop, model #560-0445	
4-Bay Single Post Swing with galvanized chains, Landscape Structures #122837A with belt seats #132385A	
2-Bay Single Post Swing with galvanized chains, Landscape Structures #122837A with belt seats #132385A	
Composite similar to Playworld Systems model #500-0401	
Raised Sand Box similar to Miracle Therapeutic Sand Box	
(2) Install Climber similar to Burke Satellite Climber, model #560-0442	
Spring Toy similar to Park Structures model #66534	
Spring Toy similar to Playworld Systems Quatro model #ZZXX0598	

**LUMP SUM BASE BID WORK – PLAYGROUND EQUIPMENT AND INSTALLATION WORK:** Includes all work indicated in the Project Manual and on the Drawings for this Project for furnish and install of new playground equipment. All work for this site will be awarded under one contract.

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Dollars(\$\_\_\_\_\_)

WATTLES ELEMENTARY SCHOOL	
SITE WORK DESCRIPTION (Furnish and Install)	COST
Mobilization	
Site Preparation	
Excavation and Grading	
Demolition and Repairs to Existing Equipment (including components: handrails for Composite #12	
Concrete Walks	
Safety Surfacing (12" compacted Engineered Wood Fiber, geotextile fabric and peastone)	
Topdress Existing Safety Surfacing (4" compacted Engineered Wood Fiber)	
Wear Pads	
Play Edging - 2 tier with 5" gravel base	
Temporary Construction Barrier Fencing and Lock Box	
Site Restoration - topsoil, seeding, mulching and roping	

**LUMP SUM BASE BID WORK – SITE WORK:** Includes all work indicated in the Project Manual and on the Drawings for this Project. All work for this site will be awarded under one contract.

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Dollars(\$ \_\_\_\_\_)

### **UNIT PRICES**

The bidder proposes to add or delete work in this project for the following unit prices as authorized in writing by the Owner to include all permits, labor, materials, equipment, profit, tools, incidentals, overhead, taxes, and the like complete. Such authorization will be defined by issuance of a change order.

DESCRIPTION	UNIT	UNIT COST
Safety Surfacing (12" compacted depth engineered wood fiber including geotextile fabric and 4" peastone layer)	SF	
Safety Surfacing (4" compacted depth engineered wood fiber)	SF	
Playground Timbers (12" Plastic playground timber, submit sample and spec.)	LF	
4" Perforated PVC Drain tile with sock	LF	
3'X3' Wear Mat	EA	
4'X4' Wear Mat	EA	
Concrete walk (4" concrete w/ 4" sand base)	SF	

### **2. CONTRACT TIME AND LIQUIDATED DAMAGES**

A. **TIME:** Time is and shall be considered of the essence of the Contract. If the Contractor fails to complete the work on or before the completion date, liquidated damages will be assessed as stated under "Delays and Liquidated Damages."

B. **DELAYS:** Delays shall be separated into three (3) categories as follows:  
category a - Delays for which the Contractor is responsible.  
category b - Delays for which the Contractor is not responsible.  
category c - Delays caused by adverse weather conditions, such as heavy rain, extreme cold, snow.

The Contractor will not be eligible to request an extension of the contract completion date based on delays falling into category A above.

Delays for which the Contractor is not responsible, category b, shall include delays caused by Acts of Providence, or by general strikes, or by court injunction, or by stopping of the work by the Owner because of any emergency or public necessity, or by reason of alterations ordered by the Owner. Delays falling into category b shall in no way affect the validity of the contract, but the time limitation of the contract shall be extended by the same amount of time as such delay may cause to be lost; provided, however, that formal claim for such extension shall be made in writing by the Contractor within one week after the date upon which such alleged delay shall have occurred.

The Contractor may request an extension of the contract completion date for delays falling into category C above, subject to the following conditions:

The Contractor shall schedule the progress of the project work based on the premise that adverse weather conditions will result in the loss of one workday, excluding Saturdays and Sundays, per week. If, during the specified contract completion period, the Contractor is prevented from working on the project because of adverse weather conditions in excess of the average of one workday per week, the Contractor may request an extension of the contract completion date based on the difference between the actual workdays lost and the number of weeks allowed for completion of the project work.

**C. REQUEST FOR TIME EXTENSION:**

Requests for extension of time shall be filed by the Contractor with the Architect. The request shall be in writing and state the reasons for the extension. In any case the request for extension of time shall be filed within one week (7 calendar days) following the occurrence of the delay for which the time extension is requested. Failure to notify the Architect as provided herein, may constitute a waiver of claim for an extension of time. The Architect may approve or deny the extension of time request. Approved time extensions will be granted in writing. Any contract time, as extended, shall thereafter be binding upon the Contractor and Surety as if they appeared in the contract, originally.

**D. LIQUIDATED DAMAGES:**

Should the work under this Contract not be finished within the time specified in the original Contract or by approved time extensions for reasons outlined herein, it is agreed that there may be deducted by the Owner from the final certificate to the Contractor, a sum computed at the rate of Five hundred dollars (\$500.00) per calendar day for each and every calendar day beginning the day following the scheduled date of completion and continuing until the date of final acceptance of the work. Said sum of Five hundred dollars (\$500.00) per day, in view of the difficulty of estimating such damages with exactness, is hereby expressly fixed and agreed upon as the damages which will be suffered by the Owner for reason of such defaults.

It is understood that the above deduction of Five hundred dollars (\$500.00) per day, is not a penalty, but money due to be treated as liquidated damages.

**4. STARTING DATE**

Unless otherwise stated herein or unless otherwise agreed upon by the Contractor and Owner, the Contractor shall commence Work within ten (10) calendar days of receiving notification that the project contract has been signed by the Owner. The starting date for this project shall be within 10 calendar days of notification.

**5. COMPLETION DATE**

The completion date for this project shall be **Friday, December 5, 2008**. Bidder will commence work within 10 calendar days following Contract Award.

**6. LIST OF SUBCONTRACTORS**

The Contractor upon request of the Owner shall submit a list of subcontractors to be approved by the Owner.

**7. DECLARATION OF CONTRACTOR**

The undersigned, as Bidder, hereby declares this bid is made in good faith, without fraud or collusion with any person bidding, and that the Project Manual, and Drawings and the project site have been examined. The Bidder confirms that he/she is familiar with the location of the work described and is fully informed as to the nature of the work and the conditions relating to its performance.

The Bidder acknowledges that all information provided by the Owner and the Landscape Architect regarding the site conditions have been provided as a matter of convenience to all bidders, and understands that the Owner and Landscape Architect makes no warranties or representations of any nature whatsoever regarding such conditions, including subsoil conditions. The Bidder acknowledges that he/she has not relied upon any representations from the Owner and Landscape Architect, its agents or employees, as to any conditions to be encountered in accomplishing the work, including subsoil conditions, and that the bid is based solely upon the Bidder's own independent judgement.

The Bidder certifies that the drawings and specifications have been examined, and that he/she has reviewed the proposed construction methods and finds them compatible with the site conditions which he anticipates based upon his investigation of this project.

The Bidder shall complete the work under any job or field condition which is present or is encountered and he shall complete the work under whatever conditions exist, whether or not he anticipated those site conditions.

**8. REJECTION OF BIDS**

In submitting this bid, the bidder understands that the right is reserved by the Owner to reject any and all bids.

9. **INSURANCE CERTIFICATES**

The undersigned also agrees to provide certificates of insurance as required by the Troy School District and State of Michigan statutes. Insurance certificates shall contain a clause whereby the insurer shall give not less than thirty (30) days notice in writing to the Troy School District prior to cancellation, termination, or material change in the terms of the policy. Troy School District and Landscape Architects and Planners, Inc. shall be named as insured on all such policies required.

10. **ADDENDA**

The following addenda was issued and acknowledged.

#1 date \_\_\_\_\_ #2 date \_\_\_\_\_ #3 date \_\_\_\_\_

Signed,

Firm Name: \_\_\_\_\_

By: \_\_\_\_\_  
(Type Name)

By: \_\_\_\_\_  
(Bidder's Signature)

Title: \_\_\_\_\_

( ) Individual      ( ) Partnership      ( ) Corporation in \_\_\_\_\_  
State

Official Business Address:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Business Phone: \_\_\_\_\_

Fax: \_\_\_\_\_

Date: \_\_\_\_\_



**CHECK LIST FOR BIDDERS**  
**(Check and submit with Bid)**

The Bidder shall furnish all information required by the terms of the Bid Documents. The following is to be completed by the Bidder. False statements, mistakes or omissions may result in the rejection of your bid.

This checklist is furnished only to assist you in submitting a proper bid.

<b>Yes</b>	<b>No</b>	
_____	_____	Completed Proposal Forms
_____	_____	All play equipment meets or exceeds recommendation set forth by the current U.S. Consumer Product Safety Commission Playground Safety Guidelines.
_____	_____	All play equipment complies with ASTM F1487-07 Standard Consumer Safety Performance Specification for Play Equipment for Public Use.
_____	_____	The playground as designed by the Manufacturer or Supplier complies with ADAAG for ADA Standards contains the minimum required number of accessible play events as defined by ADA Standards.
_____	_____	Every piece of proposed equipment has been independent laboratory tested and is certified by the International Playground Equipment Manufacturers Association (IPEMA). If you answered NO please provide a list of proposed equipment that is not IPEMA certified.
_____	_____	Play equipment manufacturer carries at least \$2 million dollars in product liability insurance.
_____	_____	Play equipment manufacturer carries at least \$2 million dollars in general liability insurance.
_____	_____	Bidder has personally inspected the site of the proposed work to arrive at a clear understanding of the conditions under which the work is to be done.
_____	_____	Play equipment proposed by bidder fits within the defined project area as indicated on the site plans.
_____	_____	Bidder has provided (3) color 3-Dimensional drawings and (3) black and white Plan View layout drawings of proposed playground equipment.
_____	_____	Bidder has included (3) copies of the equipment list with model numbers for each piece of equipment being proposed. If proposed equipment is not shown in the 2008 manufacturer's catalogue, pictures are provided.
_____	_____	At least one of the Installers on the job site is a Certified Playground Safety Inspector (CPSI). Submit a copy of CPSI certificate or card.
_____	_____	Designs and products comply with specification 02901.
_____	_____	Bidder has provided submittals as requested by specification 02901, 1.03, located in Division 2: Site Work.
_____	_____	Bidder has provided a completed Signed and Notarized Conflict of Familial Disclosure Form
_____	_____	Bidder has provided a completed Signed School Safety Initiative Form

## **Product Minimum Specification and Design Checklist**

(Check and submit with Bid)

(Bidder must indicate Yes to all items below by initializing the line to the left of each item in order to qualify for the bid)

**YES**      **ITEM**

### **POSTS/UPRIGHTS**

\_\_\_\_ Structures for 5-12 year olds

All posts shall be aluminum with a minimum outside diameter of 3.5". Posts shall have a minimum wall thickness of .118" extruded from aluminum alloy. Minimum yield strength shall be 35,000 psi. Minimum tensile strength shall be 38,000 psi. Post tops shall be a minimum of 38" above the deck surface to allow for barrier connection. Post shall be set at a minimum depth of 42" below top of surfacing with a finished grade marker at this location. Post shall have a minimum 50-year warranty.

\_\_\_\_ Caps

All upright shall have caps that are to be permanently installed at the factory. Caps shall be secured to posts with a minimum of two self-sealing rivets, three rivets are preferred, or Press Fit. Caps shall have a minimum 50-year warranty.

\_\_\_\_ Concrete Footings

Footings are to be set at a minimum depth of 42" below the finished grade of the safety surfacing with a minimum width of 12". Posts are to be set in the center of the footings with a minimum of 24" of the post in the concrete footing. The top of the concrete footing is to slope away from the post to promote drainage away from the footing. The concrete footings are to be poured in one single pour, no double pours.

### **\_\_\_\_ DECKS**

Decks shall be manufactured from a single piece of 10-13 gauge sheet steel. The steel shall be perforated for drainage. Holes are to be no larger than 1-5/16". Four sided decks are to have a minimum surface area of 2111 square inches. Three sided decks are to have a minimum surface area of 985 square inches. Deck shall support a minimum of 1.5 PSI when assembled. All deck connections are to be made from the underside of the deck with no exposed fasteners on the deck perimeter. Deck shall conform to ASTM F-1487-01. Decks shall be warranted for 15 years.

### **\_\_\_\_ PIPE WALL BARRIERS/ HANDRAILS/HAND LOOPS/HANDHOLDS AND HAND RUNGS**

The rung enclosure shall be fabricated of 1.029"-1.315" O.D., wall thickness of .075"-.125" galvanized 14 gauge steel tubing. Interior and exterior of tubing shall be galvanized. The rung enclosure shall be an all welded assembly and shall be coated with a polyester powder coating in conformance with the specifications outlined herein, after fabrication. All welds are to be cleaned and galvanized after welding is complete. PVC coated 11 gauge steel is an acceptable alternative. The warranty on pipe wall barriers and handrails shall be for 10 years.

### **\_\_\_\_ ROTATIONALLY MOLDED PRODUCTS**

All polyethylene shall be first quality linear low-density material with UV-stabilized color and an anti-static compound additive. Wall thickness shall be at least .25". The tensile strength shall be 2,500-2,900 PSI. All rotationally molded products shall meet or exceed the following specifications: ASTM Density (ASTM D-1505); Brittleness Temperature (ASTM D-746); Tensile Values (ASTM D-638); Flexural Modulus (ASTM D-790). The warranty shall be for a minimum of 10 years.

### **\_\_\_\_ HARDWARE**

All hardware shall be stainless steel, blue dichromate or yellow dichromate. Manufacturer shall provide special installation tools for pinned fasteners. Hardware shall have a minimum 50-year warranty.

#### **POWDER COAT FINISH**

Shall be electrostatically applied polyester powder. All components will be free of sharp edges, excess weld spatter, and burrs and shall be cleaned in a three-six-stage bath system. Coating shall be applied at 2-5 mils. The coating shall have a super tough finish with maximum exterior durability and will have superior adhesion characteristics. Pencil Hardness H (ASTM D-3363), Abrasion (ASTM 1907), Impact (ASTM D-2794-69), Wedge Bend (ASTM D-522-68), Adhesion (Cross Hatch ASTM D-3359 & Knife Scratch ASTM D-2197), Environmental (Stain Resistance ASTM D-1308, Humidity ASTM D-2242, Salt Spray ASTM B-117 & Fadometer 300 hours with no loss of gloss). Owner shall receive touch-up paint in colors to match powder coating.

#### **WEAR PADS**

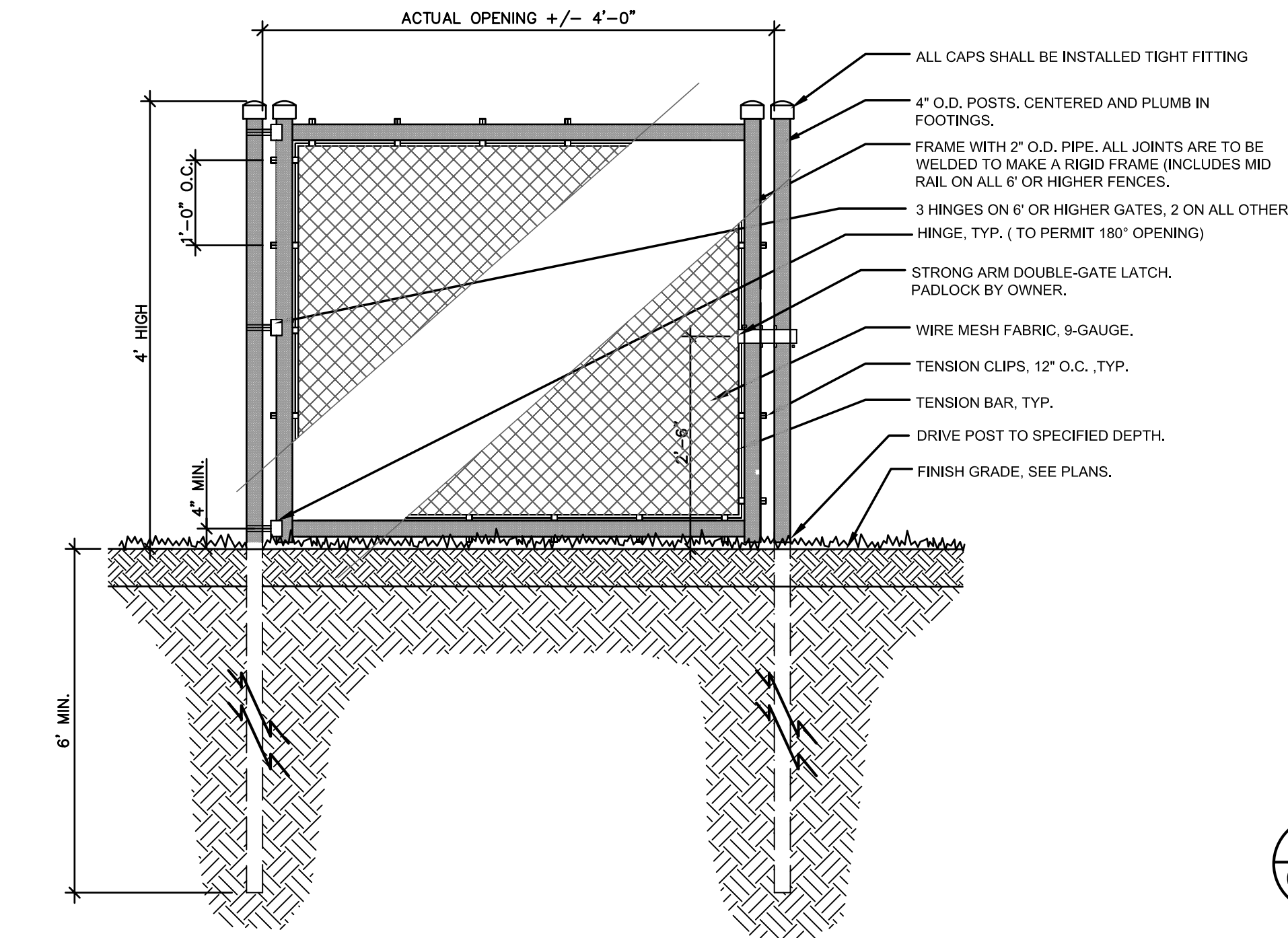
Shall be a minimum of 3' X 3' and meet CPSC requirements for a 4' fall height beneath single user swings and slide exits. Wear pads beneath tire swings shall be a minimum of 4'x 6' and meet CPSC requirements for a 4' fall height. Wear pads beneath single post rotational equipment shall be (2) 4'x6' pads.

## **CHECK LIST FOR SUBMITTALS**

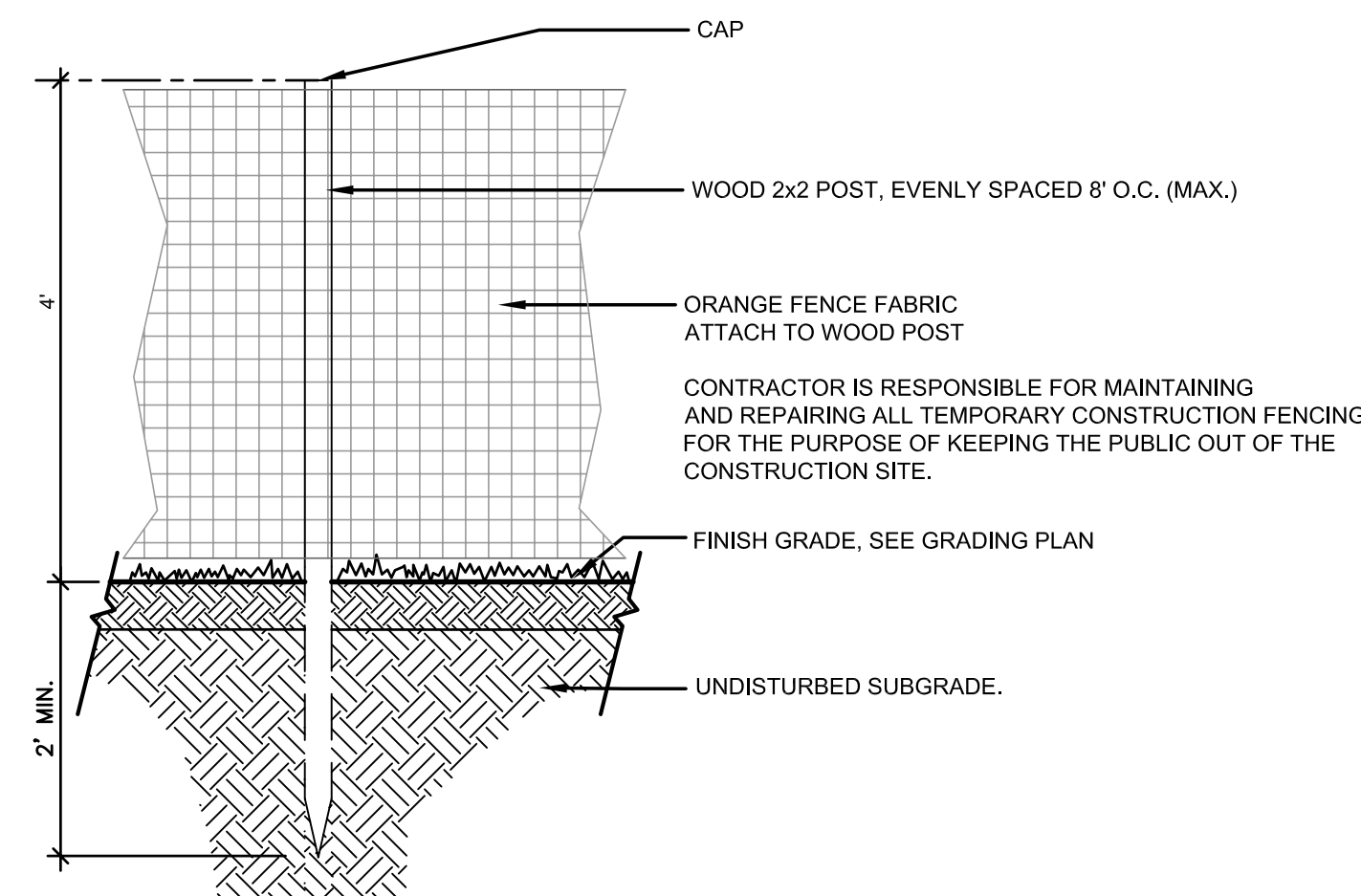
(Check and submit with bid)

- \_\_\_\_\_ Check List for Bidders.
- \_\_\_\_\_ Product Minimum Specification and Design Checklist.
- \_\_\_\_\_ (3) Black and white copies of Plan View Layout plans indicating all proposed equipment, play edging layout, dimensions of edging and between each piece of equipment, and access routes.
- \_\_\_\_\_ (3) Color copies of 3-Dimensional View of proposed equipment.
- \_\_\_\_\_ (3) Copies of the completed Proposal Forms
- \_\_\_\_\_ (3) Copies of the playground equipment list including model numbers
- \_\_\_\_\_ Bid bond in the amount of 5% of the total Bid
- \_\_\_\_\_ Project Schedule
- \_\_\_\_\_ Installers experience record, which includes 3 references minimum and all CPSI certificate of Installation Crew members
- \_\_\_\_\_ Certificates of product liability.
- \_\_\_\_\_ Description of equipment storage method (on site - lock box, 8' chain link fence, etc).
- \_\_\_\_\_ Manufacturer's specifications for bid decks, uprights, clamps, barrier, railing tubing, hardware, footings, safety surfacing, wear pads and powder coated finish.
- \_\_\_\_\_ Product Warranty(s)
- \_\_\_\_\_ Product samples of materials manufacturer deems superior to industry standard or for Architects approval. Products will be evaluated for quality (optional submittal).
- \_\_\_\_\_ Signed and Notarized Familial Disclosure Form
- \_\_\_\_\_ Signed School Safety Initiative Form

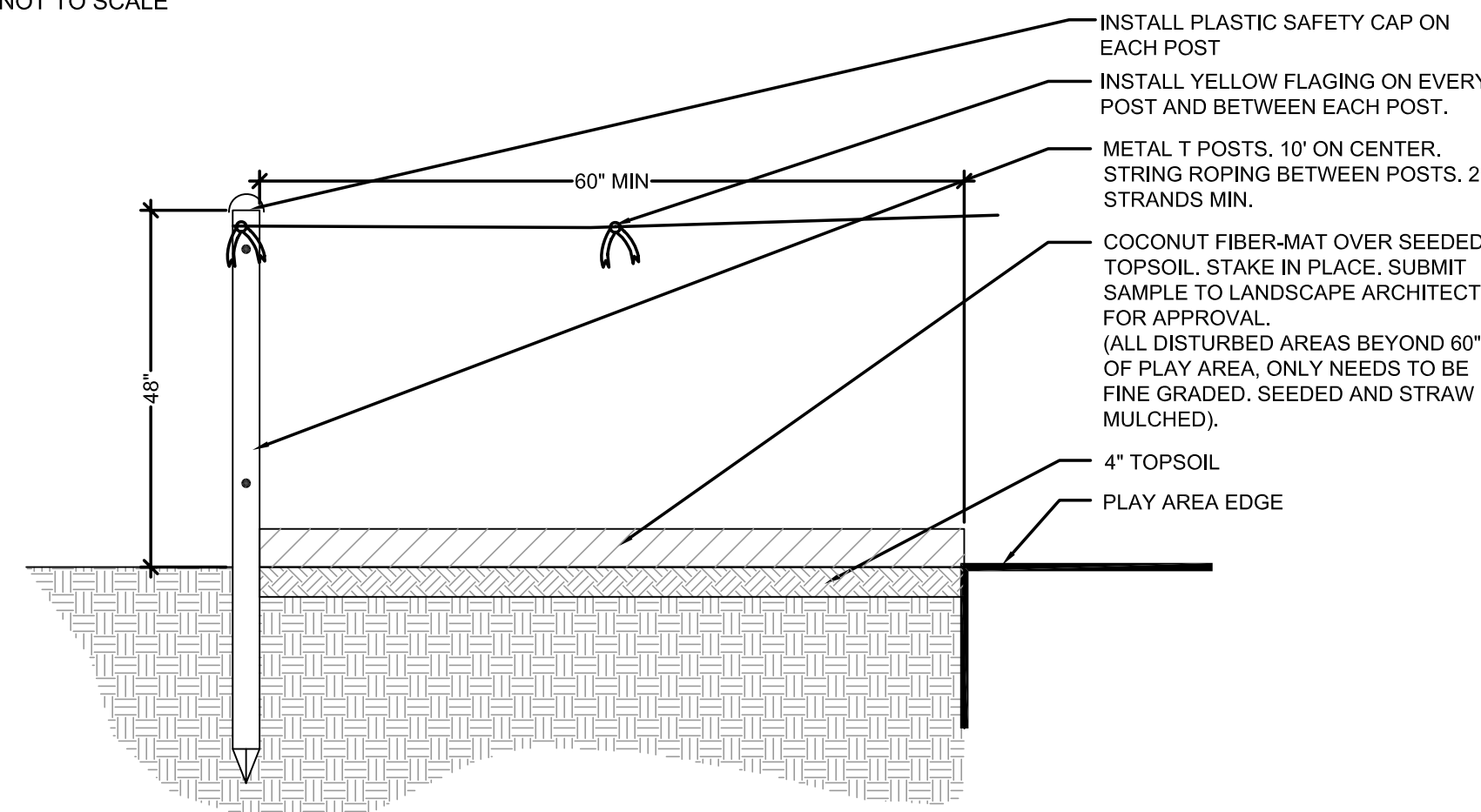




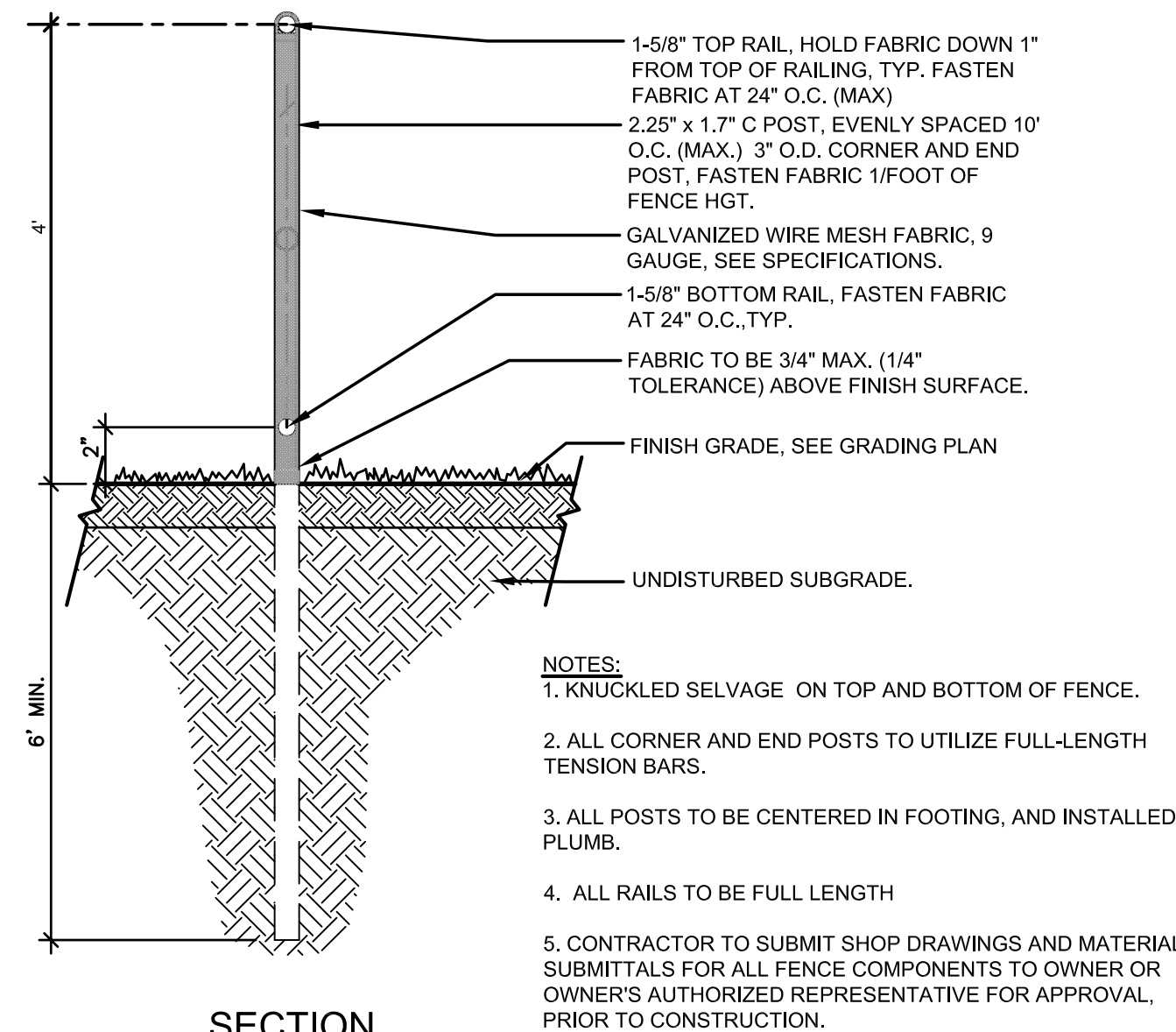
**16 CHAIN LINK SINGLE SWING GATE**  
C14 NOT TO SCALE



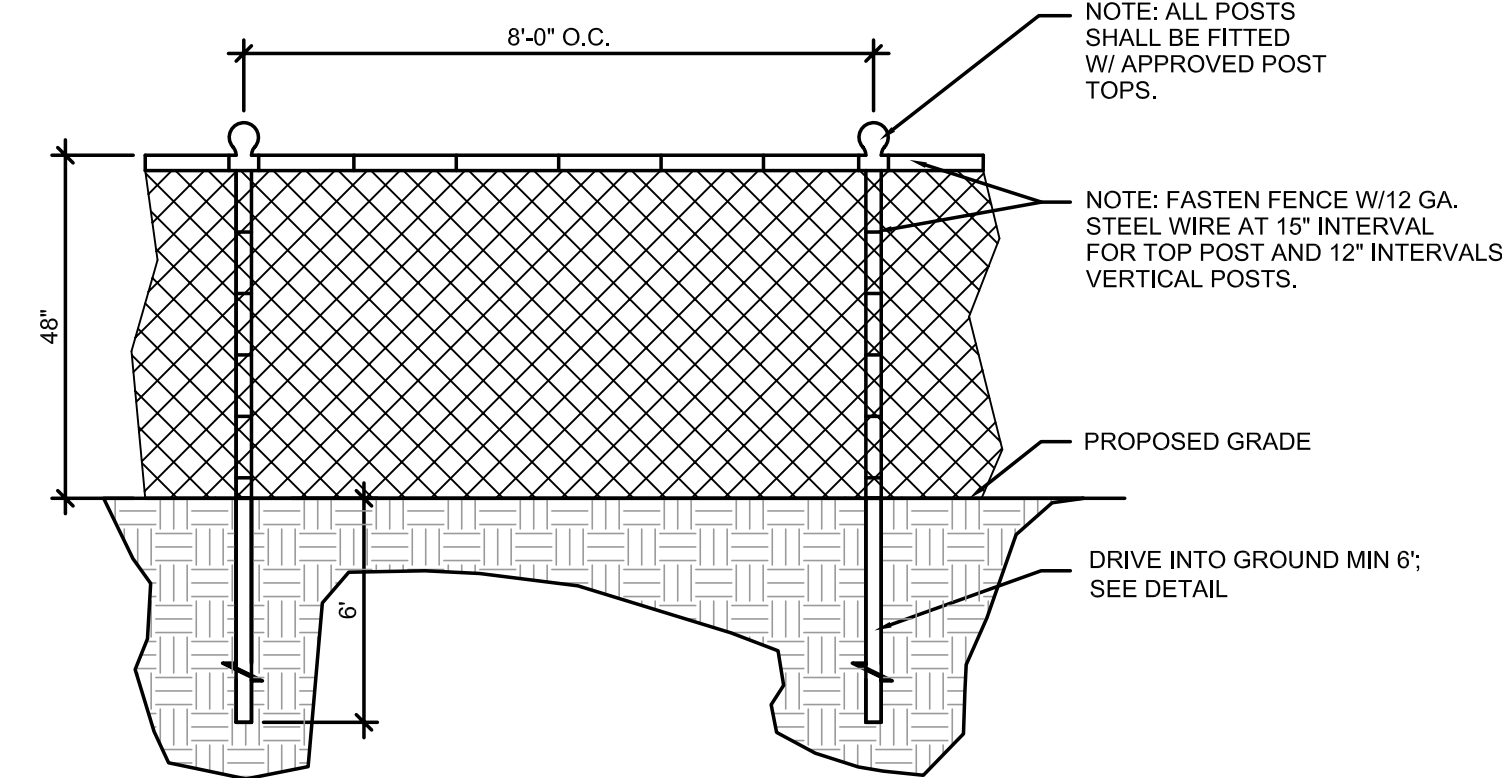
**17 TEMPORARY CONSTRUCTION FENCE DETAIL**  
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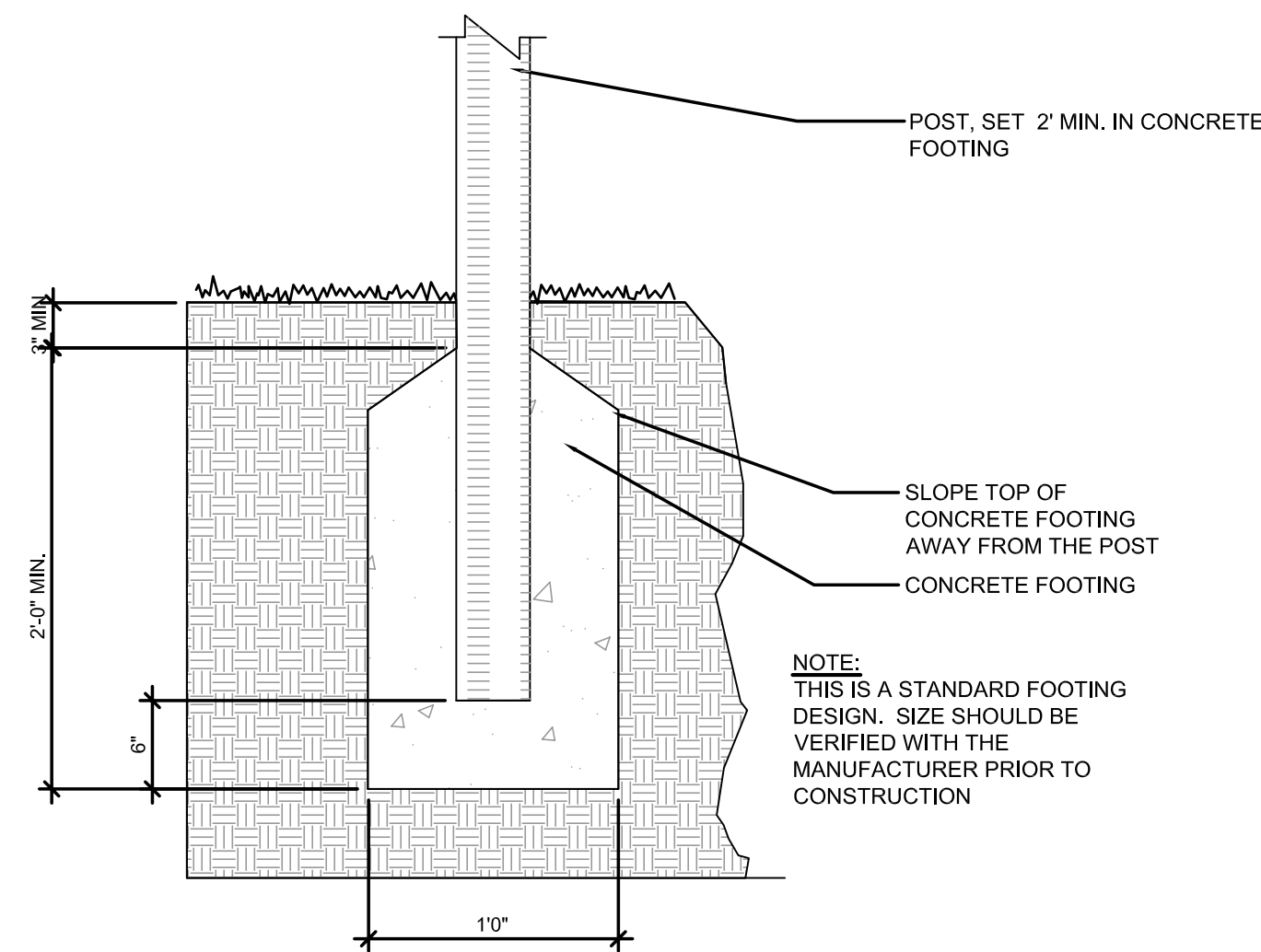
**18 LAWN RESTORATION DETAIL**  
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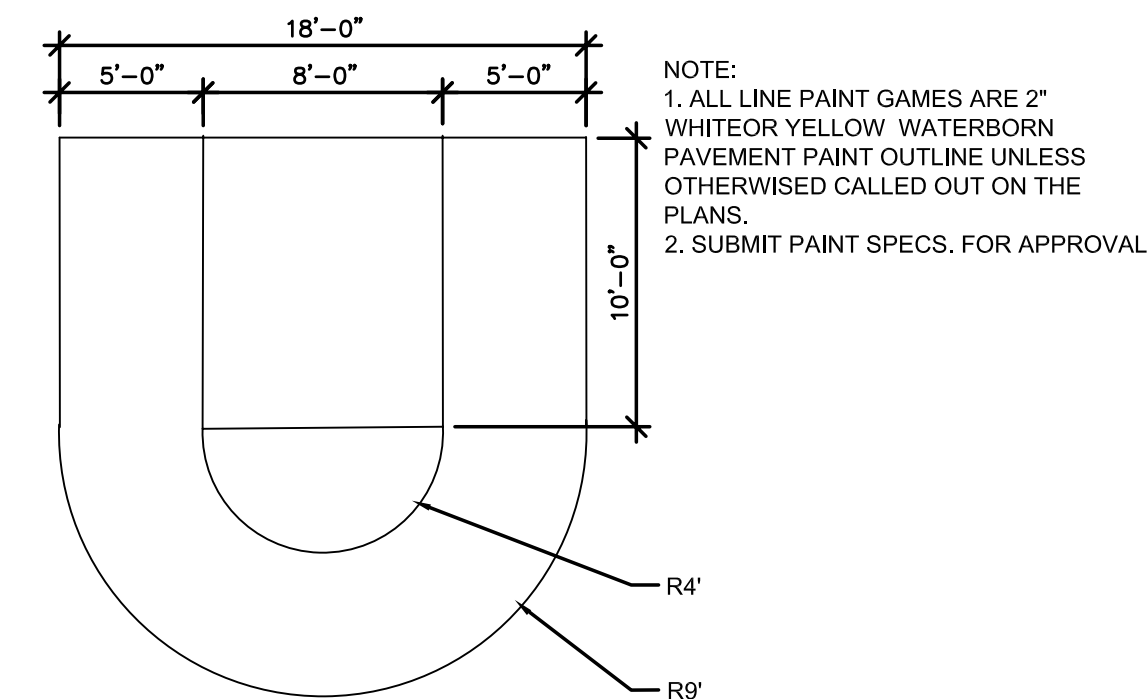
**19 CHAIN LINK FENCE, DRIVEN POST DETAIL**  
C14 NOT TO SCALE



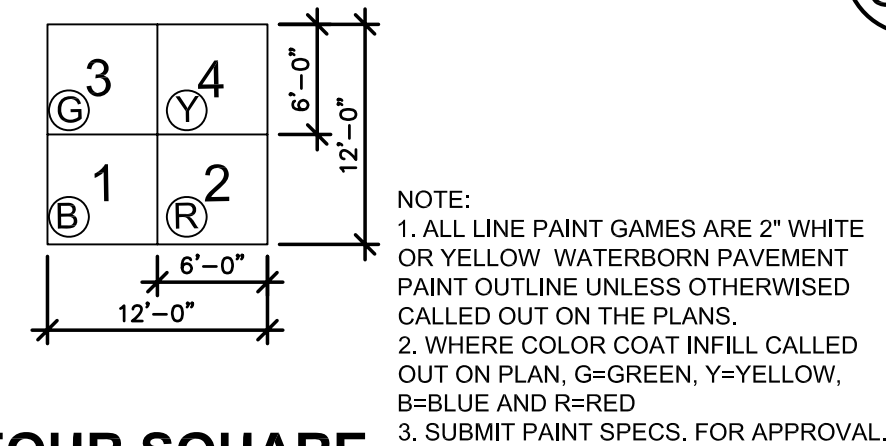
**20 CHAIN LINK FENCE DETAIL**  
C14 NOT TO SCALE



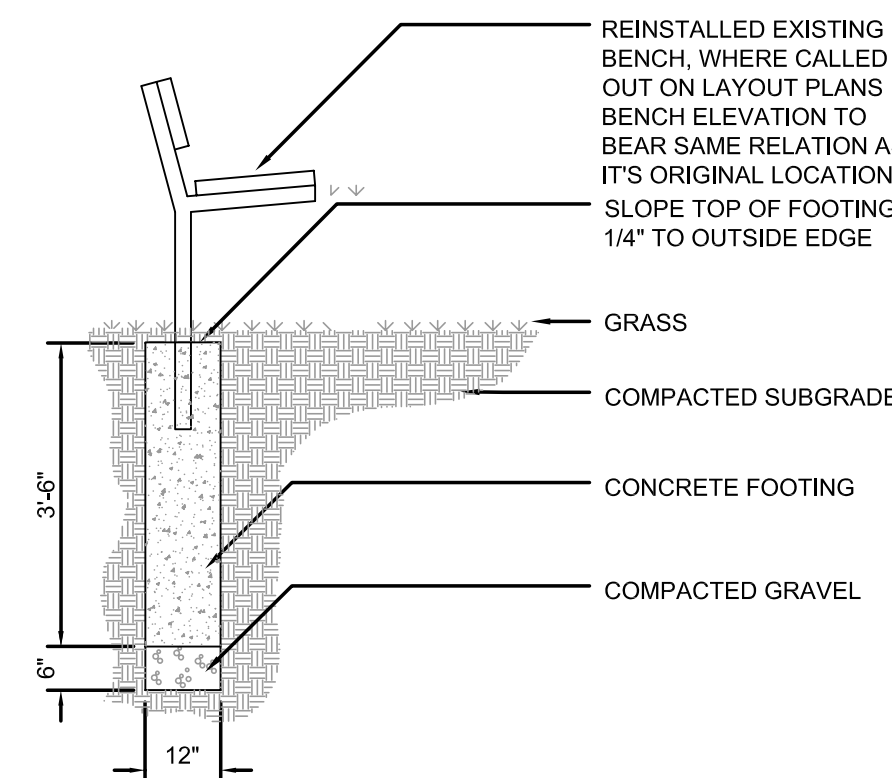
**21 TYPICAL GOAL/TABLE POST DETAIL**  
C14 NOT TO SCALE



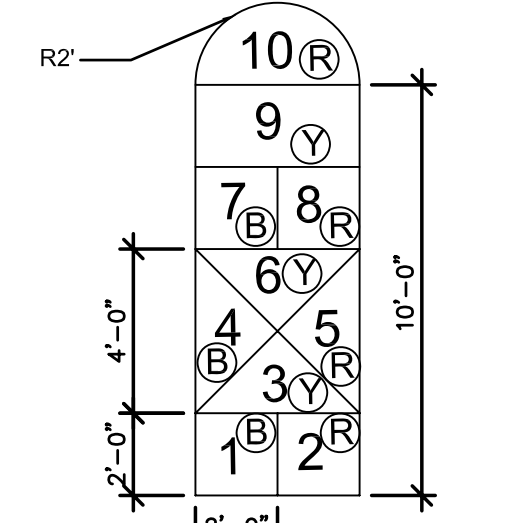
**22 BASKETBALL COURT**  
C14 NOT TO SCALE



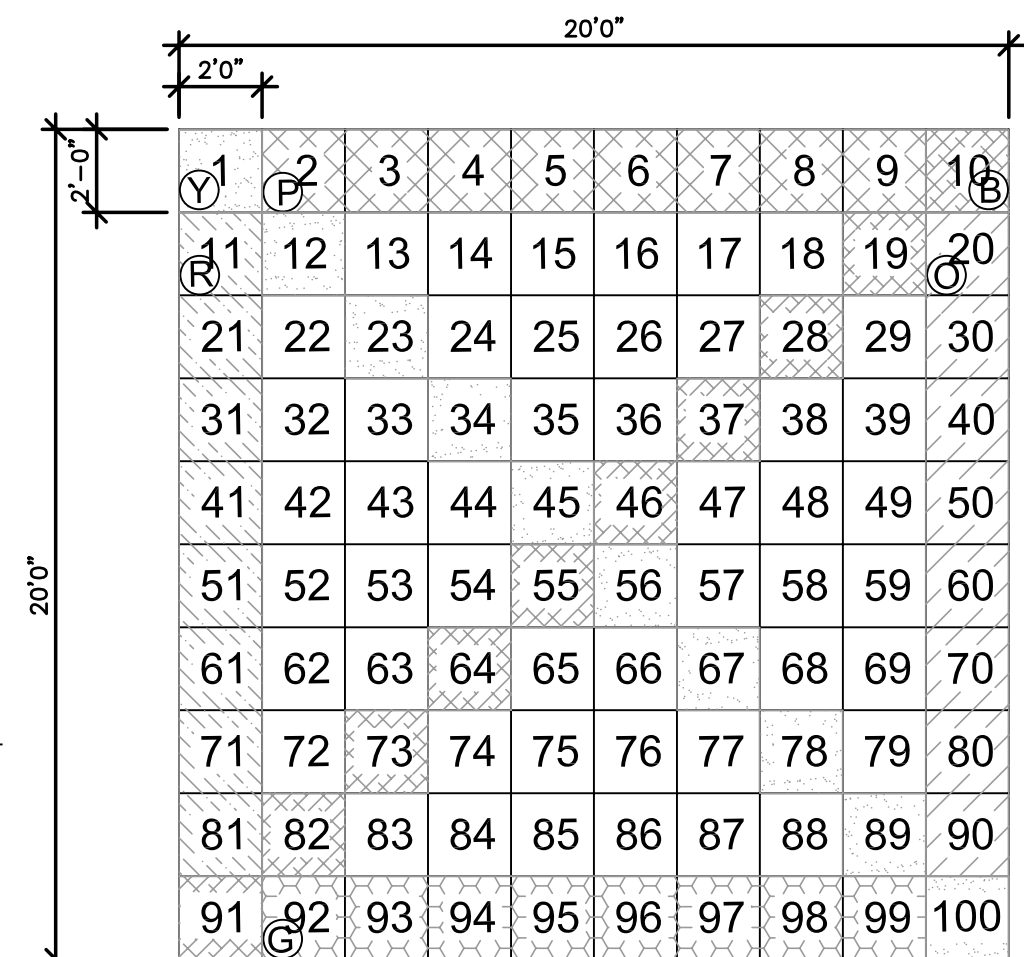
**23 FOUR SQUARE**  
C14 NOT TO SCALE



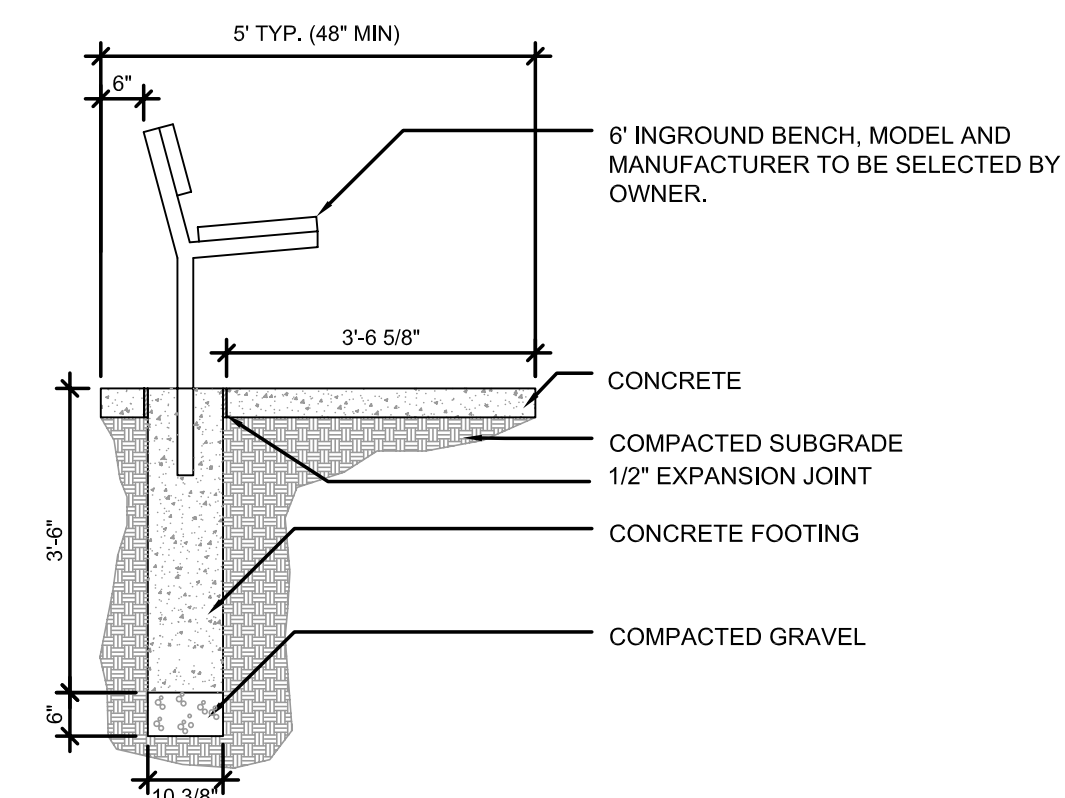
**24 BENCH SECTION IN LAWN**  
C14 NOT TO SCALE



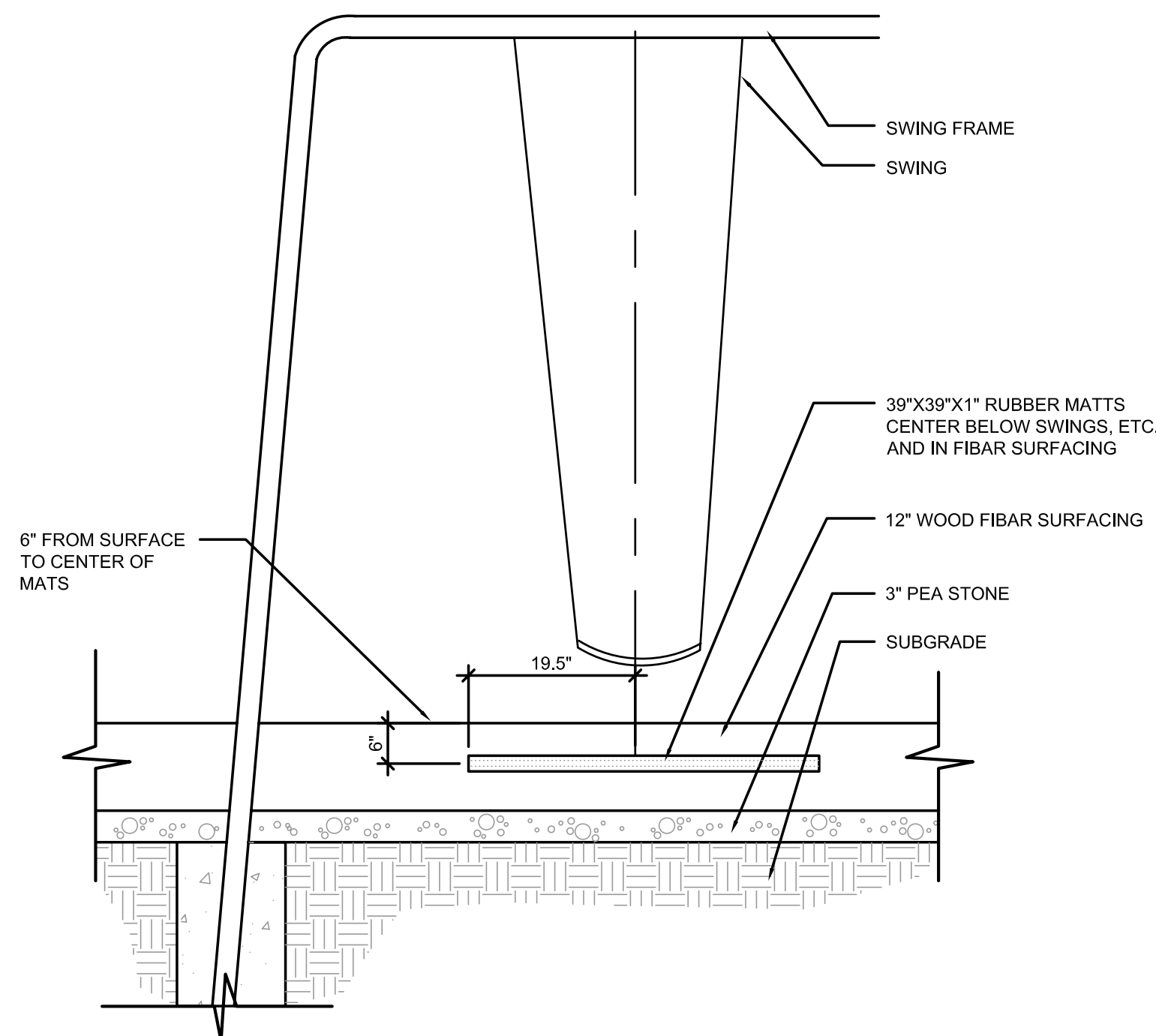
**26 HOPSCOTCH**  
C14 NOT TO SCALE



**27 NUMBER SQUARE**  
C14 NOT TO SCALE



**28 BENCH SECTION ON CONCRETE**  
C14 NOT TO SCALE



**25 TYPICAL INSTALLATION-PLAY MATS**  
C14 NOT TO SCALE

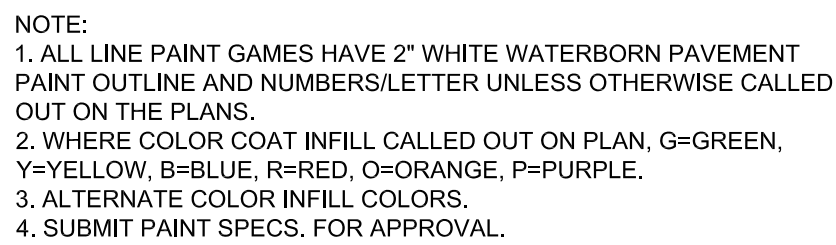
REVISIONS	DATE	COMMENTS
INITIALS		

**TROY SCHOOL DISTRICT**  
4400 LIVERNOIS ROAD  
TROY, MICHIGAN  
248-823-4000

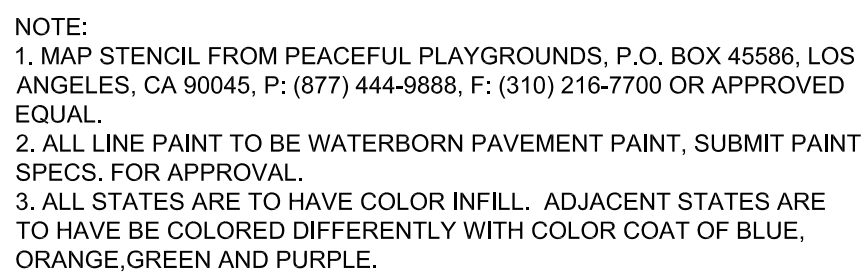
**TROY SCHOOL DISTRICT**  
TROY PLAYGROUND IMPROVEMENTS  
**DETAILS**

DATE: 6-6-08	DESIGNED BY: TJJ
CHECKED BY: TJJ	DRAWN BY: TJJ
PROJECT NO: 07044	SCALE: NOT TO SCALE
HORIZ: NOT TO SCALE	VERT: NOT TO SCALE

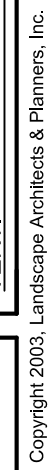


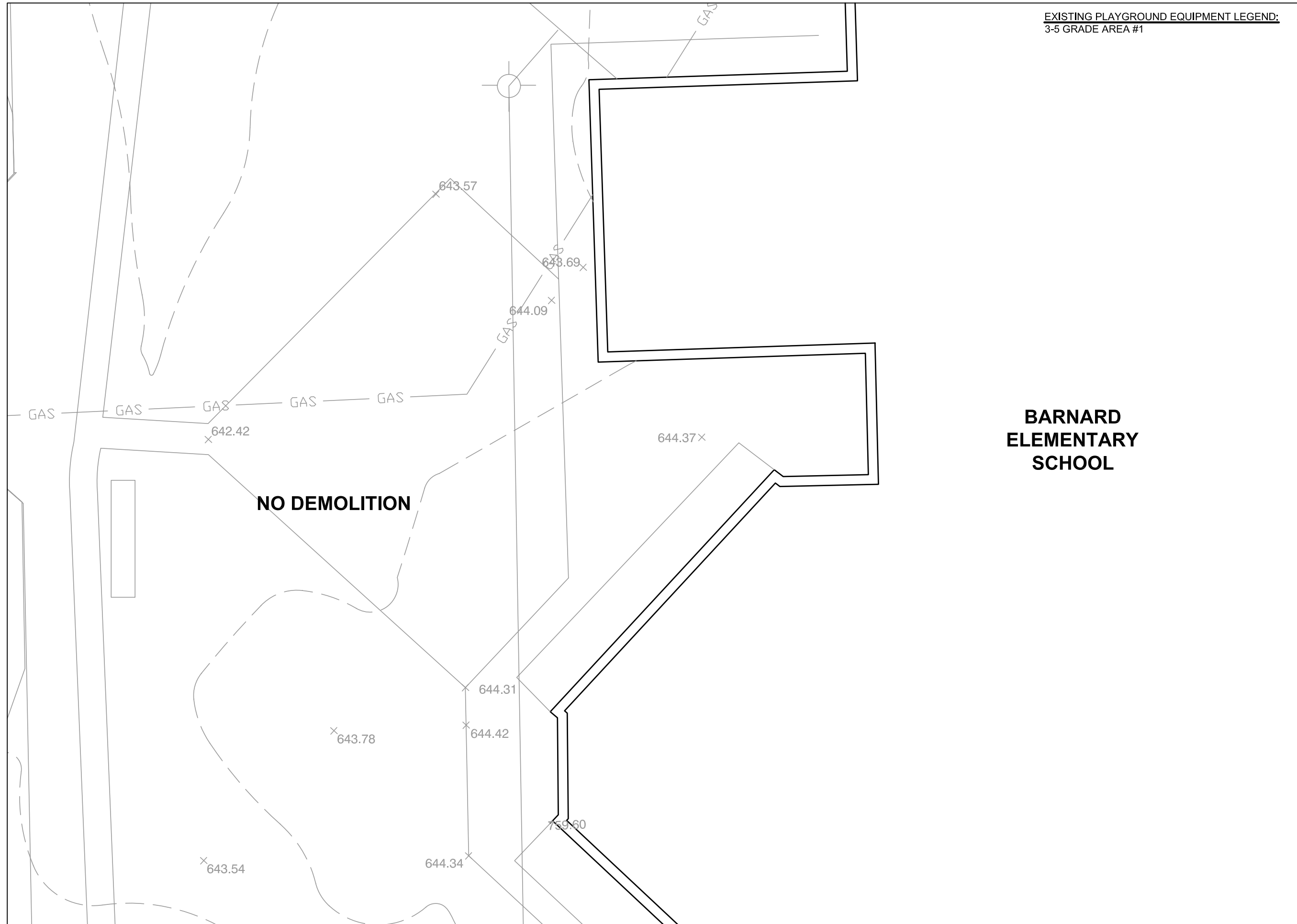


(C15) NOT TO SCALE



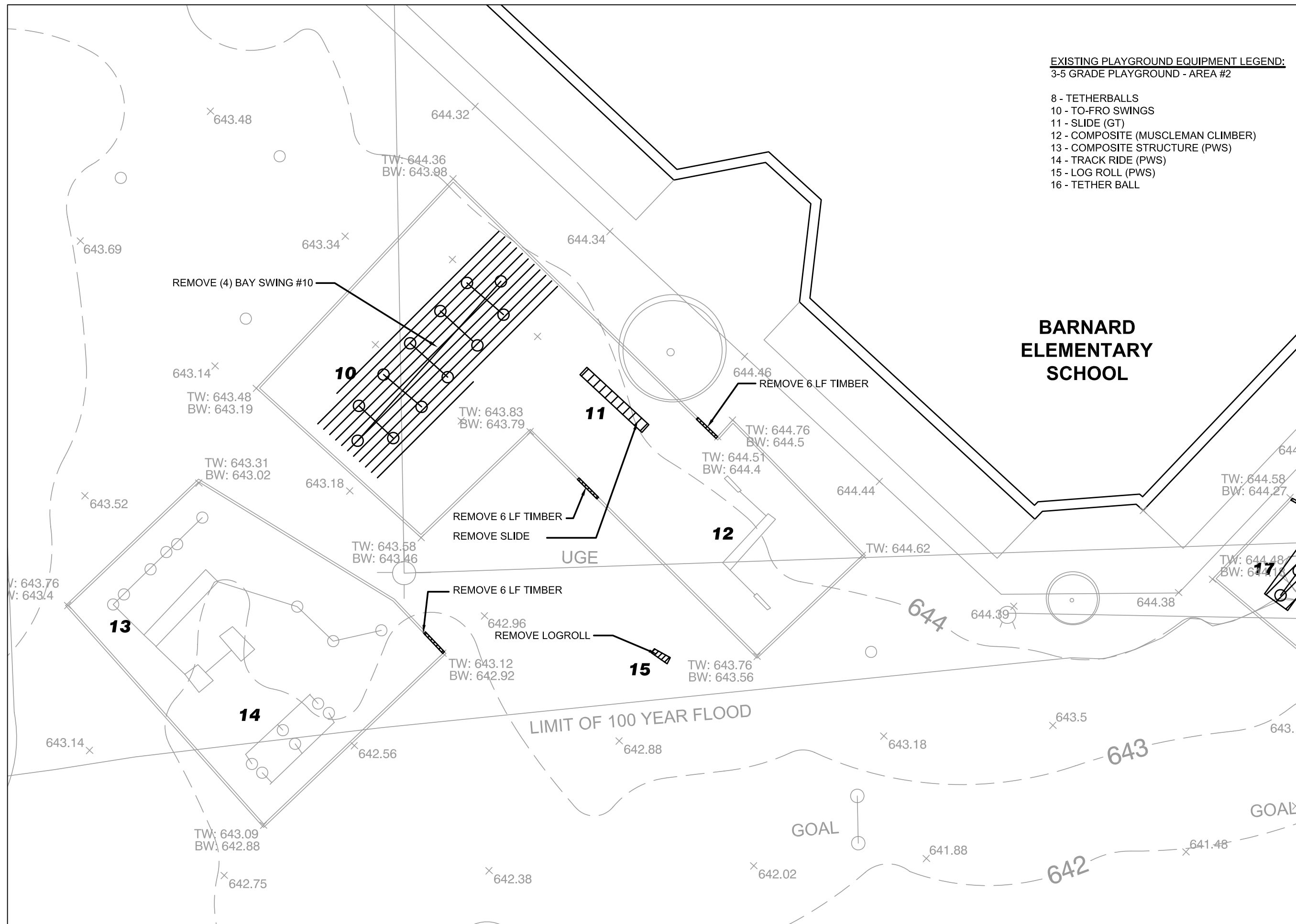
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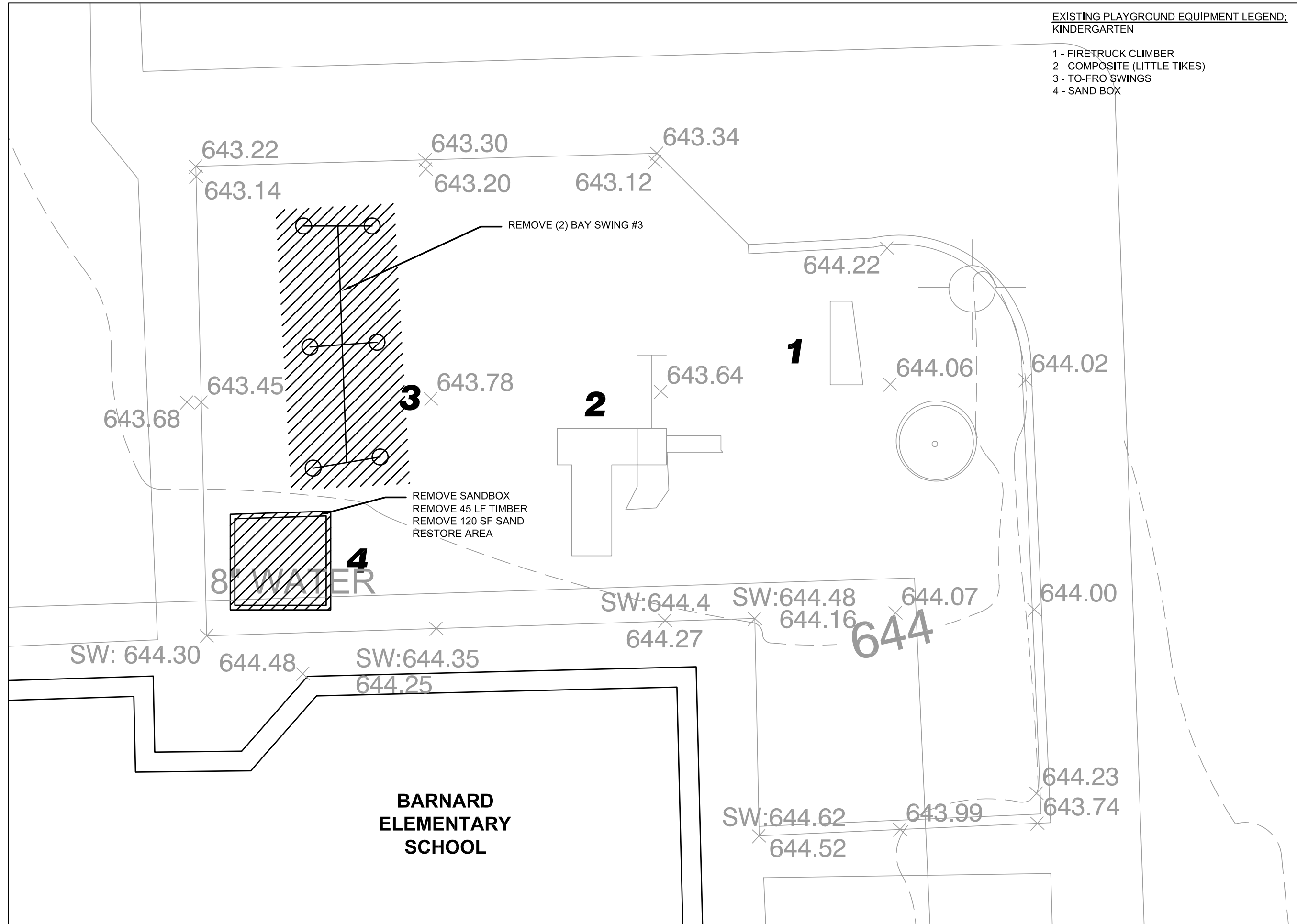
3-5 GRADE - AREA #1

SCALE: 1" = 20'



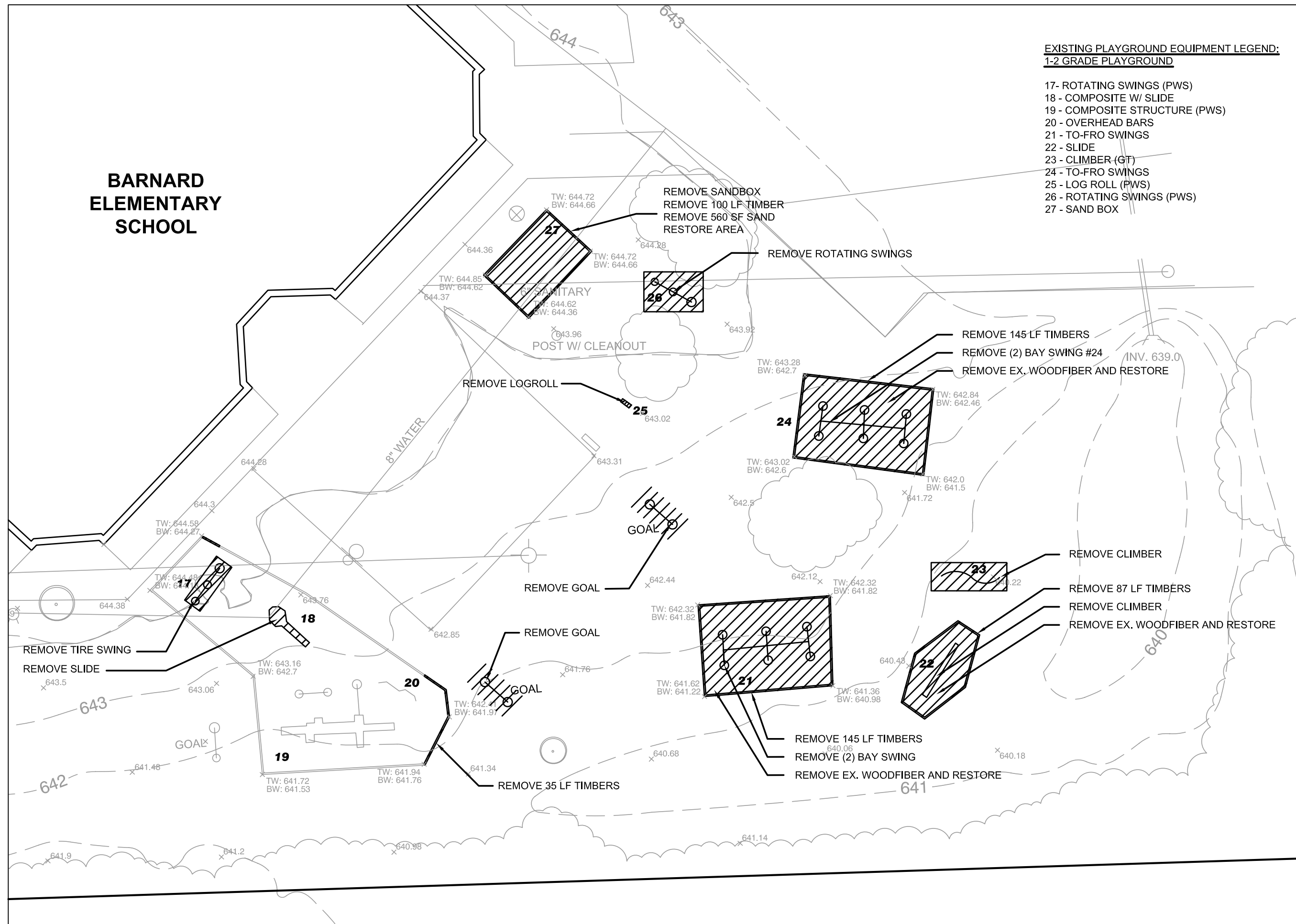
3-5 GRADE - AREA #2

SCALE: 1" = 20'



KINDERGARTEN

SCALE: 1" = 10'



1-2 GRADE

SCALE: 1" = 30'

- LEGEND:**
- EXISTING BUILDING WALL
  - PROPOSED DEMOLITION
  - EXISTING MANHOLE
  - EXISTING OVERHEAD LINE
  - EXISTING UNDERGROUND ELECTRIC LINE
  - EXISTING GAS LINE
  - EXISTING WATER
  - EXISTING STORM SEWER
  - EXISTING SPOT ELEVATION
  - EXISTING LIGHT
  - EXISTING TREELINE
  - EXISTING CONTOUR

**NOTES:**

1. ALL PLAYGROUND AREAS SCHEDULED TO BE REMOVED AND NOT REPLACED SHALL BE RESTORED TO EXISTING ADJACENT GRADE LEVEL, TOPSOIL, SEED & MULCHED.

2. SEE NEXT SHEET FOR LOCATIONS OF RELOCATED ITEMS.



**LANDSCAPE  
ARCHITECTS  
PLANNERS**

OAKLAND CENTER  
809 CENTER STREET  
SUITE ONE  
LANSING, MI 48906  
P: (517) 485-5500  
F: (517) 485-5576  
info@lapinc.net

REVISIONS	INITIALS	DATE	COMMENTS

**TROY SCHOOL DISTRICT**  
4400 LIVERNOIS ROAD  
TROY, MICHIGAN  
248-823-4000

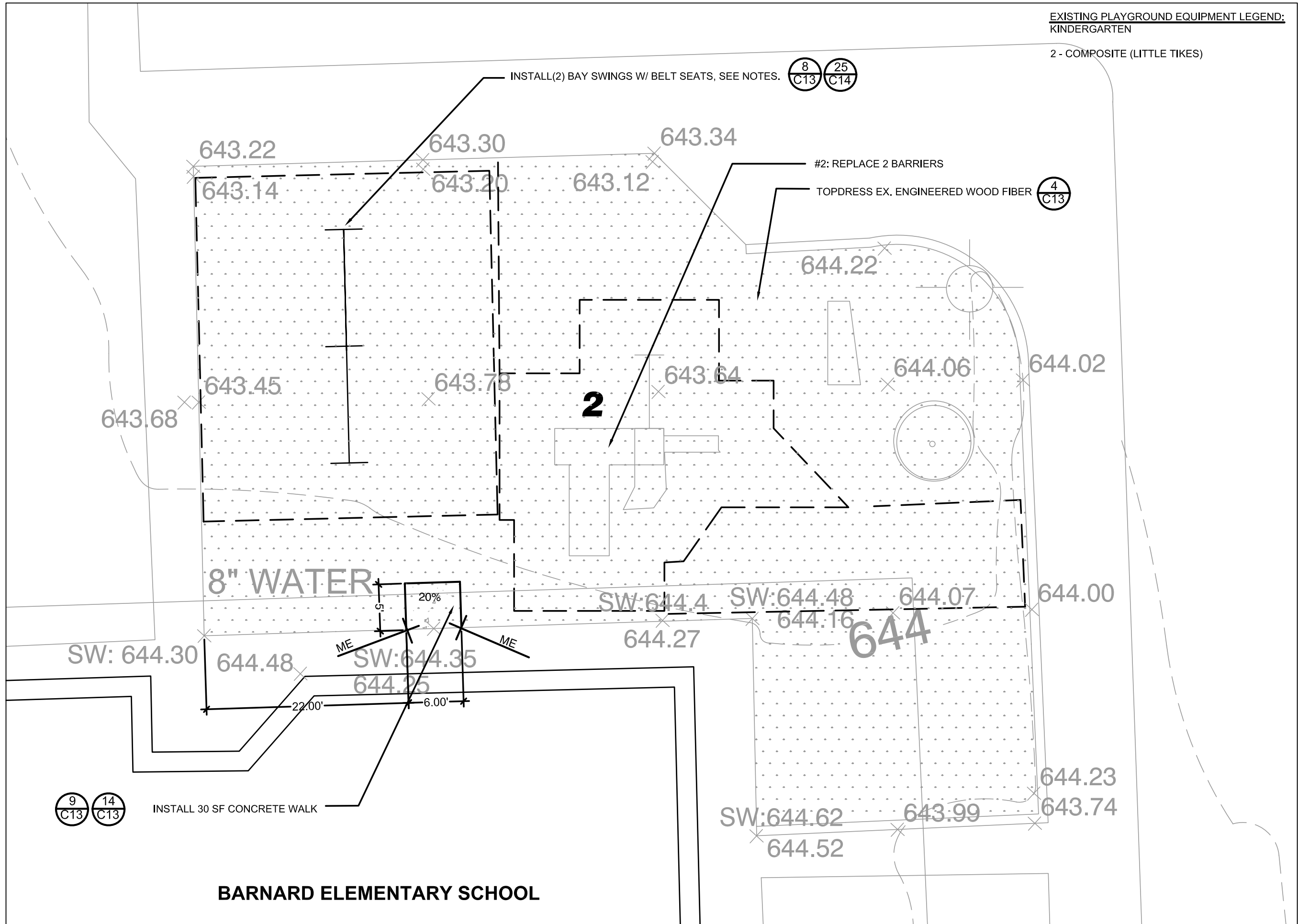
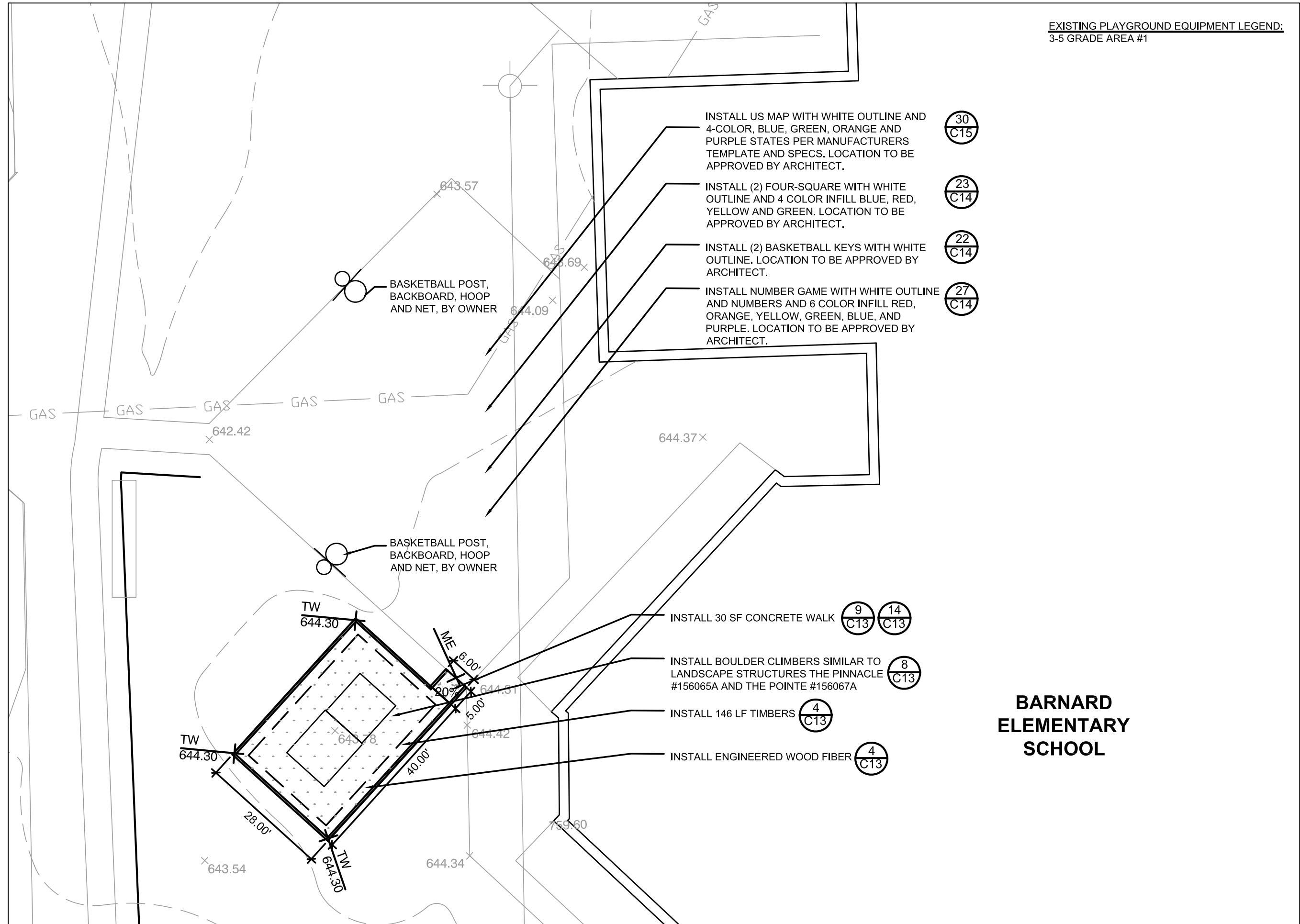
**TROY PLAYGROUND IMPROVEMENTS #1  
BARNARD ELEMENTARY SCHOOL  
DEMOLITION PLAN**  
3601 FORCE DRIVE  
TROY, MI 48063

DATE: 6-20-08	DESIGNED BY: TJJ
CHECKED BY: REF	DRAWN BY: KMC/TJ/MB
PROJECT NO. 07044	SCALE: HORIZ. NA
VERT. NA	

**SHEET**  
C1





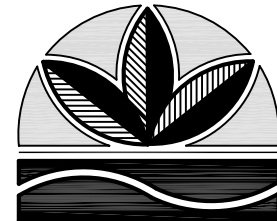
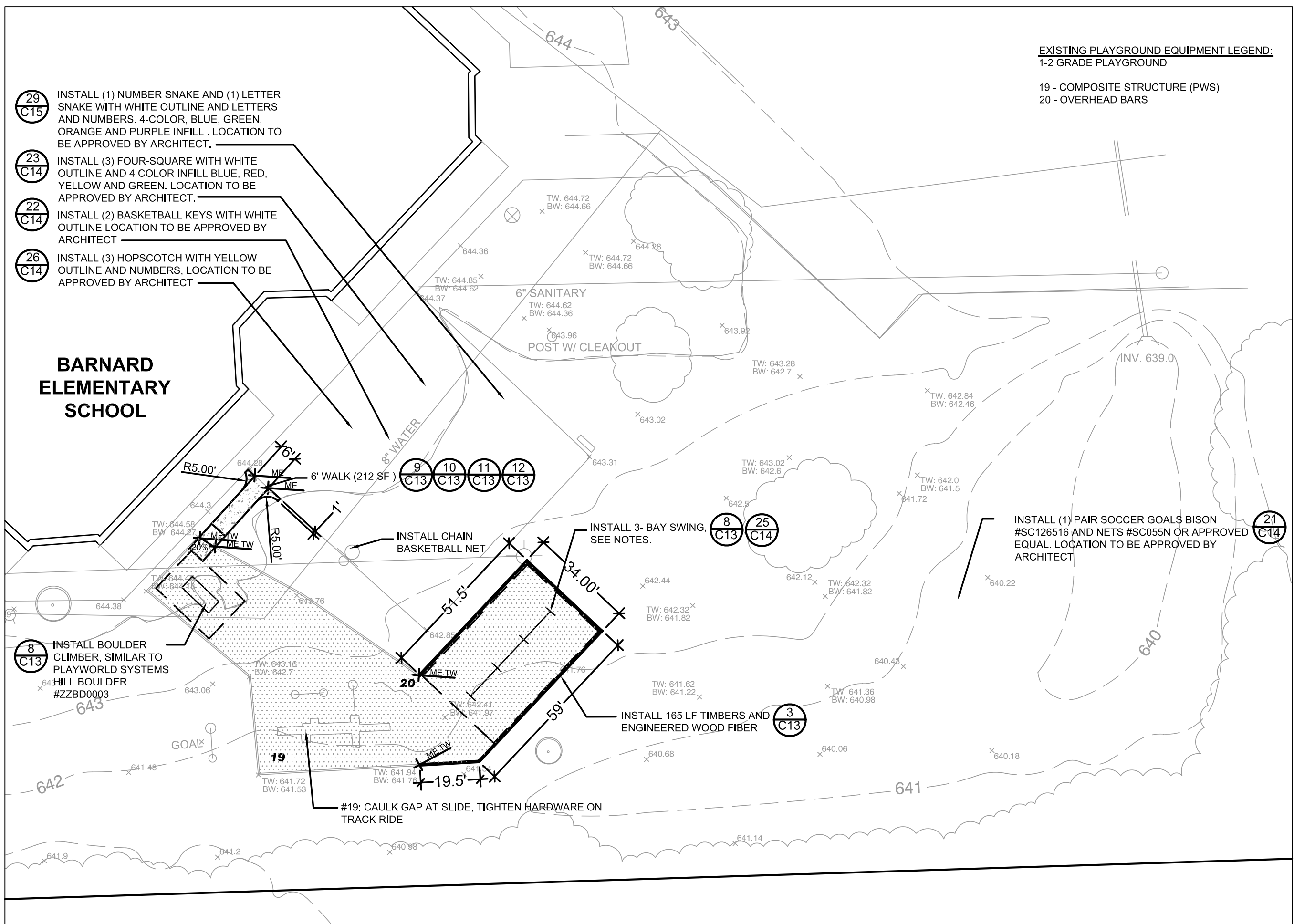
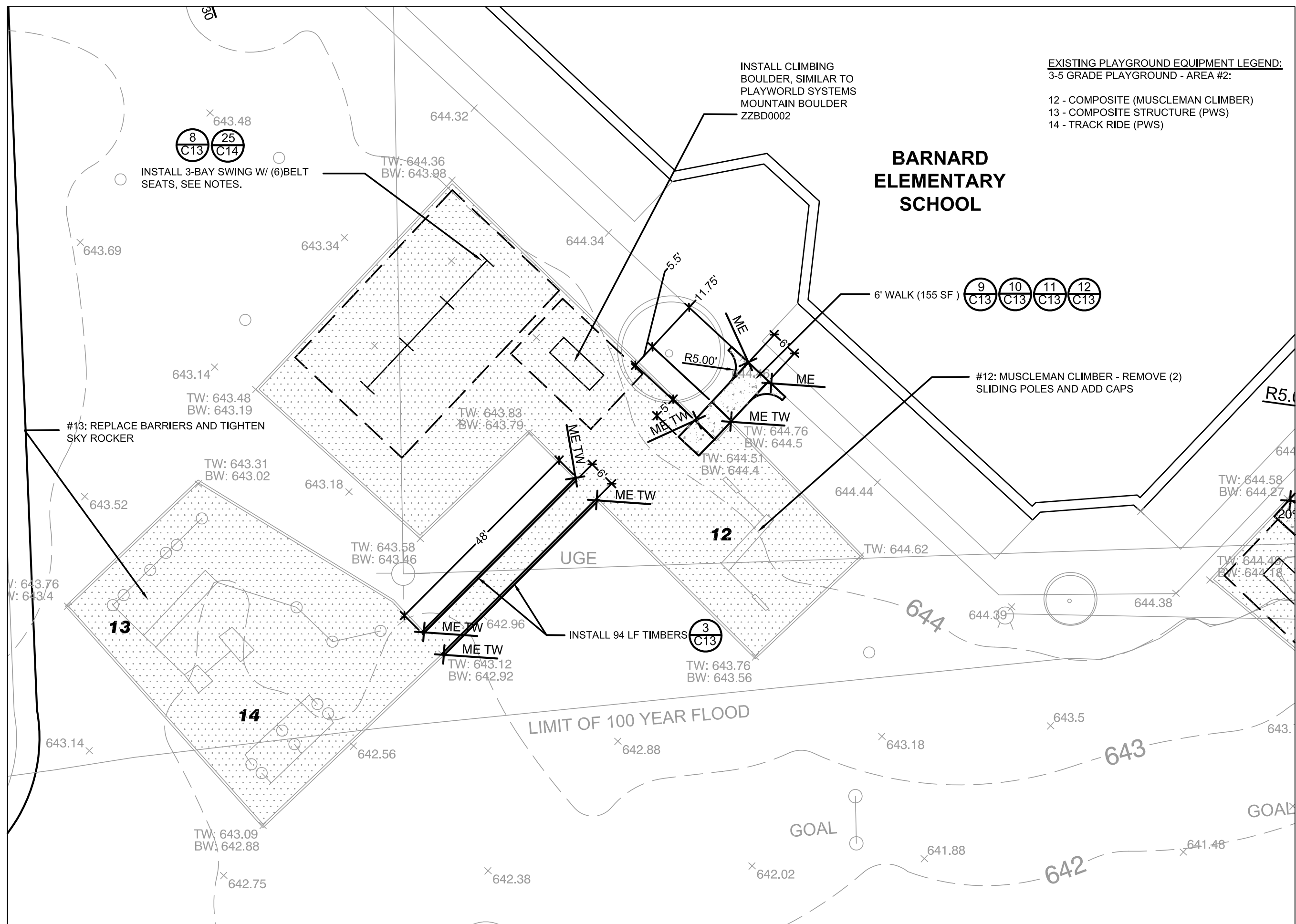


NOTES:

1. ALL SWINGS TO BE SINGLE POST SWING #1228374 WITH GALVANIZED CHAINS AND BELT SEATS #132385A MANUFACTURED BY LANDSCAPE STRUCTURES. WEAR MATS TO BE INSTALLED UNDER ALL SWINGS.
2. ALL ENGINEERED WOOD FIBER AREAS SHOWN ON PLANS TO BE 12" COMPACTED DEPTH FOR NEW PLAYGROUND AREAS AND 4" TOPDRESS FOR ALL EXISTING PLAYGROUND AREAS UNLESS OTHERWISE SPECIFIED. 15' UNCOMPACTED TO EQUAL 12" COMPACTED.
3. ALL DISTURBED LAWN AREAS SHALL BE RESTORED. SEE DETAIL 18, SHEET C14.
4. CROSS SLOPES ON ALL CONCRETE WALKS AND PAVEMENTS SHALL BE MIN. 1% AND MAX. 2%. SLOPE IN DIRECTION OF TRAVEL NOT TO EXCEED 5%.
5. ALL PLAYGROUND AREAS SCHEDULED TO BE REMOVED AND NOT REPLACED SHALL BE RESTORED TO EXISTING ADJACENT GRADE LEVEL, TOPSOIL, SEED & MULCHED.

LEGEND:

- EXISTING BUILDING WALL
- EXISTING MANHOLE
- EXISTING OVERHEAD LINE
- EXISTING UNDERGROUND ELECTRIC LINE
- EXISTING SPOT ELEVATION
- EXISTING LIGHT
- EXISTING TREELINE
- EXISTING CONTOUR
- EXISTING FENCE
- EXISTING WATER LINE
- EXISTING GAS LINE
- PROPOSED CONTOUR
- PROPOSED CENTERLINE
- PROPOSED SPOT ELEVATION
- PROPOSED TOP OF WALL ELEVATION
- PROPOSED DRAINAGE
- DETAIL NUMBER  
DETAIL SHEET NUMBER
- PLAYGROUND EQUIPMENT SAFETY ZONE
- PROPOSED CONCRETE
- PROPOSED ENGINEERED WOOD FIBER
- ME = MATCH EXISTING ELEVATION  
TW = TOP OF WALL  
BW = BOTTOM OF WALL



LANDSCAPE  
ARCHITECTS  
PLANNERS

OAKLAND CENTER  
809 CENTER STREET  
SUITE ONE  
LANSING, MI 48906  
P: (517) 485-5500  
F: (517) 485-5576  
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REVISIONS  
INITIALS DATE COMMENTS

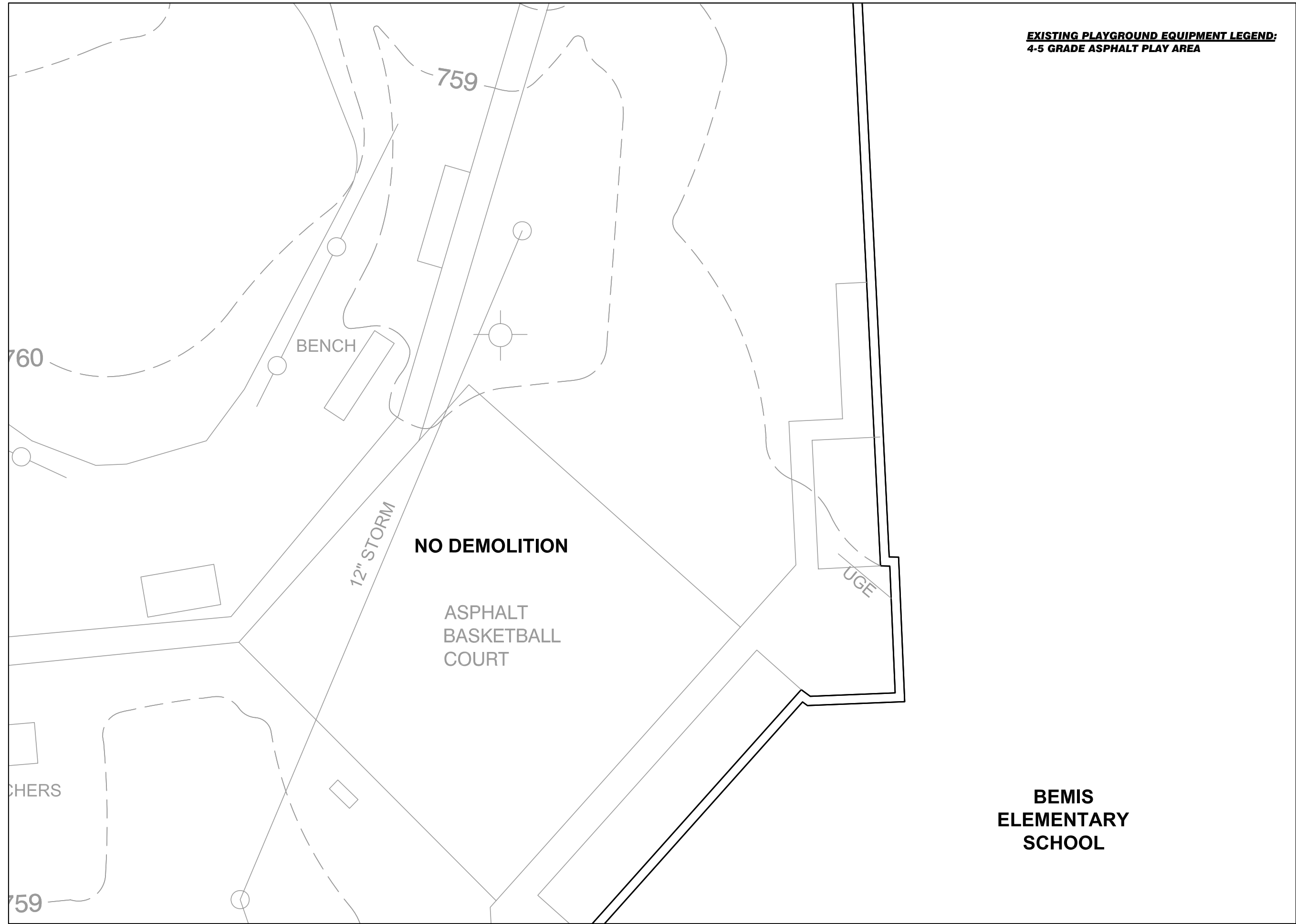
TROY SCHOOL DISTRICT  
4400 LIVERNOIS ROAD  
TROY, MICHIGAN  
248-823-4000

TROY PLAYGROUND IMPROVEMENTS #1  
BARNARD ELEMENTARY SCHOOL  
LAYOUT PLAN  
3601 FORCE DRIVE  
TROY, MI 48063

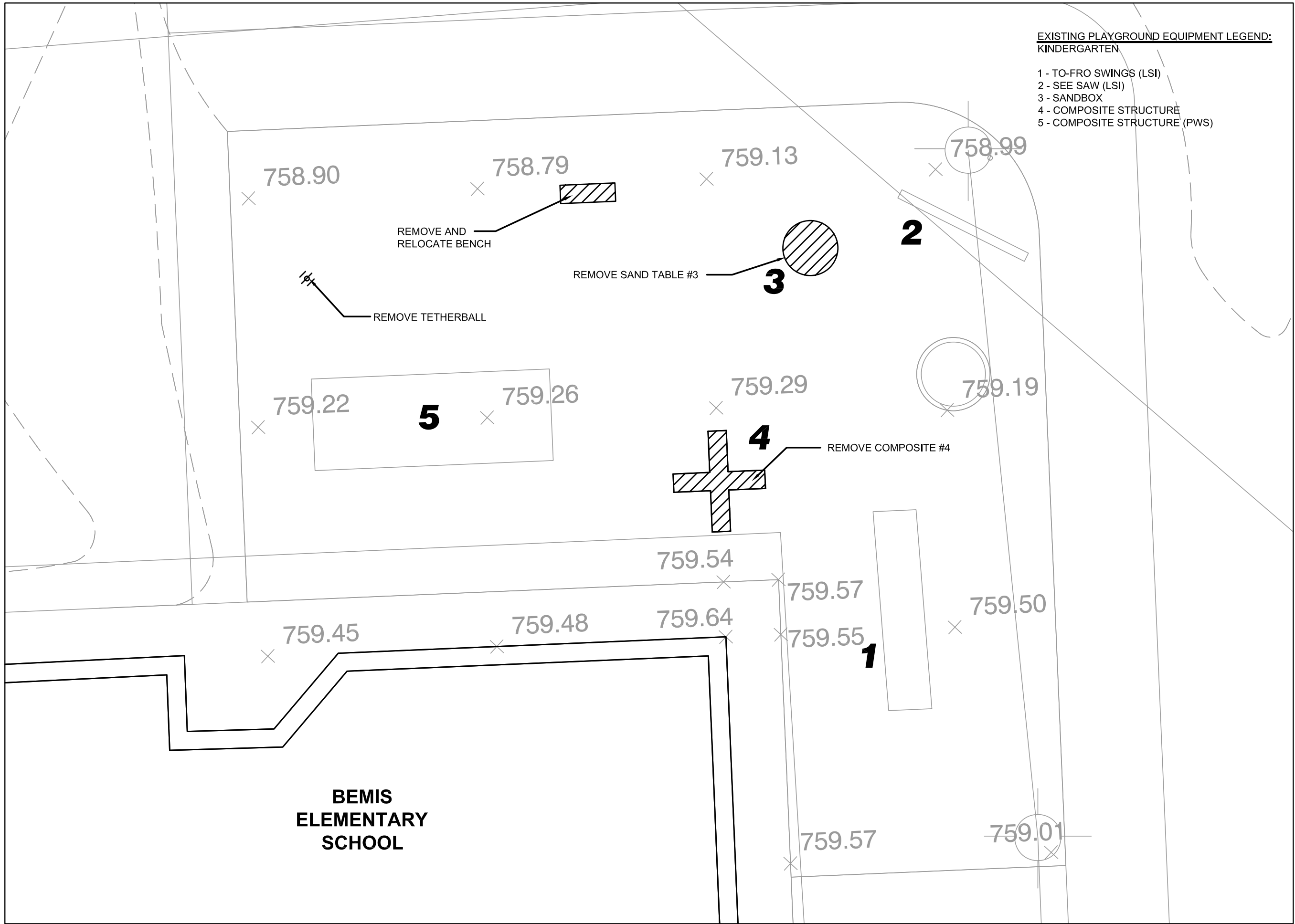
DATE: 6-20-08  
DESIGNED BY: TJJ  
CHECKED BY: REF  
DRAWN BY: KMC/TLJ/MB  
PROJECT NO.: 07044  
SCALE:  
HORIZ: NA  
VERT: NA

SHEET  
C2

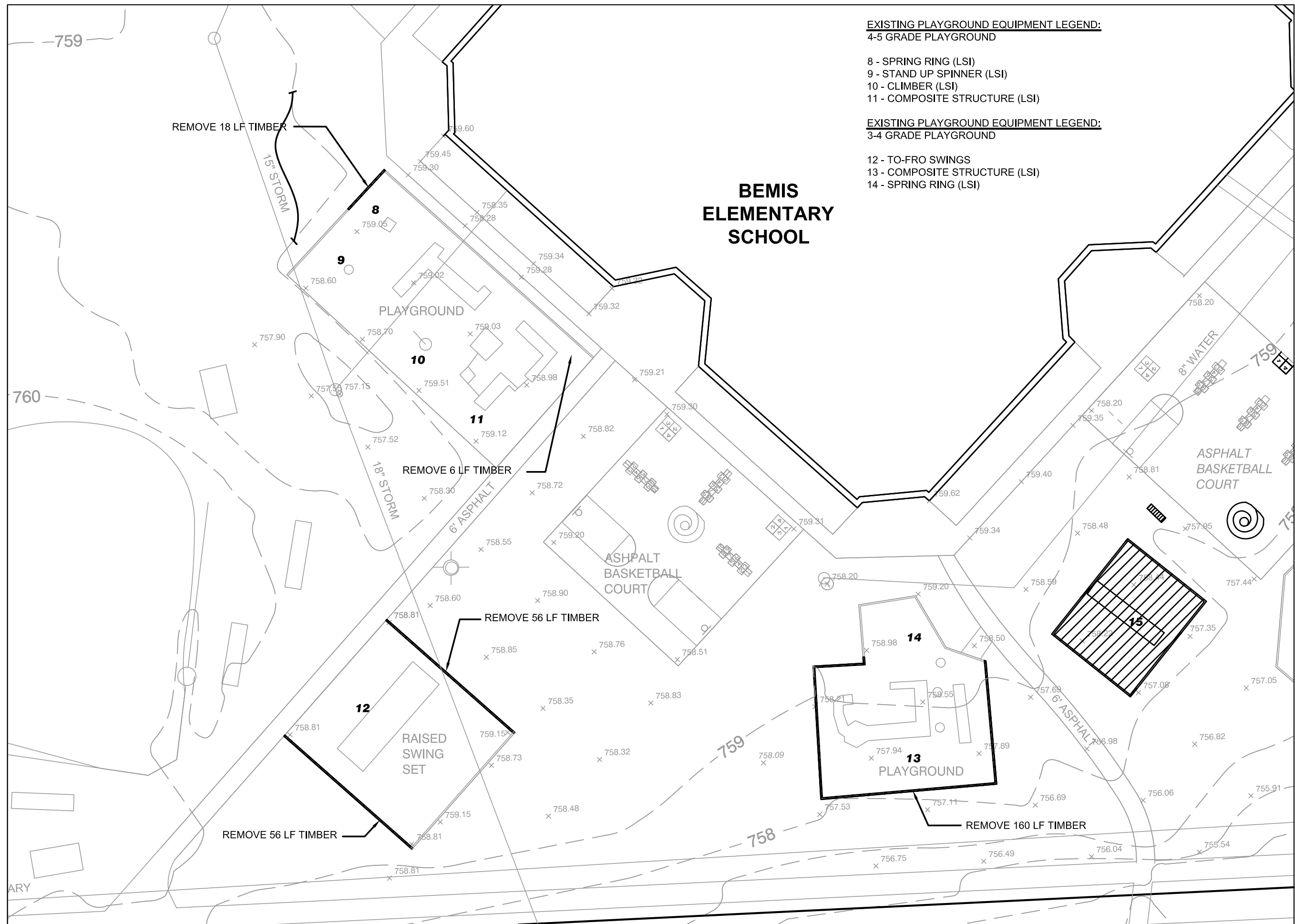




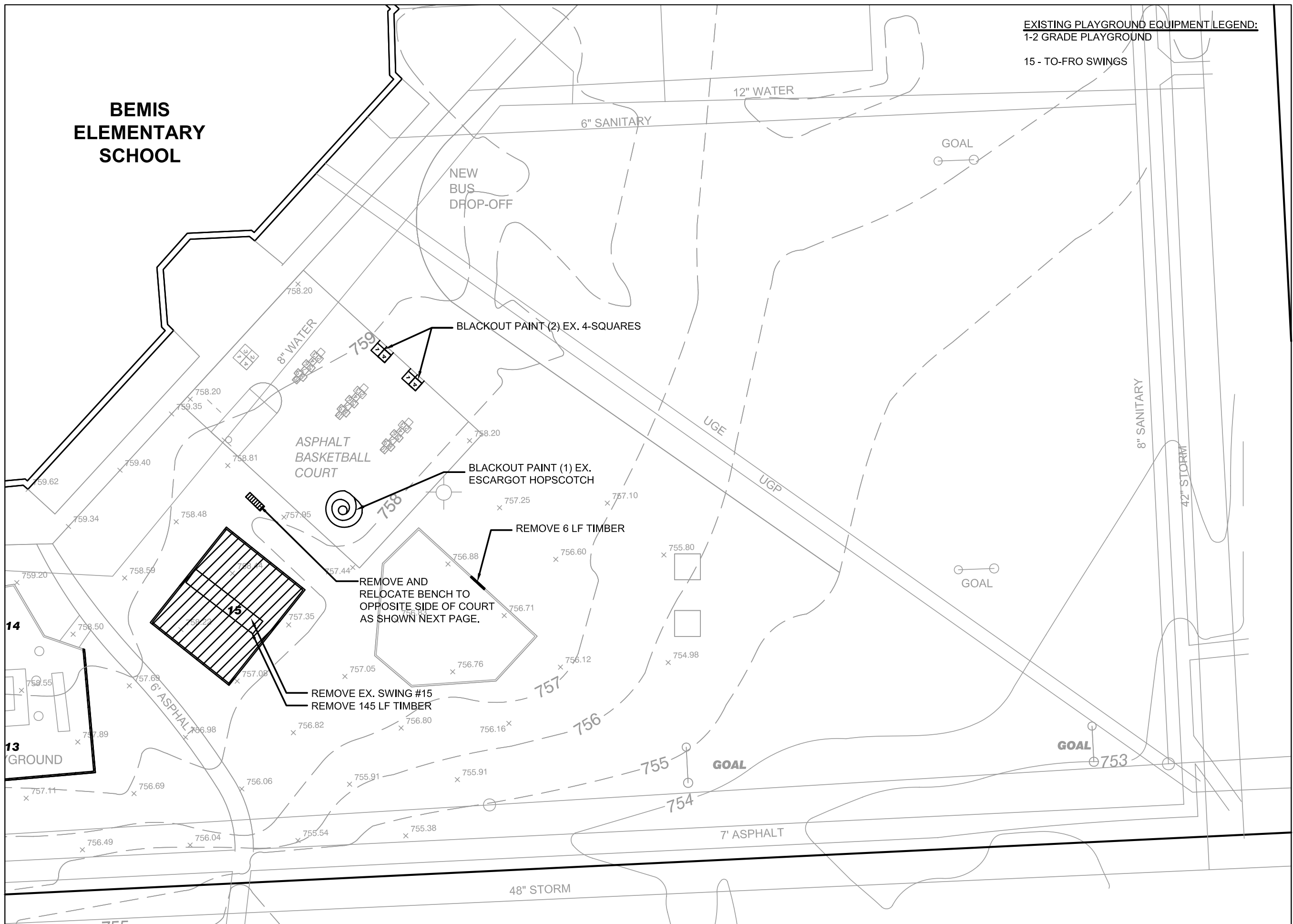
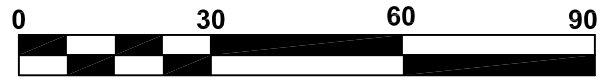
4-5 GRADE ASPHALT PLAY AREA  
SCALE: 1" = 20'



KINDERGARTEN  
SCALE: 1" = 10'



4&5 GRADE AND 3&4 PLAY AREA  
SCALE: 1" = 30'



1&2 PLAY AREA  
SCALE: 1" = 30'



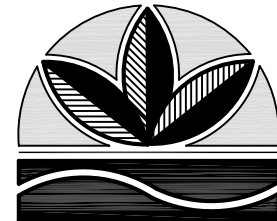
**LEGEND:**

- EXISTING BUILDING WALL
- PROPOSED DEMOLITION
- EXISTING MANHOLE
- EXISTING OVERHEAD LINE
- EXISTING UNDERGROUND ELECTRIC LINE
- EXISTING GAS LINE
- EXISTING WATER
- EXISTING STORM SEWER
- EXISTING SPOT ELEVATION
- EXISTING LIGHT
- EXISTING TREELINE
- EXISTING CONTOUR

**NOTES:**

1. ALL PLAYGROUND AREAS SCHEDULED TO BE REMOVED AND NOT REPLACED SHALL BE RESTORED TO EXISTING ADJACENT GRADE LEVEL, TOPSOIL, SEED & MULCHED.

2. SEE NEXT SHEET FOR LOCATIONS OF RELOCATED ITEMS.



**LANDSCAPE ARCHITECTS PLANNERS**  
OAKLAND CENTER  
809 CENTER STREET  
SUITE ONE  
LANSING, MI 48906  
P: (517) 485-5500  
F: (517) 485-5576  
info@lapinc.net

REVISIONS	INITIALS	DATE	COMMENTS

**TROY SCHOOL DISTRICT**  
4400 LIVERNOIS ROAD  
TROY, MICHIGAN  
248-823-4000

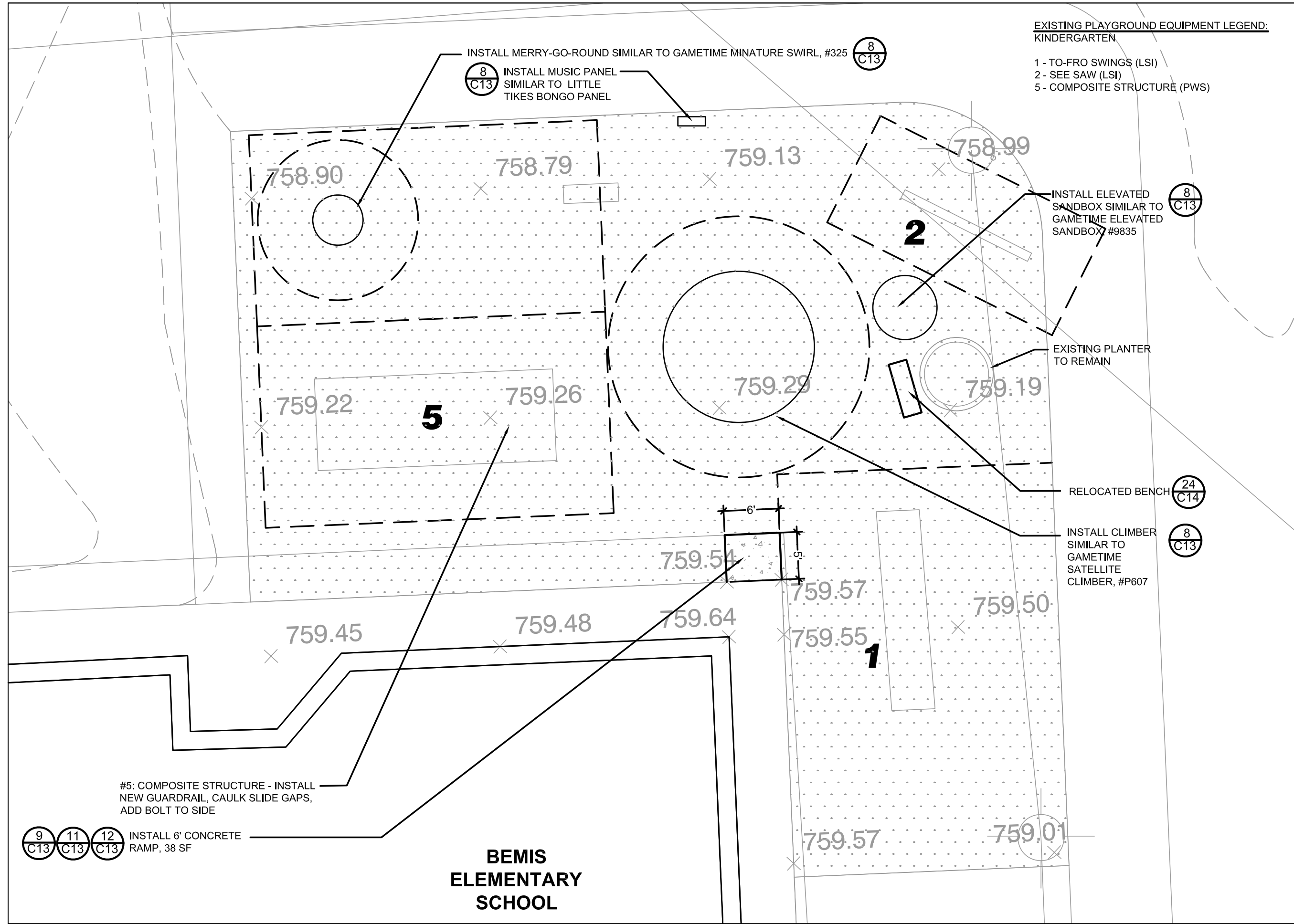
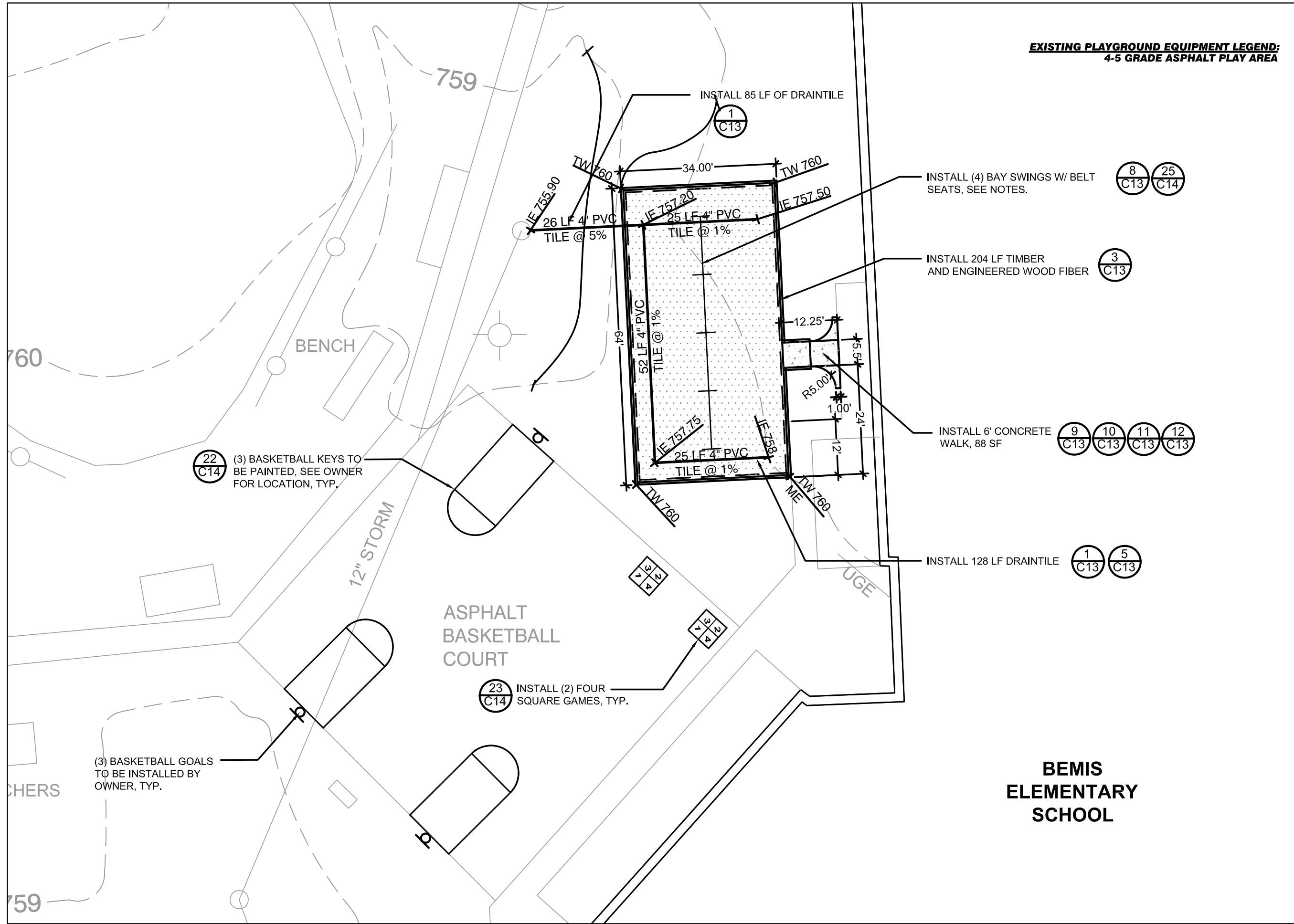
**TROY PLAYGROUND IMPROVEMENTS #1**  
**BEMIS ELEMENTARY SCHOOL**  
**DEMOLITION**  
3571 NORTHFIELD PARKWAY  
TROY, MI 48064

DATE: 6-9-08	DESIGNED BY: TJJ
CHECKED BY: REF	DRAWN BY: KMCTUJMB
PROJECT NO.: 07044	SCALE: HORIZ: NA
VERT: NA	

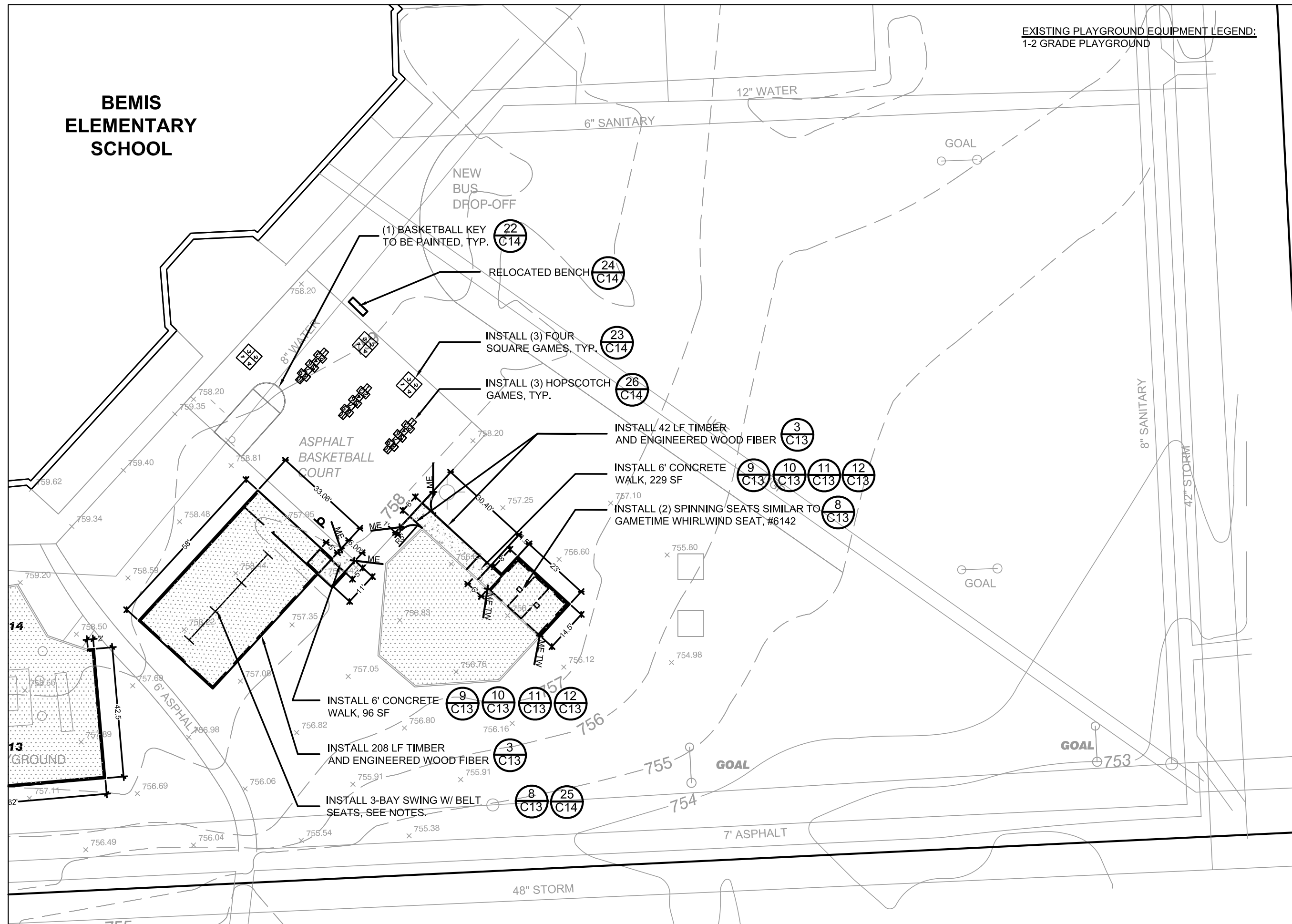
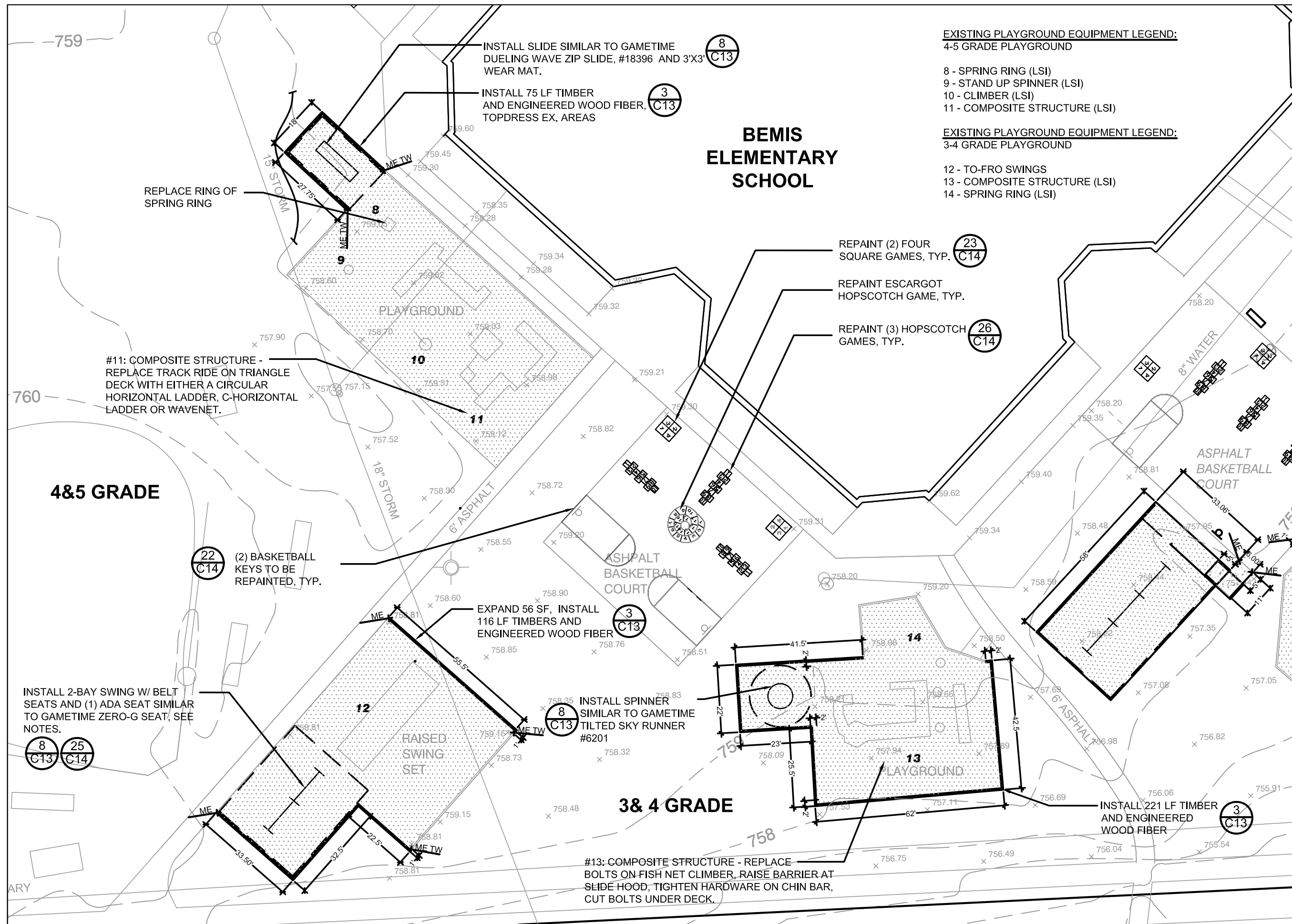
**SHEET**  
C3







- NOTES:**
- ALL SWINGS TO BE SINGLE POST SWING #1228374 WITH GALVANIZED CHAINS AND BELT SEATS #132385A MANUFACTURED BY LANDSCAPE STRUCTURES. WEAR MATS TO BE INSTALLED UNDER ALL SWINGS.
  - ALL ENGINEERED WOOD FIBER AREAS SHOWN ON PLANS TO BE 12" COMPACTED DEPTH FOR NEW PLAYGROUND AREAS AND 4" TOPDRESS FOR ALL EXISTING PLAYGROUND AREAS UNLESS OTHERWISE SPECIFIED. 15" UNCOMPACTED TO EQUAL 12" COMPACTED.
  - ALL DISTURBED LAWN AREAS SHALL BE RESTORED. SEE DETAIL 18, SHEET C14.
  - CROSS SLOPES ON ALL CONCRETE WALKS AND PAVEMENTS SHALL BE MIN. 1% AND MAX. 2%. SLOPE IN DIRECTION OF TRAVEL NOT TO EXCEED 5%.
  - ALL PLAYGROUND AREAS SCHEDULED TO BE REMOVED AND NOT REPLACED SHALL BE RESTORED TO EXISTING ADJACENT GRADE LEVEL. TOPSOIL, SEED & MULCHED.
- LEGEND:**
- EXISTING BUILDING WALL
  - EXISTING MANHOLE
  - EXISTING OVERHEAD LINE
  - EXISTING UNDERGROUND ELECTRIC LINE
  - EXISTING SPOT ELEVATION
  - EXISTING LIGHT
  - EXISTING TREELINE
  - EXISTING CONTOUR
  - EXISTING FENCE
  - EXISTING WATER LINE
  - EXISTING GAS LINE
  - PROPOSED CONTOUR
  - PROPOSED CENTERLINE
  - PROPOSED SPOT ELEVATION
  - PROPOSED DRAINAGE
  - DETAIL NUMBER
  - DETAIL SHEET NUMBER
  - PLAYGROUND EQUIPMENT SAFETY ZONE
  - PROPOSED CONCRETE
  - PROPOSED ENGINEERED WOOD FIBER
- ME = MATCH EXISTING ELEVATION  
TW = TOP OF WALL  
BW = BOTTOM OF WALL



**LANDSCAPE ARCHITECTS PLANNERS**

OAKLAND CENTER  
809 CENTER STREET  
SUITE ONE  
LANSING, MI 48906  
P: (517) 485-5500  
F: (517) 485-5576  
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REVISIONS	INITIALS	DATE	COMMENTS

**TROY SCHOOL DISTRICT**  
4400 LIVERNOIS ROAD  
TROY, MICHIGAN  
248-823-4000

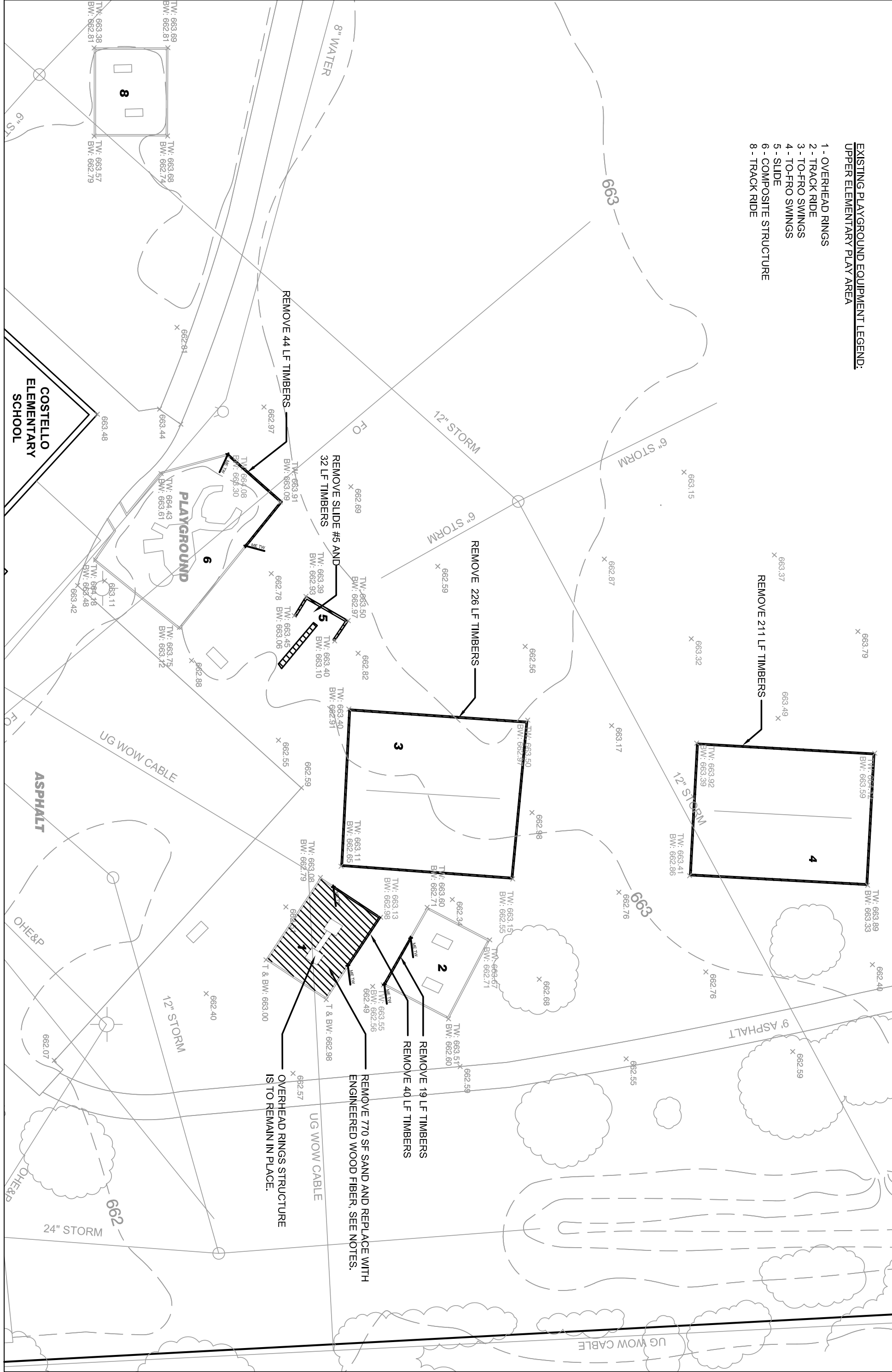
**TROY PLAYGROUND IMPROVEMENTS #1**  
**BEMIS ELEMENTARY SCHOOL**  
**LAYOUT PLAN**  
3571 NORTHFIELD PARKWAY  
TROY, MI 48064

DATE: 09-08	DESIGNED BY: TJJ
CHECKED BY: REF	DRAWN BY: KMCTUJMB
PROJECT NO. 07044	SCALE: HORIZ. NA
VERT. NA	

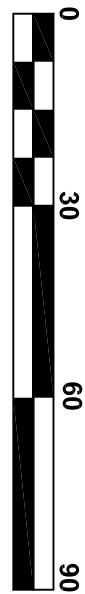
**SHEET**  
C4



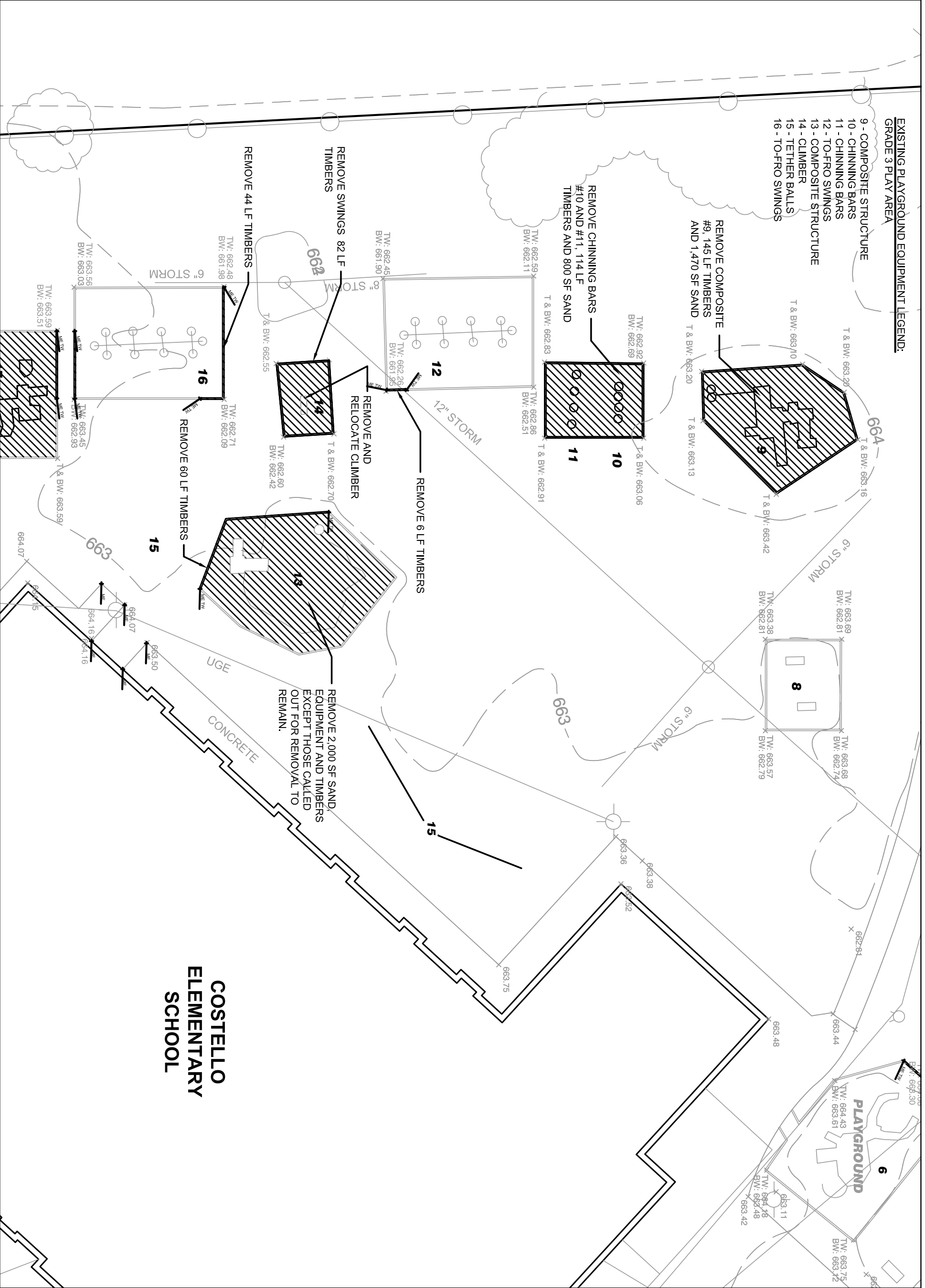
- EXISTING PLAYGROUND EQUIPMENT LEGEND:  
1- OVERHEAD RINGS  
2- TRACK RIDE  
3- TO-FRO SWINGS  
4- TO-FRO SWINGS  
5- SLIDE  
6- COMPOSITE STRUCTURE  
8- TRACK RIDE



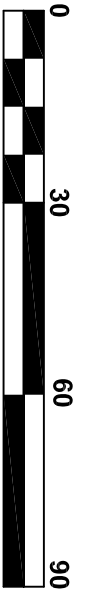
UPPER ELEMENTARY PLAY AREA  
SCALE: 1" = 30'



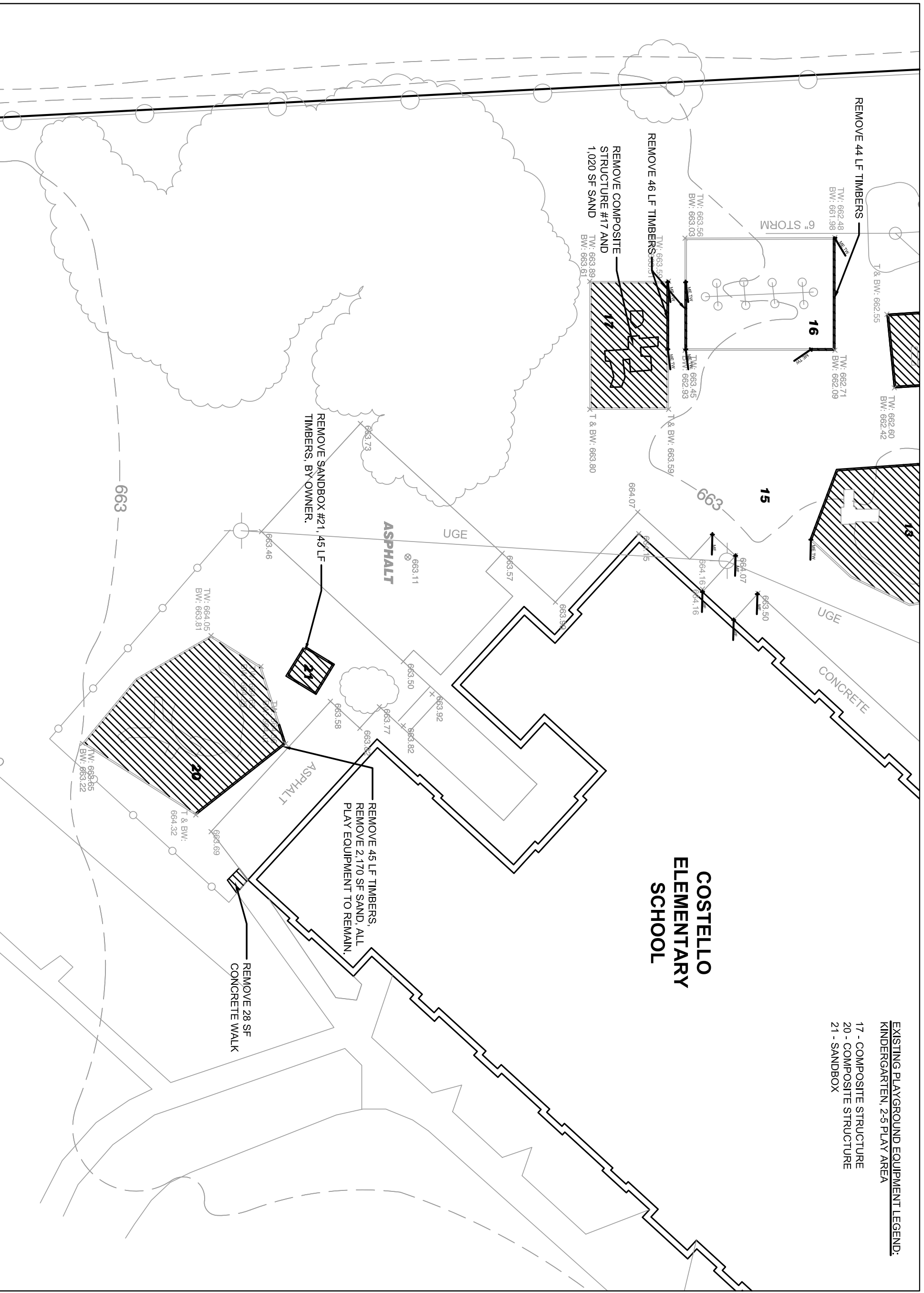
- EXISTING PLAYGROUND EQUIPMENT LEGEND:  
9- COMPOSITE STRUCTURE  
10- CHANNING BARS  
11- CHANNING BARS  
12- TO-FRO SWINGS  
13- COMPOSITE STRUCTURE  
14- TETHER BALLS  
15- TETHER BALLS  
16- TO-FRO SWINGS



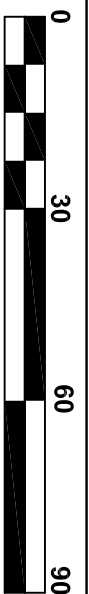
GRADE 3 PLAY AREA  
SCALE: 1" = 20'



- EXISTING PLAYGROUND EQUIPMENT LEGEND:  
17- COMPOSITE STRUCTURE  
20- COMPOSITE STRUCTURE  
21- SANDBOX



KINDERGARTEN, 2.5 PLAY AREA  
SCALE: 1" = 30'



- NOTES:  
1. ALL PLAYGROUND AREAS SCHEDULED TO BE  
REMOVED AND NOT REPLACED SHALL BE RESTORED  
TO EXISTING ADJACENT GRADE LEVEL, TOPSOIL, SEED  
& MULCHED.  
2. SEE NEXT SHEET FOR LOCATIONS OF RELOCATED  
ITEMS.

- LEGEND:  
EXISTING BUILDING WALL  
PROPOSED DEMOLITION  
EXISTING MANHOLE  
EXISTING OVERHEAD LINE  
EXISTING UNDERGROUND  
EXISTING GAS LINE  
EXISTING WATER  
EXISTING STORM SEWER  
EXISTING SPOT ELEVATION  
EXISTING LIGHT  
EXISTING TIE LINE  
EXISTING CONTOUR



TROY SCHOOL DISTRICT  
4400 LIVERNOIS ROAD  
TROY, MICHIGAN  
248-823-4000

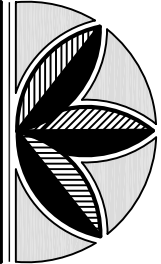
TROY PLAYGROUND IMPROVEMENTS #1  
COSTELLO ELEMENTARY SCHOOL  
DEMOLITION PLAN  
1333 HAMMAN DRIVE  
TROY, MI 48065

DATE: 6-9-08  
DESIGNED BY: TJJ  
CHECKED BY: REF  
DRAWN BY: KMC/BAB  
PROJECT NO: 07044  
SCALE:  
HORIZ: 1" = 40'  
VERT: NA

SHEET  
C5

LANDSCAPE  
ARCHITECTS  
PLANNERS  
800 CENTER STREET  
SUITE ONE  
LANSING, MI 48206  
P: (313) 485-5578  
F: (313) 485-5578  
info@lbnhc.net





**LANDSCAPE ARCHITECTS**  
**PLANNERS**

OAKLAND CENTER  
809 SUITE ONE  
LANSING, MI 48206  
P: (313) 466-5578  
info@landarc.net

REVISIONS		
INITIALS	DATE	COMMENTS

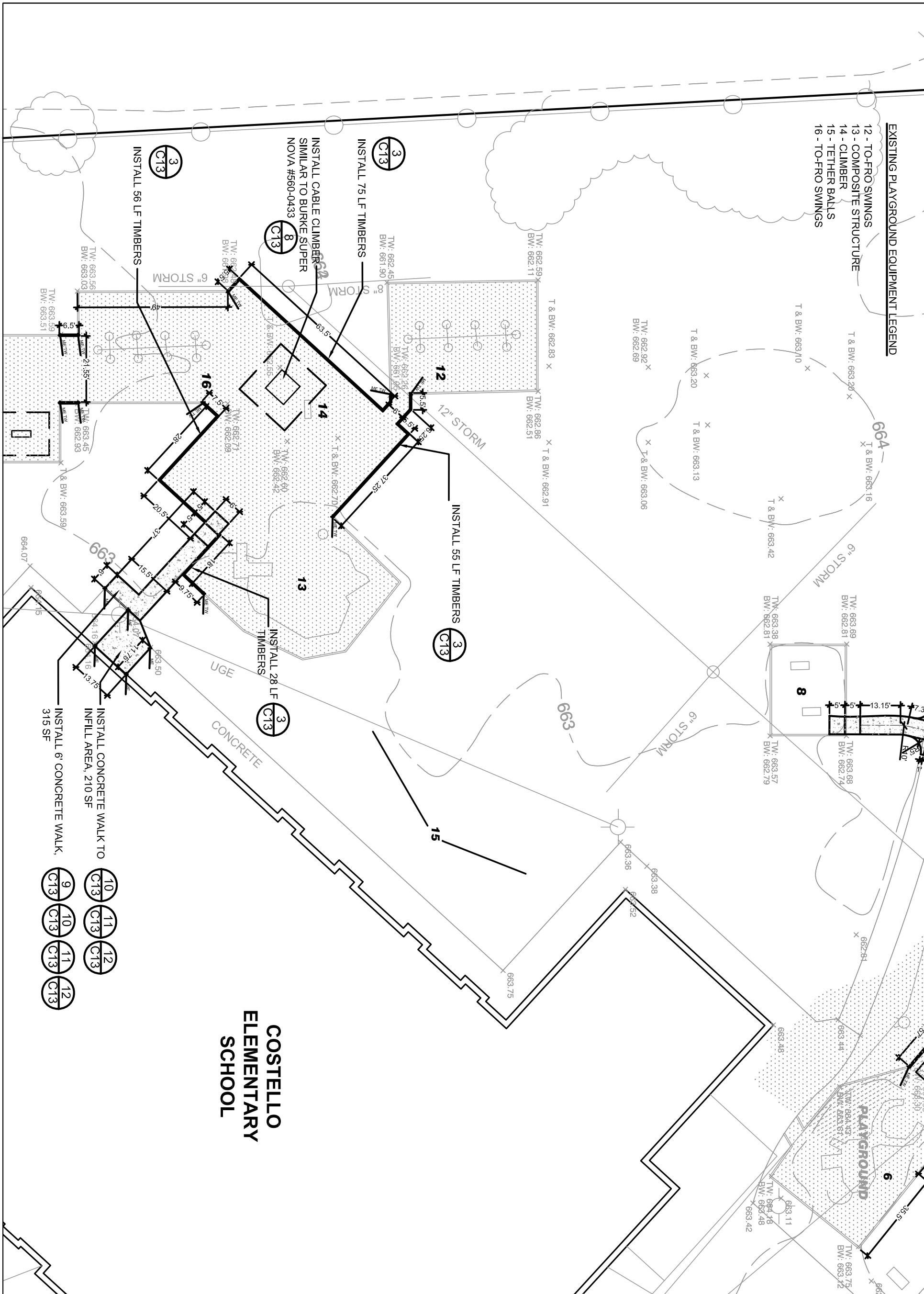
**TROY SCHOOL DISTRICT**  
4400 LIVERNOIS ROAD  
TROY, MICHIGAN  
248-823-4000

**TROY PLAYGROUND IMPROVEMENTS #1**  
**COSTELLO ELEMENTARY SCHOOL**  
**LAYOUT PLAN**  
1333 HAMMAN DRIVE  
TROY, MI 48065

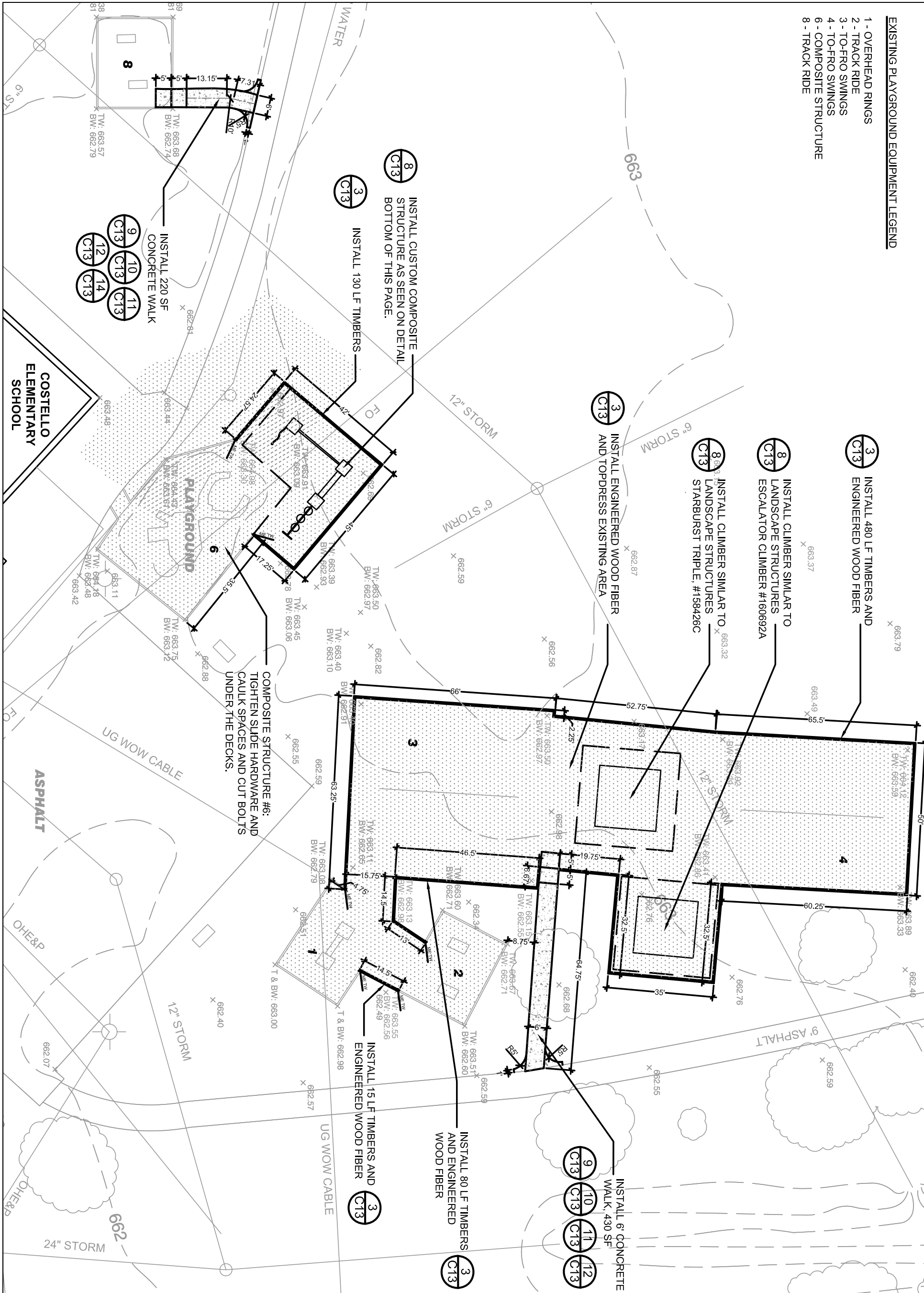
DATE: 6-9-08  
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PROJECT NO: 07044  
SCALE:  
HORIZ: NA  
VERT: NA

SHEET  
C6

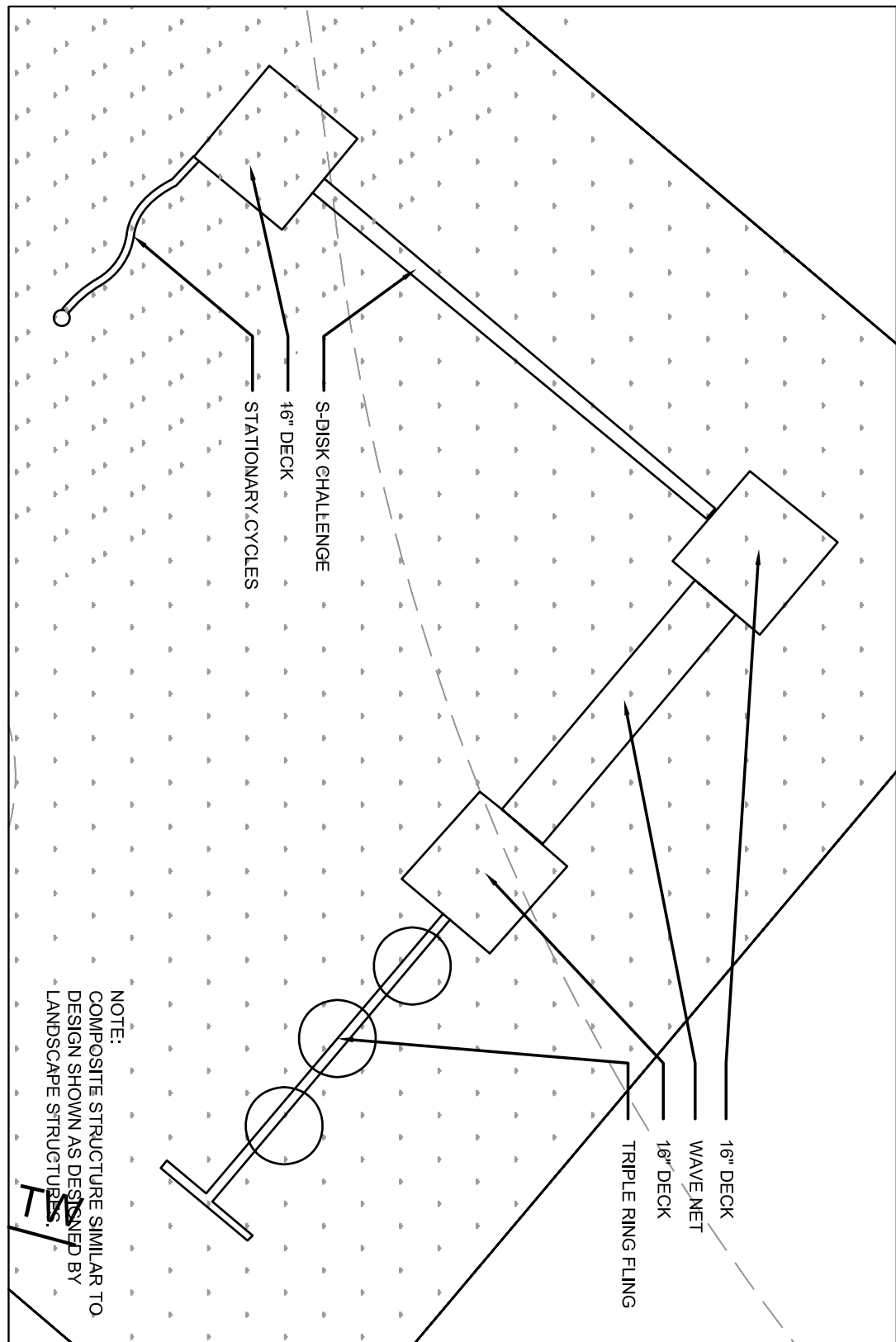
- NOTES:**
- ALL SWINGS TO BE SINGLE POST SWINGS #123674 WITH GALVANIZED CHAINS AND BELT SEATS #132864 MANUFACTURED BY LANDSCAPE STRUCTURES. WECA (MI) IS TO BE INSTALLED UNDER ALL SWINGS.
  - ALL ENGINEERED WOOD FIBER AREAS SHOWN ON PLAYGROUND AREAS AND 4" TOPRESS FOR ALL EXISTING PLAYGROUND AREAS UNLESS OTHERWISE SPECIFIED OR UNCOMPACTED TO EQUAL 12" COMPACTED.
  - ALL DISTURBED LAWN AREAS SHALL BE RESTORED. SEE DETAIL 16, SHEET 014.
  - CROSS SLOPES ON ALL CONCRETE WALKS AND PAVEMENTS SHALL BE MIN. 1% AND MAX. 2% SLOPE IN DIRECTION OF DRAINAGE. NOT TO EXCEED 0.0%.
  - ALL PLAYGROUND AREAS SCHEDULED TO BE RESTORED TO EXISTING ADJACENT GRADE LEVEL. TOPSOIL, SEED & MULCHED.
- LEGEND:**
- EXISTING BUILDING WALL
  - EXISTING MANHOLE
  - EXISTING OVERHEAD LINE
  - EXISTING UNDERGROUND
  - ELECTRIC LINE
  - 6.97' 9.0'
  - EXISTING SPOT ELEVATION
  - EXISTING LIGHT
  - EXISTING TREELINE
  - EXISTING CONTOUR
  - EXISTING FENCE
  - WATER
  - EXISTING WATER LINE
  - EXISTING GAS LINE
  - 6.87' 6.87'
  - PROPOSED CENTERLINE
  - PROPOSED SPOT ELEVATION
  - 6.87' 5.6'
  - PROPOSED DRAINAGE
  - DETAIL NUMBER
  - PLAYGROUND EQUIPMENT
  - SAFETY ZONE
  - PROPOSED CONCRETE
  - PROPOSED ENGINEERED WOOD FIBER
  - ME - MATCH EXISTING ELEVATION
  - BW - BOTTOM OF WALL



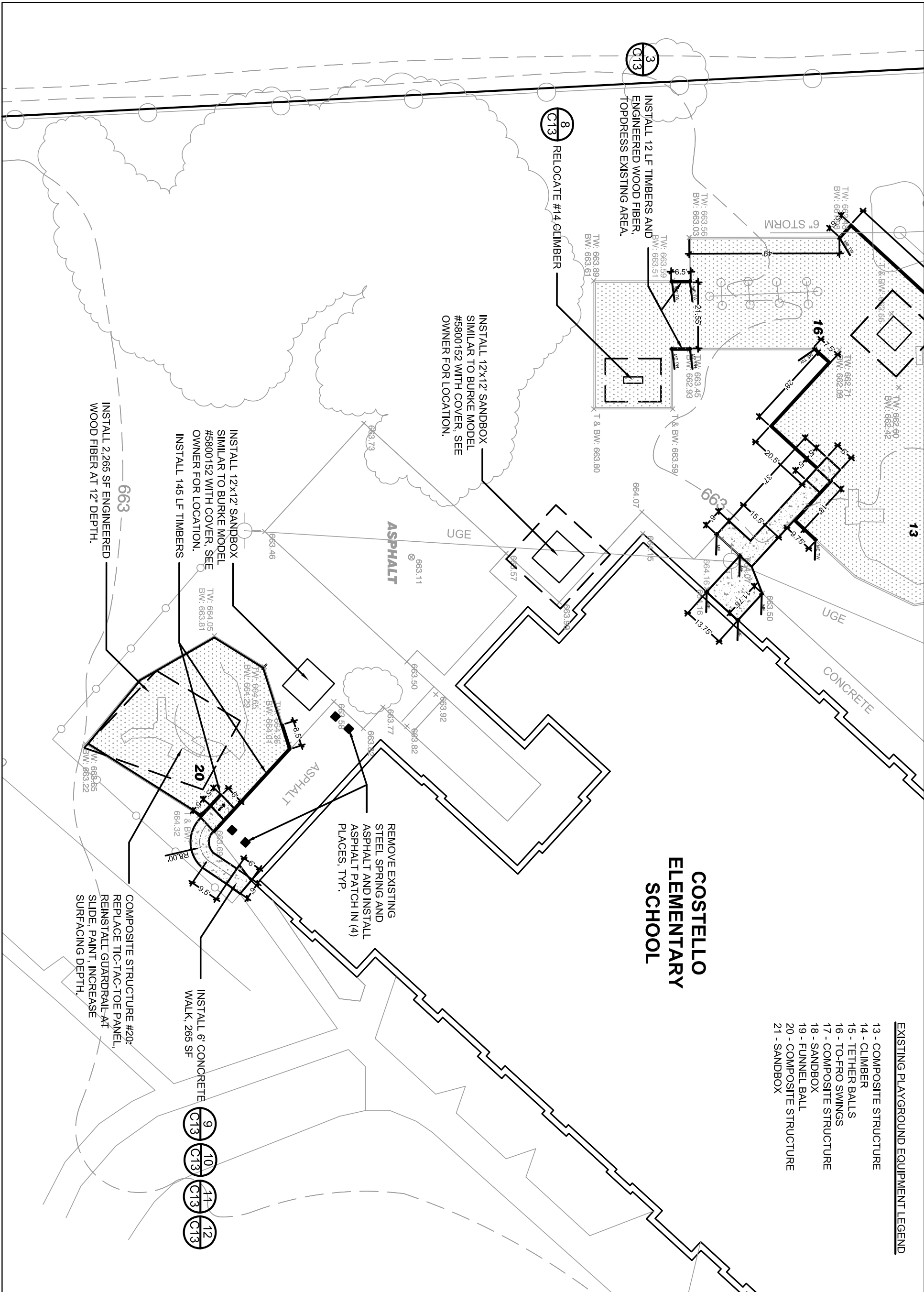
**GRADE 3 PLAY AREA**  
SCALE: 1" = 20'



**UPPER ELEMENTARY PLAY AREA**  
SCALE: 1" = 30'



**UPPER ELEMENTARY COMPOSITE**  
NOTE TO SCALE



**KINDERGARTEN 2.5 PLAY AREA**  
SCALE: 1" = 30'







EXISTING PL PLAYGROUND EQUIPMENT LEGEND:  
KINDERGARTEN

- 1 - COMPOSITE STRUCTURE
- 2 - STAND UP SPINNER
- 3 - STAND UP SPINNER
- 4 - COMPOSITE STRUCTURE
- 5 - TREE TRUCK CLIMBER

LIGHTPOLE BASE:  
812.19

811.7

SBC TELEPHONE

2

W

UGF

3

4

5

REPLACE SPIRAL SLIDE ON S DECK. CAULK GAP IN REMAINING SLIDE. REMOVE WAVY PANEL. REUSE STORMPOOP PANEL.

TW: 812.94

812.8

812.74

812.68

812.74

812.74

812.74

812.74

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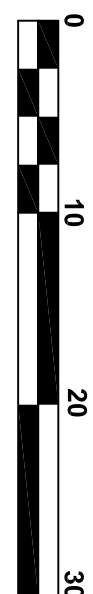
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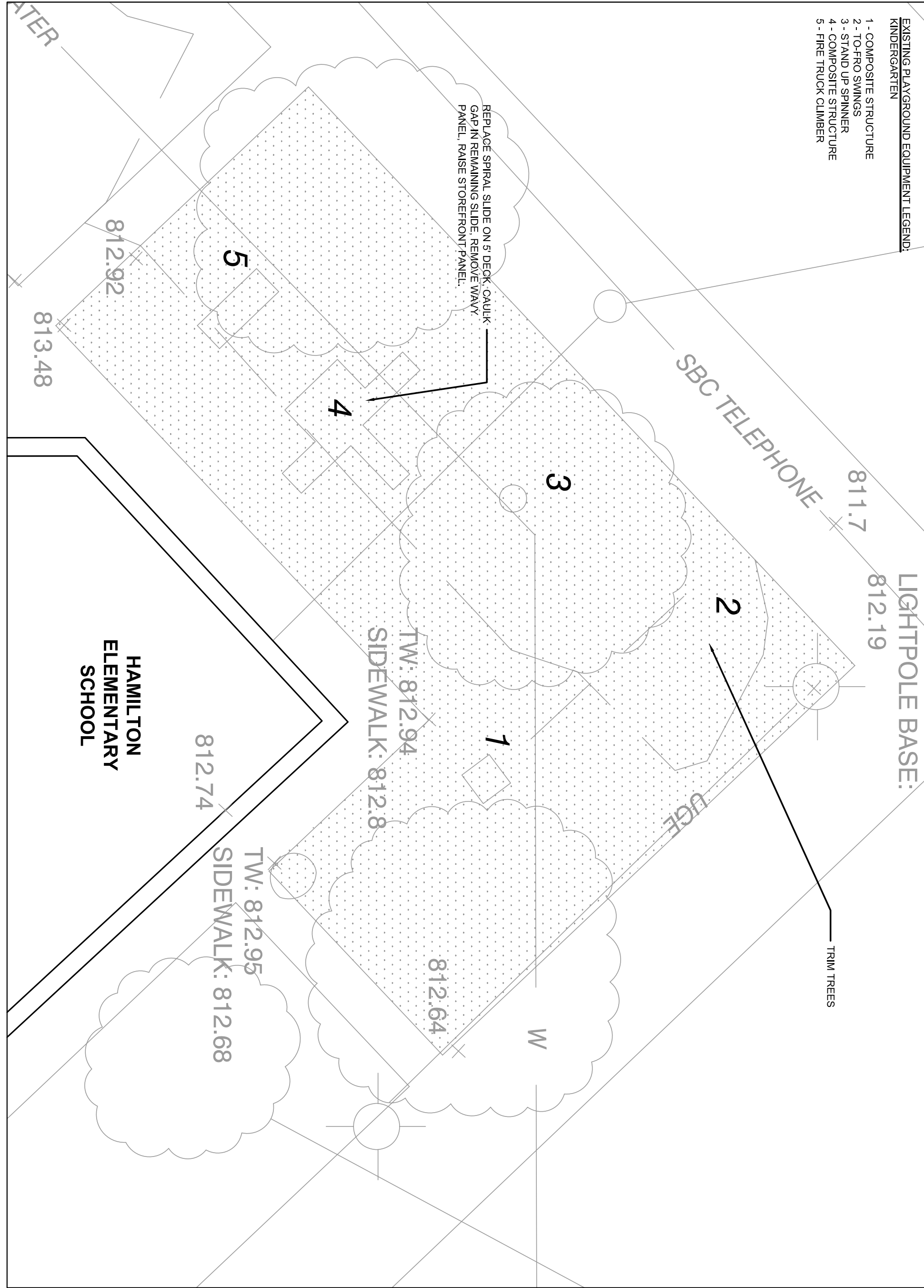
812.74

812.74



KINDERGARTEN

SCALE: 1" = 10'



EXISTING PL PLAYGROUND EQUIPMENT LEGEND:  
4-5 GRADE

- 6 - STAND UP SPINNER
- 7 - COMPOSITE STRUCTURE
- 8 - SPRING RING
- 10 - TO-FRO SWINGS

LOWER TRACK RIDE

810

810.16

810.8

810.76

810.65

810.55

810.45

810.35

810.25

810.15

810.05

810.00

810.00

810.00

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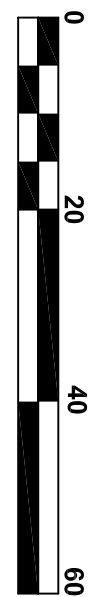
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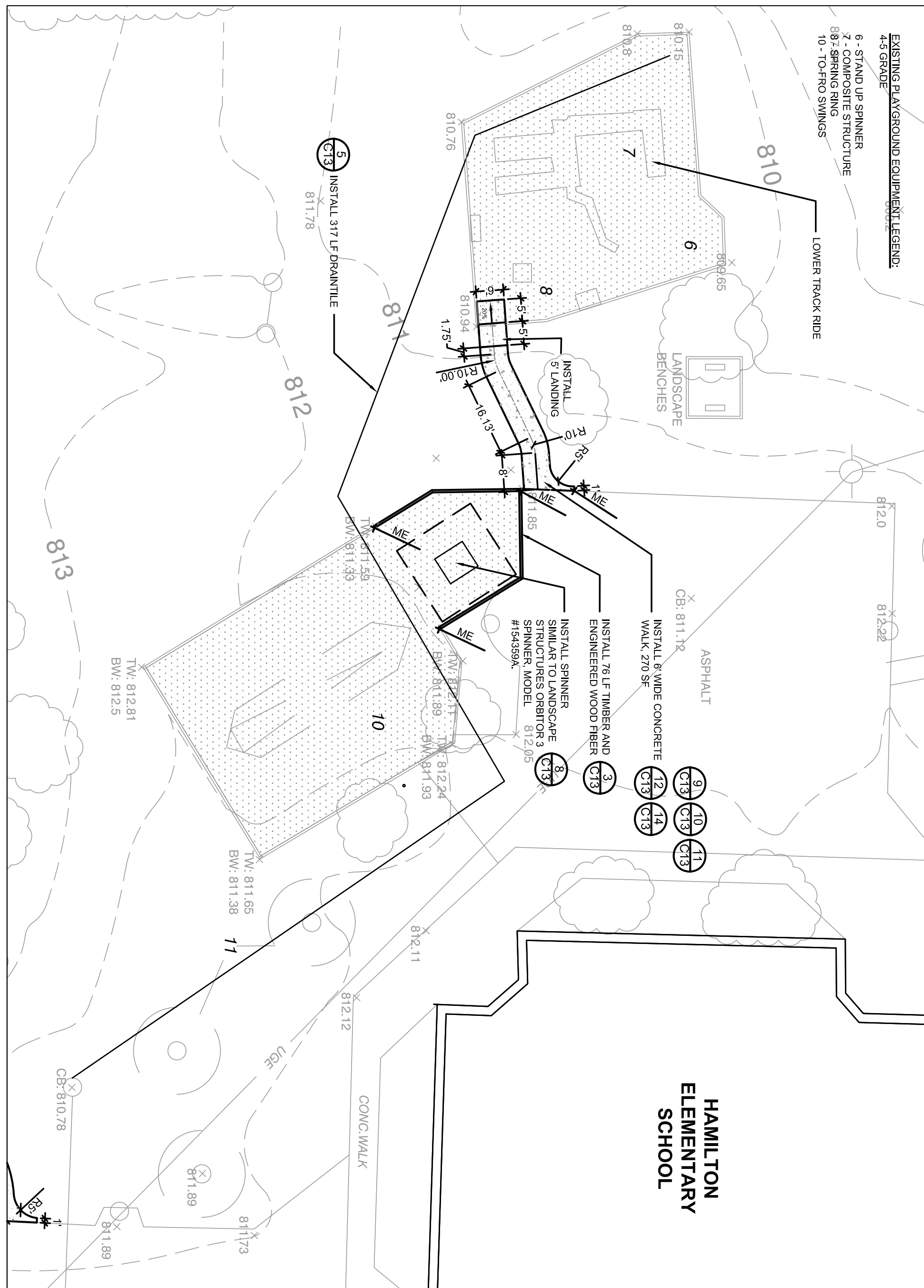
810.00

810.00



4-5 GRADE

SCALE: 1" = 20'



NOTES:  
1. ALL SWINGS TO BE SUE'S FIRST SWINGS #122874 WITH GALVANIZED CHAINS AND BELT SEATS #132864 MANUFACTURED BY LANDSCAPE STRUCTURES. WEAR MATS TO BE INSTALLED UNDER ALL SWINGS.  
2. ALL ENGINEERED WOOD FIBER AREAS SHOWN ON PLAYGROUND AREAS AND AT TOP PRESS FOR ALL EXISTING PLAYGROUND AREAS UNLESS OTHERWISE SPECIFIED. IF UNCOMPACTED TO EQUAL 1.2' COMPACTED.  
3. ALL DISTURBED LAWN AREAS SHALL BE RESTORED. SEE DETAIL 16, SHEET C14.  
4. CROSS SLOPES ON ALL CONCRETE WALKS AND PAVEMENTS SHALL BE MIN. 1% TO MAX. 2% SLOPE IN DIRECTION OF DRAINAGE. EXCEED 2% SLOPE IN DIRECTION OF DRAINAGE SHALL BE REDESIGNED TO EXISTING DRAINAGE GRADE LEVEL. (W/SHOULDER & MULCHED).  
5. ALL PLAYGROUND AREAS SCHEDULED TO BE RESTORED TO EXISTING DRAINAGE GRADE LEVEL. (W/SHOULDER & MULCHED).

LEGEND:

- EXISTING BUILDING WALL
- EXISTING MANHOLE
- EXISTING OVERHEAD LINE
- EXISTING UNDERGROUND
- EXISTING LIGHT
- EXISTING TREE LINE
- EXISTING FENCE
- EXISTING WATER LINE
- EXISTING GAS LINE
- PROPOSED CENTRAL LINE
- PROPOSED SPOT ELEVATION
- PROPOSED DRAINAGE
- DETAIL NUMBER
- PLAYGROUND EQUIPMENT
- SAFETY ZONE
- PROPOSED CONCRETE
- PROPOSED ENGINEERED WOOD FIBER
- ME = MATCH EXISTING ELEVATION
- BW = BOTTOM OF WALL



L LANDSCAPE  
ARCHITECTS  
PLANNERS

OAKLAND CENTER  
809 SUITE ONE  
LANSING, MI 48206  
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F: (313) 485-5578  
Info@landscapc.net

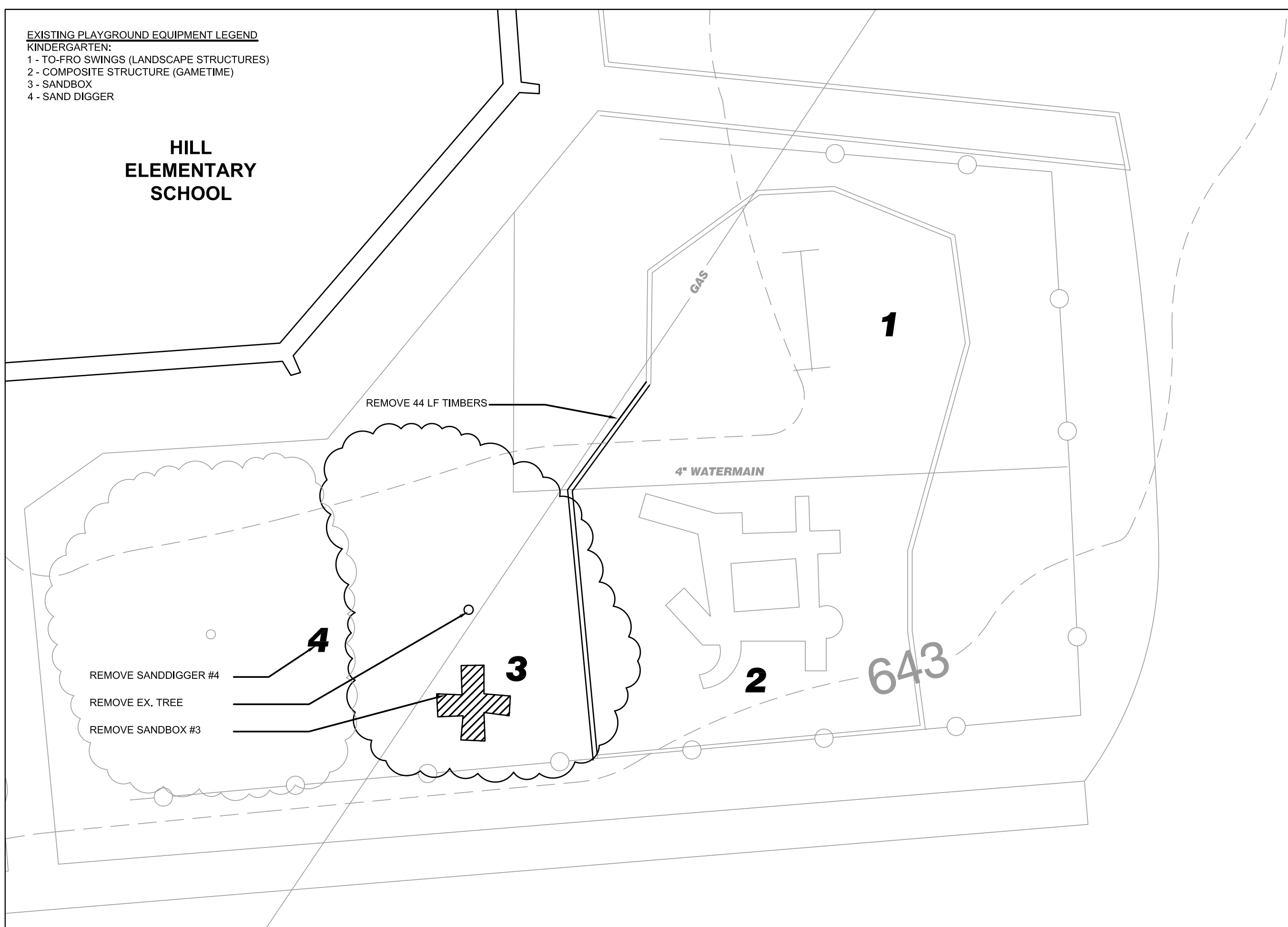
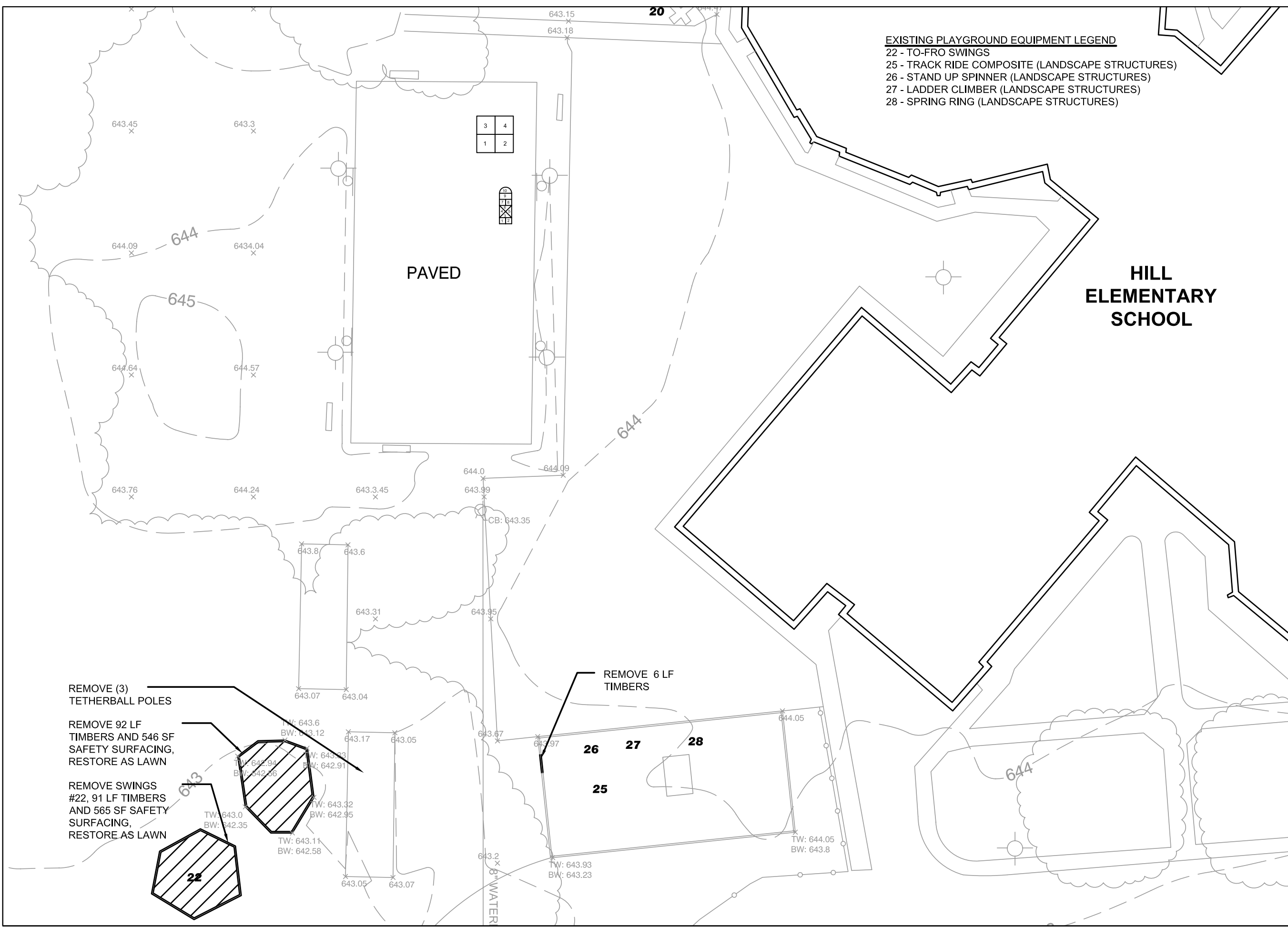
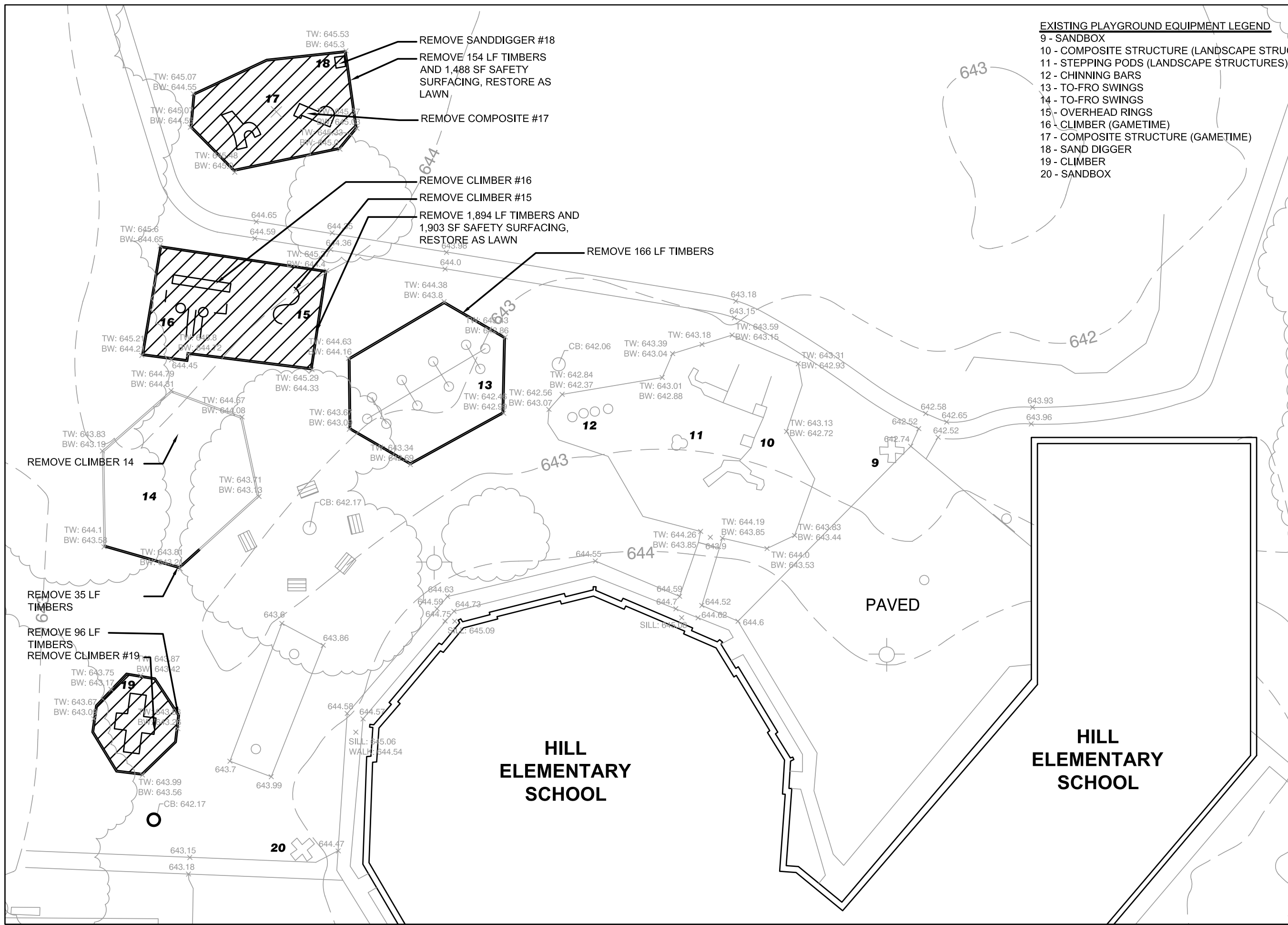
REVISIONS		
INITIALS	DATE	COMMENTS

TROY SCHOOL DISTRICT  
4400 LIVERNOIS ROAD  
TROY, MICHIGAN  
248-823-4000

TROY PLAYGROUND IMPROVEMENTS #1  
HAMILTON ELEMENTARY SCHOOL  
LAYOUT PLAN  
5625 NORTHFIELD PARKWAY  
TROY, MI 48098

DATE: 6-9-08  
DESIGNED BY: TJJ  
CHECKED BY: REF  
DRAWN BY: KMC/TJJ/BAB  
PROJECT NO: 07044  
SCALE: NA  
HORIZ: NA  
VERT: NA

SHEET  
C8



REVISIONS	DATE	COMMENTS
INITIALS		

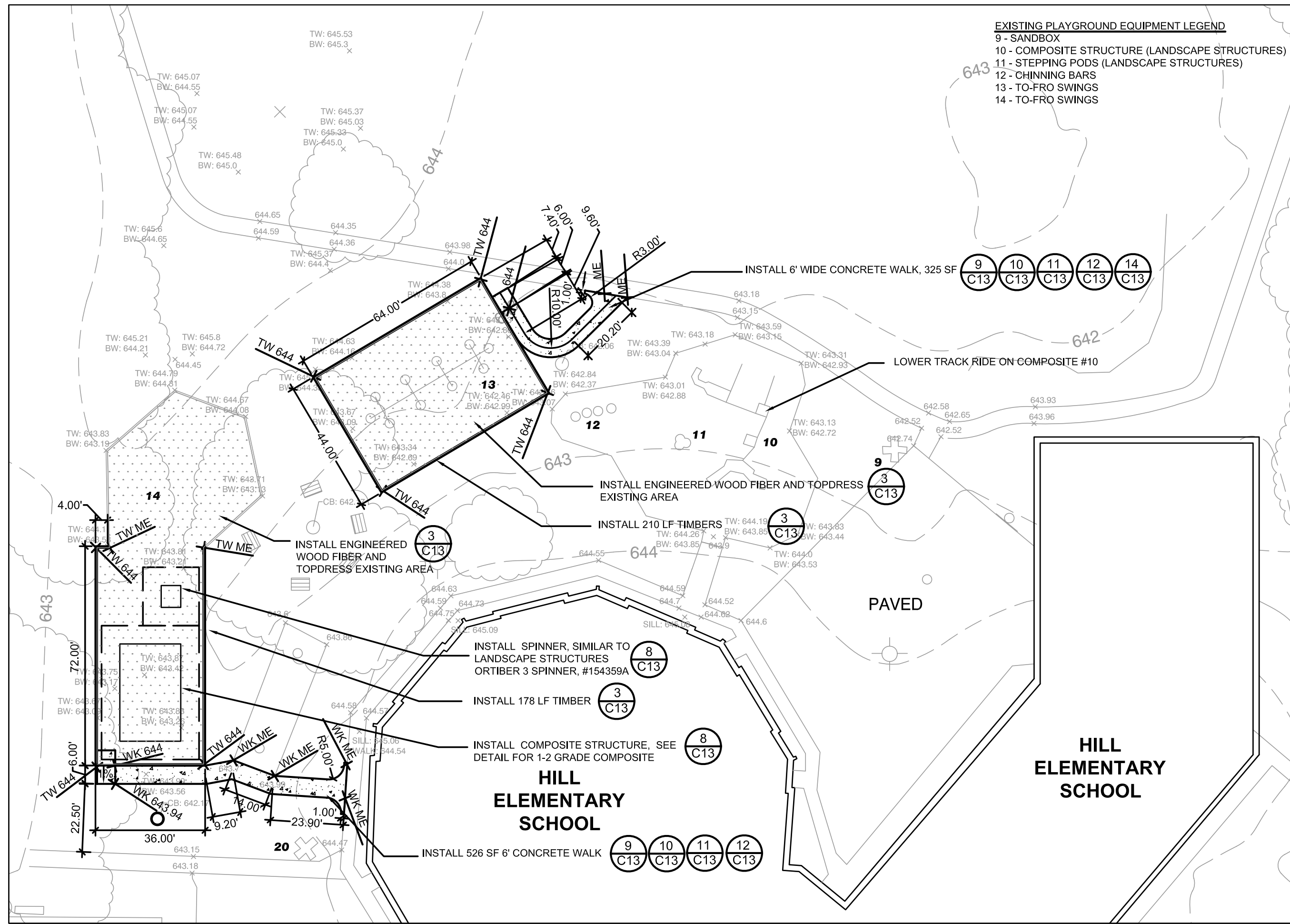
**TROY SCHOOL DISTRICT**  
4400 LIVERNOIS ROAD  
TROY, MICHIGAN  
248-823-4000

**TROY PLAYGROUND IMPROVEMENTS #1**  
**HILL ELEMENTARY SCHOOL**  
**DEMOLITION PLAN**  
4600 FORSYTH DRIVE  
TROY, MI 48065

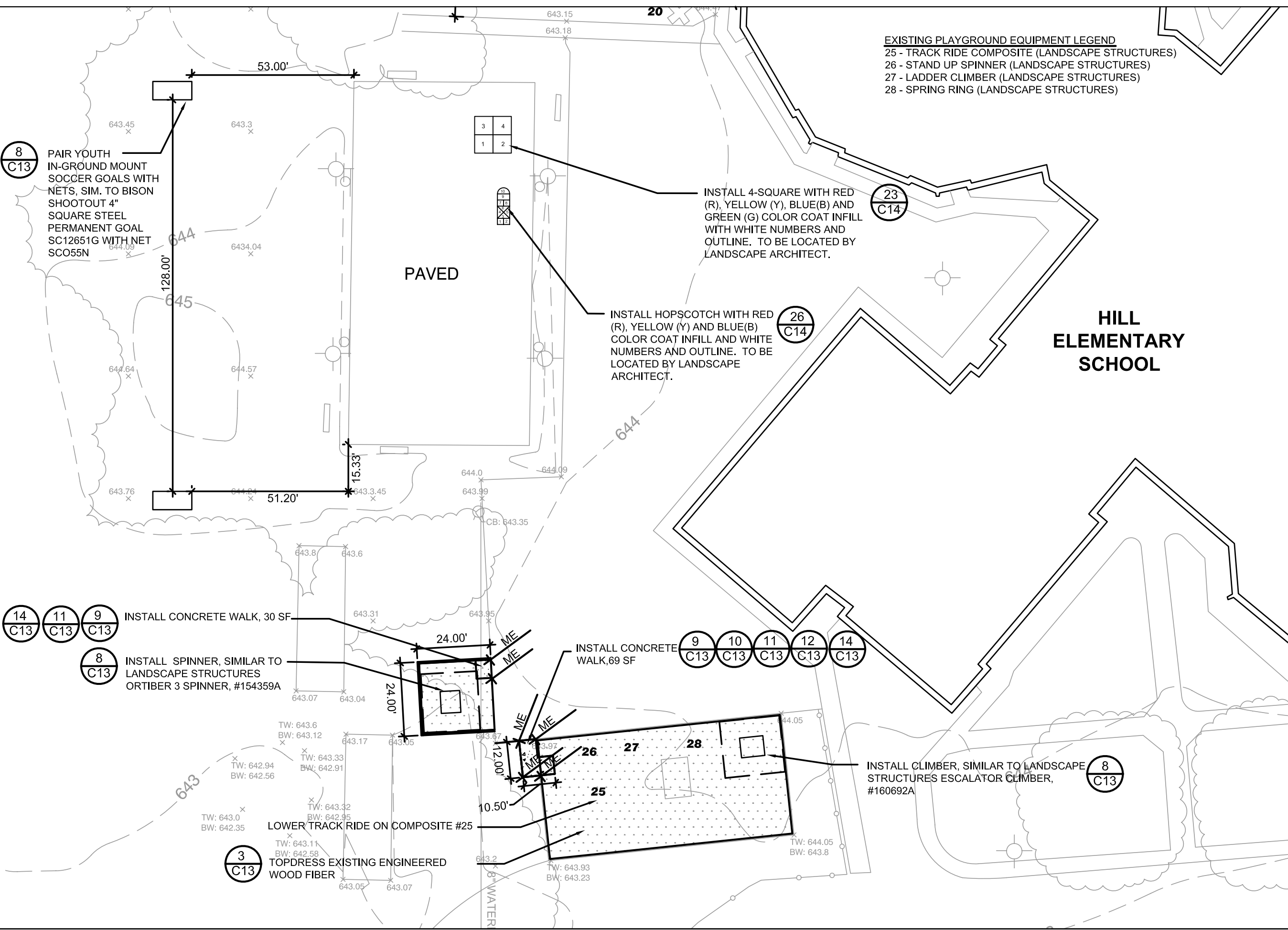
DATE: 6-8-08	DESIGNED BY: TJJ
CHECKED BY: REF	DRAWN BY: KMC/TJJ
PROJECT NO: 07044	SCALE: NA
HORIZ: NA	VERT: NA



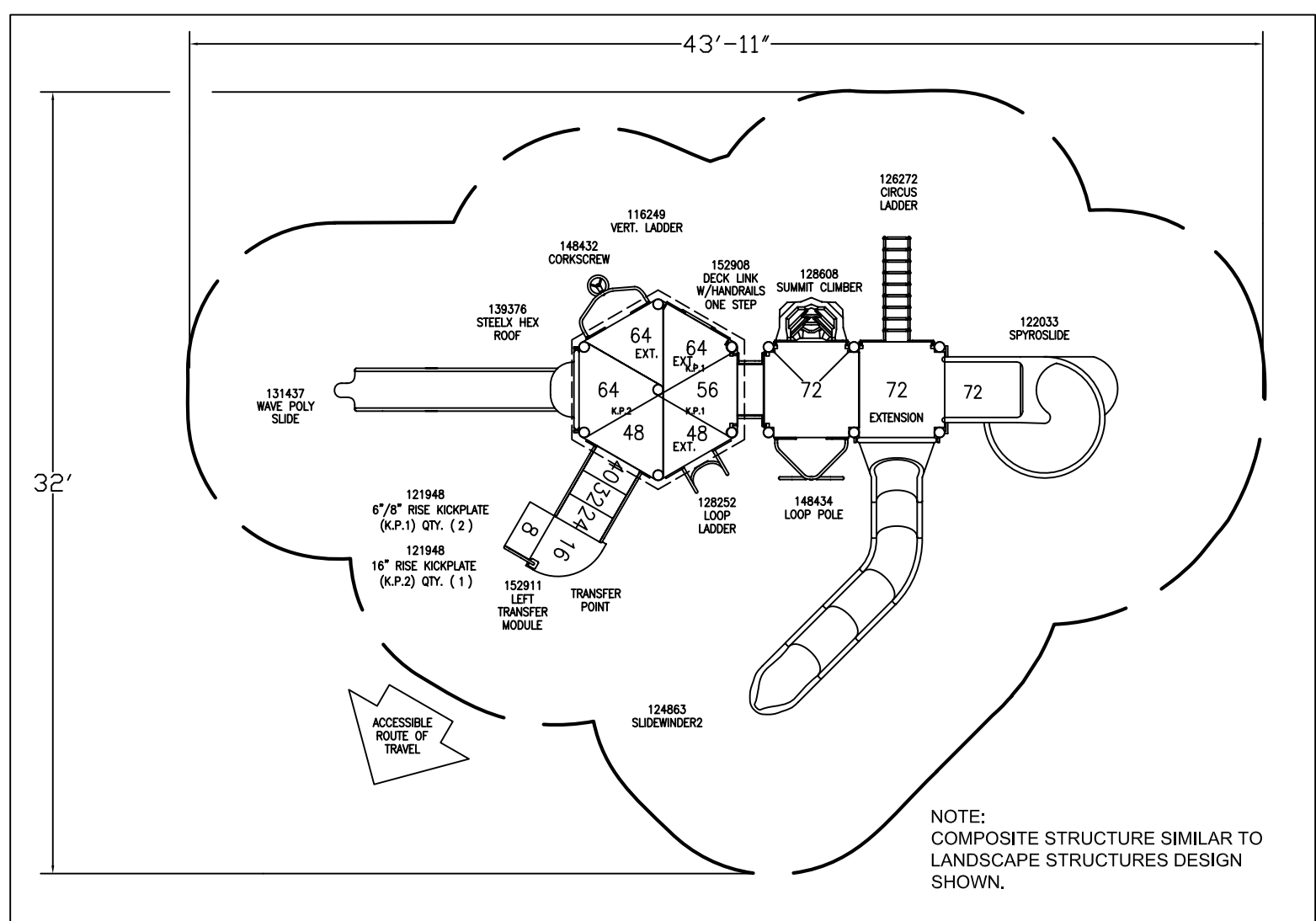




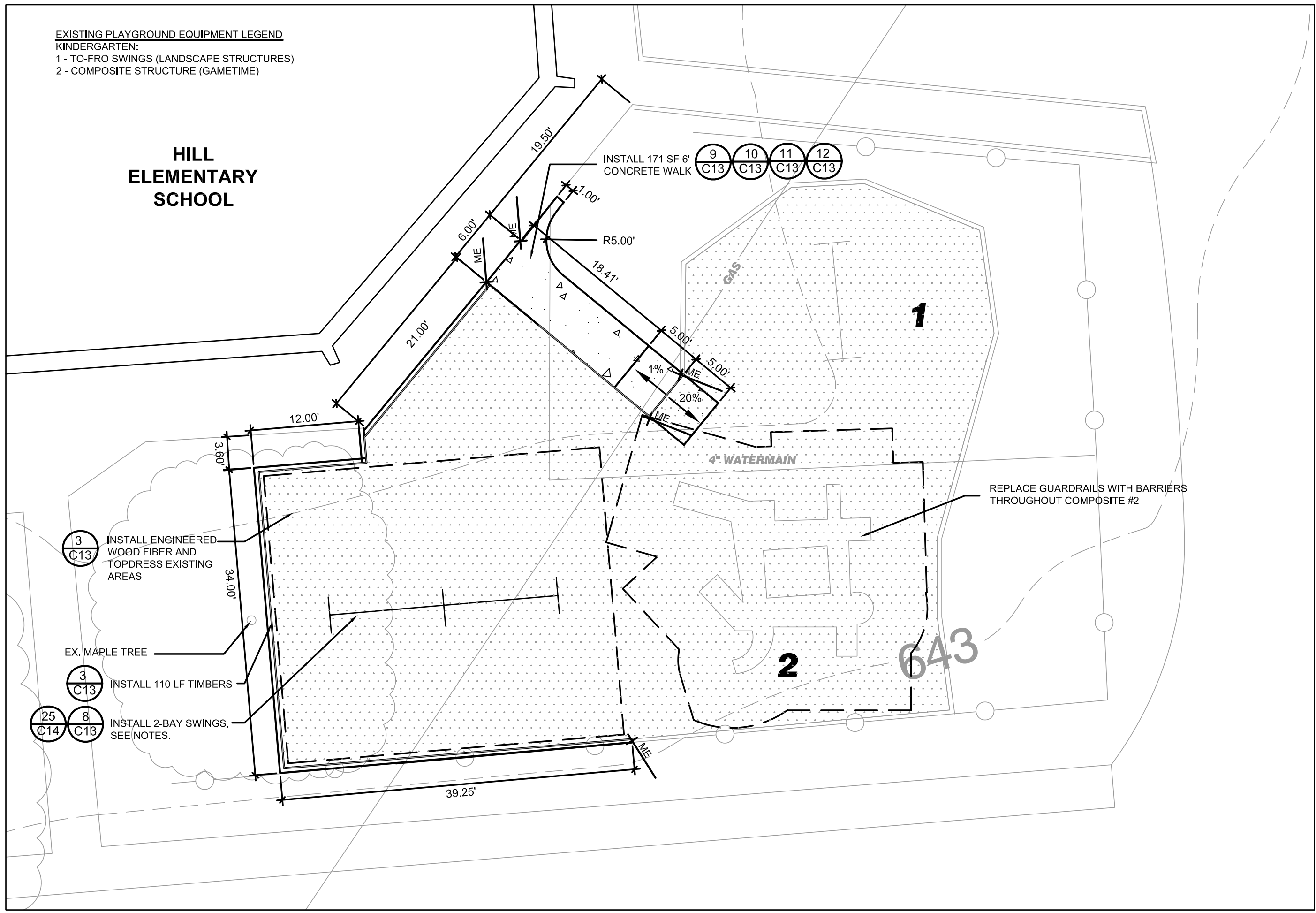
**1-2 GRADE**  
SCALE: 1" = 30'



**3-5 GRADE**  
SCALE: 1" = 30'



**PROPOSED 1-2 GRADE COMPOSITE**  
NOT TO SCALE



**KINDERGARTEN**  
SCALE: 1" = 10'

**NOTES:**

1. ALL SWINGS TO BE SINGLE POST SWING #1228374 WITH GALVANIZED CHAINS AND BELT SEATS #132385A MANUFACTURED BY LANDSCAPE STRUCTURES. WEAR MATS TO BE INSTALLED UNDER ALL SWINGS.
2. ALL ENGINEERED WOOD FIBER AREAS SHOWN ON PLANS TO BE 12" COMPACTED DEPTH FOR NEW PLAYGROUND AREAS AND 4" TOPDRESS FOR ALL EXISTING PLAYGROUND AREAS UNLESS OTHERWISE SPECIFIED. 15" UNCOMPACTED TO EQUAL 12" COMPACTED WOOD FIBER.
3. ALL DISTURBED LAWN AREAS SHALL BE RESTORED. SEE DETAIL 18, SHEET C14.
4. CROSS SLOPES ON ALL CONCRETE WALKS AND PAVEMENTS SHALL BE MIN. 1% AND MAX. 2% SLOPE IN DIRECTION OF TRAVEL NOT TO EXCEED 5%.
5. ALL PLAYGROUND AREAS SCHEDULED TO BE REMOVED AND NOT REPLACED SHALL BE RESTORED TO EXISTING ADJACENT GRADE LEVEL, TOPSOIL, SEED & MULCHED.

**LEGEND:**

- EXISTING BUILDING WALL
- EXISTING MANHOLE
- EXISTING OVERHEAD LINE
- EXISTING UNDERGROUND ELECTRIC LINE
- EXISTING SPOT ELEVATION
- EXISTING LIGHT
- EXISTING TREELINE
- EXISTING CONTOUR
- EXISTING FENCE
- EXISTING WATER LINE
- EXISTING GAS LINE
- PROPOSED CONTOUR
- PROPOSED CENTERLINE
- PROPOSED SPOT ELEVATION
- PROPOSED DRAINAGE
- DETAIL NUMBER
- DETAIL SHEET NUMBER
- PLAYGROUND EQUIPMENT SAFETY ZONE
- PROPOSED CONCRETE
- PROPOSED ENGINEERED WOOD FIBER
- ME = MATCH EXISTING ELEVATION
- TW = TOP OF WALL
- BW = BOTTOM OF WALL
- WKME = MATCH EXISTING WALK

**LANDSCAPE ARCHITECTS PLANNERS**

OAKLAND CENTER  
808 CENTER STREET  
SUITE ONE  
LANSING, MI 48906  
P: (517) 485-5500  
F: (517) 485-5576  
info@lapinc.net

**TROY SCHOOL DISTRICT**

4400 LIVERNOIS ROAD  
TROY, MICHIGAN  
248-823-4000

**TROY PLAYGROUND IMPROVEMENTS #1**

**HILL ELEMENTARY SCHOOL**

**LAYOUT PLAN**

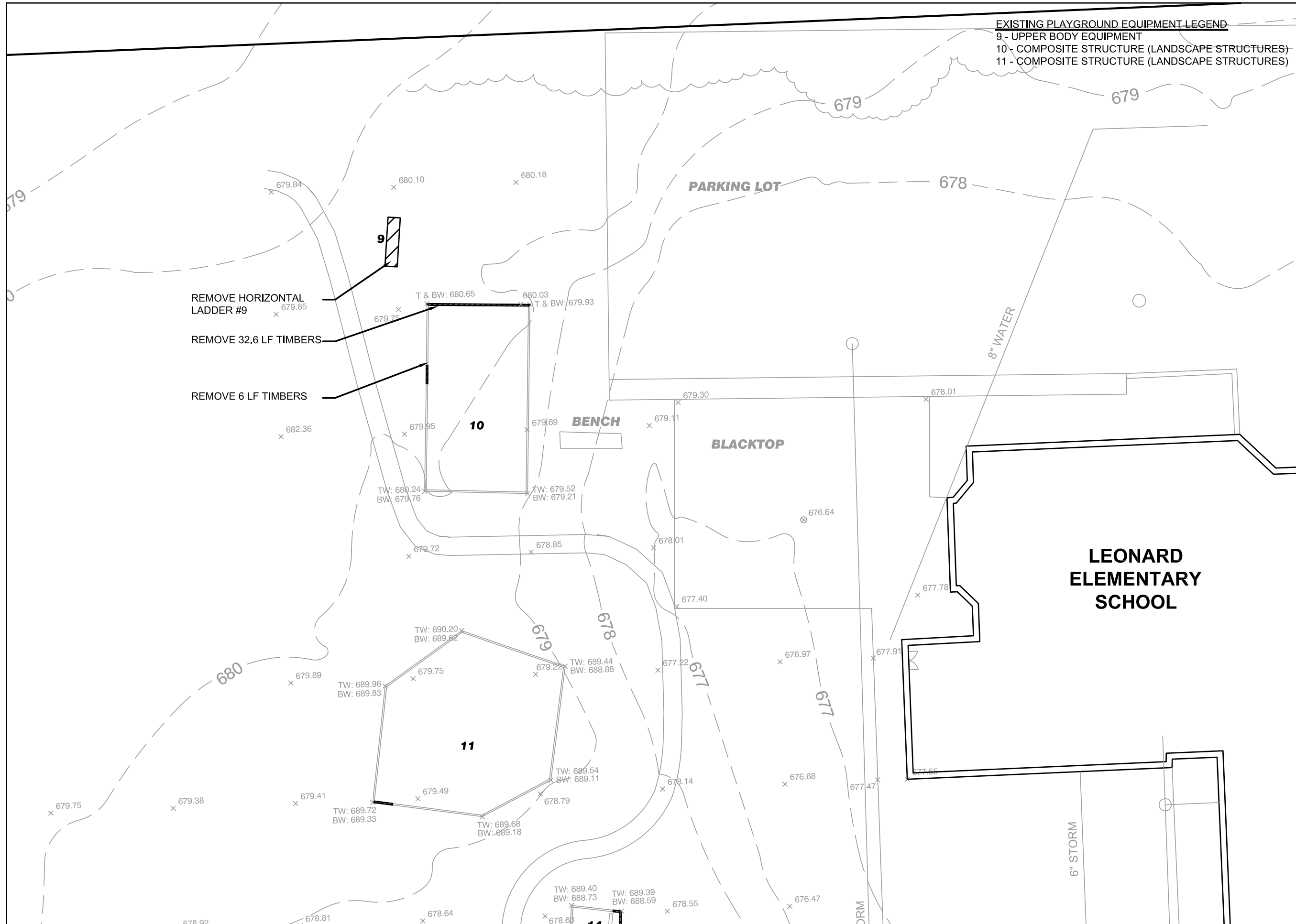
4600 FORSYTH DRIVE  
TROY, MI 48065

DATE: 6-9-08  
DESIGNED BY: TJJ  
CHECKED BY: TJJ  
DRAWN BY: KMCT/JJ  
PROJECT NO: 07044  
SCALE: NA  
HORIZ: NA

**SHEET**

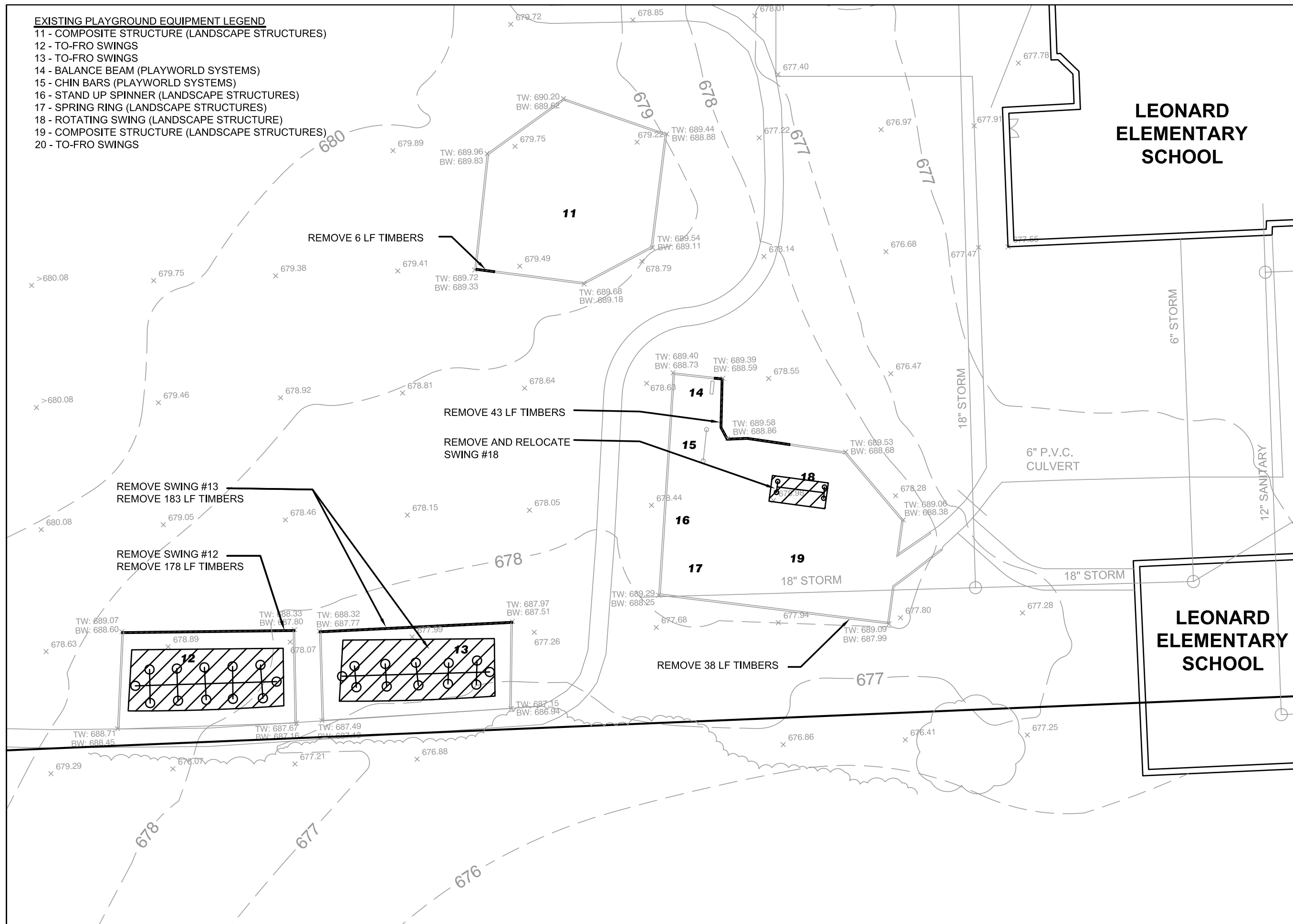
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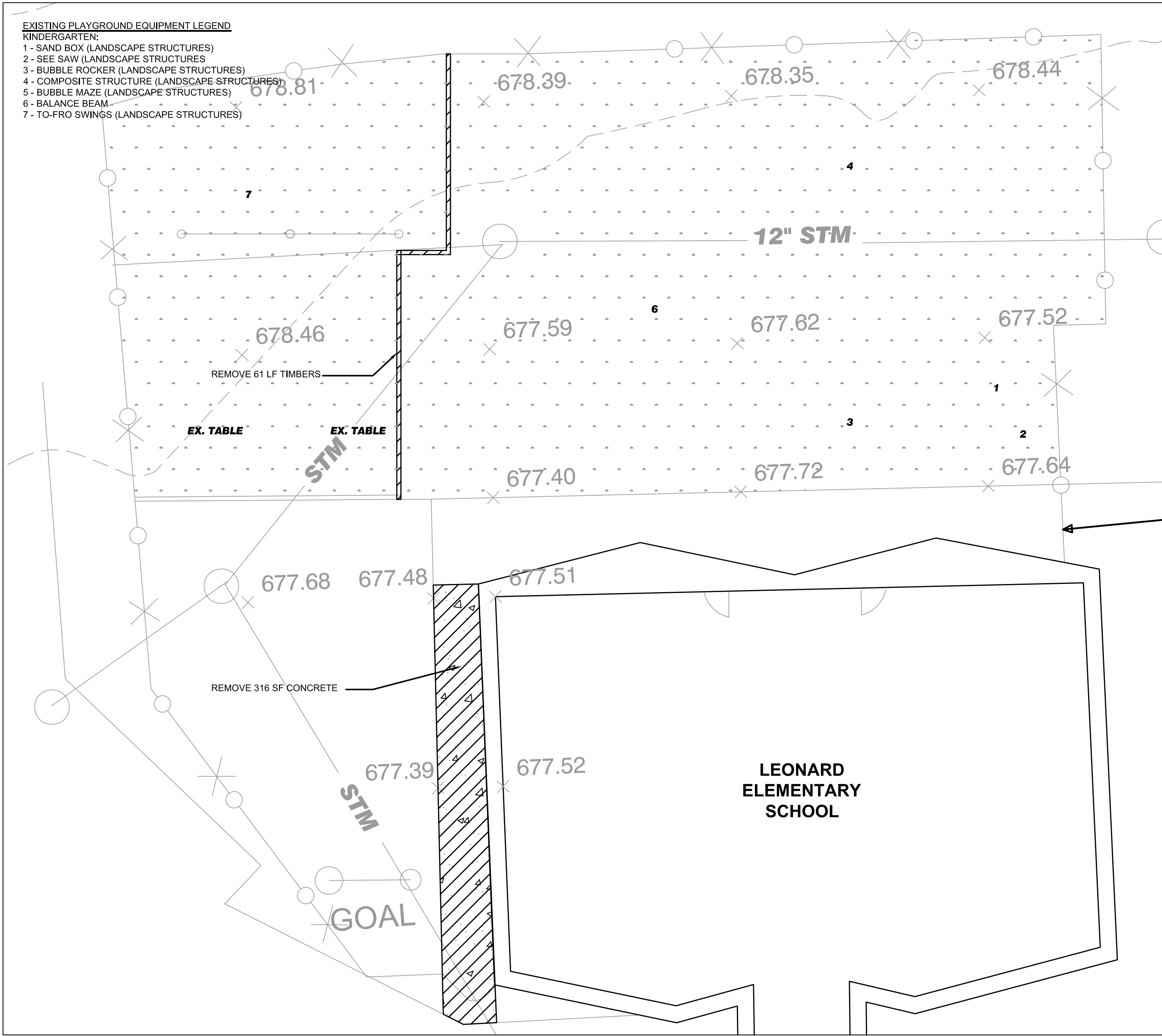
### LOWER ELEMENTARY

SCALE: 1" = 30'



### UPPER ELEMENTARY

SCALE: 1" = 30'



### KINDERGARTEN

SCALE: 1" = 10'

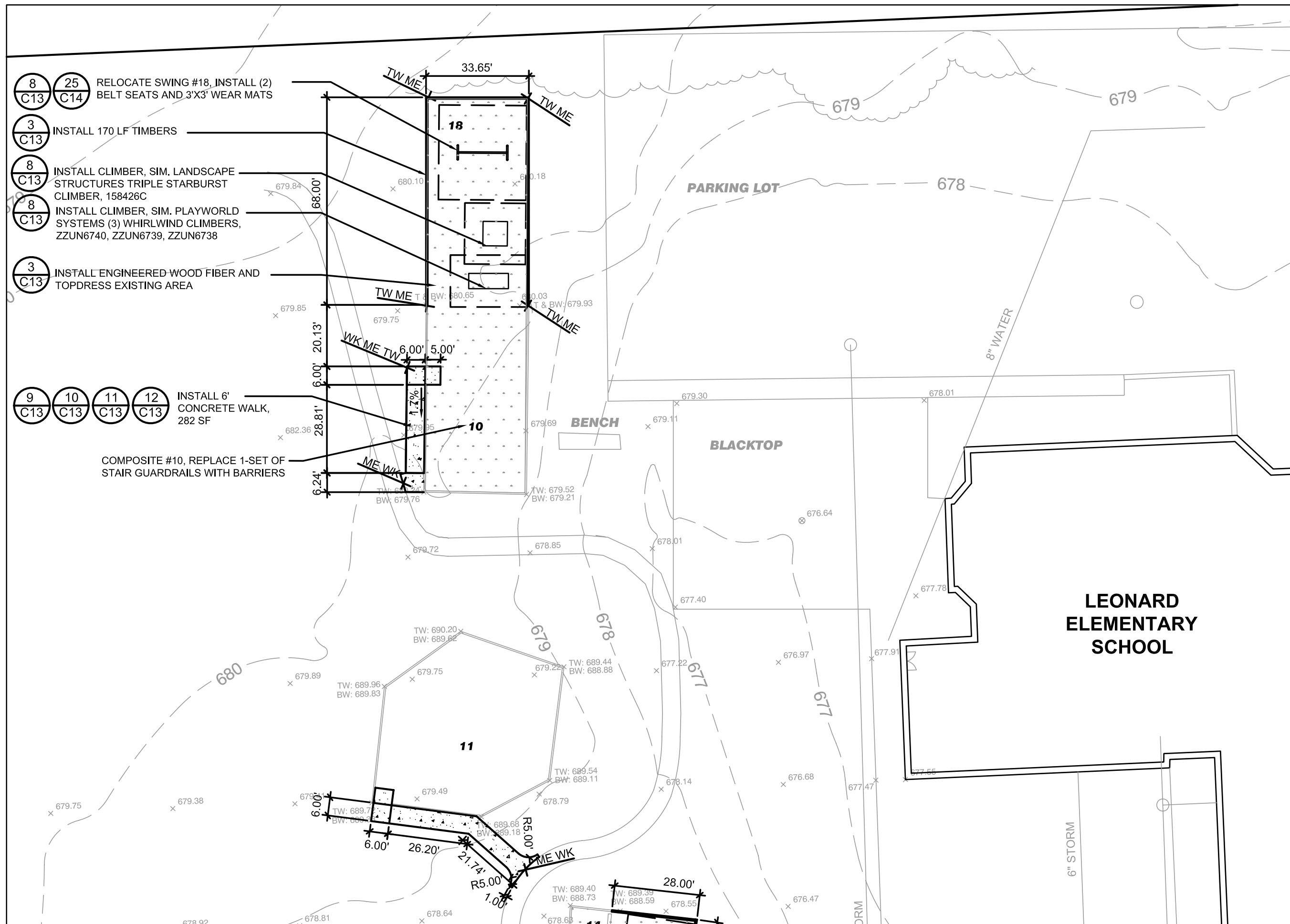
- LEGEND:**
- EXISTING BUILDING WALL
  - PROPOSED DEMOLITION
  - EXISTING SAND TO BE REMOVED
  - EXISTING MANHOLE
  - EXISTING OVERHEAD LINE
  - EXISTING UNDERGROUND ELECTRIC LINE
  - EXISTING SPOT ELEVATION
  - EXISTING LIGHT
  - EXISTING TREELINE
  - EXISTING CONTOUR
  - EXISTING FENCE
  - EXISTING WATER LINE
  - EXISTING GAS LINE

- NOTES:**
- ALL PLAYGROUND AREAS SCHEDULED TO BE REMOVED AND NOT REPLACED SHALL BE RESTORED TO EXISTING ADJACENT GRADE LEVEL, TOPSOIL, SEED & MULCHED.
  - SEE NEXT SHEET FOR LOCATIONS OF RELOCATED ITEMS.



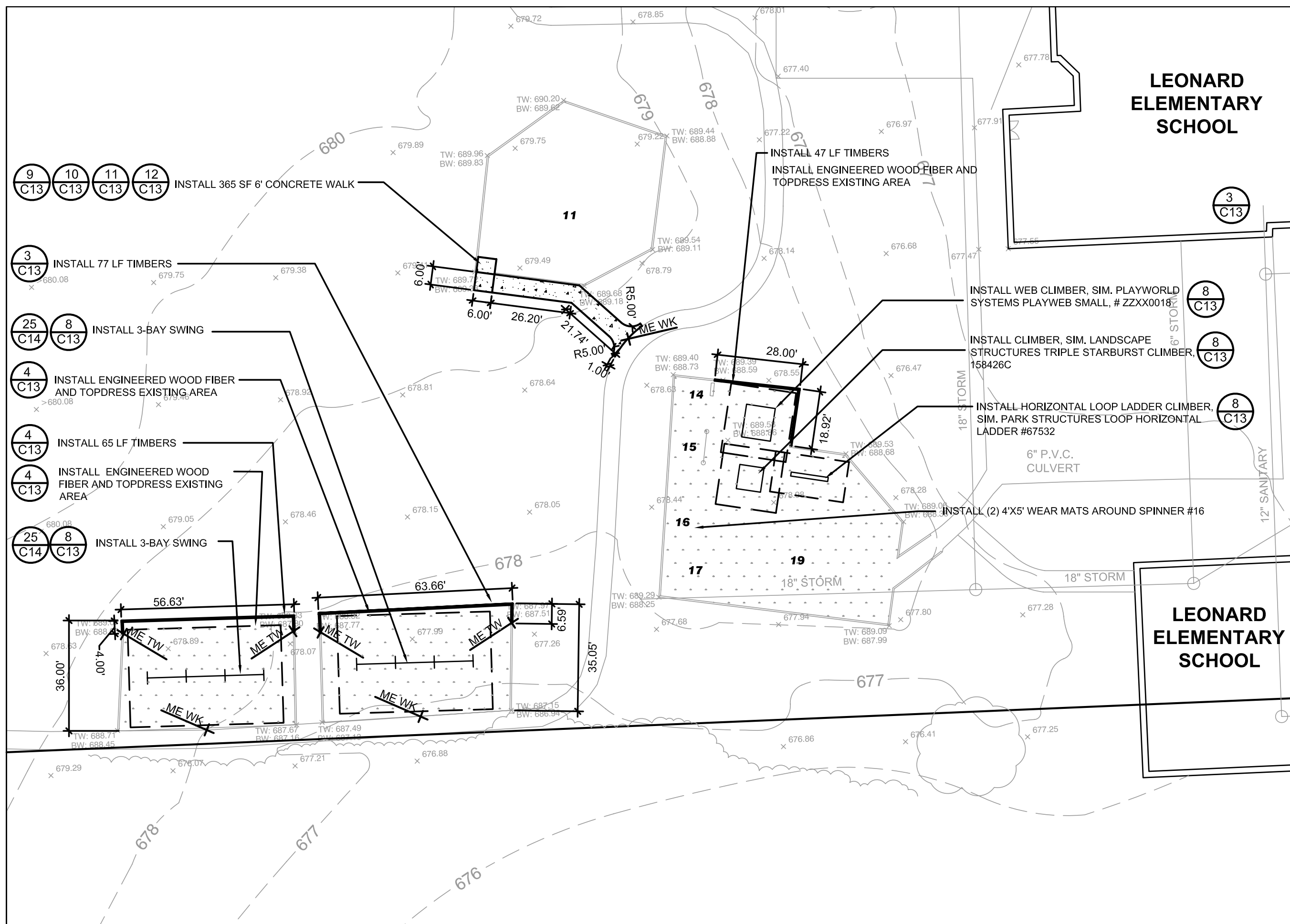
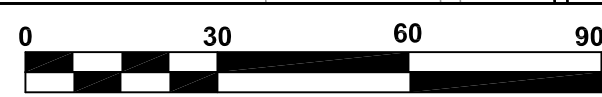
REVISIONS	INITIALS	DATE	COMMENTS





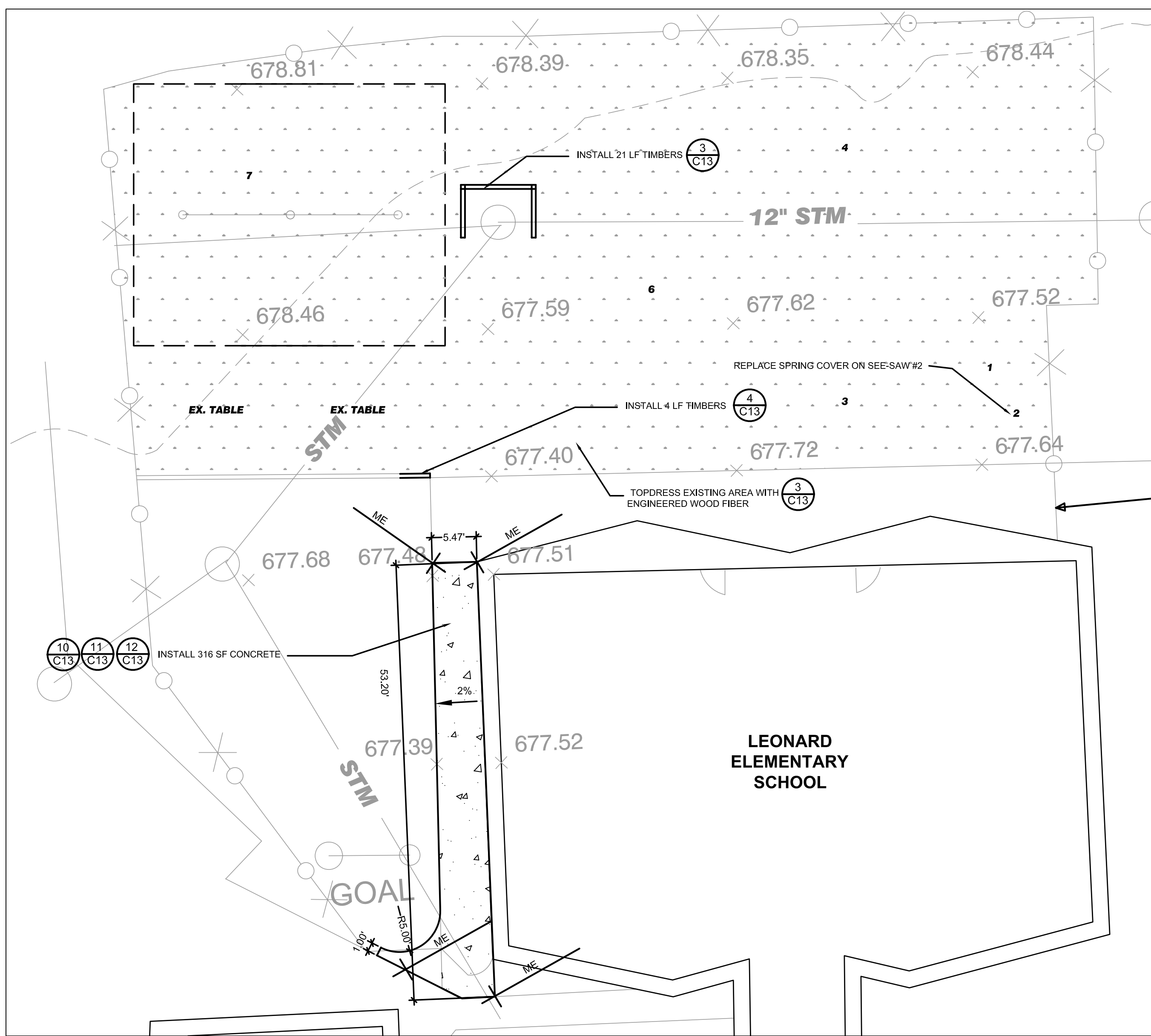
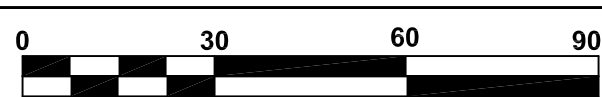
#### LOWER ELEMENTARY

SCALE: 1" = 30'



#### UPPER ELEMENTARY

SCALE: 1" = 30'



#### KINDERGARTEN

SCALE: 1" = 10'



#### NOTES:

1. ALL SWINGS TO BE SINGLE POST SWING #1228374 WITH GALVANIZED CHAINS AND BELT SEATS #132385A MANUFACTURED BY LANDSCAPE STRUCTURES. WEAR MATS TO BE INSTALLED UNDER ALL SWINGS.
2. ALL ENGINEERED WOOD FIBER AREAS SHOWN ON PLANS TO BE 12" COMPACTED DEPTH FOR NEW PLAYGROUND AREAS AND 4" TOPDRESS FOR ALL EXISTING PLAYGROUND AREAS UNLESS OTHERWISE SPECIFIED. 15" UNCOMPACTED TO EQUAL 12" COMPACTED WOOD FIBER.
3. ALL DISTURBED LAWN AREAS SHALL BE RESTORED. SEE DETAIL 18, SHEET C14.
4. CROSS SLOPES ON ALL CONCRETE WALKS AND PAVEMENTS SHALL BE MIN. 1% AND MAX. 2%. SLOPE IN DIRECTION OF TRAVEL NOT TO EXCEED 5%.
5. ALL PLAYGROUND AREAS SCHEDULED TO BE REMOVED AND NOT REPLACED SHALL BE RESTORED TO EXISTING ADJACENT GRADE LEVEL, TOPSOIL, SEED & MULCHED.

#### LEGEND:

- EXISTING BUILDING WALL
- EXISTING MANHOLE
- EXISTING OVERHEAD LINE
- EXISTING UNDERGROUND ELECTRIC LINE
- EXISTING SPOT ELEVATION
- EXISTING LIGHT
- EXISTING TREELINE
- EXISTING CONTOUR
- EXISTING FENCE
- EXISTING WATER LINE
- EXISTING GAS LINE
- PROPOSED CONTOUR
- PROPOSED CENTERLINE
- PROPOSED SPOT ELEVATION
- PROPOSED DRAINAGE
- DETAIL NUMBER
- DETAIL SHEET NUMBER
- PLAYGROUND EQUIPMENT SAFETY ZONE
- PROPOSED CONCRETE
- PROPOSED ENGINEERED WOOD FIBER
- ME = MATCH EXISTING ELEVATION
- TW = TOP OF WALL
- BW = BOTTOM OF WALL



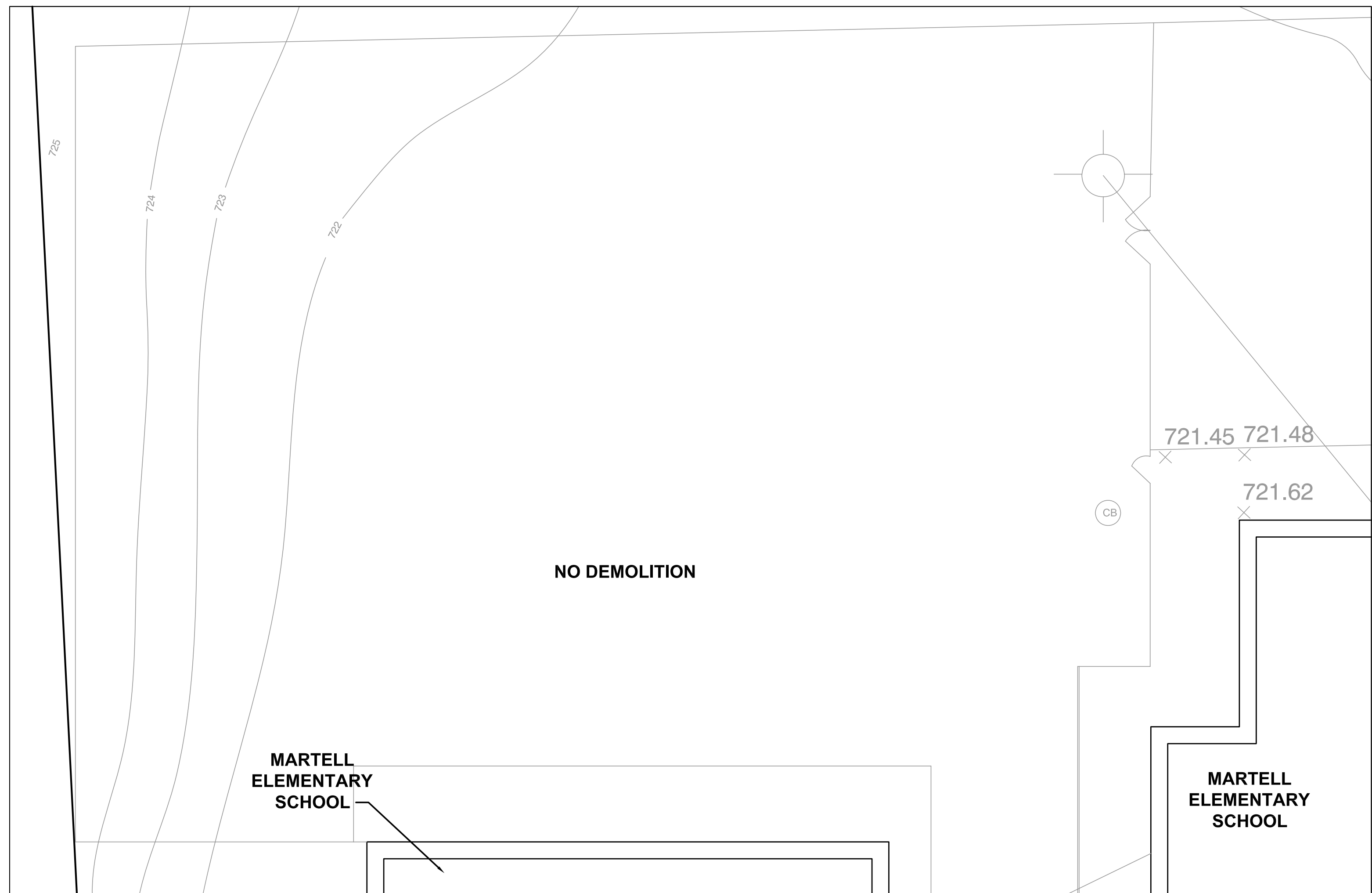
REVISIONS	DATE	COMMENTS
INITIALS		

**TROY SCHOOL DISTRICT**  
4400 LIVERNOIS ROAD  
TROY, MICHIGAN  
248-823-4000

**TROY PLAYGROUND IMPROVEMENTS #1**  
**LEONARD ELEMENTARY SCHOOL**  
**LAYOUT PLAN**  
4401 TALLMAN DRIVE  
TROY, MI 48068

DATE: 6-9-08	DESIGNED BY: TJJ
CHECKED BY: REF	DRAWN BY: KMC, MAJ, TJJ
PROJECT NO: 07044	SCALE: NA
HORIZ: VERT:	

**SHEET**  
C12



KINDERGARTEN

SCALE: 1" = 10'

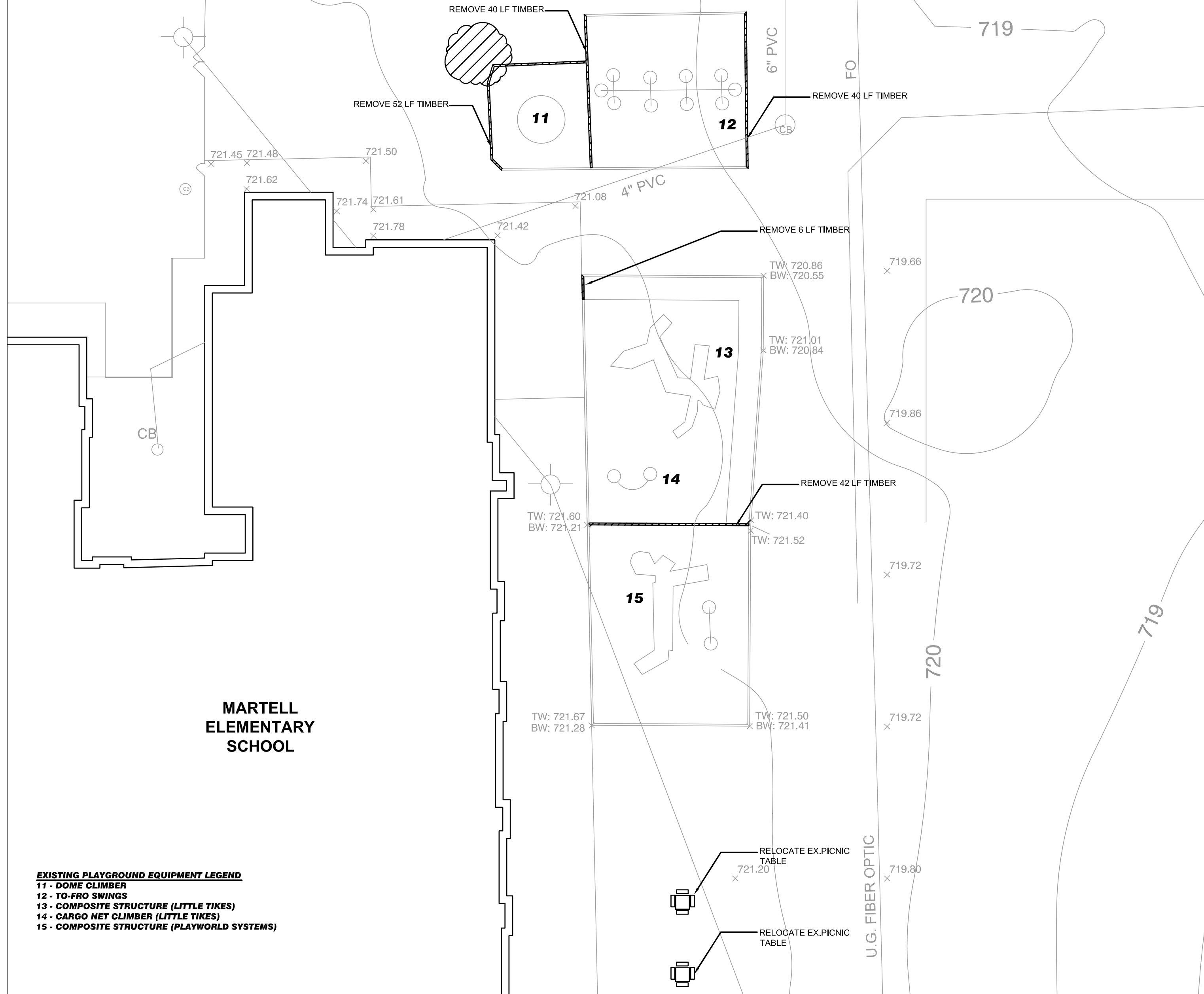


LEGEND:

- EXISTING BUILDING WALL
- PROPOSED DEMOLITION
- EXISTING SAND TO BE REMOVED
- EXISTING MANHOLE
- EXISTING OVERHEAD LINE
- EXISTING UNDERGROUND ELECTRIC LINE
- EXISTING SPOT ELEVATION
- EXISTING LIGHT
- EXISTING TREELINE
- EXISTING CONTOUR
- EXISTING FENCE
- EXISTING WATER LINE
- EXISTING GAS LINE

NOTES:

- ALL PLAYGROUND AREAS SCHEDULED TO BE REMOVED AND NOT REPLACED SHALL BE RESTORED TO EXISTING ADJACENT GRADE LEVEL, TOPSOIL, SEED & MULCHED.
- SEE NEXT SHEET FOR LOCATIONS OF RELOCATED ITEMS.

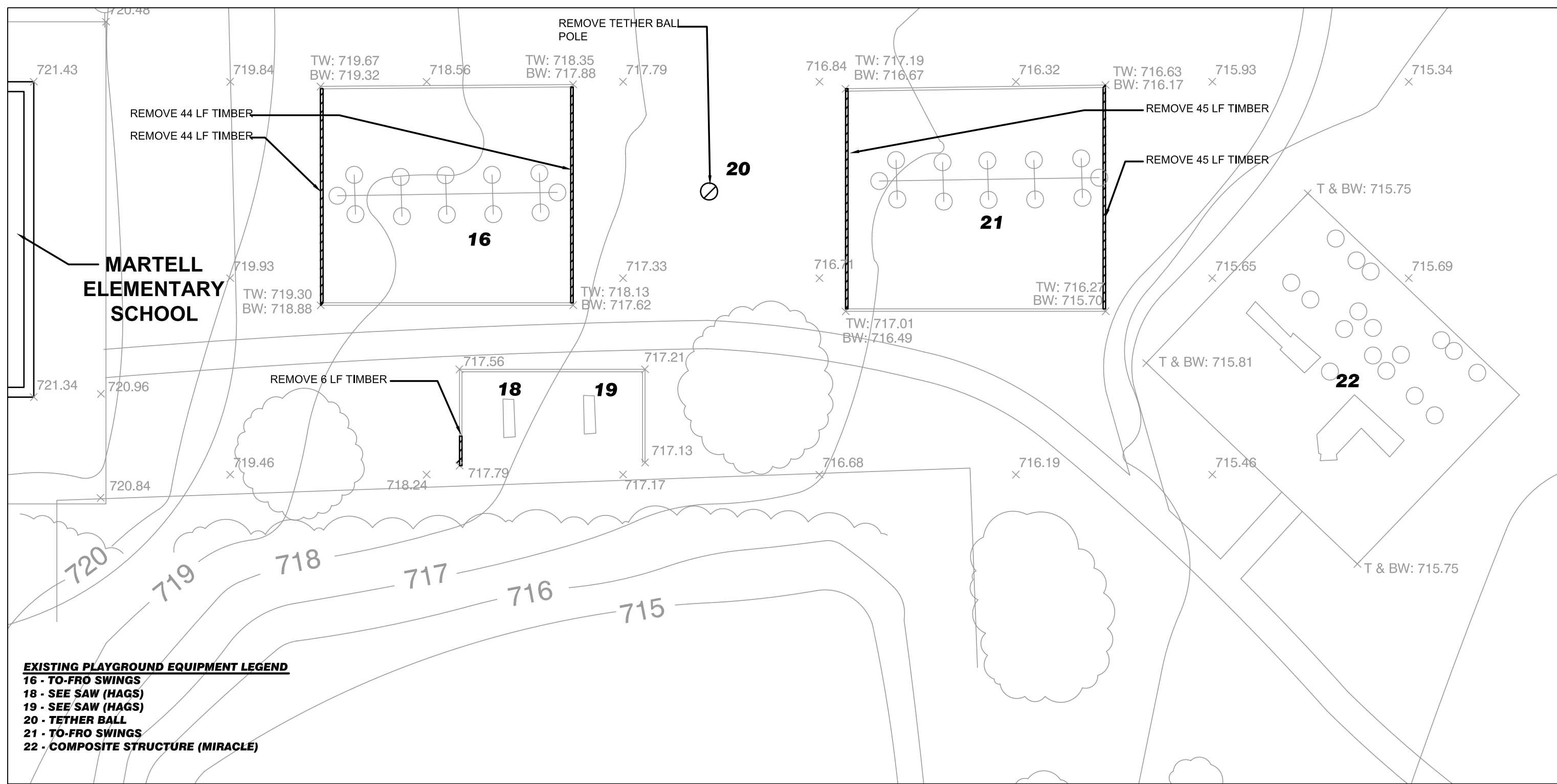


EXISTING PLAYGROUND EQUIPMENT LEGEND

- 11 - DOME CLIMBER
- 12 - TO-FRO SWINGS
- 13 - COMPOSITE STRUCTURE (LITTLE TIKES)
- 14 - CARGO NET CLIMBER (LITTLE TIKES)
- 15 - COMPOSITE STRUCTURE (PLAYWORLD SYSTEMS)

1-2 GRADE

SCALE: 1" = 20'



EXISTING PLAYGROUND EQUIPMENT LEGEND

- 16 - TO-FRO SWINGS
- 18 - SEE SAW (HAGS)
- 19 - SEE SAW (HAGS)
- 20 - TETHER BALL
- 21 - TO-FRO SWINGS
- 22 - COMPOSITE STRUCTURE (MIRACLE)

LOWER EL

SCALE: 1" = 20'



LANDSCAPE  
ARCHITECTS  
PLANNERS

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info@lapinc.net

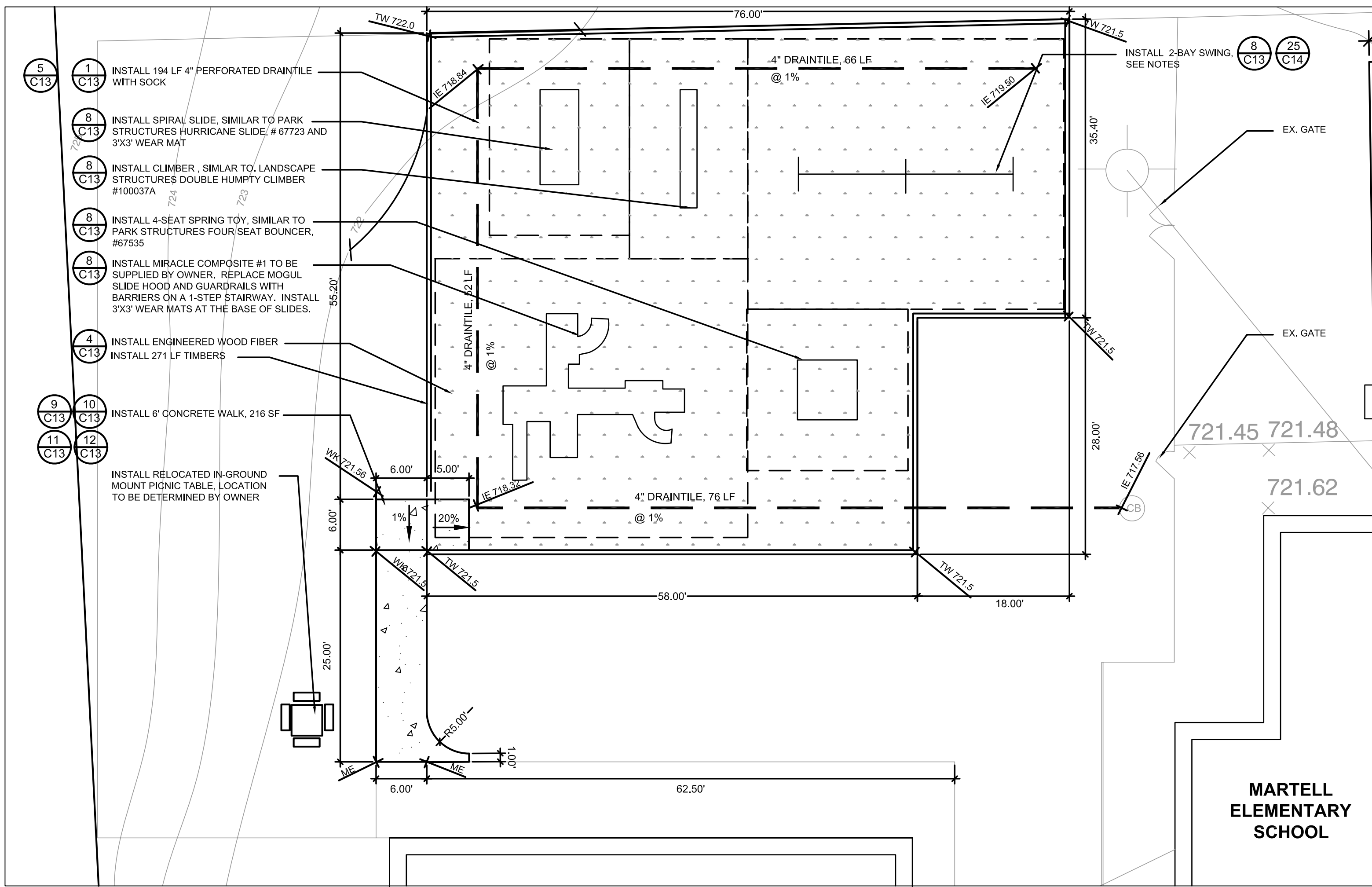
REVISIONS	INITIALS	DATE	COMMENTS

TROY SCHOOL DISTRICT  
4400 LIVERNOIS ROAD  
TROY, MICHIGAN  
248-823-4000

TROY PLAYGROUND IMPROVEMENTS #2  
MARTELL ELEMENTARY SCHOOL  
DEMOLITION PLAN  
5666 LIVERNOIS ROAD  
TROY, MI 48098

DATE: 6-6-08	DESIGNED BY: TJJ
CHECKED BY: REF	DRAWN BY: KMCTJ
PROJECT NO: 07044	SCALE: HORIZ: NA
VERT: NA	VERT: NA

SHEET  
C1



### KINDERGARTEN

SCALE: 1" = 10'



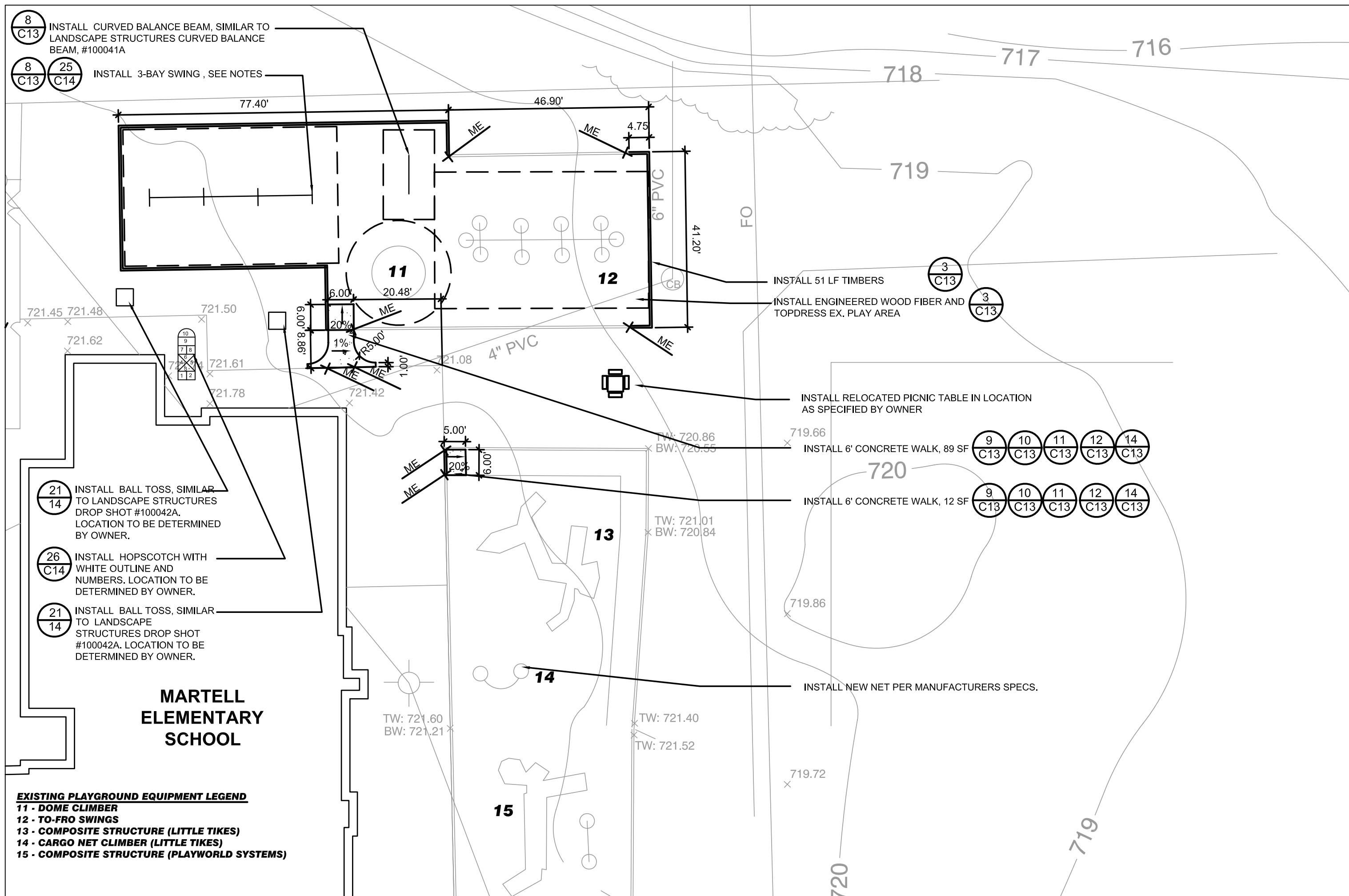
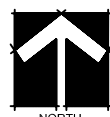
#### LEGEND:

- EXISTING BUILDING WALL
- EXISTING MANHOLE
- EXISTING OVERHEAD LINE
- EXISTING UNDERGROUND ELECTRIC LINE
- EXISTING SPOT ELEVATION
- EXISTING LIGHT
- EXISTING TREELINE
- EXISTING CONTOUR
- EXISTING FENCE
- EXISTING WATER LINE
- EXISTING GAS LINE
- PROPOSED CONTOUR
- PROPOSED CENTERLINE
- PROPOSED SPOT ELEVATION
- PROPOSED DRAINAGE
- DETAIL NUMBER
- DETAIL SHEET NUMBER
- PLAYGROUND EQUIPMENT SAFETY ZONE
- PROPOSED CONCRETE
- PROPOSED ENGINEERED WOOD FIBER

#### NOTES:

1. ALL SWINGS TO BE SINGLE POST SWING #1228374 WITH GALVANIZED CHAINS AND BELT SEATS #132385A MANUFACTURED BY LANDSCAPE STRUCTURES. WEAR MATS TO BE INSTALLED UNDER ALL SWINGS.
2. ALL ENGINEERED WOOD FIBER AREAS SHOWN ON PLANS TO BE 12" COMPACTED DEPTH FOR NEW PLAYGROUND AREAS AND 4" TOPDRESS FOR ALL EXISTING PLAYGROUND AREAS UNLESS OTHERWISE SPECIFIED. 15" UNCOMPACTED TO EQUAL 12" COMPACTED WOOD FIBER.
3. ALL DISTURBED LAWN AREAS SHALL BE RESTORED. SEE DETAIL 18, SHEET C14.
4. CROSS SLOPES ON ALL CONCRETE WALKS AND PAVEMENTS SHALL BE MIN. 1% AND MAX. 2%. SLOPE IN DIRECTION OF TRAVEL NOT TO EXCEED 5%.
5. ALL PLAYGROUND AREAS SCHEDULED TO BE REMOVED AND NOT REPLACED SHALL BE RESTORED TO EXISTING ADJACENT GRADE LEVEL, TOPSOIL, SEED & MULCHED.

ME = MATCH EXISTING ELEVATION  
TW = TOP OF WALL  
BW = BOTTOM OF WALL  
WKME = MATCH EXISTING WALL



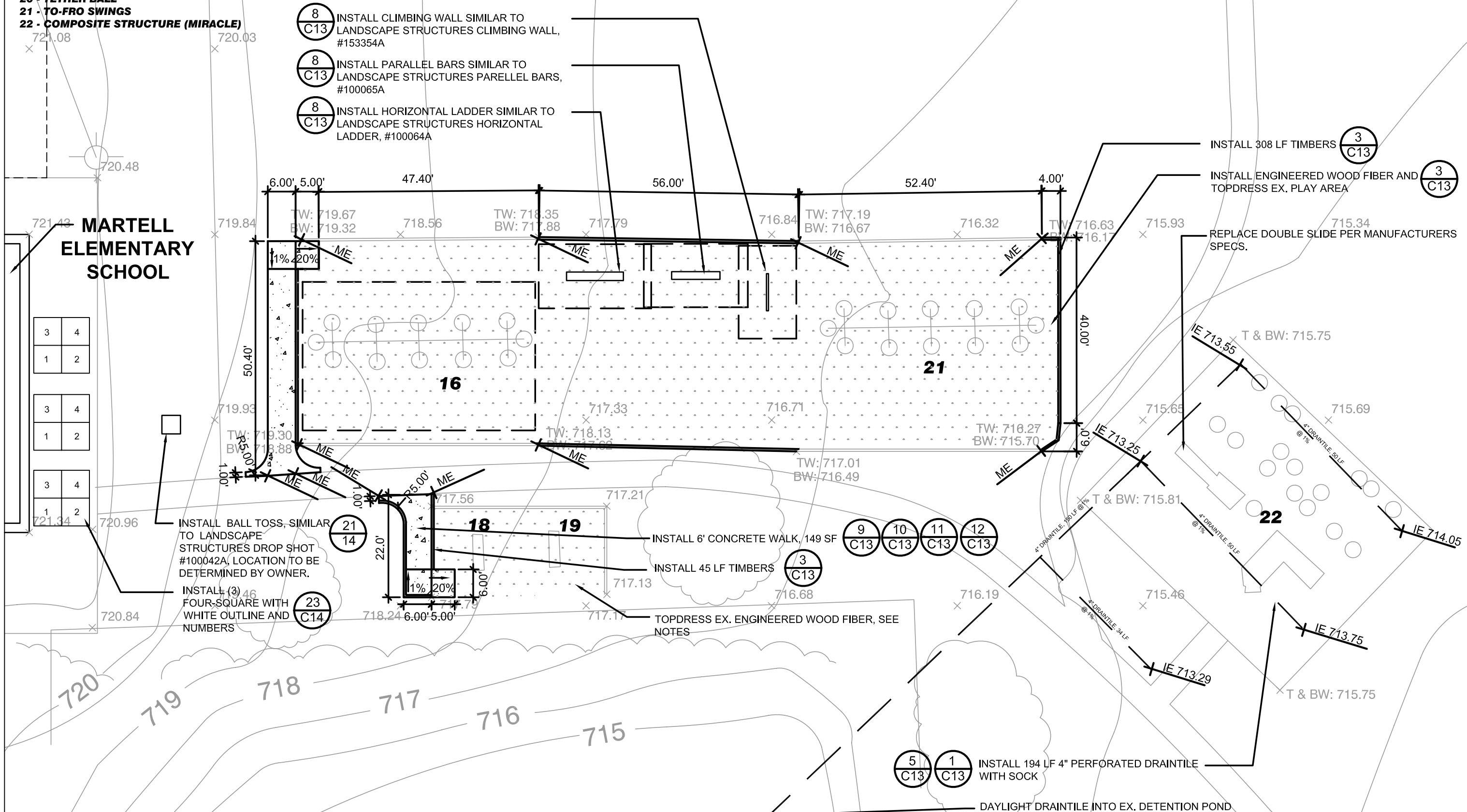
### 1-2 GRADE

SCALE: 1" = 20'



#### EXISTING PLAYGROUND EQUIPMENT LEGEND

- 16 - TO-FRO SWINGS
- 18 - SEE SAW (HAGS)
- 19 - SEE SAW (HAGS)
- 20 - TETHER BALL
- 21 - TO-FRO SWINGS
- 22 - COMPOSITE STRUCTURE (MIRACLE)



### 3-5 GRADE

SCALE: 1" = 20'



## LANDSCAPE ARCHITECTS PLANNERS

OAKLAND CENTER  
808 CENTER STREET  
SUITE ONE  
LANSING, MI 48906  
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REVISIONS	INITIALS	DATE	COMMENTS

**TROY SCHOOL DISTRICT**  
4400 LIVERNOIS ROAD  
TROY, MICHIGAN  
248-823-4000

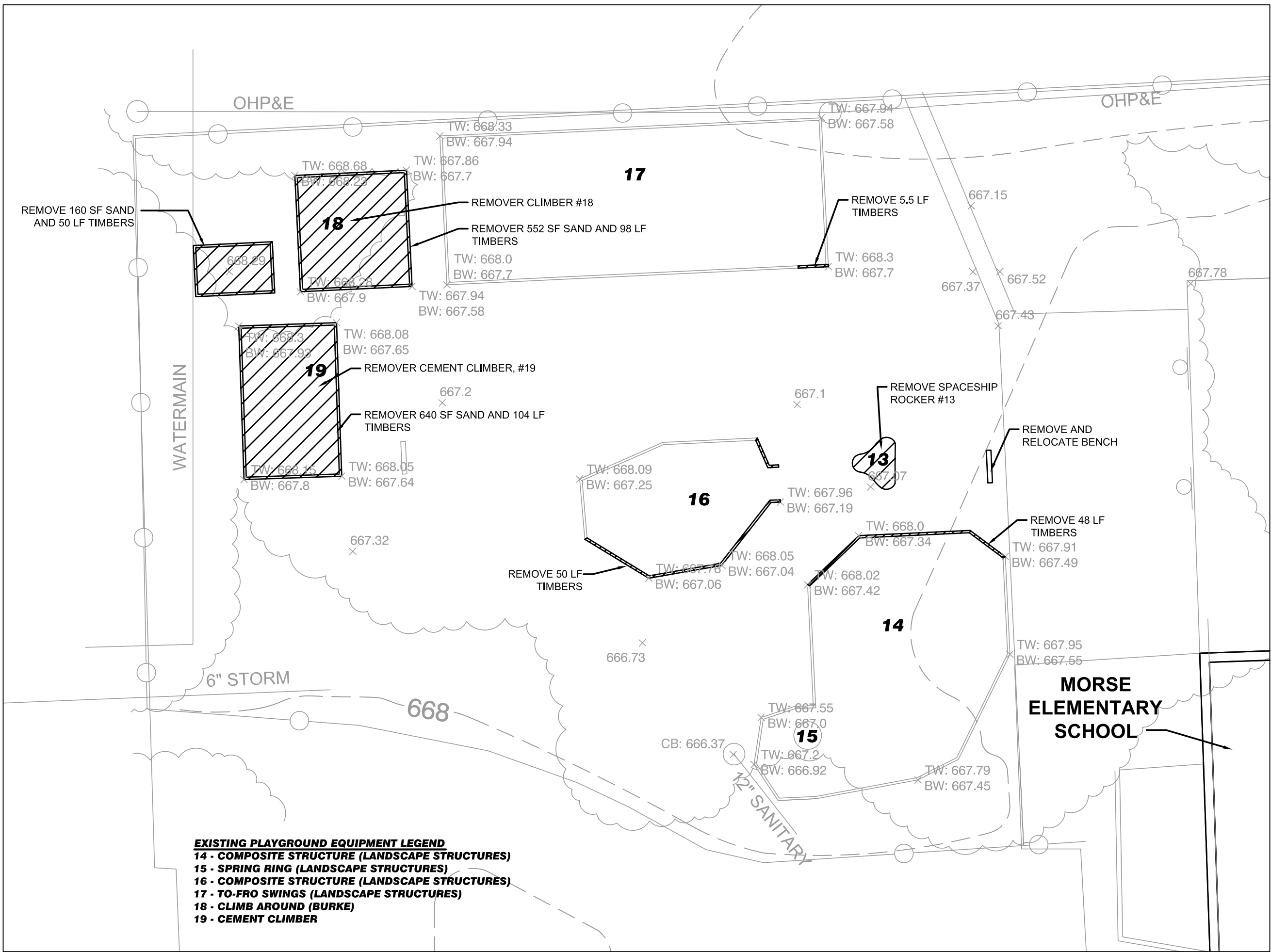
**TROY PLAYGROUND IMPROVEMENTS #2**  
**MARTELL ELEMENTARY SCHOOL**  
**LAOUT PLAN**  
5666 LIVERNOIS ROAD  
TROY, MI 48098

DATE: 6-9-08	DESIGNED BY: TJJ
CHECKED BY: REF	DRAWN BY: KMCTJ
PROJECT NO: 07044	SCALE: HORIZ: NA
VERT: NA	VERT: NA

SHEET  
C2

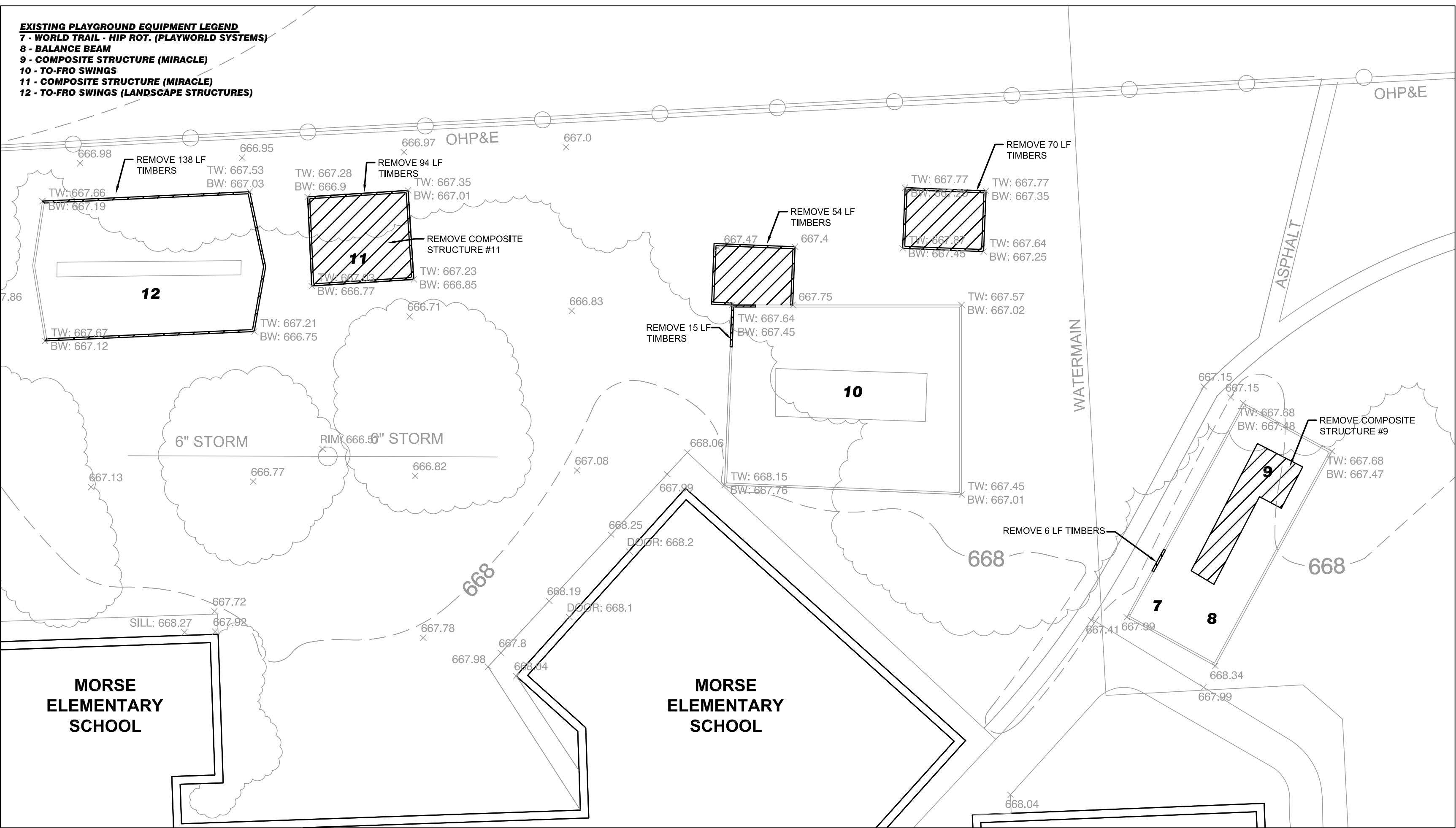
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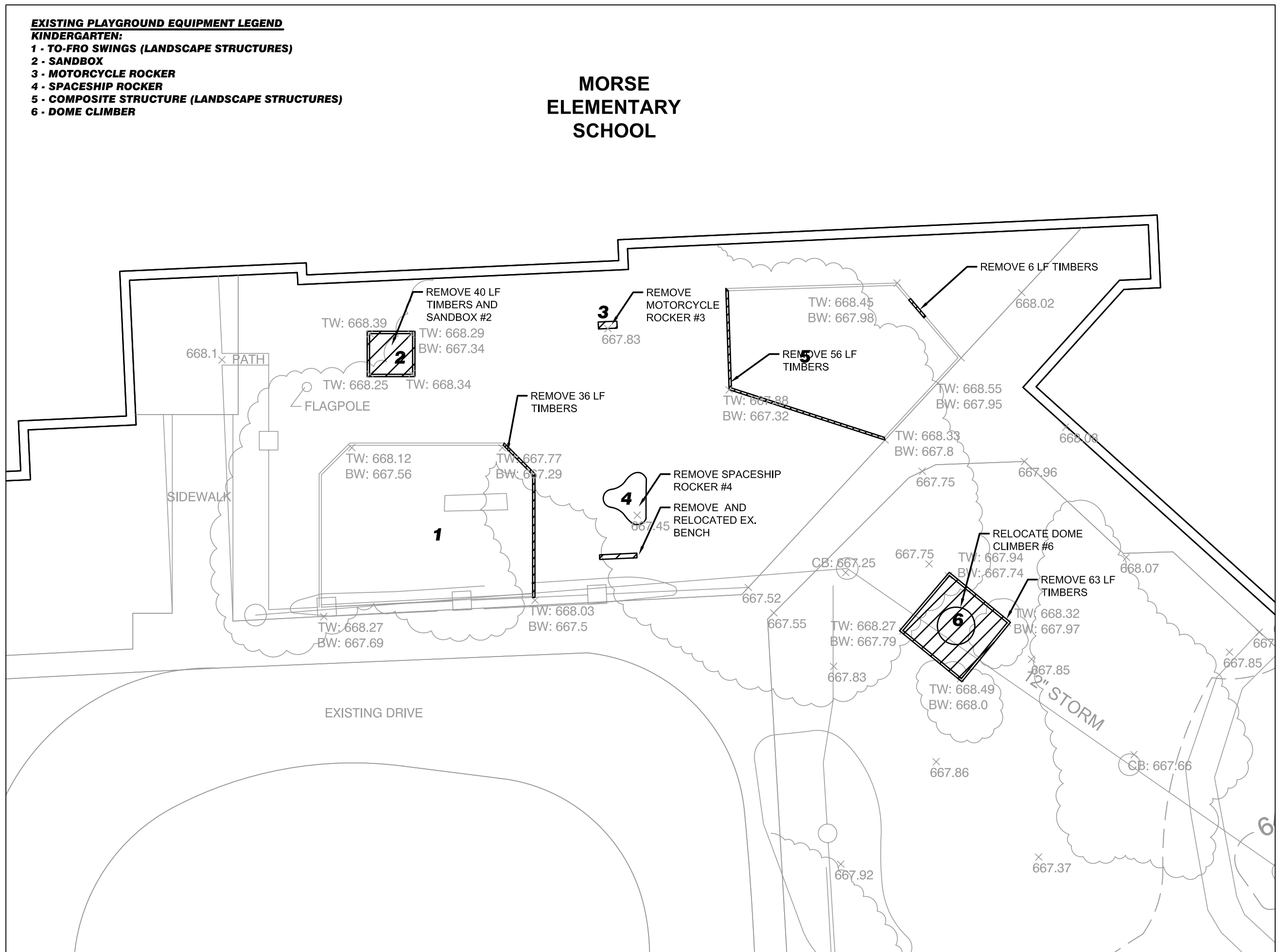
1-2 GRADE PLAYGROUND

SCALE: 1" = 20'



3-5 GRADE PLAYGROUND

SCALE: 1" = 20'



KINDERGARTEN PLAYGROUND

SCALE: 1" = 20'

LEGEND:

- EXISTING BUILDING WALL
- PROPOSED DEMOLITION
- EXISTING SAND TO BE REMOVED
- EXISTING MANHOLE
- EXISTING OVERHEAD LINE
- EXISTING UNDERGROUND ELECTRIC LINE
- EXISTING SPOT ELEVATION
- EXISTING LIGHT
- EXISTING TREELINE
- EXISTING CONTOUR
- EXISTING FENCE
- EXISTING WATER LINE
- EXISTING GAS LINE

NOTES:

1. ALL PLAYGROUND AREAS SCHEDULED TO BE REMOVED AND NOT REPLACED SHALL BE RESTORED TO EXISTING ADJACENT GRADE LEVEL, TOPSOIL, SEED & MULCHED.
2. SEE NEXT SHEET FOR LOCATIONS OF RELOCATED ITEMS.



**L**ANDSCAPE  
**A**RCHITECTS  
**P**LANNERS

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908 CENTER STREET  
SUITE ONE  
LANSING, MI 48906  
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F: (517) 485-5576  
info@lapinc.net

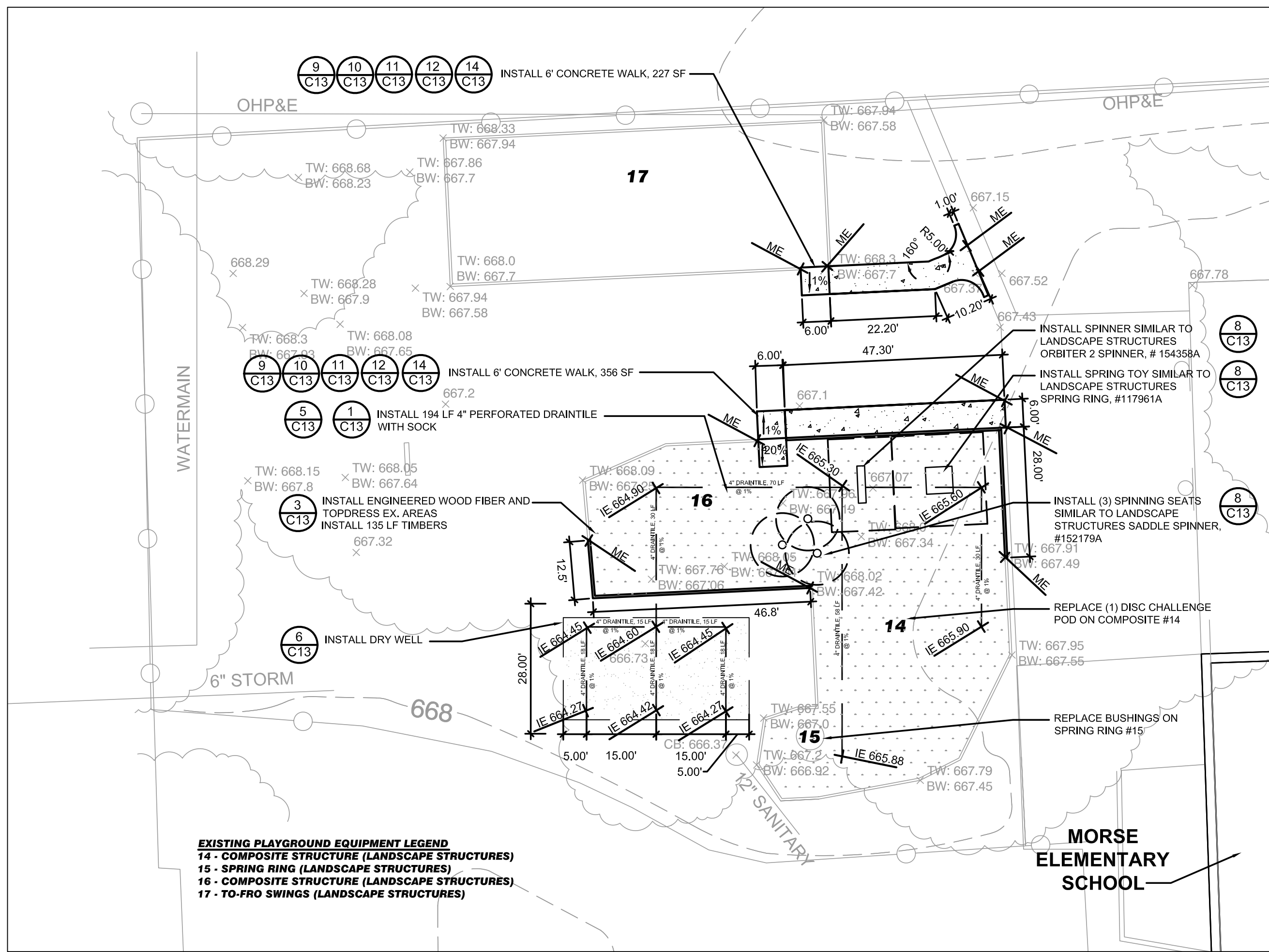
REVISIONS	DATE	COMMENTS
INITIALS		

**TROY SCHOOL DISTRICT**  
4400 LIVERNOIS ROAD  
TROY, MICHIGAN  
248-823-4000

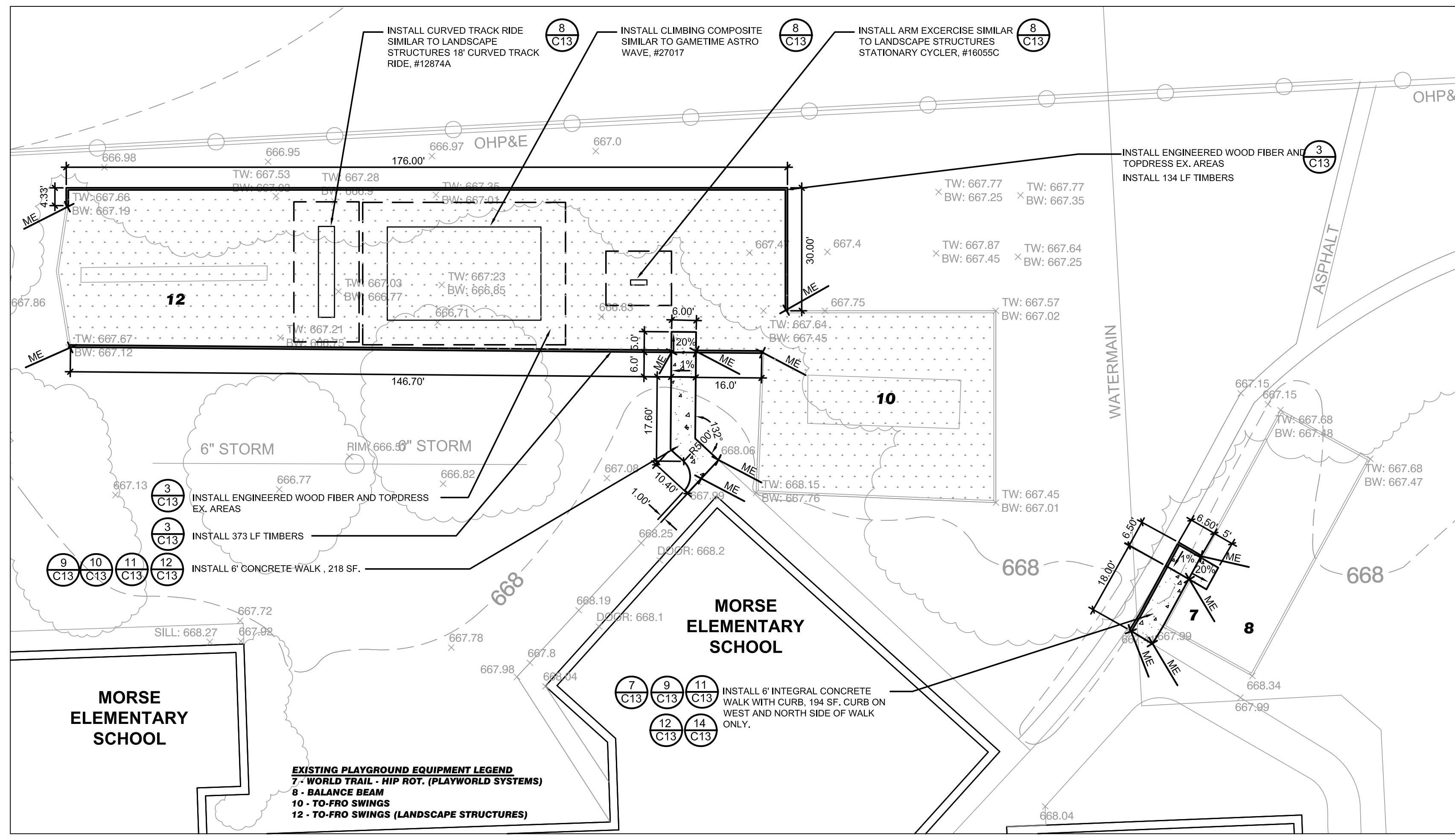
**TROY PLAYGROUND IMPROVEMENTS #2**  
**MORSE ELEMENTARY SCHOOL**  
**DEMOLITION PLAN**  
475 CHERRY STREET  
TROY, MI 48063

DATE: 6-9-08	DESIGNED BY: TJJ
CHECKED BY: REF	DRAWN BY: KMCTJ
PROJECT NO: 07044	SCALE: NA
HORIZ: NA	VERT: NA

SHEET  
C3



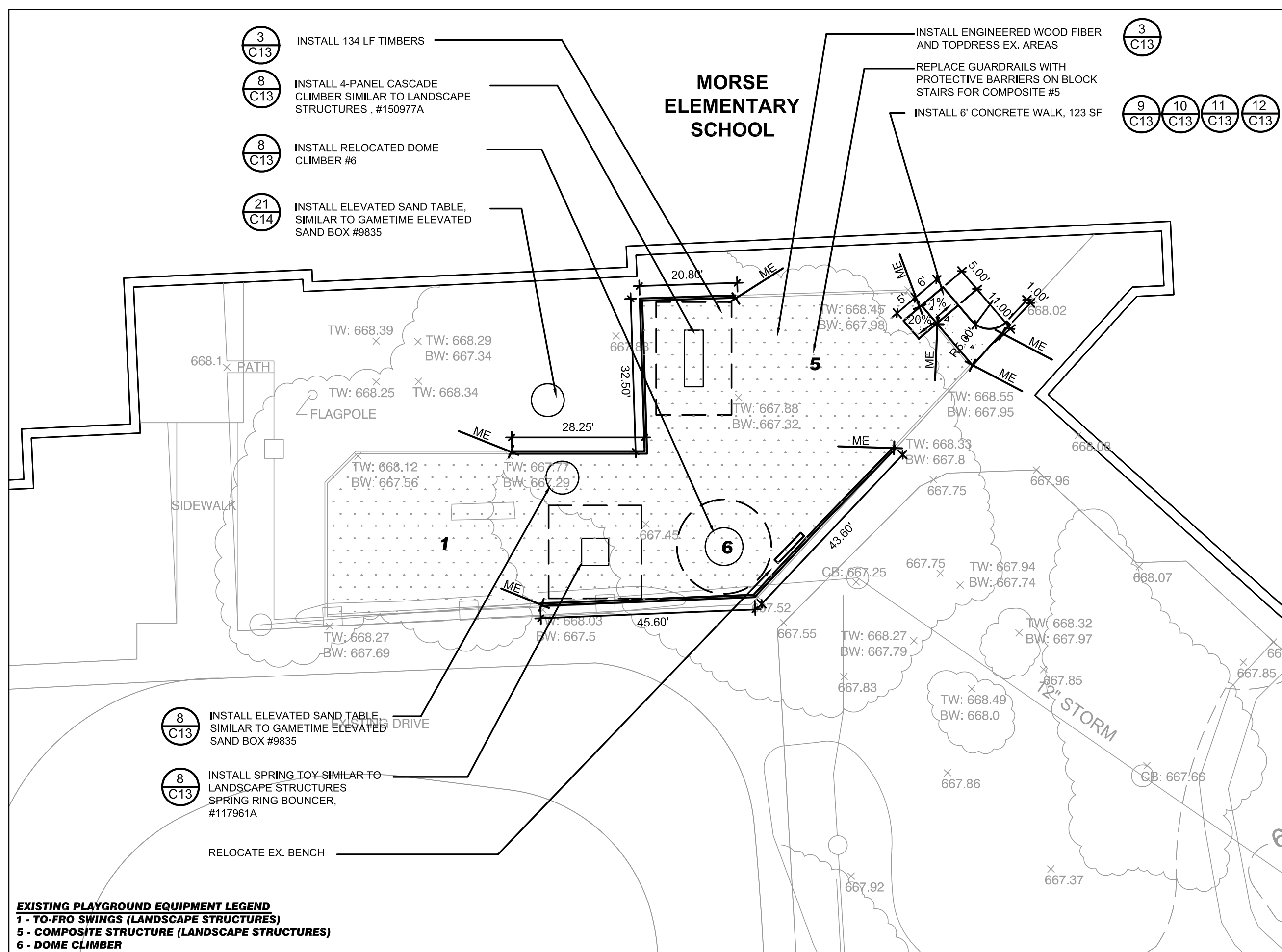
**PLAYGROUND**  
 SCALE: 1" = 20'



**3-5 GRADE PLAYGROUND**  
 SCALE: 1" = 20'

- LEGEND:**
- EXISTING BUILDING WALL
  - EXISTING MANHOLE
  - EXISTING OVERHEAD LINE
  - EXISTING UNDERGROUND ELECTRIC LINE
  - EXISTING SPOT ELEVATION
  - EXISTING LIGHT
  - EXISTING TREELINE
  - EXISTING CONTOUR
  - EXISTING FENCE
  - EXISTING WATER LINE
  - EXISTING GAS LINE
  - PROPOSED CONTOUR
  - PROPOSED CENTERLINE
  - PROPOSED SPOT ELEVATION
  - PROPOSED DRAINAGE
  - DETAIL NUMBER
  - DETAIL SHEET NUMBER
  - PLAYGROUND EQUIPMENT SAFETY ZONE
  - PROPOSED CONCRETE
  - PROPOSED ENGINEERED WOOD FIBER
  - ME = MATCH EXISTING ELEVATION
  - TW = TOP OF WALL
  - BW = BOTTOM OF WALL
  - WKME = MATCH EXISTING WALK

- NOTES:**
- ALL SWINGS TO BE SINGLE POST SWING #1228374 WITH GALVANIZED CHAINS AND BELT SEATS #132385A MANUFACTURED BY LANDSCAPE STRUCTURES. WEAR MATS TO BE INSTALLED UNDER ALL SWINGS.
  - ALL ENGINEERED WOOD FIBER AREAS SHOWN ON PLANS TO BE 12" COMPACTED DEPTH FOR NEW PLAYGROUND AREAS AND 4" TOPRESS FOR ALL EXISTING PLAYGROUND AREAS UNLESS OTHERWISE SPECIFIED. 15" UNCOMPACTED TO EQUAL 12" COMPACTED WOOD FIBER.
  - ALL DISTURBED LAWN AREAS SHALL BE RESTORED. SEE DETAIL 18, SHEET C14.
  - CROSS SLOPES ON ALL CONCRETE WALKS AND PAVEMENTS SHALL BE MIN. 1% AND MAX. 2%. SLOPE IN DIRECTION OF TRAVEL NOT TO EXCEED 5%.
  - ALL PLAYGROUND AREAS SCHEDULED TO BE REMOVED AND NOT REPLACED SHALL BE RESTORED TO EXISTING ADJACENT GRADE LEVEL, TOPSOIL, SEED & MULCHED.



**KINDERGARTEN**  
 SCALE: 1" = 20'

REVISIONS	DATE	COMMENTS
INITIALS		

**TROY SCHOOL DISTRICT**  
 4400 LIVERNOIS ROAD  
 TROY, MICHIGAN  
 248-823-4000

**TROY PLAYGROUND IMPROVEMENTS #2**  
**MORSE ELEMENTARY SCHOOL**  
**LAYOUT PLAN**  
 475 CHERRY STREET  
 TROY, MI 48063

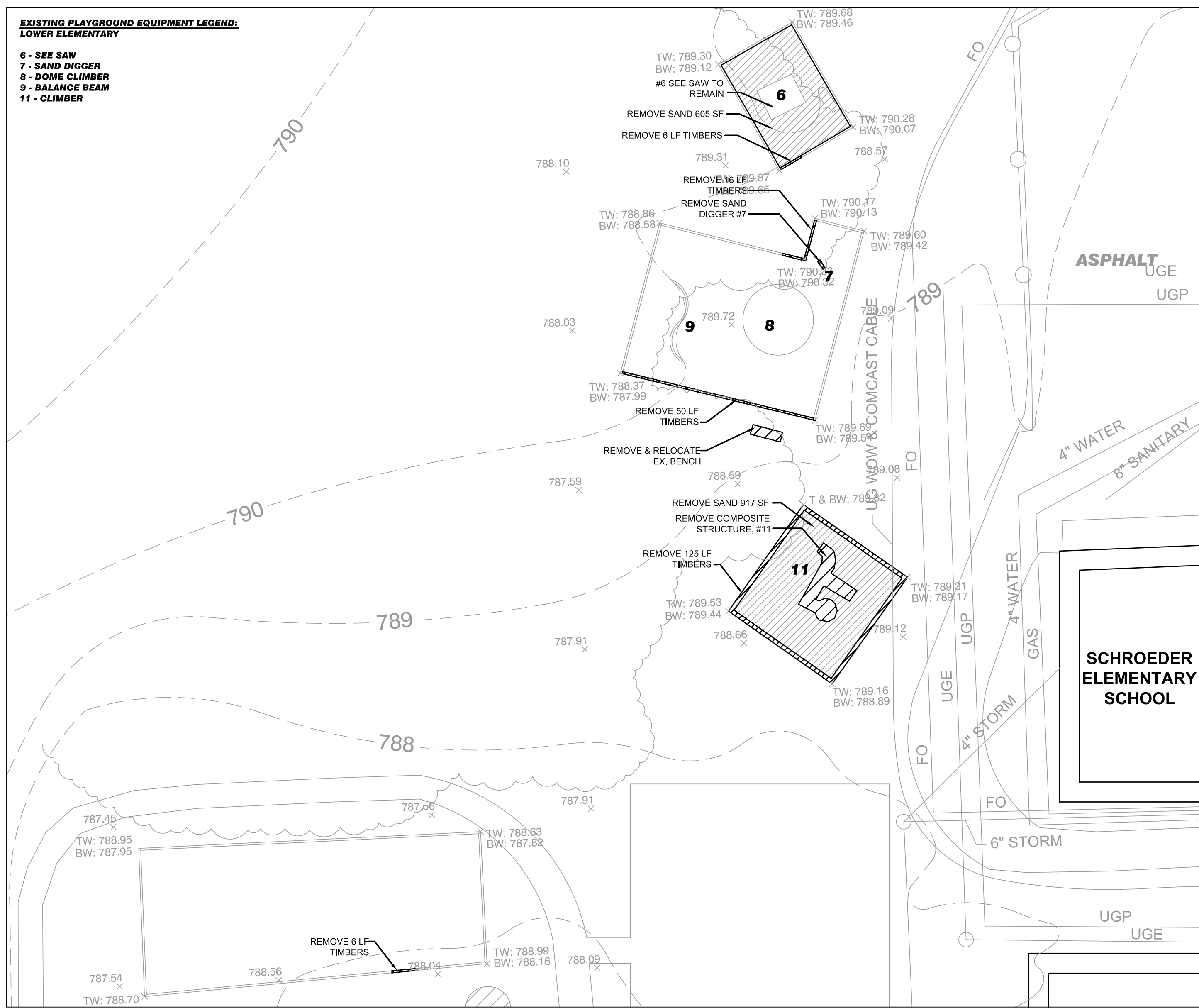
DATE: 6-9-08	DESIGNED BY: TJJ
CHECKED BY: REF	DRAWN BY: KMCTJ
PROJECT NO: 07044	SCALE: NA
HORIZ: NA	VERT: NA





**EXISTING PLAYGROUND EQUIPMENT LEGEND:**  
**LOWER ELEMENTARY**

- 6 - SEE SAW  
7 - SAND DIGGER  
8 - DOME CLIMBER  
9 - BALANCE BEAM  
11 - CLIMBER

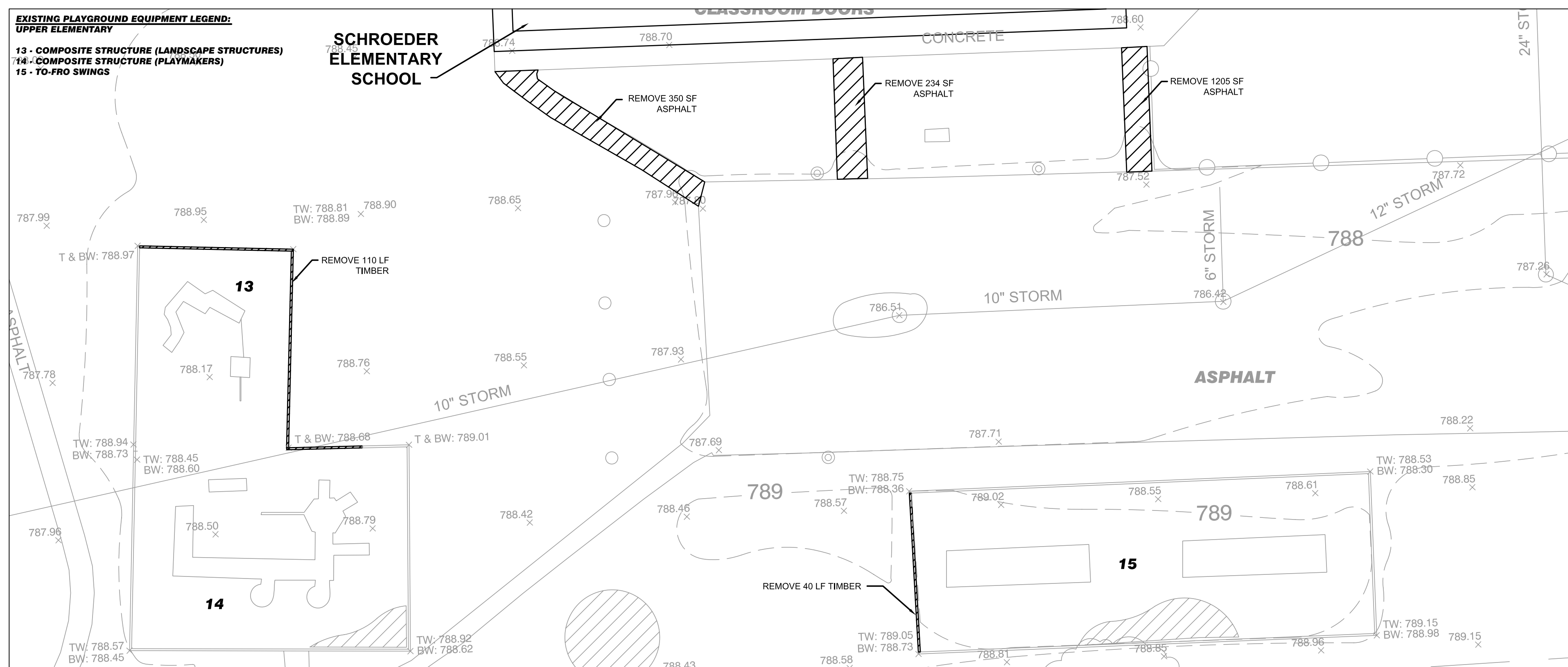


**LOWER ELEMENTARY PLAYGROUND**

SCALE: 1" = 20'

**EXISTING PLAYGROUND EQUIPMENT LEGEND:**  
**UPPER ELEMENTARY**

- 13 - COMPOSITE STRUCTURE (LANDSCAPE STRUCTURES)  
14 - COMPOSITE STRUCTURE (PLAYMAKERS)  
15 - TO-FRO SWINGS

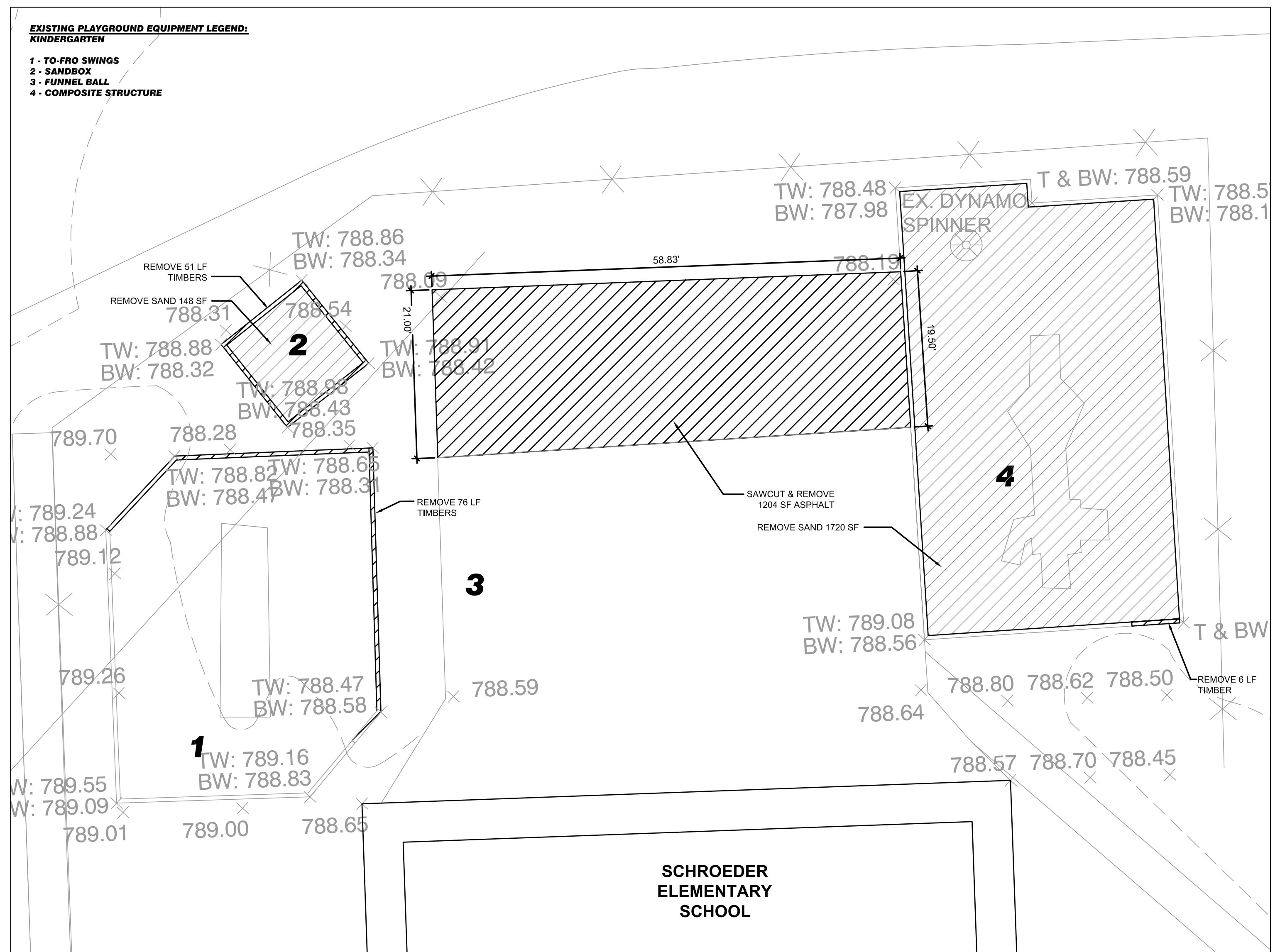


**UPPER ELEMENTARY PLAYGROUND**

SCALE: 1" = 20'

**EXISTING PLAYGROUND EQUIPMENT LEGEND:**  
**KINDERGARTEN**

- 1 - TO-FRO SWINGS  
2 - SANDBOX  
3 - FUNNEL BALL  
4 - COMPOSITE STRUCTURE



**KINDERGARTEN PLAYGROUND**

SCALE: 1" = 10'

**LEGEND:**

- EXISTING BUILDING WALL  
PROPOSED DEMOLITION  
EXISTING SAND TO BE REMOVED  
EXISTING MANHOLE  
EXISTING OVERHEAD LINE  
EXISTING UNDERGROUND ELECTRIC LINE  
EXISTING SPOT ELEVATION  
EXISTING LIGHT  
EXISTING TREELINE  
EXISTING CONTOUR  
EXISTING FENCE  
EXISTING WATER LINE  
EXISTING GAS LINE

**NOTES:**

1. ALL PLAYGROUND AREAS SCHEDULED TO BE REMOVED AND NOT REPLACED SHALL BE RESTORED TO EXISTING ADJACENT GRADE LEVEL, TOPSOIL, SEED & MULCHED.  
2. SEE NEXT SHEET FOR LOCATIONS OF RELOCATED ITEMS.



**LANDSCAPE  
ARCHITECTS  
PLANNERS**

OAKLAND CENTER  
809 CENTER STREET  
SUITE ONE  
LANSING, MI 48906  
P: (517) 485-5500  
F: (517) 485-5576  
info@lapinc.net

REVISIONS	INITIALS	DATE	COMMENTS

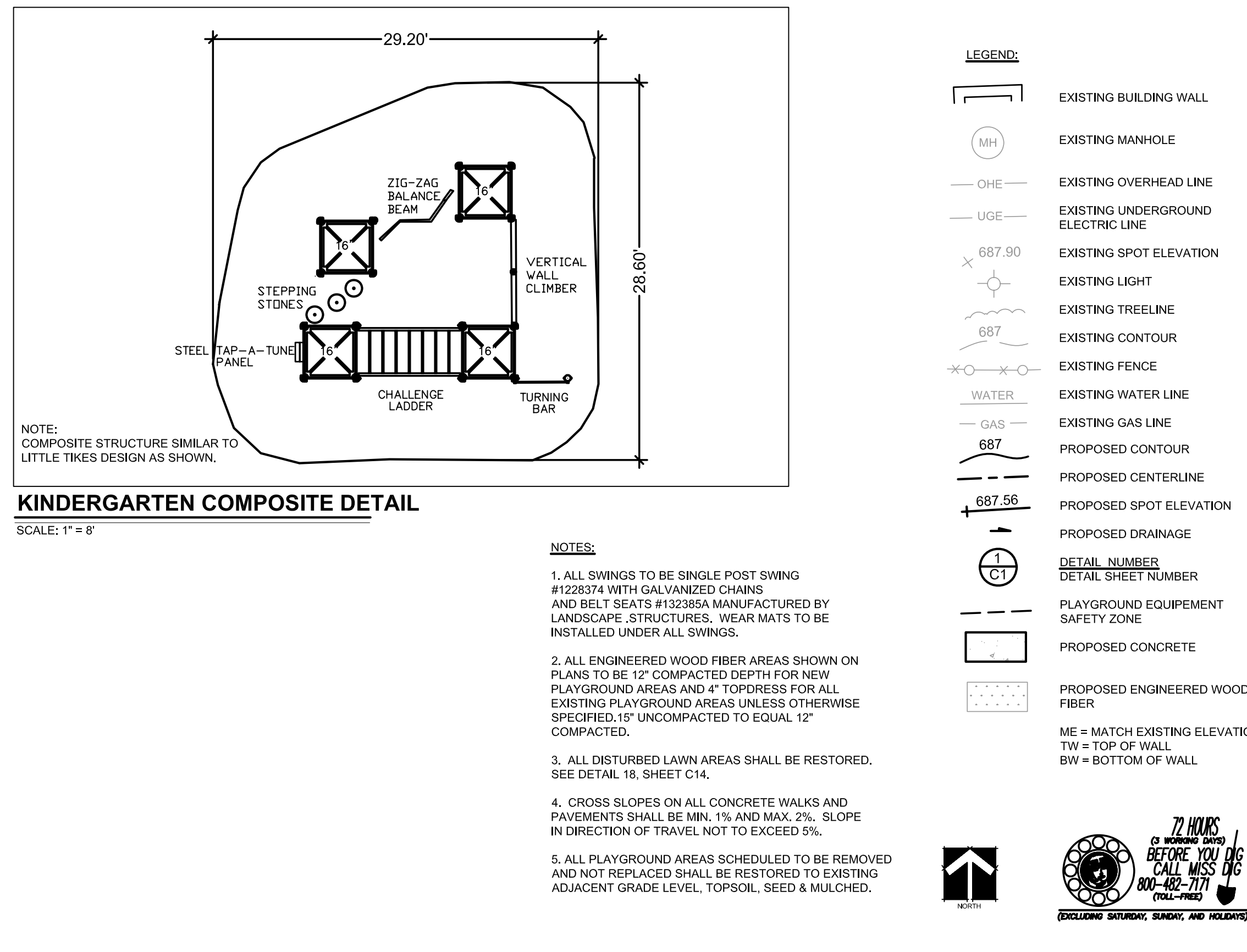
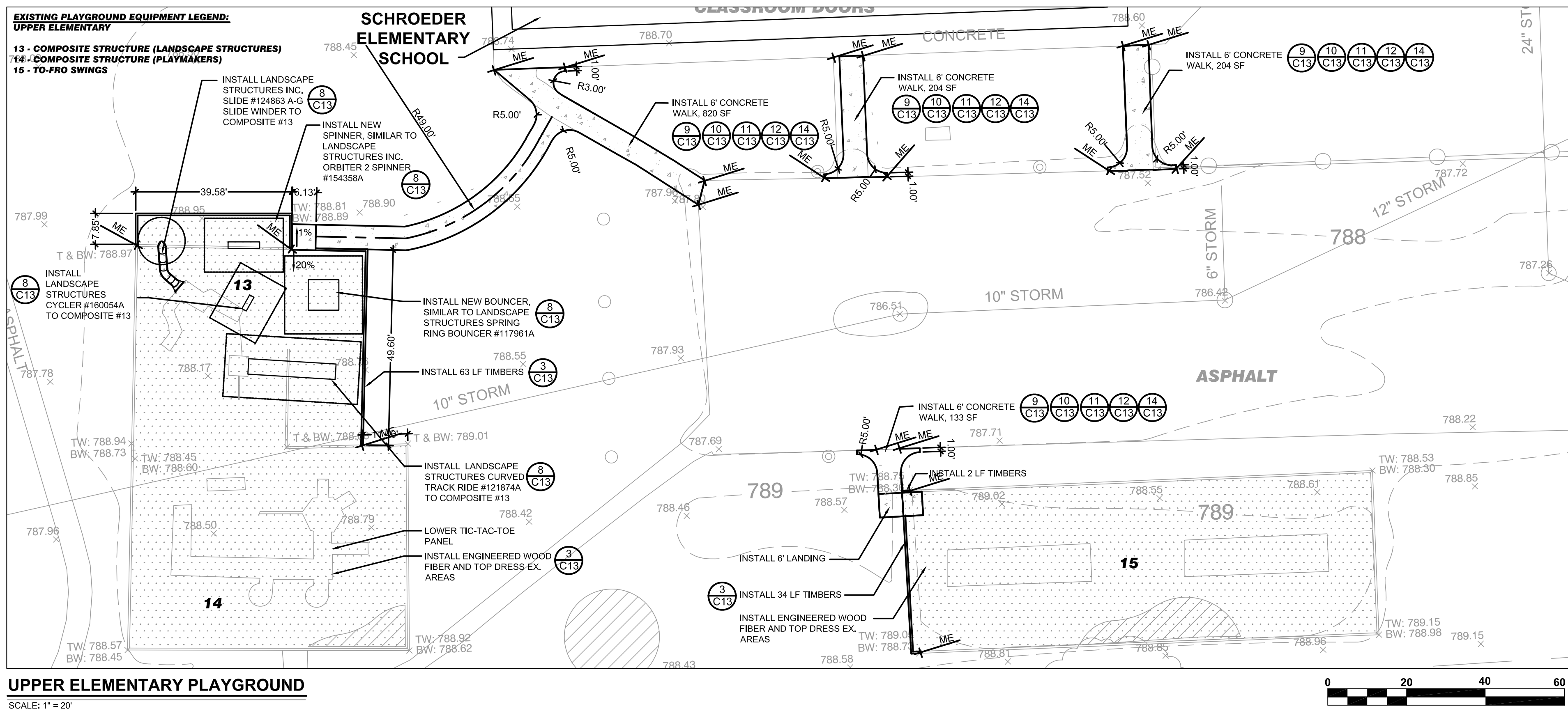
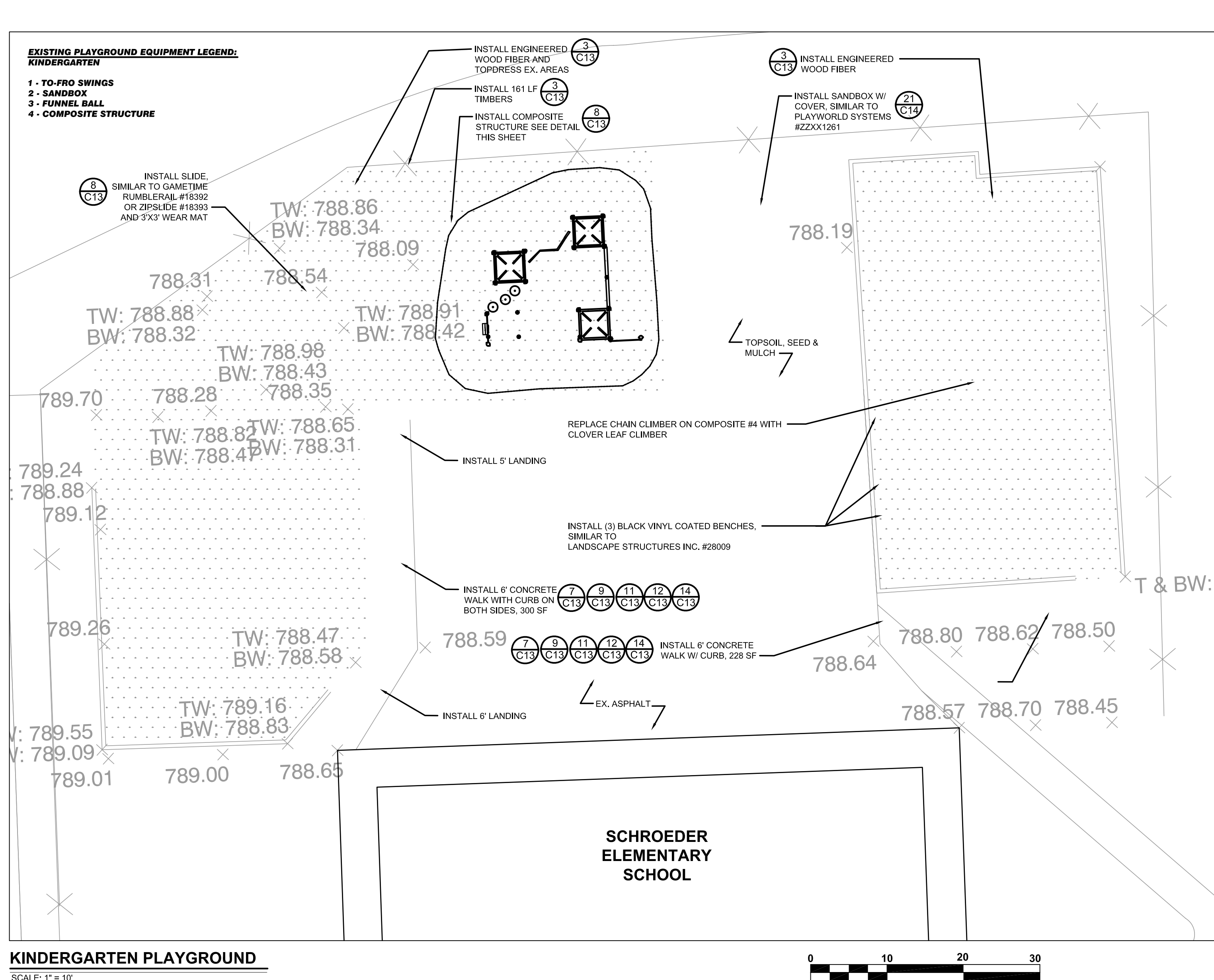
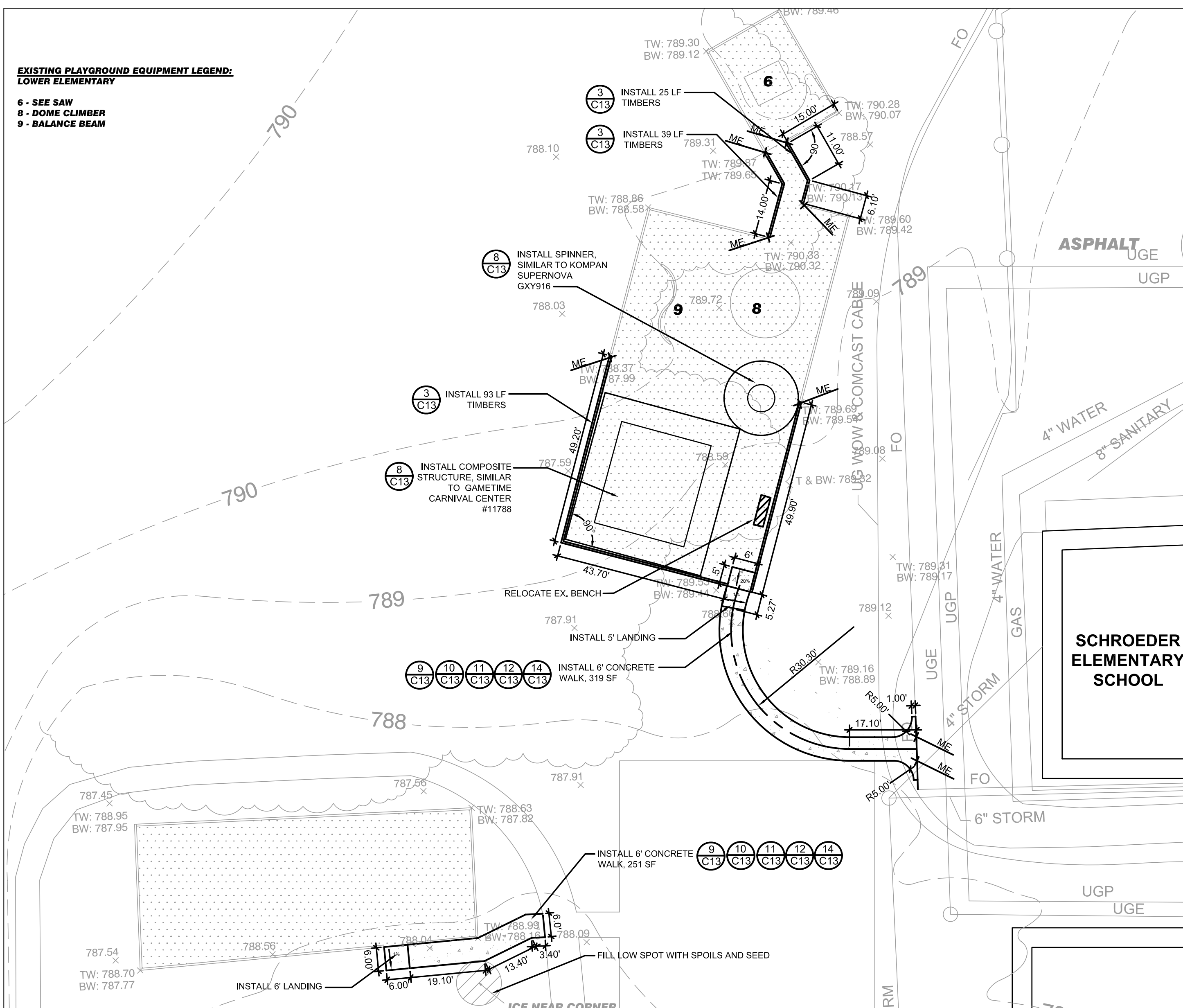
**TROY SCHOOL DISTRICT**  
4400 LIVERNOIS ROAD  
TROY, MICHIGAN  
248-823-4000

**TROY PLAYGROUND IMPROVEMENTS #2**  
**SCHROEDER ELEMENTARY SCHOOL**  
**DEMOLITION PLAN**  
3541 JACK DRIVE  
TROY, MI 48064

DATE: 6-20-08	DESIGNED BY: TJJ
CHECKED BY: REF	DRAWN BY: M.H. KMC, MDL
PROJECT NO: 07044	SCALE: NA
HORIZ.	VERT: NA

**SHEET**  
C5





**LANDSCAPE ARCHITECTS PLANNERS**

OAKLAND CENTER  
809 CENTER STREET  
SUITE ONE  
LANSING, MI 48906  
P: (517) 485-5500  
F: (517) 485-5576  
info@lapinc.net

REVISIONS	INITIALS	DATE	COMMENTS

**TROY SCHOOL DISTRICT**  
4400 LIVERNOIS ROAD  
TROY, MICHIGAN  
248-823-4000

**TROY PLAYGROUND IMPROVEMENTS #2**  
**SCHROEDER ELEMENTARY SCHOOL**  
**LAYOUT PLAN**  
3541 JACK DRIVE  
TROY, MI 48064

DATE: 6-20-08	DESIGNED BY: TJJ
CHECKED BY: REF	DRAWN BY: M.H. KIM, M.D.L.
PROJECT NO. 07044	SCALE: NA
HORIZ.	VERT. NA

**SHEET**  
C6



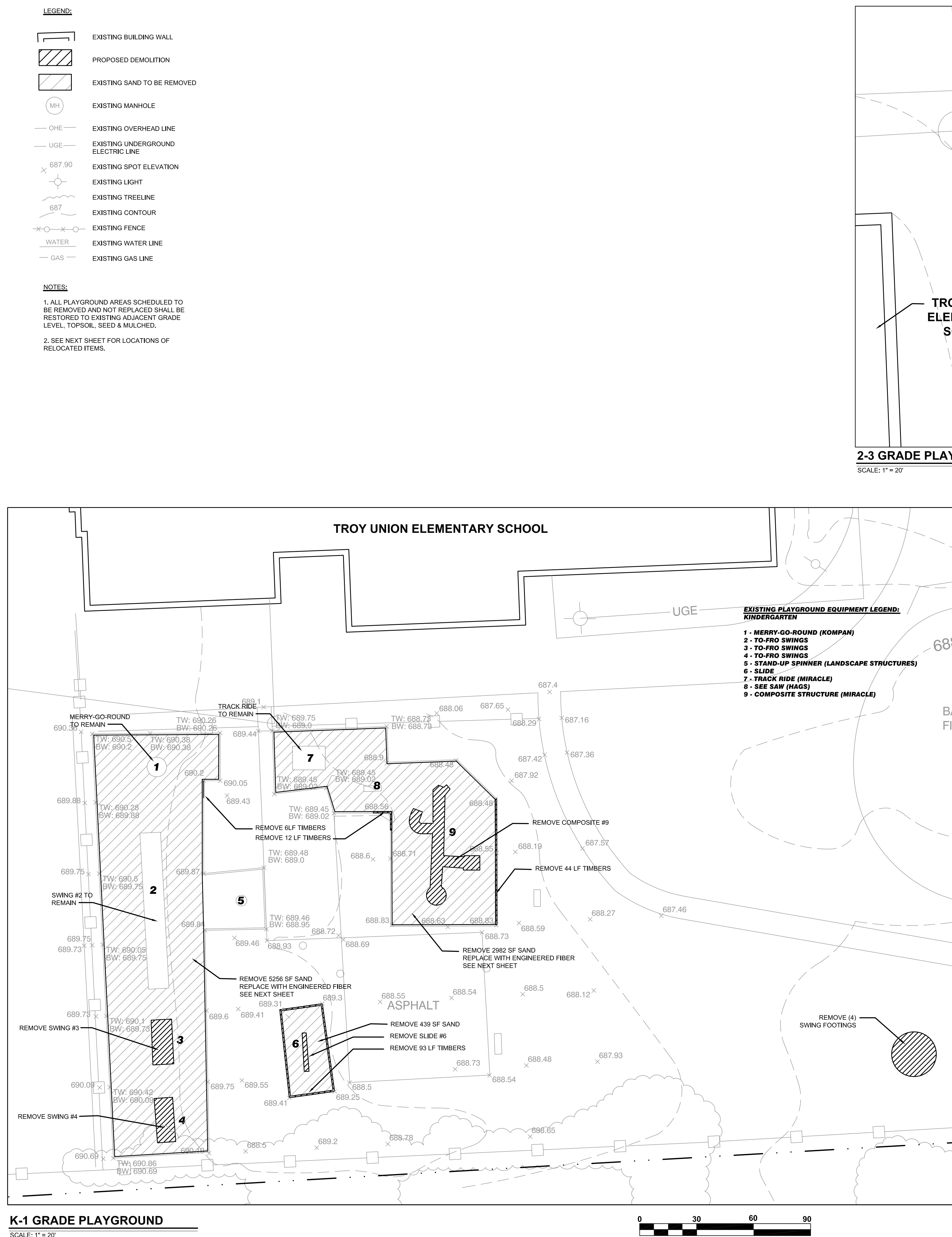
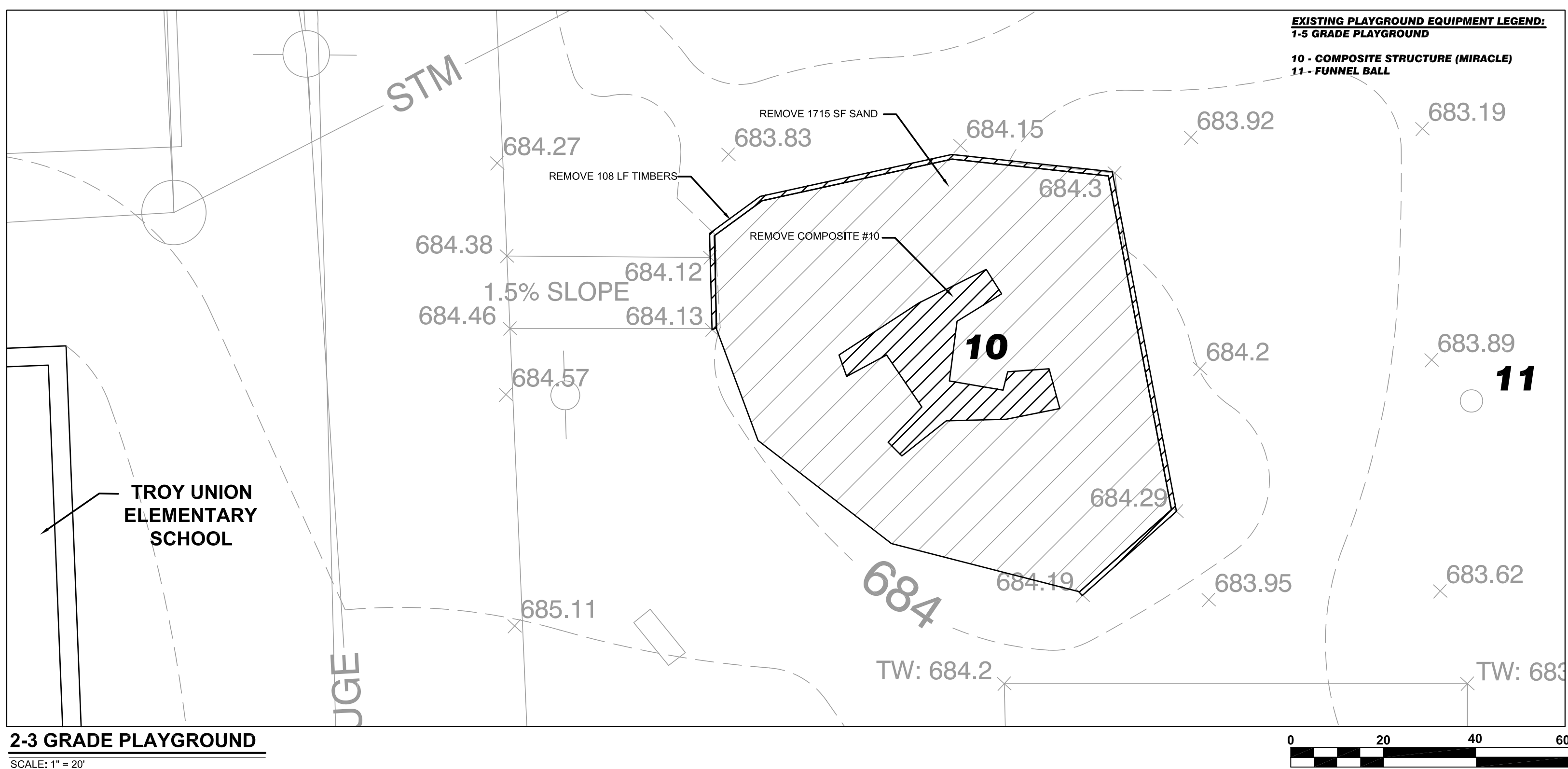
REVISIONS	
INITIALS	DATE COMMENTS

**TROY SCHOOL DISTRICT**  
4400 LIVERNOIS ROAD  
TROY, MICHIGAN  
248-823-4000

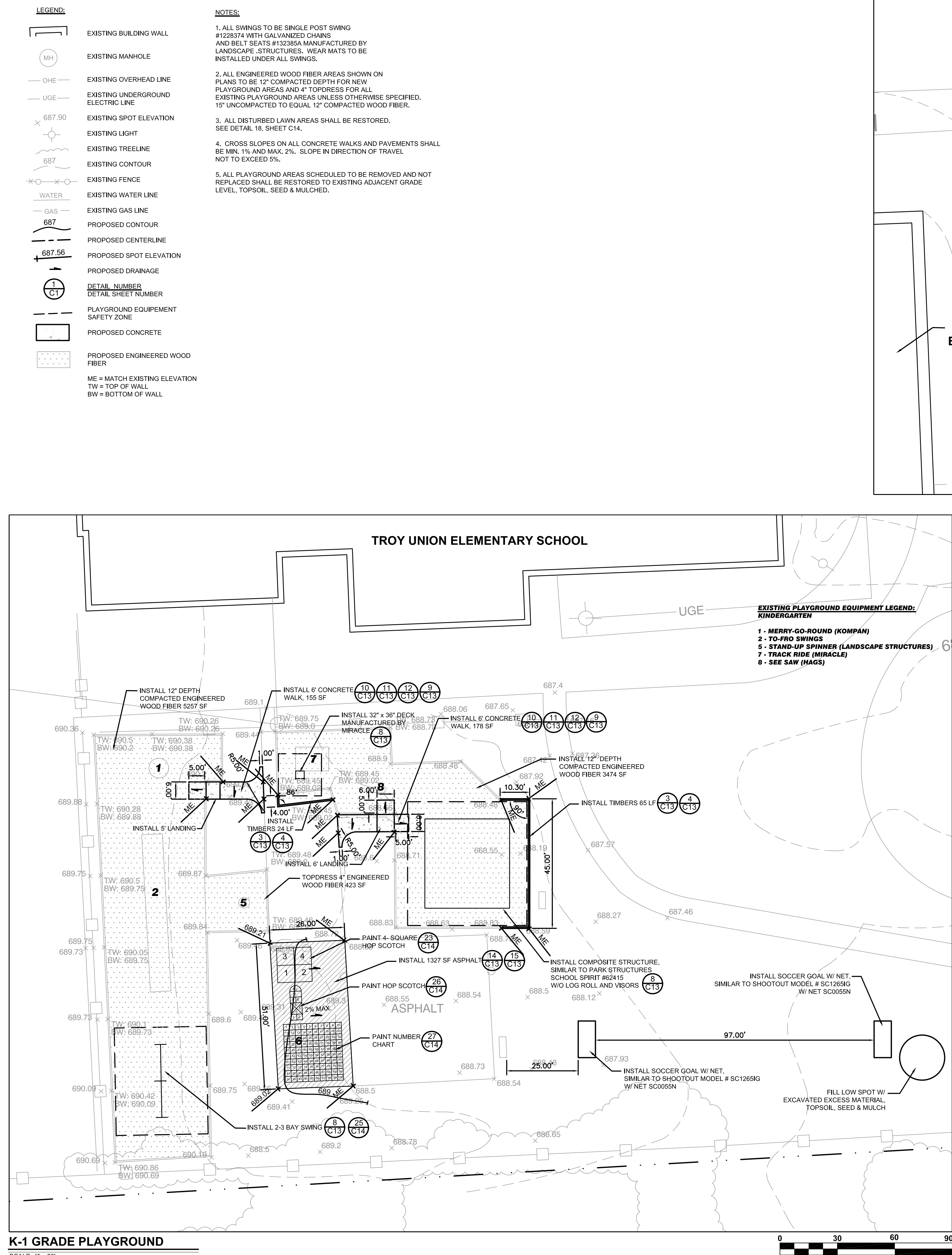
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**TROY UNION ELEMENTARY SCHOOL**  
**DEMOLITION PLAN**  
1340 E. SQUARE LAKE ROAD  
TROY, MI 48060

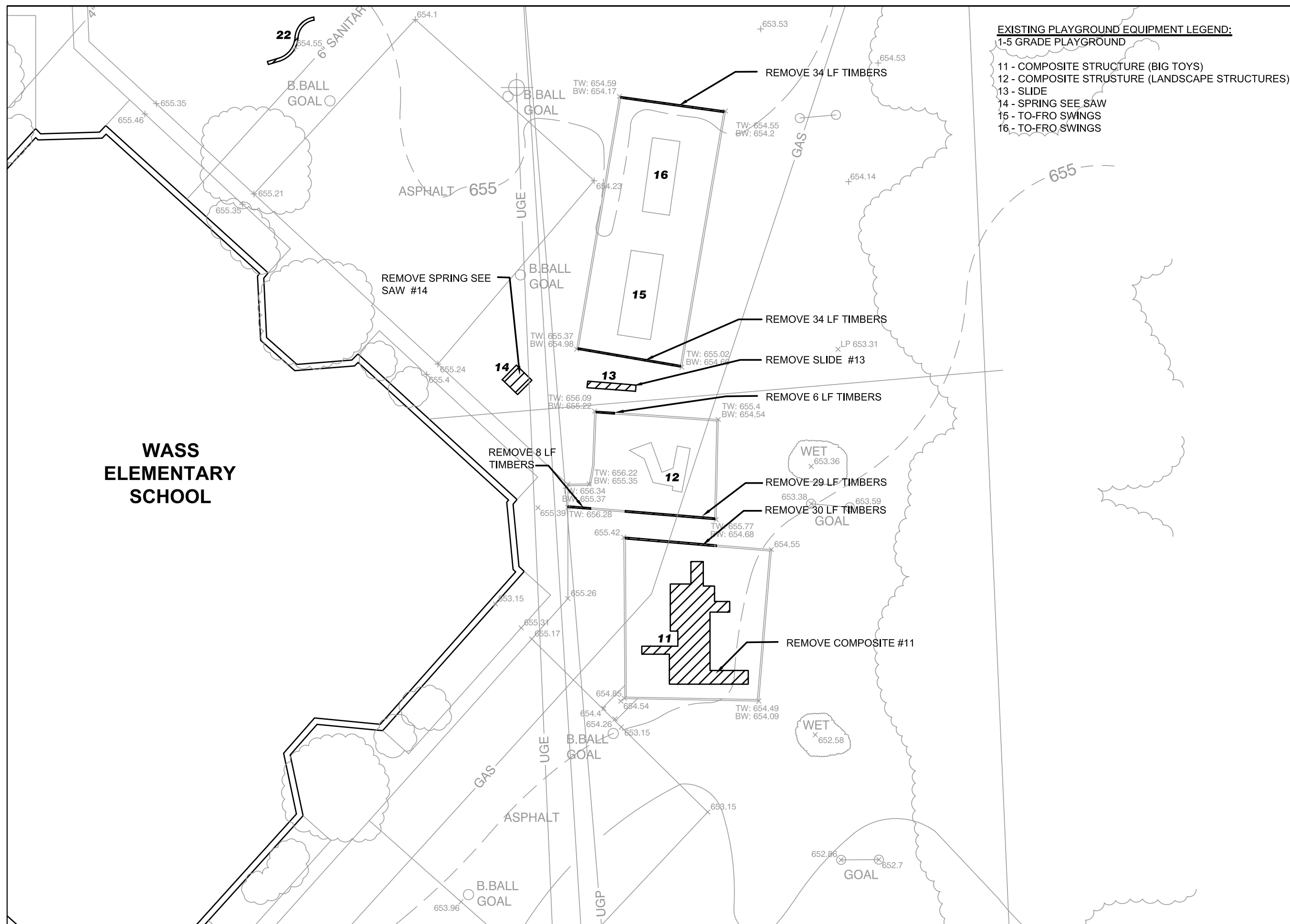
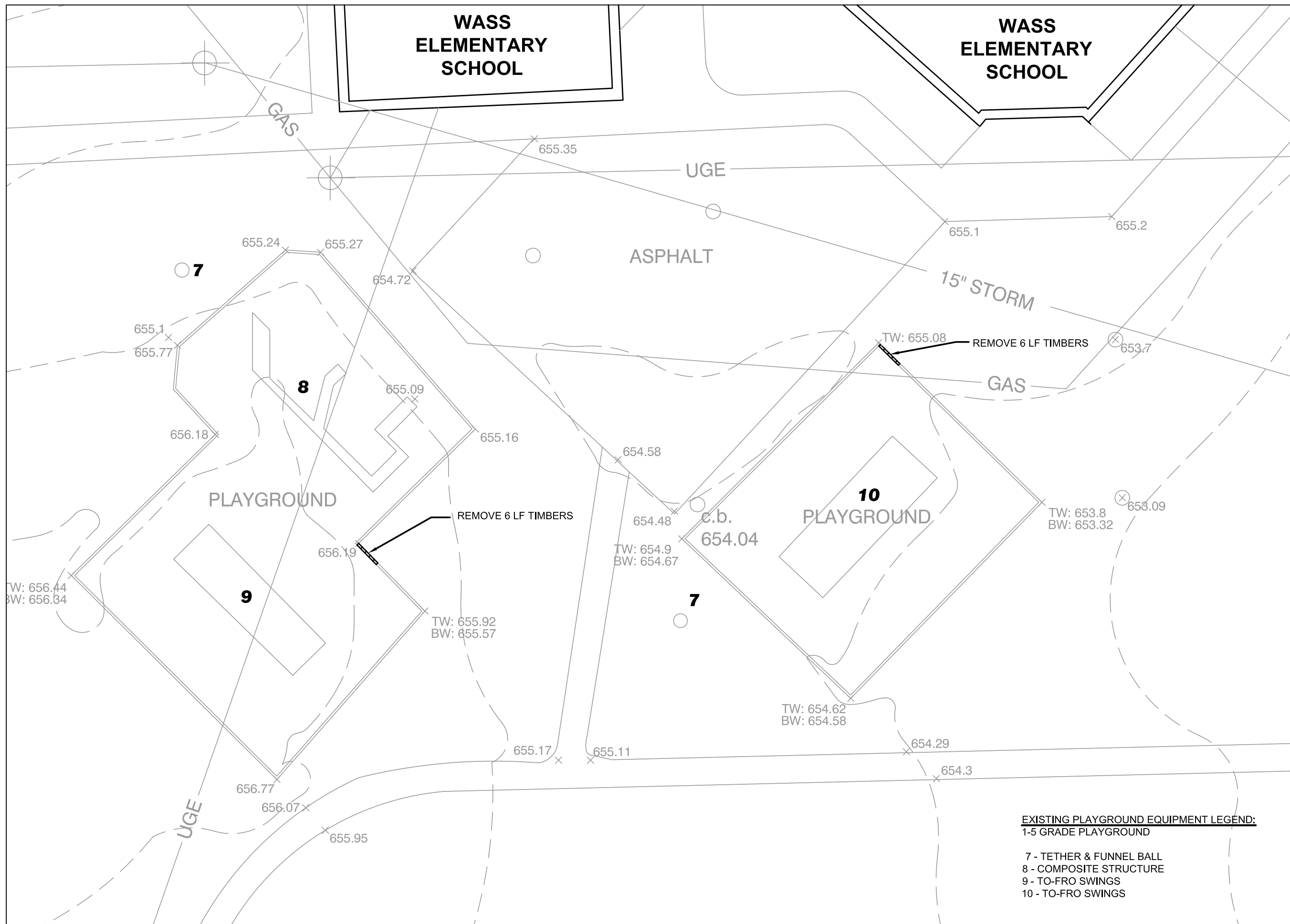
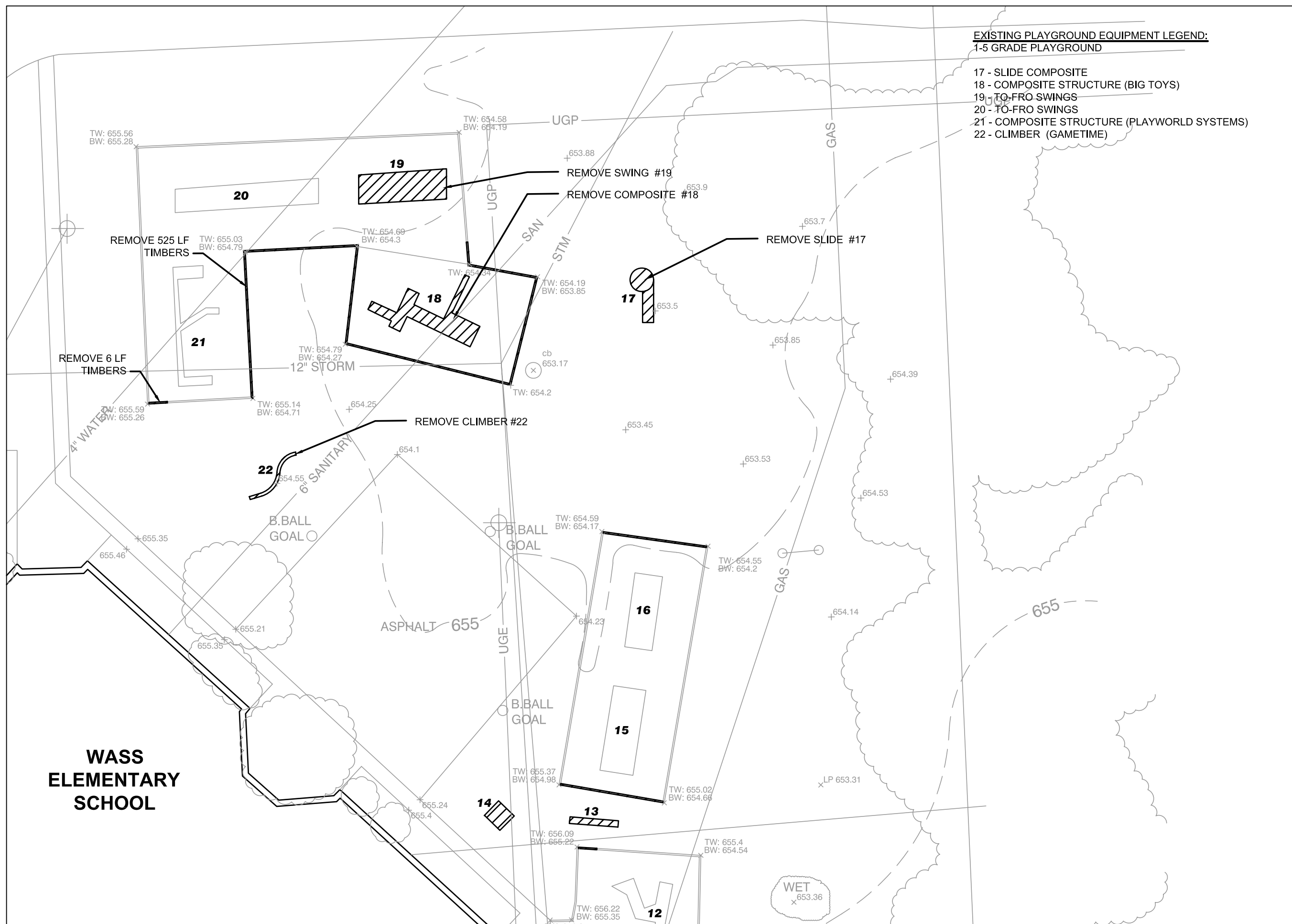
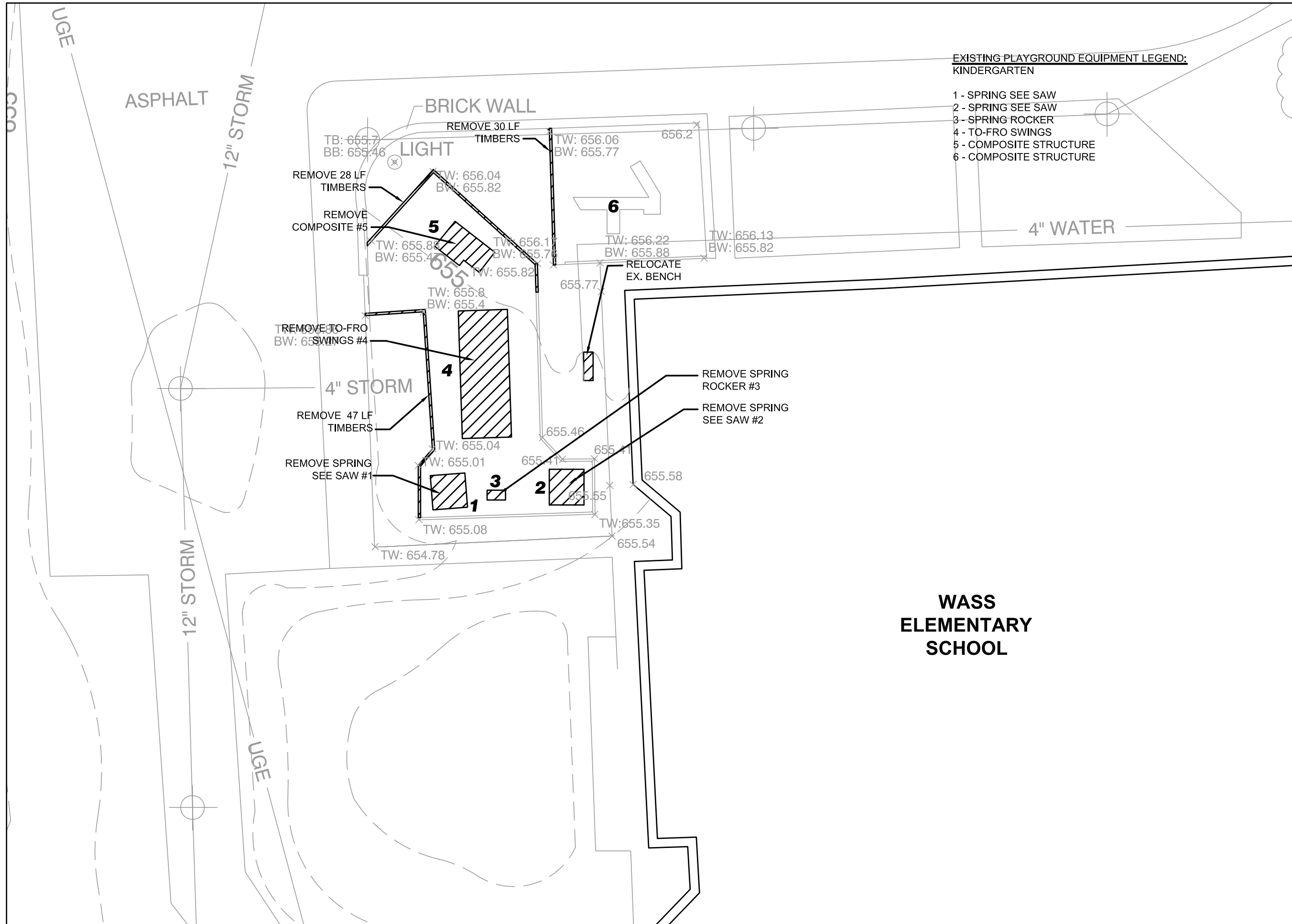
DATE: 6-9-08  
DESIGNED BY: TJJ  
CHECKED BY: REF  
DRAWN BY: KMC, TJJ, MD  
PROJECT NO: 07044  
SCALE: NA  
HORIZ:

SHEET  
C7









- LEGEND:**
- EXISTING BUILDING WALL
  - PROPOSED DEMOLITION
  - EXISTING SAND TO BE REMOVED
  - EXISTING MANHOLE
  - EXISTING OVERHEAD LINE
  - EXISTING UNDERGROUND ELECTRIC LINE
  - EXISTING SPOT ELEVATION
  - EXISTING LIGHT
  - EXISTING TREELINE
  - EXISTING CONTOUR
  - EXISTING FENCE
  - EXISTING WATER LINE
  - EXISTING GAS LINE

**NOTES:**

1. ALL PLAYGROUND AREAS SCHEDULED TO BE REMOVED AND NOT REPLACED SHALL BE RESTORED TO EXISTING ADJACENT GRADE LEVEL, TOPSOIL, SEED & MULCHED.
2. SEE NEXT SHEET FOR LOCATIONS OF RELOCATED ITEMS.

REVISIONS	DATE	COMMENTS
INITIALS		

**TROY SCHOOL DISTRICT**  
4400 LIVERNOIS ROAD  
TROY, MICHIGAN  
248-823-4000

**TROY PLAYGROUND IMPROVEMENTS #2**  
**WASS ELEMENTARY SCHOOL**  
**DEMOLITION PLAN**  
2340 WILLARD DRIVE  
TROY, MI 48065

DATE: 6-6-08  
DESIGNED BY: TJJ  
CHECKED BY: REF  
DRAWN BY: KMC, TJJ, MDL  
PROJECT NO: 07044  
SCALE: NA  
HORIZ: NA  
VERT: NA







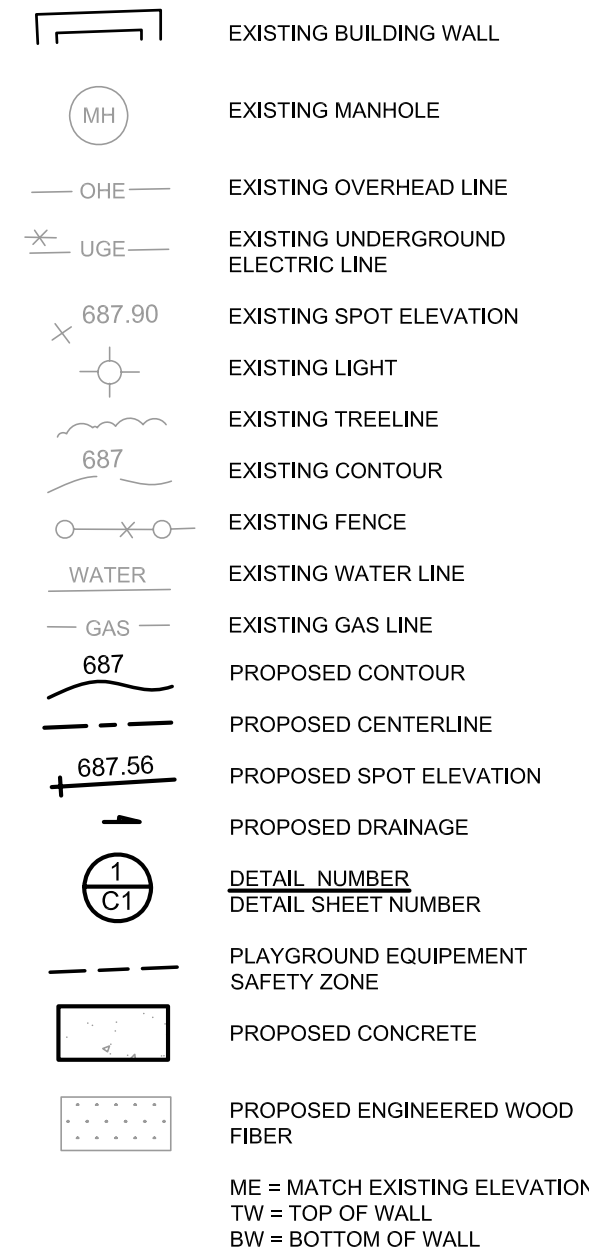
**TROY SCHOOL DISTRICT**  
4400 LIVERNOIS ROAD  
TROY, MICHIGAN  
248-823-4000

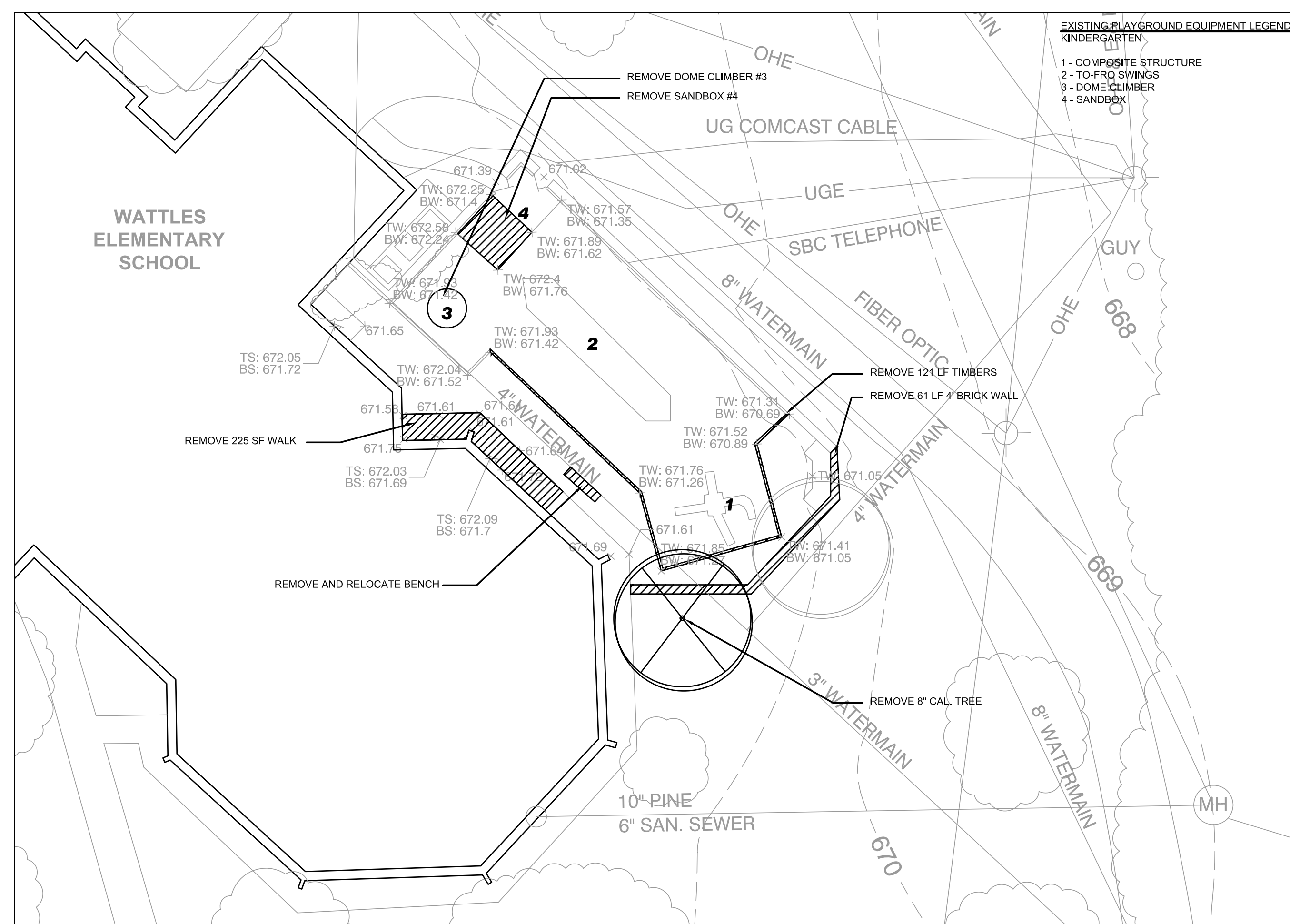
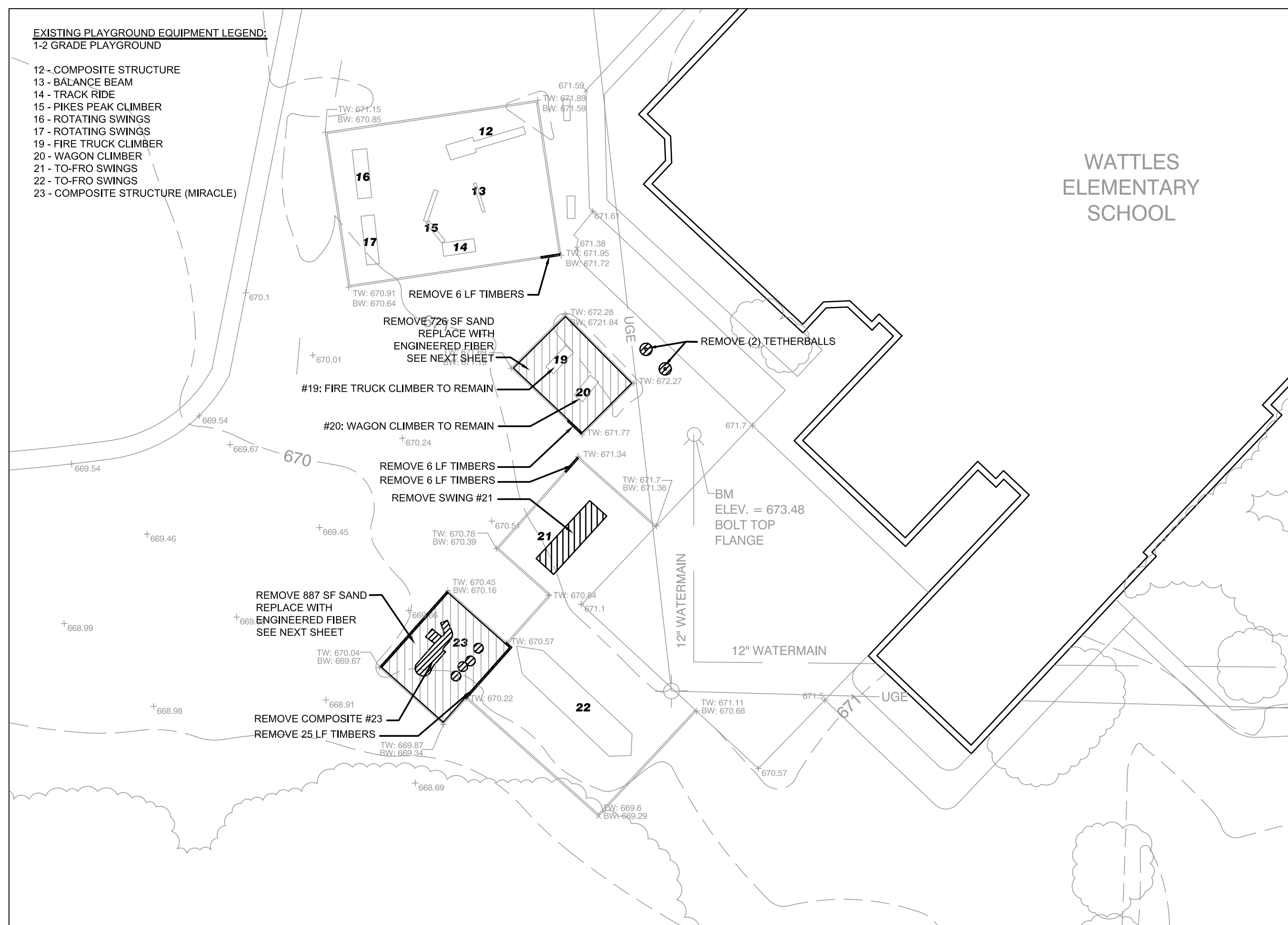
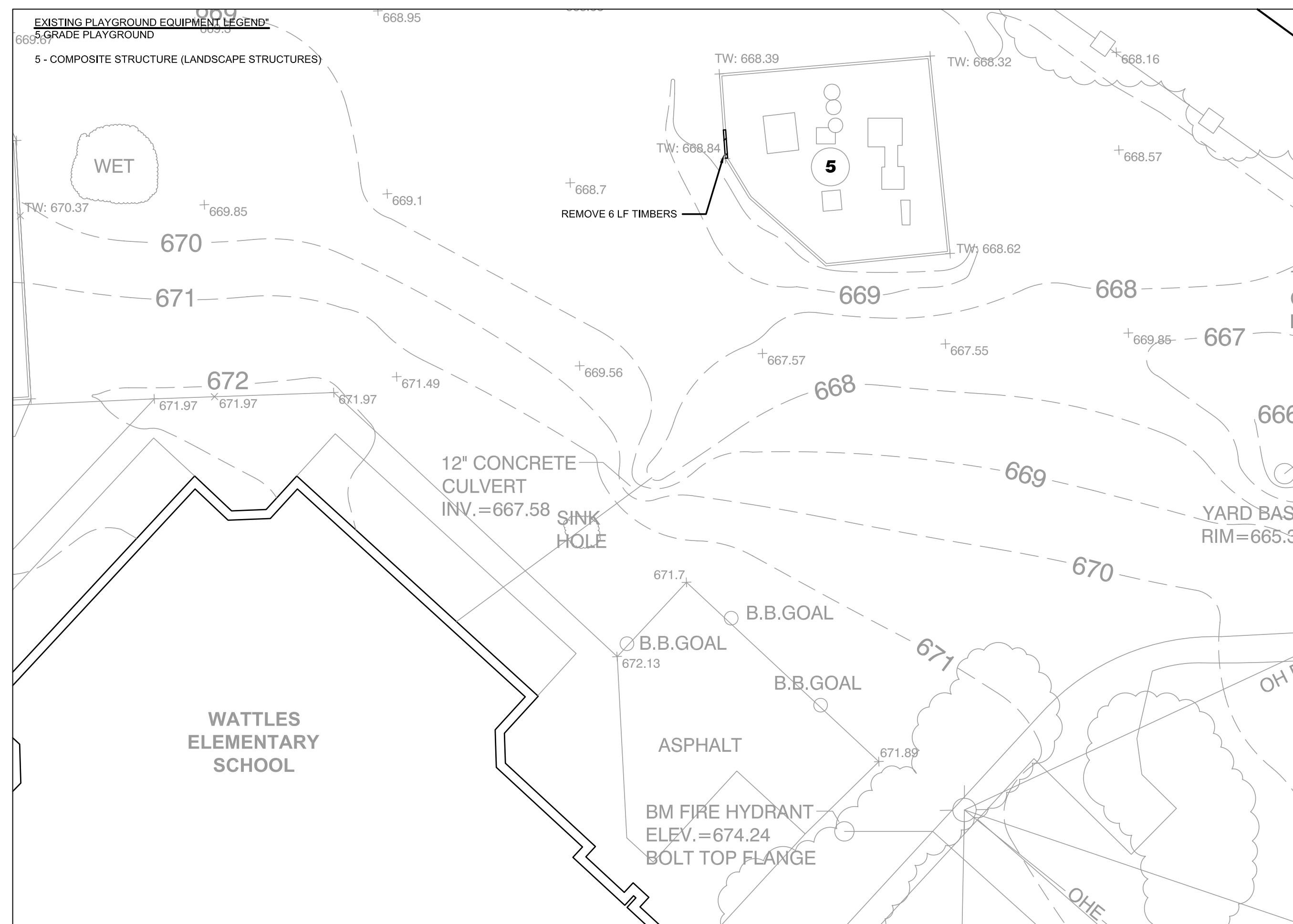
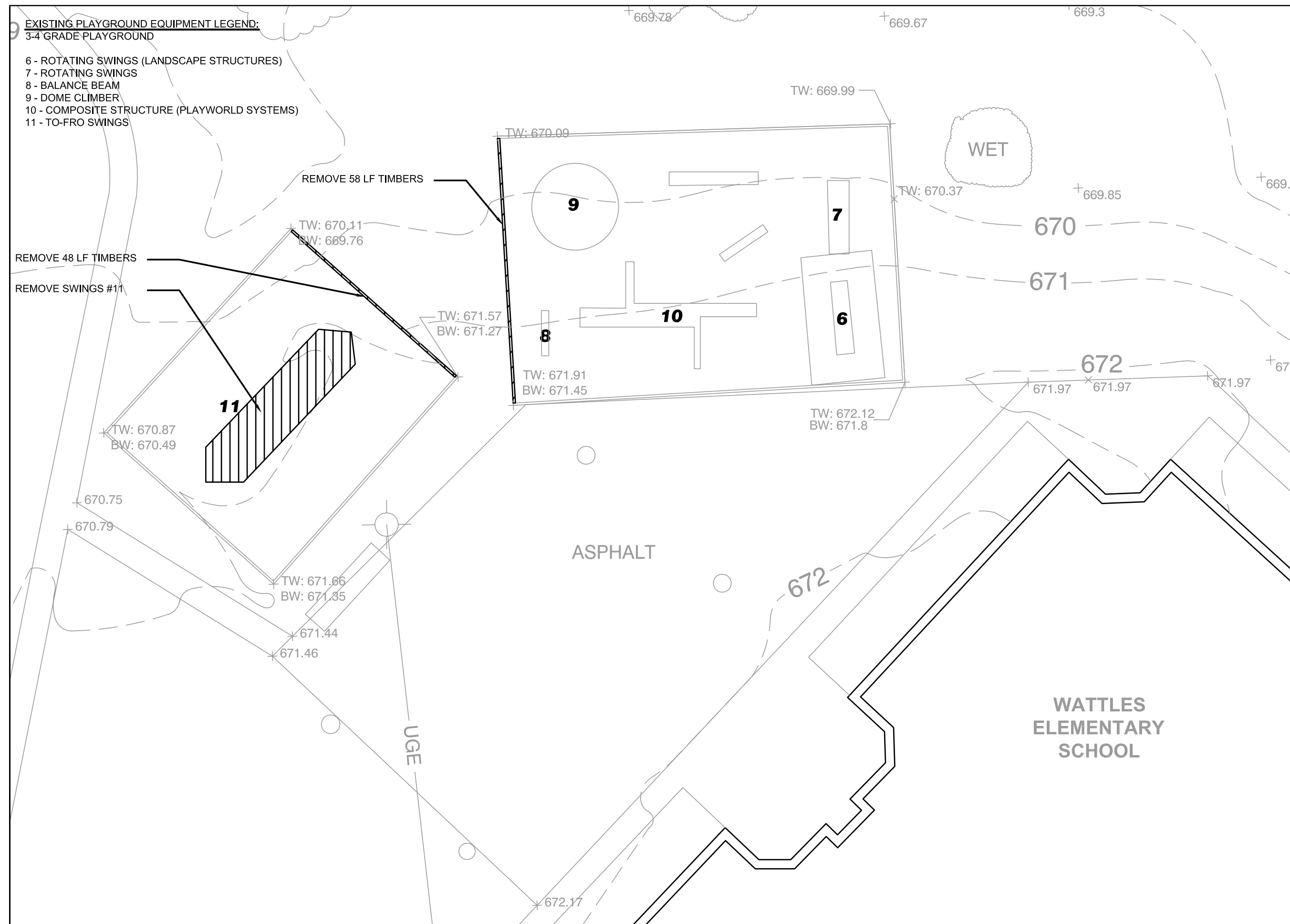
SHEET  
C10

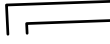

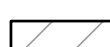










NOTES:

1. ALL SWINGS TO BE SINGLE POST SWING  
#128374 WITH GALVANIZED CHAINS  
AND BELT SEATS #123585A MANUFACTURED BY  
LANDSCAPE STRUCTURES. WEAR MATS TO BE  
INSTALLED UNDER ALL SWINGS.
2. ALL ENGINEERED WOOD FIBER AREAS SHOWN ON  
PLAN TO BE 12" COMPACTED DEPTH FOR ALL  
PLAYGROUND AREAS AND 4" TOPDRESS FOR ALL  
EXISTING PLAYGROUND AREAS UNLESS OTHERWISE  
SPECIFIED. 15" UNCOMPACTED TO EQUAL 12"  
COMPACTED.
3. ALL DISTURBED LAND AREAS SHALL BE RESTORED  
SEE DETAIL 18, SHEET C41A.
4. CROSS SLOPES ON ALL CONCRETE WALKS AND  
PAVEMENTS SHALL BE MIN. 1% AND MAX. 2%. SLOPE  
IN DIRECTION OF TRAVEL NOT TO EXCEED 5%.
5. ALL PLAYGROUND AREAS SCHEDULED TO BE  
REMOVED AND NOT REPLACED SHALL BE RESTORED  
TO EXISTING ADJACENT GRADE LEVEL. TOPSOIL, SEE  
#128374, #123585A, #123585B, #123585C, #123585D,  
#123585E, #123585F, #123585G, #123585H, #123585I,  
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**LEGEND**





- | <b>LEGEND:</b>  |                                    |
|---|------------------------------------|
|   | EXISTING BUILDING WALL             |
|  | PROPOSED DEMOLITION                |
|  | EXISTING SAND TO BE REMOVED        |
|  | EXISTING MANHOLE                   |
|  | EXISTING OVERHEAD LINE             |
|  | EXISTING UNDERGROUND ELECTRIC LINE |
|  | EXISTING SPOT ELEVATION            |
|  | EXISTING LIGHT                     |
|  | EXISTING TREE LINE                 |
|  | EXISTING CONTOUR                   |
|  | EXISTING FENCE                     |
|  | EXISTING WATER LINE                |
|  | EXISTING GAS LINE                  |

**NOTES:**

1. ALL PLAYGROUND AREAS SCHEDULED TO BE REMOVED AND NOT REPLACED SHALL BE RESTORED TO EXISTING ADJACENT GRADE LEVEL, TOPSOIL, SEED & MULCHED.
2. SEE NEXT SHEET FOR LOCATIONS OF RELOCATED ITEMS.



REVISIONS	
INITIALS	DATE COMMENTS

**TROY SCHOOL DISTRICT**  
4400 LIVERNOIS ROAD  
TROY, MICHIGAN  
248-823-4000

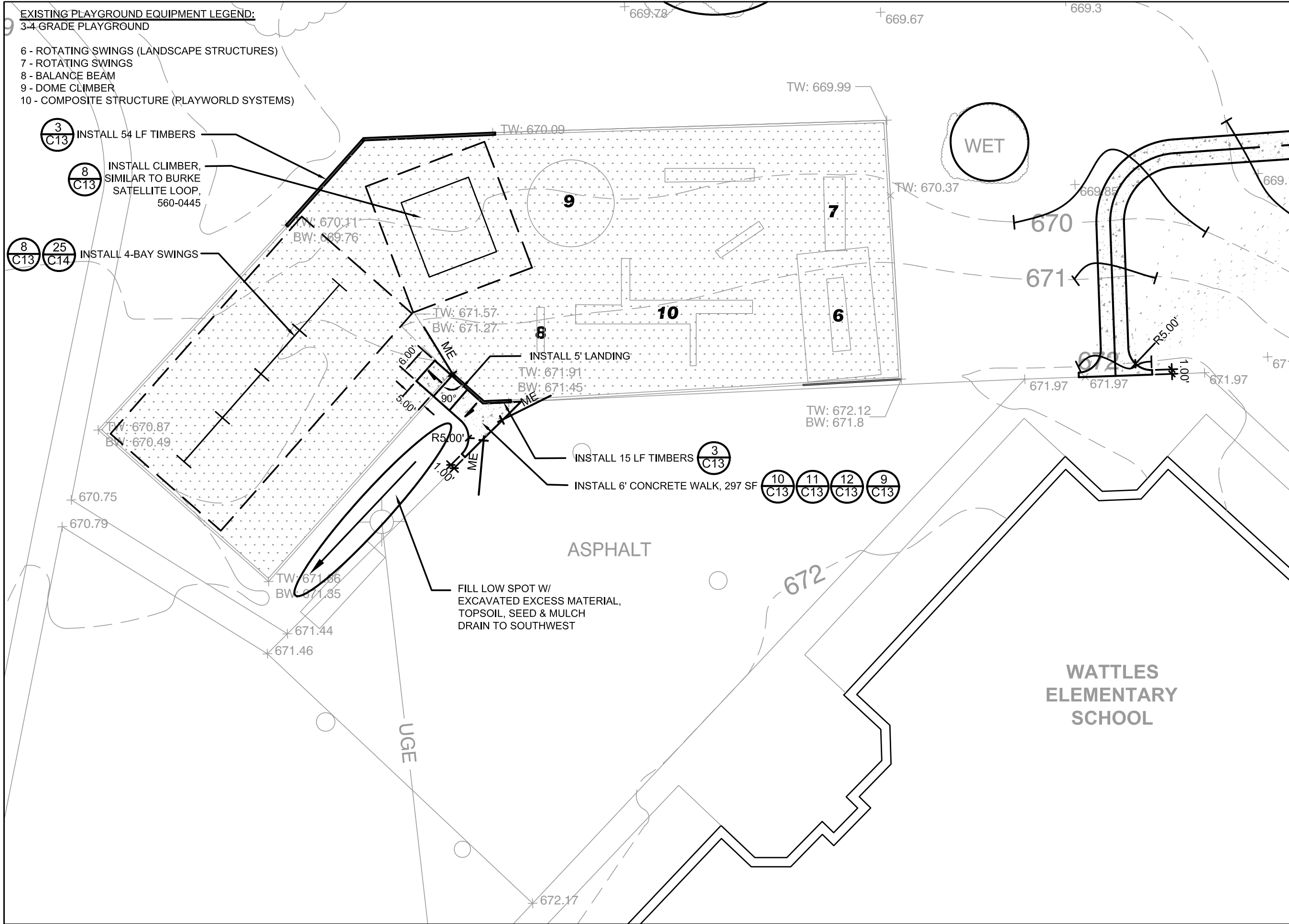
TROY PLAYGROUND IMPROVEMENTS #2  
**WATTLES ELEMENTARY SCHOOL**  
**DEMOLITION PLAN**  
3555 ELLENBORO DRIVE  
TROY, MI 48083

DATE: 6-9-08
DESIGNED BY: TJJ
CHECKED BY: REF
DRAWN BY: KMC, TJJ, MD
PROJECT NO: 07044
SCALE: NA
HORIZ:
VERT: NA

SHEET  
C11

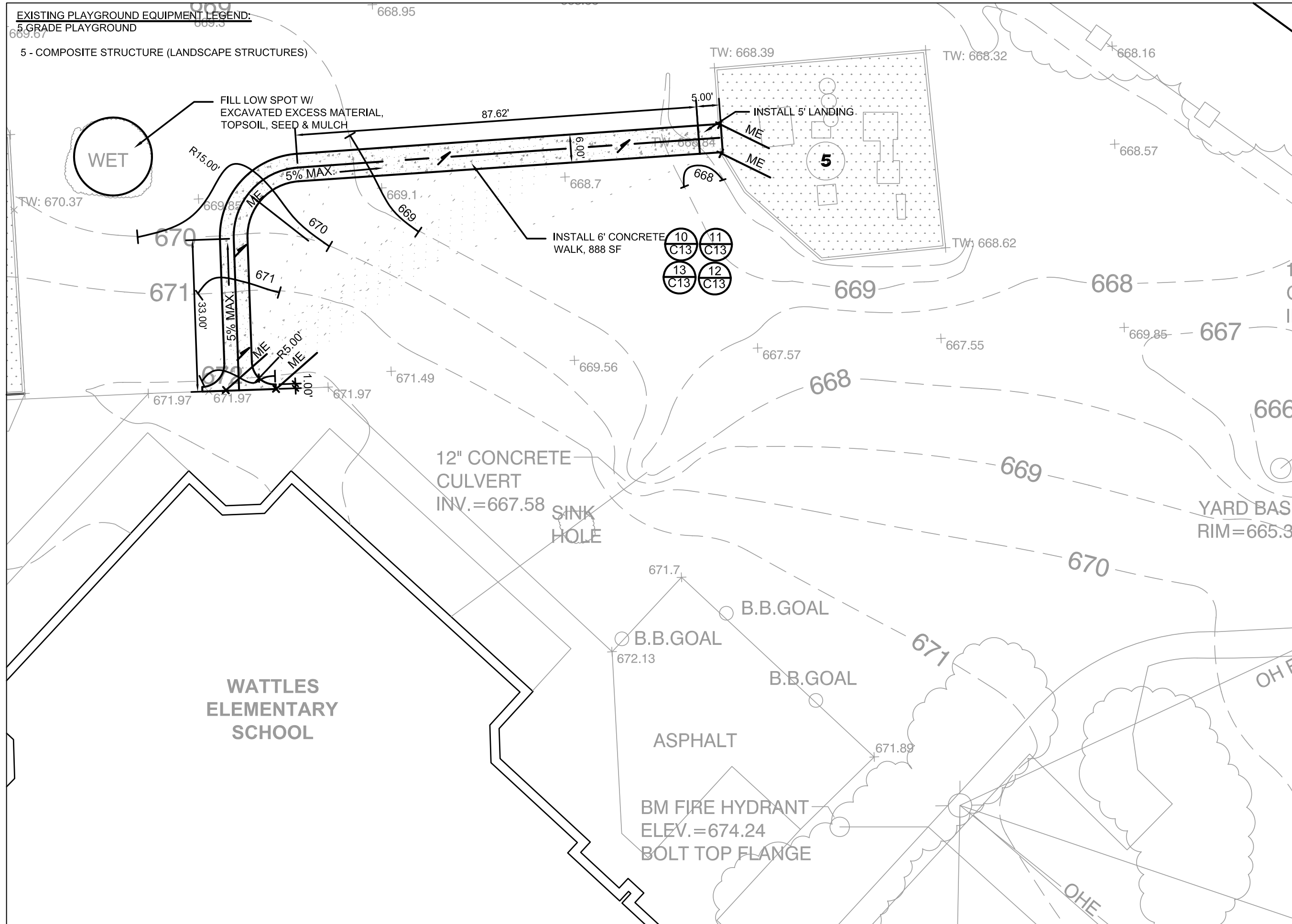
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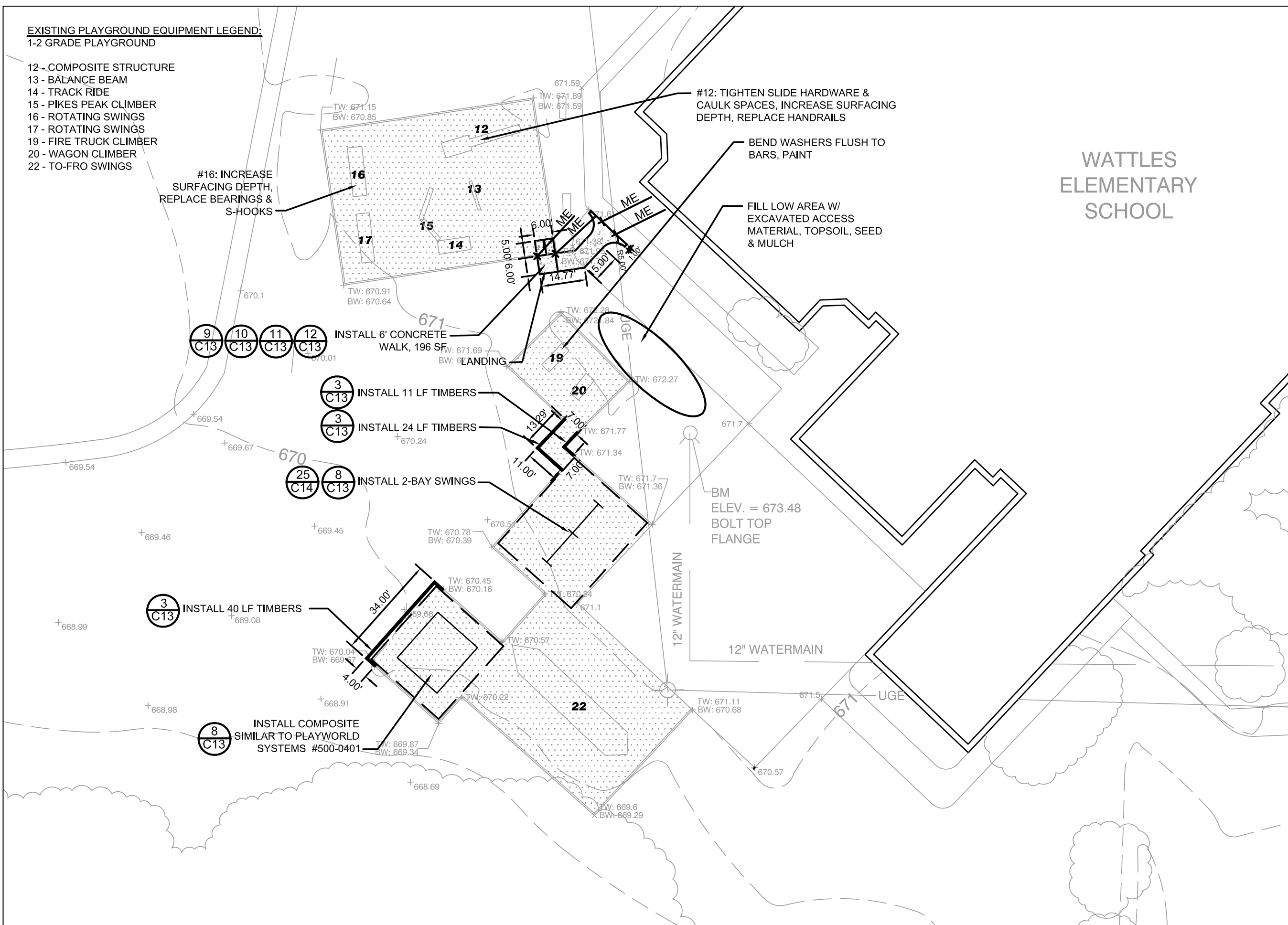
### 3-4 GRADE AREA

SCALE: 1" = 20'



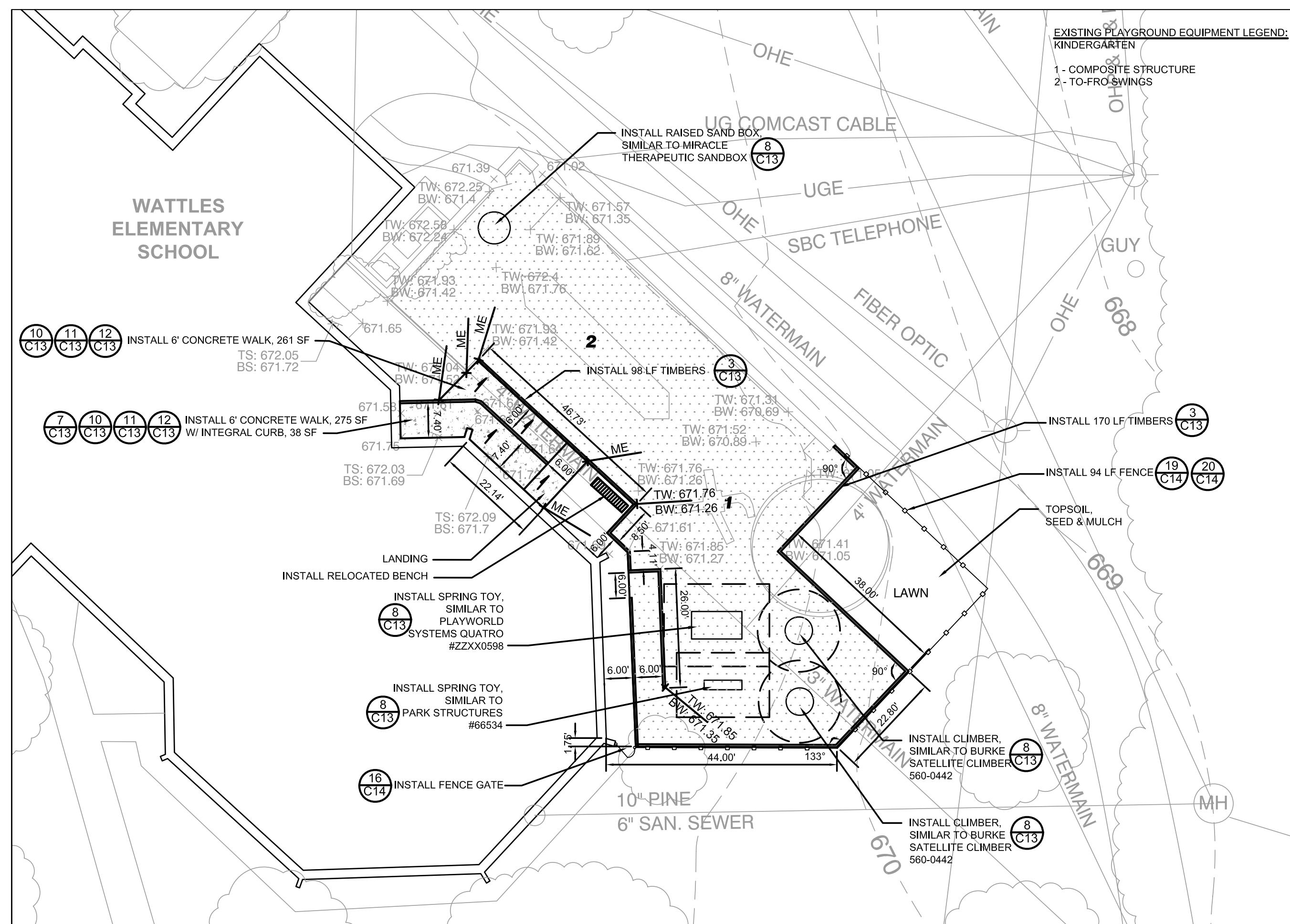
### 5TH GRADE AREA

SCALE: 1" = 20'



### 1-2 GRADE AREA

SCALE: 1" = 20'



### KINDERGARTEN

SCALE: 1" = 20'

- NOTES:**
1. ALL SWINGS TO BE SINGLE POST SWING #1228374 WITH GALVANIZED CHAINS AND BELT SEATS #132385A MANUFACTURED BY LANDSCAPE STRUCTURES. WEAR MATS TO BE INSTALLED UNDER ALL SWINGS.
  2. ALL ENGINEERED WOOD FIBER AREAS SHOWN ON PLANS TO BE 12" COMPACTED DEPTH FOR NEW PLAYGROUND AREAS AND 4" TOPDRESS FOR ALL EXISTING PLAYGROUND AREAS UNLESS OTHERWISE SPECIFIED. 15" UNCOMPACTED TO EQUAL 12" COMPACTED.
  3. ALL DISTURBED LAWN AREAS SHALL BE RESTORED. SEE DETAIL 18, SHEET C14.
  4. CROSS SLOPES ON ALL CONCRETE WALKS AND PAVEMENTS SHALL BE MIN. 1% AND MAX. 2%. SLOPE IN DIRECTION OF TRAVEL NOT TO EXCEED 5%.
  5. ALL PLAYGROUND AREAS SCHEDULED TO BE REMOVED AND NOT REPLACED SHALL BE RESTORED TO EXISTING ADJACENT GRADE LEVEL, TOPSOIL, SEED & MULCHED.
- LEGEND:**
- EXISTING BUILDING WALL
  - EXISTING MANHOLE
  - EXISTING OVERHEAD LINE
  - EXISTING UNDERGROUND ELECTRIC LINE
  - EXISTING SPOT ELEVATION
  - EXISTING LIGHT
  - EXISTING TREELINE
  - EXISTING CONTOUR
  - EXISTING FENCE
  - EXISTING WATER LINE
  - EXISTING GAS LINE
  - PROPOSED CONTOUR
  - PROPOSED CENTERLINE
  - PROPOSED SPOT ELEVATION
  - PROPOSED DRAINAGE
  - DETAIL NUMBER
  - DETAIL SHEET NUMBER
  - PLAYGROUND EQUIPMENT SAFETY ZONE
  - PROPOSED CONCRETE
  - PROPOSED ENGINEERED WOOD FIBER
  - ME = MATCH EXISTING ELEVATION
  - TW = TOP OF WALL
  - BW = BOTTOM OF WALL



**LANDSCAPE ARCHITECTS PLANNERS**

OAKLAND CENTER  
808 CENTER STREET  
SUITE ONE  
LANSING, MI 48906  
P: (517) 485-5500  
F: (517) 485-5576  
info@lapinc.net

REVISIONS	DATE	COMMENTS
INITIALS		

**TROY SCHOOL DISTRICT**  
4400 LIVERNOIS ROAD  
TROY, MICHIGAN  
248-823-4000

**TROY PLAYGROUND IMPROVEMENTS #2**  
**WATTLES ELEMENTARY SCHOOL**  
**LAYOUT PLAN**  
3555 ELLENBORO DRIVE  
TROY, MI 48063

DATE: 6-5-08	DESIGNED BY: TJJ
CHECKED BY: REF	DRAWN BY: KMC, TJJ, MDL
PROJECT NO: 07044	SCALE: NA
HORIZ: NA	VERT: NA

**SHEET C12**



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**L**ANDSCAPE  
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**P**LANNERS

OAKLAND CENTER  
808 CENTER STREET  
SUITE ONE  
LANSING, MI 48906  
P: (517) 485-5500  
F: (517) 485-5576  
info@lapinc.net

REVISIONS	DATE	COMMENTS
INITIALS		

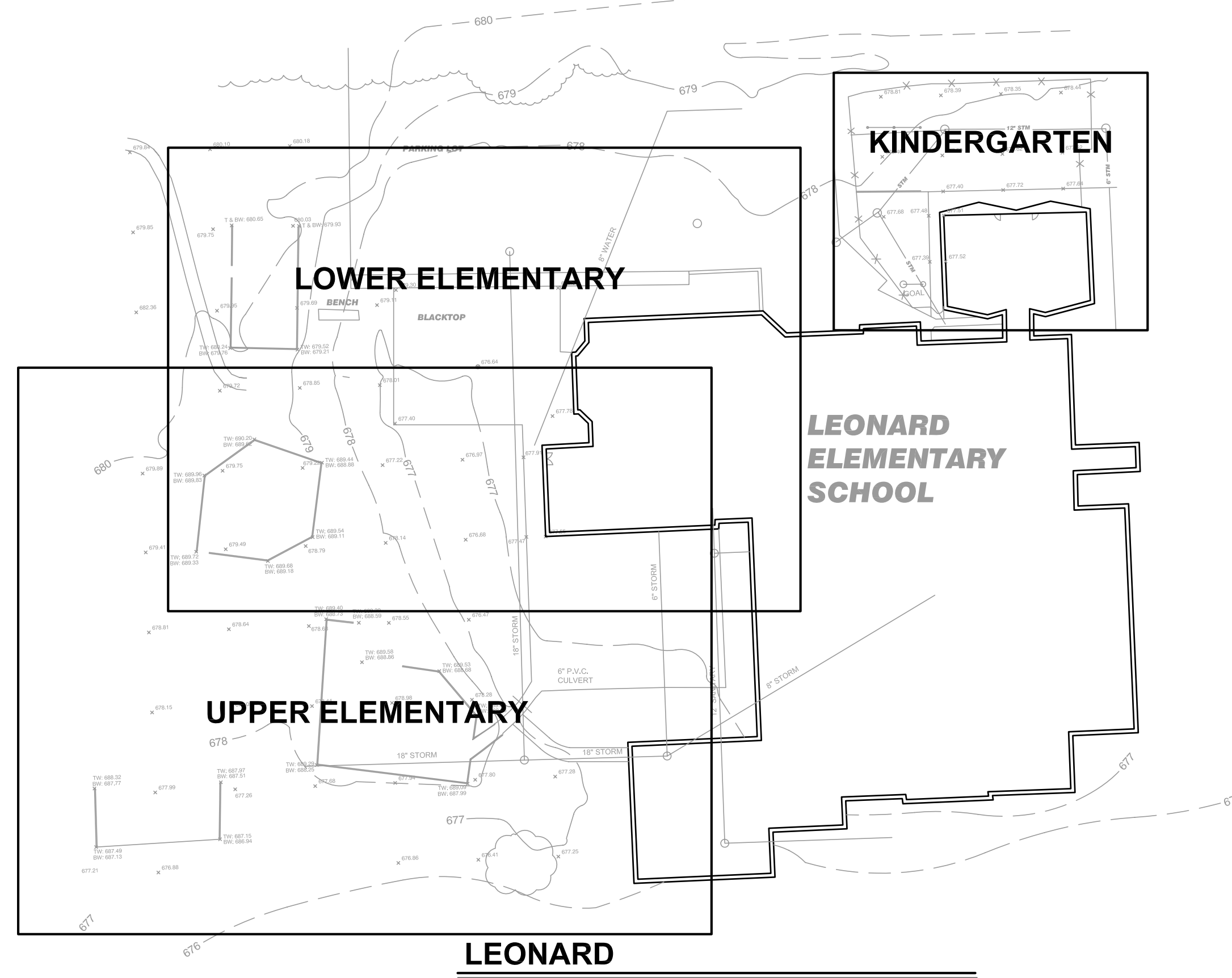
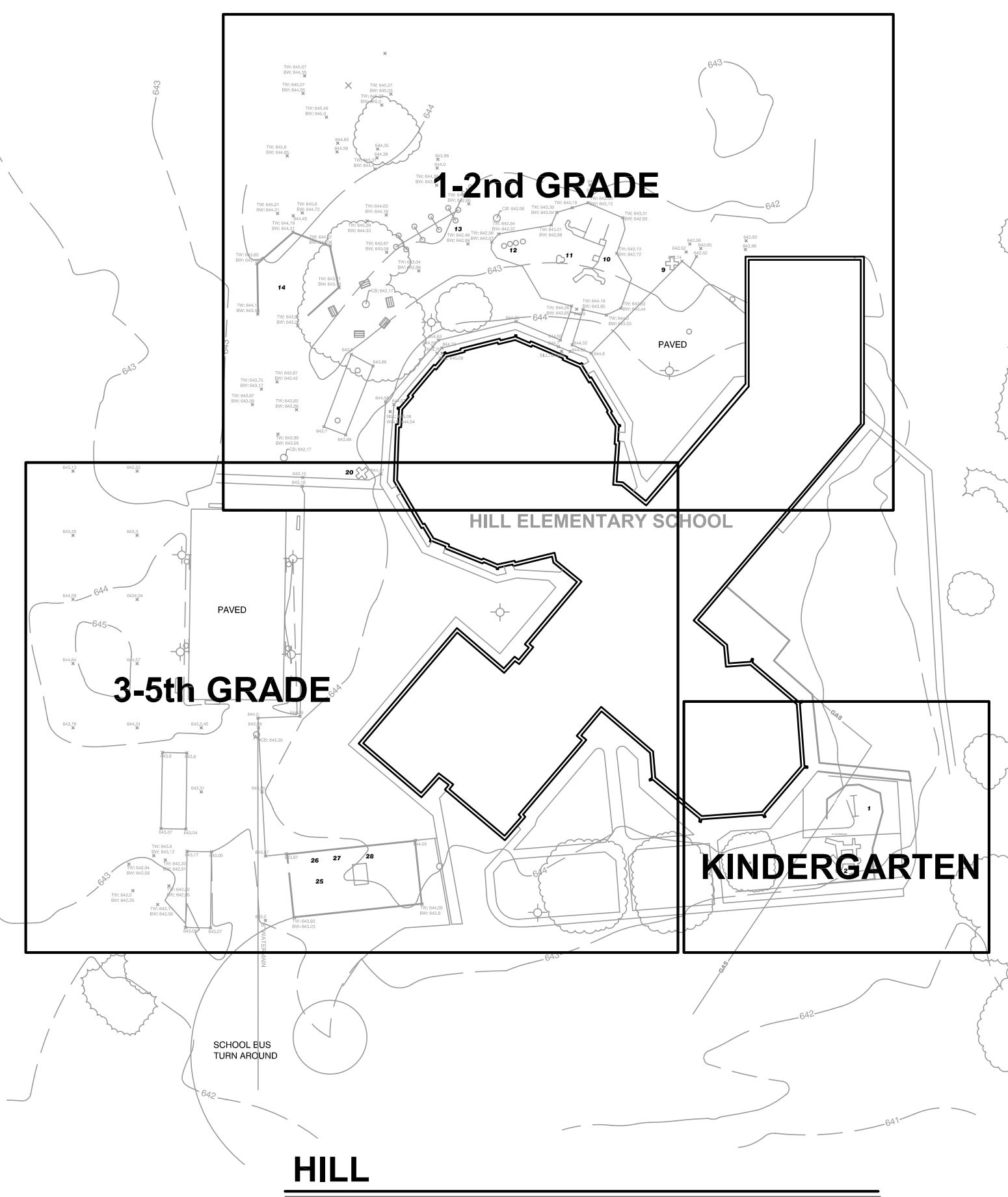
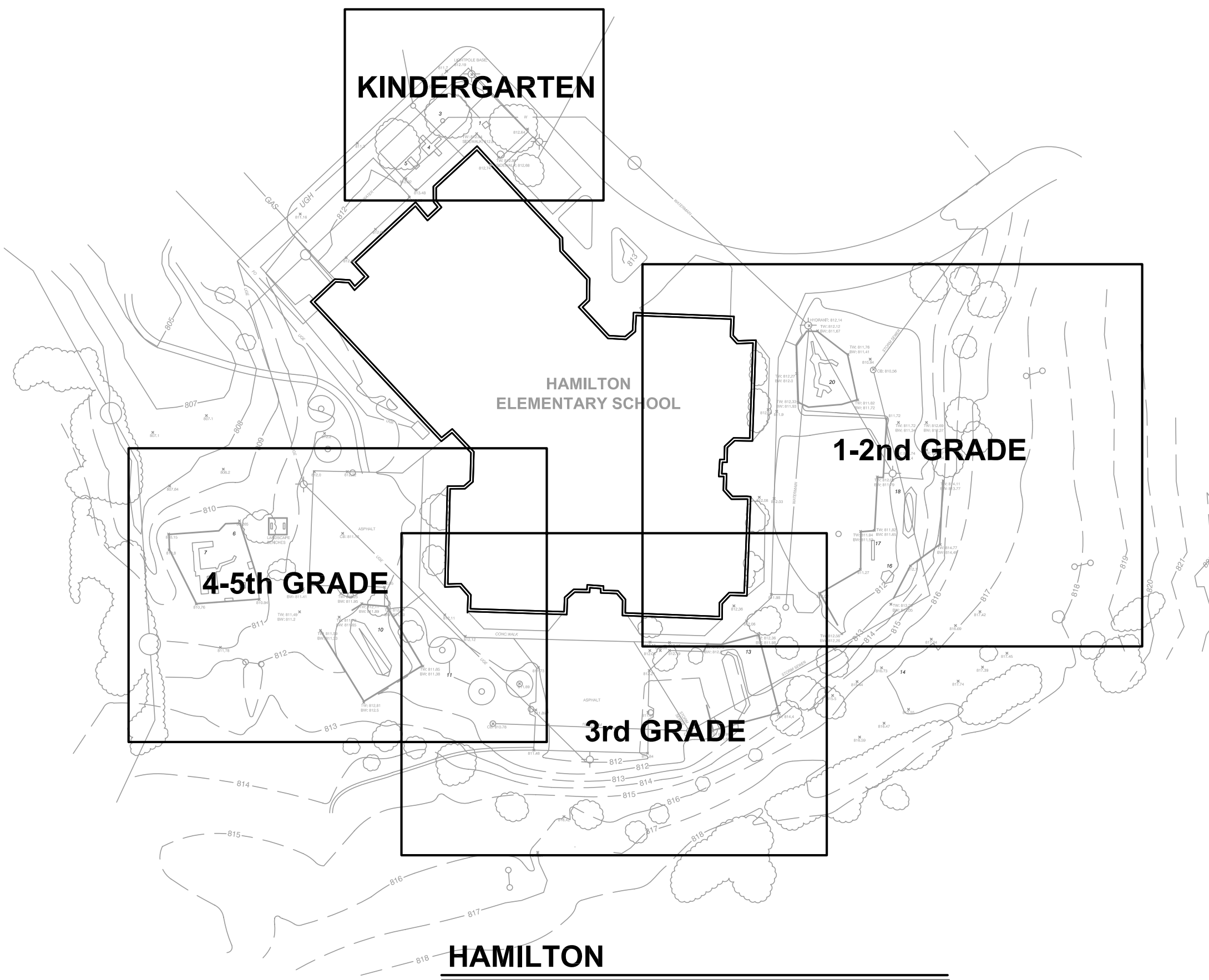
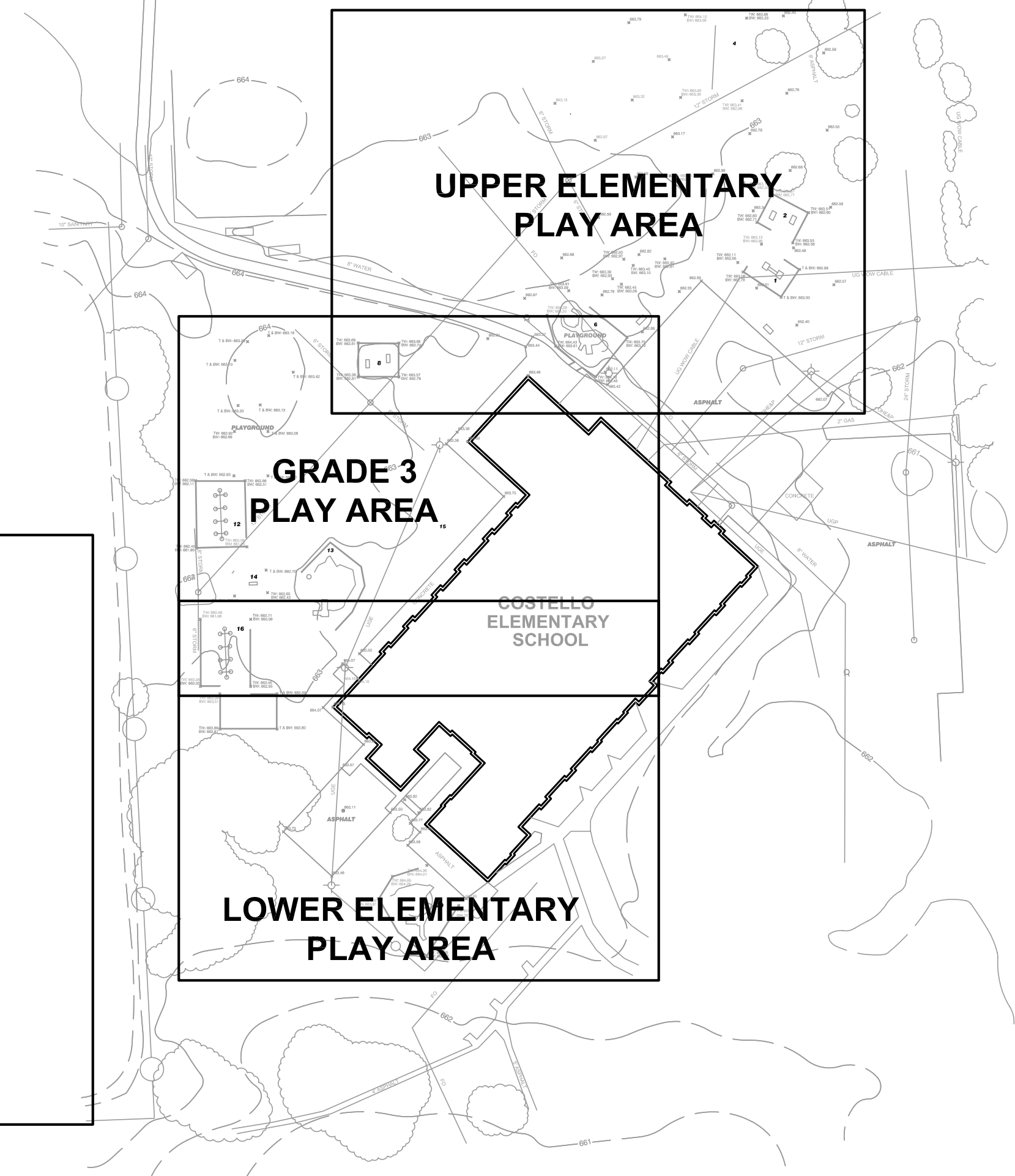
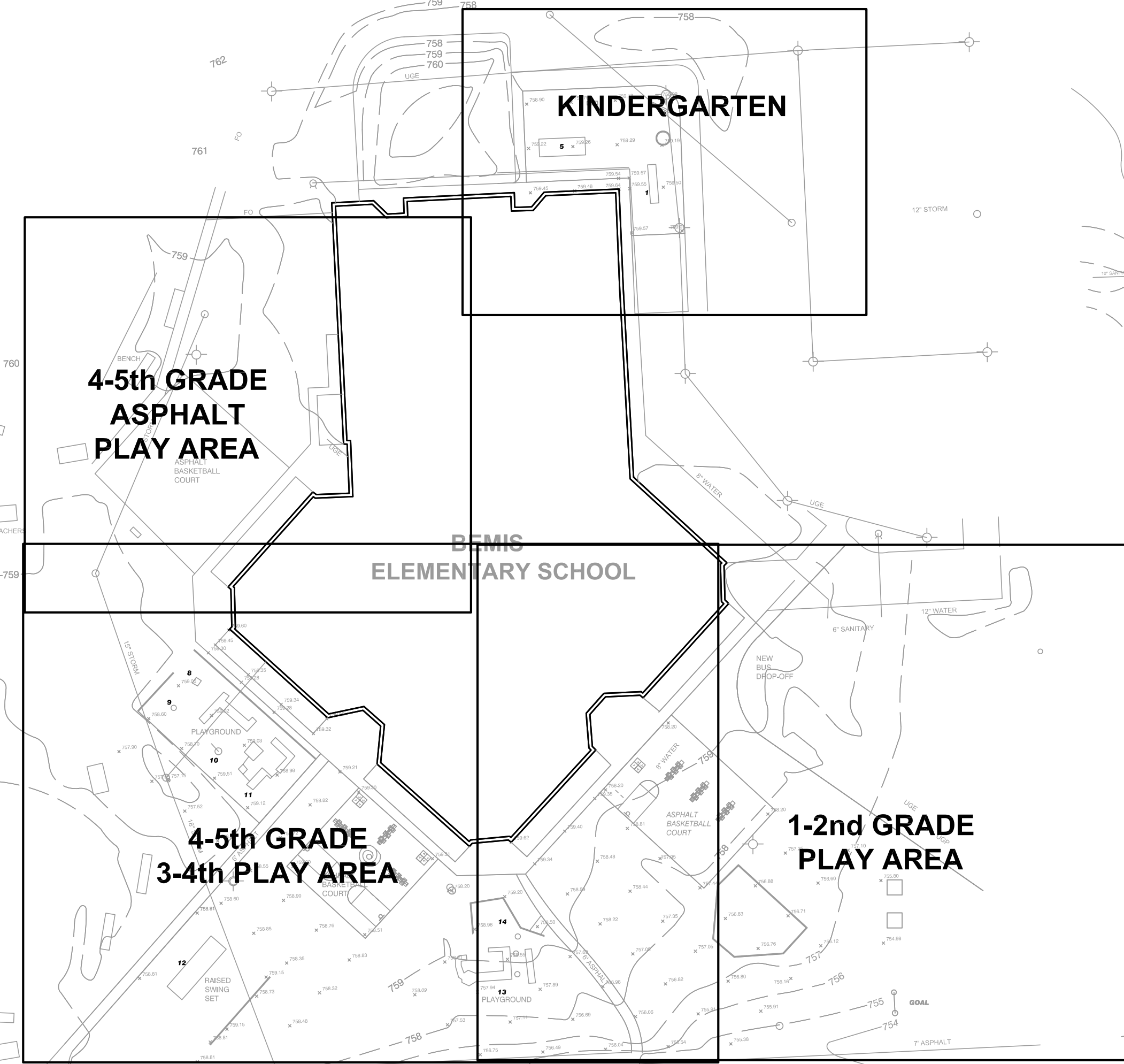
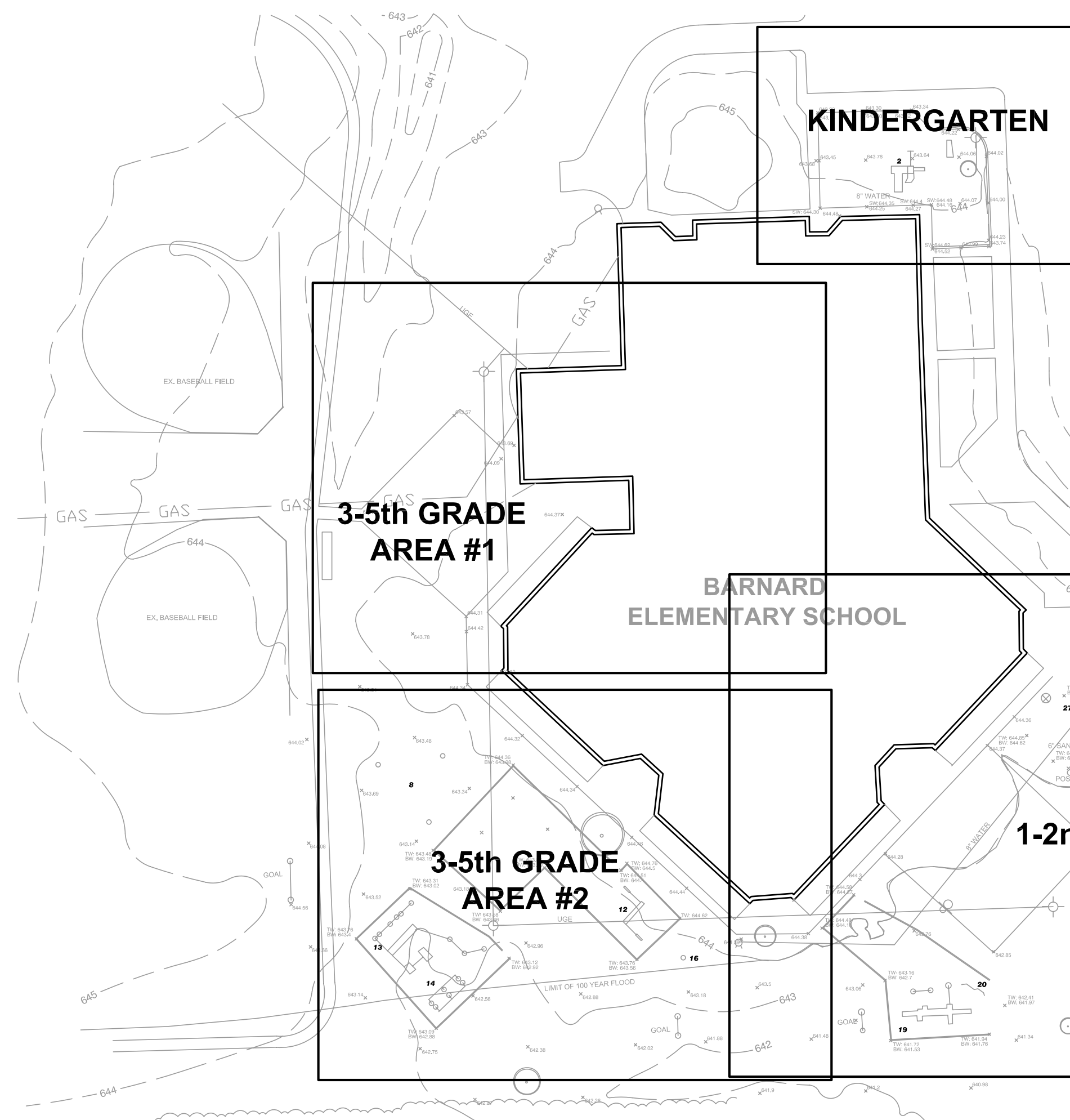
**TROY SCHOOL DISTRICT**  
4400 LIVERNOIS ROAD  
TROY, MICHIGAN  
248-823-4000

TROY SCHOOL DISTRICT  
TROY PLAYGROUND IMPROVEMENTS #1  
**SITE MAPS**

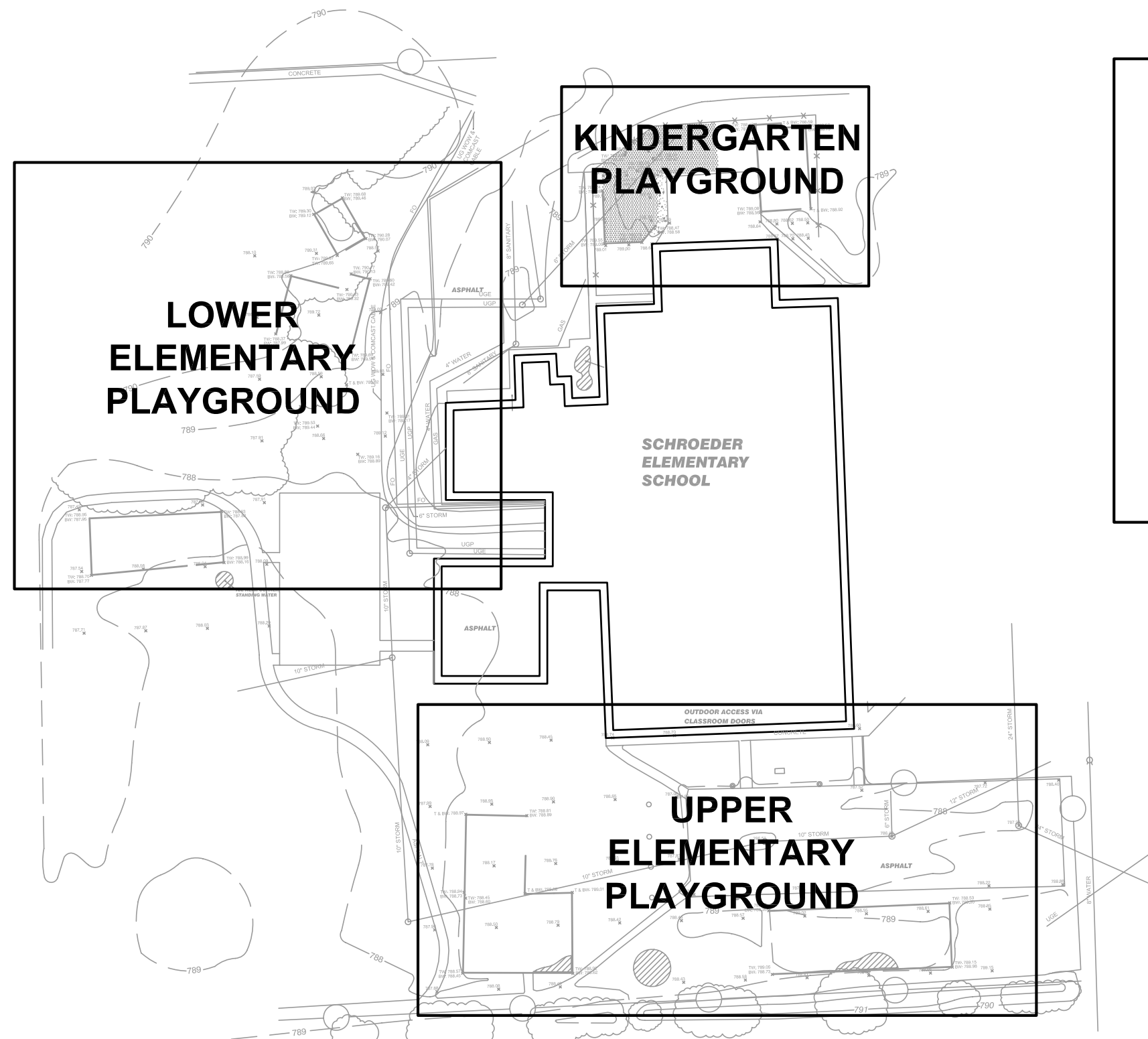
DATE: 6-6-08  
DESIGNED BY: MDL  
CHECKED BY: MAB  
DRAWN BY: MDL  
PROJECT NO: 07044  
SCALE: NOT TO SCALE  
HORIZ: VERT:

SHEET  
C0.1

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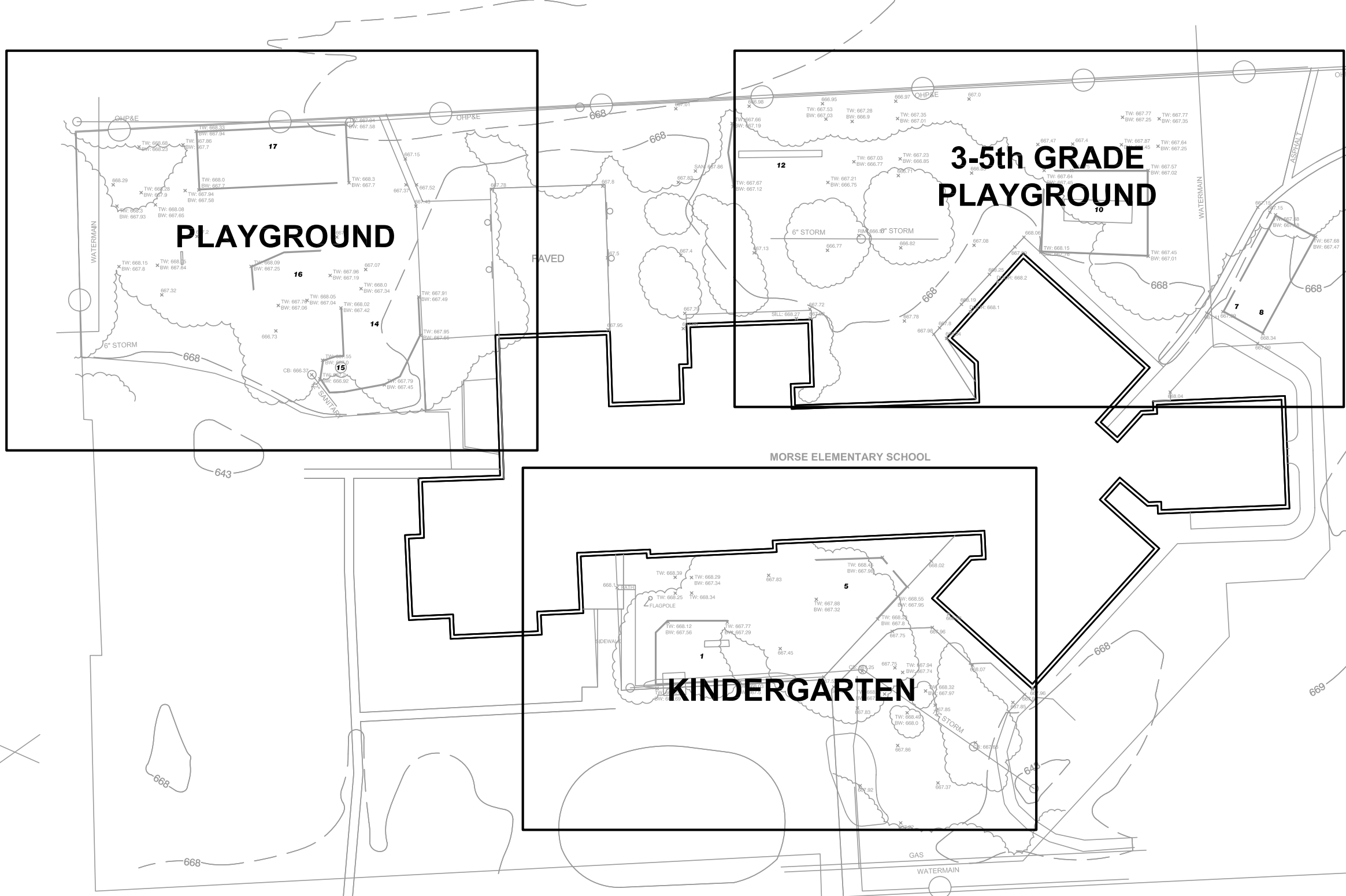






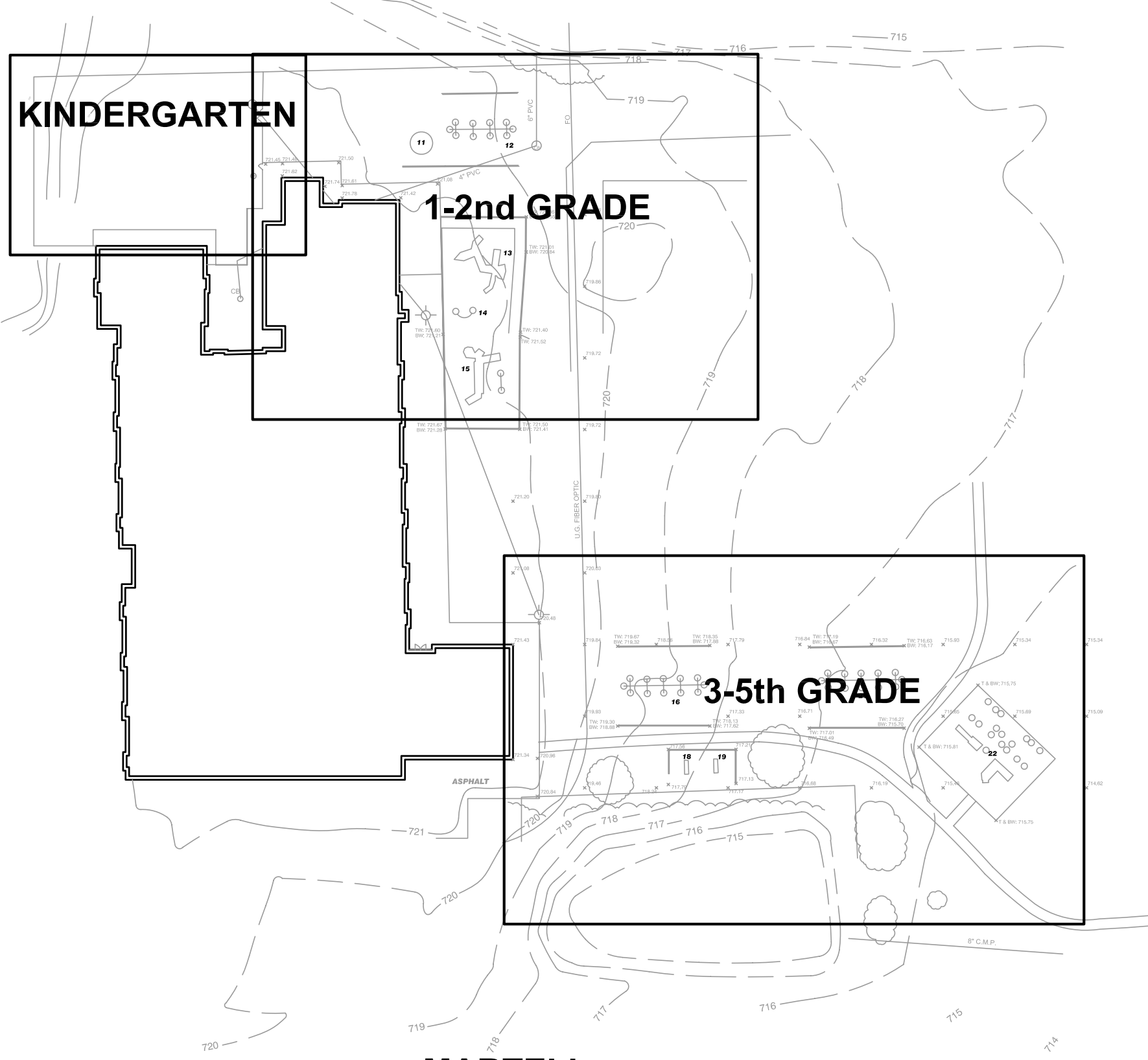
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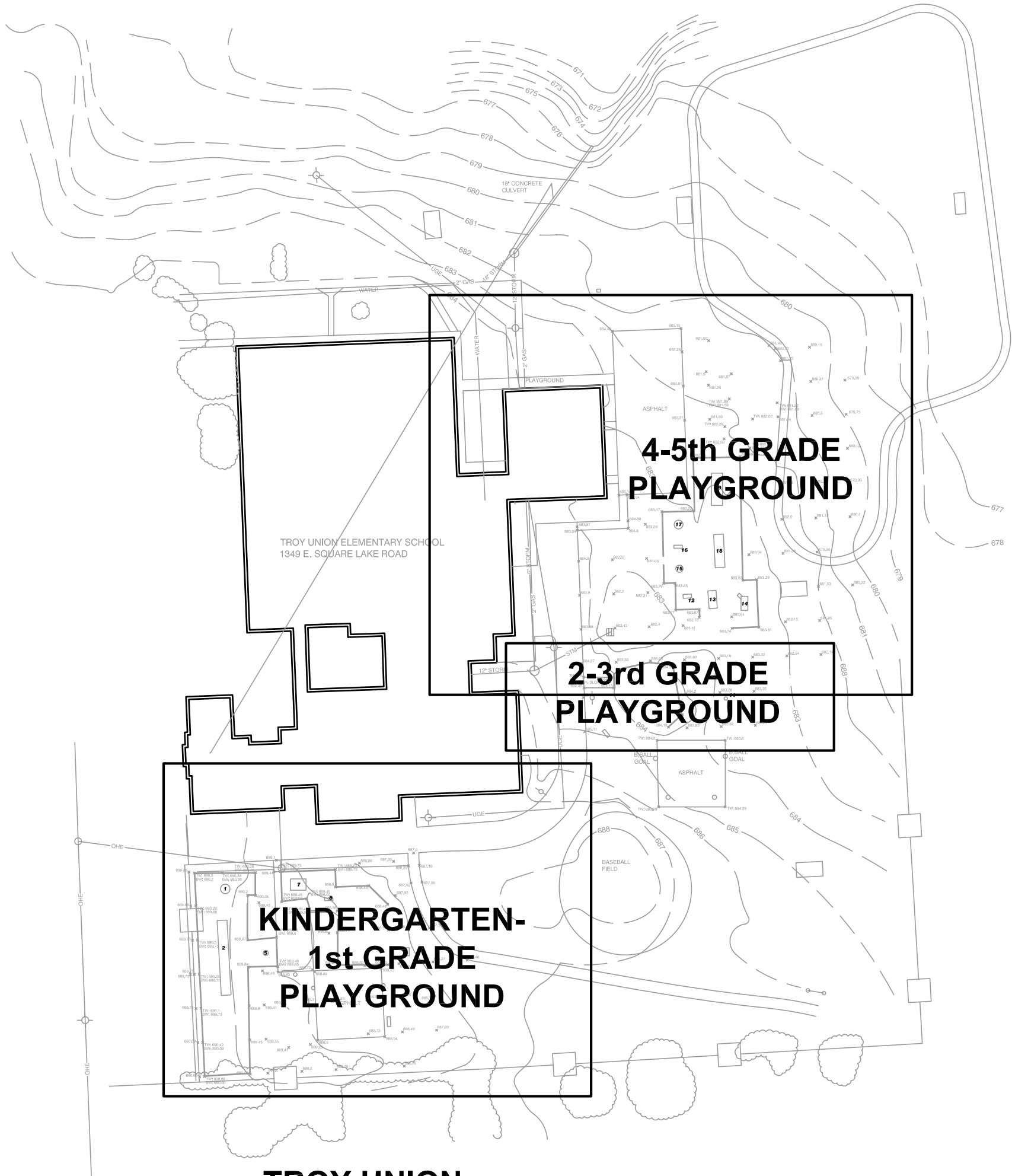
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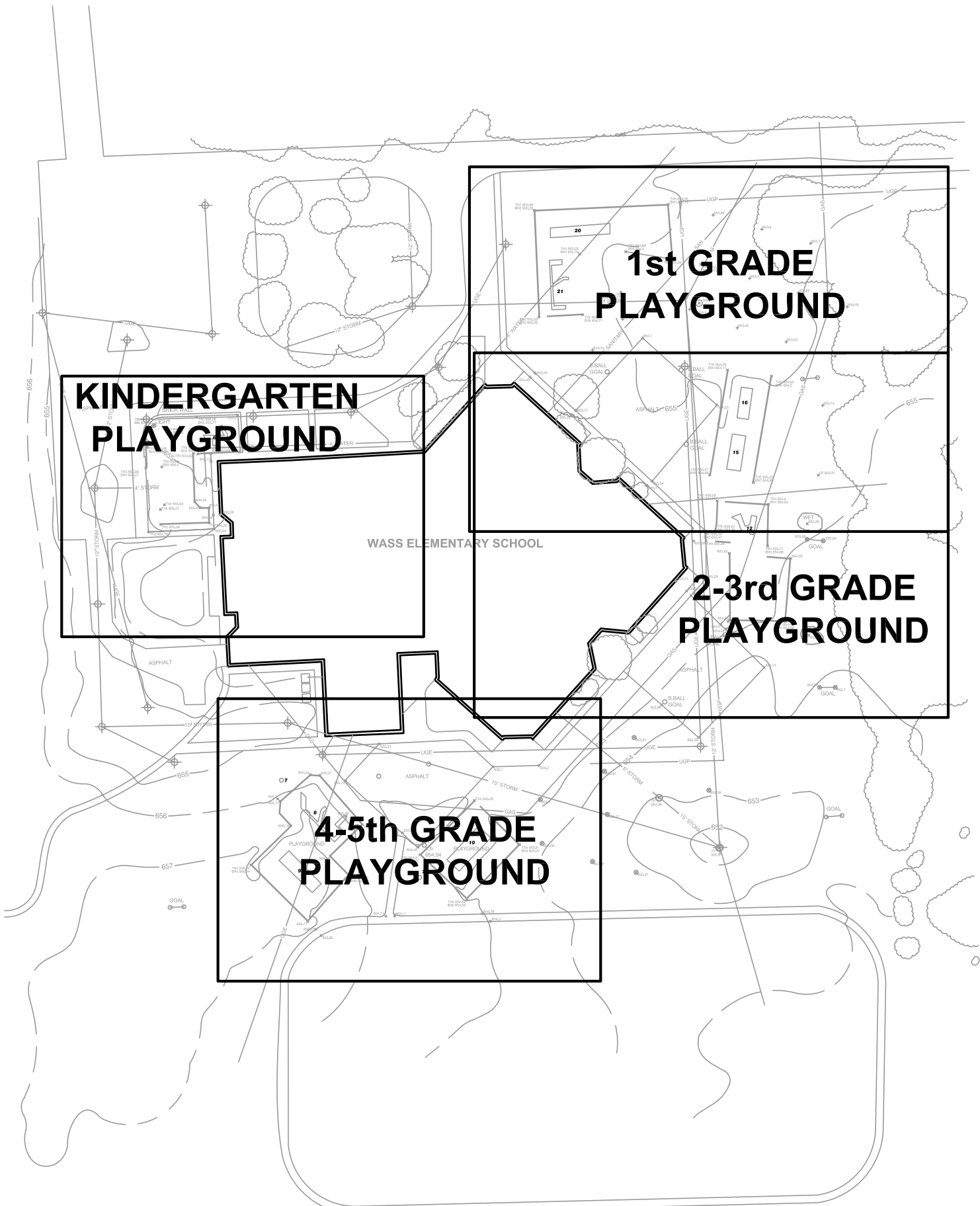
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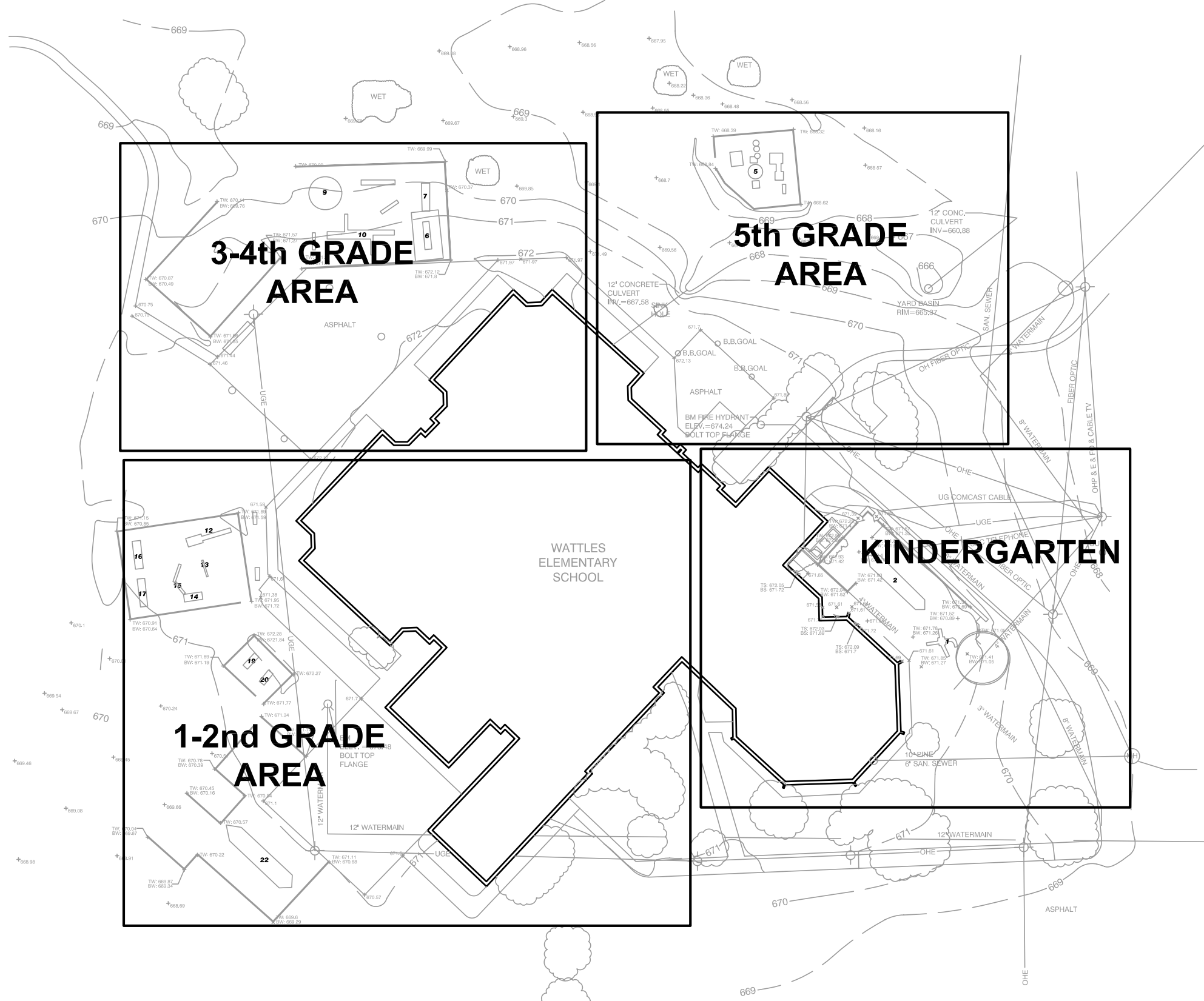
**TROY UNION**

NOT TO SCALE



**WASS**

NOT TO SCALE



**WATTLES**

NOT TO SCALE



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OAKLAND CENTER  
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SUITE ONE  
LANSING, MI 48906  
P: (517) 485-5500  
F: (517) 485-5576  
info@lapinc.net

REVISIONS	INITIALS	DATE	COMMENTS

**TROY SCHOOL DISTRICT**  
4400 LIVERNOIS ROAD  
TROY, MICHIGAN  
248-823-4000

TROY SCHOOL DISTRICT  
TROY PLAYGROUND IMPROVEMENTS #2  
**SITE MAPS**

DESIGNED BY: MDL	DATE: 6-9-08
CHECKED BY: MAB	
DRAWN BY: MDL	
PROJECT NO: 07044	
SCALE: NOT TO SCALE	
HORIZ: NOT TO SCALE	
VERT: NOT TO SCALE	

SHEET  
C0.1



STATE OF MICHIGAN

JENNIFER M. GRANHOLM  
GOVERNOR

DEPARTMENT OF LABOR & ECONOMIC GROWTH  
LANSING

KEITH W. COOLEY  
DIRECTOR

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

The Michigan Department of Labor & Economic Growth 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 rates provide 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 certified payrolls, as used in the industry, of each and every construction mechanic, and verification of such certified payroll in writing by either a representative or auditor/certified accountant at the end of such a certified payroll. These records should include the occupation and indicate the hours worked on each project for each classification and the actual wages and benefits paid. 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 Wage & Hour Division. 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.

A violation of Act 166 may result in the contractor's name being added to the Prevailing Wage Act Violators List published on the division's website, updated monthly. This list includes the names and addresses of contractors and subcontractors the division has found in violation of Act 166 based on complaints from individuals and third parties. The Prevailing Wage Act Violators List is intended to inform contracting agents of contractors that have violated Act 166 for use in determining who should receive state-funded projects.

WAGE & HOUR DIVISION  
P.O. BOX 30476 • LANSING, MICHIGAN 48909-7976  
[www.michigan.gov/wagehour](http://www.michigan.gov/wagehour) • (517) 335-0400 • FAX (517) 335-0077



JENNIFER M. GRANHOLM  
GOVERNOR

**Michigan Department of Labor & Economic Growth**  
**Wage & Hour Division**  
**PO Box 30476**  
**Lansing , MI 48909-7976**  
**517.335.0400**  
**[www.michigan.gov/wagehour](http://www.michigan.gov/wagehour)**



KEITH W. COOLEY  
DIRECTOR

***Informational Sheet: Prevailing Wages on State Projects***  
**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
<b>Total Hourly Credit</b>		<b>\$3.65</b>

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

**State of Michigan**  
**Department of Labor and Economic Growth**

**Official Request** 867

**Requestor:** TROY SCHOOL DISTRICT

**Project Description:** PLAYGROUND EQUIPMENT

**Project Number:** ALL ELEMENTARY SCHOOLS

**Wage and Hour Division**

6546 Mercantile Way, Suite 5

PO Box 30476

Lansing, MI 48909-7976

Telephone: 517-335-0400

Fax: 517-335-0077

www.michigan.gov/wagehour

**Oakland County**

**Official 2008 Prevailing Wage Rates for State Funded Projects**

**Issue Date:** 6/10/2008

**Contract must be awarded by:** 9/8/2008

**Page 1 of 22**

<u>Classification</u>		Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
Name	Description					
=====						
<b>Asbestos &amp; Lead Abatement Laborer</b>						
Asbestos & Lead Abatement Laborer	MLDC	7/31/2007	\$32.65	\$43.39	\$54.13	H H H X X X D Y
<b>Asbestos &amp; Lead Abatement, Hazardous Material Handler</b>						
Asbestos and Lead Abatement, Hazardous Material Handler	AS207	11/28/2007	\$32.65	\$44.75	\$56.85	H H H X X X D Y
<b>Boilermaker</b>						
Boilermaker	BO169	11/5/2007	\$51.27	\$76.00	\$100.74	H H H H H H D Y
<b>Apprentice Rates:</b>						
1st 6 months		\$38.12	\$56.28	\$74.44		
2nd 6 months		\$39.17	\$57.86	\$76.54		
3rd 6 months		\$40.23	\$59.45	\$78.66		
4th 6 months		\$41.29	\$61.04	\$80.78		
5th 6 months		\$42.33	\$62.60	\$82.86		
6th 6 months		\$44.44	\$65.76	\$87.08		
7th 6 months		\$46.54	\$68.91	\$91.28		
8th 6 months		\$48.65	\$72.08	\$95.50		
<b>Bricklayer</b>						
Bricklayer, stone mason, pointer, cleaner, caulker	BR1	12/20/2007	\$48.96	\$73.44	\$97.92	H H D H D D D N
<b>Apprentice Rates:</b>						
First 6 months		\$29.49	\$44.24	\$58.98		
2nd 6 months		\$31.31	\$46.97	\$62.62		
3rd 6 months		\$33.13	\$49.70	\$66.26		
4th 6 months		\$34.95	\$52.43	\$69.90		
5th 6 months		\$36.77	\$55.16	\$73.54		
6th 6 months		\$38.59	\$57.89	\$77.18		
7th 6 months		\$40.41	\$60.62	\$80.82		
8th 6 months		\$42.23	\$63.35	\$84.46		

Official Request #: 867

Requestor: TROY SCHOOL DISTRICT

Project Description: PLAYGROUND EQUIPMENT

Project Number: ALL ELEMENTARY SCHOOLS

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.**

# Official 2008 Prevailing Wage Rates for State Funded Projects

Issue Date: 6/10/2008

Contract must be awarded by: 9/8/2008

Page 2 of 22

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

## Carpenter

Carpet and Resilient Floor Layer, (does not include installation of prefabricated formica & parquet flooring which is to be paid carpenter rate)

CA1045  
1/9/2008

\$42.24 \$59.86 \$77.47 H H H H D D D D N

### Apprentice Rates:

1st 6 months	\$21.10	\$28.15	\$35.19
2nd 6 months	\$24.62	\$33.42	\$42.23
3rd 6 months	\$26.38	\$36.07	\$45.75
4th 6 months	\$28.15	\$38.72	\$49.29
5th 6 months	\$29.91	\$41.36	\$52.81
6th 6 months	\$31.67	\$44.01	\$56.33
7th 6 months	\$33.42	\$46.63	\$59.83
8th 6 months	\$35.19	\$49.28	\$63.37

Carpenter

CA687Z1  
1/14/2008

\$46.58 \$66.30 \$86.02 H H D H D D D D Y

### Apprentice Rates:

1st Year	\$28.84	\$39.69	\$50.54
3rd 6 months	\$30.81	\$42.64	\$54.48
4th 6 months	\$32.78	\$45.60	\$58.42
5th 6 months	\$34.75	\$48.56	\$62.36
6th 6 months	\$36.73	\$51.53	\$66.32
7th 6 months	\$38.70	\$54.49	\$70.26
8th 6 months	\$40.66	\$57.43	\$74.18

## Cement Mason

Cement Mason

CE514  
7/20/2007

\$43.95 \$61.87 \$79.78 H H D H H H H D N

### Apprentice Rates:

1st 6 months	\$25.64	\$34.60	\$43.56
2nd 6 months	\$27.45	\$37.31	\$47.18
3rd 6 months	\$31.02	\$42.68	\$54.32
4th 6 months	\$34.61	\$48.05	\$61.50
5th 6 months	\$36.40	\$50.74	\$65.08
6th 6 months	\$39.99	\$56.13	\$72.26

Official Request #: 867

Requestor: TROY SCHOOL DISTRICT

Project Description: PLAYGROUND EQUIPMENT

Project Number: ALL ELEMENTARY SCHOOLS

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.

# Official 2008 Prevailing Wage Rates for State Funded Projects

**Issue Date:** 6/10/2008

**Contract must be awarded by:** 9/8/2008

**Page 3 of 22**

<u>Classification</u>			Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision								
=====															
<b>Drywall</b>															
Drywall Taper		PT-22-D			\$38.45	\$50.90	\$63.35	H	H	D	H	D	D	D	N
			9/1/2006												
	<b>Apprentice Rates:</b>														
	First 3 months		\$26.00	\$32.23	\$38.45										
	Second 3 months		\$28.49	\$35.96	\$43.43										
	Second 6 months		\$30.98	\$39.69	\$48.41										
	Third 6 months		\$33.47	\$43.43	\$53.39										
	4th 6 months		\$34.71	\$45.29	\$55.87										
<b>Electrician</b>															
Road Way Electrical Work		EC-17			\$45.37	\$65.63	\$85.90	H	H	H	H	H	H	D	Y
Double time due after 16 hours on any calendar day and all hours Sunday.			11/19/2007												
	<b>Apprentice Rates:</b>														
	1st 6 months		\$29.17	\$41.34	\$53.50										
	2nd 6 months		\$31.19	\$44.36	\$57.54										
	3rd 6 months		\$33.21	\$47.40	\$61.58										
	4th 6 months		\$35.23	\$50.43	\$65.62										
	5th 6 months		\$37.25	\$53.46	\$69.66										
	6th 6 months		\$41.32	\$59.57	\$77.80										
<u>Subdivision of county</u>															
Inside Wireman	Holly not included	EC-58-IW			\$53.62	\$71.49	\$89.36	H	H	H	H	H	H	D	N
			1/7/2008												
	<b>Apprentice Rates:</b>														
	0-1000 hours		\$32.18	\$39.33	\$46.48										
	1000-2000 hours		\$33.97	\$42.02	\$50.06										
	2000-3500 hours		\$35.75	\$44.68	\$53.62										
	3500-5000 hours		\$37.54	\$47.38	\$57.20										
	5000-6500 hours		\$41.12	\$52.74	\$64.36										
	6500-8000 hours		\$44.68	\$58.08	\$71.48										
Sound and Communication	Installer/Technician	EC-58-SC			\$32.54	\$44.20	\$55.86	H	H	H	H	H	H	D	N
			1/7/2008												
	<b>Apprentice Rates:</b>														
	Period 1		\$20.88	\$26.71	\$32.54										
	Period 2		\$22.04	\$28.46	\$34.86										
	Period 3		\$23.21	\$30.21	\$37.20										
	Period 4		\$24.38	\$31.96	\$39.54										
	Period 5		\$25.55	\$33.72	\$41.88										
	Period 6		\$26.71	\$35.46	\$44.20										

Official Request #: 867

Requestor: TROY SCHOOL DISTRICT

Project Description: PLAYGROUND EQUIPMENT

Project Number: ALL ELEMENTARY SCHOOLS

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.**

# Official 2008 Prevailing Wage Rates for State Funded Projects

Issue Date: 6/10/2008

Contract must be awarded by: 9/8/2008

Page 4 of 22

Classification		Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
Name	Description					
=====						
<b>Elevator Constructor</b>						
Elevator Constructor	EL 36		\$56.46		\$94.99	D D D D D D D Y
Elevator Constructor		8/7/2007				
<b>Apprentice Rates:</b>						
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			
<b>Glazier</b>						
Glazier	GL-357		\$43.80	\$58.40		H H H H H H H Y
		5/30/2008				
<b>Apprentice Rates:</b>						
1st 6 months		\$29.20	\$36.50			
2nd 6 months		\$30.66	\$38.69			
3rd 6 months		\$33.58	\$43.07			
4th 6 months		\$35.04	\$45.26			
5th 6 months		\$36.50	\$47.45			
6th 6 months		\$37.96	\$49.64			
7th 6 months		\$39.42	\$51.83			
8th 6 months		\$42.34	\$56.21			
<b>Heat and Frost Insulator</b>						
Spray Insulation	AS25S		\$20.14	\$29.14		H H H H H H H N
		3/5/2007				
<b>Heat and Frost Insulator and Asbestos Worker</b>						
Heat and Frost Insulators and Asbestos Workers	AS25		\$48.20	\$62.86	\$77.52	H H H H H H D Y
		3/5/2007				
<b>Apprentice Rates:</b>						
1st Year		\$29.59	\$37.66	\$45.72		
2nd Year		\$37.60	\$47.13	\$56.66		
3rd Year		\$39.40	\$49.66	\$59.92		
4th Year		\$42.34	\$54.07	\$65.80		
<b>Ironworker</b>						
Fence Erecting	IR-25-F		\$41.03	\$61.26	\$81.49	H H D H H H D Y
		10/4/2007				

Official Request #: 867

Requestor: TROY SCHOOL DISTRICT

Project Description: PLAYGROUND EQUIPMENT

Project Number: ALL ELEMENTARY SCHOOLS

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.

# Official 2008 Prevailing Wage Rates for State Funded Projects

Issue Date: 6/10/2008

Contract must be awarded by: 9/8/2008

## Page 5 of 22

Classification		Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision							
Name	Description												
=====													
Siding, Glazing, Curtain Wall	IR-25-GZ1	3/28/2008	\$39.86	\$59.54	\$79.22	H	H	D	H	H	D	D	Y
Apprentice Rates:													
	Level 1		\$24.72	\$36.54	\$48.34								
	Level 2		\$26.69	\$39.49	\$52.28								
	Level 3		\$28.65	\$42.43	\$56.20								
	Level 4		\$30.62	\$45.39	\$60.14								
	Level 5		\$32.59	\$48.34	\$64.08								
	Level 6		\$34.56	\$51.29	\$68.02								
Pre-engineered Metal Work	IR-25-PE-Z1-Z2	5/8/2008	\$41.69	\$52.37	\$63.04	X	X	H	X	X	X	D	Y
Apprentice Rates:													
	1st level		\$23.47	\$28.51	\$33.55								
	2nd level		\$25.12	\$30.85	\$36.58								
	3rd level		\$26.78	\$33.19	\$39.61								
	4th level		\$28.44	\$35.55	\$42.66								
	5th level		\$30.10	\$37.90	\$45.70								
	6th level		\$31.36	\$39.65	\$47.93								
Reinforced Iron Work	IR-25-RF	6/2/2008	\$50.06	\$74.82	\$99.58	H	H	D	H	D	D	D	N
Apprentice Rates:													
	Level 1		\$30.85	\$45.71	\$60.56								
	Level 2		\$33.33	\$49.43	\$65.52								
	Level 3		\$35.79	\$53.11	\$70.44								
	Level 4		\$38.29	\$56.87	\$75.44								
	Level 5		\$40.75	\$60.55	\$80.36								
	Level 6		\$43.23	\$64.28	\$85.32								
Rigging Work	IR-25-RIG	6/2/2008	\$55.48	\$82.99	\$110.49	H	H	H	H	H	H	D	N
Apprentice Rates:													
	Level 1&2		\$31.46	\$46.59	\$61.72								
	Level 3		\$34.21	\$50.72	\$67.22								
	Level 4		\$36.95	\$54.83	\$72.70								
	Level 5		\$39.71	\$58.97	\$78.22								
	Level 6		\$42.46	\$63.09	\$83.72								
Decking	IR-25-SD	10/4/2007	\$46.40	\$69.32	\$92.23	H	H	D	H	H	D	D	Y

Official Request #: 867

Requestor: TROY SCHOOL DISTRICT

Project Description: PLAYGROUND EQUIPMENT

Project Number: ALL ELEMENTARY SCHOOLS

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.



# Official 2008 Prevailing Wage Rates for State Funded Projects

Issue Date: 6/10/2008

Contract must be awarded by: 9/8/2008

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Classification		Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision	
Name	Description						
=====							
Structural, ornamental, conveyor, welder and pre-cast	IR-25-STR	6/2/2008	\$55.61	\$83.12	\$110.62	H H D H H H D D Y	
<b>Apprentice Rates:</b>							
Levels 1 & 2		\$31.46	\$46.59	\$61.72			
Level 3		\$34.21	\$50.72	\$67.22			
Level 4		\$36.95	\$54.83	\$72.70			
Level 5		\$39.71	\$58.97	\$78.22			
Level 6		\$42.46	\$63.09	\$83.72			
Level 7		\$45.20	\$67.20	\$89.20			
Level 8		\$47.96	\$71.34	\$94.72			
Industrial Door erection & construction	IR-25-STR-D	3/28/2008	\$35.72	\$47.34	\$58.96	H H D H H H D D Y	
<b>Laborer</b>							
Construction Laborer, Mason Tender, Carpenter Tender, Drywall Handler, Cement Finisher tender, concrete chute and concrete Bucket Handler, Concrete Laborer, Demolition Laborer	L1076-A-A	6/5/2008	\$38.76	\$54.89	\$71.01	H H D H D D D D Y	
<b>Apprentice Rates:</b>							
0-1,000 work hours		\$32.88	\$46.07	\$59.25			
1,001-2,000 work hours		\$34.05	\$47.82	\$61.59			
2,001-3,000 work hours		\$35.23	\$49.60	\$63.95			
3,001-4,000 work hours		\$37.58	\$53.12	\$68.65			
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	6/5/2008	\$39.02	\$55.28	\$71.53	H H D H D D D D Y	
Lansing Burner, Blaster & Powder Man	L1076-A-C	6/5/2008	\$39.51	\$56.01	\$72.51	H H D H D D D D Y	
Furnance battery heater tender, burning bar & oxy-acetylene gun, expediter man, top man and/or bottom man (blast furnace work)	L1076-A-D	6/5/2008	\$39.26	\$55.64	\$72.01	H H D H D D D D Y	
Cleaner/ sweeper laborer, furniture laborer	L1076-A-E	6/5/2008	\$33.31	\$46.71	\$60.11	H H D H D D D D Y	
Demolition Laborer	L1076-D	6/5/2008	\$38.76	\$54.89	\$71.01	H H D H D D D D Y	

Official Request #: 867

Requestor: TROY SCHOOL DISTRICT

Project Description: PLAYGROUND EQUIPMENT

Project Number: ALL ELEMENTARY SCHOOLS

County: Oakland

## Official Rate Schedule

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# Official 2008 Prevailing Wage Rates for State Funded Projects

Issue Date: 6/10/2008

Contract must be awarded by: 9/8/2008

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Classification	Name	Description	Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
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	Plasterer Tender, Plastering Machine Operator	LPT-1	7/3/2007	\$39.00	\$55.42	\$71.83	H H D H D D D D N
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## Apprentice Rates:

0 - 1,000 hours	\$31.99	\$44.90	\$57.81
1,001 - 2,000 hours	\$33.11	\$46.58	\$60.05
2,001 - 3,000 hours	\$34.24	\$48.28	\$62.31
3,001 - 4,000 hours	\$36.49	\$51.66	\$66.81

## 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.	LHAZ-Z2-A	10/11/2007	\$37.62	\$53.35	\$69.07	H H H H H H H D Y
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## Apprentice Rates:

0-1,000 work hours	\$31.98	\$44.89	\$57.79
1,001-2,000 work hours	\$33.11	\$46.58	\$60.05
2,001-3,000 work hours	\$34.24	\$48.28	\$62.31
3,001-4,000 work hours	\$36.49	\$51.66	\$66.81

Class B Laborer - performing work in conjunction with the removal, handling, or containment of hazardous waste substances when the use of personal protective equipment levels "A", "B" or "C" is required.	LHAZ-Z2-B	10/11/2007	\$38.62	\$54.85	\$71.07	H H H H H H H D Y
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## Apprentice Rates:

0-1,000 work hours	\$32.74	\$46.03	\$59.31
1,001-2,000 work hours	\$33.91	\$47.78	\$61.65
2,001-3,000 work hours	\$35.09	\$49.56	\$64.01
3,001-4,000 work hours	\$37.44	\$53.08	\$68.71

## Laborer Underground - Tunnel, Shaft & Caisson

Class I - Tunnel, shaft and caisson laborer, dump man, shanty man, hog house tender, testing man (on gas), and watchman.	LAUCT-Z1-1	9/6/2007	\$33.54	\$44.30	\$55.05	H H H H H H H D Y
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## Apprentice Rates:

0-1,000 work hours	\$28.70	\$37.04	\$45.37
1,001-2,000 work hours	\$29.67	\$38.49	\$47.31
2,001-3,000 work hours	\$30.64	\$39.95	\$49.25
3,001-4,000 work hours	\$32.57	\$42.85	\$53.11

Official Request #: 867

Requestor: TROY SCHOOL DISTRICT

Project Description: PLAYGROUND EQUIPMENT

Project Number: ALL ELEMENTARY SCHOOLS

County: Oakland

## Official Rate Schedule

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# Official 2008 Prevailing Wage Rates for State Funded Projects

Issue Date: 6/10/2008

Contract must be awarded by: 9/8/2008

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Classification										
Name	Description	Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision				
Class II - Manhole, headwall, catch basin builder, bricklayer tender, mortar man, material mixer, fence erector, and guard rail builder.	LAUCT-Z1-2	9/6/2007	\$33.65	\$44.46	\$55.27	H H H H H H D Y				

## Apprentice Rates:

0-1,000 work hours	\$28.79	\$37.17	\$45.55
1,001-2,000 work hours	\$29.76	\$38.74	\$47.71
2,001-3,000 work hours	\$30.73	\$40.09	\$49.43
3,001-4,000 work hours	\$32.68	\$43.01	\$53.33

Class III - Air tool operator (jack hammer man, bush hammer man and grinding man), first bottom man, second bottom man, cage tender, 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	LAUCT-Z1-3	9/6/2007	\$33.71	\$44.55	\$55.39	H H H H H H D Y				
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## Apprentice Rates:

0-1,000 work hours	\$28.83	\$37.23	\$45.63
1,001-2,000 work hours	\$29.81	\$38.71	\$47.59
2,001-3,000 work hours	\$30.78	\$40.16	\$49.53
3,001-4,000 work hours	\$32.73	\$43.09	\$53.43

Class IV - Tunnel, shaft and caisson mucker, bracer man, liner plate man, long haul dinky driver and well point man.	LAUCT-Z1-4	9/6/2007	\$33.89	\$44.82	\$55.75	H H H H H H D Y				
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## Apprentice Rates:

0-1,000 work hours	\$28.97	\$37.45	\$45.91
1,001-2,000 work hours	\$29.95	\$38.91	\$47.87
2,001-3,000 work hours	\$30.94	\$40.40	\$49.85
3,001-4,000 work hours	\$32.91	\$43.35	\$53.79

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	9/6/2007	\$34.14	\$45.20	\$56.25	H H H H H H D Y				
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## Apprentice Rates:

0-1,000 work hours	\$29.16	\$37.73	\$46.29
1,001-2,000 work hours	\$30.15	\$39.21	\$48.27
2,001-3,000 work hours	\$31.15	\$40.71	\$50.27
3,001-4,000 work hours	\$33.14	\$43.70	\$54.25

Official Request #: 867

Requestor: TROY SCHOOL DISTRICT

Project Description: PLAYGROUND EQUIPMENT

Project Number: ALL ELEMENTARY SCHOOLS

County: Oakland

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Issue Date: 6/10/2008

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Classification		Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
Name	Description					
Class VI - Dynamite man and powder man.	LAUCT-Z1-6	9/6/2007	\$34.47	\$45.69	\$56.91	H H H H H H D Y
<b>Apprentice Rates:</b>						
	0-1,000 work hours	\$29.40	\$38.09	\$46.77		
	1,001-2,000 work hours	\$30.42	\$39.62	\$48.81		
	2,001-3,000 work hours	\$31.43	\$41.13	\$50.83		
	3,001-4,000 work hours	\$33.46	\$44.18	\$54.89		
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	9/6/2007	\$27.75	\$35.61	\$43.47	H H H H H H D Y
<b>Apprentice Rates:</b>						
	0-1,000 work hours	\$24.36	\$30.53	\$36.69		
	1,001-2,000 work hours	\$25.04	\$31.55	\$38.05		
	2,001-3,000 work hours	\$25.72	\$32.57	\$39.41		
	3,001-4,000 work hours	\$27.07	\$34.59	\$42.11		
<b>Landscape Laborer</b>						
Landscape Specialist includes air, gas, and diesel equipment operator, lawn sprinkler installer on landscaping work where seeding, sodding, planting, cutting, trimming, backfilling, rough grading or	LLAN-Z1-A	7/3/2007	\$24.38	\$33.81	\$43.24	X X H X X X H D Y
All work pertaining to landscaping where seeding, sodding, planting, cutting, trimming, backfilling, rough grading or maintaining of landscape projects occurs which may include small power tool operator, lawn sprinkler installer helper, material mover, & truck driver.	LLAN-Z1-B	7/3/2007	\$20.16	\$27.48	\$34.80	X X H X X X H D Y
<b>Marble Finisher</b>						
Marble Finisher	TT32-MF	7/25/2007	\$39.57	\$49.90	\$60.23	H H D H D D D D N
<b>Apprentice Rates:</b>						
	Level 1	\$19.30	\$24.91	\$30.52		
	Level 2	\$20.40	\$26.56	\$32.72		
	Level 3	\$24.67	\$31.27	\$37.87		
	Level 4	\$26.01	\$33.28	\$40.55		
	Level 5	\$27.38	\$34.86	\$42.34		
	Level 6	\$28.85	\$36.70	\$44.56		
	Level 7	\$30.39	\$38.30	\$46.21		
	Level 8	\$31.75	\$39.92	\$48.09		

Official Request #: 867

Requestor: TROY SCHOOL DISTRICT

Project Description: PLAYGROUND EQUIPMENT

Project Number: ALL ELEMENTARY SCHOOLS

County: Oakland

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# Official 2008 Prevailing Wage Rates for State Funded Projects

Issue Date: 6/10/2008

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Classification		Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
Name	Description					
=====						
<b>Marble Mason</b>						
Marble Mason	TT32-MM		\$45.76	\$59.19	\$72.61	H H D H D D D D N
		7/25/2007				
<b>Apprentice Rates:</b>						
Level 1		\$24.86	\$31.89	\$38.93		
Level 2		\$27.65	\$35.43	\$43.21		
Level 3		\$30.50	\$38.57	\$46.64		
Level 4		\$33.00	\$41.96	\$50.92		
Level 5		\$35.10	\$44.33	\$53.56		
Level 6		\$38.52	\$49.39	\$60.27		
Level 7		\$39.37	\$50.53	\$61.69		
Level 8		\$40.22	\$51.81	\$63.39		
<b>Operating Engineer</b>						
Crane with boom & jib or leads 120' or longer	EN-324-A120		\$50.71	\$67.65	\$84.58	H H D H D D D D Y
		6/5/2008				
Crane with boom & jib or leads 140' or longer	EN-324-A140		\$51.53	\$68.88	\$86.22	H H D H D D D D Y
		6/5/2008				
Crane with boom & jib or leads 220' or longer	EN-324-A220		\$51.83	\$69.33	\$86.82	H H D H D D D D Y
		6/5/2008				
Crane with boom & jib or leads 300' or longer	EN-324-A300		\$53.33	\$71.58	\$89.82	H H D H D D D D Y
		6/5/2008				
Crane with boom & jib or leads 400' or longer	EN-324-A400		\$54.83	\$73.83	\$92.82	H H D H D D D D Y
		6/5/2008				
Compressor or welding machine	EN-324-CW		\$39.86	\$51.37	\$62.88	H H D H D D D D Y
		6/5/2008				
Forklift, lull, extend-a-boom forklift	EN-324-FL		\$47.17	\$62.34	\$77.50	H H D H D D D D Y
		6/5/2008				
Fireman or oiler	EN-324-FO		\$38.83	\$49.83	\$60.82	H H D H D D D D Y
		6/5/2008				
Regular crane, job mechanic, concrete pump with boom	EN-324-RC		\$49.85	\$66.36	\$82.86	H H D H D D D D Y
		6/5/2008				

Official Request #: 867

Requestor: TROY SCHOOL DISTRICT

Project Description: PLAYGROUND EQUIPMENT

Project Number: ALL ELEMENTARY SCHOOLS

County: Oakland

## Official Rate Schedule

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# Official 2008 Prevailing Wage Rates for State Funded Projects

Issue Date: 6/10/2008

Contract must be awarded by: 9/8/2008

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<u>Classification</u>			Last	Straight	Time and	Double	Overtime
Name	Description		Updated	Hourly	a Half	Time	Provision
Regular engineer, hydro-excavator, remote controlled concrete breaker	EN-324-RE		6/5/2008	\$48.88	\$64.90	\$80.92	H H D H D D D Y

## Apprentice Rates:

Period 1	\$38.92	\$50.14	\$61.35
Period 2	\$40.53	\$52.55	\$64.57
Period 3	\$42.12	\$54.94	\$67.75
Period 4	\$43.72	\$57.34	\$70.95
Period 5	\$45.32	\$59.73	\$74.15
Period 6	\$46.93	\$62.15	\$77.37

## Operating Engineer - Marine Construction

Diver/Wet Tender, Engineer (hydraulic dredge)	GLF-1		1/8/2008	\$51.76	\$67.91	\$84.06	X X H H H H D Y
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Holidays paid at \$100.21 per hour

<u>Subdivision of county</u>	all Great Lakes, islands therein, & connecting & tributary waters						
Crane/Backhoe Operator, Mechanic/Welder, Assistant Engineer (hydraulic dredge), Leverman (hydraulic dredge), Diver Tender	GLF-2		1/8/2008	\$50.26	\$65.66	\$81.06	X X H H H H D Y

Holidays paid \$96.46 per hour

<u>Subdivision of county</u>	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 and like equipment on Barge, Breakwater Wall, Slip/Doc or Scow, Deck Machinery	GLF-3		1/8/2008	\$46.91	\$60.64	\$74.36	X X H H H H D Y

Holidays paid at \$88.08 per hour

<u>Subdivision of county</u>	All Great Lakes, islands therein, & connecting & tributary waters						
Deck Equipment Operator, (Machineryman/Fireman), (4 equipment units or more), Deck Hand, Deck Engineer, & Crane Maintenance 50 ton capacity and under or Backhoe weighing 115,000 lbs or less, Assistant Tug Operator	GLF-4		1/8/2008	\$42.26	\$53.66	\$65.06	X X H H H H D Y

Holidays paid at \$76.46 per hour

<u>Subdivision of county</u>	All Great Lakes, islands therein, & connecting & tributary waters						
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Official Request #: 867

Requestor: TROY SCHOOL DISTRICT

Project Description: PLAYGROUND EQUIPMENT

Project Number: ALL ELEMENTARY SCHOOLS

County: Statewide

## Official Rate Schedule

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# Official 2008 Prevailing Wage Rates for State Funded Projects

Issue Date: 6/10/2008

Contract must be awarded by: 9/8/2008

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

## Operating Engineer Hazardous Waste Class I

Level A - Fully encapsulating chemical resistant suit w/ pressure demand, full face piece SCBA or pressure demand supplied air respirator w/ escape SCBA. The highest available level of respiratory, skin and eye

EN-324-HWCI-Z1A 4/3/2008 \$47.34 \$63.11 \$78.87 H H H H H H D Y

### Apprentice Rates:

1st 6 months	\$37.78	\$48.81	\$59.85
2nd 6 months	\$39.36	\$51.19	\$63.01
3rd 6 months	\$40.94	\$53.56	\$66.17
4th 6 months	\$42.52	\$55.92	\$69.33
5th 6 months	\$44.09	\$58.28	\$72.47
6th 6 months	\$45.67	\$60.66	\$75.63

Level B & C protection. B - Pressure demand, full face SCBA or pressure demand supplied air respirator w/ escape SCBA w/chemical resistant clothing. C - Full face piece, air purifying canister-equipped respirator w/chemical resistant clothing.

EN-324-HWCI-Z1B 4/3/2008 \$46.39 \$61.68 \$76.97 H H H H H H D Y

### Apprentice Rates:

1st 6 months	\$37.11	\$47.82	\$58.51
2nd 6 months	\$38.64	\$50.11	\$61.57
3rd 6 months	\$40.17	\$52.40	\$64.63
4th 6 months	\$41.70	\$54.70	\$67.69
5th 6 months	\$43.23	\$57.00	\$70.75
6th 6 months	\$44.76	\$59.29	\$73.81

Level D - Coveralls, safety boots, glasses or chemical splash goggles and hard hats.

EN-324-HWCI-Z1D 3/24/2008 \$45.09 \$59.73 \$74.37 H H H H H H D Y

### Apprentice Rates:

1st 6 months	\$36.20	\$46.45	\$56.69
2nd 6 months	\$37.68	\$48.67	\$59.65
3rd 6 months	\$39.14	\$50.86	\$62.57
4th 6 months	\$40.60	\$53.05	\$65.49
5th 6 months	\$42.06	\$55.23	\$68.41
6th 6 months	\$43.53	\$57.44	\$71.35

Official Request #: 867

Requestor: TROY SCHOOL DISTRICT  
Project Description: PLAYGROUND EQUIPMENT

Project Number: ALL ELEMENTARY SCHOOLS  
County: Oakland

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# Official 2008 Prevailing Wage Rates for State Funded Projects

Issue Date: 6/10/2008

Contract must be awarded by: 9/8/2008

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Classification									
Name	Description	Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision			
Level D When Capping Landfill Coveralls, safety boots, glasses or chemical splash goggles and hard hats.	EN-324-HWCII-Z1DCL	3/24/2008	\$44.84	\$59.36	\$73.87	H H H H H H D Y			

## Apprentice Rates:

1st 6 months	\$36.03	\$46.19	\$56.35
2nd 6 months	\$37.48	\$48.37	\$59.25
3rd 6 months	\$38.93	\$50.54	\$62.15
4th 6 months	\$40.38	\$52.72	\$65.05
5th 6 months	\$41.84	\$54.91	\$67.97
6th 6 months	\$43.29	\$57.08	\$70.87

## Operating Engineer Hazardous Waste Class II

Level A - Fully encapsulating chemical resistant suit w/ pressure demand, full face piece SCBA or pressure demand supplied air respirator w/ escape SCBA. The highest available level of respiratory, skin and eye	EN-324-HWCII-Z1A	4/3/2008	\$43.11	\$56.76	\$70.41	H H H H H H D Y
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Level B & C protection. B - Pressure demand, full face SCBA or pressure demand supplied air respirator w/ escape SCBA w/chemical resistant clothing. C - Full face piece, air purifying canister-equipped respirator w/chemical resistant clothing.	EN-324-HWCII-Z1B	3/24/2008	\$42.16	\$55.34	\$68.51	H H H H H H D Y
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Level D - Coveralls, safety boots, glasses or chemical splash goggles and hard hats.	EN-324-HWCII-Z1D	3/24/2008	\$40.86	\$53.39	\$65.91	H H H H H H D Y
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Level D When Capping Landfill Coveralls, safety boots, glasses or chemical splash goggles and hard hats.	EN-324-HWCII-Z1DCL	3/25/2008	\$40.61	\$53.01	\$65.41	H H H H H H D Y
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## Operating Engineer Hazardous Waste Crane w/ Boom & Jib leads 140' or longer

Level A - Fully encapsulating chemical resistant suit w/ pressure demand, full face piece SCBA or pressure demand supplied air respirator w/ escape SCBA. The highest available level of respiratory, skin and eye	EN-324-HW140-Z1A	4/3/2008	\$49.99	\$67.08	\$84.17	H H H H H H D Y
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Level B & C protection. B - Pressure demand, full face SCBA or pressure demand supplied air respirator w/ escape SCBA w/chemical resistant clothing. C - Full face piece, air purifying canister-equipped respirator w/chemical resistant clothing.	EN-324-HW140-Z1B	3/24/2008	\$49.04	\$65.66	\$82.27	H H H H H H D Y
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Level D Coveralls, safety boots, glasses or chemical splash goggles and hard hats.	EN-324-HW140-Z1D	3/24/2008	\$47.74	\$63.71	\$79.67	H H H H H H D Y
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Official Request #: 867

Requestor: TROY SCHOOL DISTRICT

Project Description: PLAYGROUND EQUIPMENT

Project Number: ALL ELEMENTARY SCHOOLS

County: Oakland

## Official Rate Schedule

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Issue Date: 6/10/2008

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Classification		Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision						
Name	Description											
=====												
Level D When Capping Landfill Coveralls, safety boots, glasses or chemical splash goggles and hard hats.	EN-324-HW140-Z1DCL 3/25/2008	\$47.49	\$63.33	\$79.17	H	H	H	H	H	H	D	Y
<b>Operating Engineer Hazardous Waste Crane w/ Boom &amp; Jib leads 220' or longer</b>												
Level A - Fully encapsulating chemical resistant suit w/ pressure demand, full face piece SCBA or pressure demand supplied air respirator w/ escape SCBA. The highest available level of respiratory, skin and eye	EN-324-HW220-Z1A 4/3/2008	\$50.29	\$67.53	\$84.77	H	H	H	H	H	H	D	Y
Level B & C protection. B - Pressure demand, full face SCBA or pressure demand supplied air respirator w/ escape SCBA w/chemical resistant clothing. C - Full face piece, air purifying canister-equipped respirator w/chemical resistant clothing.	EN-324-HW220-Z1B 3/24/2008	\$49.34	\$66.11	\$82.87	H	H	H	H	H	H	D	Y
Level D Coveralls, safety boots, glasses or chemical splash goggles and hard hats.	EN-324-HW220-Z1D 3/24/2008	\$48.04	\$64.16	\$80.27	H	H	H	H	H	H	D	Y
Level D When Capping Landfill Coveralls, safety boots, glasses or chemical splash goggles and hard hats.	EN-324-HW220-Z1DCL 3/25/2008	\$47.79	\$63.78	\$79.77	H	H	H	H	H	H	D	Y
<b>Operating Engineer Hazardous Waste Regular Crane, Job Mechanic, Dragline Operator, Boom Truck Operator, Power Shovel Operator and Concrete Pump with boom</b>												
Level D When Capping Landfill Coveralls, safety boots, glasses or chemical splash goggles and hard hats.	EN-324-HWRC-Z1DCL 3/25/2008	\$45.19	\$59.88	\$74.57	H	H	H	H	H	H	D	Y
<b>Operating Engineer Hazardous Waste Regular Crane, Job Mechanic, Dragline Operator, Boom Truck Operator, Power Shovel Operator and Concrete Pump with Boom Operator</b>												
Level D - Coveralls, safety boots, glasses or chemical splash goggles and hard hats.	EN-324-HWRC-Z1D 5/23/2008	\$46.06	\$61.19	\$76.31	H	H	H	H	H	H	D	Y
<b>Operating Engineer Hazardous Waste Regular Crane, Job Mechanic, Dragline Operator, Boom Truck Operator, Power Shovel Operator and Concrete Pump with booms</b>												
Level B & C protection. B - Pressure demand, full face SCBA or pressure demand supplied air respirator w/ escape SCBA w/chemical resistant clothing. C - Full face piece, air purifying canister-equipped respirator w/chemical resistant clothing.	EN-324-HWRC-Z1B 3/24/2008	\$47.36	\$63.14	\$78.91	H	H	H	H	H	H	D	Y

Official Request #: 867

Requestor: TROY SCHOOL DISTRICT

Project Description: PLAYGROUND EQUIPMENT

Project Number: ALL ELEMENTARY SCHOOLS

County: Oakland

## Official Rate Schedule

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# Official 2008 Prevailing Wage Rates for State Funded Projects

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Classification		Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision							
Name	Description												
=====													
<b>Operating Engineer Hazardous Waste Regular Crane, Job Mechanic, Dragline Operator, Boom Truck Operator, Power Shovel Operators and Concrete Pump with booms</b>													
Level A - Fully encapsulating chemical resistant suit w/ pressure demand, full face piece SCBA or pressure demand supplied air respirator w/ escape SCBA. The highest available level of respiratory, skin and eye	EN-324-HWRC-Z1A 4/3/2008		\$48.31	\$64.56	\$80.81	H	H	H	H	H	H	D	Y
<b>Operating Engineer Steel Work</b>													
Forklift, 1 Drum Hoist	EN-324-ef 6/6/2008		\$52.96	\$70.75	\$88.53	H	H	D	H	H	H	D	Y
Crane w/ 120' boom or longer	EN-324-SW120 6/6/2008		\$55.01	\$73.82	\$92.63	H	H	D	H	H	H	D	Y
Crane w/ 120' boom or longer w/ Oiler	EN-324-SW120-O 6/6/2008		\$56.01	\$75.32	\$94.63	H	H	D	H	H	H	D	Y
Crane w/ 140' boom or longer	EN-324-SW140 6/6/2008		\$56.19	\$75.59	\$94.99	H	H	D	H	H	H	D	Y
Crane w/ 140' boom or longer W/ Oiler	EN-324-SW140-O 6/6/2008		\$57.19	\$77.09	\$96.99	H	H	D	H	H	H	D	Y
Boom & Jib 220' or longer	EN-324-SW220 6/6/2008		\$56.46	\$76.00	\$95.53	H	H	D	H	H	H	D	Y
Crane w/ 220' boom or longer w/ Oiler	EN-324-SW220-O 6/6/2008		\$57.46	\$77.50	\$97.53	H	H	D	H	H	H	D	Y
Boom & Jib 300' or longer	EN-324-SW300 6/6/2008		\$57.96	\$78.25	\$98.53	H	H	D	H	H	H	D	Y
Crane w/ 300' boom or longer w/ Oiler	EN-324-SW300-O 6/6/2008		\$58.96	\$79.75	\$100.53	H	H	D	H	H	H	D	Y
Boom & Jib 400' or longer	EN-324-SW400 6/6/2008		\$59.46	\$80.50	\$101.53	H	H	D	H	H	H	D	Y
Crane w/ 400' boom or longer w/ Oiler	EN-324-SW400-O 6/6/2008		\$60.46	\$82.00	\$103.53	H	H	D	H	H	H	D	Y

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Classification									
Name	Description	Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision			
=====									
Crane Operator, Job Mechanic, 3 Drum Hoist & Excavator	EN-324-SWCO	6/6/2008	\$54.65	\$73.28	\$91.91	H H D H H H D D Y			
<b>Apprentice Rates:</b>									
0-999 hours		\$42.03	\$54.90	\$67.77					
1,000-1,999 hours		\$43.87	\$57.66	\$71.45					
2,000-2,999 hours		\$45.71	\$60.42	\$75.13					
3,000-3,999 hours		\$47.54	\$63.17	\$78.79					
4,000-4,999 hours		\$49.38	\$65.93	\$82.47					
5,000 hours		\$51.22	\$68.69	\$86.15					
Crane w/ Oiler	EN-324-SWCO-O	6/6/2008	\$55.65	\$74.78	\$93.91	H H D H H H D D Y			
Compressor or Welder Operator	EN-324-SWCW	6/6/2008	\$47.20	\$62.11	\$77.01	H H D H H H D D Y			
Hoisting Operator, 2 Drum Hoist, & Rubber Tire Backhoe	EN-324-SWHO	6/6/2008	\$54.01	\$72.32	\$90.63	H H D H H H D D Y			
Oiler	EN-324-SWO	6/6/2008	\$45.79	\$59.99	\$74.19	H H D H H H D D Y			
Tower Crane & Derrick where work is 50' or more above first level	EN-324-SWTD50	6/6/2008	\$55.74	\$74.92	\$94.09	H H D H H H D D Y			
Tower Crane & Derrick 50' or more w/ Oiler where work station is 50' or more above first level	EN-324-SWTD50-O	6/6/2008	\$56.74	\$76.42	\$96.09	H H D H H H D D Y			
<b>Operating Engineer Underground</b>									
Class I Equipment	EN-324A1-UC1	10/8/2007	\$44.84	\$59.33	\$73.82	H H H H H H H D Y			
<b>Apprentice Rates:</b>									
0-999 hours		\$36.05	\$46.20	\$56.34					
1,000-1,999 hours		\$37.50	\$48.37	\$59.24					
2,000-2,999 hours		\$38.94	\$50.53	\$62.12					
3,000-3,999 hours		\$40.39	\$52.71	\$65.02					
4,000-4,999 hours		\$41.84	\$54.88	\$67.92					
5,000-5,999 hours		\$43.29	\$57.06	\$70.82					
Class II Equipment	EN-324A1-UC2	10/8/2007	\$40.11	\$52.24	\$64.36	H H H H H H H D Y			
Class III Equipment	EN-324A1-UC3	10/8/2007	\$39.38	\$51.14	\$62.90	H H H H H H H D Y			
Class IV Equipment	EN-324A1-UC4	10/8/2007	\$38.81	\$50.29	\$61.76	H H H H H H H D Y			

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Classification			Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
Name	Description						
Master Mechanic		EN-324A1-UMM	10/8/2007	\$45.09	\$59.71	\$74.32	H H H H H H D Y

## Painter

Painter (8 hours of repaint work performed on Sunday shall be paid time & one half rate)	PT-22-P	5/26/2006	\$38.01	\$50.24	\$62.47	H H D H D D D D N
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### Apprentice Rates:

First 6 months	\$25.78	\$31.89	\$38.01
Second 6 months	\$29.45	\$37.40	\$45.35
Third 6 months	\$30.67	\$39.23	\$47.79
Fourth 6 months	\$31.89	\$41.06	\$50.23
Fifth 6 months	\$33.12	\$42.91	\$52.69
Final 6 months	\$34.34	\$44.73	\$55.13

Sandblasting & spraywork performed, on highway bridges, overpasses, tanks or steel, OR spraywork & sandblasting done with a scaffold height of 40' above the floor level	PT-22-S	6/1/2006	\$38.81	\$51.44	\$64.07	H H D H D D D D N
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## Pipefitter

Pipefitter	PF-636	6/1/2007	\$55.06	\$74.14	\$89.96	H H D H D D D D N
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### Apprentice Rates:

1st & 2nd periods	\$26.28	\$34.63	\$41.63
3rd period	\$28.28	\$37.63	\$45.63
4th period	\$29.53	\$39.51	\$48.13
5th period	\$30.78	\$41.38	\$50.63
6th period	\$32.03	\$43.25	\$53.13
7th period	\$33.28	\$45.13	\$55.63
8th period	\$34.28	\$46.63	\$57.63
9th period	\$35.28	\$48.13	\$59.63
10th period	\$36.71	\$50.27	\$62.49

## Plasterer

Plasterer	BR1P	12/19/2007	\$42.89	\$64.34	\$85.78	H H H H H H D N
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### Apprentice Rates:

1st 6 months	\$21.97	\$32.96	\$43.94
2nd 6 months	\$25.46	\$38.19	\$50.92
3rd 6 months	\$28.95	\$43.42	\$57.90
4th 6 months	\$32.43	\$48.65	\$64.86
5th 6 months	\$35.92	\$53.88	\$71.84
6th 6 months	\$39.40	\$59.10	\$78.80

Official Request #: 867

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# Official 2008 Prevailing Wage Rates for State Funded Projects

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

Plasterer	PL67	6/4/2007	\$42.87	\$58.16	\$73.45	H H H X D D D D N
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## Apprentice Rates:

1st 6 months	\$24.52	\$30.63	\$36.75
2nd 6 months	\$27.58	\$35.23	\$42.87
3rd 6 months	\$30.64	\$39.81	\$48.99
4th 6 months	\$33.70	\$44.41	\$55.11
5th 6 months	\$36.75	\$48.98	\$61.21
6th 6 months	\$39.81	\$53.57	\$67.33

## Plumber

Plumber	PL-98	6/20/2007	\$53.68	\$71.45	\$87.21	H H D H D D D D Y
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## Apprentice Rates:

Period 1	\$17.11	\$23.41	\$29.71
Period 2	\$17.11	\$23.41	\$29.71
Period 3	\$26.78	\$35.13	\$43.47
Period 4	\$27.41	\$36.07	\$44.73
Period 5	\$28.57	\$37.81	\$47.05
Period 6	\$29.72	\$39.53	\$49.35
Period 7	\$30.87	\$41.26	\$51.65
Period 8	\$32.04	\$43.01	\$53.99
Period 9	\$33.19	\$44.74	\$56.29
Period 10	\$34.35	\$46.48	\$58.61

## Roofer

Commercial Roofer	RO-149-WOM	9/4/2007	\$46.81	\$60.92	\$75.02	H H D H H H D D N
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Straight time is not to exceed ten (10) hours per day or forty (40) hours per week.

## Apprentice Rates:

Apprentice 1	\$30.97	\$39.16	\$47.34
Apprentice 2	\$35.15	\$43.42	\$51.70
Apprentice 3	\$36.57	\$45.56	\$54.54
Apprentice 4	\$37.60	\$47.10	\$56.60
Apprentice 5	\$38.82	\$48.93	\$59.04
Apprentice 6	\$40.22	\$51.03	\$61.84

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Classification		Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
Name	Description					
=====						
<b>Sheet Metal Worker</b>						
Sheet Metal Worker	SHM-80		\$55.37	\$73.66	\$91.95	H H D H D D D D Y
		10/2/2007				
<b>Apprentice Rates:</b>						
First Year		\$36.96	\$46.34	\$55.71		
Second Year		\$38.37	\$48.45	\$58.53		
Third Year		\$39.80	\$50.60	\$61.39		
Fourth Year		\$42.65	\$54.87	\$67.09		
Fifth Year		\$45.52	\$59.18	\$72.83		
Siding & Decking	SHM-80-SD		\$37.10	\$49.16	\$61.22	H H H H H H D Y
		10/1/2007				
<b>Sprinkler Fitter</b>						
Sprinkler Fitter	SP 704		\$55.92	\$75.26	\$94.60	H H D H D D D D Y
		12/5/2007				
<b>Apprentice Rates:</b>						
1st Period		\$22.82	\$30.55	\$38.29		
2nd Period		\$34.65	\$43.36	\$52.06		
3rd Period		\$36.58	\$46.25	\$55.92		
4th Period		\$38.51	\$49.14	\$59.78		
5th Period		\$40.45	\$52.06	\$63.66		
6th Period		\$42.38	\$54.95	\$67.52		
7th Period		\$44.32	\$57.86	\$71.40		
8th Period		\$46.25	\$60.76	\$75.26		
9th Period		\$48.18	\$63.65	\$79.12		
10th Period		\$50.12	\$66.56	\$83.00		
<b>Terrazzo</b>						
Terrazzo Finisher	TT32-TRF		\$39.97	\$50.50	\$61.03	H H D H D D D D N
		7/25/2007				
<b>Apprentice Rates:</b>						
Level 1		\$20.29	\$26.40	\$32.50		
Level 2		\$21.00	\$27.46	\$33.92		
Level 3		\$24.60	\$31.17	\$37.73		
Level 4		\$25.94	\$33.17	\$40.41		
Level 5		\$27.31	\$34.76	\$42.20		
Level 6		\$28.78	\$36.40	\$44.02		
Level 7		\$30.32	\$38.32	\$46.32		
Level 8		\$31.68	\$39.94	\$48.20		

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<u>Classification</u>	Name      Description	Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
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	Terrazzo Worker	TT32-TRW	\$45.29	\$58.48	\$71.67	H H D H D D D D N
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7/25/2007

**Apprentice Rates:**

Level 1	\$24.76	\$31.75	\$38.73
Level 2	\$27.55	\$35.28	\$43.01
Level 3	\$30.40	\$38.42	\$46.44
Level 4	\$32.90	\$41.81	\$50.72
Level 5	\$35.00	\$44.31	\$53.61
Level 6	\$38.34	\$49.13	\$59.91
Level 7	\$39.44	\$50.63	\$61.83
Level 8	\$40.29	\$51.91	\$63.53

**Tile**

Tile Finisher	TT32-TF	\$39.59	\$49.93	\$60.27	H H D H D D D D N
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7/25/2007

**Apprentice Rates:**

Level 1	\$19.20	\$24.76	\$30.32
Level 2	\$20.30	\$26.41	\$32.52
Level 3	\$24.57	\$31.12	\$37.67
Level 4	\$25.91	\$33.13	\$40.35
Level 5	\$27.28	\$34.71	\$42.14
Level 6	\$28.75	\$36.56	\$44.36
Level 7	\$30.29	\$38.15	\$46.01
Level 8	\$31.65	\$39.77	\$47.89

Tile Layer	TT32-TL	\$45.19	\$58.33	\$71.47	H H D H D D D D N
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7/25/2007

**Apprentice Rates:**

Level 1	\$24.76	\$31.75	\$38.73
Level 2	\$27.55	\$35.28	\$43.01
Level 3	\$30.40	\$38.42	\$46.44
Level 4	\$32.90	\$41.81	\$50.72
Level 5	\$34.95	\$44.10	\$53.26
Level 6	\$38.29	\$49.05	\$59.81
Level 7	\$38.89	\$49.81	\$60.73
Level 8	\$39.74	\$51.09	\$62.43

**Truck Driver**

on all trucks of 8 cubic yard capacity or less	TM-RB1	\$34.76	\$36.44		H H H H H H H Y
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7/24/2007

of all trucks of 8 cubic yard capacity or over	TM-RB1A	\$34.86	\$36.59		H H H H H H H Y
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7/24/2007

on euclid type equipment	TM-RB1B	\$35.01	\$36.81		H H H H H H H Y
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7/24/2007

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Classification		Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
Name	Description					
=====						
<b>Underground Laborer Open Cut, Class I</b>						
Construction Laborer	LAUC-Z1-1	9/6/2007	\$33.39	\$44.07	\$54.75	H H H H H H D Y
<b>Apprentice Rates:</b>						
0-1,000 work hours		\$28.59	\$36.87	\$45.15		
1,001-2,000 work hours		\$29.55	\$38.31	\$47.07		
2,001-3,000 work hours		\$30.51	\$39.75	\$48.99		
3,001-4,000 work hours		\$32.43	\$42.63	\$52.83		
<b>Underground Laborer Open Cut, Class II</b>						
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	9/6/2007	\$33.50	\$44.24	\$54.97	H H H H H H D Y
<b>Apprentice Rates:</b>						
0-1,000 work hours		\$28.68	\$37.01	\$45.33		
1,001-2,000 work hours		\$29.64	\$38.45	\$47.25		
2,001-3,000 work hours		\$30.60	\$39.89	\$49.17		
3,001-4,000 work hours		\$32.54	\$42.80	\$53.05		
<b>Underground Laborer Open Cut, Class III</b>						
Air, gasoline and electric tool operator, vibrator operator, drillers, pump man, tar kettle operator, bracers, rodder, 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	9/6/2007	\$33.55	\$44.31	\$55.07	H H H H H H D Y
<b>Apprentice Rates:</b>						
0-1,000 work hours		\$28.71	\$37.05	\$45.39		
1,001-2,000 work hours		\$29.68	\$38.51	\$47.33		
2,001-3,000 work hours		\$30.65	\$39.97	\$49.27		
3,001-4,000 work hours		\$32.58	\$42.86	\$53.13		
<b>Underground Laborer Open Cut, Class IV</b>						
Trench or excavating grade man.	LAUC-Z1-4	9/6/2007	\$33.63	\$44.43	\$55.23	H H H H H H D Y
<b>Apprentice Rates:</b>						
0-1,000 work hours		\$28.77	\$37.15	\$45.51		
1,001-2,000 work hours		\$29.74	\$38.60	\$47.45		
2,001-3,000 work hours		\$30.72	\$40.07	\$49.41		
3,001-4,000 work hours		\$32.66	\$42.98	\$53.29		

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Classification		Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
Name	Description					
=====						
<b>Underground Laborer Open Cut, Class V</b>						
Pipe Layer		LAUC-Z1-5	\$33.69	\$44.52	\$55.35	H H H H H H D Y
		9/6/2007				
	<b>Apprentice Rates:</b>					
	0-1,000 work hours	\$28.82	\$37.22	\$45.61		
	1,001-2,000 work hours	\$29.79	\$38.67	\$47.55		
	2,001-3,000 work hours	\$30.77	\$40.15	\$49.51		
	3,001-4,000 work hours	\$32.72	\$43.07	\$53.41		
<b>Underground Laborer Open Cut, Class VI</b>						
Grouting man, top man assistant, audio visual television		LAUC-Z1-6	\$31.14	\$40.70	\$50.25	H H H H H H D Y
operations and all other operations in connection with		9/6/2007				
closed circuit television inspection, pipe cleaning and pipe						
relining work and the installation and repair of water						
service pipe and appurtenances.						
	<b>Apprentice Rates:</b>					
	0-1,000 work hours	\$26.90	\$34.34	\$41.77		
	1,001-2,000 work hours	\$27.75	\$35.61	\$43.47		
	2,001-3,000 work hours	\$28.60	\$36.89	\$45.17		
	3,001-4,000 work hours	\$30.29	\$39.43	\$48.55		
<b>Underground Laborer Open Cut, Class VII</b>						
Restoration laborer, seeding, sodding, planting, cutting,		LAUC-Z1-7	\$27.76	\$35.63	\$43.49	H H H H H H D Y
mulching and topsoil grading and the restoration of		9/6/2007				
property such as replacing mail boxes, wood chips, planter						
boxes, flagstones etc.						
	<b>Apprentice Rates:</b>					
	0-1,000 work hours	\$24.37	\$30.55	\$36.71		
	1,001-2,000 work hours	\$25.05	\$31.57	\$38.07		
	2,001-3,000 work hours	\$25.73	\$32.59	\$39.43		
	3,001-4,000 work hours	\$27.08	\$34.61	\$42.13		

Official Request #: 867

Requestor: TROY SCHOOL DISTRICT

Project Description: PLAYGROUND EQUIPMENT

Project Number: ALL ELEMENTARY SCHOOLS

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.

## 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.

Revised: 05/23/08



STATE OF MICHIGAN

JENNIFER M. GRANHOLM  
GOVERNOR

DEPARTMENT OF LABOR & ECONOMIC GROWTH  
LANSING

KEITH W. COOLEY  
DIRECTOR

Michigan Department of Labor & Economic Growth *Wage & Hour Division*  
**OVERTIME PROVISIONS for MICHIGAN PREVAILING WAGE RATE 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
First 8 Hours		4	8
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

The last character indicates if an optional 4-day 10-hour per day workweek can be worked without paying overtime after 8 hours worked.

- 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 *can not* 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.

(REV 01/15/08)

WAGE & HOUR DIVISION

P.O. BOX 30476 • LANSING, MICHIGAN 48909-7976

www.michigan.gov/wagehour • (517) 335-0400 • FAX (517) 335-0077

<b>BARNARD ELEMENTARY SCHOOL</b>			
<b>EQUIPMENT DESCRIPTION (Furnish and Install) - Attach List</b>	<b>Rolar Property Services, Inc.</b>	<b>Saf'Play Services, Inc.</b>	<b>Sinclair Recreation</b>
Climbing Boulder similar to the Pinnacle, Landscape Structures, model #156065A	\$ 17,000.00		
Climbing Boulder similar to the Pointe, Landscape Structures, Model #156067A	\$ 10,300.00		
3-Bay Single Post Swing with galvanized chains, Landscape Structures #122837A with belt seats #132385A	\$ 3,840.00		
3-Bay Single Post Swing with galvanized chains, Landscape Structures #122837A with belt seats #132385A	\$ 3,840.00		
Climbing Boulder similar to Playworld Systems Mountain Boulder, Model #ZZBD0002	\$ 13,740.00		
Climbing Boulder similar to Playworld Systems Hill boulder, Model #ZZBD0003	\$ 7,250.00		
Pair Soccer Goals and Nets, similar to Bison 12'x61/2' Goals model #126516 with nets #SC055N	\$ 3,130.00		
<b>EQUIPMENT TOTAL</b>	<b>\$ 59,100.00</b>	<b>\$ -</b>	<b>\$ -</b>
<b>SITE WORK DESCRIPTION (Furnish and Install)</b>			
Mobilization	\$ 1,000.00		
Site Preparation	\$ 7,800.00		
Excavation and Grading	\$ 4,980.00		
Demolition and Repairs to Existing Equipment (new components including barriers for Composite #13 and caps for Composite Climber #12, see Layout Plan)	\$ 25,160.00		
Concrete Walks	\$ 2,450.00		
Safety Surfacing (12" compacted Engineered Wood Fiber, geotextile fabric and peastone)	\$ 8,410.00		
Topdress Existing Safety Surfacing (4" compacted Engineered Wood Fiber)	\$ 9,220.00		
Wear Pads	\$ 3,550.00		
Play Edging - 2 tier with 5" gravel base	\$ 8,300.00		
Asphalt Color Coat Games	\$ 37,180.00		
Temporary Construction Barrier Fencing and Lock Box	\$ 1,000.00		
Site Restoration - topsoil, seeding, mulching and roping	\$ 5,270.00		
<b>SITE WORK TOTAL</b>	<b>\$ 114,320.00</b>		
<b>SCHOOL TOTAL</b>	<b>\$ 173,420.00</b>	<b>No Bid</b>	<b>No Bid</b>

<b>BEMIS ELEMENTARY SCHOOL</b>			
<b>EQUIPMENT DESCRIPTION (Furnish and Install) - Attach List</b>	<b>Rolar Property Services, Inc.</b>	<b>Saf'Play Services, Inc.</b>	<b>Sinclair Recreation</b>
4-Bay Single Post Swing with galvanized chains, Landscape Structures #122837A with belt seats #132385A	\$ 5,220.00		
Merry-Go-Round similar to GameTime Miniature Whirl, model #325	\$ 2,950.00		
Music Panel similar to Little Tikes Bongo Panel	\$ 2,100.00		
Elevated Sand Box similar to GameTime Elevated Sand Box, model #9835	\$ 1,640.00		
Climber similar to GameTime Satellite Climber, model #P607	\$ 4,000.00		
Double Slide similar to GameTime Dueling Wave Slide, model #18396	\$ 5,400.00		
2-Bay Single Post Swing with galvanized chains, Landscape Structures #122837A with 3-belt seats #132385A and 1-ADA swing similar to GameTime Zero-G Seat	\$ 3,920.00		
Spinner similar to GameTime Tilted Sky Runner, model #6201	\$ 3,740.00		
3-Bay Single Post Swing with galvanized chains, Landscape Structures #122837A with belt seats #132385A	\$ 4,100.00		
(2) Spinning Seats GameTime Whirlwind Seats, model #6142	\$ 1,730.00		
<b>EQUIPMENT TOTAL</b>	<b>\$ 34,800.00</b>	<b>\$ -</b>	<b>\$ -</b>
<b>SITE WORK DESCRIPTION (Furnish and Install)</b>			
Mobilization	\$ 1,000.00		
Site Preparation	\$ 1,120.00		
Excavation and Grading	\$ 8,100.00		
Demolition and Repairs to Existing Equipment (new components including Guardrail for Composite #5, Overhead Event for Composite #11, see Layout Plan)	\$ 6,890.00		
Drainage	\$ 2,580.00		
Concrete Walks	\$ 3,200.00		
Safety Surfacing (12" compacted Engineered Wood Fiber, geotextile fabric and peastone)	\$ 14,350.00		
Topdress Existing Safety Surfacing (4" compacted Engineered Wood Fiber)	\$ 8,450.00		
Play Sand (sand boxes)	\$ 250.00		
Wear Pads	\$ 4,000.00		
Play Edging - 2 tier with 5" gravel base	\$ 17,400.00		
Asphalt Color Coat Games	\$ 19,360.00		
Temporary Construction Barrier Fencing and Lock Box	\$ 1,000.00		
Site Restoration - topsoil, seeding, mulching and roping	\$ 5,270.00		
<b>SITE WORK TOTAL</b>	<b>\$ 92,970.00</b>	<b>\$ -</b>	<b>\$ -</b>
<b>SCHOOL TOTAL</b>	<b>\$ 127,770.00</b>	<b>No Bid</b>	<b>No Bid</b>

<b>COSTELLO ELEMENTARY SCHOOL</b>			
<b>EQUIPMENT DESCRIPTION (Furnish and Install) - Attach List</b>	<b>Rolar Property Services, Inc.</b>	<b>Saf'Play Services, Inc.</b>	<b>Sinclair Recreation</b>
Climber similar to Landscape Structures Escalator Climber, Model #160692	\$ 6,400.00		
Climber similar to Landscape Structures Triple Starburst Climber, model #158426A	\$ 4,460.00		
Composite Structure similar to Landscape Structures composite as detailed in the layout plans	\$ 16,270.00		
Cable Climber similar to Burke Super Nova, model #560-0433	\$ 31,400.00		
(2) 12' x 12' Sand Boxes with covers similar to Burke #580052	\$ 4,720.00		
<b>EQUIPMENT TOTAL</b>	<b>\$ 63,250.00</b>	<b>\$ -</b>	<b>\$ -</b>
<b>SITE WORK DESCRIPTION (Furnish and Install)</b>			
Mobilization	\$ 1,000.00		
Site Preparation	\$ 17,600.00		
Excavation and Grading	\$ 9,000.00		
Demolition and Repairs to Existing Equipment (new components including Tic-Tac-Toe Panel for Composite #20 see layout plan)	\$ 6,930.00		
Concrete Walks	\$ 9,450.00		
Safety Surfacing (12" compacted Engineered Wood Fiber, geotextile fabric and peastone)	\$ 34,300.00		
Topdress Existing Safety Surfacing (4" compacted Engineered Wood Fiber)	\$ 6,870.00		
Wear Pads	\$ 960.00		
Play Edging - 2 tier with 5" gravel base	\$ 21,130.00		
Temporary Construction Barrier Fencing and Lock Box	\$ 1,000.00		
Site Restoration - topsoil, seeding, mulching and roping	\$ 5,270.00		
<b>SITE WORK TOTAL</b>	<b>\$ 113,510.00</b>	<b>\$ -</b>	<b>\$ -</b>
<b>SCHOOL TOTAL</b>	<b>\$ 176,760.00</b>	<b>No Bid</b>	<b>No Bid</b>

<b>HAMILTON ELEMENTARY SCHOOL</b>			
<b>EQUIPMENT DESCRIPTION (Furnish and Install) - Attach List</b>	<b>Rolar Property Services, Inc.</b>	<b>Saf'Play Services, Inc.</b>	<b>Sinclair Recreation</b>
Spinner similar to Landscape Structures Orbiter 3 Spinner, model #154359	\$ 5,100.00		
Composite Structure similar to proposed Little Tikes composite	\$ 22,300.00		
(2) Cable Climbers similar to Landscape Structures Web Climber, model #136159A	\$ 4,800.00		
2-Bay Single Post Swing with galvanized chains, Landscape Structures #122837A with belt seats #132385A	\$ 2,940.00		
Climber similar to Little Tikes Infinity Quad Climber, model #200200179	\$ 4,600.00		
<b>EQUIPMENT TOTAL</b>	<b>\$ 39,740.00</b>	<b>\$ -</b>	<b>\$ -</b>
<b>SITE WORK DESCRIPTION (Furnish and Install)</b>			
Mobilization	\$ 1,000.00		
Site Preparation	\$ 7,560.00		
Excavation and Grading	\$ 5,690.00		
Demolition and Repairs to Existing Equipment (including new components: Spiral Slide for Composite #4, see Layout Plan)	\$ 6,400.00		
Drainage	\$ 42,300.00		
Concrete Walks	\$ 9,590.00		
Safety Surfacing (12" compacted Engineered Wood Fiber, geotextile fabric and peastone)	\$ 10,300.00		
Topdress Existing Safety Surfacing (4" compacted Engineered Wood Fiber)	\$ 9,000.00		
Wear Pads	\$ 970.00		
Play Edging - 2 tier with 5" gravel base	\$ 9,500.00		
Temporary Construction Barrier Fencing and Lock Box	\$ 1,000.00		
Site Restoration - topsoil, seeding, mulching and roping	\$ 4,570.00		
<b>SITE WORK TOTAL</b>	<b>\$ 107,880.00</b>	<b>\$ -</b>	<b>\$ -</b>
<b>SCHOOL TOTAL</b>	<b>\$ 147,620.00</b>	<b>No Bid</b>	<b>No Bid</b>

<b>HILL ELEMENTARY SCHOOL</b>			
<b>EQUIPMENT DESCRIPTION (Furnish and Install) - Attach List</b>	<b>Rolar Property Services, Inc.</b>	<b>Saf'Play Services, Inc.</b>	<b>Sinclair Recreation</b>
(2) Spinner similar to Landscape Structures Orbiter 3 Spinner, model #154359	\$ 10,100.00	\$ 12,534.00	\$ 5,000.00
Composite Structure similar to Landscape Structures Composite per the Layout Plan	\$ 33,220.00	\$ 40,283.00	\$ 27,000.00
Climber similar to Landscape Structures Escalator Climber, model #160692	\$ 6,400.00	\$ 8,456.00	\$ 5,500.00
2-Bay Single Post Swing with galvanized chains, Landscape Structures #122837A with belt seats #132385A - **(Sinclair GT alternate)**	\$ 2,940.00	\$ 3,556.00	\$ 3,000.00
Pair Soccer Goals and Nets, similar to Bison 12'x6 1/2" Goals model #126516 with nets #SC055N	\$ 3,140.00	\$ 4,264.00	\$ 2,200.00
<b>EQUIPMENT TOTAL</b>	<b>\$ 55,800.00</b>	<b>\$ 69,093.00</b>	<b>\$ 42,700.00</b>
<b>SITE WORK DESCRIPTION (Furnish and Install)</b>			
Mobilization	\$ 1,000.00	\$ 500.00	\$ 1,000.00
Site Preparation	\$ 16,800.00	\$ -	\$ 3,500.00
Excavation and Grading	\$ 9,830.00	\$ 5,076.00	\$ 5,000.00
Demolition and Repairs to Existing Equipment (including new components: barriers for Composite #2, see Layout Plan)	\$ 11,000.00	\$ 14,707.00	\$ 10,000.00
Concrete Walks	\$ 8,980.00	\$ 10,360.00	\$ 6,000.00
Safety Surfacing (12" compacted Engineered Wood Fiber, geotextile fabric and peastone)	\$ 14,470.00	\$ 11,008.00	\$ 7,500.00
Topdress Existing Safety Surfacing (4" compacted Engineered Wood Fiber)	\$ 4,430.00	\$ 3,240.00	\$ 5,100.00
Wear Pads	\$ 970.00	\$ 2,880.00	\$ 2,900.00
Play Edging - 2 tier with 5" gravel base	\$ 9,670.00	\$ 5,940.00	\$ 8,400.00
Asphalt Color Coat Games	\$ 2,640.00	\$ 1,200.00	\$ 1,000.00
Temporary Construction Barrier Fencing and Lock Box	\$ 1,000.00	\$ 1,000.00	\$ 1,000.00
Site Restoration - topsoil, seeding, mulching and roping	\$ 4,570.00	\$ 6,498.00	\$ 3,500.00
<b>SITE WORK TOTAL</b>	<b>\$ 85,360.00</b>	<b>\$ 62,409.00</b>	<b>\$ 54,900.00</b>
<b>SCHOOL TOTAL</b>	<b>\$ 141,160.00</b>	<b>\$ 131,502.00</b>	<b>\$ 97,600.00</b>



<b>LEONARD ELEMENTARY SCHOOL</b>			
<b>EQUIPMENT DESCRIPTION (Furnish and Install) - Attach List</b>	<b>Rolar Property Services, Inc.</b>	<b>Saf'Play Services, Inc.</b>	<b>Sinclair Recreation</b>
Climber similar to Landscape Structures Triple Starburst Climber, model #158426C	\$ 4,460.00		
Triple Climbers similar to Playworld Systems Whirlwind Climbers, model #ZZUN6740, ZZUN6739 and ZZUN6738	\$ 5,100.00		
Web Climber similar to Playworld Systems Play Web Small, model #ZZXX0018	\$ 18,300.00		
Horizontal Loop Ladder similar to Park Structures Horizontal Loop Ladder, model #67532	\$ 1,610.00		
3-Bay Single Post Swing with galvanized chains, Landscape Structures #122837A with belt seats #132385A 6' Bench	\$ 4,100.00		
3-Bay Single Post Swing with galvanized chains, Landscape Structures #122837A with belt seats #132385A 6' Bench	\$ 4,100.00		
<b>EQUIPMENT TOTAL</b>	<b>\$ 37,670.00</b>	<b>\$ -</b>	<b>\$ -</b>
<b>SITE WORK DESCRIPTION (Furnish and Install)</b>			
Mobilization	\$ 1,000.00		
Site Preparation	\$ 3,370.00		
Excavation and Grading	\$ 10,500.00		
Demolition and Repairs to Existing Equipment (including new components: Barriers for Composite #10 and 2-belt seats for Swing #18, see Layout Plan)	\$ 5,220.00		
Concrete Walks	\$ 6,730.00		
Safety Surfacing (12" compacted Engineered Wood Fiber, geotextile fabric and peastone)	\$ 17,250.00		
Topdress Existing Safety Surfacing (4" compacted Engineered Wood Fiber)	\$ 9,690.00		
Wear Pads	\$ 2,770.00		
Play Edging - 2 tier with 5" gravel base	\$ 7,860.00		
Temporary Construction Barrier Fencing and Lock Box	\$ 1,000.00		
Site Restoration - topsoil, seeding, mulching and roping	\$ 4,490.00		
<b>SITE WORK TOTAL</b>	<b>\$ 69,880.00</b>	<b>\$ -</b>	<b>\$ -</b>
<b>SCHOOL TOTAL</b>	<b>\$ 107,550.00</b>	<b>No Bid</b>	<b>No Bid</b>

<b>MARTELL ELEMENTARY SCHOOL</b>			
<b>EQUIPMENT DESCRIPTION (Furnish and Install) - Attach List</b>	<b>Rolar Property Services, Inc.</b>	<b>Saf'Play Services, Inc.</b>	<b>Sinclair Recreation</b>
Spiral Slide similar to Park Structures Hurricane Slide, model #67723	\$ 6,000.00	\$ 6,130.00	
Climber similar to Landscape Structures Double Humpty Climber, model #100037A	\$ 2,820.00	\$ 3,611.00	
4-Seat Spring Toy similar to Park Structures 4-Seat Bouncer, model #67535	\$ 2,190.00	\$ 2,523.00	
2-Bay Single Post Swing with galvanized chains, Landscape Structures #122837A with belt seats #132385A	\$ 2,940.00	\$ 3,523.00	
3-Bay Single Post Swing with galvanized chains, Landscape Structures #122837A with belt seats #132385A	\$ 4,100.00	\$ 4,918.00	
Curved Balance Beam similar to Landscape Structures, model #10041A	\$ 920.00	\$ 1,105.00	
(3) Ball Toss similar to Landscape Structures Drop Shot, model #10042A	\$ 3,340.00	\$ 4,373.00	
Climbing Wall similar to Landscape Structures Climbing Wall, model #153354A	\$ 2,290.00	\$ 2,410.00	
Parallel Bars similar to Landscape Structures model #100065A	\$ 1,130.00	\$ 1,082.00	
Horizontal Ladder similar to Landscape Structures model #100064A	\$ 1,940.00	\$ 2,286.00	
(Added Install Existing by Contractor)		\$ 5,550.00	
<b>EQUIPMENT TOTAL</b>	<b>\$ 27,670.00</b>	<b>\$ 37,511.00</b>	<b>\$ -</b>
<b>SITE WORK DESCRIPTION (Furnish and Install)</b>			
Mobilization	\$ 1,000.00	\$ 500.00	
Site Preparation	\$ 1,500.00	\$ -	
Excavation and Grading	\$ 12,000.00	\$ 9,796.00	
Demolition and Repairs to Existing Equipment (including new components: Cable Climber for Composite #14 and Double Slide for Composite #22, see Layout Plan	\$ 13,000.00	\$ 3,878.00	
Concrete Walks	\$ 2,330.00	\$ 6,927.00	
Safety Surfacing (12" compacted Engineered Wood Fiber, geotextile fabric and peastone)	\$ 18,500.00	\$ 33,119.00	
Topdress Existing Safety Surfacing (4" compacted Engineered Wood Fiber)	\$ 5,540.00	\$ 2,648.00	
Wear Pads	\$ 3,610.00	\$ 4,640.00	
Play Edging - 2 tier with 5" gravel base	\$ 12,840.00	\$ 12,180.00	
Asphalt Color Coat Games	\$ 5,280.00	\$ 2,640.00	
Temporary Construction Barrier Fencing and Lock Box	\$ 1,000.00	\$ 1,000.00	
Site Restoration - topsoil, seeding, mulching and roping	\$ 4,580.00	\$ 6,230.00	
<b>SITE WORK TOTAL</b>	<b>\$ 81,180.00</b>	<b>\$ 83,558.00</b>	<b>\$ -</b>
<b>SCHOOL TOTAL</b>	<b>\$ 108,850.00</b>	<b>\$ 121,069.00</b>	<b>No Bid</b>

<b>MORSE ELEMENTARY SCHOOL</b>			
<b>EQUIPMENT DESCRIPTION (Furnish and Install) - Attach List</b>	<b>Rolar Property Services, Inc.</b>	<b>Saf'Play Services, Inc.</b>	<b>Sinclair Recreation</b>
Spinner similar to Landscape Structures Orbiter 2 Spinner, model #154358A	\$ 3,600.00		
Spring Toy similar to Landscape Structures Spring Ring, model #117961A	\$ 4,320.00		
Curved Track Ride similar to Landscape Structures model #12874A	\$ 4,000.00		
Climbing Composite similar to GameTime Astro Wave, model #27017	\$ 20,240.00		
Stationary Cyclor similar to Landscape Structures, model #16055C	\$ 1,740.00		
Climber similar to Landscape Structures 4-Panel Cascade Climber, model #150977A	\$ 3,220.00		
(2) Elevated Sand Table similar to GameTime model #9835	\$ 3,220.00		
Spring Toy similar to Landscape Structures Spring Ring, model #117961A	\$ 4,630.00		
<b>EQUIPMENT TOTAL</b>	<b>\$ 44,970.00</b>	<b>\$ -</b>	<b>\$ -</b>
<b>SITE WORK DESCRIPTION (Furnish and Install)</b>			
Mobilization	\$ 1,000.00		
Site Preparation	\$ 5,640.00		
Excavation and Grading	\$ 13,700.00		
Demolition and Repairs to Existing Equipment (including components: Disc Challenge Pod Composite #14 and Bushings for Spring Ring #15 and stair Barriers on Composite #5, see Layout Plan)	\$ 8,500.00		
Drainage	\$ 8,770.00		
Concrete Walks	\$ 8,910.00		
Safety Surfacing (12" compacted Engineered Wood Fiber, geotextile fabric and peastone)	\$ 21,300.00		
Topdress Existing Safety Surfacing (4" compacted Engineered Wood Fiber)	\$ 15,400.00		
Play Sand (Sand boxes)	\$ 350.00		
Wear Pads	\$ -		
Play Edging - 2 tier with 5" gravel base	\$ 16,100.00		
Temporary Construction Barrier Fencing and Lock Box	\$ 1,000.00		
Site Restoration - topsoil, seeding, mulching and roping	\$ 4,500.00		
<b>SITE WORK TOTAL</b>	<b>\$ 105,170.00</b>	<b>\$ -</b>	<b>\$ -</b>
<b>SCHOOL TOTAL</b>	<b>\$ 150,140.00</b>	<b>No Bid</b>	<b>No Bid</b>

<b>SCHROEDER ELEMENTARY SCHOOL</b>			
<b>EQUIPMENT DESCRIPTION (Furnish and Install) - Attach List</b>	<b>Rolar Property Services, Inc.</b>	<b>Saf'Play Services, Inc.</b>	<b>Sinclair Recreation</b>
Spinner similar to Kompan Supernova, model #GXY916	\$ 8,280.00		
Composite similar to GameTime Carnival, model #11788	\$ 30,360.00		
Expansion to Composite #13 including Landscape Structures Slide Winder model #124863AG, Cyclor model #160054A and Curved Track Ride model #121874A	\$ 10,950.00		
Spinner similar to Landscape Structures Orbiter 2 Spinner, model #121874A	\$ 3,600.00		
Spring Toy similar to Landscape Structures Spring Ring, model #117961A	\$ 4,630.00		
Slide similar to GameTime Rumbler model #18392 or Zip Slide model #18393	\$ 4,370.00		
Composite structure similar to Little Tikes Composite (see Kindergarten Composite Detail)	\$ 11,960.00		
Sand Box with cover similar to Playworld System model #ZZXX1261	\$ 900.00		
(3) 6' Bench similar to Landscape Structures model #28009	\$ 2,740.00		
<b>EQUIPMENT TOTAL</b>	<b>\$ 77,790.00</b>	<b>\$ -</b>	<b>\$ -</b>
<b>SITE WORK DESCRIPTION (Furnish and Install)</b>			
Mobilization	\$ 1,000.00		
Site Preparation	\$ 10,300.00		
Excavation and Grading	\$ 8,500.00		
Demolition and Repairs to Existing Equipment (including components: Clover Leaf Climber for Composite #4, see Layout Plan)	\$ 5,320.00		
Concrete Walks	\$ 20,560.00		
Safety Surfacing (12" compacted Engineered Wood Fiber, geotextile fabric and peastone)	\$ 13,000.00		
Topdress Existing Safety Surfacing (4" compacted Engineered Wood Fiber)	\$ 9,340.00		
Wear Pads	\$ 900.00		
Play Edging - 2 tier with 5" gravel base	\$ 9,780.00		
Temporary Construction Barrier Fencing and Lock Box	\$ 1,000.00		
Site Restoration - topsoil, seeding, mulching and roping	\$ 5,270.00		
<b>SITE WORK TOTAL</b>	<b>\$ 84,970.00</b>	<b>\$ -</b>	<b>\$ -</b>
<b>SCHOOL TOTAL</b>	<b>\$ 162,760.00</b>	<b>No Bid</b>	<b>No Bid</b>

TROY UNION ELEMENTARY SCHOOL			
EQUIPMENT DESCRIPTION (Furnish and Install) - Attach List	Rolar Property Services, Inc.	Saf'Play Services, Inc.	Sinclair Recreation
Slide Composite with slides similar to Miracle 420 Funnel Slide Left Exit model #65-742 and 420 Funnel Slide Exit model #65742-1	\$ 29,900.00	\$ 27,793.00	
Triple Slide similar to Miracle Flippopotamus Convertible Slide model #714-180	\$ 10,760.00	\$ 11,221.00	
Composite Structure similar to Park Structures School Spirit, model #62415 without the Log Roll or Visor Roofs	\$ 34,100.00	\$ 31,410.00	
2-Bay Single Post Swing with galvanized chains, Landscape Structures #122837A with belt seats #132385A	\$ 2,940.00	\$ 3,193.00	
Pair of 12'x6 1/2' Soccer Goals with Nets similar to Bison goals model #SC12651G	\$ 3,140.00	\$ 4,254.00	
<b>EQUIPMENT TOTAL</b>	<b>\$ 80,840.00</b>	<b>\$ 77,871.00</b>	<b>\$ -</b>
<b>SITE WORK DESCRIPTION (Furnish and Install)</b>			
Mobilization	\$ 1,000.00	\$ 500.00	
Site Preparation	\$ 26,500.00	\$ -	
Excavation and Grading	\$ 5,800.00	\$ 10,840.00	
Demolition and Repairs to Existing Equipment (including components: 32x36 deck for Track Ride #7, see Layout Plan)	\$ 8,000.00	\$ 10,397.00	
Concrete Walks	\$ 7,380.00	\$ 7,174.00	
Safety Surfacing (12" compacted Engineered Wood Fiber, geotextile fabric and peastone)	\$ 37,100.00	\$ 31,158.00	
Topdress Existing Safety Surfacing (4" compacted Engineered Wood Fiber)	\$ 3,140.00	\$ 410.00	
Wear Pads	\$ 1,800.00	\$ 5,170.00	
Play Edging - 2 tier with 5" gravel base	\$ 7,300.00	\$ 5,580.00	
Temporary Construction Barrier Fencing and Lock Box	\$ 1,000.00	\$ 2,000.00	
Site Restoration - topsoil, seeding, mulching and roping	\$ 4,570.00	\$ 5,798.00	
(Added by Contractor - Asphalt & Striping)		\$ 14,447.00	
<b>SITE WORK TOTAL</b>	<b>\$ 103,590.00</b>	<b>\$ 93,474.00</b>	<b>\$ -</b>
<b>SCHOOL TOTAL</b>	<b>\$ 184,430.00</b>	<b>\$ 171,345.00</b>	<b>No Bid</b>

<b>WASS ELEMENTARY SCHOOL</b>			
<b>EQUIPMENT DESCRIPTION (Furnish and Install) - Attach List</b>	<b>Rolar Property Services, Inc.</b>	<b>Saf'Play Services, Inc.</b>	<b>Sinclair Recreation</b>
Climber similar to Burke Satellite Climber, model #600-0056	\$ 3,680.00		
Climber Composite similar to Burke Dual Adventure Climb with Atom and Coil model #300-0042	\$ 3,800.00		
2-Seat Spring Bouncer similar to Burke, model #570-0041	\$ 1,530.00		
2-Bay Single Post Swing with galvanized chains, Landscape Structures #122837A with belt seats #132385A	\$ 2,940.00		
2-Bay Single Post Swing with galvanized chains, Landscape Structures #122837A with belt seats #132385A	\$ 2,940.00		
Climber similar to Burke Climb Odyssey, model #967	\$ 39,850.00		
Install Fitness Climber similar to Burke Challenge Course, model #915	\$ 43,360.00		
<b>EQUIPMENT TOTAL</b>	<b>\$ 98,100.00</b>	<b>\$ -</b>	<b>\$ -</b>
<b>SITE WORK DESCRIPTION (Furnish and Install)</b>			
Mobilization	\$ 1,000.00		
Site Preparation	\$ 2,500.00		
Excavation and Grading	\$ 7,500.00		
Demolition and Repairs to Existing Equipment (including components: Chain Walk for Composite #21)	\$ 6,620.00		
Concrete Walks	\$ 9,740.00		
Safety Surfacing (12" compacted Engineered Wood Fiber, geotextile fabric and peastone)	\$ 11,600.00		
Topdress Existing Safety Surfacing (4" compacted Engineered Wood Fiber)	\$ 9,730.00		
Wear Pads	\$ 1,800.00		
Play Edging - 2 tier with 5" gravel base	\$ 8,580.00		
Temporary Construction Barrier Fencing and Lock Box	\$ 1,000.00		
Site Restoration - topsoil, seeding, mulching and roping	\$ 5,200.00		
<b>SITE WORK TOTAL</b>	<b>\$ 65,270.00</b>	<b>\$ -</b>	<b>\$ -</b>
<b>SCHOOL TOTAL</b>	<b>\$ 163,370.00</b>	<b>No Bid</b>	<b>No Bid</b>

<b>WATTLES ELEMENTARY SCHOOL</b>			
<b>EQUIPMENT DESCRIPTION (Furnish and Install) - Attach List</b>	<b>Rolar Property Services, Inc.</b>	<b>Saf'Play Services, Inc.</b>	<b>Sinclair Recreation</b>
Install Climber similar to Burke Satellite Loop, model #560-0445	\$ 12,590.00		
4-Bay Single Post Swing with galvanized chains, Landscape Structures #122837A with belt seats #132385A	\$ 5,220.00		
2-Bay Single Post Swing with galvanized chains, Landscape Structures #122837A with belt seats #132385A	\$ 2,940.00		
Composite similar to Playworld Systems model #500-0401	\$ 16,330.00		
Raised Sand Box similar to Miracle Therapeutic Sand Box	\$ 2,300.00		
(2) Install Climber similar to Burke Satellite Climber, model # 560-0442	\$ 3,780.00		
Spring Toy similar to Park Structures model #66534	\$ 2,590.00		
Spring Toy similar to Playworld Systems Quatro model #ZZXX0598	\$ 4,200.00		
<b>EQUIPMENT TOTAL</b>	<b>\$ 49,950.00</b>	<b>\$ -</b>	<b>\$ -</b>
<b>SITE WORK DESCRIPTION (Furnish and Install)</b>			
Mobilization	\$ 1,000.00		
Site Preparation	\$ 5,780.00		
Excavation and Grading	\$ 4,200.00		
Demolition and Repairs to Existing Equipment (including components: handrails for Composite #12)	\$ 16,200.00		
Concrete Walks	\$ 10,980.00		
Safety Surfacing (12" compacted Engineered Wood Fiber, geotextile fabric and peastone)	\$ 9,870.00		
Topdress Existing Safety Surfacing (4" compacted Engineered Wood Fiber)	\$ 10,600.00		
Wear Pads	\$ 2,800.00		
Play Edging - 2 tier with 5" gravel base	\$ 8,440.00		
Temporary Construction Barrier Fencing and Lock Box	\$ 1,000.00		
Site Restoration - topsoil, seeding, mulching and roping	\$ 5,270.00		
<b>SITE WORK TOTAL</b>	<b>\$ 76,140.00</b>	<b>\$ -</b>	<b>\$ -</b>
<b>SCHOOL TOTAL</b>	<b>\$ 126,090.00</b>	<b>No Bid</b>	<b>No Bid</b>
<b>Bid Total</b>	<b>\$ 1,769,920.00</b>		
<b>Contractor Proposed Discount for all schools (4%)</b>	<b>\$ 1,699,123.20</b>		

UNIT PRICES			
ITEM	Rolar Property Services, Inc.	Saf'Play Services, Inc.	Sinclair Recreation
Safety Surfacing (12" compacted depth engineered wood fiber including geotextile fabric and 4" peastone layer) (SF)	\$ 2.00	\$ 2.21	\$ 1.00
Safety Surfacing (4" compacted depth engineered wood fiber (SF)	\$ 0.70	\$ 0.48	\$ 0.50
Playground Timbers (12" Plastic playground timber, submit sample and spec. (LF)	\$ 20.00	\$ 15.00	\$ 20.00
4" Perforated PVC DRAINTILE with sock (LF)	\$ 15.00	\$ 8.00	\$ 15.00
3' x 3' Wear Mat (EA)	\$ 225.00	\$ 150.00	\$ 100.00
4' x 4' Wear Mat (EA)	\$ 300.00	\$ 160.00	\$ 200.00
Concrete walk (4" concrete w/ 4" sand base (SF)	\$ 6.00	\$ 5.50	\$ 6.00