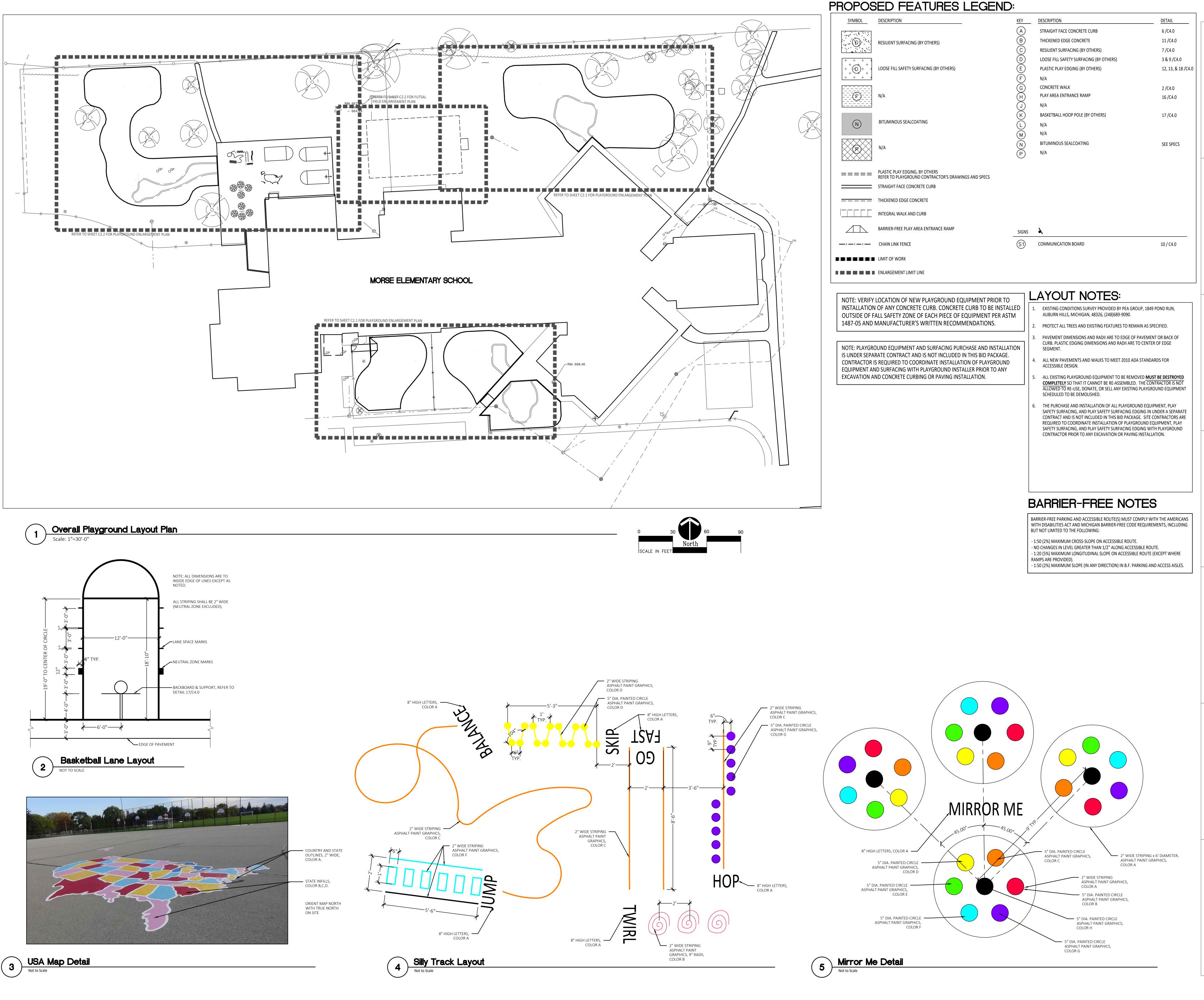


OF CONSTRUCTION)



ARCHITECTURE

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

# Morse Elementary School Playground Renovation Bid Package No.01A

Troy School District Troy, Michigan

DRAWING TITLE
Overall Playground
Layout Plan

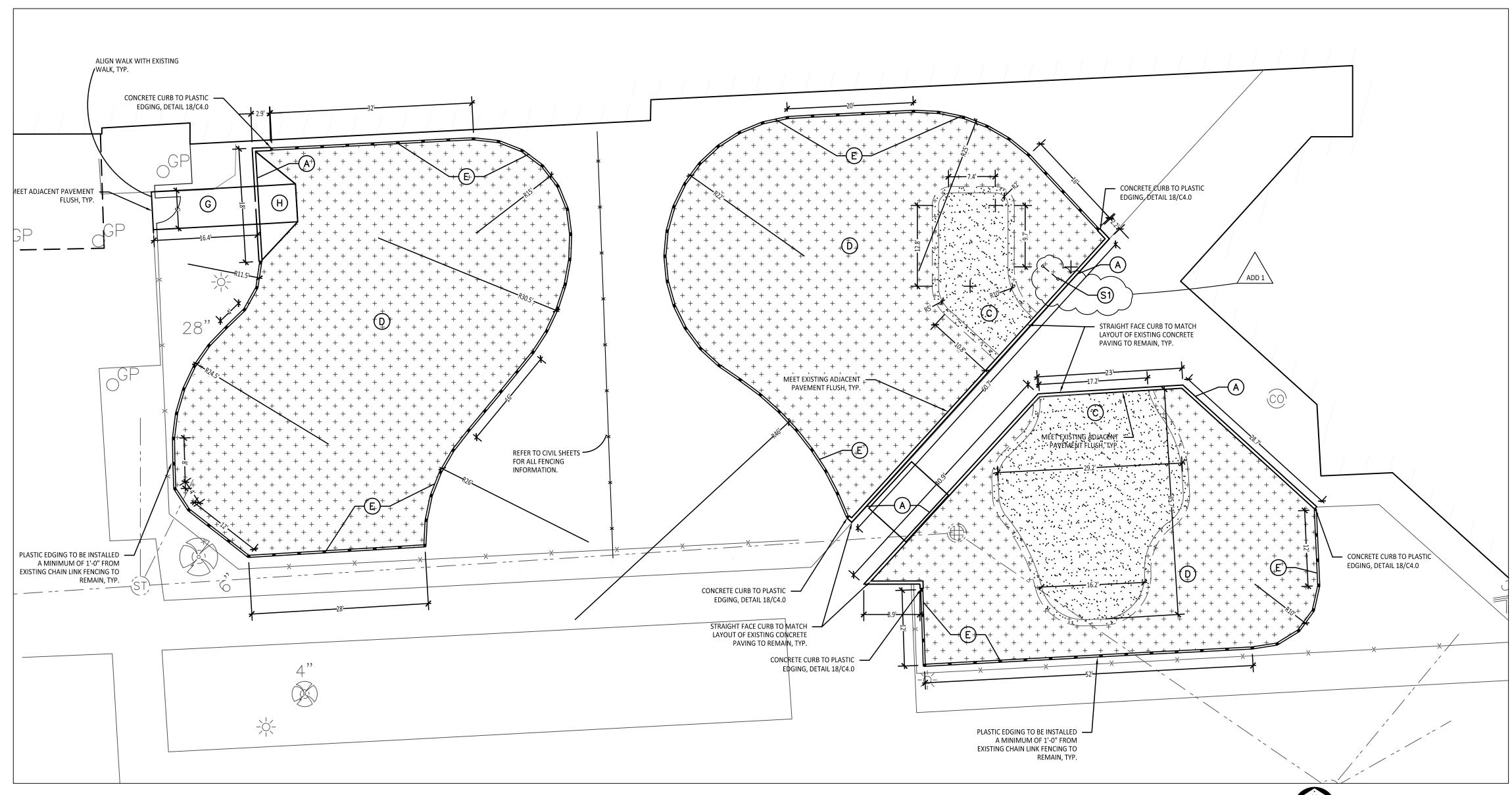
ISSUE DATES			
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DATE:	ISSUED FOR:		
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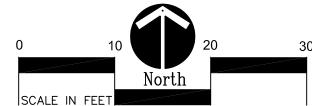
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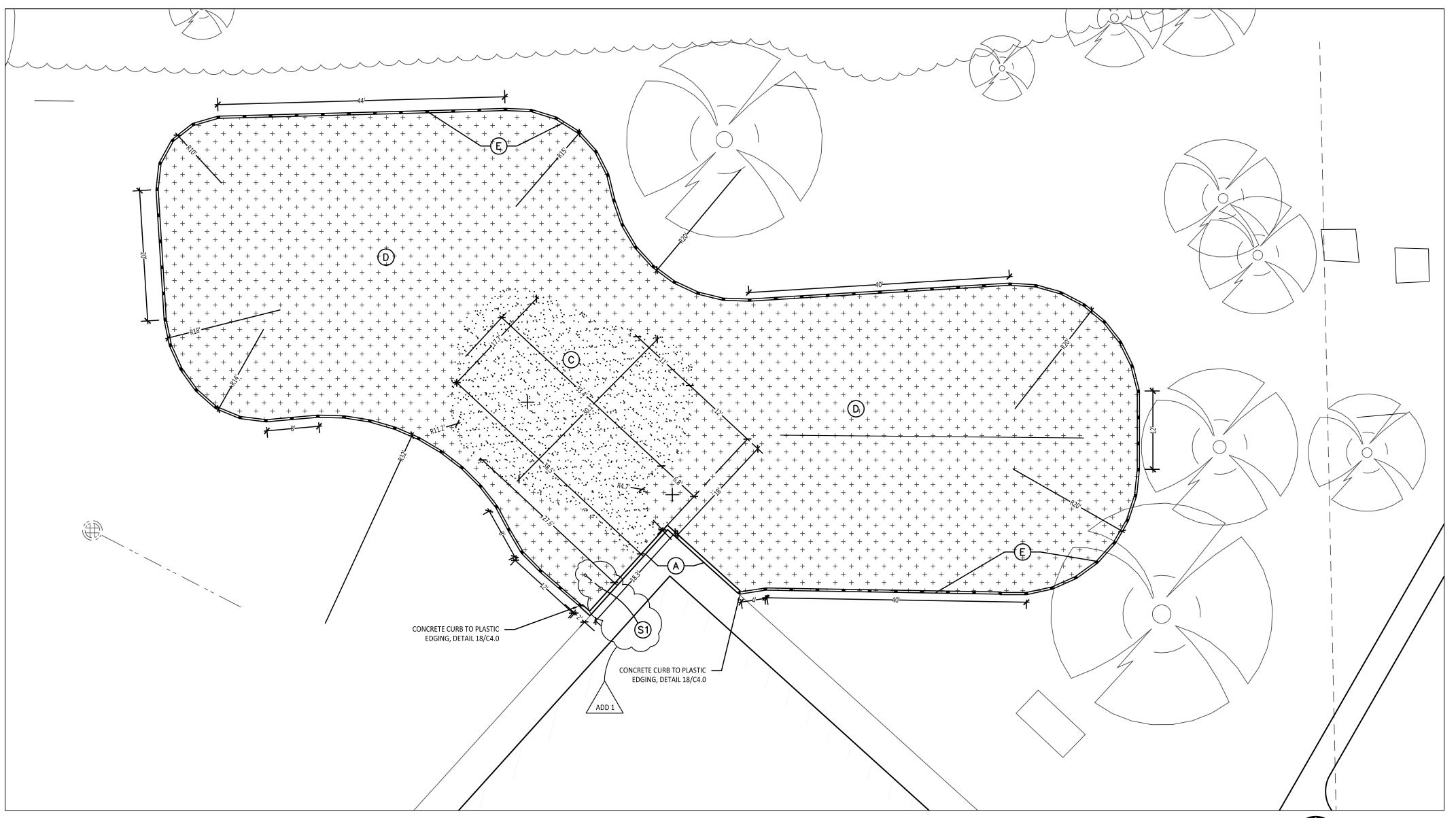
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PROJECT NO.



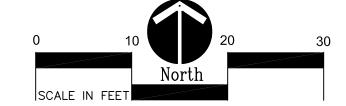
Playground Layout Enlargement Plan - PreK/Kindergarten



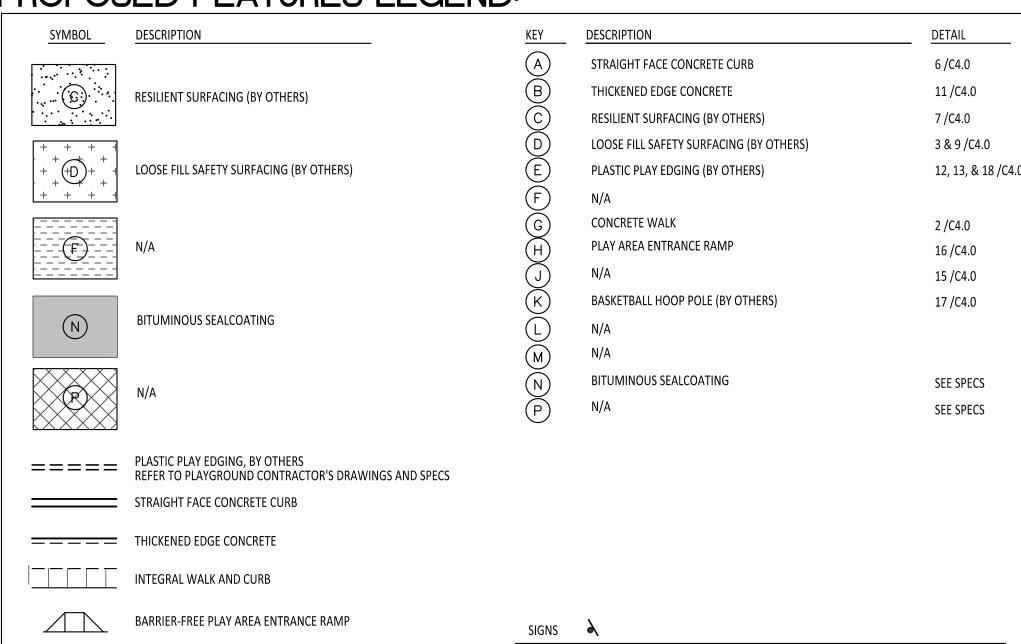


Playground Layout Enlargement Plan - Upper Elementary

Scale: 1"=10'-0"



### PROPOSED FEATURES LEGEND:



TMP ARCHITECTURE INC 1191 WEST SQUARE LAKE ROAD BLOOMFIELD HILLS MICHIGAN 48302 PH 248.338.4561 FX 248.338.0223

EM INFO TMP-ARCHITECTURE.COM

REGISTRATION SEAL

NOTE: VERIFY LOCATION OF NEW PLAYGROUND EQUIPMENT PRIOR TO INSTALLATION OF ANY CONCRETE CURB. CONCRETE CURB TO BE INSTALLED

COMMUNICATION BOARD

NOTE: PLAYGROUND EQUIPMENT AND SURFACING PURCHASE AND INSTALLATION CONTRACTOR IS REQUIRED TO COORDINATE INSTALLATION OF PLAYGROUND EQUIPMENT AND SURFACING WITH PLAYGROUND INSTALLER PRIOR TO ANY EXCAVATION AND CONCRETE CURBING OR PAVING INSTALLATION.

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

1487-05 AND MANUFACTURER'S WRITTEN RECOMMENDATIONS.

—×—×—×— CHAIN LINK FENCE

■ ■ ■ ■ ■ ■ ENLARGEMENT LIMIT LINE

LIMIT OF WORK

### LAYOUT NOTES:

- 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.
- PAVEMENT DIMENSIONS AND RADII ARE TO EDGE OF PAVEMENT OR BACK OF CURB. PLASTIC EDGING DIMENSIONS AND RADII ARE TO CENTER OF EDGE
- ALL NEW PAVEMENTS AND WALKS TO MEET 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN.
- ALL EXISTING PLAYGROUND EQUIPMENT TO BE REMOVED MUST BE DESTROYED **COMPLETELY** SO THAT IT CANNOT BE RE-ASSEMBLED. THE CONTRACTOR IS NOT ALLOWED TO RE-USE, DONATE, OR SELL ANY EXISTING PLAYGROUND EQUIPMENT SCHEDULED TO BE DEMOLISHED.

### CONSULTANT

10 / C4.0



141 E. Michigan Avenue, Suite 500 Kalamazoo Michigan 49007 Phone (269) 381-3357 Fax (269) 381-2944

PROJECT TITLE

## Morse Elementary School Playground Renovation Bid Package No.01A

## Troy School District Troy, Michigan

DRAWING TITLE
Playground Layout
Enlargement Plans

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9-23 CONSTRUCTION DOCU	IMENTS
-23 ADDENDUM #1	
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BARRIER-FREE PARKING AND ACCESSIBLE ROUTE(S) MUST COMPLY WITH THE AMERICANS BUT NOT LIMITED TO THE FOLLOWING:

- 1:20 (5%) MAXIMUM LONGITUDINAL SLOPE ON ACCESSIBLE ROUTE (EXCEPT WHERE

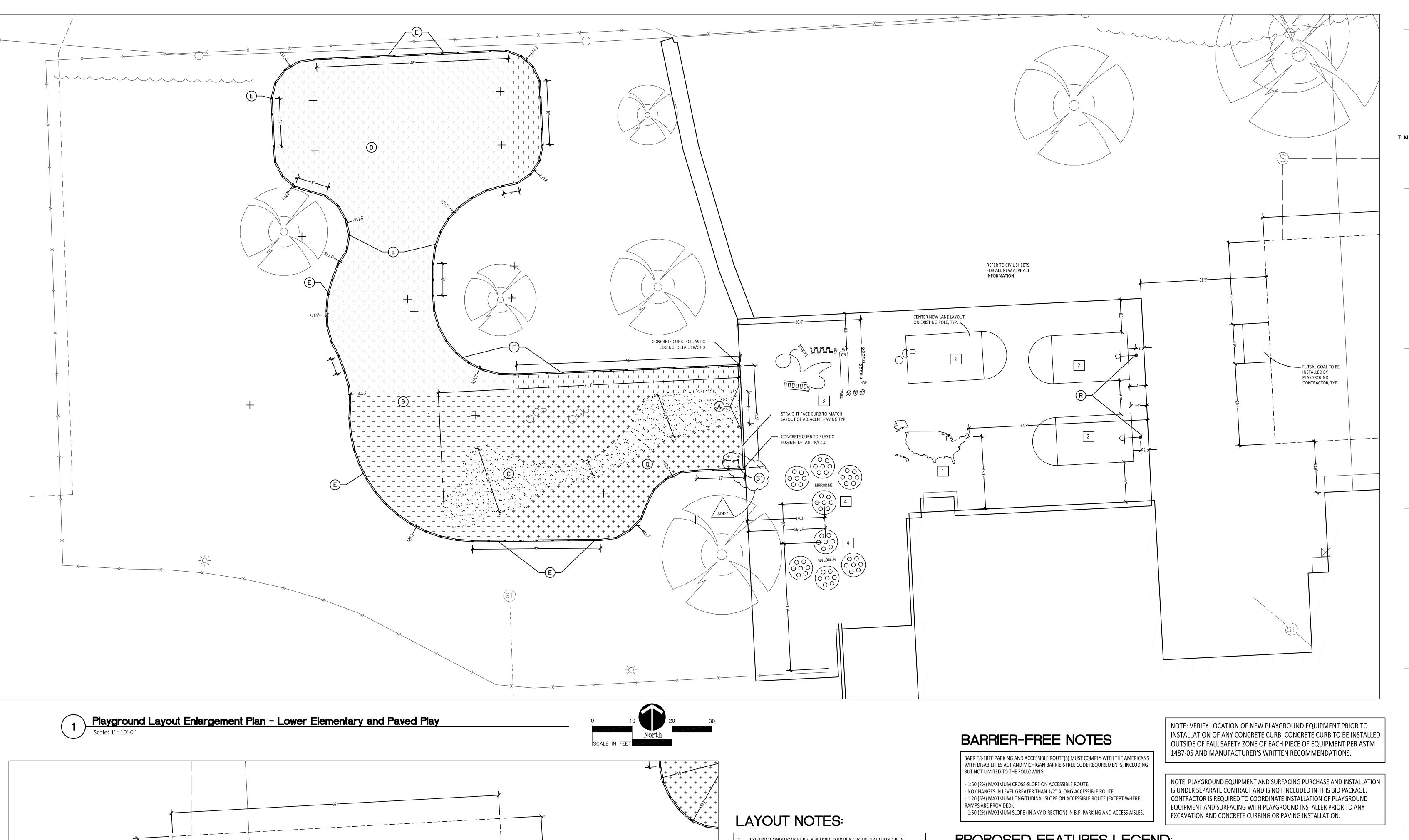
- 1:50 (2%) MAXIMUM SLOPE (IN ANY DIRECTION) IN B.F. PARKING AND ACCESS AISLES.

### BARRIER-FREE NOTES

WITH DISABILITIES ACT AND MICHIGAN BARRIER-FREE CODE REQUIREMENTS, INCLUDING - 1:50 (2%) MAXIMUM CROSS-SLOPE ON ACCESSIBLE ROUTE. - NO CHANGES IN LEVEL GREATER THAN 1/2" ALONG ACCESSIBLE ROUTE.

DRAWING NO. **C2.1** 

22093B



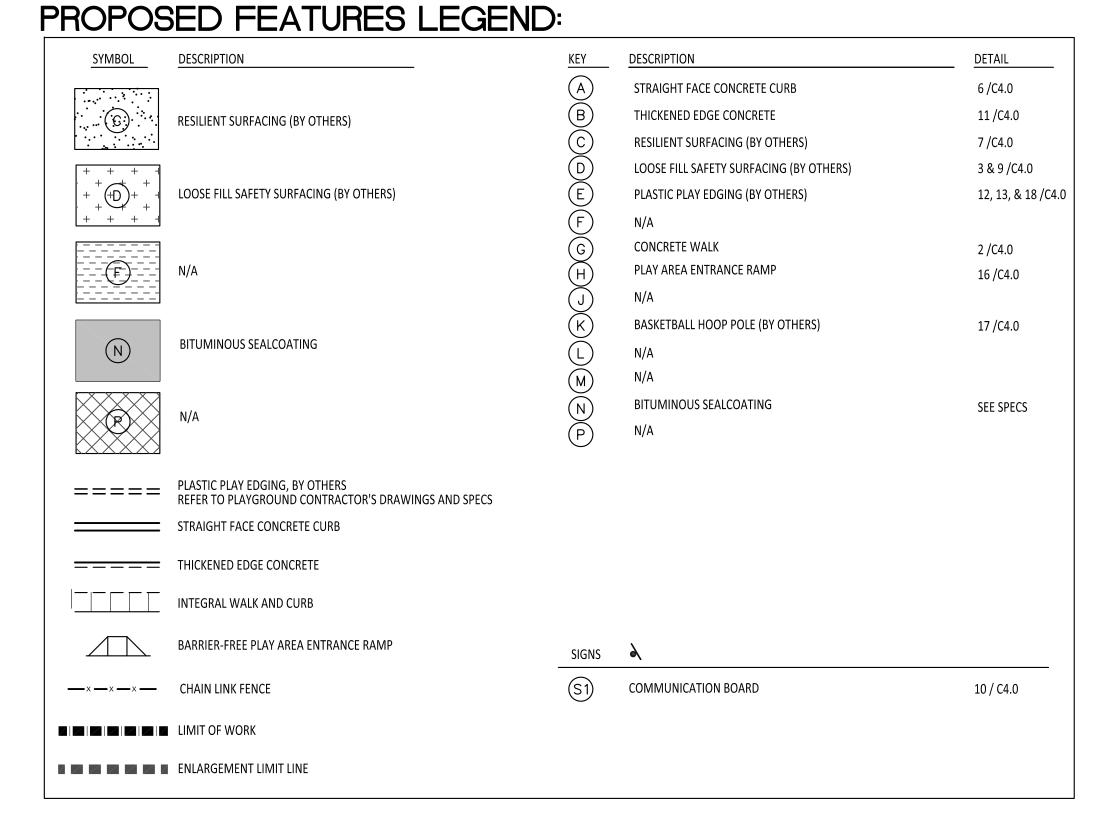
## LAYOUT NOTES:

- 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. PAVEMENT DIMENSIONS AND RADII ARE TO EDGE OF PAVEMENT OR BACK OF CURB. PLASTIC EDGING DIMENSIONS AND RADII ARE TO CENTER OF EDGE
- ALL NEW PAVEMENTS AND WALKS TO MEET 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN.
- ALL EXISTING PLAYGROUND EQUIPMENT TO BE REMOVED MUST BE DESTROYED COMPLETELY SO THAT IT CANNOT BE RE-ASSEMBLED. THE CONTRACTOR IS NOT ALLOWED TO RE-USE, DONATE, OR SELL ANY EXISTING PLAYGROUND EQUIPMENT SCHEDULED TO BE DEMOLISHED.
- THE PURCHASE AND INSTALLATION OF ALL PLAYGROUND EQUIPMENT, PLAY CONTRACT AND IS NOT INCLUDED IN THIS BID PACKAGE. SITE CONTRACTORS ARE REQUIRED TO COORDINATE INSTALLATION OF PLAYGROUND EQUIPMENT, PLAY SAFETY SURFACING, AND PLAY SAFETY SURFACING EDGING WITH PLAYGROUND CONTRACTOR PRIOR TO ANY EXCAVATION OR PAVING INSTALLATION.

## 1ST - 5TH GRADE PAINTED GAMES SCHEDULE:

SAMBOL	DESCRIPTION	DETAIL
1	MAP OF UNITED STATES	SEE SPECS., 3/C2
2	BASKETBALL LANE LAYOUT	2 / C2.0
3	SILLY TRACK	4 / C2.0
4	MIRROR ME	5 / C2.0
5	N/A	XX / CX.XX

EXCAVATION AND CONCRETE CURBING OR PAVING INSTALLATION.





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REGISTRATION SEAL

CONSULTANT



141 E. Michigan Avenue, Suite 500 Kalamazoo Michigan 49007 Phone (269) 381-3357 Fax (269) 381-2944

PROJECT TITLE

Morse Elementary School Playground Renovation Bid Package No.01A

Troy School District Troy, Michigan

DRAWING TITLE Playground Layout Enlargement Plan

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•	•
•	<u>.</u>
11-29-23	ADDENDUM #1
11-09-23	CONSTRUCTION DOCUMENTS
DATE:	ISSUED FOR:
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PROJECT NO. 22093B

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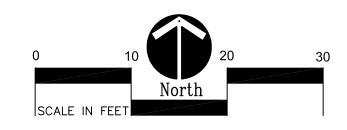
**C2.2** 

Playground Layout Enlargement Plan - Futsal Field

| Scale: 1"=10'-0"

PLAYGROUND

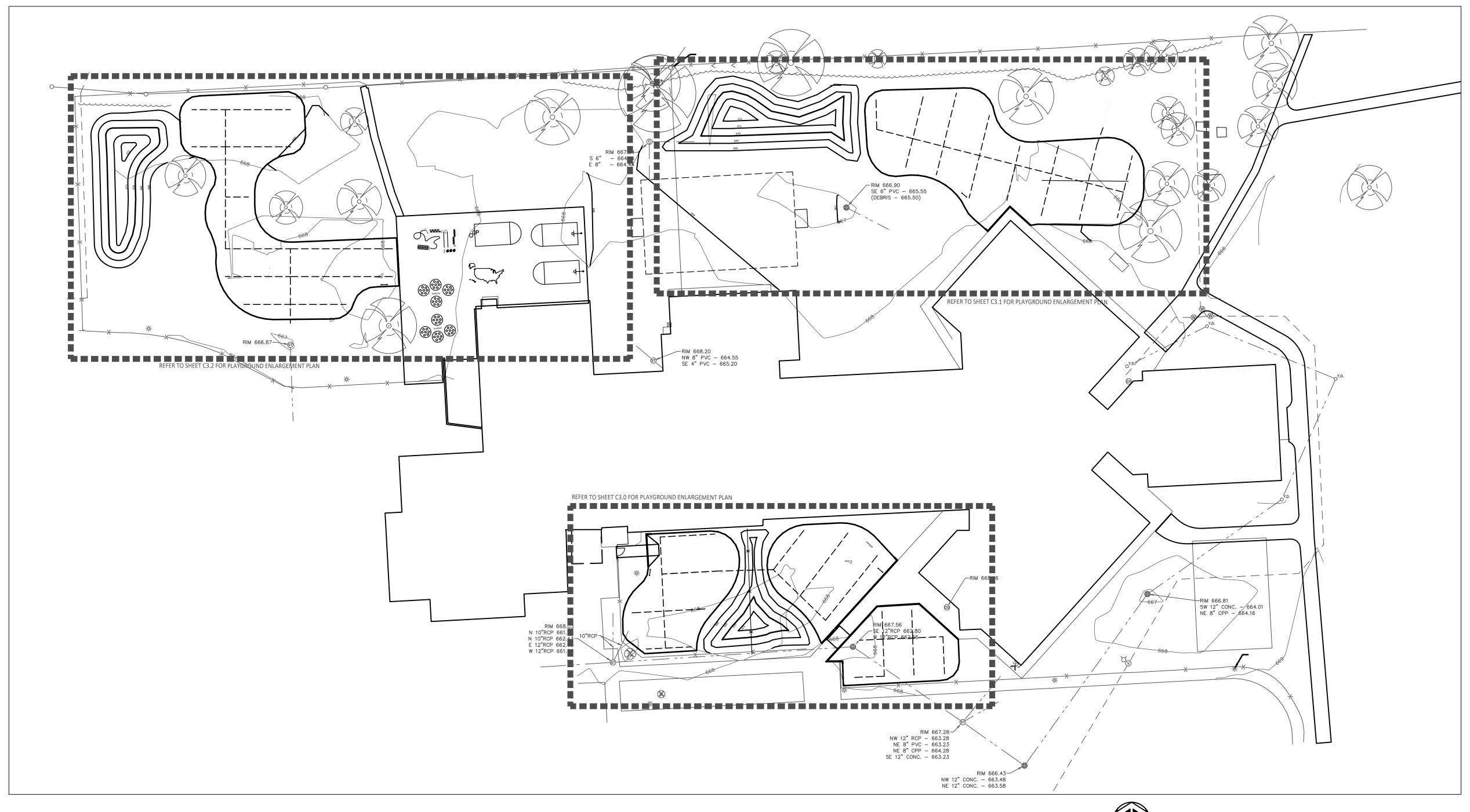
CONTRACTOR, TYP.



FUTSAL GOAL TO BE INSTALLED BY

CONTRACTOR, TYP.

PLAYGROUND



**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
- ALL NEW PAVEMENTS AND TURF AREAS ARE INTENDED TO DRAIN FREELY WITH NO PONDING. IF THIS CANNOT BE ACHIEVED USING
- ALL NEW PAVEMENT ELEVATIONS AT EXTERIOR DOORS SHALL MATCH EXISTING FINISH FLOOR ELEVATIONS, TYPICAL.
- ADJUST TOP OF EXISTING MANHOLES, CATCH BASINS, VAULT COVERS, ETC. TO NEW FINISH GRADE AS REQUIRED.

THE PROPOSED GRADES, NOTIFY THE OWNER'S REPRESENTATIVE IMMEDIATELY FOR RESOLUTION.

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

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**REGISTRATION SEAL** 

CONSULTANT



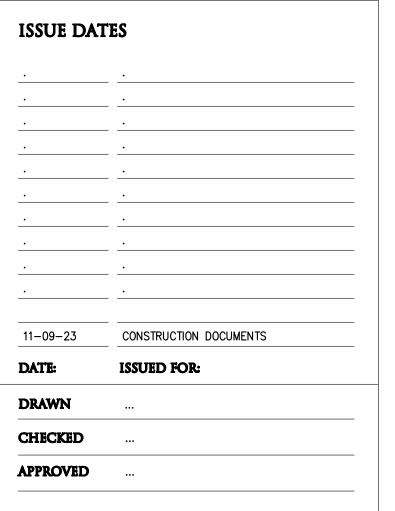
350 East Michigan Avenue Suite #415 Kalamazoo Michigan 49007 Phone (269) 381-3357 Fax (269) 381-2944

PROJECT TITLE

## Morse Elementary School Playground Renovation Bid Package No.01A

Troy School District Troy, Michigan

**DRAWING TITLE** Overall Playground Grading Plan & Enlargement Plan Pre-K & Kindergarten



PROJECT NO. 22093B

DRAWING NO.

**C3.0** 

— — — — PLAYGROUND UNDER DRAIN PIPE

## 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:

PROPOSED FEATURES LEGEND:

**EXISTING CONTOURS** 

EXISTING SPOT ELEVATIONS

PROPOSED SPOT ELEVATIONS

REFER TO DETAIL 14/C4.0 FINISH FLOOR ELEVATION

INVERT ELEVATION

TOP OF CURB ELEVATION

DIRECTION AND PERCENTAGE OF SLOPE

NEW STORMWATER STRUCTURE, REFER TO CIVIL PLANS

INNER BOTTOM OF CURB ELEVATION (LOOSE FILL ELEVATION)

OUTER BOTTOM OF CURB ELEVATION (TURF ELEVATION)

PROPOSED CONTOURS

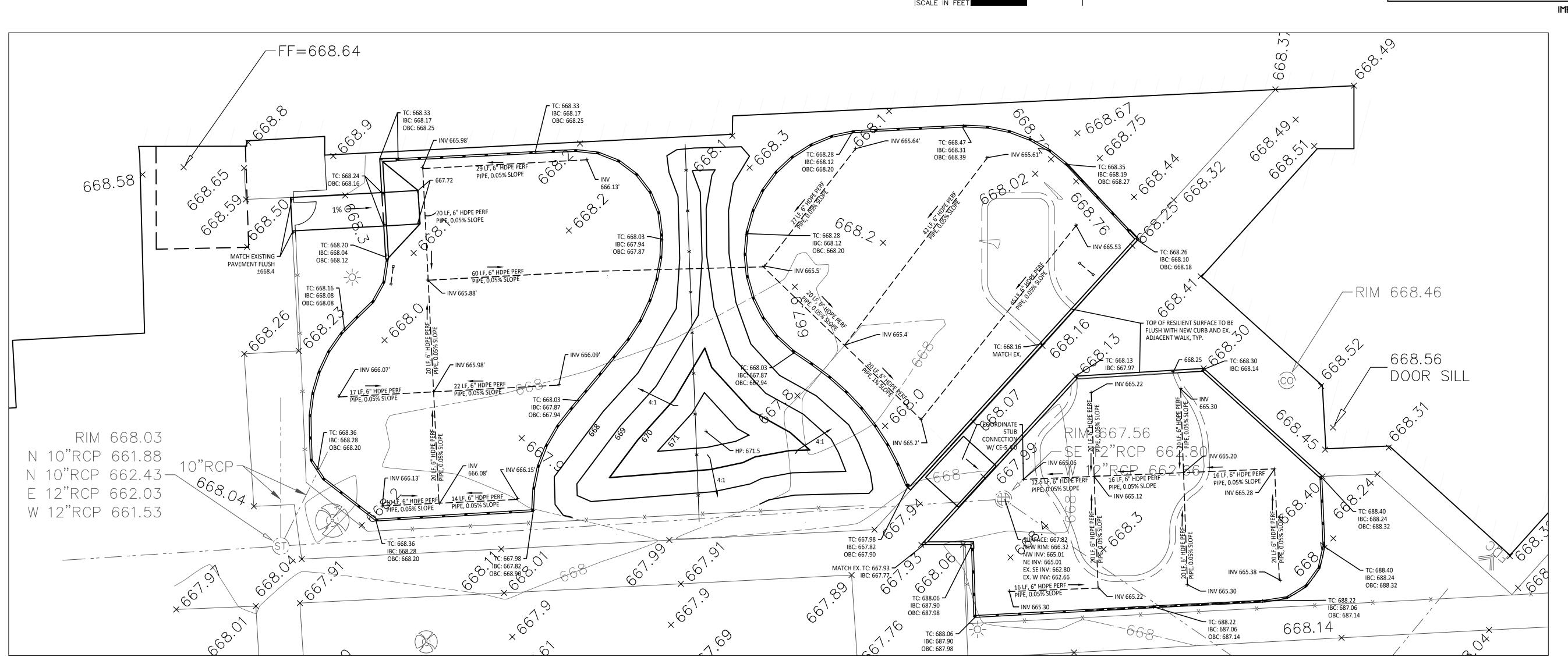
- 1:50 (2%) MAXIMUM CROSS-SLOPE ON ACCESSIBLE ROUTE. - NO CHANGES IN LEVEL GREATER THAN 1/2" ALONG ACCESSIBLE ROUTE. - 1:20 (5%) MAXIMUM LONGITUDINAL SLOPE ON ACCESSIBLE ROUTE (EXCEPT WHERE RAMPS ARE PROVIDED). - 1:50 (2%) MAXIMUM SLOPE (IN ANY DIRECTION) IN B.F. PARKING AND ACCESS AISLES.

IMPORTANT NOTE

## GENERAL EARTHWORK NOTE:

EARTHWORK YOLUMES BASED ON THE GRADING PLAN SHOWN. IF FILL IS REQUIRED, THE CONTRACTOR SHALL INCLUDE THE REQUIRED YOLUME OF IMPORTED CLASS II SAND IN THE BASE BID PROPOSAL, IF 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



Playground Grading Enlargement Plan - Pre-K + Kindergarten

Scale: 1"=30'-0"

Overall Playground Grading Plan

Scale: 1"=30'-0"



## **EROSION CONTROL** REQUIREMENTS:

ALL CONSTRUCTION SHALL COMPLY WITH THE SOIL EROSION AND SEDIMENTATION CONTROL ACT (P.A. 347 OF 1972, AS AMENDED) AS ADMINISTERED BY CITY OF TROY AND OAKLAND COUNTY. THE FOLLOWING EROSION CONTROL DEVICES ARE REFERENCED IN THE STANDARD EROSION CONTROL HANDBOOK PUBLISHED BY THE MICHIGAN DEPARTMENT OF TRANSPORTATION. (MDOT DRAWING R-96-C, 8-9-2001)

ALL TEMPORARY EROSION CONTROL DEVICES SHALL BE REMOVED AT THE END OF CONSTRUCTION. TEMPORARY EROSION CONTROL DEVICES SHOULD BE IN PLACE PRIOR TO EXCAVATION, TO THE EXTENT POSSIBLE.

KEY DESCRIPTION TEMPORARY / PERMANENT

PERMANENT/TEMPORARY SEEDING

### 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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### 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 YOLUMES BASED ON THE GRADING PLAN SHOWN, IF FILL IS REQUIRED, THE CONTRACTOR SHALL INCLUDE THE REQUIRED YOLUME 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

### **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 PAVEMENT ELEVATIONS AT EXTERIOR DOORS SHALL MATCH EXISTING FINISH FLOOR ELEVATIONS, TYPICAL.
- ADJUST TOP OF EXISTING MANHOLES, CATCH BASINS, VAULT COVERS, ETC. TO NEW FINISH GRADE AS REQUIRED.
- 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 AS DIRECTED BY CONSTRUCTION MANAGER AND PROTECT FROM EFFECTS OF EROSION.

**EXISTING CONTOURS EXISTING SPOT ELEVATIONS** PROPOSED SPOT ELEVATIONS DIRECTION AND PERCENTAGE OF SLOPE NEW STORMWATER STRUCTURE, REFER TO CIVIL PLANS — — — — PLAYGROUND UNDER DRAIN PIPE, REFER TO DETAIL 14/C4.0

FEATURES LEGEND:

PROPOSED

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ARCHITECTS

350 East Michigan Avenue Suite #415

Kalamazoo Michigan 49007

Phone (269) 381-3357

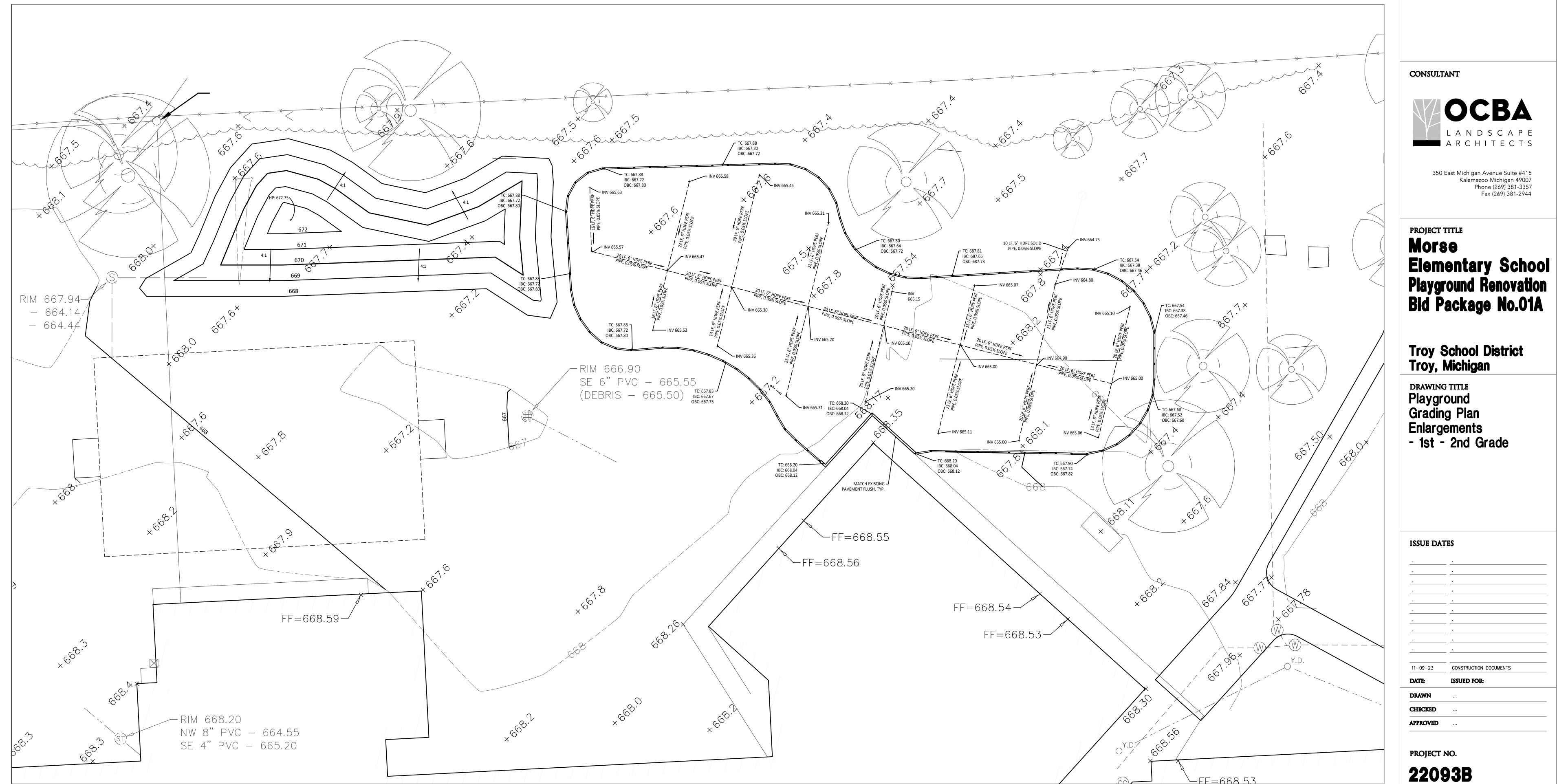
Fax (269) 381-2944

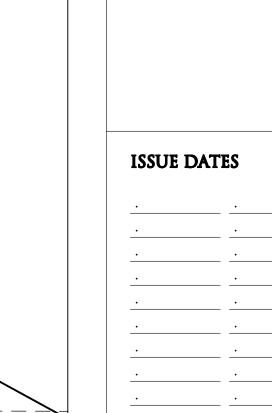
**REGISTRATION SEAL** 

INVERT ELEVATION TOP OF CURB ELEVATION INNER BOTTOM OF CURB ELEVATION (LOOSE FILL ELEVATION)

FINISH FLOOR ELEVATION

OUTER BOTTOM OF CURB ELEVATION (TURF ELEVATION) HIGH POINT





DRAWN CHECKED APPROVED ...

PROJECT NO.

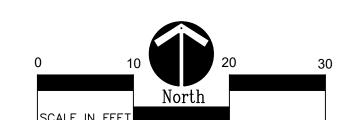
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DRAWING NO.

C3.1

Playground Grading Enlargement Plan - 1st-2nd Grade

Scale: 1"=10'-0"



## EROSION CONTROL REQUIREMENTS:

EXCAVATION, TO THE EXTENT POSSIBLE.

PERMANENT/TEMPORARY SEEDING

ALL CONSTRUCTION SHALL COMPLY WITH THE SOIL EROSION AND SEDIMENTATION CONTROL ACT (P.A. 347 OF 1972, AS AMENDED) AS ADMINISTERED BY CITY OF TROY AND OAKLAND COUNTY. THE FOLLOWING EROSION CONTROL DEVICES ARE REFERENCED IN THE STANDARD EROSION CONTROL HANDBOOK PUBLISHED BY THE MICHIGAN DEPARTMENT OF TRANSPORTATION. (MDOT DRAWING R-96-C, 8-9-2001) ALL TEMPORARY EROSION CONTROL DEVICES SHALL BE REMOVED AT THE END OF

KEY DESCRIPTION TEMPORARY / PERMANENT

CONSTRUCTION. TEMPORARY EROSION CONTROL DEVICES SHOULD BE IN PLACE PRIOR TO

## 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.

### **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

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IMPORTANT NOTE

## PROPOSED FEATURES LEGEND:

**EXISTING CONTOURS** EXISTING SPOT ELEVATIONS PROPOSED CONTOURS PROPOSED SPOT ELEVATIONS DIRECTION AND PERCENTAGE OF SLOPE NEW STORMWATER STRUCTURE, REFER TO CIVIL PLANS — — — — PLAYGROUND UNDER DRAIN PIPE, TO DETAIL 14/C4.0 FINISH FLOOR ELEVATION INVERT ELEVATION TOP OF CURB ELEVATION INNER BOTTOM OF CURB ELEVATION (LOOSE FILL ELEVATION) OUTER BOTTOM OF CURB ELEVATION

■ | ■■■■ WORK LIMIT LINE

(TURF ELEVATION)

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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

## Morse Elementary School Playground Renovation Bid Package No.01A

Troy School District Troy, Michigan

DRAWING TITLE Playground Grading Plan Enlargements
- 3rd - 5th Grade

**ISSUE DATES** DATE:

PROJECT NO.

22093B

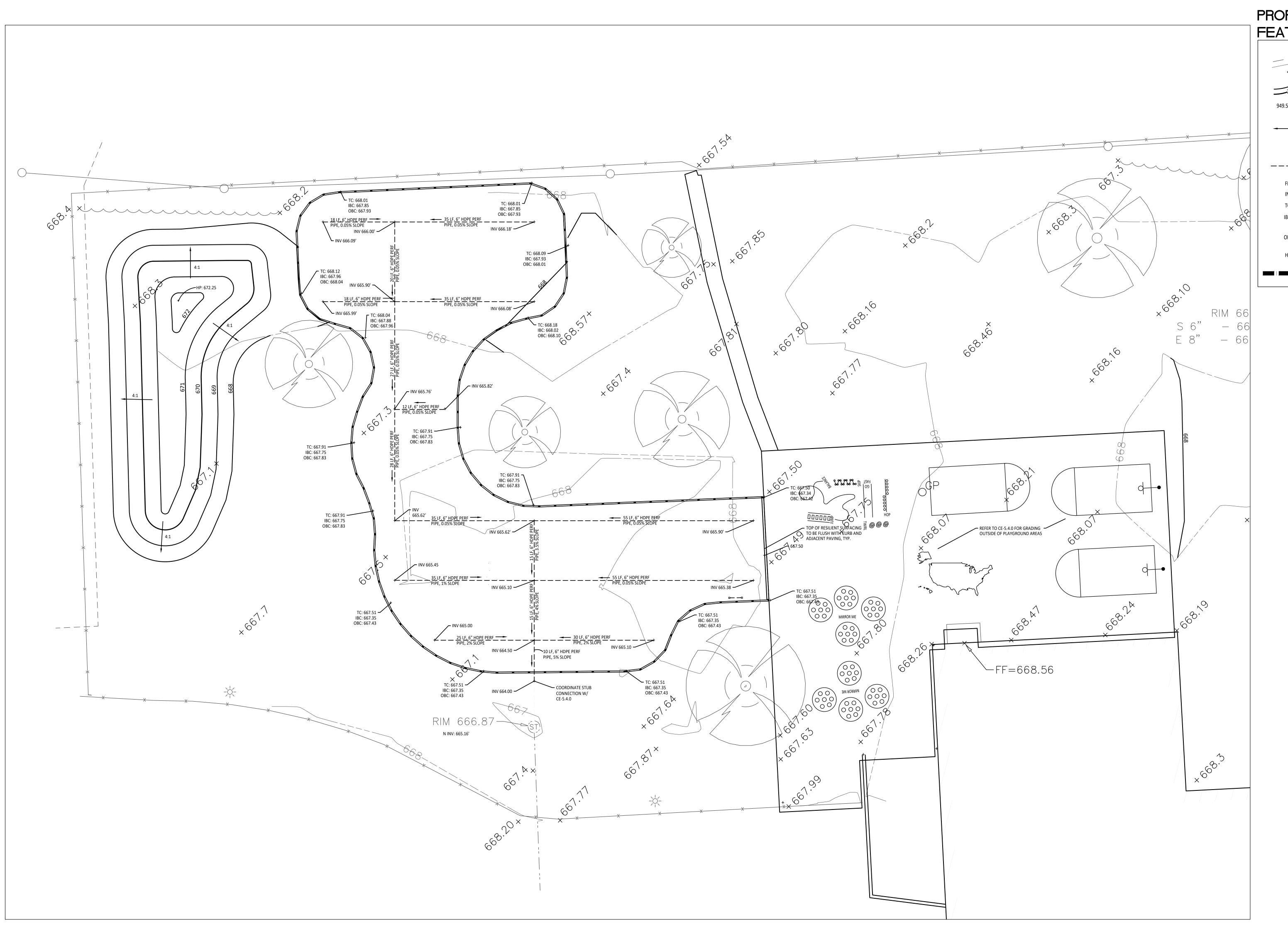
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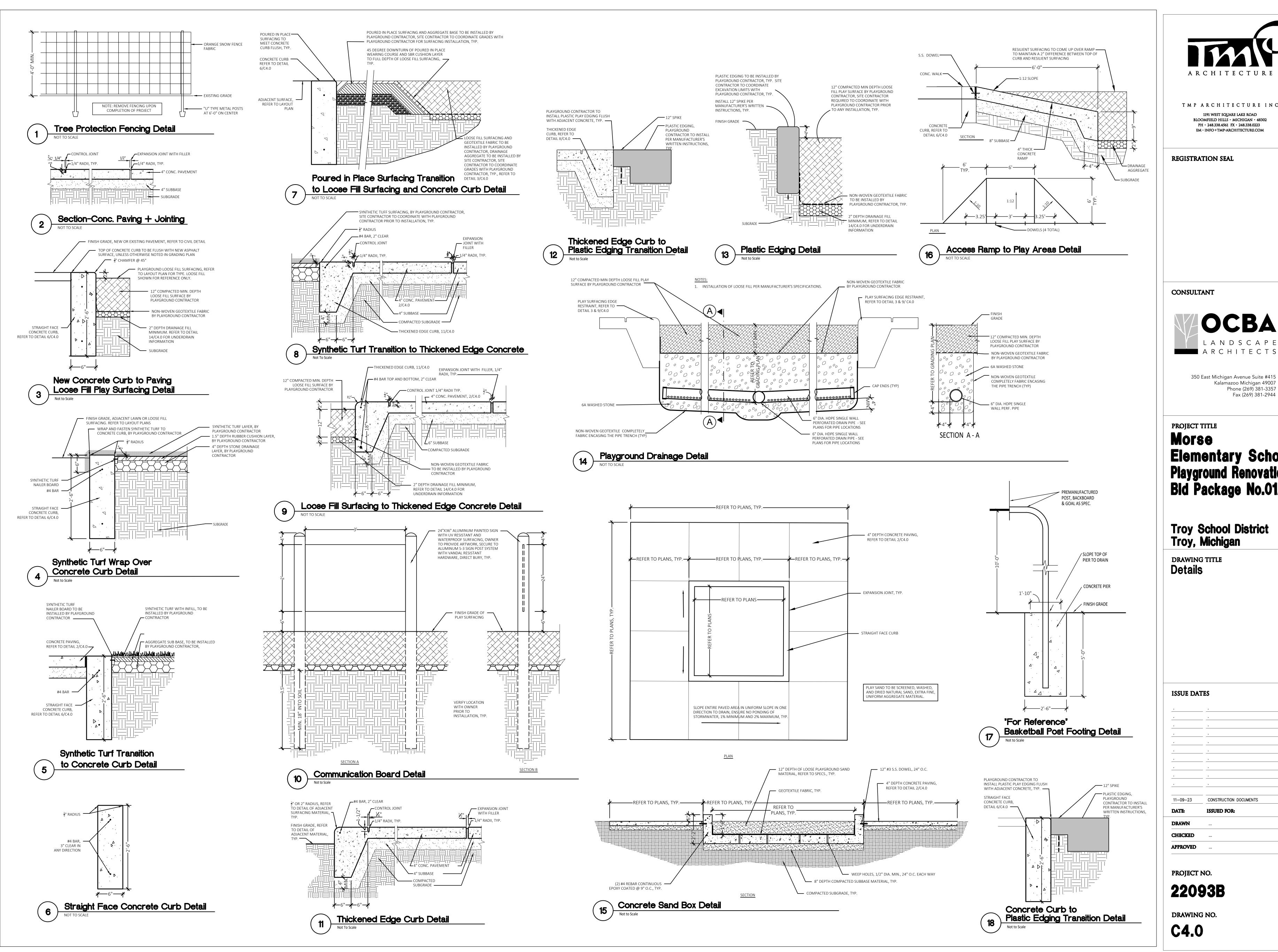
CHECKED

APPROVED

**C3.2** 











## Elementary School Playground Renovation Bid Package No.01A

Troy School District Troy, Michigan

CONSTRUCTION DOCUMENTS

BENCHMARKS: (GPS DERIVED - NAVD88) BM 302 - MAG NAIL IN THE EAST FACE OF CONCRETE LIGHT POLE BASE ±105' SW FROM SE BUILDING CORNER ELEVATION: 669.42 BM 303 - BENCH TIE IN THE SOUTH FACE OF THE EASTERLY MOST POWER POLE ALONG THE NORTH PROPERTY LINE. FLOODPLAIN NOTE: BY GRAPHICAL PLOTTING, SITE IS WITHIN ZONE 'X', AN AREA DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN, PER FLOOD INSURANCE RATE MAP NUMBER 26125C0542G, DATED JANUARY 16, 2009. UTILITY INFORMATION CABLE - COMCAST CABLE - WOW ELECTRIC - DTE ENERGY FIBER OPTICS - COMCAST FIBER OPTICS - TROY SCHOOL DISTRICT FIBER OPTICS - WOW FIBER OPTICS - WINDSTREAM COMMUNICATION GAS - CONSUMERS TELEPHONE - AT&T SANITARY SEWER - CITY OF TROY STORM - CITY OF TROY WATER - CITY OF TROY **REFERENCE DRAWINGS:** COMMUNICATION WOW FIBER OPTICS EARTHLINK FIBER, DATED 4-11-23 FIBER LINK, DATED 3-9-23 FIBER OPTICS SANITARY STORM TELEPHONE AT&T, DATED 4-14-23 WATER MAIN

LEGEND: -OH-ELEC-W-O- EX. OH. ELEC, POLE & GUY WIRE -UG-COMM---⊠-①- EX. U.G. COMMUNICATION LINE, PEDESTAL & MANHOLE -UG-ELEC-€-EKE≻ EX. U.G. ELEC,MANHOLE, METER & HANDHOLE — - — - — EX. GAS LINE © GAS EX. GAS VALVE & GAS LINE MARKER — — — EX. WATER MAIN ∀ - W EX. HYDRANT, GATE VALVE & POST INDICATOR VALVE EX. SANITARY SEWER © EX. COMBINED SEWER MANHOLE ——— -- EX. STORM SEWER ⊚ ⑤ EX. CLEANOUT & MANHOLE ■ ⊕ ■ EX. SQUARE, ROUND, & BEEHIVE CATCH BASIN O<sup>Y.D.</sup> ® EX. YARD DRAIN & ROOF DRAIN ② EX. UNIDENTIFIED STRUCTURE M → ★ EX. MAILBOX, SIGN & LIGHTPOLE X EX. FENCE SEX. GUARD RAIL EX. SPOT ELEVATION \_\_\_670\_\_\_\_\_ EX. CONTOUR EX. WETLAND MONUMENT FOUND / SET SECTION CORNER FOUND CITY OF TROY GIS ONLINE, DATED 4-11-23 R M C RECORDED / MEASURED / CALCULATED CITY OF TROY GIS ONLINE, DATED 4-11-23 CITY OF TROY GIS ONLINE, DATED 4-11-23

SCALE: 1" = 30'





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

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**REGISTRATION SEAL** 

CONSULTANT



PROJECT TITLE

## Morse Elementary School 475 CHERRY AVENUE

## Playground Renovation Bid Package No.01A

Troy School District Troy, Michigan

DRAWING TITLE
Topographic Survey

11-9-2023 CONSTRUCTION DOCUMENTS

DATE: ISSUED FOR:

CHECKED RR

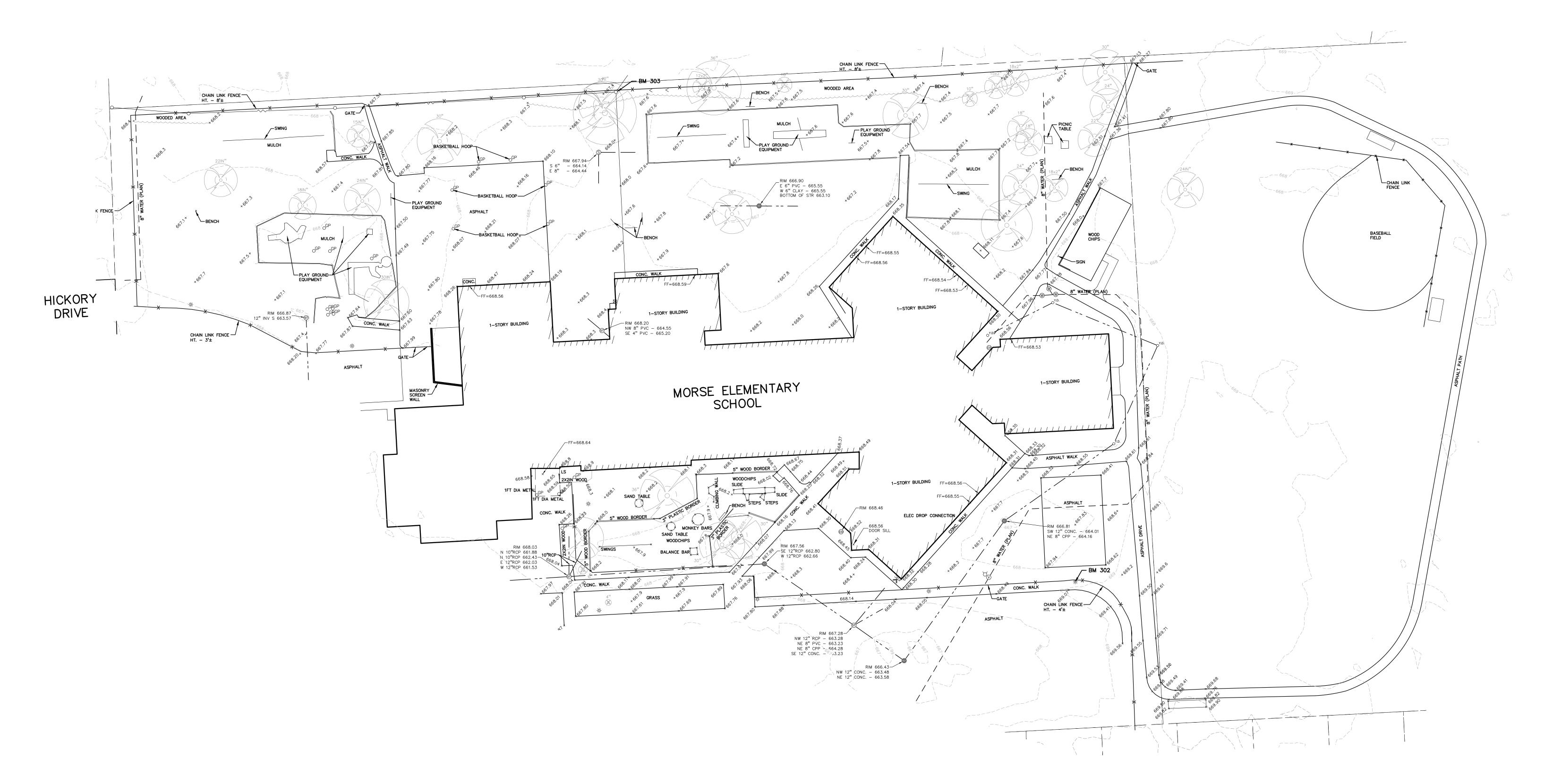
APPROVED TD

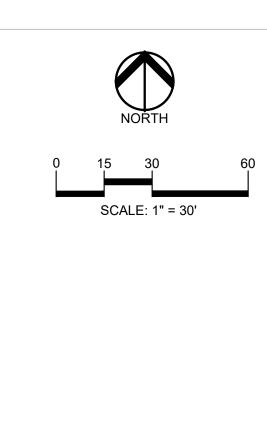
PROJECT NO.

**ISSUE DATES** 

22093B

DRAWING NO.
CE-5.1.0





**DEMOLITION LEGEND:** 

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

TO BIDDING.

ASPHALT REMOVAL

TREE REMOVAL SAWCUT LINE

> CONTRACTOR TO VERIFY ALL QUANTITIES SHOWN ON THE PLANS. ANY DEVIATIONS TO THE PLAN QUANTITIES SHALL BE BROUGHT
> TO THE ATTENTION OF THE SCHOOL
> DISTRICT AND PEA GROUP, IN WRITING PER THE BID PACKAGE, FOR VERIFICATION PRIOR

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

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.

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.

. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEAN UP, NOISE, DUST CONTROL, STREET SWEEPING AND HOURS OF OPERATION IN ACCORDANCE WITH THE LOCAL CODES. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY BARRICADES, SIGNAGE, MARKINGS, LIGHTS AND OTHER TRAFFIC CONTROL DEVICES TO PROTECT THE WORK ZONE AND SAFELY MAINTAIN TRAFFIC PER AGENCY REQUIREMENTS AND IN ACCORDANCE WITH THE LATEST EDITION OF THE

STATE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. 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 REMOVED AS SHOWN ON THE PLANS. COORDINATE ALL ASSOCIATED WORK WITH THE APPROPRIATE UTILITY COMPANY.

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 MAY ALSO BE LOCATED ON OVERHEAD LINES.) 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. 13. 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

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REGISTRATION SEAL

CONSULTANT



PROJECT TITLE

## Morse Elementary School 475 CHERRY AVENUE

## Playground Renovation Bid Package No.01A

**Troy School District** Troy, Michigan

DRAWING TITLE **Demolition Plan** 

**ISSUED FOR:** 

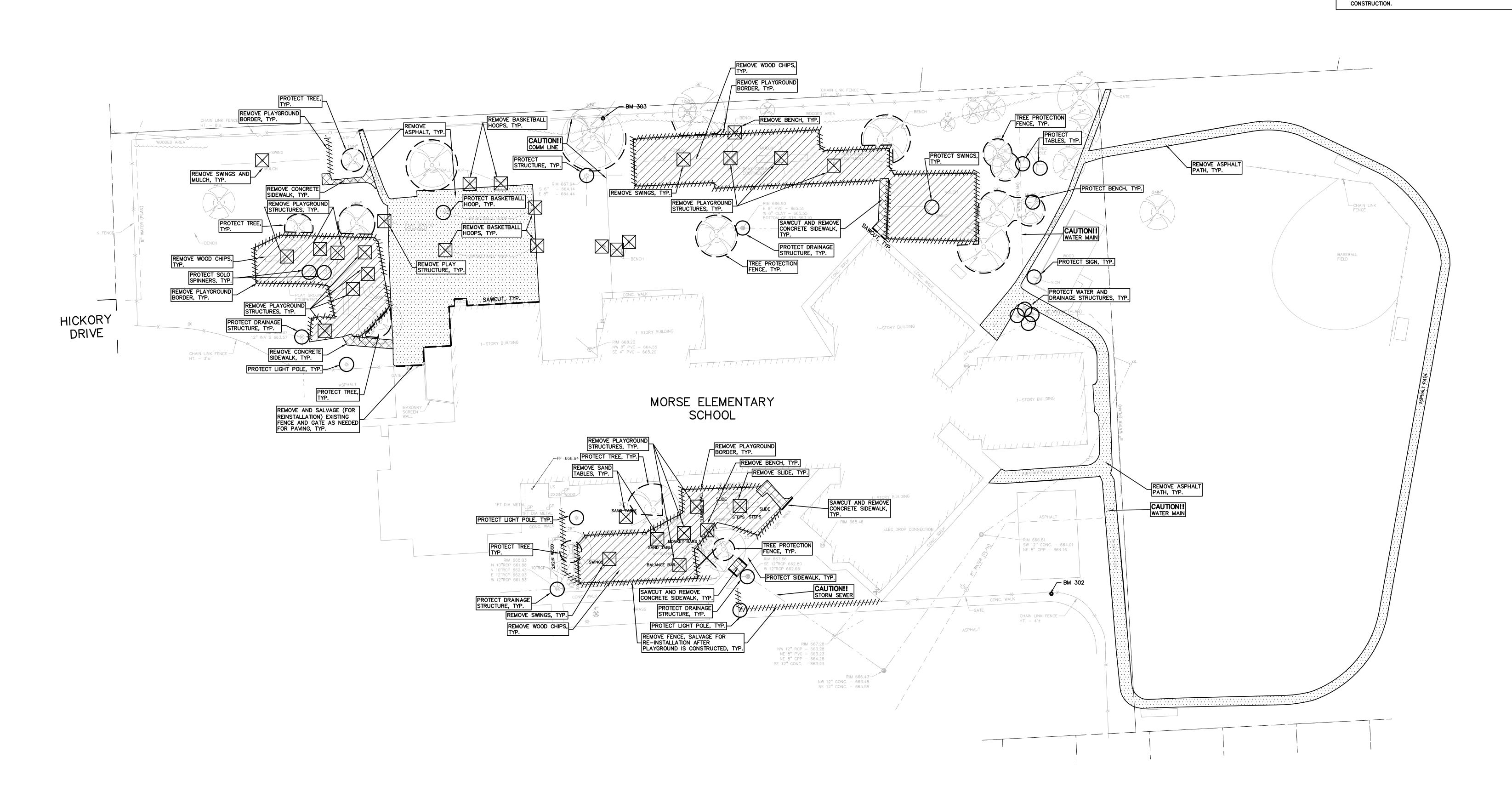
**ISSUE DATES** 

**APPROVED** TD

PROJECT NO.

22093B

DRAWING NO. CE-5.2.0



SUBGRADE UNDERCUTTING NOTES: 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 SUBGRADE UNDERCUT SHALL BE EVALUATED BY A QUALIFIED ENGINEERING TECHNICIAN TO DETERMINE IF SUBGRADE STABILIZATION IS NECESSARY. UNDERCUT EXCAVATIONS SHALL BE BACKFILLED WITH MDOT 21AA DENSE GRADED AGGREGATE 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 . THE QUANTITY FOR "SUBGRADE UNDERCUT" FOR EACH SITE SHALL BE INCLUDED IN THE BASE BID. THIS ITEM IS CONSIDERED AN ALLOWANCE AND FINAL PAYMENT WILL BE BASED ON THE ACTUAL VOLUME OF COMPACTED IN PLACE STONE PER THE UNIT PRICE PROVIDED IN THE BID PACKAGE. 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. 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 CONSIDERED AN ALLOWANCE AND FINAL PAYMENT WILL BE BASED ON THE ACTUAL FOOTAGE OF COMPACTED IN PLACE

STONE PER THE UNIT PRICE PROVIDED IN THE BID PACKAGE.

LEGEND: NOTES: CONTRACTOR TO VERIFY ALL QUANTITIES SHOWN ON THE PLANS. ANY DEVIATIONS TO THE PLAN QUANTITIES SHALL BE BROUGHT TO THE ATTENTION OF THE SCHOOL DISTRICT AND PEA GROUP, IN WRITING PER THE BID PACKAGE, FOR VERIFICATION PRIOR TO BIDDING. ALL DIMENSIONS SHOWN ARE TO BACK OF CURB, FACE OF SIDEWALK, CENTER OF MANHOLE/CATCH BASIN UNLESS 3. DOWEL INTO EXISTING CURB AND GUTTER 9" WITH EPOXY and and and METLAND COATED #4 BAR CONTINUOUS BETWEEN EXISTING AND 4. REFER TO NOTES AND DETAILS SHEET FOR PAVING DETAILS. 5. CONTRACTOR TO FIELD VERIFY ALL UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION INCLUDING BUT NOT LIMITED TO: — - · - — - · - — SETBACK LINE SITE LIGHTING, FIBER LINES, ETC. 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. \_\_\_\_X FENCE ALL POSTS DAMAGED OR OTHERWISE NOT IN USEABLE GUARD RAIL CONDITION, SHALL BE DISPOSED OF AT NO ADDITIONAL COST 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

PER THE UNIT PRICES PROVIDED IN THE BID PACKAGE AND

THE WORK COMMENCING. REPLASTERING OF THE ENTIRE STRUCTURE SHALL BE INCLUDED IN THE UNIT PRICE FOR

BOTH STRUCTURAL ADJUSTMENT AND STRUCTURAL

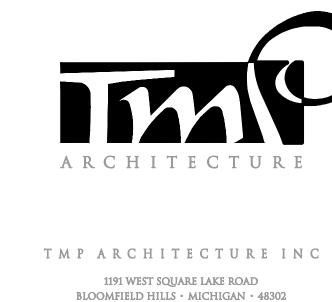
THE SCOPE OF WORK DETERMINED AND APPROVED PRIOR TO

WITH EITHER STRUCTURAL ADJUSTMENT (WITHIN TOP

12-INCHES OF RIM ELEVATION) OR STRUCTURAL RECONSTRUCTION (GREATER THAN 12-INCHES IN DEPTH)



SCALE: 1" = 30'



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REGISTRATION SEAL

CONSULTANT



PROJECT TITLE

## Morse Elementary School 475 CHERRY AVENUE

## Playground Renovation Bid Package No.01A

Troy School District Troy, Michigan

DRAWING TITLE

Dimension & Paving Plan

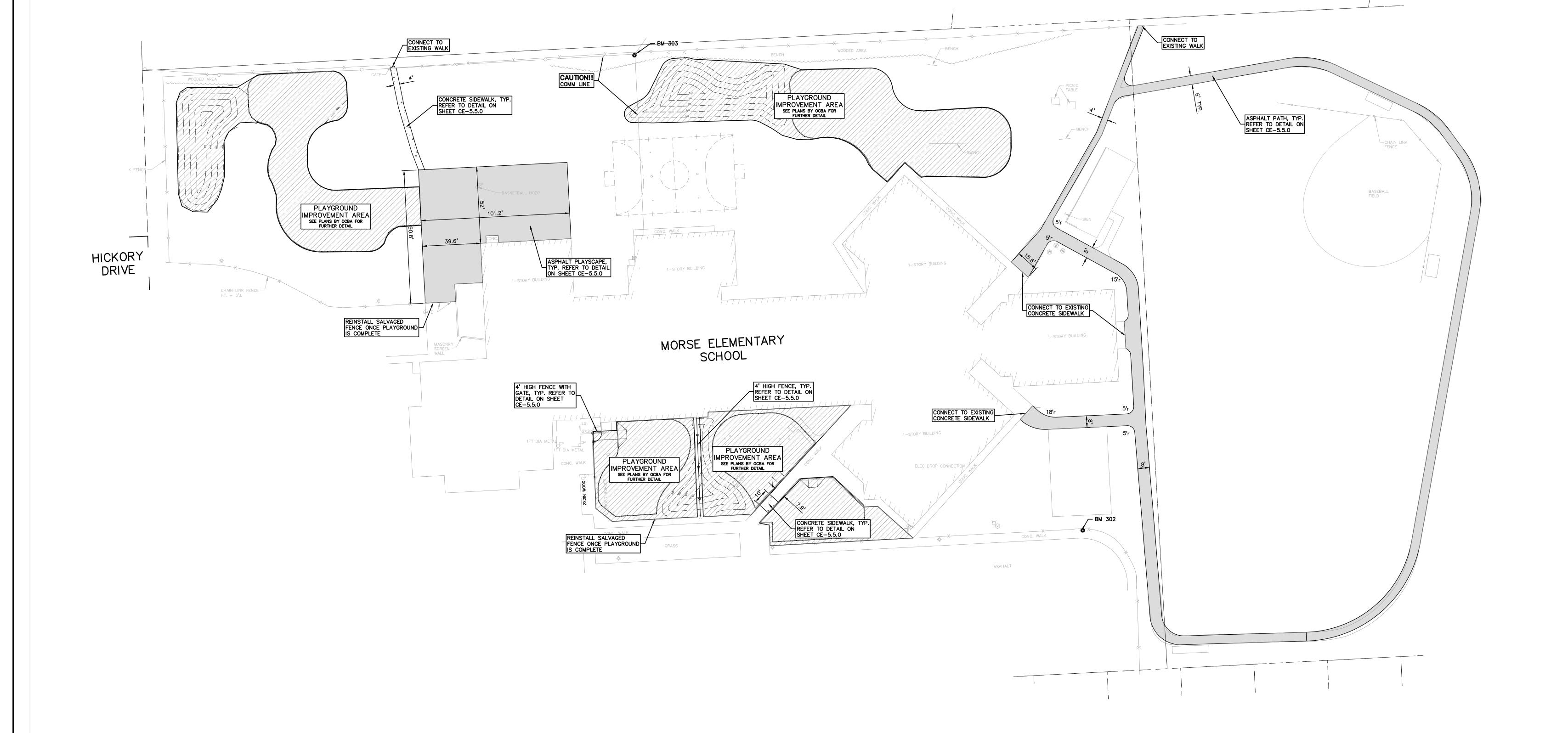
**ISSUE DATES** CONSTRUCTION DOCUMENTS DATE: **ISSUED FOR:** 

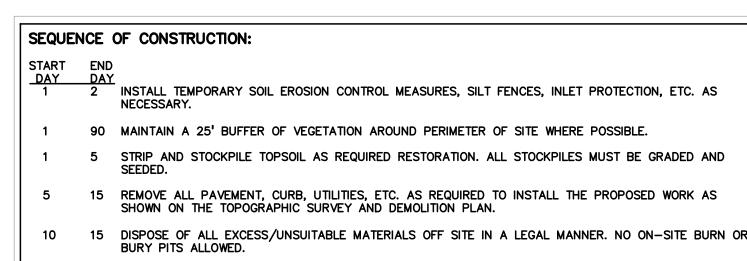
PROJECT NO.

22093B

**APPROVED** TD

DRAWING NO. CE-5.3.0





40 ROUGH GRADE SITE. SEED AND MULCH BLANKETS MUST BE INSTALLED AS SHOWN WITHIN 5 DAYS OF FINAL GRADE. REPAIR AND/OR RE-INSTALL ANY TEMPORARY SOIL EROSION CONTROL MEASURES THAT

WERE DAMAGED DURING GRADING OPERATIONS. 90 TEMPORARY SEEDING MUST BE PROVIDED IN AREAS NOT TO BE WORKED ON FOR 15 DAYS OR LONGER.

MUST BE TEMPORARILY SEEDED. REPAIR INLET PROTECTION, SILT FENCE AND ANY OTHER DAMAGED

40 50 FINE GRADE SITE AND PREPARE FOR SITE PAVING OPERATIONS. 80 INSTALL ALL PAVEMENT, SIDEWALKS, CURBING AS PROPOSED. IF PERMANENT LANDSCAPING IS NOT TO BE INSTALLED SOON AFTER PAVING IS COMPLETE, ALL AREAS WITHIN 20 FEET OF BACK OF CURB

SOIL EROSION CONTROL MEASURES AS NECESSARY. 80 89 FINAL GRADE, REDISTRIBUTE STOCKPILED TOPSOIL, ESTABLISH VEGETATION AND INSTALL ALL

PERMANENT LANDSCAPING IN ALL DISTURBED AREAS NOT BUILT. 90 CLEAN PAVEMENT AND REMOVE ALL TEMPORARY SOIL EROSION CONTROL MEASURES. RE-ESTABLISH VEGETATION AS REQUIRED.

90 90 REMOVE SEDIMENTATION CONTROLS ONCE ENTIRE SITE HAS BEEN PERMANENTLY STABILIZED.

BENCHMARKS:

ELEVATION: 669.36

(GPS DERIVED - NAVD88)

BASE ±105' SW FROM SE BUILDING CORNER

POWER POLE ALONG THE NORTH PROPERTY LINE.

BM 302 - MAG NAIL IN THE EAST FACE OF CONCRETE LIGHT POLE

BM 303 - BENCH TIE IN THE SOUTH FACE OF THE EASTERLY MOST

STORM STRUCTURES STORM STRUCTURES (4' DIA./0' SUMP) CB  $| 8 | \hat{R} | M = 667.60$ 6" S 664.63 6" S 664.00 6" SW 665.06 6" SE 665.20

CAN BE PLACED THROUGHOUT THE AREA.

PER THE "SOIL EROSION AND SEDIMENTATION CONTROL SEQUENCE OF CONSTRUCTION" NOTES THE SUCCESSFUL BIDDER TO THE CLEAN THE STORM SEWER. THIS CLEANING SHALL INCLUDE CLEANING OUT THE STRUCTURES AND ENTIRE SEWER RUNS BETWEEN STRUCTURES USING HYDRAULICALLY PROPELLED, HIGH-VELOCITY JET, OR MECHANICALLY POWERED EQUIPMENT. SELECTION OF THE EQUIPMENT USED SHALL BE BASED ON THE CONDITIONS OF LINES AT THE TIME THE WORK COMMENCES. THE EQUIPMENT AND METHODS SELECTED SHALL BE SATISFACTORY TO THE SCHOOL DISTRICT'S REPRESENTATIVE. THE EQUIPMENT SHALL BE CAPABLE OF REMOVING DIRT, GREASE, ROCKS, SAND, AND OTHER MATERIALS AND OBSTRUCTIONS FROM THE SEWER LINES AND MANHOLES. IF CLEANING OF AN ENTIRE SECTION CANNOT BE SUCCESSFULLY PERFORMED FROM ONE MANHOLE, THE EQUIPMENT SHALL BE SET UP ON THE OTHER MANHOLE AND CLEANING AGAIN ATTEMPTED. IF. AGAIN. SUCCESSFUL CLEANING CANNOT BE PERFORMED OR THE EQUIPMENT FAILS TO TRAVERSE THE ENTIRE MANHOLE

PER THE PROJECT SPECIFICATIONS: PRIOR TO THE PLACEMENT OF

TOPSOIL THE SUCCESSFUL BIDDER TO SCHEDULE AN INSPECTION BY

THE SCHOOL DISTRICT OR PEA GROUP TO CONFIRM THAT THE GRADE

IS AT THE PROPER ELEVATION WHERE THE MINIMUM DEPTH OF TOPSOIL

CONTRACTOR TO FIELD VERIFY ALL UNDERGROUND UTILITIES PRIOR TO

CONSTRUCTION INCLUDING BUT NOT LIMITED TO: SITE LIGHTING, FIBER

6" N 664.75

IF ANY DAMAGE HAS OCCURRED AS A RESULT OF STORM WATER DISCHARGE FROM THE SITE, THE FOLLOWING STEPS SHALL BE IMPLEMENTED. ANY DEBRIS OR DIRT ON ANY PAVED AREA RESULTING FROM CONSTRUCTION TRAFFIC SHALL BE CLEANED IN A PROMPT MANNER BY THE CONTRACTOR. THE CONSTRUCTION DRIVE SHALL BE CLEANED AT THE END SECTION, IT WILL BE ASSUMED THAT A MAJOR BLOCKAGE EXISTS AND THE CLEANING EFFORT SHALL BE ABANDONED.

ALL DIRT AND MUD TRACKED ONTO PAVED AREAS SHALL BE REMOVED BY THE CONTRACTOR DAILY BY SCRAPING. STREET SWEEPING IS REQUIRED SILT FENCE MAINTENANCE SHALL INCLUDE THE REMOVAL OF ANY BUILT UP SEDIMENT WHEN THE SEDIMENT HEIGHT ACCUMULATES TO 1/3 TO 1/2 OF THE HEIGHT OF THE FENCE. THE CONTRACTOR IS RESPONSIBLE TO REMOVE, REPLACE, RETRENCH OR REBACKFILL THE SILTATION FENCE SHOULD IT FALL OR BE DAMAGED DURING CONSTRUCTION.

SOIL EROSION MAINTENANCE SCHEDULE AND NOTES:

EVERY STORM EVENT BY:

1140 RANKIN

248-823-4067

TROY SCHOOL DISTRICT

TROY, OAKLAND COUNTY, MICHIGAN

THE SOIL EROSION CONTROLS WILL BE MAINTAINED WEEKLY AND AFTER

INLET FILTER MAINTENANCE SHALL INCLUDE THE REMOVAL OF ANY ACCUMULATED SILT OR OTHER DEBRIS. THE REMOVAL OF SILT SHOULD BE WITH THE USE OF A STIFF BRISTLE BROOM OR SQUARE POINT SHOVEL. IF INLET FILTERS CAN NOT BE CLEANED OR ARE DAMAGED, THEN THE FABRIC CONTRACTOR TO PROVIDE WATER TRUCK TO WATER DOWN THE SITE ON A DAILY BASIS AS REQUIRED TO MAINTAIN DUST CONTROL.

CONSTRUCTION A DEWATERING PLAN MUST BE SUBMITTED TO THE CITY

. IF HIGH GROUNDWATER IS ANTICIPATED OR ENCOUNTERED DURING

GENERAL SITE CONDITIONS:

ENGINEERING DIVISION FOR REVIEW.

ACCORDING TO THE USDA NRCS WEB SOIL SURVEY, THE SITE CONSISTS OF THE FOLLOWING SOIL TYPES: 56A URBAN LAND-BLOUNT-LENEWEE COMPLEX, 0-3 PERCENT SLOPES 62B URBAN LAND-SPINX COMPLEX, 0-8 PERCENT SLOPES 63A URBAN LAND-THETFORD COMPLEX, 0-3 PERCENT SLOPES

2. TOTAL DISTURBED AREA =  $\pm 2.0$  ACRES

SOIL EROSION AND SEDIMENTATION CONTROL SEQUENCE OF CONSTRUCTION

SEE OAKLAND COUNTY W.R.C. SOIL EROSION AND SEDIMENTATION CONTROL DETAILS SHEET FOR ALL SOIL EROSION CONTROL RELATED DETAILS. PLACE SILT FENCE & INSTALL INLET FILTERS ON EXISTING STORM SEWER

STRUCTURES, ACCORDING TO PLANS. . INSTALL TEMPORARY CRUSHED CONCRETE ACCESS DRIVE AT ALL CONSTRUCTION ENTRANCES. (80'x24'x8" W/MINIMUM OF 1"-3" CRUSHED CONCRETE - NO FINES).

REMOVE CURB, PAVEMENT, TREES, ETC. AS DIRECTED ON THE DEMOLITION . STRIP AND STOCKPILE TOPSOIL FOR RESTORATION REQUIREMENTS.

DISPOSE OF ALL EXCESS, UNSUITABLE MATERIALS OFF SITE IN A LEGAL MANNER. NO BURN OR BURY PITS ALLOWED. UNSUITABLE MATERIALS CONSIST OF, BUT ARE NOT NECESSARILY LIMITED TO THE FOLLOWING: CONCRETE, ASPHALT, TREES, BRUSH, STUMPS, ROOTS,

OR OTHER MISCELLANEOUS DEBRIS OR TRASH. MASS GRADE THE SITE IN ACCORDANCE WITH THE PLANS. . INSTALL HYDROSEED AS SHOWN ON THE PLAN WITHIN 5 DAYS OF COMPLETION OF MASS GRADING OR WHENEVER DISTURBED AREAS WILL

REMAIN UNCHANGED FOR 30 DAYS OR GREATER. MINIMUM 3"-4" TOPSOIL

WILL BE USED WHERE VEGETATION IS REQUIRED. 10. COMPLETE ROUGH GRADING OF SITE. PLACE INLET FILTERS AT ALL INLETS AND CATCH BASINS, AS SHOWN. . FINISH GRADE AND PAVE SITE AS PROPOSED TO DRAIN TO STORM SEWER SYSTEM. REPAIR INLET FILTERS AS REQUIRED.

12. APPLY TOPSOIL, HYDROSEED TO ALL DISTURBED AREAS UPON COMPLETION OF GRADING. THE CONTRACTOR SHALL STAGE CONSTRUCTION ACTIVITIES IN ORDER TO MINIMIZE THE EXPOSURE OF UNSTABILIZED AREAS. 3. CLEAN PAVEMENT AND STORM SEWERS. REMOVE SILT FENCE AND TREE

PROTECTION FENCE, AND INLET FILTERS ONCE VEGETATION HAS BEEN ESTABLISHED. 14. ALL DIRT AND MUD TRACKED ONTO PUBLIC ROADS SHALL BE REMOVED

15. STREET CATCH BASINS TO BE PERIODICALLY CLEANED AND FILTER CLOTH CHANGED AND MAINTAINED.

**EARTHWORK BALANCING NOTE:** THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPORTING OR EXPORTING ALL MATERIALS AS REQUIRED TO PROPERLY GRADE THIS PROJECT TO THE FINISHED ELEVATIONS SHOWN ON THE APPROVED PLANS. THE CONTRACTOR SHALL MAKE THEIR OWN DETERMINATION OF CUT AND FILL QUANTITIES AND ALLOW FOR REMOVAL OF EXCESS OR IMPORTATION OF ADDITIONAL MATERIAL AT NO ADDITIONAL COST TO THE OWNER.

PREMIUM TRENCH BACKFILL NOTE: ALL UTILITIES UNDER PAVEMENT OR WITHIN 3' OF THE EDGE OF PAVEMENT (OR WITHIN THE 45° LINE OF INFLUENCE OF PAVEMENT) SHALL HAVE M.D.O.T. CLASS II GRANULAR BACKFILL CÓMPACTED TO 95% MAX. DRY DENSITY (ASTM D-1557).

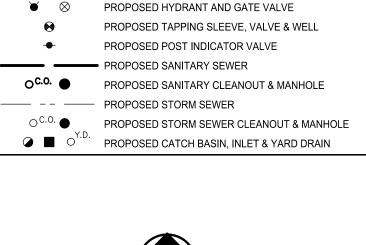
**GRADING LEGEND:** EXISTING SPOT ELEVATION PROPOSED SPOT ELEVATION: TYPICALLY TOP OF PAVEMENT IN PAVED AREAS, GUTTER GRADE IN CURB LINES. - EXISTING CONTOUR ——922—— PROPOSED CONTOUR PROPOSED REVERSE GUTTER PAN

**ABBREVIATIONS** T/C = TOP OF CURB

- — — — — PROPOSED RIDGE LINE ----- PROPOSED SWALE/DITCH G = GUTTER GRADE T/P = TOP OF PAVEMENT F.G. = FINISH GRADE T/W = TOP OF WALL

T/S = TOP OF SIDEWALK RIM = RIM ELEVATION B/W = BOTTOM OF WALL REFER TO GRADING NOTES ON SHEET ######## SYMBOLS: EROSION CONTROL: ---- (SP-2) SILT FENCE (SI-2A) LOW POINT INLET FILTER (SI-3) RYCB INLET FILTER (E-9) EROSION CONTROL BLANKET LAWN RESTORATION REFER TO CITY OF TROY SOIL EROSION AND SEDIMENTATION CONTROL DETAILS SHEET FOR ALL DEVICE DETAILS.

**UTILITY LEGEND:** H-ELEC-VV-O--- EX. OH. ELEC, POLE & GUY WIRE JG-CATV-TV-EX. U.G. CABLE TV & PEDESTAL IG-ELEC-E-E-EX. U.G. ELEC,MANHOLE, METER & HANDHOLE - - EX. GAS LINE © GAS EX. GAS VALVE & GAS LINE MARKER — — — — EX. WATER MAIN EX. SANITARY SEWER © S EX. SANITARY CLEANOUT & MANHOLE © EX. COMBINED SEWER MANHOLE — -- EX. STORM SEWER TMP ARCHITECTURE INC © ST EX. CLEANOUT & MANHOLE EX. SQUARE, ROUND, & BEEHIVE CATCH BASIN



EX. YARD DRAIN & ROOF DRAIN

- - PROPOSED WATER MAIN

EX. UNIDENTIFIED STRUCTURE

SCALE: 1" = 30'

**CONSULTANT** 

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REGISTRATION SEAL

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PROJECT TITLE

Morse Elementary School 475 CHERRY AVENUE

**Playground Renovation** Bid Package No.01A

**Troy School District** Troy, Michigan

DRAWING TITLE Grading, Utility & Soil **Erosion Control Plan** 

**ISSUE DATES** 

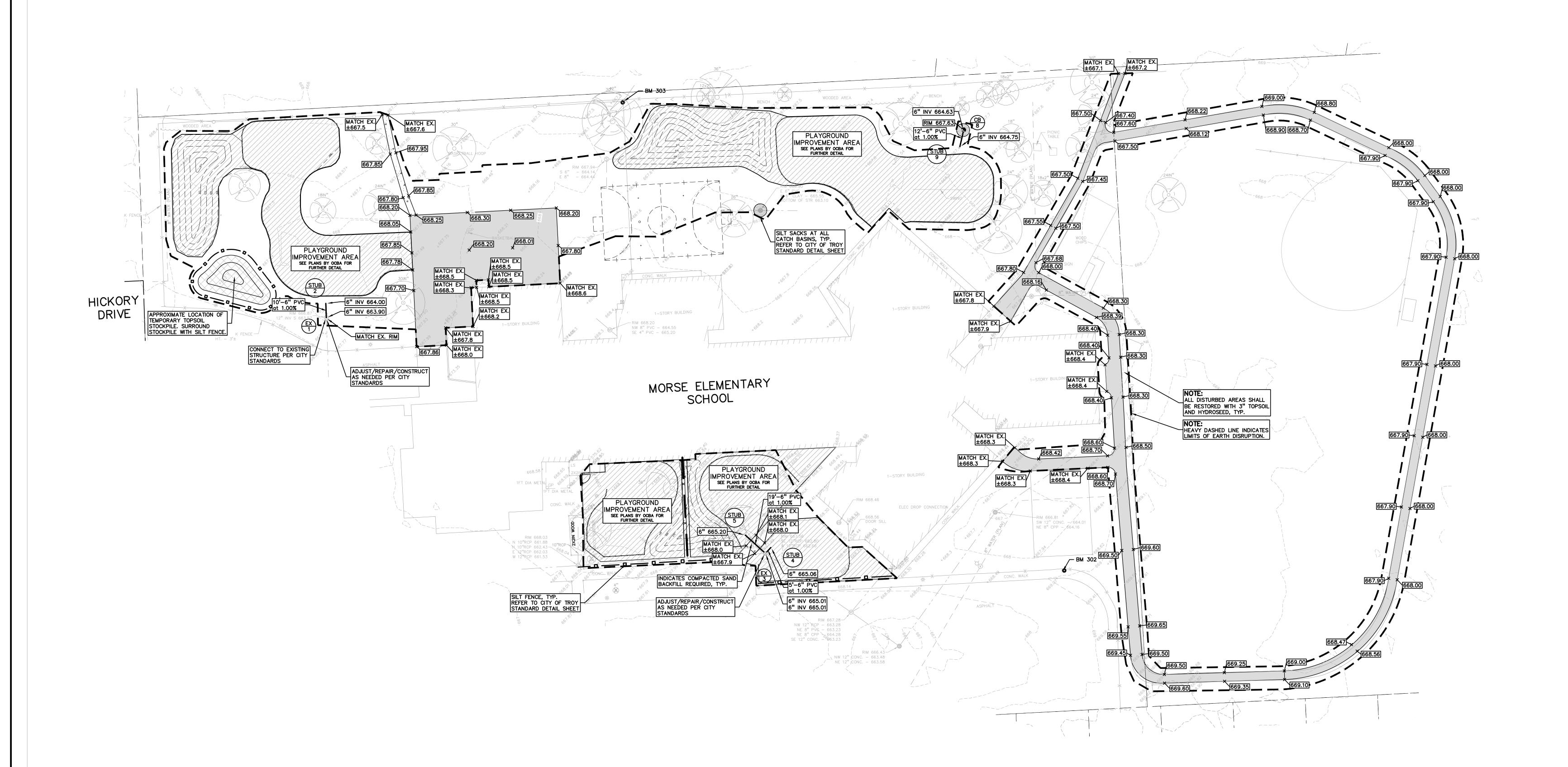
CONSTRUCTION DOCUMENTS

**ISSUED FOR:** 

APPROVED TD

PROJECT NO. 22093B

DRAWING NO. CE-5.4.0



- ACCORDANCE WITH CURRENT OSHA, MDOT AND MUNICIPALITY STANDARDS AND REGULATIONS.

  2. THE CONTRACTOR SHALL NOTIFY THE CITY OF TROY ENGINEER AND/OR THE
- AUTHORITY HAVING JURISDICTION 3 BUSINESS DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION.

  3. 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.

  I. ALL NECESSARY PERMITS, TESTING, BONDS AND INSURANCES ETC., SHALL BE PAID FOR BY THE CONTRACTOR. THE OWNER SHALL PAY FOR ALL CITY
- 5. 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, SAID 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.

- 6. 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.
- 7. 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.
- 8. 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.
- 9. 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 BE 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.

### PAVING NOTE

- IN AREAS WHERE NEW PAVEMENTS ARE BEING CONSTRUCTED, THE TOPSOIL AND SOIL CONTAINING ORGANIC MATTER SHALL BE REMOVED PRIOR TO PAVEMENT CONSTRUCTION.
- 2. REFER TO ARCHITECTURAL PLANS FOR DETAILS OF FROST SLAB AT EXTERIOR BUILDING DOORS.
- 3. CONSTRUCTION TRAFFIC SHOULD BE MINIMIZED ON THE NEW PAVEMENT. IF 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 PROPOSED CONCRETE (CONSTRUCTION JOINT)
- 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.

  5.3. 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.
- 6. 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
- 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 JOINTS IN PAVEMENT

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 JOINT):
- 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
- 7. 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 THAN 8'
- 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'
- 7.4. PLACE TRANSVERSE 1/2" EXPANSION JOINT AT MAXIMUM OF 100' SPACING
  7.5. PLACE 1/2" EXPANSION JOINT WHEN ABUTTING A FIXED STRUCTURE,

CUT AT AN ANGLÉ OTHER THAN 90° AT THE CURBLINE

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

### GENERAL GRADING AND EARTHWORK NOTES:

- THESE NOTES APPLY TO ALL CONSTRUCTION ACTIVITIES ON THIS PROJECT

  1. 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
- 3. 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 THE CONTRACTOR.
- 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.
- REFER TO SOIL EROSION CONTROL PLAN FOR ADDITIONAL SOIL EROSIC AND SEDIMENTATION CONTROL MEASURES AND NOTES.

  7. ALL LANDSCAPING IS TO BE COMPLETED BY STALLANTIS.
- 8. 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 SOFT, UNSTABLE OR UNSUITABLE BACKFILL MATERIAL, IN THE OPINION OF THE 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.
- 9. 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.
- 10. 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.
- 11. 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
- 12. 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.
- 13. SUBGRADE UNDERCUTTING SHALL BE PERFORMED WHERE NECESSARY AND THE EXCAVATED MATERIAL SHALL BECOME THE PROPERTY OF THE CONTRACTOR. ANY SUBGRADE UNDERCUTTING SHALL BE BACKFILLED AS RECOMMENDED IN THE GEOTECHNICAL ENGINEERING REPORT FOR THE
- 14. 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, THE 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
- 1. SOIL EROSION AND SEDIMENTATION CONTROL MEASURES
- UTILITY TRENCH BACKFILL MATERIAL WITH ALL MATERIAL DATA INCLUDED IN THE SUBMITTAL BEING DATED WITHIN 60 DAYS OF THE SUBMITTAL UNLESS APPROVED OTHERWISE BY THE ENGINEER

  3. STORM SEWER STRUCTURES
- 4. STORM SEWER STRUCTURE FRAME AND COVERS INCLUDING CLEAN OUTS

  5. 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

  6. PAVEMENT UNDERDRAIN MATERIAL AND BACKFILL WITH ALL BACKFILL MATERIAL DATA INCLUDED IN THE SUBMITTAL BEING DATED WITHIN 60 DAYS
- MATERIAL DATA INCLUDED IN THE SUBMITTAL BEING DATED WITHIN 60 DAYS
  OF THE SUBMITTAL UNLESS APPROVED OTHERWISE BY THE ENGINEER

  12. L

  7. 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 60 DAYS OF THE SUBMITTAL UNLESS APPROVED OTHERWISE BY THE ENGINEER:
- •8.1. CONCRETE MIX DESIGN REVIEW CHECKLIST (FORM 2000)
  •8.2. SUPERPAVE MIX DESIGN CHECKLIST (FORM 1862)
  •8.3. MARSHALL MIX DESIGN CHECKLIST (FORM 1849)
- 8. SITE FENCING AND GATES
- 9. 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 SUBMITTING THE INFORMATION.

#### GENERAL UTILITY NOTES:

90% OR BETTER.

- ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF THE CITY OF TROY.

  2. 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
  - 3. 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.

UNIT WEIGHT (ASTM D-1557). ALL OTHER TRENCHES TO BE COMPACTED TO

- 4. 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 UTILITIES.
- 5. 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 PROPERTY AND TANDED TO THE PROPERTY AND TANDED AND THE PROPERTY AND TANDED AND T
- THE PLACEMENT OF THE PROPOSED PAVEMENT AND LANDSCAPING.

  6. PIPE LENGTHS INDICATED ARE FROM CENTER OF STRUCTURE AND TO END OF SECTION UNLESS NOTED OTHERWISE.
- 7. 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 ESTABLISHING FINAL GRADE. NOTIFY THE ENGINEER, OWNER/DEVELOPER, AND GOVERNING AGENCY IF STRUCTURE IS DEEMED TO BE STRUCTURALLY UNSOUND AND/OR IN NEED OF REPAIR.

### STORM SEWER NOTES:

- I. ALL STORM SEWER LEADS SHALL BE CONSTRUCTED AT 1.00% MINIMUM SLOPE.
- 2. ALL STORM SEWER 10" OR LESS AND/OR LEADS SHALL BE SDR 26.

  3. JOINTS FOR P.V.C. PIPE SHALL BE ELASTOMERIC (RUBBER GASKET) AS

### GENERAL BARRIER FREE NOTES:

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.
   THE 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.

  4. 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. THE MINIMUM CLEAR WIDTH IS 3 FEET.
   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)
- 7. THE CROSS-SLOPE OF RAMP RONS SHALL NOT EXCEED 2% (1:48)
  8. THE MINIMUM CLEAR WDTH OF ANY RAMP IS 36 INCHES.
  9. THE MAXIMUM RISE FOR ANY RAMP (NOT INCLUDING CURB RAMPS) SHALL 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.
  11. 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.
  13. CURB RAMPS SHALL BE LOCATED OR PROTECTED TO PREVENT THEIR OBSTRUCTION BY PARKED VEHICLES.
  14. HANDRAILS ARE NOT REQUIRED ON CURB RAMPS.
- 15. WHERE DETECTABLE WARNING IS REQUIRED AT CURB RAMPS, THE
  DETECTABLE WARNING SHALL BE 24" MINIMUM IN DEPTH AND SHALL
  EXTEND THE FULL WIDTH OF THE RAMP. THE DETECTABLE WARNING SHALL
  BE LOCATED SO THE EDGE NEAREST THE CURB IS 6 INCHES MINIMUM AND
  8 INCHES MAXIMUM FROM THE CURB LINE.
- 16. ACCESSIBLE PARKING SPACES ON SITE SHALL BE PROVIDED AS REQUIRED IN SECTION 502 OF THE A.D.A. IF THE SITE HAS MORE THAN ONE PARKING FACILITY, EACH FACILITY IS REQUIRED TO MEET THESE REQUIREMENTS SEPARATELY. THE REQUIRED NUMBER OF SPACES SHALL BE BASED ON THE TOTAL NUMBER OF PARKING SPACES IN EACH PARKING FACILITY ON SITE.

  17. FOR EVERY SIX OR FRACTION OF SIX ACCESSIBLE PARKING SPACES. ONE
- 17. FOR EVERY SIX OR FRACTION OF SIX ACCESSIBLE PARKING SPACES, ONE VAN ACCESSIBLE SPACE SHALL BE PROVIDED.

  18. ACCESSIBLE PARKING SPACES SHALL BE LOCATED ON THE SHORTEST ACCESSIBLE ROUTE FROM PARKING TO A BUILDING ENTRANCE. IF THERE IS MORE THAN ONE ACCESSIBLE ENTRANCE, PARKING SHALL BE DISPERSED ALONG THE SHORTEST ACCESSIBLE ROUTE TO THE ACCESSIBLE ENTRANCES.

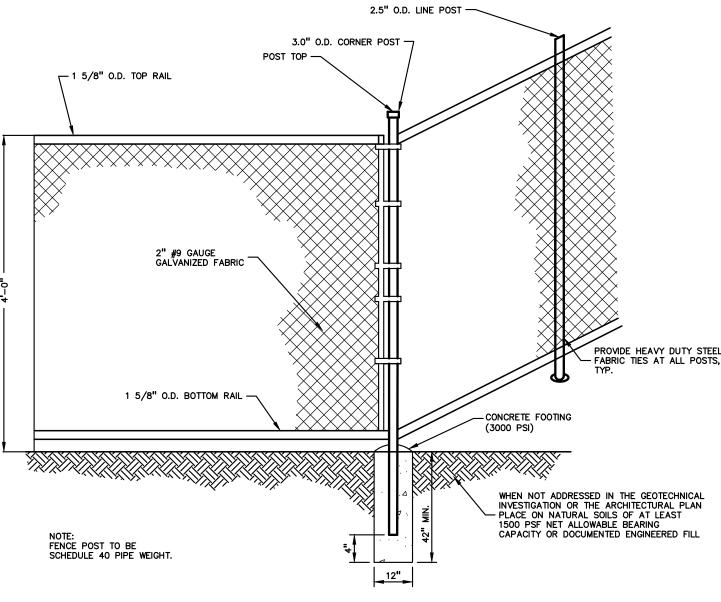
  19. BARRIER FREE CAR PARKING SPACES SHALL BE A MINIMUM OF 8 FEET WIDE
- WITH AN ACCESS AISLE 5 FEET WIDE MINIMUM. VAN ACCESSIBLE PARKING SPACES SHALL BE AT LEAST 11 FEET WIDE WITH A 5' WIDE ACCESS AISLE. VAN ACCESSIBLE SPACES ARE ALSO ACCEPTABLE WITH AN 8 FOOT WIDTH AND 8 FOOT WIDE ACCESS AISLE. THE ACCESS AISLE IN ALL CASES MUST EXTEND THE FULL LENGTH OF THE PARKING SPACE.

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

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.



CHAIN LINK FENCE DETAIL

(17% MAX. R.A.P. CONTENT)

COMPACTED TO 95% MAX. DRY

PROOF-ROLLED/COMPACTED

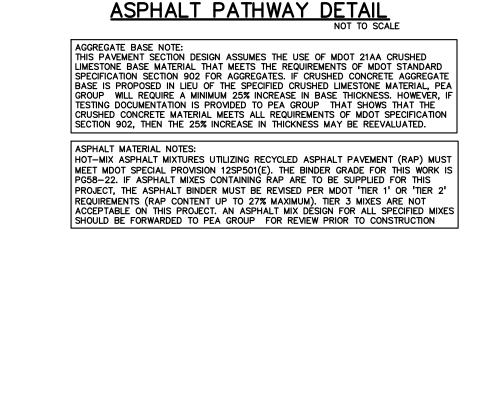
SUBGRADE OR ENGINEERED FILL COMPACTED TO 95% OF MAX. DRY UNIT WEIGHT PER

SPECIFIED THICKNESSES

ASPHALT PLAYSCAPE DETAIL

UNIT WEIGHT PER ASTM D-1557

6" MDOT 21AA CRUSHED LIMESTONE BASE COURSE



2.0% MAX. CROSS-SLOPE

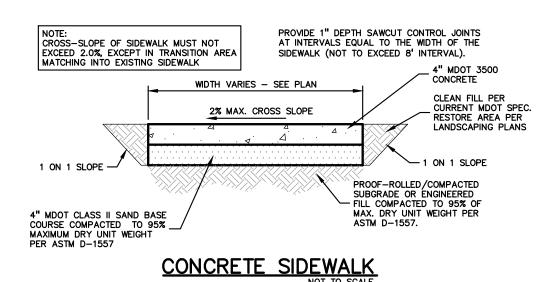
PROOF-ROLLED/COMPACTED

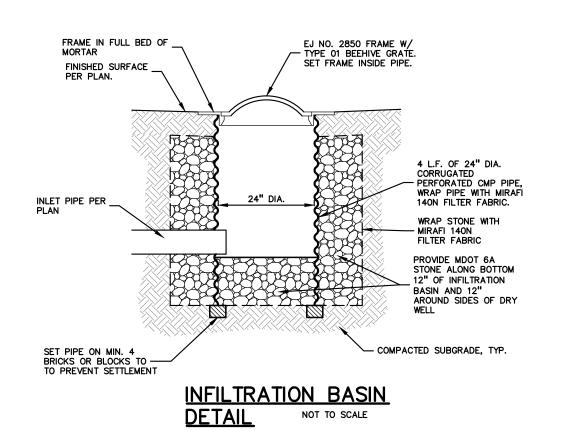
SUBGRADE OR ÉNGINE

(17% MAXIMUM R.A.P. CONTENT)

1 ON 1 SLOPE -

4" MDOT 21AA CRUSHED LIMESTONE BASE COURSE COMPACTED TO 95% MAX. DRY UNIT WEIGHT PER ASTM D-1557







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

1191 WEST SQUARE LAKE ROAD

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EM • INFO • TMP-ARCHITECTURE.COM

**REGISTRATION SEAL** 

CONSULTANT

PEA GROUP t: 844.813.2949 www.peagroup.com

PROJECT TITLE

## Morse Elementary School 475 CHERRY AVENUE

## Playground Renovation Bid Package No.01A

Troy School District Troy, Michigan

DRAWING TITLE
Notes & Details

ISSUE DATES

11-9-2023 CONSTRUCTION DOCUMENTS

DATE: ISSUED FOR:

DRAWN WR

CHECKED RR
APPROVED TD

PROJECT NO. **22093B** 

DRAWING NO.

CE-5.5.0

#### Project Information

a. Type of soil being disrupted:

Derived from: Soil Survey Soil Borings Other

b. 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

Restoration / Stabilization

c. 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** 

-----

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

Finish grade elevation -

**ISOMETERIC** 

VIEW

Grate wraped in nonwoven geotextile filter fabric —

filter fabric

nonwoven geotextile

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

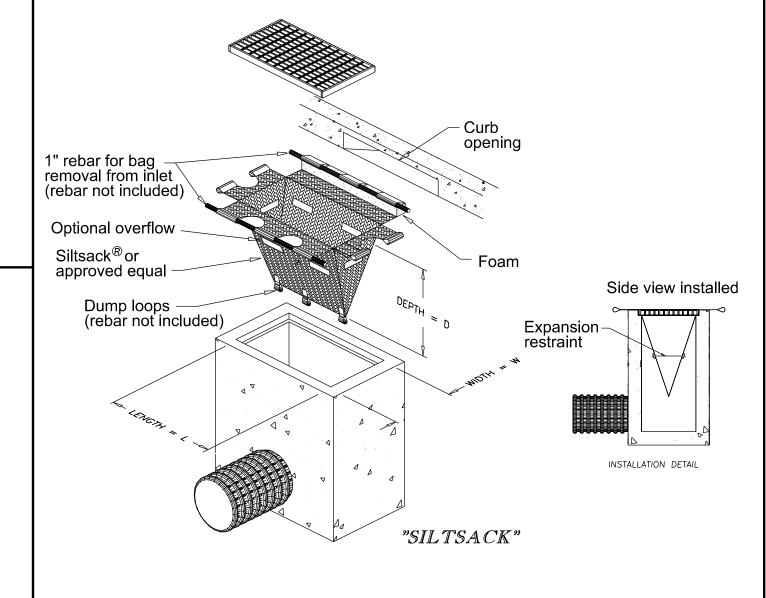
County Drain Name of Drain:
Lake/Pond Name of Lake/Pond:
River/Stream Name of River/Stream:
Enclosed Drain Name of Enclosed Drain:
Detention Basin (with outlet)
Wetland Retention Basin (no oulet)
Overland Flow Open Ditch

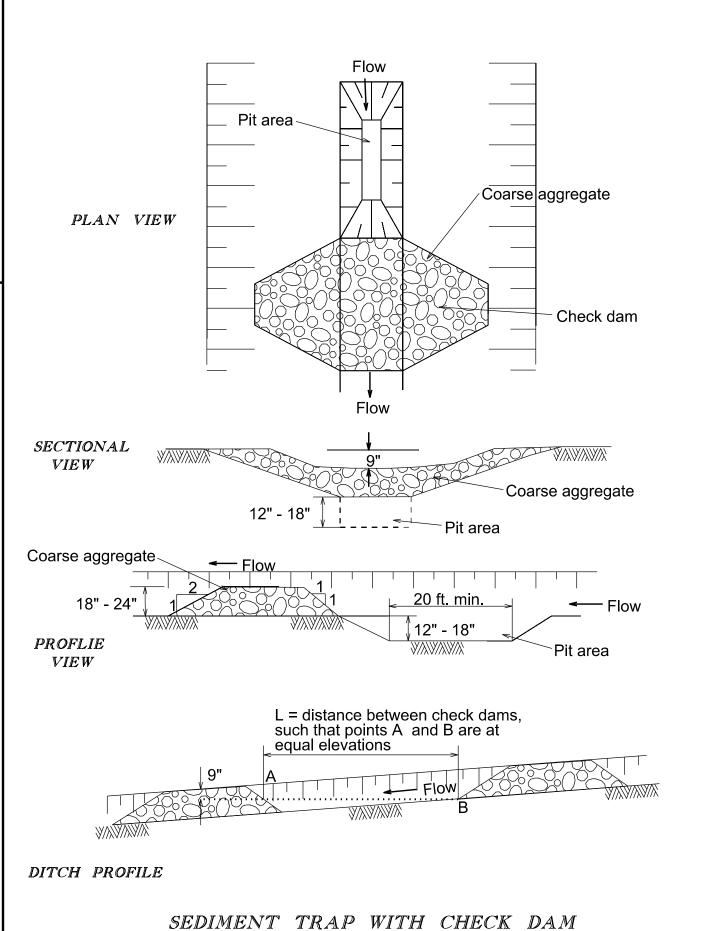
- b. Distance to nearest lake, stream, pond, open drain, or wetland:
- c. Does the project include any work or disruption with a flood plain (Yes or No)?
- d. Does the project include work within the cross-section of a lake/stream (Yes or No)?
- e. Is a MDEQ Permit required (Yes or No)? If Yes, what is the MDEQ Permit Number (if known):
- f. 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 regulations.

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.
- 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 earth
- 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

be provided.

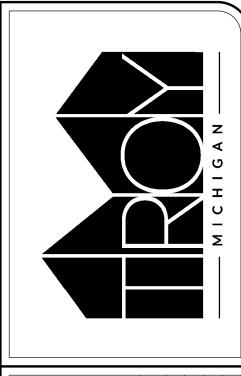
#### 11. The following guidelines are to be implemented:

a. Check Dams:

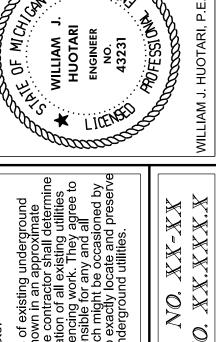
drains, lakes and ponds.

- 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.
- iv. Add stones as needed to maintain design height and cross section.v. Any accumulation of sediment shall be removed and stockpiled in a
- stabilized area to prevent the material from eroding back into the drainage course.
- b. Vegetative Buffer Zones:
- . Vegetation must be maintained in a vigorous condition.
- ii. Reshape and reseed areas where concentrated flow occurs or vegetation
- ii. To be used for sheet flows only.
- v. Not to be used as a roadway.
- . Silt Fence:
- Must be installed along the contour line.
- Must be trenched in at least 6 inches and backfilled.
- iv. Multiple rows are to be used up a slope.v. Accumulated sediment must be periodically removed.
- vi. Where necessary, a support fence shall be used to support the geotextile
- vii. To be removed after site is permanently stabilized.
- d. Inlet Sediment Trap:
- i. The sediment deposition area and nonwoven geotextile filter fabric should be cleaned of all accumulated sediment after each storm.
- ii. 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.
- iii. 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.
- e. Inlet Filters After Paving or Grading:
- i. Inlet filters will remain in place until all denuded areas contributing to them are stabilized with vegetation.
- ii. Periodic inspection and maintenance will be provided to insure that filters are functioning properly.
- f. Sod Inlet Filter:
- i. Sod inlet filters will only be used to handle light concentrations of sediment.
   ii. Recommended for use after final grading is complete and during the
- establishment of a vegetative cover.

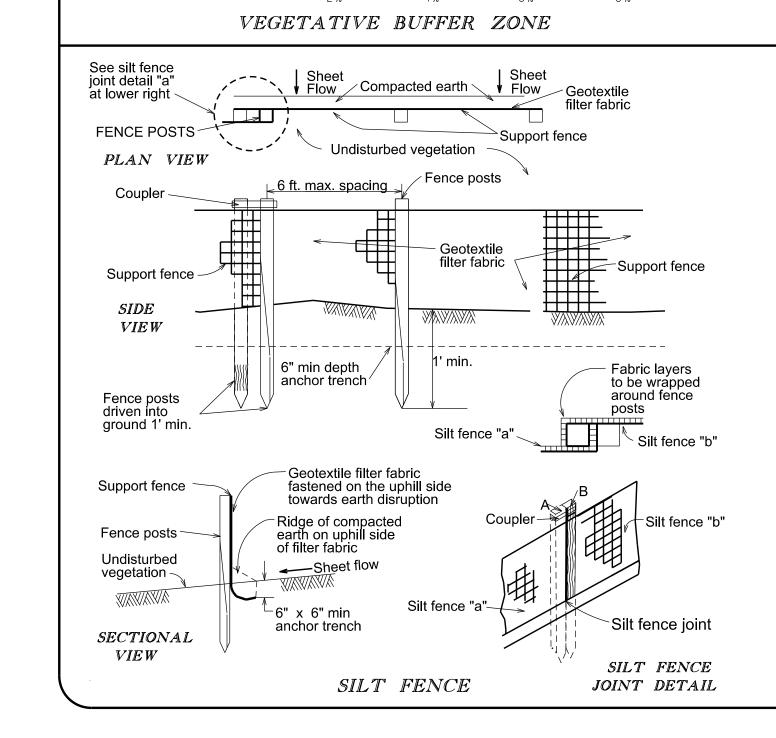
  iii. Catch basin inlet covers may be wrapped in a non-woven geotextile filter
- fabric for additional filtration
- iv. Periodic inspection and maintenance must be provided to insure efficient operation.

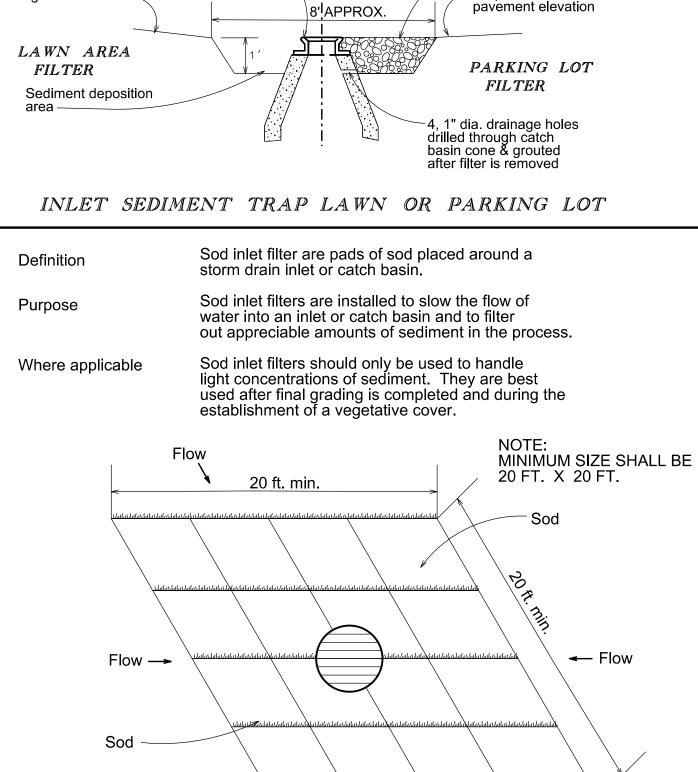


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DETAILS	010	S				
ONTROL	DATE : JUNE 2019	REMARKS				
V CO	JER_	DATE				
OL	[III]		L SNO	ISI	LL BEA	
STANDARD SOIL EROSION CONTROL ENGINEERING DEPARTMENT	APPROVED BY : WILLIAM J. HUOTARI, CITY ENGINEER	REMARKS	GENERAL UPDATES			
Z	APPR	DATE	APRIL 2019			
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SOD INLET FILTER

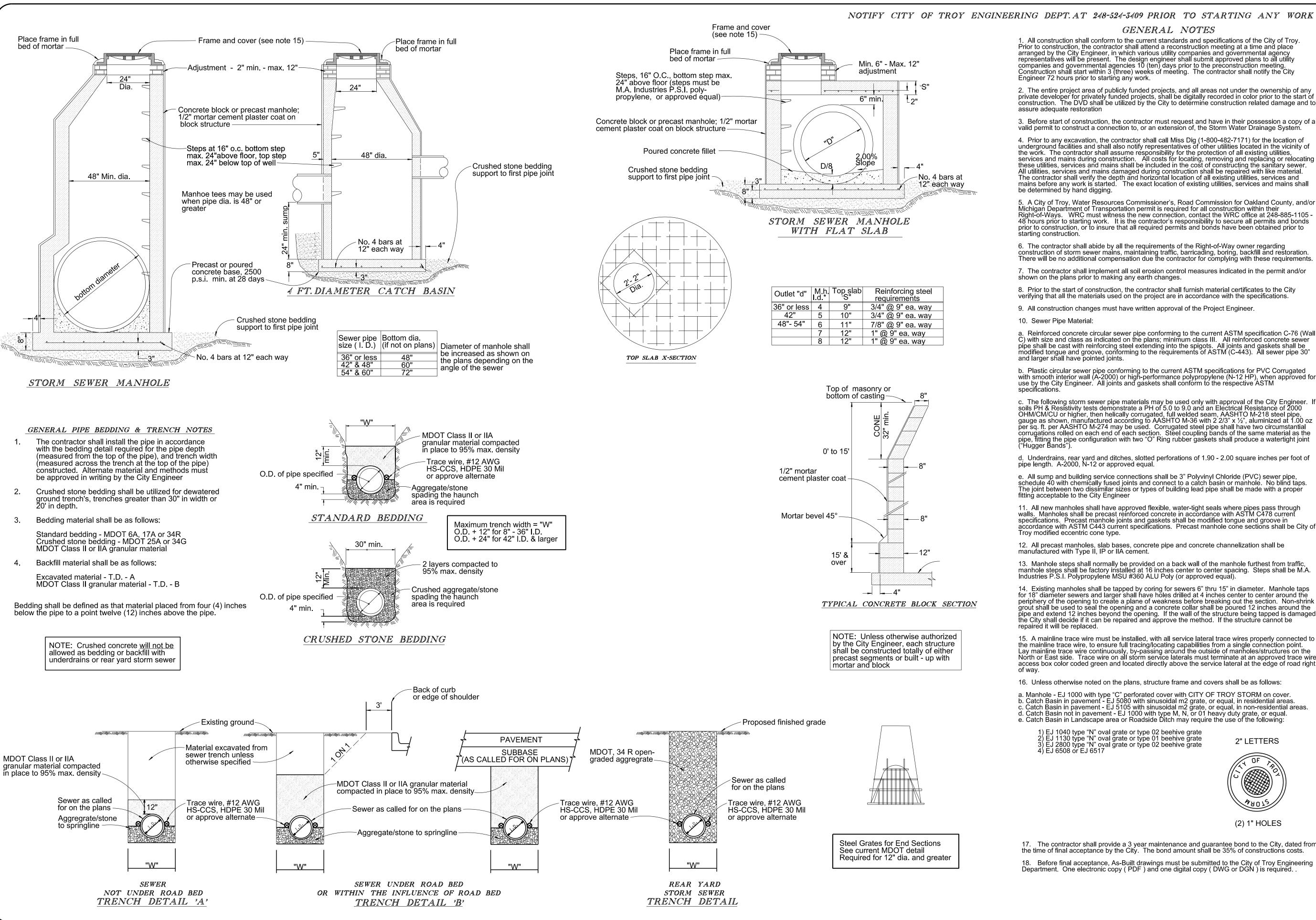
Scarify the finish grade

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

-Proposed final

perpendicular to the slope

of the parking lot





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.

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 dissímilar 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

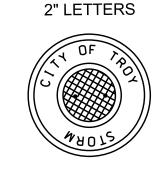
13. Manhole steps shall normally be provided on a back wall of the manhole furthest from traffic, manhole steps shall be factory installed at 16 inches center to center spacing. Steps shall be M.A. Industries P.S.I. Polypropylene MSU #360 ALU Poly (or approved equal).

14. Existing manholes shall be tapped by coring for sewers 6" thru 15" in diameter. Manhole taps 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

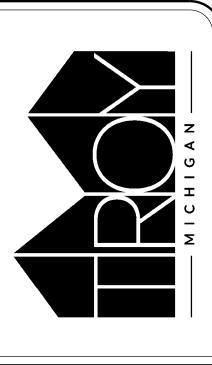
16. Unless otherwise noted on the plans, structure frame and covers shall be as follows:

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. d. Catch Basin not in pavement - EJ 1000 with type M, N, or 01 heavy duty grate, or equal. e. Catch Basin in Landscape area or Roadside Ditch may require the use of the following:

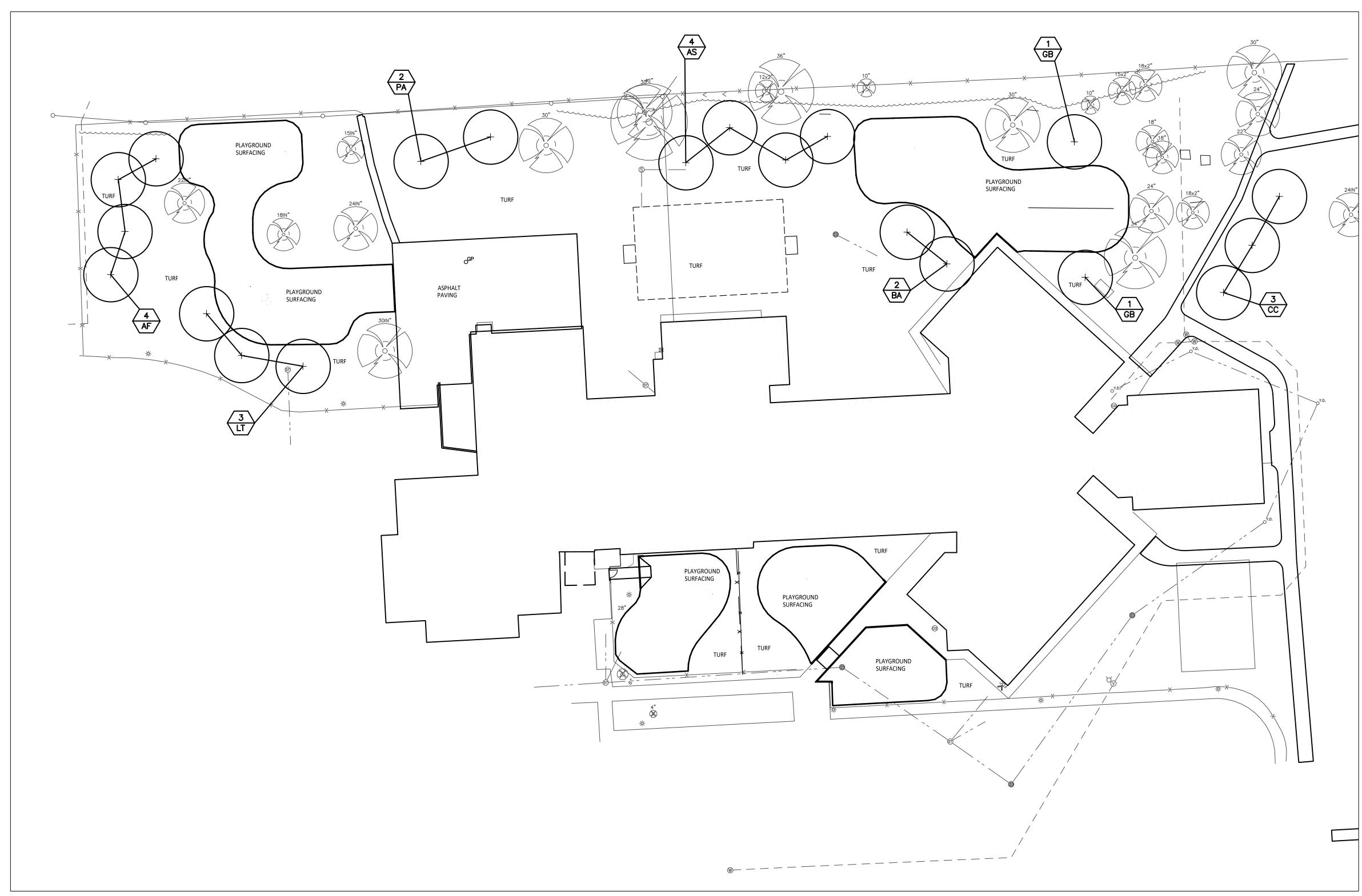


(2) 1" HOLES

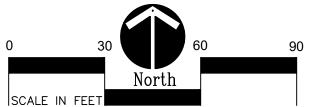
17. The contractor shall provide a 3 year maintenance and guarantee bond to the City, dated from the time of final acceptance by the City. The bond amount shall be 35% of constructions costs.



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Overall Landscape Plan



## 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
	BA	Betula alleghaniensis	Yellow Birch	2" CAL.	B&B	PER PLANS	NATIVE
TREES	CC	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

## LANDSCAPE NOTES:

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

  CALL "MASS DIG" AND VERIEV ALL LINDER GROUND LITHITIES PRIOR TO REGINNING WORK. 73 HOURS.
  - 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.
- 4. 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
- LIMIT SHOWN AND AREAS DISTURBED BY CONSTRUCTION.

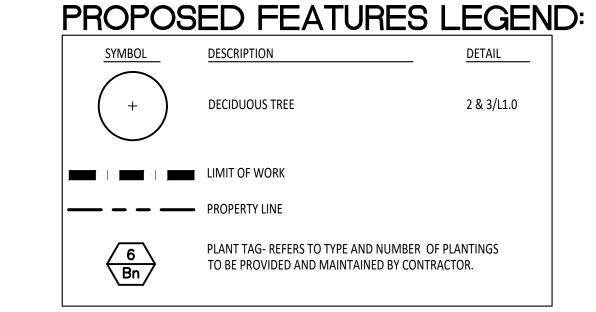
REPAIR AND RESTORE ANY DAMAGE OUTSIDE OF LIMIT OF WORK LINE TO ORIGINAL CONDITION.

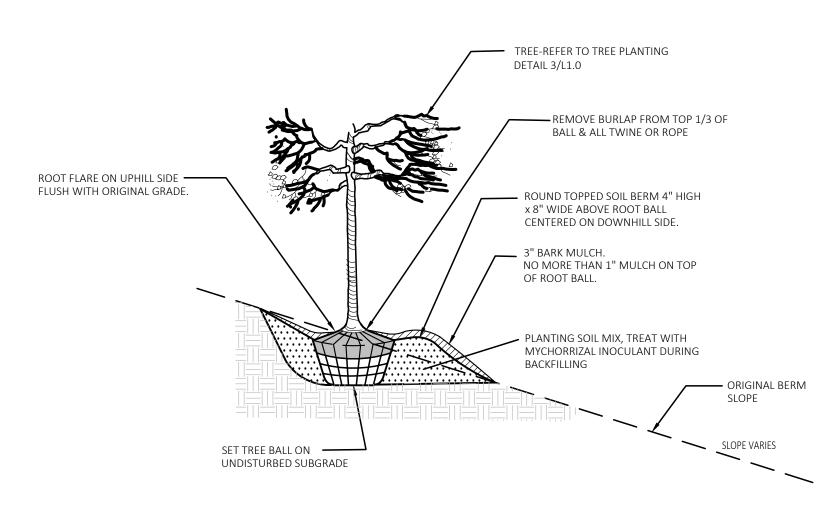
- PROTECT ALL TREES AND EXISTING FEATURES TO REMAIN AS SPECIFIED.
- ALL TOPSOIL AND EXCESS FILL MATERIAL SHALL BE STOCKPILED ON SITE SEPARATELY FOR LATER RE-USE.

  LOCATE STOCKPILES IN AREAS AS DIRECTED BY CONSTRUCTION MANAGER AND PROTECT FROM EFFECTS OF
- 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.

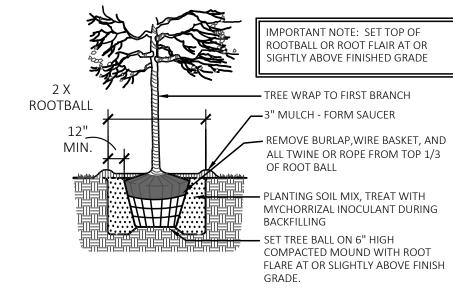
  12. ALL AREAS OF TREE CLEARING SHALL BE STAKED FOR ARCHITECTS APPROVAL PRIOR TO CLEARING.
- 13. UNLESS OTHERWISE SPECIFIED, ALL PERENNIALS, GRASSES AND GROUNDCOVERS SHALL BE GROWN IN

THEIR CONTAINER FOR ONE YEAR PRIOR TO INSTALLATION.





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

# Morse Elementary School Playground Renovation Bid Package No.01A

Troy School District Troy, Michigan

DRAWING TITLE
Overall
Landscape Plan

DATE:	ISSUED FOR:		
11-09-23	CONSTRUCTION DOCUMENTS		
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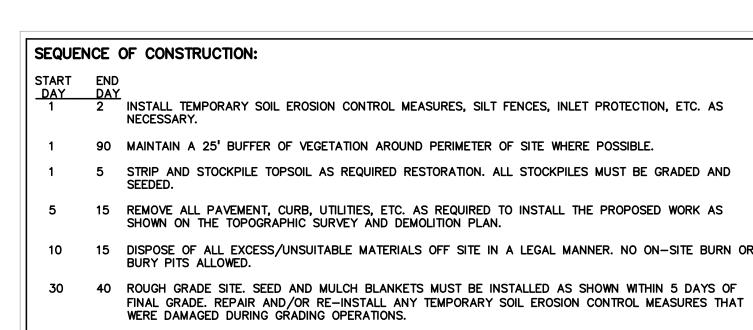
CHECKED

APPROVED ...

PROJECT NO.

22093B

DRAWING NO.
L1.0



80 INSTALL ALL PAVEMENT, SIDEWALKS, CURBING AS PROPOSED. IF PERMANENT LANDSCAPING IS NOT TO BE INSTALLED SOON AFTER PAVING IS COMPLETE, ALL AREAS WITHIN 20 FEET OF BACK OF CURB

90 CLEAN PAVEMENT AND REMOVE ALL TEMPORARY SOIL EROSION CONTROL MEASURES. RE-ESTABLISH

80 89 FINAL GRADE, REDISTRIBUTE STOCKPILED TOPSOIL, ESTABLISH VEGETATION AND INSTALL ALL

90 90 REMOVE SEDIMENTATION CONTROLS ONCE ENTIRE SITE HAS BEEN PERMANENTLY STABILIZED.

PERMANENT LANDSCAPING IN ALL DISTURBED AREAS NOT BUILT.

MUST BE TEMPORARILY SEEDED. REPAIR INLET PROTECTION, SILT FENCE AND ANY OTHER DAMAGED

40 50 FINE GRADE SITE AND PREPARE FOR SITE PAVING OPERATIONS.

SOIL EROSION CONTROL MEASURES AS NECESSARY.

VEGETATION AS REQUIRED.

BM 302 - MAG NAIL IN THE EAST FACE OF CONCRETE LIGHT POLE

BM 303 - BENCH TIE IN THE SOUTH FACE OF THE EASTERLY MOST

BENCHMARKS:

ELEVATION: 669.36

(GPS DERIVED - NAVD88)

BASE ±105' SW FROM SE BUILDING CORNER

POWER POLE ALONG THE NORTH PROPERTY LINE.

POWERED EQUIPMENT. SELECTION OF THE EQUIPMENT USED SHALL BE BASED ON THE CONDITIONS OF LINES AT THE TIME THE WORK COMMENCES. THE EQUIPMENT AND METHODS SELECTED SHALL BE SATISFACTORY TO THE SCHOOL DISTRICT'S REPRESENTATIVE. THE EQUIPMENT SHALL BE CAPABLE OF REMOVING DIRT, GREASE, ROCKS, SAND, AND OTHER MATERIALS AND OBSTRUCTIONS FROM THE SEWER LINES AND MANHOLES. IF CLEANING OF AN ENTIRE SECTION CANNOT BE SUCCESSFULLY PERFORMED FROM ONE MANHOLE, THE EQUIPMENT SHALL BE SET UP ON THE OTHER MANHOLE AND CLEANING AGAIN ATTEMPTED. IF. AGAIN. SUCCESSFUL CLEANING CANNOT BE PERFORMED OR THE EQUIPMENT FAILS TO TRAVERSE THE ENTIRE MANHOLE SECTION, IT WILL BE ASSUMED THAT A MAJOR BLOCKAGE EXISTS AND THE CLEANING EFFORT SHALL BE ABANDONED. 90 TEMPORARY SEEDING MUST BE PROVIDED IN AREAS NOT TO BE WORKED ON FOR 15 DAYS OR LONGER.

PER THE PROJECT SPECIFICATIONS: PRIOR TO THE PLACEMENT OF TOPSOIL THE SUCCESSFUL BIDDER TO SCHEDULE AN INSPECTION BY THE SCHOOL DISTRICT OR PEA GROUP TO CONFIRM THAT THE GRADE IS AT THE PROPER ELEVATION WHERE THE MINIMUM DEPTH OF TOPSOIL CAN BE PLACED THROUGHOUT THE AREA.

PER THE "SOIL EROSION AND SEDIMENTATION CONTROL SEQUENCE OF CONSTRUCTION" NOTES THE SUCCESSFUL BIDDER TO THE CLEAN THE

STORM SEWER. THIS CLEANING SHALL INCLUDE CLEANING OUT THE

STRUCTURES AND ENTIRE SEWER RUNS BETWEEN STRUCTURES USING

HYDRAULICALLY PROPELLED, HIGH-VELOCITY JET, OR MECHANICALLY

CONTRACTOR TO FIELD VERIFY ALL UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION INCLUDING BUT NOT LIMITED TO: SITE LIGHTING, FIBER

6" N 664.75

### STORM STRUCTURES STORM STRUCTURES (4' DIA./0' SUMP) CB $| 8 | \hat{R} | M = 667.60$ 6" S 664.63 6" S 664.00 6" SW 665.06 6" SE 665.20

248-823-4067 . IF ANY DAMAGE HAS OCCURRED AS A RESULT OF STORM WATER DISCHARGE FROM THE SITE, THE FOLLOWING STEPS SHALL BE IMPLEMENTED. ANY DEBRIS OR DIRT ON ANY PAVED AREA RESULTING FROM CONSTRUCTION TRAFFIC SHALL BE CLEANED IN A PROMPT MANNER BY THE CONTRACTOR. THE CONSTRUCTION DRIVE SHALL BE CLEANED AT THE END ALL DIRT AND MUD TRACKED ONTO PAVED AREAS SHALL BE REMOVED BY THE CONTRACTOR DAILY BY SCRAPING. STREET SWEEPING IS REQUIRED

SOIL EROSION MAINTENANCE SCHEDULE AND NOTES:

TROY SCHOOL DISTRICT

ENGINEERING DIVISION FOR REVIEW.

2. TOTAL DISTURBED AREA =  $\pm 2.0$  ACRES

TROY, OAKLAND COUNTY, MICHIGAN

1140 RANKIN

THE SOIL EROSION CONTROLS WILL BE MAINTAINED WEEKLY AND AFTER

SOIL EROSION AND SEDIMENTATION CONTROL

MANNER. NO BURN OR BURY PITS ALLOWED.

OR OTHER MISCELLANEOUS DEBRIS OR TRASH.

WILL BE USED WHERE VEGETATION IS REQUIRED.

SYSTEM. REPAIR INLET FILTERS AS REQUIRED.

AND CATCH BASINS, AS SHOWN.

ESTABLISHED.

CHANGED AND MAINTAINED.

MASS GRADE THE SITE IN ACCORDANCE WITH THE PLANS.

. INSTALL TEMPORARY CRUSHED CONCRETE ACCESS DRIVE AT ALL

. STRIP AND STOCKPILE TOPSOIL FOR RESTORATION REQUIREMENTS.

REMOVE CURB, PAVEMENT, TREES, ETC. AS DIRECTED ON THE DEMOLITION

DISPOSE OF ALL EXCESS, UNSUITABLE MATERIALS OFF SITE IN A LEGAL

. INSTALL HYDROSEED AS SHOWN ON THE PLAN WITHIN 5 DAYS OF COMPLETION OF MASS GRADING OR WHENEVER DISTURBED AREAS WILL

REMAIN UNCHANGED FOR 30 DAYS OR GREATER. MINIMUM 3"-4" TOPSOIL

10. COMPLETE ROUGH GRADING OF SITE. PLACE INLET FILTERS AT ALL INLETS

. FINISH GRADE AND PAVE SITE AS PROPOSED TO DRAIN TO STORM SEWER

12. APPLY TOPSOIL, HYDROSEED TO ALL DISTURBED AREAS UPON COMPLETION

3. CLEAN PAVEMENT AND STORM SEWERS. REMOVE SILT FENCE AND TREE

PROTECTION FENCE, AND INLET FILTERS ONCE VEGETATION HAS BEEN

14. ALL DIRT AND MUD TRACKED ONTO PUBLIC ROADS SHALL BE REMOVED

15. STREET CATCH BASINS TO BE PERIODICALLY CLEANED AND FILTER CLOTH

OF GRADING. THE CONTRACTOR SHALL STAGE CONSTRUCTION ACTIVITIES IN ORDER TO MINIMIZE THE EXPOSURE OF UNSTABILIZED AREAS.

UNSUITABLE MATERIALS CONSIST OF, BUT ARE NOT NECESSARILY LIMITED TO THE FOLLOWING: CONCRETE, ASPHALT, TREES, BRUSH, STUMPS, ROOTS,

SEQUENCE OF CONSTRUCTION

CONCRETE - NO FINES).

STRUCTURES, ACCORDING TO PLANS.

SILT FENCE MAINTENANCE SHALL INCLUDE THE REMOVAL OF ANY BUILT UP SEDIMENT WHEN THE SEDIMENT HEIGHT ACCUMULATES TO 1/3 TO 1/2 OF THE HEIGHT OF THE FENCE. THE CONTRACTOR IS RESPONSIBLE TO REMOVE, REPLACE, RETRENCH OR REBACKFILL THE SILTATION FENCE SHOULD IT FALL OR BE DAMAGED DURING CONSTRUCTION.

INLET FILTER MAINTENANCE SHALL INCLUDE THE REMOVAL OF ANY ACCUMULATED SILT OR OTHER DEBRIS. THE REMOVAL OF SILT SHOULD BE WITH THE USE OF A STIFF BRISTLE BROOM OR SQUARE POINT SHOVEL. IF INLET FILTERS CAN NOT BE CLEANED OR ARE DAMAGED, THEN THE FABRIC CONTRACTOR TO PROVIDE WATER TRUCK TO WATER DOWN THE SITE ON A DAILY BASIS AS REQUIRED TO MAINTAIN DUST CONTROL. IF HIGH GROUNDWATER IS ANTICIPATED OR ENCOUNTERED DURING CONSTRUCTION A DEWATERING PLAN MUST BE SUBMITTED TO THE CITY

GENERAL SITE CONDITIONS: ACCORDING TO THE USDA NRCS WEB SOIL SURVEY, THE SITE CONSISTS OF THE FOLLOWING SOIL TYPES: 56A URBAN LAND-BLOUNT-LENEWEE COMPLEX, 0-3 PERCENT SLOPES 62B URBAN LAND-SPINX COMPLEX, 0-8 PERCENT SLOPES 63A URBAN LAND-THETFORD COMPLEX, 0-3 PERCENT SLOPES

EARTHWORK BALANCING NOTE: THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPORTING OR EXPORTING ALL MATERIALS AS REQUIRED TO PROPERLY GRADE SEE OAKLAND COUNTY W.R.C. SOIL EROSION AND SEDIMENTATION CONTROL THIS PROJECT TO THE FINISHED ELEVATIONS SHOWN ON THE DETAILS SHEET FOR ALL SOIL EROSION CONTROL RELATED DETAILS. APPROVED PLANS. THE CONTRACTOR SHALL MAKE THEIR OWN DETERMINATION OF CUT AND FILL QUANTITIES AND ALLOW FOR PLACE SILT FENCE & INSTALL INLET FILTERS ON EXISTING STORM SEWER REMOVAL OF EXCESS OR IMPORTATION OF ADDITIONAL MATERIAL AT NO ADDITIONAL COST TO THE OWNER. CONSTRUCTION ENTRANCES. (80'x24'x8" W/MINIMUM OF 1"-3" CRUSHED

PREMIUM TRENCH BACKFILL NOTE: ALL UTILITIES UNDER PAVEMENT OR WITHIN 3' OF THE EDGE OF PAVEMENT (OR WITHIN THE 45° LINE OF INFLUENCE OF PAVEMENT) SHALL HAVE M.D.O.T. CLASS II GRANULAR BACKFILL CÓMPACTED TO 95% MAX. DRY DENSITY (ASTM D-1557).

**GRADING LEGEND:** EXISTING SPOT ELEVATION PROPOSED SPOT ELEVATION: TYPICALLY TOP OF PAVEMENT IN PAVED AREAS, GUTTER GRADE IN CURB LINES. - EXISTING CONTOUR ——922—— PROPOSED CONTOUR PROPOSED REVERSE GUTTER PAN - — — — — PROPOSED RIDGE LINE ----- PROPOSED SWALE/DITCH **ABBREVIATIONS** T/C = TOP OF CURB G = GUTTER GRADE

(E-9) EROSION CONTROL BLANKET

LAWN RESTORATION

REFER TO CITY OF TROY SOIL EROSION AND

DEVICE DETAILS.

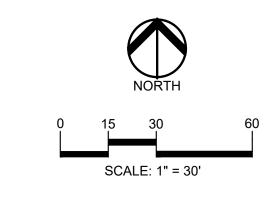
SEDIMENTATION CONTROL DETAILS SHEET FOR ALL

G-ELEC-E-EKE- EX. U.G. ELEC,MANHOLE, METER & HANDHOLE - - EX. GAS LINE © GAS EX. GAS VALVE & GAS LINE MARKER — — — — EX. WATER MAIN EX. SANITARY SEWER © S EX. SANITARY CLEANOUT & MANHOLE © EX. COMBINED SEWER MANHOLE — -- EX. STORM SEWER T/P = TOP OF PAVEMENT F.G. = FINISH GRADE T/S = TOP OF SIDEWALK RIM = RIM ELEVATION T/W = TOP OF WALL B/W = BOTTOM OF WALL EX. SQUARE, ROUND, & BEEHIVE CATCH BASIN EX. YARD DRAIN & ROOF DRAIN REFER TO GRADING NOTES ON SHEET ######## EX. UNIDENTIFIED STRUCTURE - - PROPOSED WATER MAIN SYMBOLS: EROSION CONTROL: ▼ ⊗ PROPOSED HYDRANT AND GATE VALVE ---- (SP-2) SILT FENCE PROPOSED TAPPING SLEEVE, VALVE & WELL PROPOSED POST INDICATOR VALVE (SI-2A) LOW POINT INLET FILTER PROPOSED SANITARY SEWER OC.O. PROPOSED SANITARY CLEANOUT & MANHOLE (SI-3) RYCB INLET FILTER -- PROPOSED STORM SEWER

**UTILITY LEGEND:** 

H-ELEC-VV-O--- EX. OH. ELEC, POLE & GUY WIRE

JG-CATV-TV- EX. U.G. CABLE TV & PEDESTAL



O<sup>C.O.</sup> ● PROPOSED STORM SEWER CLEANOUT & MANHOLE

PROPOSED CATCH BASIN, INLET & YARD DRAIN

TMP ARCHITECTURE INC 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** 

t: 844 813 2949

www.peagroup.com

PROJECT TITLE Morse

Elementary School 475 CHERRY AVENUE

**Playground Renovation** Bid Package No.01A

**Troy School District** Troy, Michigan

DRAWING TITLE Grading, Utility & Soil **Erosion Control Plan** 

**ISSUE DATES** CONSTRUCTION DOCUMENTS

APPROVED PROJECT NO.

22093B

DRAWING NO. CE-5.4.0

