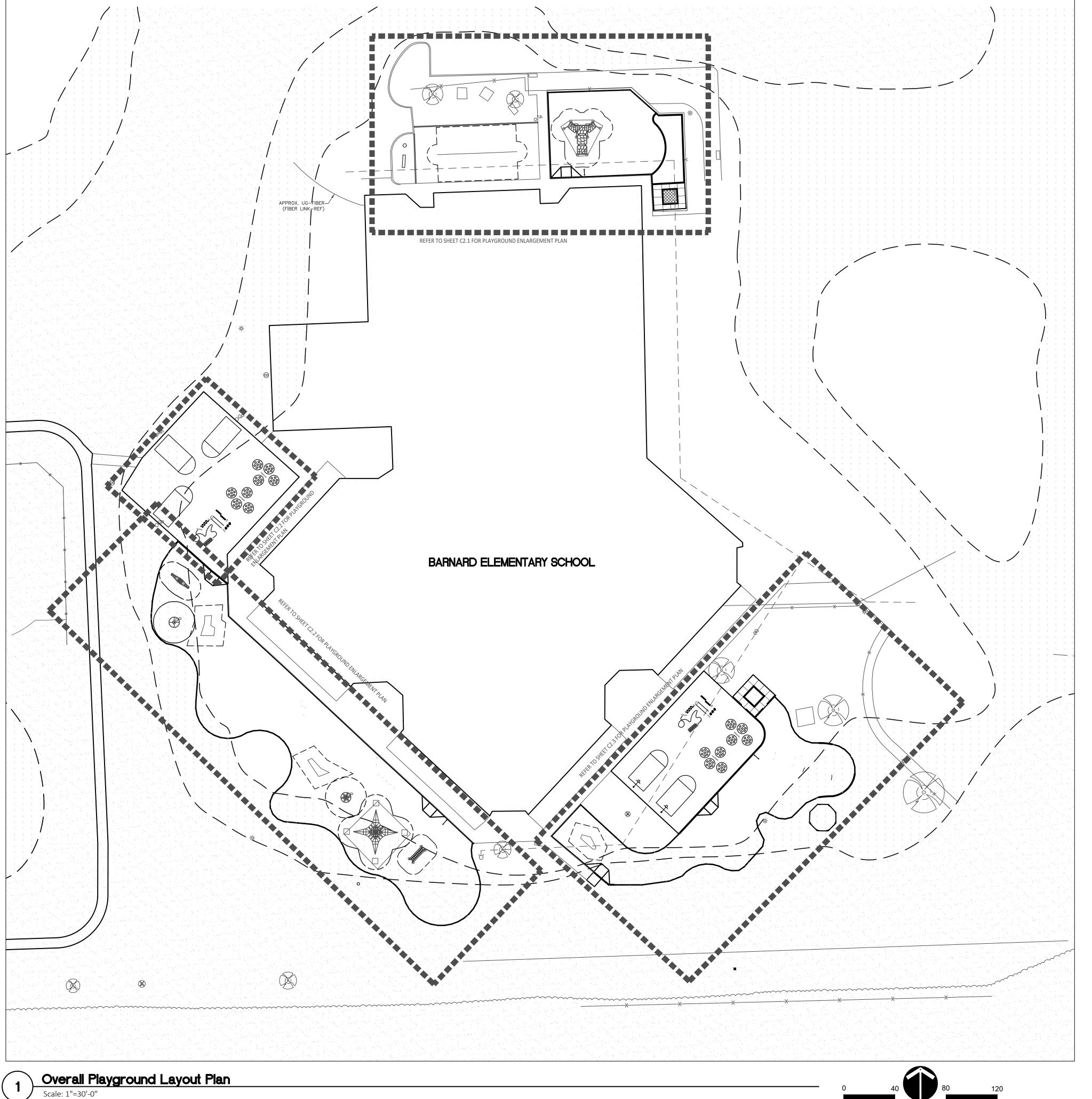


OF CONSTRUCTION)



BARRIER-FREE NOTES

- BARRIER-FREE PARKING AND ACCESSIBLE ROUTE(S) MUST COMPLY WITH THE AMERICANS WITH DISABILITIES ACT AND MICHIGAN BARRIER-FREE CODE REQUIREMENTS, INCLUDING BUT NOT LIMITED TO THE FOLLOWING:
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- 1:20 (5%) MAXIMUM LONGITUDINAL SLOPE ON ACCESSIBLE ROUTE (EXCEPT WHERE RAMPS ARE PROVIDED).
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NOTE: VERIFY LOCATION OF NEW PLAYGROUND EQUIPMENT PRIOR TO INSTALLATION OF ANY CONCRETE CURB. CONCRETE CURB TO BE INSTALLED OUTSIDE OF FALL SAFETY ZONE OF EACH PIECE OF EQUIPMENT PER ASTM 1487-05 AND MANUFACTURER'S WRITTEN RECOMMENDATIONS.

NOTE: PLAYGROUND EQUIPMENT AND SURFACING PURCHASE AND INSTALLATION IS UNDER SEPARATE CONTRACT AND IS NOT INCLUDED IN THIS BID PACKAGE. CONTRACTOR IS REQUIRED TO COORDINATE INSTALLATION OF PLAYGROUND EQUIPMENT AND SURFACING WITH PLAYGROUND INSTALLER PRIOR TO ANY EXCAVATION AND CONCRETE CURBING OR PAVING INSTALLATION.

PROPOSED FEATURES LEGEND:

RESILIENT SURFACING (BY OTHERS)

■|■|■|■|■|■|■ LIMIT OF WORK

Silly Track Layout

Not to Scale

■ ■ ■ ■ ■ ENLARGEMENT LIMIT LINE

LOOSE FILL SAFETY SURFACING (BY OTHERS)

LAYOUT NOTES:

DESCRIPTION

STRAIGHT FACE CONCRETE CURB

RESILIENT SURFACING (BY OTHERS)

PLASTIC PLAY EDGING (BY OTHERS)

LOOSE FILL SAFETY SURFACING (BY OTHERS)

THICKENED EDGE CONCRETE

- EXISTING CONDITIONS SURVEY PROVIDED BY PEA GROUP, 1849 POND RUN, AUBURN HILLS, MICHIGAN, 48326, (248)689-9090.
- PROTECT ALL TREES AND EXISTING FEATURES TO REMAIN AS SPECIFIED.
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6 /C4.0

11 /C4.0

7 /C4.0

3 & 9 /C4.0

12, 13, & 18 /C4.0



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REGISTRATION SEAL

CONSULTANT



350 East Michigan Avenue Suite #415 Kalamazoo Michigan 49007 Phone (269) 381-3357 Fax (269) 381-2944

PROJECT TITLE

Barnard Elementary School Playground Renovation Bid Package No.01A

Troy School District Troy, Michigan

DRAWING TITLE Overall Playground Layout Plan

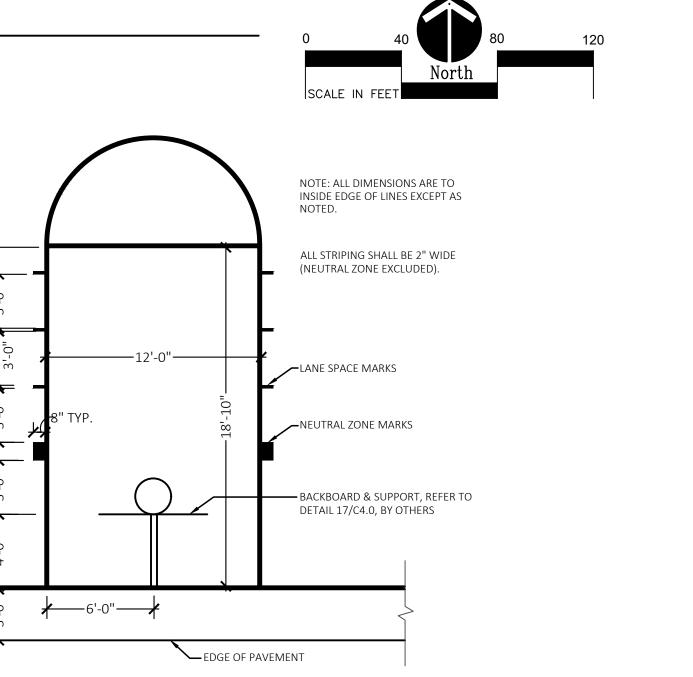
ISSUE DATES CONSTRUCTION DOCUMENTS DATE: DRAWN CHECKED APPROVED

PROJECT NO.

22086B

DRAWING NO. **C2.0**

4, 5, & 8 /C4.0 SYNTHETIC TURF (BY OTHERS) CONCRETE WALK 2 /C4.0 PLAY AREA ENTRANCE RAMP SYNTHETIC TURF (BY OTHERS) 16 /C4.0 CONCRETE SAND BOX 15 /C4.0 BASKETBALL HOOP POLE (BY OTHERS) 17 /C4.0 PLAY SAND PLAY SAND SEE SPECS ===== PLASTIC PLAY EDGING, BY OTHERS
REFER TO PLAYGROUND CONTRACTOR'S DRAWINGS AND SPECS STRAIGHT FACE CONCRETE CURB THICKENED EDGE CONCRETE _____ INTEGRAL WALK AND CURB BARRIER-FREE PLAY AREA ENTRANCE RAMP SIGNS À COMMUNICATION BOARD —×—×—×— CHAIN LINK FENCE 10 / C4.0



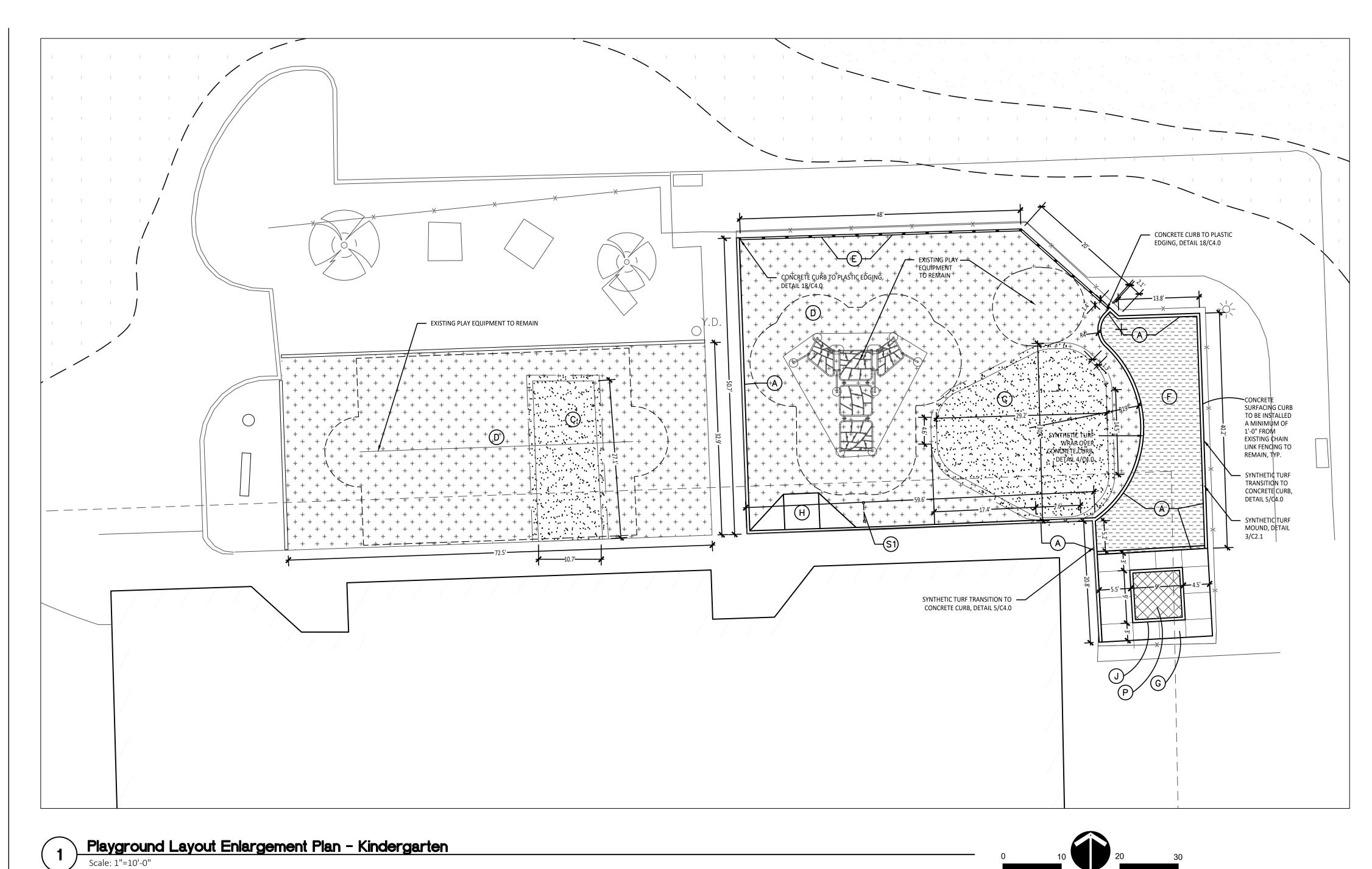
Basketball Lane Layout

COLOR D — 5" DIA. PAINTED CIRCLE ASPHALT PAINT GRAPHICS, COLOR A 2" WIDE STRIPING ASPHALT PAINT GRAPHICS, 5" DIA. PAINTED CIRCLE ASPHALT PAINT GRAPHICS, SKIR 2" WIDE STRIPING — ASPHALT PAINT GRAPHICS, ASPHALT PAINT GRAPHICS, ASPHALT PAINT GRAPHICS, COLOR F TWIR 8" HIGH LETTERS, — COLOR A

2" WIDE STRIPING

ASPHALT PAINT GRAPHICS,

ASPHALT PAINT GRAPHICS, 9" RADII,



BARRIER-FREE NOTES

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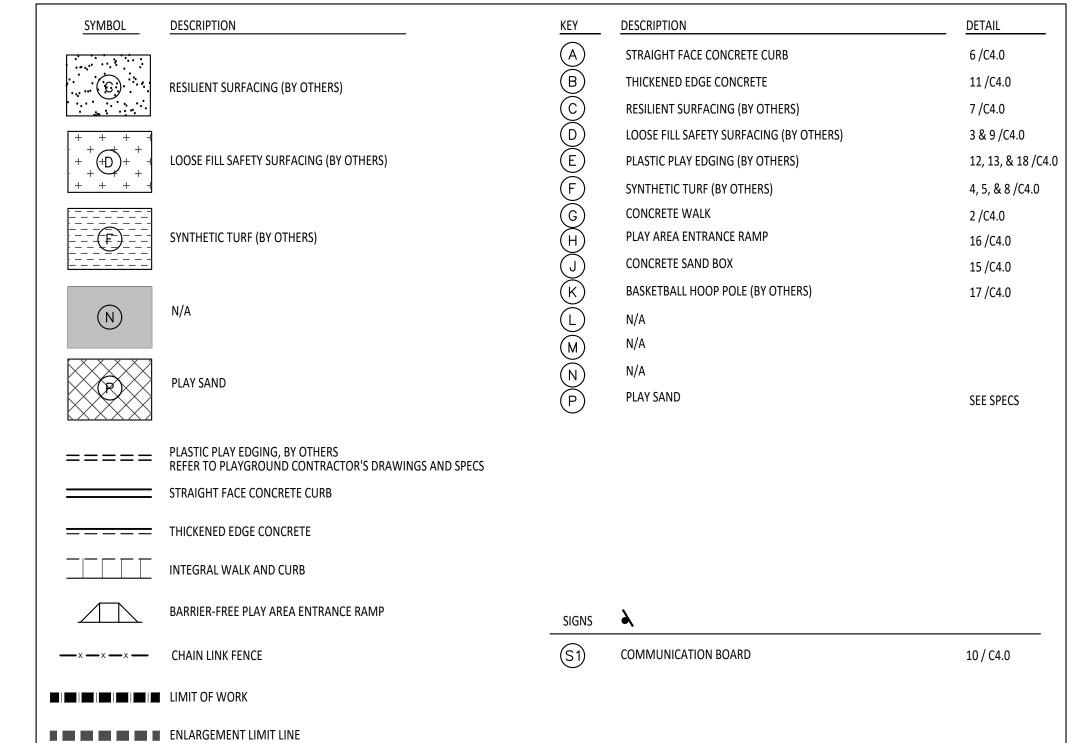
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LAYOUT NOTES:

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PROPOSED FEATURES LEGEND:





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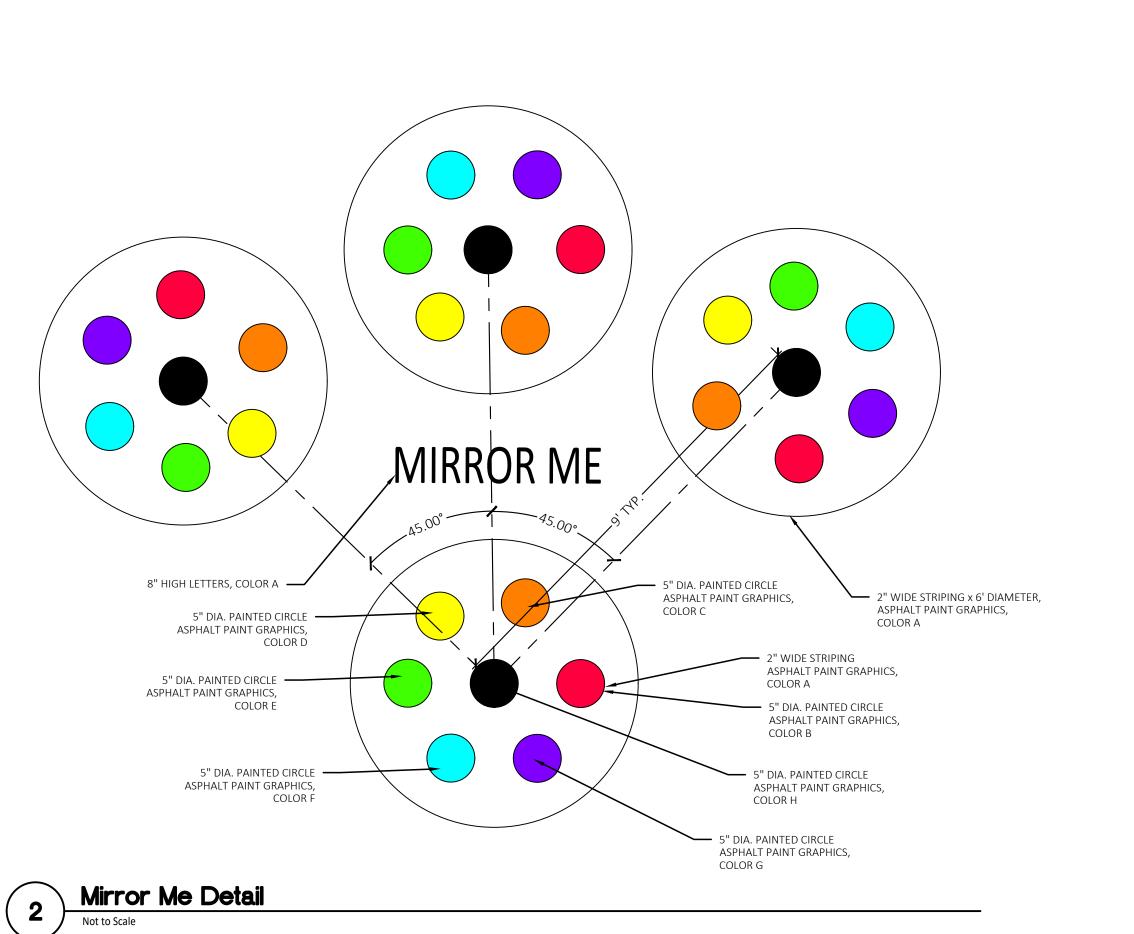
PROJECT TITLE

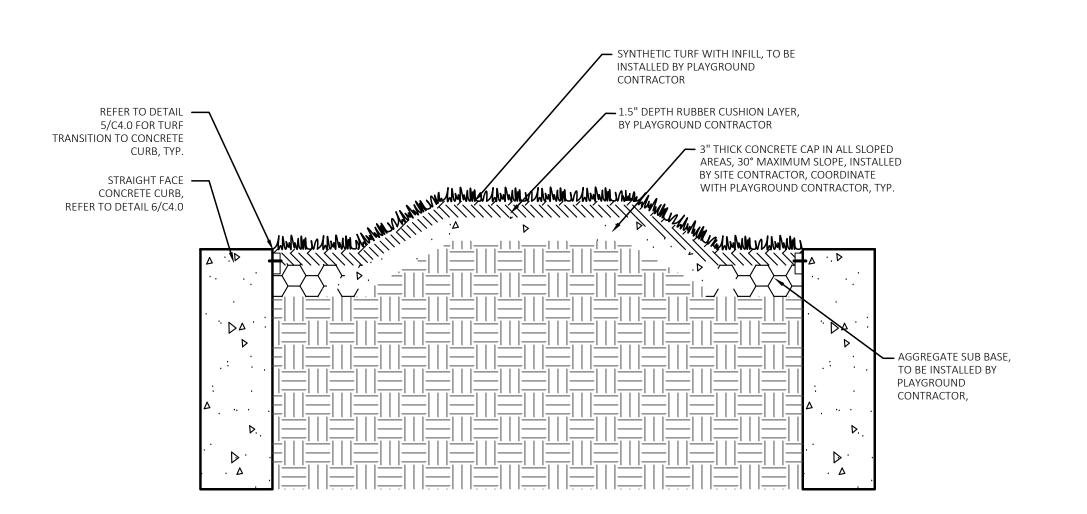
Barnard Elementary School Playground Renovation Bid Package No.01A

Troy School District Troy, Michigan

DRAWING TITLE Playground Layout Enlargement Plans -Kindergarten

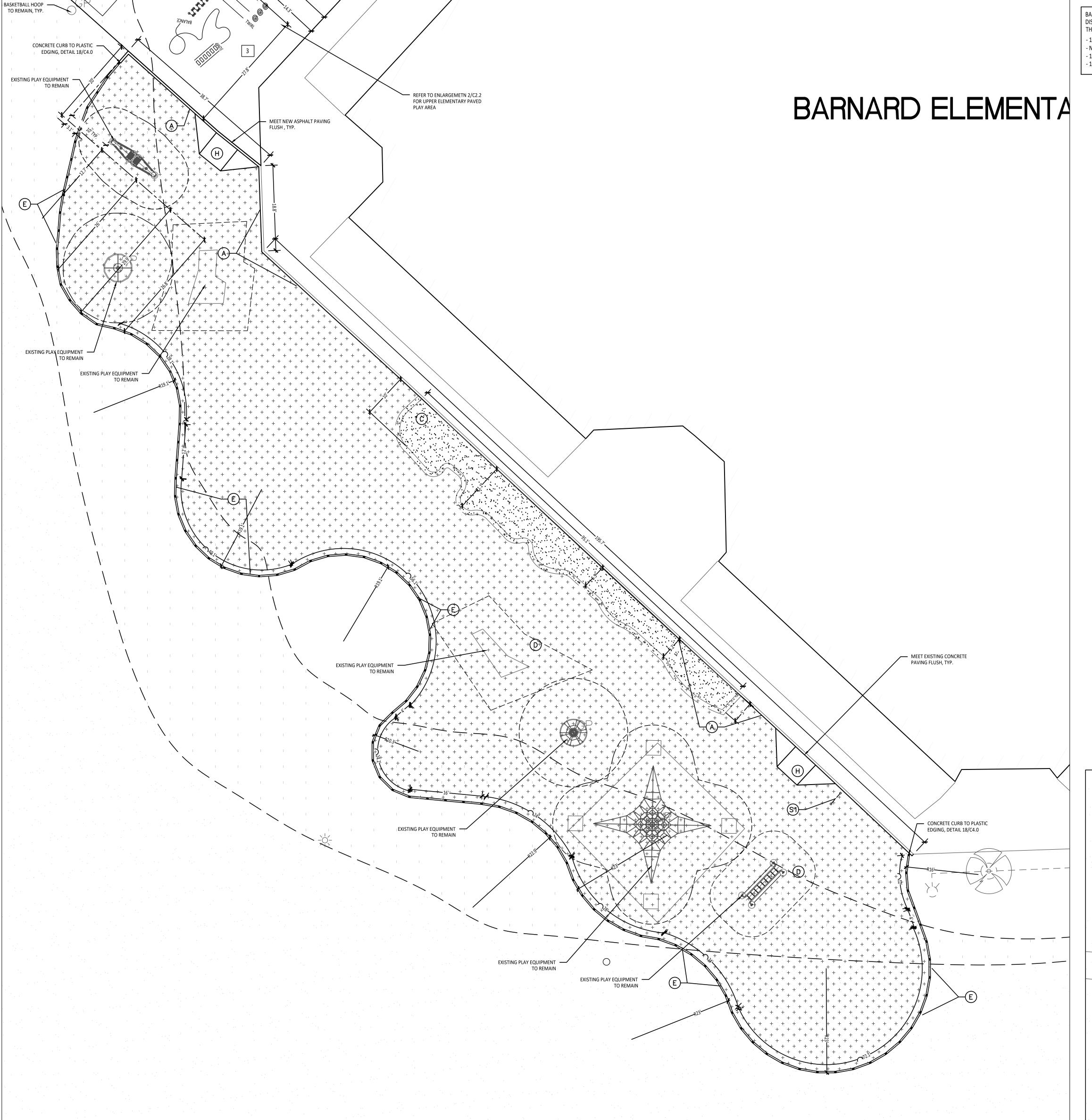
ISSUE DATES CONSTRUCTION DOCUMENTS DATE: DRAWN CHECKED APPROVED PROJECT NO. 22086B DRAWING NO. **C2.1**





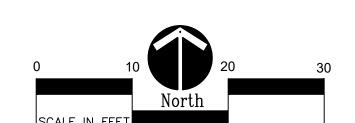
Synthetic Turf Mound Detail

Not to Scale



Playground Layout Enlargement Plan - Upper Elementary

| Scale: 1"=10'-0"



BARRIER-FREE NOTES

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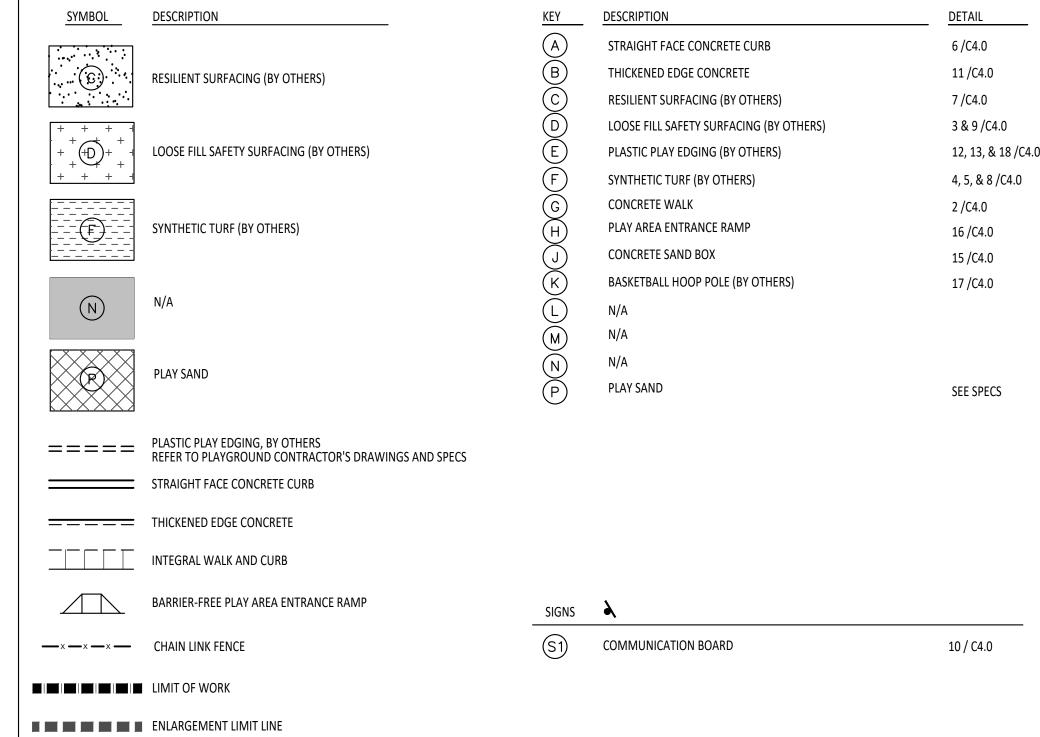
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LAYOUT NOTES:

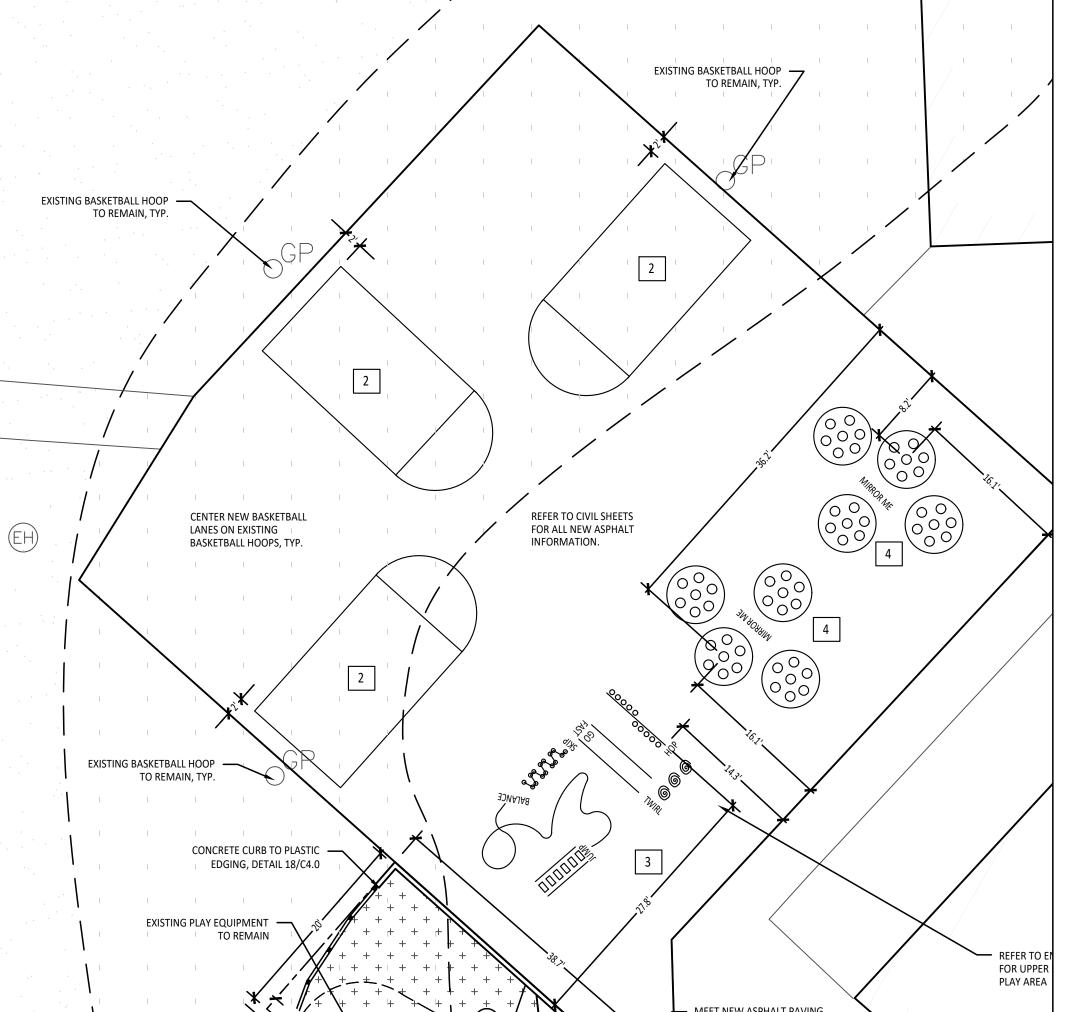
- 1. EXISTING CONDITIONS SURVEY PROVIDED BY PEA GROUP, 1849 POND RUN, AUBURN HILLS, MICHIGAN, 48326, (248)689-9090.
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PROPOSED FEATURES LEGEND:



UPPER ELEMENTARY PAINTED GAMES SCHEDULE:

SYMBOL	DESCRIPTION	DETAIL
1	N/A	
2	BASKETBALL LANE LAYOUT	2 / C2.0
3	SILLY TRACK	4 / C2.0
4	MIRROR ME	2 / C2.1
5	N/A	



Playground Layout Enlargement Plan - Upper Elementary Paved Play

| Scale: 1"=10'-0"



T M P A R C H I T E C T U R E I N C

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REGISTRATION SEAL

CONSULTANT



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PROJECT TITLE

Barnard Elementary School Playground Renovation Bid Package No.01A

Troy School District Troy, Michigan

Playground Layout Enlargement Plans - Upper Elementary

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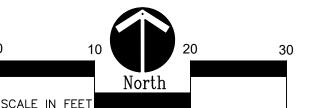
DRAWING NO.

C2.2



Playground Layout Enlargement Plan - Lower Elementary

| Scale: 1"=10'-0"



BARRIER-FREE NOTES

BARRIER-FREE PARKING AND ACCESSIBLE ROUTE(S) MUST COMPLY WITH THE AMERICANS WITH DISABILITIES ACT AND MICHIGAN BARRIER-FREE CODE REQUIREMENTS, INCLUDING BUT NOT LIMITED

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NOTE: VERIFY LOCATION OF NEW PLAYGROUND EQUIPMENT PRIOR TO

INSTALLATION OF ANY CONCRETE CURB. CONCRETE CURB TO BE INSTALLED

NOTE: PLAYGROUND EQUIPMENT AND SURFACING PURCHASE AND INSTALLATION

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OUTSIDE OF FALL SAFETY ZONE OF EACH PIECE OF EQUIPMENT PER ASTM

1487-05 AND MANUFACTURER'S WRITTEN RECOMMENDATIONS.

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LAYOUT NOTES:

AUBURN HILLS, MICHIGAN, 48326, (248)689-9090.

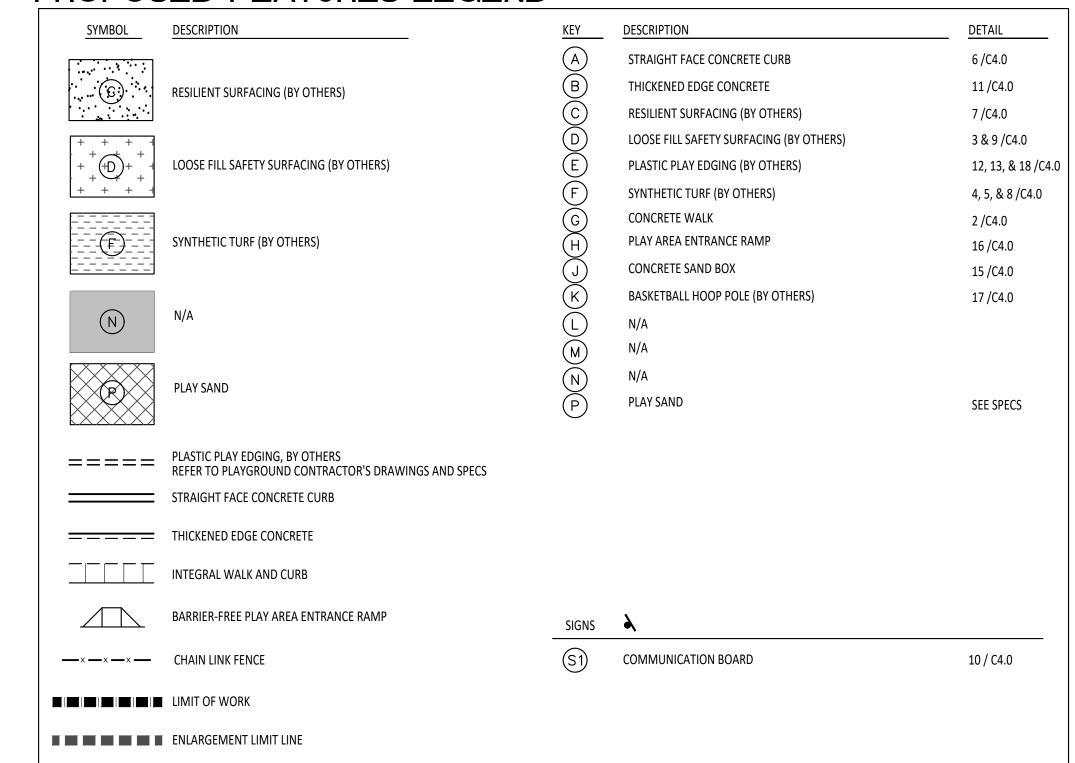
ALL NEW PAVEMENTS AND WALKS TO MEET 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN.

EXISTING CONDITIONS SURVEY PROVIDED BY PEA GROUP, 1849 POND RUN,

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PROPOSED FEATURES LEGEND:



LOWER ELEMENTARY PAINTED GAMES SCHEDULE:

SYMBOL	DESCRIPTION	DETAIL
1	N/A	
2	BASKETBALL LANE LAYOUT	2 / C2.0
3	SILLY TRACK	3 / C2.0
4	MIRROR ME	2 / C2.1
5	N/A	
l		



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REGISTRATION SEAL

CONSULTANT



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PROJECT TITLE

Barnard Elementary School Playground Renovation Bid Package No.01A

Troy School District Troy, Michigan

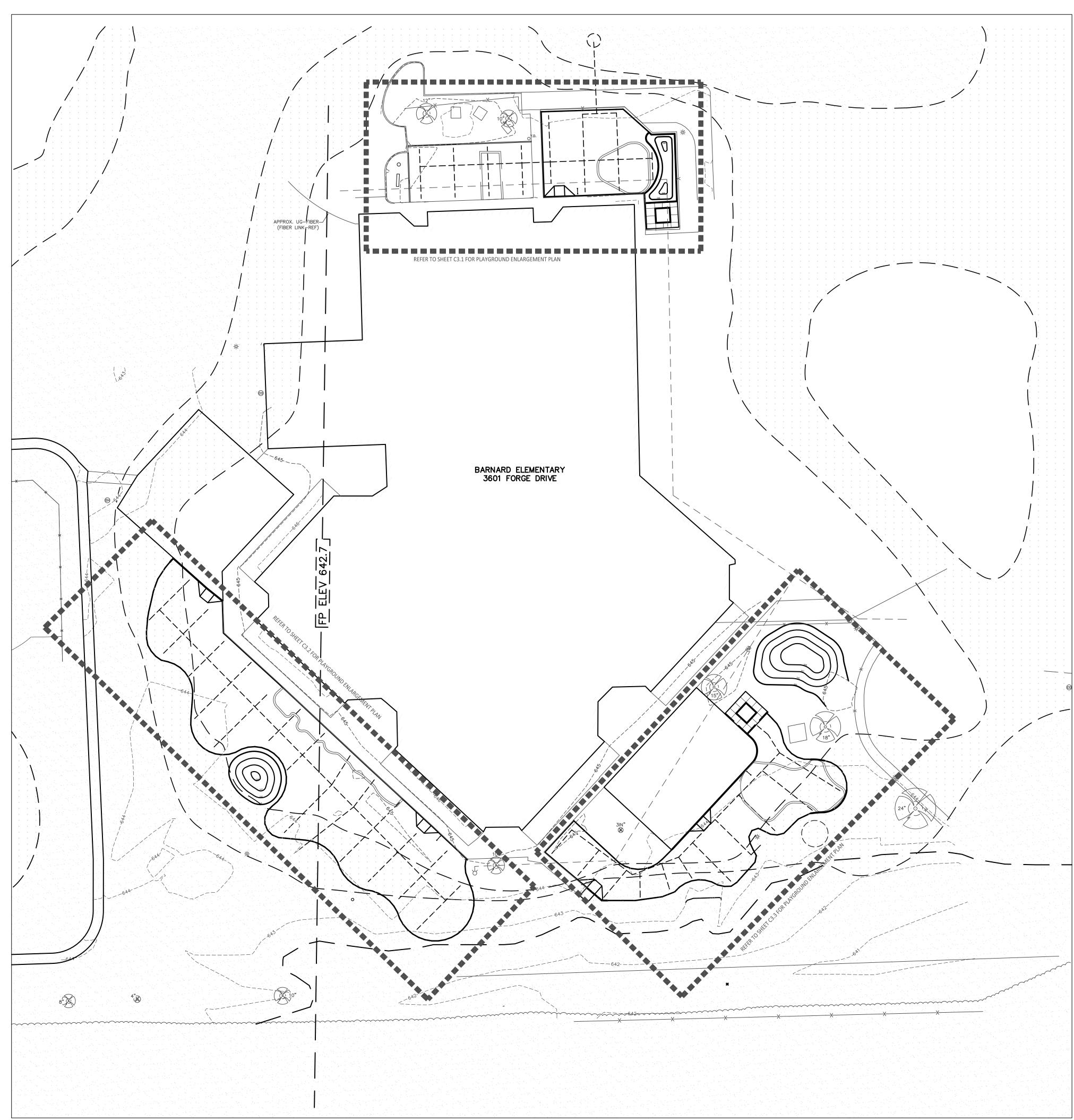
DRAWING TITLE Playground Layout Enlargement Plans -Lower Elemantary

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22086B

DRAWING NO. C2.3

PROJECT NO.



Overall Playground Grading Plan

Scale: 1"=30'-0"

BARRIER-FREE NOTES

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MPLY WITH THE AMERICANS WITH

1. SURVEY OF EXISTING CONDITION
REMENTS, INCLUDING BUT NOT LIMITED

GRADING NOTES:

- SURVEY OF EXISTING CONDITIONS PROVIDED BY PEA GROUP, 1849 POND RUN, AUBURN HILLS, MICHIGAN, 48326, (248)689-9090.
 VERIFY LOCATIONS OF ALL BELOW GRADE UTILITIES PRIOR TO BEGINNING WORK. 72 HOURS BEFORE YOU DIG CALL "MISS DIG" AT 1-800-482-7171.
- ALL NEW PAVEMENTS AND TURF AREAS ARE INTENDED TO DRAIN FREELY WITH NO PONDING. IF THIS CANNOT BE ACHIEVED USING THE PROPOSED GRADES, NOTIFY THE OWNER'S REPRESENTATIVE IMMEDIATELY FOR RESOLUTION.
- 4. ALL NEW PAVEMENT ELEVATIONS AT EXTERIOR DOORS SHALL MATCH EXISTING FINISH FLOOR ELEVATIONS, TYPICAL.
- 5. ADJUST TOP OF EXISTING MANHOLES, CATCH BASINS, VAULT COVERS, ETC. TO NEW FINISH GRADE AS REQUIRED.6. SEE SITE CIVIL PLANS FOR ALL ADDITIONAL SITE UTILITY DEMOLITION AND CONSTRUCTION.
- 7. ALL TOPSOIL AND EXCESS FILL MATERIAL SHALL BE STOCKPILED ON SITE SEPARATELY FOR LATER RE-USE. LOCATE STOCKPILES IN AREAS AS DIRECTED BY CONSTRUCTION MANAGER AND PROTECT FROM EFFECTS OF EROSION.

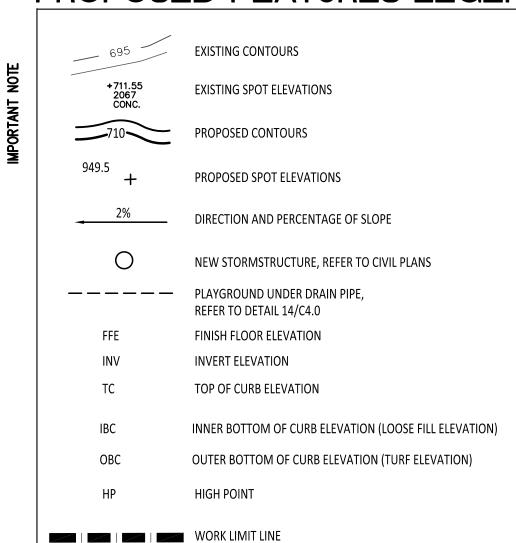
IMPORTANT NOTE

GENERAL EARTHWORK NOTE:

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IMPORTANT NOTE

PROPOSED FEATURES LEGEND:





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1191 WEST SQUARE LAKE ROAD
BLOOMFIELD HILLS · MICHIGAN · 48302
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PROJECT TITLE

Barnard Elementary School Playground Renovation Bid Package No.01A

Troy School District Troy, Michigan

Overall Playground Grading Plan

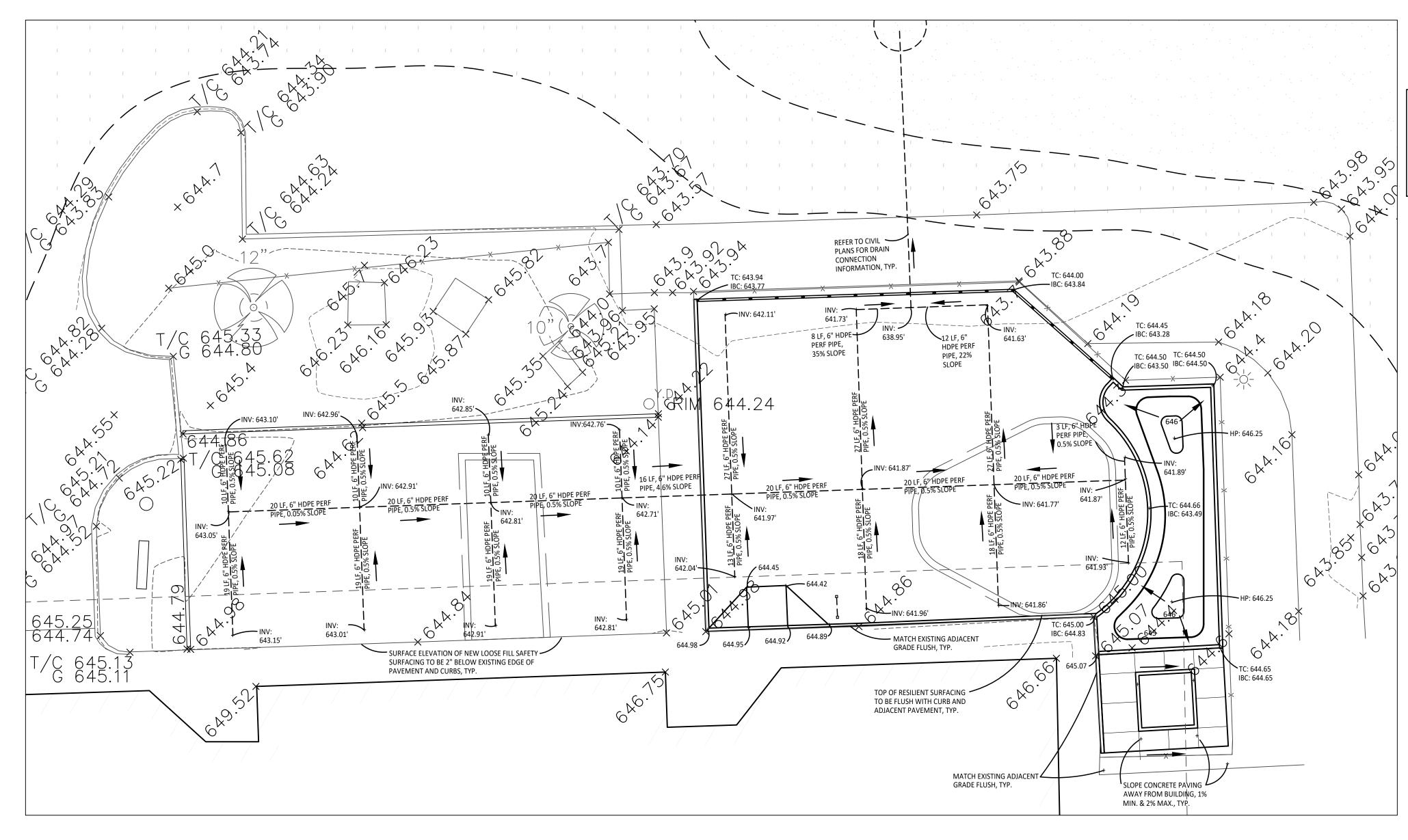
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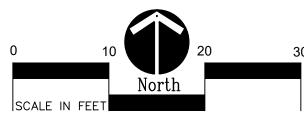
DRAWING NO.

C3.0



Playground Grading Enlargement Plan - Kindergarden

Scale: 1"=10'-0"



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GRADING NOTES:

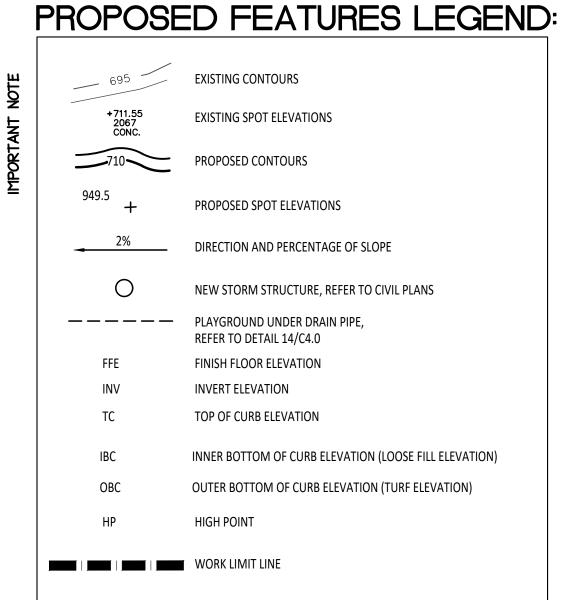
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IMPORTANT NOTE





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PROJECT TITLE

Barnard Elementary School Playground Renovation Bid Package No.01A

Troy School District Troy, Michigan

DRAWING TITLE Playground Grading Plan -Kindergarten

DATE:	ISSUED FOR:
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PROJECT NO.

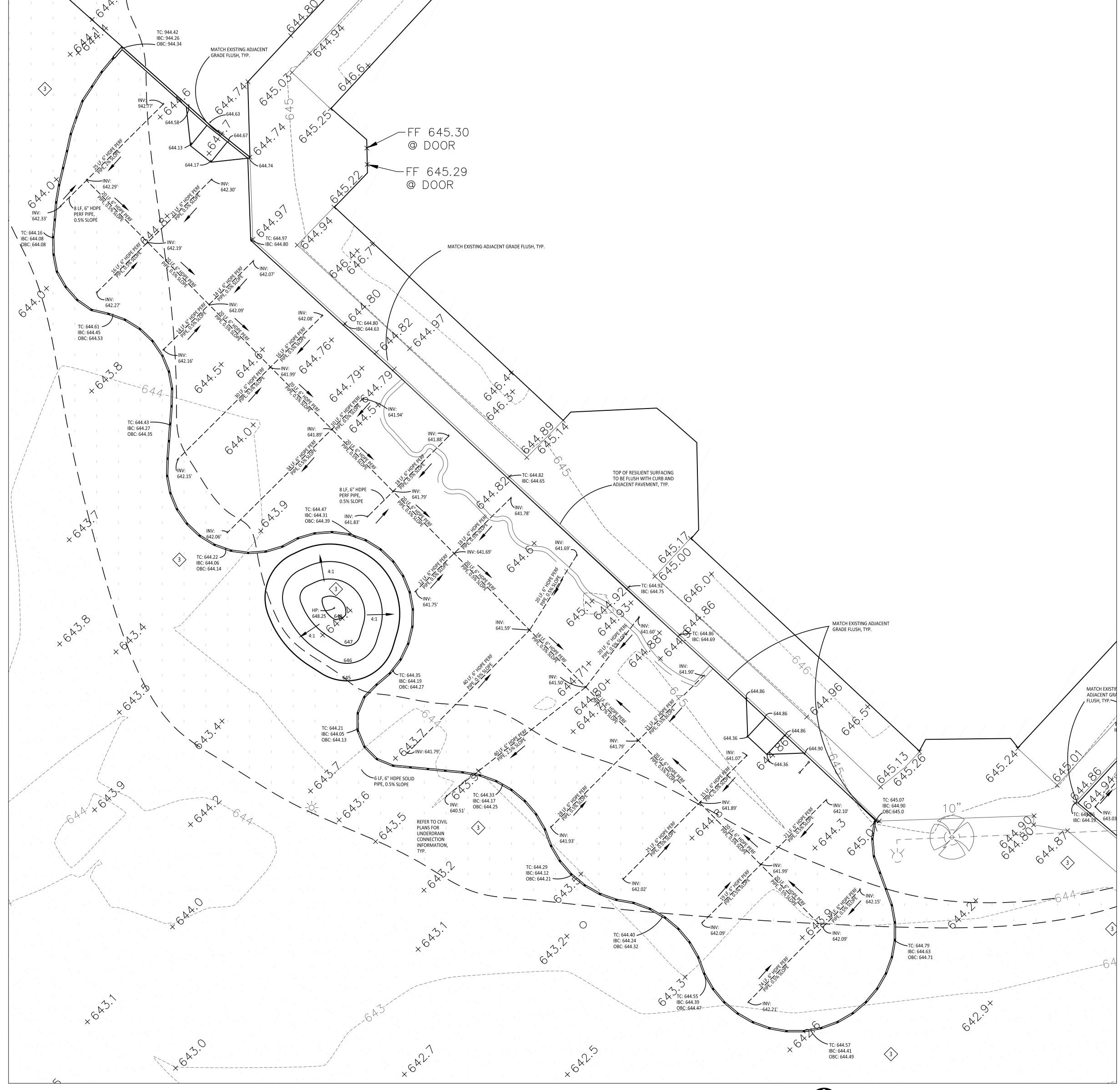
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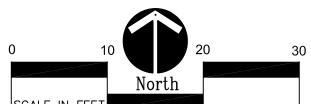
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APPROVED ...



Overall Playground Grading Plan - Upper Elementary

| Scale: 1"=10'-0"



GRADING NOTES:

- 1. SURVEY OF EXISTING CONDITIONS PROVIDED BY PEA GROUP, 1849 POND RUN, AUBURN HILLS, MICHIGAN, 48326, (248)689-9090.
- 2. VERIFY LOCATIONS OF ALL BELOW GRADE UTILITIES PRIOR TO BEGINNING WORK. 72 HOURS BEFORE YOU DIG CALL "MISS DIG" AT 1-800-482-7171.
- 3. ALL NEW PAVEMENTS AND TURF AREAS ARE INTENDED TO DRAIN FREELY WITH NO PONDING. IF THIS CANNOT BE ACHIEVED USING THE PROPOSED GRADES, NOTIFY THE OWNER'S REPRESENTATIVE IMMEDIATELY FOR RESOLUTION.
- 4. ALL NEW PAVEMENT ELEVATIONS AT EXTERIOR DOORS SHALL MATCH EXISTING FINISH FLOOR ELEVATIONS, TYPICAL.
- 5. ADJUST TOP OF EXISTING MANHOLES, CATCH BASINS, VAULT COVERS, ETC. TO NEW FINISH GRADE AS REQUIRED.
- 6. SEE SITE CIVIL PLANS FOR ALL ADDITIONAL SITE UTILITY DEMOLITION AND CONSTRUCTION.
- 7. ALL TOPSOIL AND EXCESS FILL MATERIAL SHALL BE STOCKPILED ON SITE SEPARATELY FOR LATER RE-USE. LOCATE STOCKPILES IN AREAS AS DIRECTED BY CONSTRUCTION MANAGER AND PROTECT FROM EFFECTS OF EROSION.

BARRIER-FREE NOTES

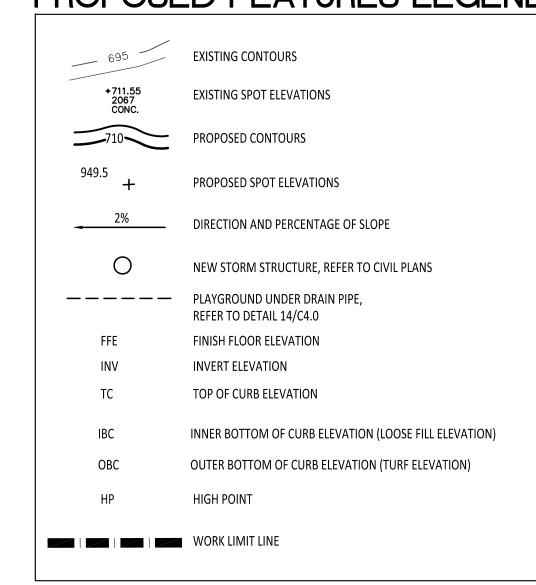
- 1:50 (2%) MAXIMUM CROSS-SLOPE ON ACCESSIBLE ROUTE.

BARRIER-FREE PARKING AND ACCESSIBLE ROUTE(S) MUST COMPLY WITH THE AMERICANS WITH DISABILITIES ACT AND MICHIGAN BARRIER-FREE CODE REQUIREMENTS, INCLUDING BUT NOT LIMITED TO THE FOLLOWING:

- NO CHANGES IN LEVEL GREATER THAN 1/2" ALONG ACCESSIBLE ROUTE.
- 1:20 (5%) MAXIMUM LONGITUDINAL SLOPE ON ACCESSIBLE ROUTE (EXCEPT WHERE RAMPS ARE

- 1:50 (2%) MAXIMUM SLOPE (IN ANY DIRECTION) IN B.F. PARKING AND ACCESS AISLES.

PROPOSED FEATURES LEGEND:



IMPORTANT NOTE

GENERAL EARTHWORK NOTE:

CUTS AND FILLS AT THIS SITE MAY OR MAY NOT BALANCE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE REQUIRED EARTHWORK VOLUMES BASED ON THE GRADING PLAN SHOWN. IF FILL IS REQUIRED, THE CONTRACTOR SHALL INCLUDE THE REQUIRED VOLUME OF IMPORTED CLASS II SAND IN THE BASE BID PROPOSAL. IF EXCESS SOILS NEED TO BE SPOILED, THE CONTRACTOR SHALL INCLUDE HAULING AND SPOILING SOILS OFF SITE IN THE BASE BID PROPOSAL. NO CONTRACT COST ADJUSTMENTS WILL BE CONSIDERED FOR EARTHWORK REQUIRED TO BALANCE THE SITE.

IMPORTANT NOTE



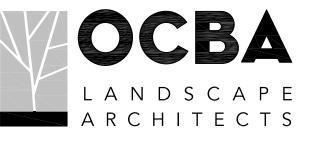
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REGISTRATION SEAL

CONSULTANT



350 East Michigan Avenue Suite #415 Kalamazoo Michigan 49007 Phone (269) 381-3357 Fax (269) 381-2944

PROJECT TITLE

Barnard Elementary School Playground Renovation Bid Package No.01A

Troy School District Troy, Michigan

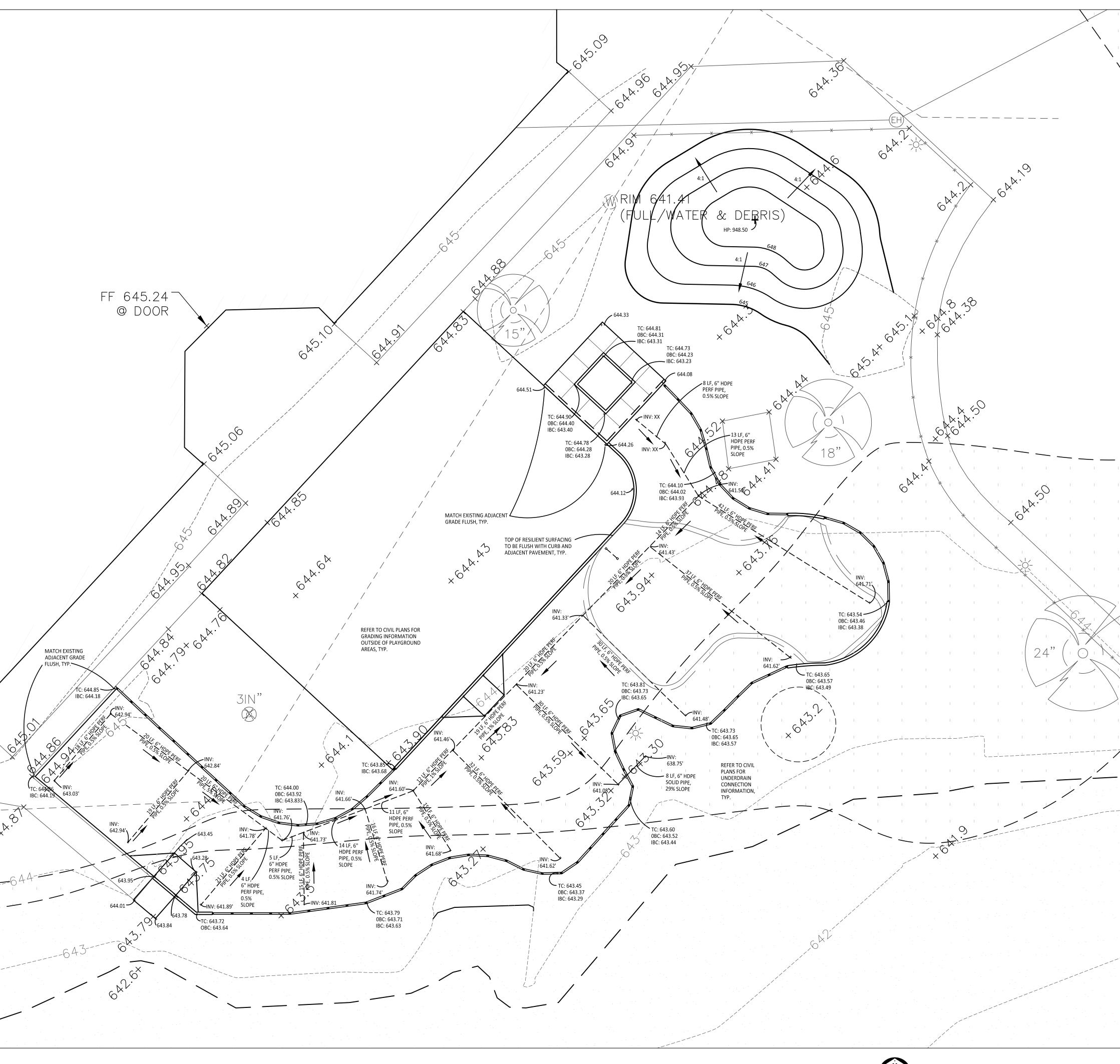
Playground
Grading Plan Upper Elementary

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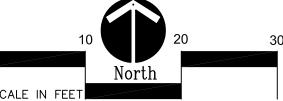
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Overall Playground Grading Plan - Lower Elementary

| Scale: 1"=10'-0"



GRADING NOTES:

- SURVEY OF EXISTING CONDITIONS PROVIDED BY PEA GROUP, 1849 POND RUN, AUBURN HILLS, MICHIGAN, 48326, (248)689-9090.

 VERIFY LOCATIONS OF ALL BELOW GRADE UTILITIES PRIOR TO BEGINNING WORK. 72 HOURS BEFORE YOU DIG CALL "MISS DIG" AT
- 1-800-482-7171.
- ALL NEW PAVEMENTS AND TURF AREAS ARE INTENDED TO DRAIN FREELY WITH NO PONDING. IF THIS CANNOT BE ACHIEVED USING THE PROPOSED GRADES, NOTIFY THE OWNER'S REPRESENTATIVE IMMEDIATELY FOR RESOLUTION.
- ALL NEW DAVINGENT FLEWATIONS AT EXTERIOR DOORS SHALL MATCH EXISTING FINISH FLOOR FLEWATIONS. TYPICAL
- 4. ALL NEW PAVEMENT ELEVATIONS AT EXTERIOR DOORS SHALL MATCH EXISTING FINISH FLOOR ELEVATIONS, TYPICAL.
- 5. ADJUST TOP OF EXISTING MANHOLES, CATCH BASINS, VAULT COVERS, ETC. TO NEW FINISH GRADE AS REQUIRED.

AS DIRECTED BY CONSTRUCTION MANAGER AND PROTECT FROM EFFECTS OF EROSION.

SEE SITE CIVIL PLANS FOR ALL ADDITIONAL SITE UTILITY DEMOLITION AND CONSTRUCTION.
 ALL TOPSOIL AND EXCESS FILL MATERIAL SHALL BE STOCKPILED ON SITE SEPARATELY FOR LATER RE-USE. LOCATE STOCKPILES IN AREAS

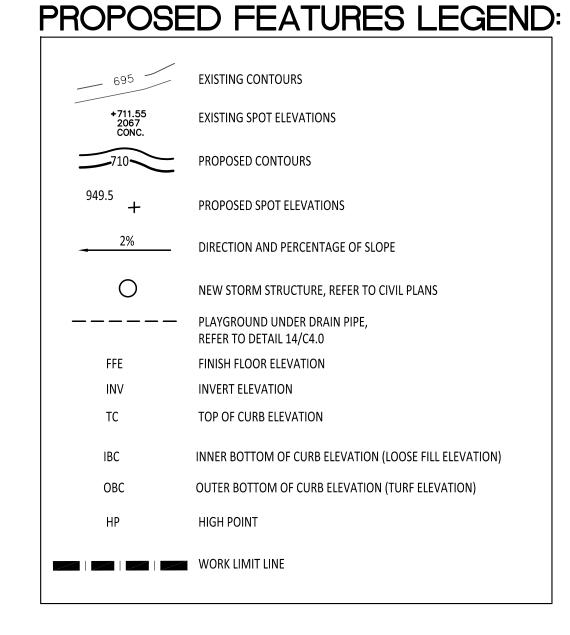
BARRIER-FREE NOTES

BARRIER-FREE PARKING AND ACCESSIBLE ROUTE(S) MUST COMPLY WITH THE AMERICANS WITH DISABILITIES ACT AND MICHIGAN BARRIER-FREE CODE REQUIREMENTS, INCLUDING BUT NOT LIMITED TO THE FOLLOWING:

- 1:50 (2%) MAXIMUM CROSS-SLOPE ON ACCESSIBLE ROUTE.

- NO CHANGES IN LEVEL GREATER THAN 1/2" ALONG ACCESSIBLE ROUTE.
- 1:20 (5%) MAXIMUM LONGITUDINAL SLOPE ON ACCESSIBLE ROUTE (EXCEPT WHERE RAMPS ARE

PROVIDED).
- 1:50 (2%) MAXIMUM SLOPE (IN ANY DIRECTION) IN B.F. PARKING AND ACCESS AISLES.



IMPORTANT NOTE

GENERAL EARTHWORK NOTE:

CUTS AND FILLS AT THIS SITE MAY OR MAY NOT BALANCE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE REQUIRED EARTHWORK VOLUMES BASED ON THE GRADING PLAN SHOWN. IF FILL IS REQUIRED, THE CONTRACTOR SHALL INCLUDE THE REQUIRED VOLUME OF IMPORTED CLASS II SAND IN THE BASE BID PROPOSAL. IF EXCESS SOILS NEED TO BE SPOILED, THE CONTRACTOR SHALL INCLUDE HAULING AND SPOILING SOILS OFF SITE IN THE BASE BID PROPOSAL. NO CONTRACT COST ADJUSTMENTS WILL BE CONSIDERED FOR EARTHWORK REQUIRED TO BALANCE THE SITE.

IMPORTANT NOTE



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REGISTRATION SEAL

CONSULTANT



350 East Michigan Avenue Suite #415 Kalamazoo Michigan 49007 Phone (269) 381-3357 Fax (269) 381-2944

PROJECT TITLE

Barnard Elementary School Playground Renovation Bid Package No.01A

Troy School District Troy, Michigan

Playground
Grading Plan Lower Elementary

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CONSTRUCTION DOCUMENTS

ISSUED FOR:

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ISSUE DATES

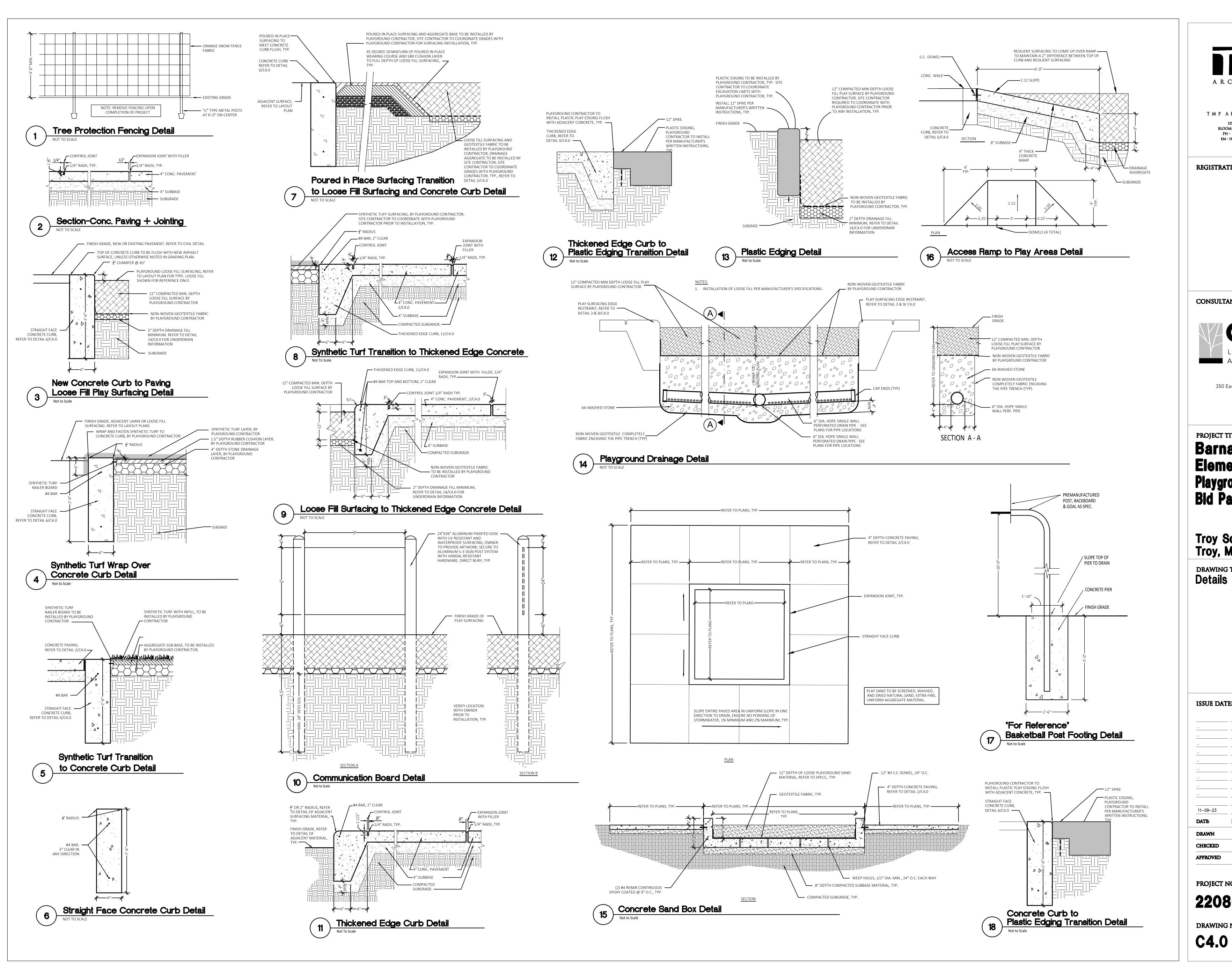
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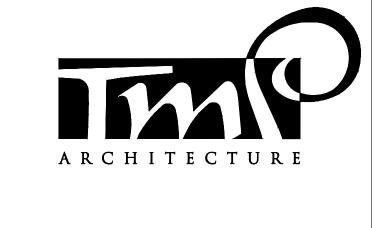
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PROJECT TITLE

Barnard Elementary School Playground Renovation Bid Package No.01A

Troy School District Troy, Michigan

DRAWING TITLE **Details**

ISSUE DATES CONSTRUCTION DOCUMENTS DATE: DRAWN **CHECKED** APPROVED PROJECT NO. 22086B

DRAWING NO.



REFERENCE DRAWINGS:

LEGAL DESCRIPTION:

LEGEND:

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REGISTRATION SEAL

CONSULTANT

t: 844.813.2949 www.peagroup.com

PROJECT TITLE

Barnard Elementary School 3601 FORGE DRIVE

Playground Renovation Bid Package No.01A

Troy School District Troy, Michigan

DRAWING TITLE
Topographic Survey

ISSUE DATES

CONSTRUCTION DOCUMENTS

ISSUED FOR: DATE:

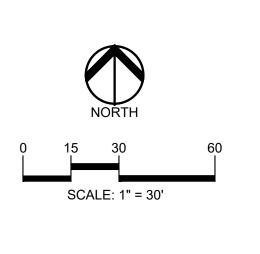
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PROJECT NO.

22086B

DRAWING NO.

CE-1.1.0



ITEM TO BE PROTECTED ITEM TO BE REMOVED CURB/FENCE REMOVAL ·/·/·/·/·/·/·/·/ CONCRETE PAVEMENT AND SIDEWALK REMOVAL AREA OR ITEMS TO BE REMOVED UTILITY REMOVAL ABANDON UTILITY • • • • • • • • • • ASPHALT REMOVAL TREE REMOVAL

DEMOLITION LEGEND:

GENERAL DEMOLITION NOTES:

THESE NOTES APPLY TO ALL CONSTRUCTION ACTIVITIES ON THIS PROJECT: ALL MATERIAL TO BE REMOVED, WHETHER SPECIFICALLY NOTED IN THE PLANS OR NOT, SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR AND DISPOSED OF OFF-SITE IN A LEGAL MANNER. NO ON-SITE BURY OR BURN PITS SHALL BE ALLOWED.

ALL DEMOLITION WORK SHALL CONFORM TO ALL LOCAL CODES AND STAGING/PHASING OF DEMOLITION AND CONSTRUCTION IS TO BE

COORDINATED WITH THE OWNER AND THE CONTRACTOR PRIOR TO

I. SPECIFIC DEMOLITION ITEMS HAVE BEEN INDICATED ON THE PLANS AS A GUIDE TO THE GENERAL SCOPE OF THE WORK. IT IS THE INTENT THAT THESE ITEMS SHALL BE COMPLETELY REMOVED BY THE CONTRACTOR ABOVE AND BELOW GROUND, UNLESS SPECIFICALLY NOTED OTHERWISE, AND THAT DEMOLITION WILL INCLUDE BUT WILL NOT NECESSARILY BE LIMITED TO THESE ITEMS. CONTRACTOR SHALL VISIT SITE TO VERIFY EXISTING CONDITIONS AND EXTENTS OF THE DEMOLITION THAT WILL BE REQUIRED PRIOR TO SUBMITTING A BID.

5. REMOVE ALL STRUCTURES DESIGNATED FOR REMOVAL ACCORDING TO THE DEMOLITION PLAN. THIS INCLUDES FOUNDATIONS, FOOTINGS, FOUNDATION WALLS, FLOOR SLABS, UNDERGROUND UTILITIES, CONCRETE, ASPHALT,

THE CONTRACTOR SHALL, AS A MINIMUM, PROVIDE TREE PROTECTION FENCING AROUND EXISTING TREES TO BE SAVED THAT ARE WITHIN 15 FEET OF CONSTRUCTION ACTIVITIES AND AS INDICATED IN THE PLANS OR PER LOCAL AGENCY REQUIREMENTS.

7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEAN UP, NOISE, DUST CONTROL, STREET SWEEPING AND HOURS OF OPERATION IN ACCORDANCE WITH THE LOCAL CODES.

9. THE CONTRACTOR SHALL CONTACT THE APPROPRIATE UTILITY COMPANIES TO CONFIRM THAT UTILITY LEADS HAVE BEEN TAKEN OUT OF SERVICE PRIOR TO DEMOLITION.

10. ALL BUILDING GAS LEADS, METERS AND ASSOCIATED EQUIPMENT SHALL BE

1. REMOVE ALL OVERHEAD AND UNDERGROUND ELECTRICAL LINES WITHIN THE AREA OF CONSTRUCTION AS SHOWN ON THE PLANS, COORDINATE SHUTDOWNS AND REMOVALS WITH ELECTRICAL SERVICE PROVIDER OR THE APPROPRIATE UTILITY COMPANY. (NOTE: PHONE AND CABLE T.V. SERVICES

12. THE CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL AND REPLACEMENT OF SIGNS AND SUPPORTS WITHIN THE WORK AREA, AS NECESSARY TO FACILITATE CONSTRUCTION. SIGNS SHALL BE PROTECTED OR STOCKPILED FOR REUSE AS SPECIFIED IN THE PLANS OR AS REQUIRED BY THE AGENCY OF JURISDICTION. THE CONTRACTOR SHALL REPLACE ANY DAMAGED SIGNS AND SUPPORTS AT NO ADDITIONAL COST TO THE OWNER.

CONSULTANT



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PROJECT TITLE **Barnard**

Elementary School 3601 FORGE DRIVE

Playground Renovation Bid Package No.01A

Troy School District Troy, Michigan

DRAWING TITLE **Demolition Plan**

ISSUE DATES

CONSTRUCTION DOCUMENTS

ISSUED FOR:

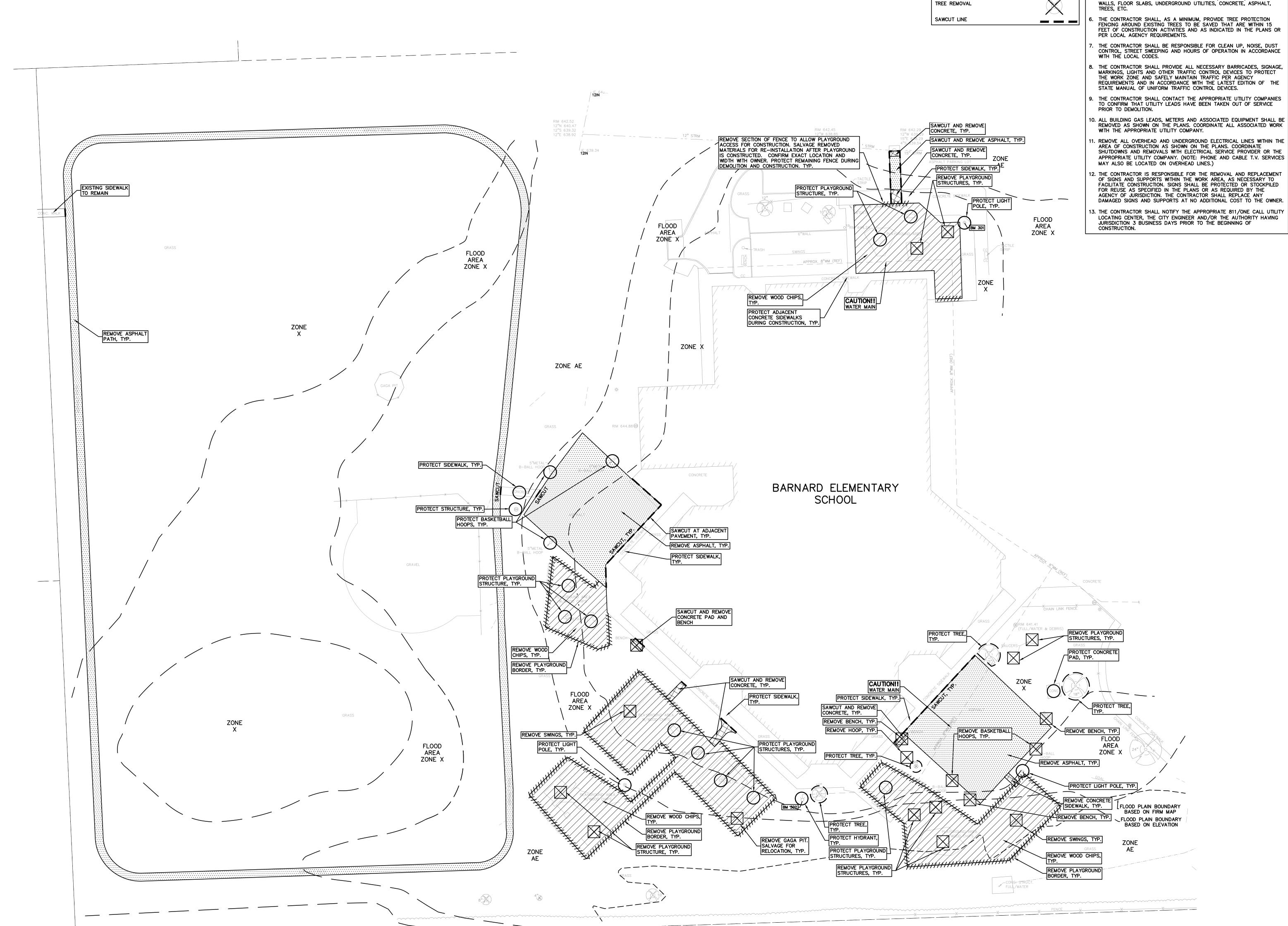
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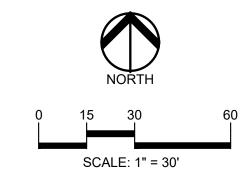
PROJECT NO.

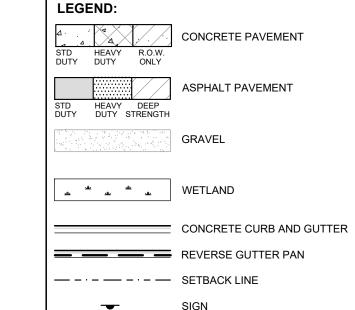
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CE-1.2.0









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6. CONTRACTOR TO REMOVE AND REPLACE SIGNS AND POSTS PER DETAILS ON SHEET C-4.0. ALL SIGNS AND ANY POSTS IN GOOD CONDITION SHALL BE RETURNED TO THE OWNER. ALL POSTS DAMAGED OR OTHERWISE NOT IN USEABLE

TO THE OWNER. 7. FOR THE TWO (2) CATCH BASINS, LOCATED IN THE WORK AREA; BIDDERS ARE TO INCLUDE RECONSTRUCTION OF THESE STRUCTURES (GREATER THAN 12-INCHES IN DEPTH FROM THE RIM ELEVATION OF REPAIR WORK) IN THE BASE BID. THE SUCCESSFUL BIDDER WILL BE PAID FOR REPAIRING EACH STRUCTURE BASED ON THE ACTUAL DEPTH OF REPAIR

WITH EITHER STRUCTURAL ADJUSTMENT (WITHIN TOP 12-INCHES OF RIM ELEVATION) OR STRUCTURAL RECONSTRUCTION (GREATER THAN 12-INCHES IN DEPTH) PER THE UNIT PRICES PROVIDED IN THE BID PACKAGE AND THE SCOPE OF WORK DETERMINED AND APPROVED PRIOR TO THE WORK COMMENCING. REPLASTERING OF THE ENTIRE STRUCTURE SHALL BE INCLUDED IN THE UNIT PRICE FOR BOTH STRUCTURAL ADJUSTMENT AND STRUCTURAL

TO MINIMIZE SUBGRADE INSTABILITY AND UNDERCUTS, THE SUBGRADE SHALL NOT BE LEFT EXPOSED TO PRECIPITATION AND CONSTRUCTION OPERATIONS AND SHOULD BE PERFORMED DURING THE SUMMER MONTHS TO ENSURE DRY, WARM, WEATHER. ADDITIONALLY, THE SUBGRADE MAY BECOME UNSTABLE UNDER REPEATED LOADING OF CONSTRUCTION TRAFFIC; THEREFORE, CONSTRUCTION EQUIPMENT SHOULD BE LIMITED ON THE EXPOSED

PLACED IN AN ENGINEERED MANNER. LIFT THICKNESS SHALL NOT EXCEED 9 INCHES. THE USE OF TRI—AXIAL GEOGRID MAY BE USED TO REDUCE UNDERCUT DEPTHS, AS APPROVED BY THE DISTRICT AND PER THE UNIT PRICE PROVIDED WITH THE CONTRACTORS BID.

ALL ENGINEERED FILL SHALL BE COMPACTED TO A DENSITY OF AT LEAST 95 PERCENT OF THE MAXIMUM DENSITY DETERMINED

BY THE MODIFIED PROCTOR (ASTM D1557) METHOD OF TESTING. ALL ENGINEERED FILL MATERIAL SHALL BE PLACED AND COMPACTED AT APPROXIMATELY THE OPTIMUM MOIUSTURE CONTENT. FROZEN MATERIAL SHALL NOT BE USED AS FILL, NOR SHOULD FILL BE PLACED ON A FROZEN SUBGRADE.

5. SUBGRADE UNDERCUT DRAIN TILE SHALL BE EVALUATED BY A QUALIFIED ENGINEERING TECHNICIAN TO DETERMINE IF SUBGRADE STABILIZATION IS NECESSARY. DRAIN TILE SHALL BE PLACED WITHIN ANY UNDERCUT AREA AND CONNECTED TO THE CLOSEST CATCH BASIN TO PREVENT GROUNDWATER FROM POOLING WITHIN THE GRANULAR SOILS IN UNDERCUTS AND CREATING "BATHTUBS" IN THE COHESIVE SOILS.

THE QUANTITY FOR "SUBGRADE UNDERCUT DRAIN TILE (4")" FOR EACH SITE SHALL BE INCLUDED IN THE BASE BID. THIS ITEM IS

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GROUP

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PROJECT TITLE

Barnard Elementary School 3601 FORGE DRIVE

Playground Renovation Bid Package No.01A

Troy School District Troy, Michigan

DRAWING TITLE Dimension & Paving Plan

ISSUE DATES

CONSTRUCTION DOCUMENTS DATE: **ISSUED FOR:**

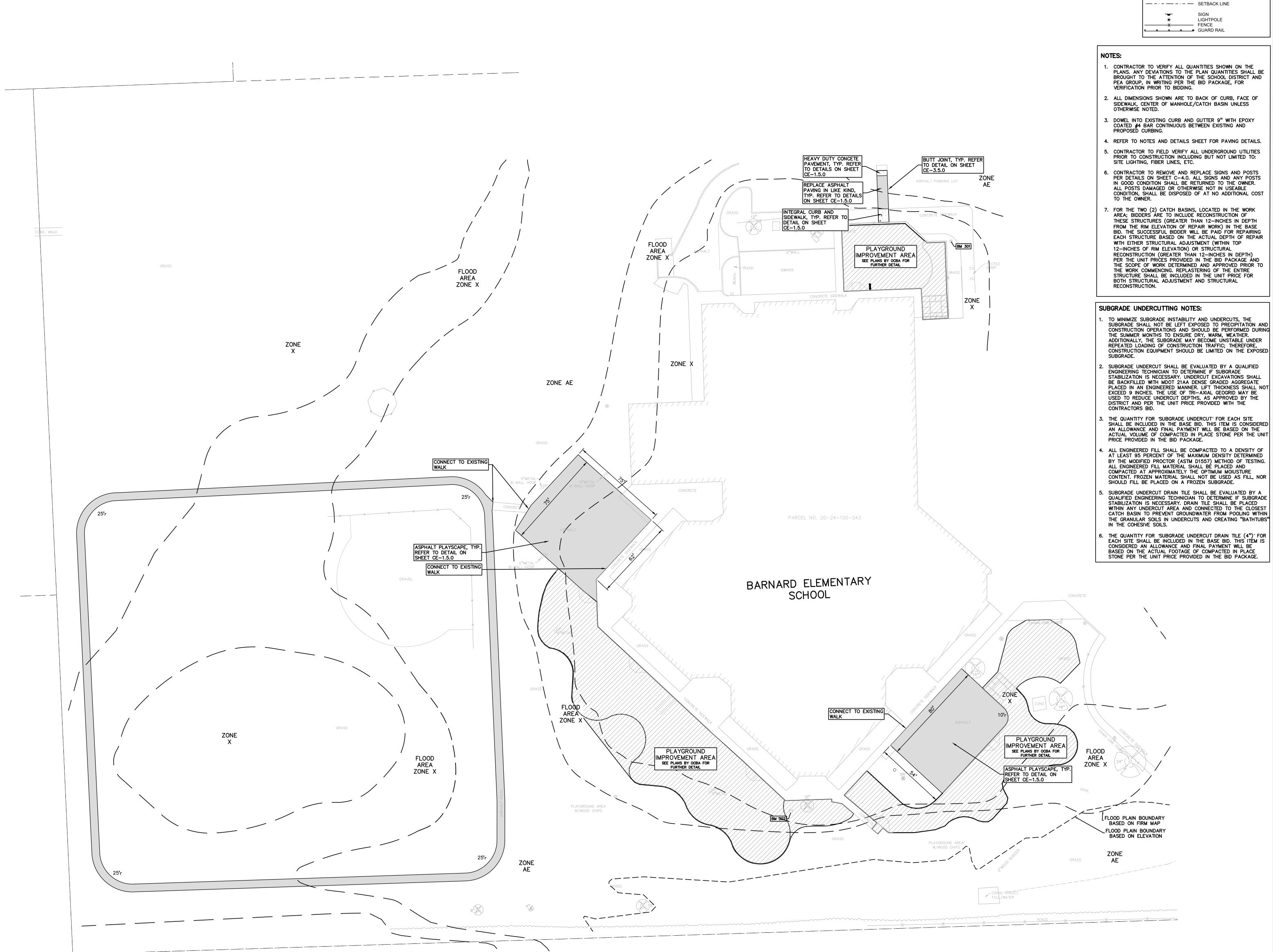
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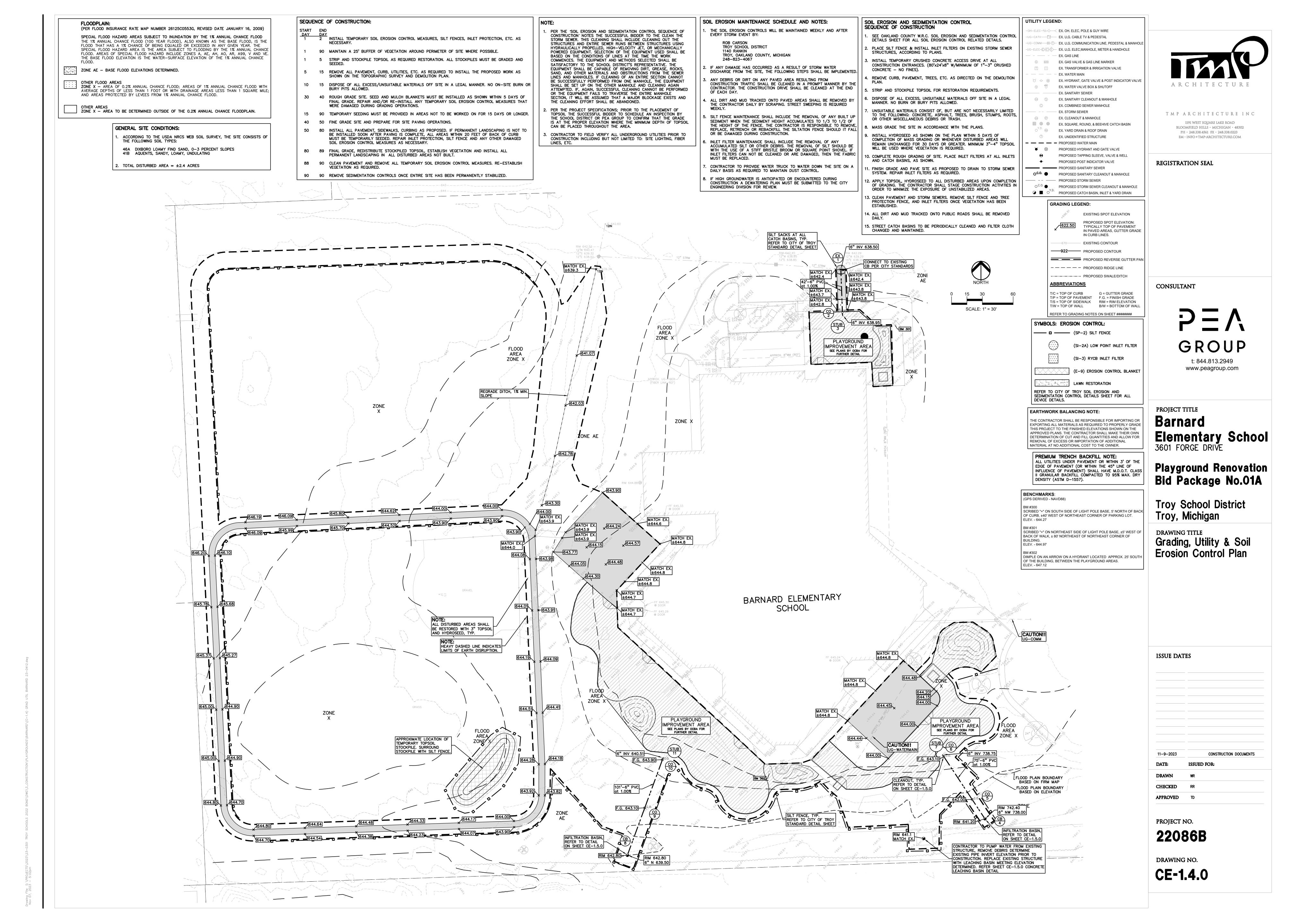
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DRAWING NO.

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- ACCORDANCE WITH CURRENT OSHA, MDOT AND MUNICIPALITY STANDARDS THE CONTRACTOR SHALL NOTIFY THE CITY OF TROY ENGINEER AND/OR THE AUTHORITY HAVING JURISDICTION 3 BUSINESS DAYS PRIOR TO THE
- BEGINNING OF CONSTRUCTION. . THE CONTRACTOR MUST CONTACT THE ENGINEER SHOULD THEY ENCOUNTER ANY DESIGN ISSUES DURING CONSTRUCTION. IF THE CONTRACTOR MAKES DESIGN MODIFICATIONS WITHOUT THE WRITTEN DIRECTION OF THE DESIGN
- ENGINEER, THE CONTRACTOR DOES SO AT HIS OWN RISK. ALL NECESSARY PERMITS, TESTING, BONDS AND INSURANCES ETC., SHALL BE PAID FOR BY THE CONTRACTOR. THE OWNER SHALL PAY FOR ALL CITY
- . THE CONTRACTOR SHALL NOTIFY THE APPROPRIATE 811/ONE CALL UTILITY LOCATING CENTER, THE CITY ENGINEER AND/OR THE AUTHORITY HAVING JURISDICTION 3 BUSINESS DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION. IF NO NOTIFICATION IS GIVEN AND DAMAGE RESULTS, SAIL DAMAGE WILL BE REPAIRED AT SOLE EXPENSE OF THE CONTRACTOR. IF EXISTING UTILITY LINES ARE ENCOUNTERED THAT CONFLICT IN LOCATION WITH NEW CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER SO THAT THE CONFLICT MAY BE RESOLVED.
- CONTRACTOR TO VERIFY THAT THE PLANS AND SPECIFICATIONS ARE THE VERY LATEST PLANS AND SPECIFICATIONS AND FURTHERMORE, VERIFY THAT THESE PLANS AND SPECIFICATIONS HAVE BEEN APPROVED. ALL ITEMS CONSTRUCTED BY THE CONTRACTOR PRIOR TO RECEIVING FINAL APPROVAL, HAVING TO BE ADJUSTED OR RE-DONE, SHALL BE AT THE CONTRACTORS EXPENSE. SHOULD THE CONTRACTOR ENCOUNTER A CONFLICT BETWEEN THESE PLANS AND/OR SPECIFICATIONS, THEY SHALL SEEK CLARIFICATION IN WRITING FROM THE ENGINEER BEFORE COMMENCEMENT OF CONSTRUCTION. FAILURE TO DO SO SHALL BE AT SOLE EXPENSE TO THE CONTRACTOR.
- ANY WORK WITHIN THE STREET OR HIGHWAY RIGHTS-OF-WAY SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THE AGENCIES HAVING JURISDICTION AND SHALL NOT BEGIN UNTIL ALL NECESSARY PERMITS HAVE BEEN ISSUED FOR THE WORK.
- ALL PROPERTIES OR FACILITIES IN THE SURROUNDING AREAS, PUBLIC OR PRIVATE, DESTROYED OR OTHERWISE DISTURBED DUE TO CONSTRUCTION, SHALL BE REPLACED AND/OR RESTORED TO THE ORIGINAL CONDITION BY
- . THE CONTRACTOR SHALL PROVIDE ALL NECESSARY BARRICADING, SIGNAGE, LIGHTS AND TRAFFIC CONTROL DEVICES TO PROTECT THE WORK AND SAFELY MAINTAIN TRAFFIC IN ACCORDANCE WITH LOCAL REQUIREMENTS AND THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (LATEST EDITION). THE DESIGN ENGINEER, OWNER, CITY OF TROY AND STATE SHALL NOT B HELD LIABLE FOR ANY CLAIMS RESULTING FROM ACCIDENTS OR DAMAGES CAUSED BY THE CONTRACTOR'S FAILURE TO COMPLY WITH TRAFFIC AND PUBLIC SAFETY REGULATIONS DURING THE CONSTRUCTION PERIOD.
- 10. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ADJUST THE TOP OF ALL EXISTING AND PROPOSED STRUCTURES (MANHOLES, CATCH BASINS, INLETS, GATE WELLS ETC.) WITHIN GRADED AND /OR PAVED AREAS TO FINAL GRADE SHOWN ON THE PLANS. ALL SUCH ADJUSTMENTS SHALL BE INCIDENTAL TO THE JOB AND WILL NOT BE PAID FOR SEPARATELY.

- IN AREAS WHERE NEW PAVEMENTS ARE BEING CONSTRUCTED, THE TOPSOIL AND SOIL CONTAINING ORGANIC MATTER SHALL BE REMOVED PRIOR TO PAVEMENT CONSTRUCTION.
- REFER TO ARCHITECTURAL PLANS FOR DETAILS OF FROST SLAB AT EXTERIOR BUILDING DOORS.
- CONSTRUCTION TRAFFIC SHOULD BE MINIMIZED ON THE NEW PAVEMENT. CONSTRUCTION TRAFFIC IS ANTICIPATED ON THE PAVEMENT STRUCTURE. THE INITIAL LIFT THICKNESS COULD BE INCREASED AND PLACEMENT OF THE FINAL LIFT COULD BE DELAYED UNTIL THE MAJORITY OF THE CONSTRUCTION ACTIVITIES HAVE BEEN COMPLETED. THIS ACTION WILL ALLOW REPAIR OF LOCALIZED FAILURE, IF ANY DOES OCCUR, AS WELL AS REDUCE LOAD DAMAGE ON THE PAVEMENT SYSTEM.
- 4. ALL EXPANSION JOINTS AND CONCRETE PAVEMENT JOINTS TO BE SEALED. 5. CONCRETE PAVEMENT JOINTING - UNLESS SHOWN OTHERWISE IN THE PLANS OR REQUIRED BY THE AUTHORITY HAVING JURISDICTION: 5.1. WHERE PROPOSED CONCRETE ABUTS A STRUCTURE, PROVIDE A MINIMUM
- 1/2" EXPANSION JOINT. THE JOINT FILLER BOARD MUST BE AT LEAST THE FULL DEPTH OF THE CONCRETE AND HELD DOWN A 1/2" TO ALLOW FOR SEALING. 5.2. WHERE PROPOSED CONCRETE ABUTS EXISTING CONCRETE OR IN BETWEEN POURS OF PROPOSED CONCRETE (CONSTRUCTION JOINT),
- PROVIDE 5/8" DOWELS EVERY 30" CENTER TO CENTER HALF WAY ALONG THE THICKNESS OF THE PROPOSED PAVEMENT. ALTERNATE DOWELS SIZES AND SPACING MUST BE APPROVED THE ENGINEER PRIOR TO COMMENCING WORK AND VIA THE SUBMITTAL PROCESS.
- WHERE PROPOSED CONCRETE ABUTS EXISTING OR PROPOSED SIDEWALK OR CURBING, PROVIDE A MINIMUM 1/2" EXPANSION JOINT. 5.4. CONTROL. LONGITUDINAL AND OR TRANSVERSE JOINTS SHALL BE PLACED TO PROVIDE PANELS WITHIN THE PAVEMENT AS SQUARE AS POSSIBLE WITH THE FOLLOWING MAXIMUM SPACING PARAMETERS: 5.4.1. 6-INCH THICK CONCRETE PAVEMENT: 12' X 12'
- 5.4.2. 8-INCH THICK CONCRETE PAVEMENT: 15' X 15' 5.5. IRREGULAR-SHAPED PANELS MAY REQUIRE THE USE OF REINFORCING MESH OR FIBER MESH AS DETERMINED BY THE ENGINEER. THE USE OF MESH MUST BE APPROVED THE ENGINEER PRIOR TO COMMENCING WORK AND VIA THE SUBMITTAL PROCESS.
- 5.6. IF A JOINT PLAN IS NOT PROVIDED IN THE PLANS. THE CONTRACTOR SHALL SUBMIT ONE TO THE ENGINEER FOR REVIEW PRIOR TO COMMENCING WORK AND VIA THE SUBMITTAL PROCESS.
- . CONCRETE CURBING JOINTING UNLESS SHOWN OTHERWISE IN THE PLANS OR REQUIRED BY THE AUTHORITY HAVING JURISDICTION 6.1. JOINTS WHEN ADJACENT TO ASPHALT PAVEMENT 6.1.1. PLACE CONTRACTION JOINTS AT 10' INTERVALS
- 6.1.2. PLACE 1/2" EXPANSION JOINT AT CATCH BASINS, EXISTING AND PROPOSED SIDEWALK OR EXISTING CURBING. 6.1.3. PLACE 1" EXPANSION JOINT: 6.1.3.1. AT SPRING POINTS OF INTERSECTIONS OR ONE OF THE END OF RADIUS LOCATIONS IN A CURVE
- 6.1.3.2. AT 400' MAXIMUM INTERVALS ON STRAIGHT RUNS 6.1.3.3. AT THE END OF RADIUS AT OPPOSITE ENDS IN A CURBED LANDSCAPE ISLAND 6.2. JOINTS WHEN TIED TO CONCRETE PAVEMENT
- 6.2.1. PLACE CONTRACTION JOINTS OPPOSITE ALL TRANSVERSE CONTRACTION JOINTS IN PAVEMENT 6.2.2. PLACE 1/2" EXPANSION JOINT AT CATCH BASINS, EXISTING AND
- PROPOSED SIDEWALK OR EXISTING CURBING. 6.2.3. PLACE 1"EXPANSION JOINT OPPOSITE ALL TRANSVERSE EXPANSION 6.2.4. CURB AND GUTTER AND CONCRETE SHALL BE TIED TOGETHER
- SIMILAR TO A LONGITUDINAL LANE TIE JOINT (MDOT B1 JOINT) 6.3. IN BETWEEN POURS OF PROPOSED CONCRETE CURBING (CONSTRUCTION
- 6.3.1. CARRY THE REBAR CONTINUOUSLY BETWEEN POURS 6.3.2. IF THE REBAR IS NOT LONG ENOUGH TO CARRY CONTINUOUSLY, THEN TIE TWO PIECES OF REBAR PER THE LATEST MDOT **SPECIFICATIONS**
- CONCRETE SIDEWALK JOINTING UNLESS SHOWN OTHERWISE IN THE PLANS OR REQUIRED BY THE AUTHORITY HAVING JURISDICTION 7.1. PLACE TRANSVERSE CONTRACTION JOINTS EQUAL TO THE WIDTH OF THE WALK WHEN WIDTH IS LESS THAN 8' 7.2. PLACE TRANSVERSE AND LONGITUDINAL CONTRACTION JOINTS EQUAL TO
- 1/2 THE WIDTH OF THE WALK WHEN WIDTH IS EQUAL TO OR GREATER 7.3. PLACE 1" EXPANSION JOINT WHERE ABUTTING SIDEWALK RAMP AND/OR
- RADIUS IN INTERSECTION 7.4. PLACE TRANSVERSE 1/2" EXPANSION JOINT AT MAXIMUM OF 100'
- 7.5. PLACE 1/2" EXPANSION JOINT WHEN ABUTTING A FIXED STRUCTURE. OTHER PAVEMENT (CONCRETE PAVEMENT AND DRIVE APPROACHES),
- UTILITY STRUCTURES, LIGHT POLE BASES AND COLUMNS. 7.6. WHEN ALONG A CURVE, JOINTS MUST BE PERPENDICULAR TO THE CURVE WITH A MINIMUM LENGTH OF 1 FOOT BEFORE INTERSECTING ANOTHER JOINT(S) IN ANY DIRECTION. NO JOINTS ARE ALLOWED TO BE CUT AT AN ANGLÉ OTHER THAN 90° AT THE CURBLINE

GENERAL GRADING AND EARTHWORK NOTES:

- THESE NOTES APPLY TO ALL CONSTRUCTION ACTIVITIES ON THIS PROJECT CONTRACTOR SHALL FIELD VERIFY ALL EXISTING TREES AND BRUSH AND REMOVE ALL THAT ARE NECESSARY TO GRADE SITE.
- ALL GRADES ARE TO TOP OF PAVEMENT UNLESS OTHERWISE NOTED. THE STAGING OF CONSTRUCTION ACTIVITIES SHALL OCCUR ONLY WITHIN THE
- SITE BOUNDARIES. ANY CONSTRUCTION ACTIVITIES OUTSIDE OF THE WORK AREA BOUNDARIES SHALL BE AT THE SOLE RESPONSIBILITY AND RISK OF
- ALL SOIL EROSION AND SEDIMENTATION CONTROL MEASURES IS SHALL MEET THE REQUIREMENTS OF THE AUTHORIZED PUBLIC AGENCY OF JURISDICTION.
- ALL EARTHWORK AND GRADING OPERATIONS SHALL BE PERFORMED IN ACCORDANCE WITH THE PLANS AND SPECIFIACTIONS. REFER TO SOIL EROSION CONTROL PLAN FOR ADDITIONAL SOIL EROSION AND SEDIMENTATION CONTROL MEASURES AND NOTES.
- ALL LANDSCAPING IS TO BE COMPLETED BY STALLANTIS.
- THE CONTRACTOR SHALL NOTE EXISTING UNDERGROUND UTILITIES WITHIN AND ADJACENT TO THE SITE. BACKFILL FOR EXISTING UTILITY TRENCHES SHALL BE EXAMINED CRITICALLY. ANY TRENCHES FOUND TO HAVE SOF UNSTABLE OR UNSUITABLE BACKFILL MATERIAL, IN THE OPINION OF T THIRD PARTY TESTING COMPANY, THAT ARE TO BE WITHIN THE ZONE OF INFLUENCE OF PROPOSED BUILDINGS OR PAVEMENT SHALL BE COMPLETELY EXCAVATED AND BACKFILLED WITH SUITABLE MATERIAL.
- ON-SITE FILL CAN BE USED IF THE SPECIFIED COMPACTION REQUIREMENTS CAN BE ACHIEVED. IF ON-SITE SOIL IS USED, IT SHOULD BE CLEAN AND FREE OF FROZEN SOIL, ORGANICS, OR OTHER DELETERIOUS MATERIALS.
- D. THE FINAL SUBGRADE/EXISTING AGGREGATE BASE SHOULD BE THOROUGHLY PROOFROLLED USING A FULLY LOADED TANDEM AXLE TRUCK OR FRONT END LOADER UNDER THE OBSERVATION OF A GEOTECHNICAL/PAVEMENT ENGINEER. LOOSE OR YIELDING AREAS THAT CANNOT BE MECHANICALLY STABILIZED SHOULD BE REINFORCED USING GEOGRIDS OR REMOVED AND
- REPLACED WITH ENGINEERED FILL OR AS DICTATED BY FIELD CONDITIONS. . THE REMOVAL OF EXISTING SOIL TO GET TO FINAL SUBGRADE ELEVATION SHALL NOT BE CONSIDERED SUBGRADE UNDERCUTTING. IT IS PART OF THE EARTHWORKS TO BALANCE THE SITE AND ESTABLISH THE ELEVATIONS FOR THE PLACEMENT OF THE PROPOSED PAVEMENT ELEVATIONS. THIS SHALL NOT BE PAID FOR SEPARATELY, BUT INCLUDED IN THE EARTHWORKS FOR
- SUBGRADE UNDERCUTTING, INCLUDING BACKFILLING SHALL BE PERFORMED TO REPLACE MATERIALS SUSCEPTIBLE TO FROST HEAVING AND UNSTABLE SOIL CONDITIONS. ANY EXCAVATIONS THAT MAY BE REQUIRED BELOW THE TOPSOIL IN FILL AREAS OR BELOW SUBGRADE IN CUT AREAS WILL BE CLASSIFIED AS SUBGRADE UNDERCUTTING.
- SUBGRADE UNDERCUTTING SHALL BE PERFORMED WHERE NECESSARY AND HE EXCAVATED MATERIAL SHALL BECOME THE PROPERTY OF THE CONTRACTOR. ANY SUBGRADE UNDERCUTTING SHALL BE BACKFILLED AS RECOMMENDED IN THE GEOTECHNICAL ENGINEERING REPORT FOR THE
- 4. ANY SUB-GRADE WATERING REQUIRED TO ACHIEVE REQUIRED DENSITY SHALL BE CONSIDERED INCIDENTAL TO THE JOB.

CONSTRUCTION MATERIAL SUBMITTALS

- UNLESS REQUIRED OTHERWISE IN THE PROJECT SPECIFICATIONS, THI CONTRACTOR SHALL ONLY SUBMIT THE FOLLOWING CONSTRUCTION MATERIAL SUBMITTALS, AS APPLICABLE TO THE PLANS, FOR REVIEW BY THE ENGINEER. UNLESS APPROVED IN ADVANCE AND IN WRITING BY THE ENGINEER, ANY MATERIAL SUBMITTALS PROVIDED TO THE ENGINEER FOR REVIEW IN ADDITION TO THIS LIST SHALL BE RETURNED TO THE CONTRACTOR WITHOUT A REVIEW BEING
- SOIL EROSION AND SEDIMENTATION CONTROL MEASURES UTILITY TRENCH BACKFILL MATERIAL WITH ALL MATERIAL DATA INCLUDED IN

•8.2. SUPERPAVE MIX DESIGN CHECKLIST (FORM 1862)

•8.3. MARSHALL MIX DESIGN CHECKLIST (FORM 1849)

SITE FENCING AND GATES

SUBMITTING THE INFORMATION.

- THE SUBMITTAL BEING DATED WITHIN 60 DAYS OF THE SUBMITTAL UNLESS APPROVED OTHERWISE BY THE ENGINEER STORM SEWER STRUCTURES
- STORM SEWER STRUCTURE FRAME AND COVERS INCLUDING CLEAN OUTS PAVEMENT AGGREGATE BASE MATERIAL WITH ALL MATERIAL DATA INCLUDED IN THE SUBMITTAL BEING DATED WITHIN 60 DAYS OF THE SUBMITTAL
- UNLESS APPROVED OTHERWISE BY THE ENGINEER PAVEMENT UNDERDRAIN MATERIAL AND BACKFILL WITH ALL BACKFILL MATERIAL DATA INCLUDED IN THE SUBMITTAL BEING DATED WITHIN 60 DAYS

ANY ITEMS SHOWN IN THE PLANS OR DETAIL SHEETS THAT SPECIFICALLY STATE FOR THE CONTRACTOR TO SUBMIT A SHOP DRAWING TO THE

ENGINEER FOR REVIEW. THESE ITEMS INCLUDE, BUT ARE NOT LIMITED TO:

ANY SPECIALITY ITEMS SHOWN IN THE PLANS OR DETAIL SHEETS THAT SPECIFICALLY DO NOT STATE FOR THE CONTRACTOR SHALL SUBMIT A SHOP DRAWING TO THE ENGINEER FOR REVIEW BUT THE CONTRACTOR

REQUESTS TO BE REVIEWED. THE CONTRACTOR'S REQUEST FOR REVIEW MUST BE IN WRITING AND APPROVED BY THE ENGINEER PRIOR TO

- OF THE SUBMITTAL UNLESS APPROVED OTHERWISE BY THE ENGINEER PAVEMENT MIX DESIGNS SUBMITTED FOR REVIEW BY THE ENGINEER MUST
- FOLLOW THE CURRENT MDOT REVIEW CHECKLISTS AS SUMMARIZED BELOW AND ALL MATERIAL DATA INCLUDED IN THE SUBMITTAL BEING DATED WITHIN OBSTRUCTION BY PARKED VEHICLES.
 4. HANDRAILS ARE NOT REQUIRED ON CURB RAMPS. 60 DAYS OF THE SUBMITTAL UNLESS APPROVED OTHERWISE BY THE •8.1. CONCRETE MIX DESIGN REVIEW CHECKLIST (FORM 2000)
 - 15. WHERE DETECTABLE WARNING IS REQUIRED AT CURB RAMPS, THE DETECTABLE WARNING SHALL BE 24" MINIMUM IN DEPTH AND SHALL 8 INCHES MAXIMUM FROM THE CURB LINE.
 - SECTION 502 OF THE A.D.A. IF THE SITE HAS MORE THAN ONE PARKING FACILITY, EACH FACILITY IS REQUIRED TO MEET THESE REQUIREMENTS TOTAL NUMBER OF PARKING SPACES IN EACH PARKING FACILITY ON SITE. . FOR EVERY SIX OR FRACTION OF SIX ACCESSIBLE PARKING SPACES, ONE VAN ACCESSIBLE SPACE SHALL BE PROVIDED.
 - MORE THAN ONE ACCESSIBLE ENTRANCE, PARKING SHALL BE DISPERSED ALONG THE SHORTEST ACCESSIBLE ROUTE TO THE ACCESSIBLE ENTRANCES . BARRIER FREE CAR PARKING SPACES SHALL BE A MINIMUM OF 8 FEET WIDI WITH AN ACCESS AISLE 5 FEET WIDE MINIMUM. VAN ACCESSIBLE PARKING SPACES SHALL BE AT LEAST 11 FEET WIDE WITH A 5' WIDE ACCESS AISLE VAN ACCESSIBLE SPACES ARE ALSO ACCEPTABLE WITH AN 8 FOOT WIDTH AND 8 FOOT WIDE ACCESS AISLE. THE ACCESS AISLE IN ALL CASES MUST
 - EXCEED 2% (1:48) 21. ACCESSIBLE AREAS INCLUDING PARKING SPACES, AISLES AND PATHWAYS, REQUIRE A MINIMUM VERTICAL CLEARANCE OF 98 INCHES. 22. ACCESSIBLE PARKING SPACES ARE REQUIRED TO BE IDENTIFIED BY SIGNS THE SIGNS SHALL INCLUDE THE INTERNATIONAL SYMBOL OF ACCESSIBILITY VAN PARKING SPACES ARE REQUIRED TO BE DESIGNATED AS "VAN

ACCESSIBLE". REFER TO DETAILS ON THIS SHEET.

GENERAL UTILITY NOTES:

- ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF THE CITY OF TROY. ALL TRENCHES UNDER OR WITHIN THREE (3) FEET OR THE FORTY-FIVE (45) DEGREE ZONE OF INFLUENCE LINE OF EXISTING AND/OR PROPOSED PAVEMENT, BUILDING PAD OR DRIVE APPROACH SHALL BE BACKFILLED WITH SAND COMPACTED TO AT LEAST NINETY-FIVE (95) PERCENT OF MAXIMUM UNIT WEIGHT (ASTM D-1557). ALL OTHER TRENCHES TO BE COMPACTED TO 90% OR BETTER.
- WHERE EXISTING MANHOLES OR SEWER PIPE ARE TO BE TAPPED, DRILL HOLES 4" CENTER TO CENTER, AROUND PERIPHERY OF OPENING TO CREATE A PLANE OF WEAKNESS JOINT BEFORE BREAKING SECTION OUT.
- THE LOCATIONS AND DIMENSIONS SHOWN ON THE PLANS FOR EXISTING UTILITIES ARE IN ACCORDANCE WITH AVAILABLE INFORMATION WITHOUT UNCOVERING AND MEASURING. THE DESIGN ENGINEER DOES NOT GUARANTEE THE ACCURACY OF THIS INFORMATION OR THAT ALL EXISTING UNDERGROUND FACILITIES ARE SHOWN. CONTRACTOR SHALL FIELD VERIFY
- THE CONTRACTOR SHALL COORDINATE TO ENSURE ALL REQUIRED PIPES, CONDUITS, CABLES AND SLEEVES ARE PROPERLY PLACED FOR THE INSTALLATION OF GAS, ELECTRIC, PHONE, CABLE, IRRIGATION, ETC. IN SUCH A MANNER THAT WILL FACILITATE THEIR PROPER INSTALLATION PRIOR TO THE PLACEMENT OF THE PROPOSED PAVEMENT AND LANDSCAPING.
- PIPE LENGTHS INDICATED ARE FROM CENTER OF STRUCTURE AND TO END OF SECTION UNLESS NOTED OTHERWISE.

CONTRACTOR SHALL INSPECT ALL EXISTING PUBLIC STORM SEWER, SANITARY SEWER AND WATER MAIN STRUCTURES WITHIN THE LIMITS OF CONSTRUCTION AND WITH THE GOVERNING AGENCY INSPECTOR PRIOR TO FSTABLISHING FINAL GRADE, NOTIFY THE FNGINFER, OWNER /DEVELOPER. AND GOVERNING AGENCY IF STRUCTURE IS DEEMED TO BE STRUCTURALLY UNSOUND AND/OR IN NEED OF REPAIR.

- STORM SEWER NOTES:
- ALL STORM SEWER LEADS SHALL BE CONSTRUCTED AT 1.00% MINIMUM
- ALL STORM SEWER 10" OR LESS AND/OR LEADS SHALL BE SDR 26. JOINTS FOR P.V.C. PIPE SHALL BE ELASTOMERIC (RUBBER GASKET) AS

GENERAL BARRIER FREE NOTES:

THE MINIMUM CLEAR WIDTH IS 3 FEET

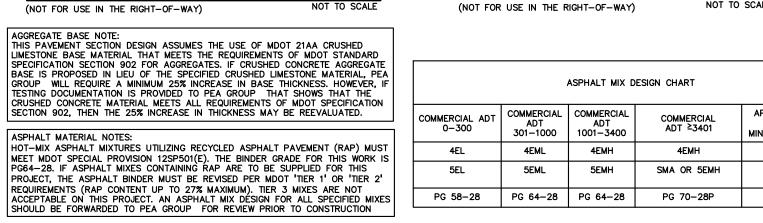
SPECIFIED IN A.S.T.M. DESIGNATION D-3212.

THE FOLLOWING NOTES PROVIDE AN OUTLINE OF SOME OF THE REQUIREMENTS CONTAINED WITHIN THE "STANDARDS FOR ACCESSIBLE DESIGN - AMERICANS WITH DISABILITIES ACT 2010", AND "ACCESSIBLE AND USEABLE BUILDINGS AND FACILITIES", ICC/ANSI A117.1-2009. THE CONTRACTOR IS RESPONSIBLE FOR ALL OF THE REQUIREMENTS PRESENTED WITHIN THESE DOCUMENTS, WHICH ARE AVAILABLE IN FULL UPON REQUEST.

- AN ACCESSIBLE ROUTE CONSISTS OF WALK SURFACES, CURB RAMPS AND RAMPS. AT LEAST ONE ACCESSIBLE ROUTE SHALL BE PROVIDED WITHIN THE SITE FROM ACCESSIBLE PARKING SPACES, ACCESSIBLE PASSENGER LOADING ZONES, PUBLIC STREETS AND SIDEWALKS, AND PUBLIC TRANSPORTATION STOPS TO THE BUILDING OR FACILITY ENTRANCE THEY SERVE. HE RUNNING SLOPE OF ALL WALKING SURFACES SHALL NOT EXCEED 5% (1:20) AND THE CROSS-SLOPE SHALL NOT EXCEED 2% (1:48).
- WALKING SURFACES MUST BE LEVEL WITH PERMITTED VERTICAL CHANGES IN LEVEL NOT TO EXCEED 1/4", OR BEVELED CHANGES IN LEVEL NOT TO EXCEED 1/2". REFER TO DETAIL DET-8 THIS SHEET. ANY CHANGE IN LEVEL GREATER THAN 1/2" MUST BE RAMPED. TURNING SPACES ALONG ACCESSIBLE ROUTES MUST BE AT LEAST 5 FEET WIDE IN ALL DIRECTIONS AND NOT EXCEED 2% SLOPE (1:48) IN ANY ACCESSIBLE ROUTES WILL BE DESIGNED TO BE A MINIMUM OF 5 FEET WIDE.
- RAMPS ALONG ACCESSIBLE ROUTES WILL HAVE A RUNNING SLOPE GREATER THAN 5% (1:20) AND LESS THAN 8.3% (1:12). THE CROSS-SLOPE OF RAMP RUNS SHALL NOT EXCEED 2% (1:48) 8. THE MINIMUM CLEAR WIDTH OF ANY RAMP IS 36 INCHES. NOT EXCEED 30 INCHES. LANDINGS ARE REQUIRED AT THE TOP AND BOTTOM OF EACH RAMP. LANDINGS SHALL HAVE A CROSS-SLOPE NOT
- EXCEEDING 2% (1:48), SHALL BE 5 FEET LONG AND AT LEAST AS WIDE AS THE RAMP CLEAR WIDTH. IF THERE IS A CHANGE OF DIRECTION AT A LANDING, THEN THE LANDING MUST BE AT LEAST 5 FEET WIDE AND 5 FEET 10. CURB RAMPS ALONG ACCESSIBLE ROUTES SHALL NOT RISE MORE THAN 6
- INCHES, NOR BE STEEPER THAN 8.3% (1:12). APPROACHING SLOPES TO THE RAMP CANNOT EXCEED 5%, WHICH INCLUDES SIDEWALKS, PAVEMENT, **GUTTERS ETC.** IF CURB RAMP SIDES ARE FLARED. THE FLARES SHALL NOT BE STEEPER THAN 10% (1:10). 12. LANDINGS ARE REQUIRED AT THE TOP OF ALL CURB RAMPS. THE CLEAR LENGTH OF THE LANDING SHALL BE A MINIMUM OF 36" AND WILL BE AS
- WIDE AS THE CURB RAMP. 3. CURB RAMPS SHALL BE LOCATED OR PROTECTED TO PREVENT THEIR
- EXTEND THE FULL WIDTH OF THE RAMP. THE DETECTABLE WARNING SHALL BE LOCATED SO THE EDGE NEAREST THE CURB IS 6 INCHES MINIMUM AND . ACCESSIBLE PARKING SPACES ON SITE SHALL BE PROVIDED AS REQUIRED II
- SEPARATELY. THE REQUIRED NUMBER OF SPACES SHALL BE BASED ON THE B. ACCESSIBLE PARKING SPACES SHALL BE LOCATED ON THE SHORTEST ACCESSIBLE ROUTE FROM PARKING TO A BUILDING ENTRANCE. IF THERE IS
- EXTEND THE FULL LENGTH OF THE PARKING SPACE.

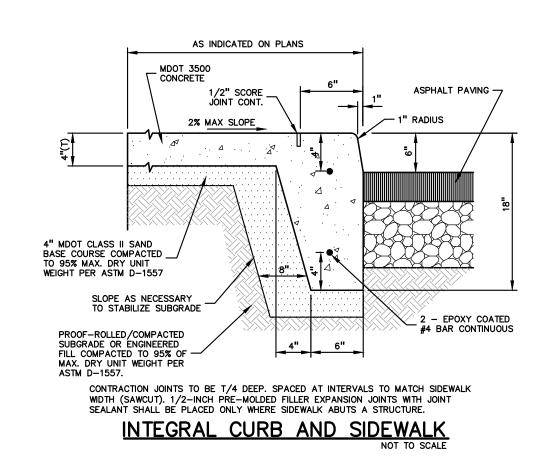
 20. SURFACE SLOPES WITHIN THE PARKING SPACES AND AISLES SHALL NOT

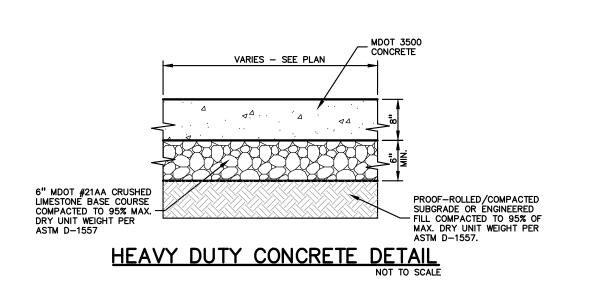
2.0" MDOT 5EMH ASPHALT WEARING COURSE (17% MAXIMUM R.A.P. CONTENT) (17% MAX. R.A.P. CONTENT) (SS-1H at 0.05 GALS/S.Y.) (SS-1H at 0.05 GALS/S.Y.) -ALL SPECIFIED THICKNESSES ARE FINAL COMPACTED THICKNESSES, TYP. 2.0" MDOT 4EML ASPHALT LEVELING COURSE — (27% MAXIMUM R.A.P. CONTENT) (27% MAX. R.A.P. CONTENT) 10" MDOT 21AA CRUSHED PROOF—ROLLED/COMPACTED SUBGRADE OR ENGINEERED FILL COMPACTED TO 95% OF — MAX. DRY UNIT WEIGHT PER SUBGRADE OR ÉNGINEER FILL COMPACTED TO 95% C STANDARD DUTY ASPHALT DETAI

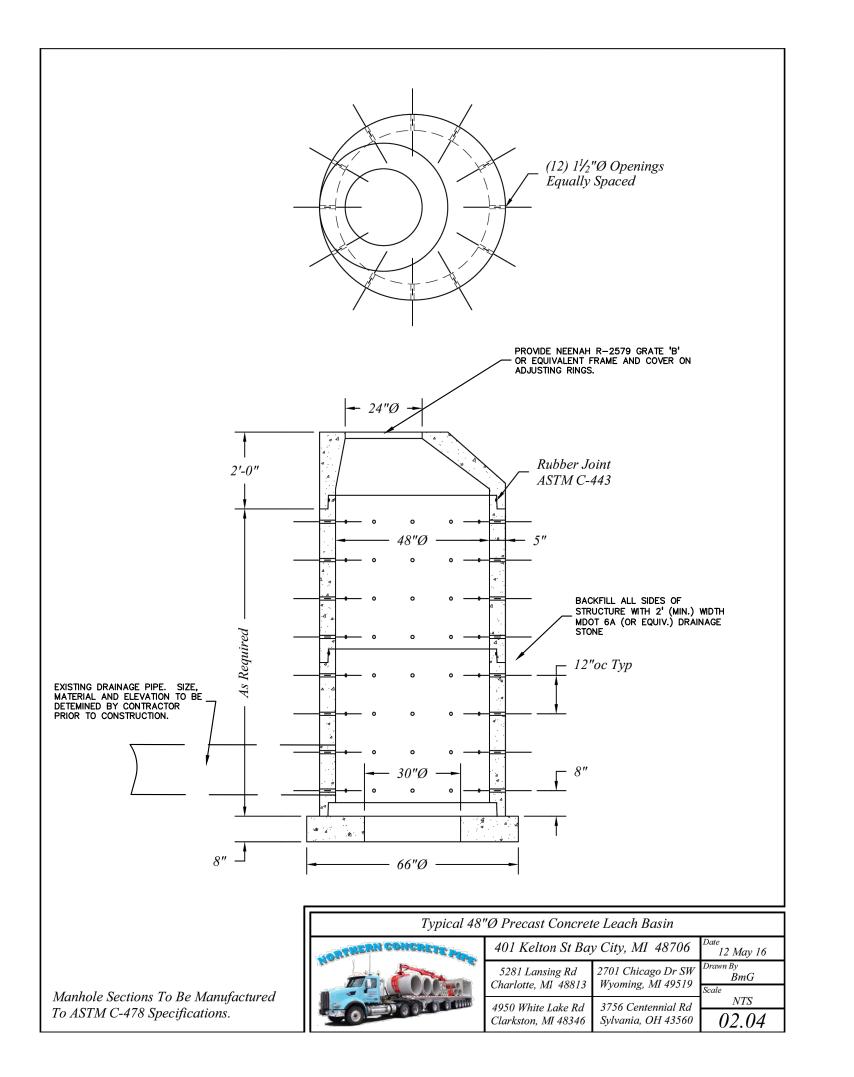


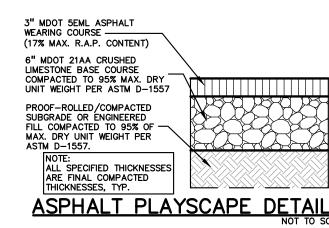
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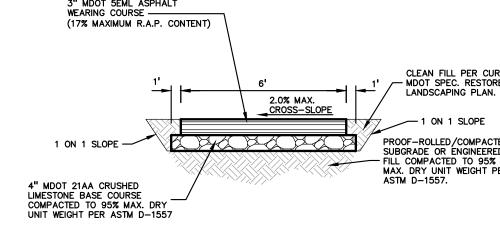
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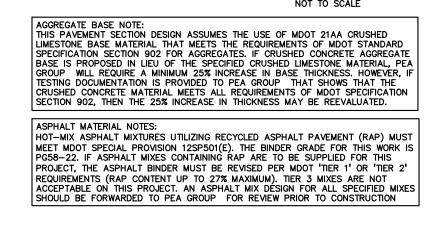


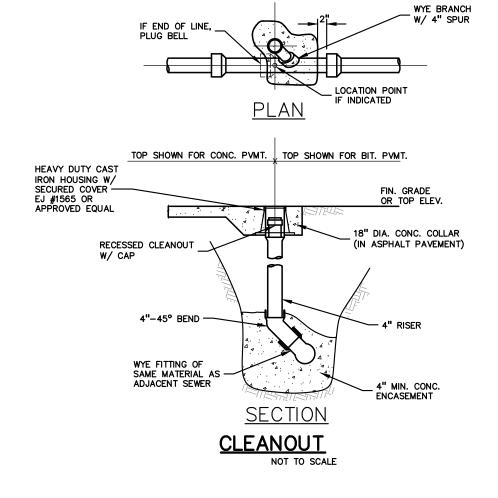


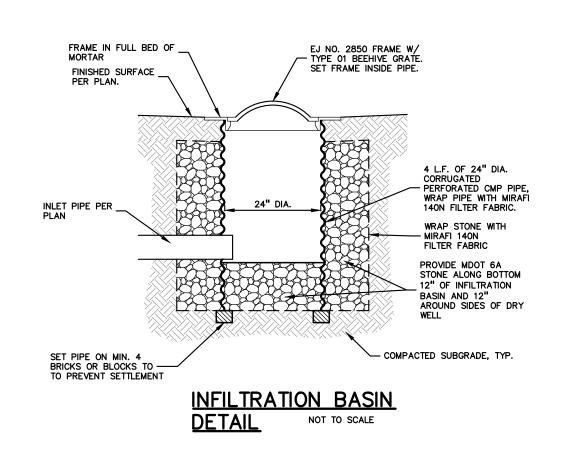


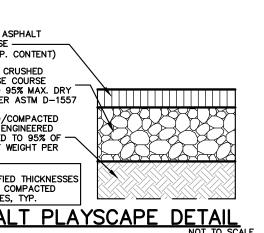


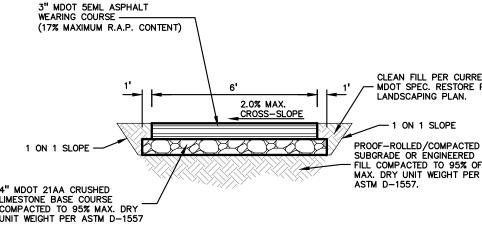
ASPHALT PATHWAY DETAIL











CONSULTANT



TMP ARCHITECTURE INC

1191 WEST SQUARE LAKE ROAD

BLOOMFIELD HILLS • MICHIGAN • 48302

PH • 248.338.4561 FX • 248.338.0223

REGISTRATION SEAL

EM · INFO @ TMP-ARCHITECTURE.COM

PROJECT TITLE

Barnard Elementary School 3601 FORGE DRIVE

Playground Renovation Bid Package No.01A

Troy School District Troy, Michigan

DRAWING TITLE **Notes & Details**

ISSUE DATES

CONSTRUCTION DOCUMENTS

DATE: ISSUED FOR: DRAWN CHECKED

PROJECT NO.

APPROVED TD

DRAWING NO.

22086B

CE-1.5.0

Project Information

Type of soil being disrupted:

Derived from: Soil Survey Soil Borings Other

Present the chronological sequence and expected time of year for each major phase of earth disruption.

DATE

-adjacent property

-lake -----

NOT ACCEPTABLE

BUFFER ZONE

Site Clearing Soil Erosion Control

Mass Balancing

Underground Utilities

Paving

ground cover is not acceptable.

Length of Buffer Zone Drop of Buffer Zone

Total length of vegetated

See silt fence

joint detail "a"

at lower right ·

Restoration / Stabilization

Indicate the measures proposed to prevent sediment from leaving the site:

The graph listed below is used to determine the adequacy of an existing vegetative buffer zone

EXAMPLE

VEGETATIVE BUFFER ZONE

Sheet Sheet Sheet Flow Compacted earth Flow

acceptable

buffer zone

← DISTRUBED → UNDISTURBED AREA

% of Slope of Buffer Zone 4' / 80' x 100%

for use as a sediment filter. This graph is only applicable if the vegetation is a dense well-grown

stand of ground cover, at least 4" in height. An area covered with bushes and trees without a good

Hydrologic Characteristics of Site

Grate wraped in

PLAN VIEW

filter fabric

nonwoven geotextile

a. Type of "Offsite" drainage outlet(s) available for this site:

County Drain Name of Drain: Lake/Pond Name of Lake/Pond: River/Stream Name of River/Stream: Enclosed Drain Name of Enclosed Drain: Detention Basin (with outlet) Wetland Retention Basin (no oulet) Overland Flow

- Distance to nearest lake, stream, pond, open drain, or wetland:
- Does the project include any work or disruption with a flood plain
- Does the project include work within the cross-section of a lake/stream (Yes or No)?
- Is a MDEQ Permit required (Yes or No)? If Yes, what is the MDEQ Permit Number (if known):
- If MDEQ Permit is required and application has not been submitted, what is the expected date of submittal?

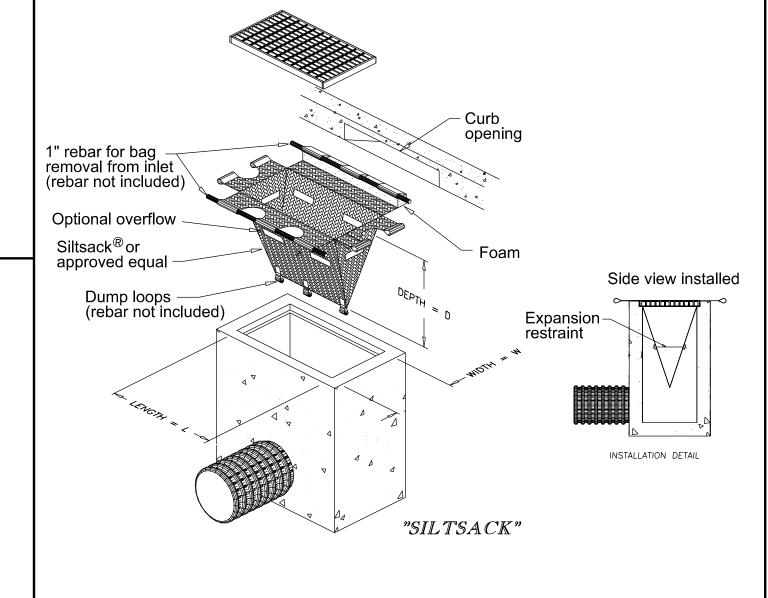
Builders and developers working in Troy are responsible for complying with the regulations for temporary Storm Drain inserts, also known as "siltsacks". The inserts are used on many construction projects to catch sediment not captured upstream by other construction-related erosion control devices and can be an important temporary environmental safeguard.

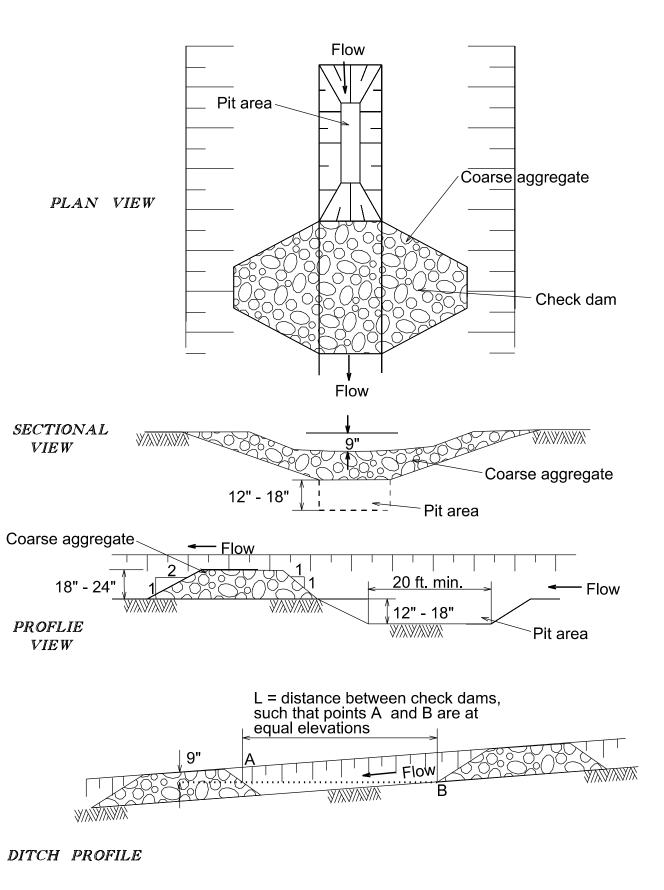
Builders must clean and/or replace the inserts when half of the trap is filled with sediment.

Builders must inspect and maintain the inserts whenever 1/2 inch of rain falls within a 24-hour period. The inserts are to be removed by the builders within 30 days of site stabilization or after the temporary erosion measures are no longer needed.

If inserts are removed during times of flooding, the builder is responsible for re-installing them per

Silt sock inserts are required for all developments with curb inlets or pavement inlets. Rear yard catch basins may utilize a non-woven Geotextile fabric.





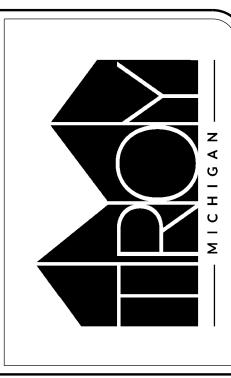
SOIL EROSION & SEDIMENTATION CONTROL NOTES

- 1. The following items are intended to be a guide to the contractor in evaluating Soil Erosion control requirements for the project. Specific Soil Erosion control devices and locations may be detailed on the plans. The contractor should also note that Soil Erosion and Sedimentation controls are included in the project unless specified otherwise on the plans or in the specifications.
- 2. All erosion and Sediment control work shall conform to the permit requirements and the standards and specifications of the City of Troy.
- Daily inspections shall be made by the contractor for effectiveness of Soil Erosion and Sedimentation control measures and any necessary repairs shall be performed without delay.
- 4. Erosion and any sedimentation from work on this site shall be contained on the site and not allowed to collect on any off-site areas or in waterways.
- 5. Waterways include natural or man-made open ditches, streams, storm
- 6. Contractor shall apply temporary soil erosion and sedimentation control measures when required or as directed. Contractor shall remove temporary measures as soon as permanent stabilization of slopes, ditches, and other earth changes has been accomplished.
- 7. Staging the work will be done by the contractor as indicated on the Soil Erosion plans and as required to ensure progressive stabilization of disturbed
- 8. The contractor will establish soil erosion control measures in the early stages of construction. Sediment control measures will be applied as a perimeter defense against any transporting of silt off the site.
- 9. Engineer and owner certification must be included on the plans. 10. Separate sheets showing soil erosion and sedimentation control plans must

- 11. The following guidelines are to be implemented:
- a. Check Dams:

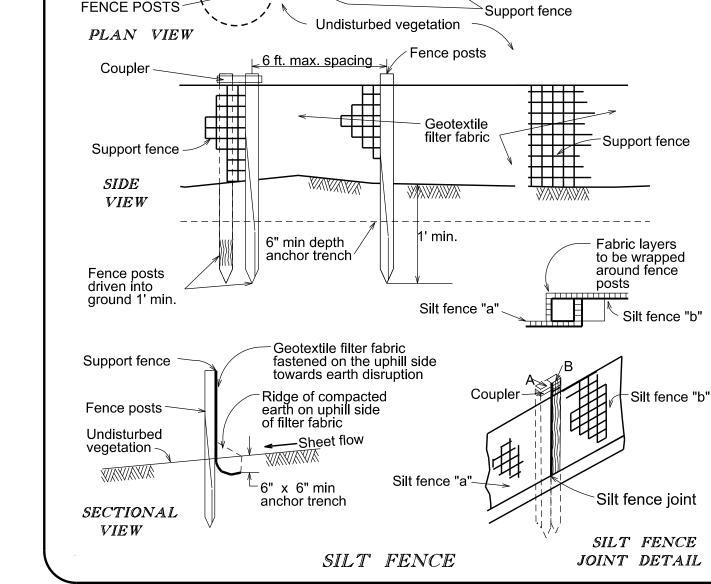
drains, lakes and ponds.

- Stone size must be increased with increased slope and velocity.
- Side slope of the dam should be 2:1 or flatter. Straw bales are not to be used for check dams.
- Add stones as needed to maintain design height and cross section. Any accumulation of sediment shall be removed and stockpiled in a
- stabilized area to prevent the material from eroding back into the drainage
- Vegetative Buffer Zones:
- Vegetation must be maintained in a vigorous condition.
- Reshape and reseed areas where concentrated flow occurs or vegetation
- To be used for sheet flows only. Not to be used as a roadway.
- Silt Fence:
- Must be installed along the contour line. is not to be used in areas of concentrated flow
- Must be trenched in at least 6 inches and backfilled. Multiple rows are to be used up a slope.
- Accumulated sediment must be periodically removed. Where necessary, a support fence shall be used to support the geotextile
- To be removed after site is permanently stabilized.
- d. Inlet Sediment Trap:
- The sediment deposition area and nonwoven geotextile filter fabric should be cleaned of all accumulated sediment after each storm.
- After all contributing areas are stabilized, the filter fabric will be removed, sediment deposition area filled, and a sod inlet filter placed over the disrupted lawn area.
- The filter material used to backfill parking lot drainage holes will be peastone. The side excavation for the placement of this material will not be deeper than the invert of the drainage holes.
- Inlet Filters After Paving or Grading:
- Inlet filters will remain in place until all denuded areas contributing to them are stabilized with vegetation.
- Periodic inspection and maintenance will be provided to insure that filters are functioning properly.
- Sod Inlet Filter:
- Sod inlet filters will only be used to handle light concentrations of sediment. Recommended for use after final grading is complete and during the
- establishment of a vegetative cover. Catch basin inlet covers may be wrapped in a non-woven geotextile filter
- fabric for additional filtration
- Periodic inspection and maintenance must be provided to insure efficient



	DETAILS						
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FILTERSediment deposition area -1" dia. drainage holes drilled through catch basin cone & grouted after filter is removed INLET SEDIMENT TRAP LAWN OR PARKING LOT Sod inlet filter are pads of sod placed around a Definition storm drain inlet or catch basin. Sod inlet filters are installed to slow the flow of Purpose water into an inlet or catch basin and to filter out appreciable amounts of sediment in the process. Sod inlet filters should only be used to handle Where applicable light concentrations of sediment. They are best used after final grading is completed and during the establishment of a vegetative cover. 20 FT. X 20 FT. ← Flow Flow --Sod **ISOMETERIC** VIEW

Grate wraped in nonwoven geotextile filter fabric — -Proposed final Finish grade elevation pavement elevation LAWN AREA PARKING LOT FILTER

Scarify the finish grade

Coarse aggregate
M.D.O.T. 6a

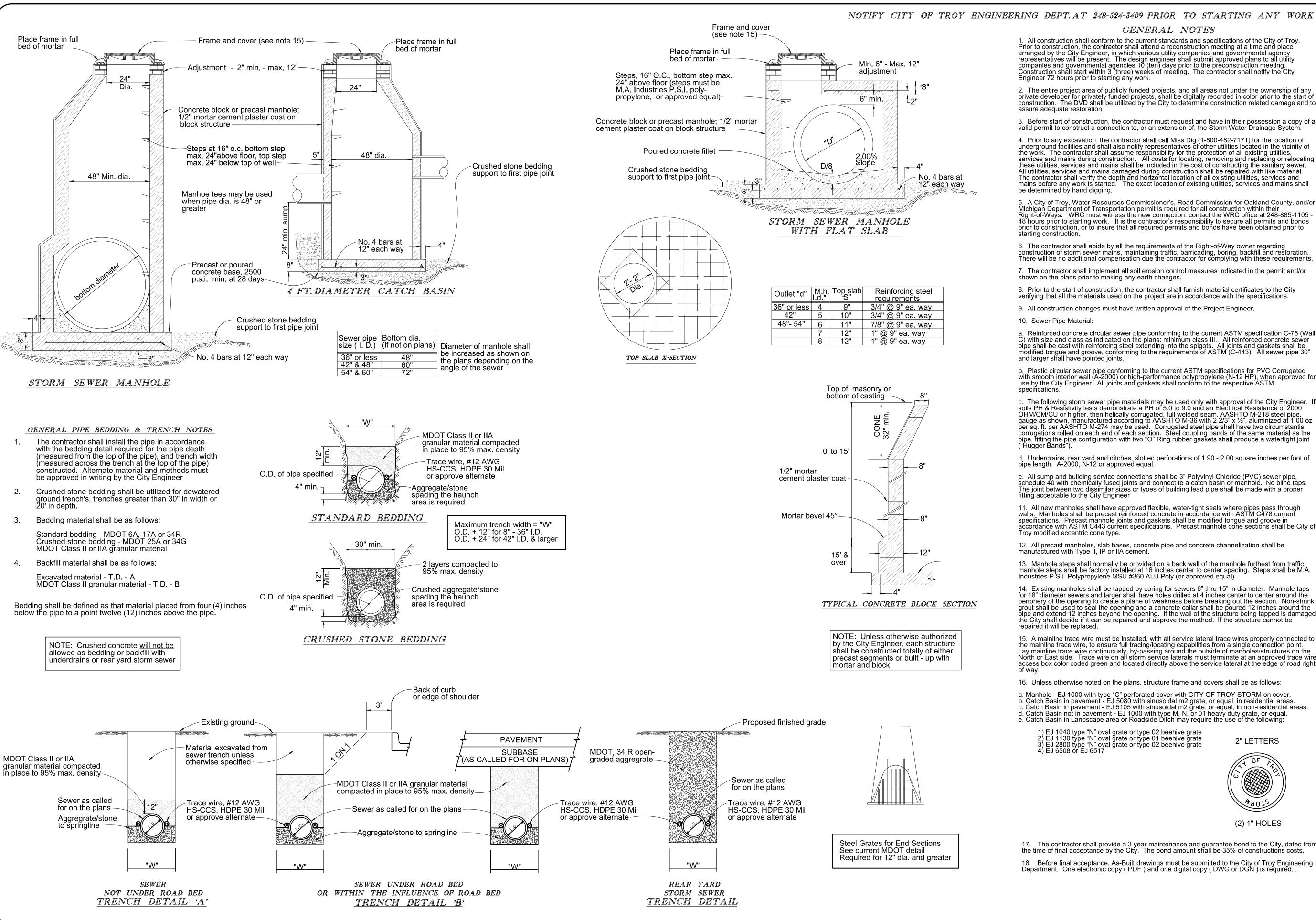
perpendicular to the slope

of the parking lot

MINIMUM SIZE SHALL BE

SOD INLET FILTER

SEDIMENT TRAP WITH CHECK DAM





Prior to construction, the contractor shall attend a reconstruction meeting at a time and place arranged by the City Engineer, in which various utility companies and governmental agency representatives will be present. The design engineer shall submit approved plans to all utility companies and governmental agencies 10 (ten) days prior to the preconstruction meeting. Construction shall start within 3 (three) weeks of meeting. The contractor shall notify the City

2. The entire project area of publicly funded projects, and all areas not under the ownership of any private developer for privately funded projects, shall be digitally recorded in color prior to the start of construction. The DVD shall be utilized by the City to determine construction related damage and to

3. Before start of construction, the contractor must request and have in their possession a copy of a

4. Prior to any excavation, the contractor shall call Miss Dig (1-800-482-7171) for the location of underground facilities and shall also notify representatives of other utilities located in the vicinity of the work. The contractor shall assume responsibility for the protection of all existing utilities, services and mains during construction. All costs for locating, removing and replacing or relocating these utilities, services and mains shall be included in the cost of constructing the sanitary sewer.

All utilities, services and mains damaged during construction shall be repaired with like material. The contractor shall verify the depth and horizontal location of all existing utilities, services and mains before any work is started. The exact location of existing utilities, services and mains shall

5. A City of Troy, Water Resources Commissioner's, Road Commission for Oakland County, and/or Michigan Department of Transportation permit is required for all construction within their Right-of-Ways. WRC must witness the new connection, contact the WRC office at 248-885-1105 -48 hours prior to starting work. It is the contractor's responsibility to secure all permits and bonds prior to construction, or to insure that all required permits and bonds have been obtained prior to

6. The contractor shall abide by all the requirements of the Right-of-Way owner regarding construction of storm sewer mains, maintaining traffic, barricading, boring, backfill and restoration. There will be no additional compensation due the contractor for complying with these requirements

9. All construction changes must have written approval of the Project Engineer.

a. Reinforced concrete circular sewer pipe conforming to the current ASTM specification C-76 (Wall C) with size and class as indicated on the plans; minimum class III. All reinforced concrete sewer pipe shall be cast with reinforcing steel extending into the spigots. All joints and gaskets shall be modified tongue and groove, conforming to the requirements of ASTM (C-443). All sewer pipe 30"

b. Plastic circular sewer pipe conforming to the current ASTM specifications for PVC Corrugated with smooth interior wall (A-2000) or high-performance polypropylene (N-12 HP), when approved for use by the City Engineer. All joints and gaskets shall conform to the respective ASTM

c. The following storm sewer pipe materials may be used only with approval of the City Engineer. If soils PH & Resistivity tests demonstrate a PH of 5.0 to 9.0 and an Electrical Resistance of 2000 OHM/CM/CU or higher, then helically corrugated, full welded seam, AASHTO M-218 steel pipe, gauge as shown, manufactured according to AASHTO M-36 with 2 2/3" x ½", aluminized at 1.00 oz per sq. ft. per AASHTO M-274 may be used. Corrugated steel pipe shall have two circumstantial corrugations rolled on each end of each section. Steel coupling bands of the same material as the pipe, fitting the pipe configuration with two "O" Ring rubber gaskets shall produce a watertight joint

d. Underdrains, rear yard and ditches, slotted perforations of 1.90 - 2.00 square inches per foot of pipe length. A-2000, N-12 or approved equal.

e. All sump and building service connections shall be 3" Polyvinyl Chloride (PVC) sewer pipe, schedule 40 with chemically fused joints and connect to a catch basin or manhole. No blind taps. The joint between two dissimilar sizes or types of building lead pipe shall be made with a proper

11. All new manholes shall have approved flexible, water-tight seals where pipes pass through walls. Manholes shall be precast reinforced concrete in accordance with ASTM C478 current specifications. Precast manhole joints and gaskets shall be modified tongue and groove in accordance with ASTM C443 current specifications. Precast manhole cone sections shall be City of

12. All precast manholes, slab bases, concrete pipe and concrete channelization shall be manufactured with Type II, IP or IIA cement.

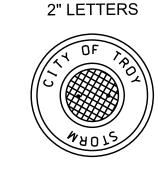
13. Manhole steps shall normally be provided on a back wall of the manhole furthest from traffic.

for 18" diameter sewers and larger shall have holes drilled at 4 inches center to center around the periphery of the opening to create a plane of weakness before breaking out the section. Non-shrink grout shall be used to seal the opening and a concrete collar shall be poured 12 inches around the pipe and extend 12 inches beyond the opening. If the wall of the structure being tapped is damaged, the City shall decide if it can be repaired and approve the method. If the structure cannot be

15. A mainline trace wire must be installed, with all service lateral trace wires properly connected to the mainline trace wire, to ensure full tracing/locating capabilities from a single connection point. Lay mainline trace wire continuously, by-passing around the outside of manholes/structures on the North or East side. Trace wire on all storm service laterals must terminate at an approved trace wire access box color coded green and located directly above the service lateral at the edge of road right

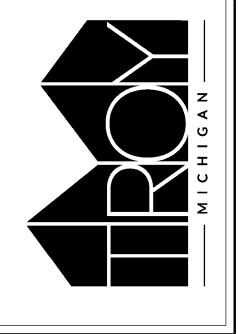
16. Unless otherwise noted on the plans, structure frame and covers shall be as follows:

a. Manhole - EJ 1000 with type "C" perforated cover with CITY OF TROY STORM on cover. b. Catch Basin in pavement - EJ 5080 with sinusoidal m2 grate, or equal, in residential areas. c. Catch Basin in pavement - EJ 5105 with sinusoidal m2 grate, or equal, in non-residential areas.

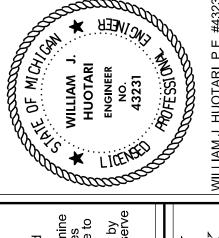


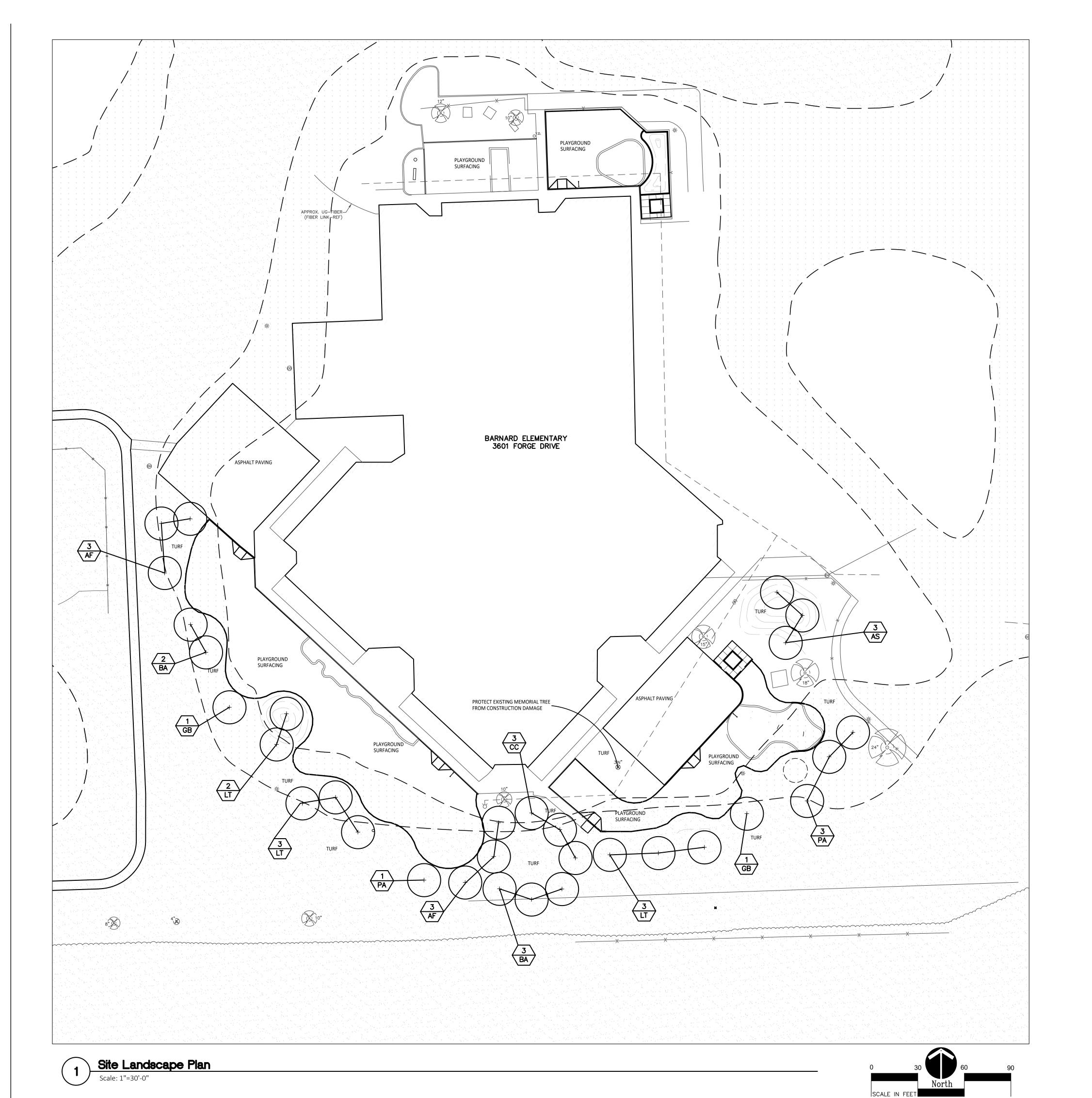
(2) 1" HOLES

17. The contractor shall provide a 3 year maintenance and guarantee bond to the City, dated from the time of final acceptance by the City. The bond amount shall be 35% of constructions costs.



DETAILS NT	DATE : JUNE 2019	REMARKS				
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STANDARD STORM SEWER DETAILS ENGINEERING DEPARTMENT	APPROVED BY : WILLIAM J. HUOTARI, CITY ENGINEER	REMARKS	GENERAL UPDATES			
	APPR	DATE	APRIL 2019			
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+ PROPOSED DECIDUOUS TREE

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2. CALL MIN
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4. IN AREAS

FEMA FLOOD ZONE AE

PROPERTY LINE

PLANT TAG- REFERS TO TYPE AND NUMBER OF PLANTINGS TO BE PROVIDED AND MAINTAINED BY CONTRACTOR.

PROPOSED FEATURES LEGEND: LANDSCAPE NOTES:

- SURVEY OF EXISTING CONDITIONS PROVIDED BY PEA GROUP, 1849 POND RUN, AUBURN HILLS, MICHIGAN, 48326, (248)689-9090.
- 2. CALL "MISS DIG" AND VERIFY ALL UNDERGROUND UTILITIES PRIOR TO BEGINNING WORK. 72 HOURS BEFORE YOU DIG CALL "MISS DIG" AT 1-800-482-7171. ANY UTILITIES DISTURBED BY CONSTRUCTION SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE.
- 3. ANY DISCREPANCIES BETWEEN THESE PLANS AND ACTUAL FIELD CONDITIONS SHOULD BE REPORTED TO
- THE CONSTRUCTION MANAGER IMMEDIATELY FOR RESOLUTION.

 IN AREAS OF NEW TURF PLACE 4" MINIMUM TOPSOIL, FINE GRADE & ESTABLISH TURF WITHIN SEED LIMIT
- PLACE SHREDDED HARDWOOD MULCH TO A 3" DEPTH IN ALL TREE & SHRUB BEDS & TO A 2" DEPTH IN ALL
- GROUND COVER BEDS.

UNLESS OTHERWISE NOTED, TOPSOIL, FINE GRADE AND SEED ALL DISTURBED AREAS WITHIN THE SEEDING

- REPAIR AND RESTORE ANY DAMAGE OUTSIDE OF LIMIT OF WORK LINE TO ORIGINAL CONDITION.
- . PROTECT ALL TREES AND EXISTING FEATURES TO REMAIN AS SPECIFIED.

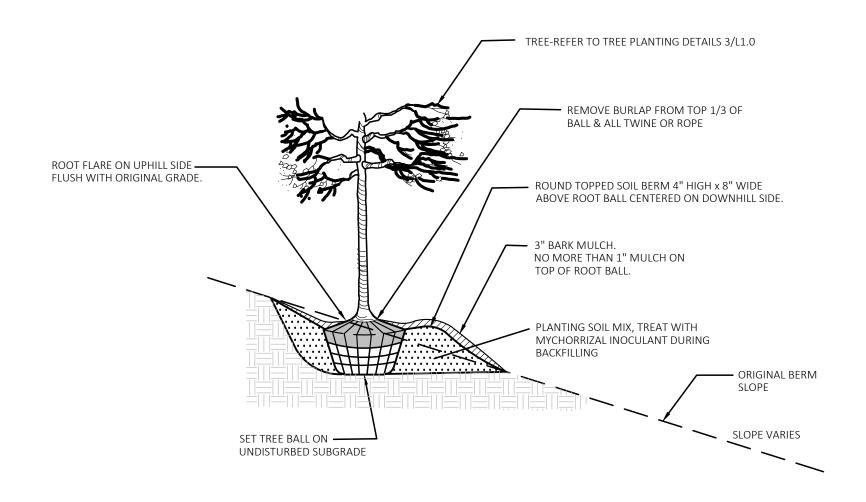
LIMIT SHOWN AND AREAS DISTURBED BY CONSTRUCTION.

- ALL TOPSOIL AND EXCESS FILL MATERIAL SHALL BE STOCKPILED ON SITE SEPARATELY FOR LATER RE-USE.

 LOCATE STOCKPILES IN AREAS AS DIRECTED BY CONSTRUCTION MANAGER AND PROTECT FROM EFFECTS OF
- O. ALL NURSERY STOCK SHALL BE TRUE TO TYPE AND NAME. ALL STOCK SHALL BE FIRST CLASS QUALITY WITH WELL DEVELOPED BRANCH SYSTEMS AND VIGOROUS HEALTHY ROOT SYSTEMS. ALL STOCK SHALL BE WELL FORMED AND THE TRUNKS OF TREES SHALL BE UNIFORM AND STRAIGHT.
- CONTRACTOR RESPONSIBLE TO LOCATE SITE LIGHTING SERVICES. CONTRACTOR RESPONSIBLE TO NOTIFY CONSTRUCTION MANAGER IF DAMAGE TO LIGHTING ELECTRICAL DISTRIBUTION OCCURS.
- 2. ALL AREAS OF TREE CLEARING SHALL BE STAKED FOR ARCHITECTS APPROVAL PRIOR TO CLEARING.
- 13. UNLESS OTHERWISE SPECIFIED, ALL PERENNIALS, GRASSES AND GROUNDCOVERS SHALL BE GROWN IN THEIR CONTAINER FOR ONE YEAR PRIOR TO INSTALLATION.

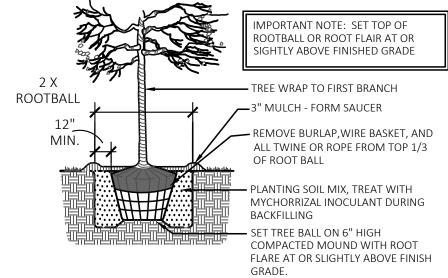
PLANT LIST:

	SYM.	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	SPACING	STATUS
	AF	Acer x freemanii 'Marmo'	Marmo Freeman Maple	2" CAL.	B&B	PER PLANS	NATIVAR
	AS	Acer saccharum 'Commemoration'	Commemoration Sugar Maple	2" CAL.	B&B	PER PLANS	NATIVE
TREES	ВА	Betula alleghaniensis	Yellow Birch	2" CAL.	B&B	PER PLANS	NATIVE
	СС	Carpinus caroliniana	Hornbeam	2" CAL.	B&B	PER PLANS	NATIVE
	GB	Ginkgo biloba 'Autumn Gold'	Autumn Gold Gingko Tree (no female)	2" CAL.	B&B	PER PLANS	NON-NATIVE
	PA	Platanus x acerifolia 'Bloodgood'	London Planetree	2" CAL.	B&B	PER PLANS	NON-NATIVE
	LT	Liriodendron tulipfera	Tulip Tree	2" CAL.	B&B	PER PLANS	NATIVE



Tree On Berm Detail 1/4 Slope or Greater









T M P A R C H I T E C T U R E I N C

1191 WEST SQUARE LAKE ROAD
BLOOMFIELD HILLS • MICHIGAN • 48302
PH • 248.338.4561 FX • 248.338.0223
EM • INFO © TMP-ARCHITECTURE.COM

REGISTRATION SEAL

CONSULTANT



350 East Michigan Avenue Suite #415 Kalamazoo Michigan 49007 Phone (269) 381-3357 Fax (269) 381-2944

PROJECT TITLE

Barnard Elementary School Playground Renovation Bid Package No.01A

Troy School District Troy, Michigan

Site Landscape Plan

ISSUE DATES		
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11-09-23	CONSTRUCTION DOCUMENTS	
DATE:	ISSUED FOR:	
DRAWN		

PROJECT NO.

22086B

DRAWING NO.

CHECKED

APPROVED