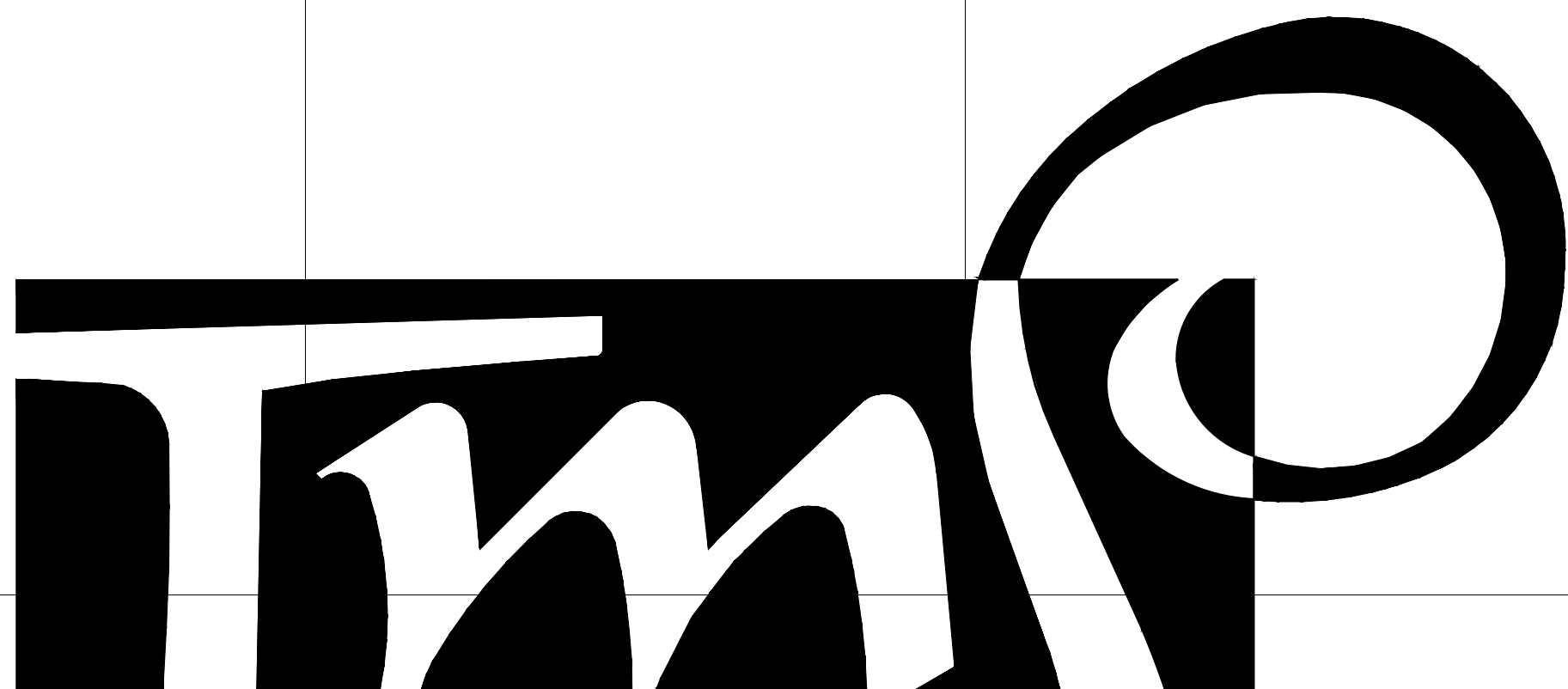


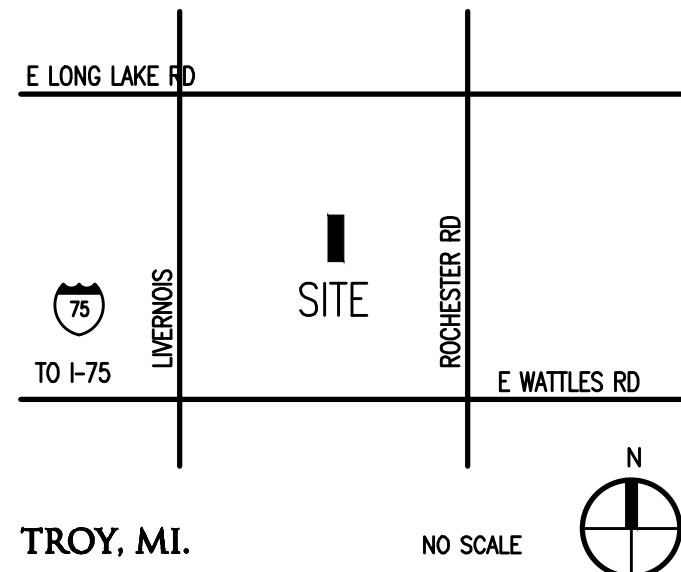
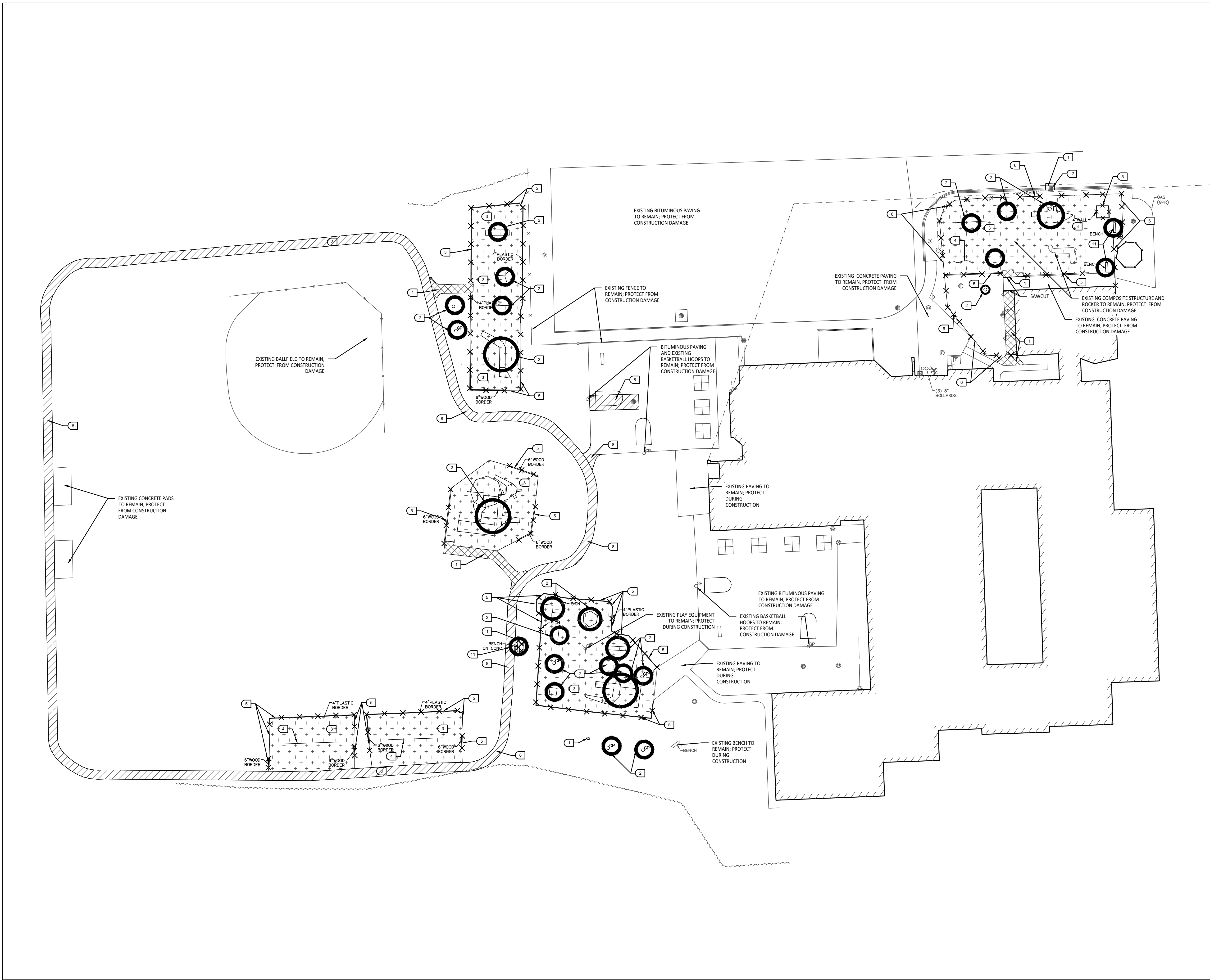


			<div><p>ARCHITECTURE</p><p>T M P ARCHITECTURE I N C</p><p>1191 WEST SQUARE LAKE ROAD · BLOOMFIELD HILLS · MICHIGAN · 48302</p><p>PH · 248.338.4561 FX · 248.338.0223 EM · INFO@TMP-ARCHITECTURE.COM</p></div>					<div><p>PROFESSIONAL ENGINEERING ASSOCIATES</p><p>2430 Rochester Ct, Suite 100 Troy, MI 48063-1872 Phone: (248) 689-9090 Fax: (248) 689-1044 website: www.peainc.com</p></div>			
								<div><p>OCBA LANDSCAPE ARCHITECTS</p><p>141 E. Michigan Ave, Suite 500 Kalamazoo, Michigan 49007 Phone (269) 381-3357 Fax (269) 381-2944</p></div>			
<div>LEONARD ELEMENTARY SCHOOL PLAYGROUND</div> <div>TROY SCHOOL DISTRICT – TROY, MICHIGAN</div>											
<div>2022 BOND PROGRAM – BID PACKAGE NO 01B</div> <div>PROJECT NUMBER 22091B</div> <div>CONSTRUCTION DOCUMENTS</div>											
<div>CONSULTANTS:</div> <div>CIVIL ENGINEER</div> <div>PEA GROUP CONSULTING ENGINEERS</div> <div>1849 POND RUN AUBURN HILLS, MICHIGAN 48326 PHONE: (248) 689-9090</div> <div>PLAYGROUND CONSULTANT</div> <div>OCBA LANDSCAPE ARCHITECTS CONSULTING ENGINEERS</div> <div>141 E. MICHIGAN AVE., SUITE 500 KALAMAZOO, MICHIGAN 49007 PHONE: (269) 381-3357</div>		<div>LIST OF DRAWINGS</div> <div>GENERAL INFORMATION</div> <div>TS.1 COVER SHEET TG.1 GENERAL INFORMATION (NOT ISSUED)</div>	<div>CIVIL</div> <div>C1.0 DEMOLITION PLAN C2.0 OVERALL PLAYGROUND LAYOUT PLAN C2.1 PLAYGROUND LAYOUT ENLARGEMENT PLANS C2.2 PLAYGROUND LAYOUT ENLARGEMENT PLANS C2.3 PLAYGROUND LAYOUT ENLARGEMENT PLANS C3.0 OVERALL PLAYGROUND DRAINAGE PLAN C3.1 PLAYGROUND DRAINAGE ENLARGEMENTS PLAN C3.2 PLAYGROUND DRAINAGE ENLARGEMENTS PLAN C4.0 DETAILS</div>	<div>CIVIL</div> <div>CE-3.1.0 TOPOGRAPHIC SURVEY CE-3.2.0 DIMENSION & PAVING PLAN CE-3.3.0 GRADING, UTILITY & SOIL EROSION CONTROL PLAN CE-3.4.0 NOTES & DETAILS</div>	<div>LANDSCAPE</div> <div>L1.0 SITE LANDSCAPE PLAN</div>		<div>PROJECT DATA:</div> <div>LOCATION MAP</div> <div><p>TROY, MI.</p><p>NO SCALE</p></div>	<div>BUILDING:</div> <div>BUILDING AREA(S) = NOT APPLICABLE</div> <div>CODE:</div> <div>GOVERNING CODES:</div> <div>- 2016 SCHOOL FIRE SAFETY RULES (2012 Life Safety Code, plus amendments) - 2015 MICHIGAN BUILDING CODE - 2015 MICHIGAN REHABILITATION CODE FOR EXISTING BUILDINGS - 2018 MICHIGAN PLUMBING CODE - 2015 MICHIGAN MECHANICAL CODE - 2015 MICHIGAN UNIFORM ENERGY CODE (ANSI/ASHRAE/IES Standard 90.1-2013) - 2017 MICHIGAN ELECTRICAL CODE (2017 NEC, plus Part 8 Rules) - 2010 MICHIGAN ELEVATOR RULES (ASME A17.1-2010, ASME A18.1-2011) - MICHIGAN BARRIER FREE CODE (Michigan Building Code 2015 and ICC A117.1-2009) - 2013 MICHIGAN BOILER CODE RULES (ASME Boiler and Pressure Vessel Code, 2019 edition) (National Board Inspection Code [NBIC], 2019 edition)</div> <div>CONSTRUCTION CLASSIFICATION: II-B(MBC)/11(000)NFPA</div> <div>USE GROUP CLASSIFICATION: E-EDUCATION</div> <div><div><div></div><div></div><div></div><div></div></div><div><div></div><div></div><div></div><div></div></div></div> <div>10-03-2024 CONSTRUCTION DOCUMENTS</div> <div>DATE ISSUED FOR:</div>			
<div>LICENSEE'S STATEMENT:</div> <div>This Document has been prepared under the supervision of the Architect, as the person in Responsible Charge with the firm of TMP ARCHITECTURE, INC. An original embossed or rubber stamp seal and original signature of the Architect is required and shall be affixed to any copy of this Document submitted to a governmental agency for approval or record. This is in conformance with the State of Michigan's PA 299, Article 20 and the General Rules of the Board of Architects.</div> <div>The Architect's seal provided hereon does not take responsibility for certain portions of the Documentation or project requiring the services of a licensed Professional Engineer or other design professional. An original embossed or rubber stamp seal and original signature of the Professional Engineer is required and shall be affixed to any copy of this or other Document submitted to a governmental agency for approval or record. The engineering firms associated with this document are listed above as Consultants.</div>		<div>REGISTRATION SEALS</div>					<div>COPYRIGHT</div> <div>© The "architectural work" displayed on these documents is owned exclusively by TMP Architecture, Inc. and may not be used for any purpose without their involvement or express written consent.</div>	<div>PROJECT TITLE</div> <div>Leonard Elementary School</div> <div>PROJECT NO.</div> <div>22091B</div> <div>DRAWING NO.</div> <div>TS.1</div>			



1 Overall Demolition Plan
Scale: 1" = 30'-0"

0 30 60 90
SCALE IN FEET
North

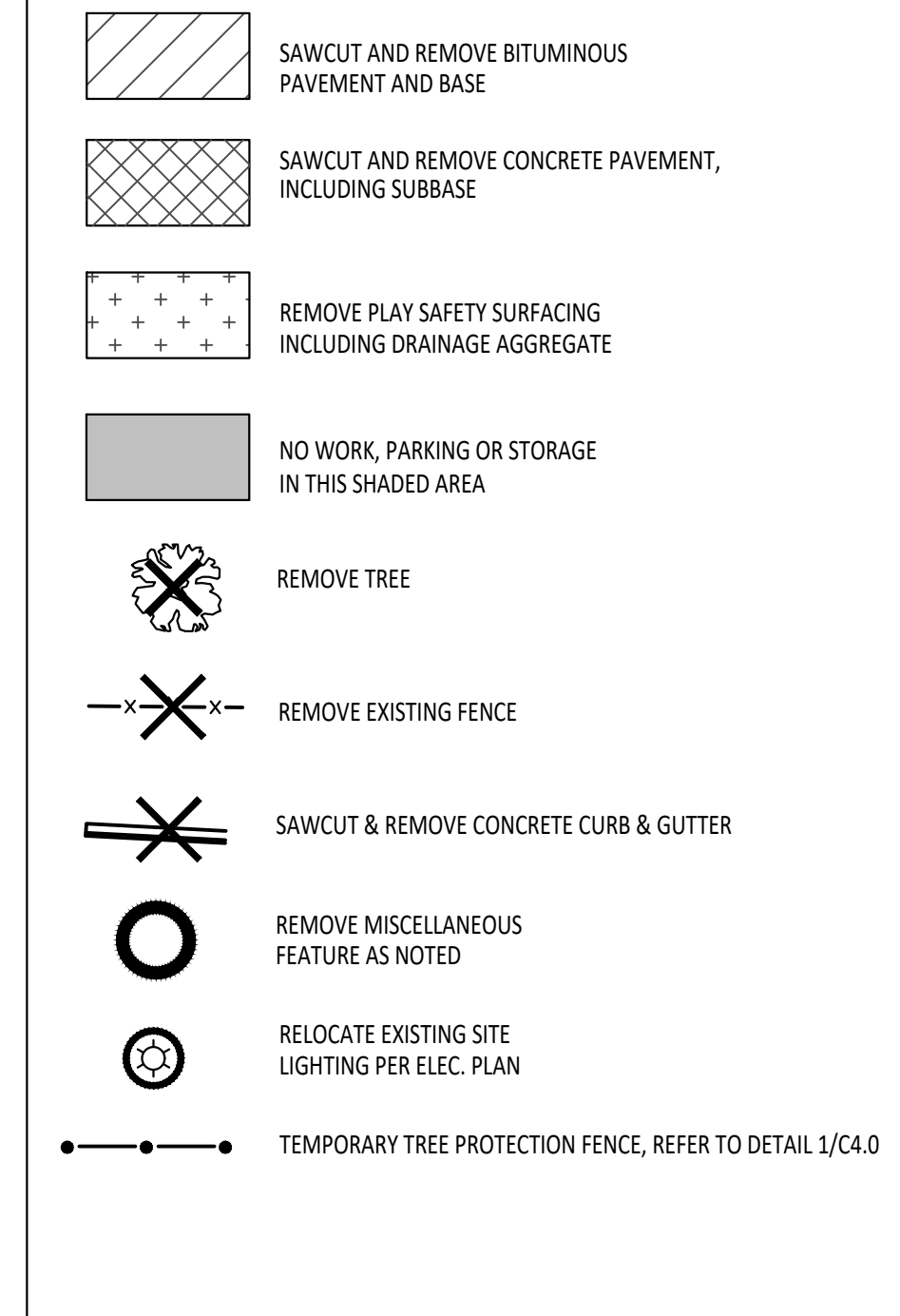
DEMOLITION NOTES:

1. SURVEY OF EXISTING CONDITIONS PROVIDED BY PEA GROUP, 1849 POND RUN, AUBURN HILLS, MI, 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. PROTECT ALL TREES & EXISTING FEATURES TO REMAIN AS SPECIFIED.
4. REFER TO LAYOUT PLAN FOR LIMITS OF WORK.
5. DISCREPANCIES BETWEEN SITE AND PLANS SHOULD BE REPORTED TO THE PROJECT MANAGER IMMEDIATELY.
6. 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.
7. ALL PAVEMENT DEMOLITION TO BE SAWCUT AND REMOVED COMPLETELY, INCLUDING BASE/SUBBASE MATERIALS.
8. 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 REMOVED.
9. IN LOCATIONS WHERE PROPOSED PAVING WILL BE INSTALLED WHERE EXISTING PAVING WAS REMOVED, THE BASE MATERIAL MAY BE LEFT IN PLACE PROVIDED IT IS TESTED TO BE ADEQUATE IN BOTH DEPTH AND GRADATION. IF EITHER OF THESE IS INADEQUATE, THE BASE MATERIAL SHOULD BE REMOVED AND REPLACED.

SITE DEMOLITION KEY

- 1 SAWCUT AND REMOVE EXISTING CONCRETE PAVING INCLUDING SUB-BASE.
- 2 REMOVE EXISTING PLAY EQUIPMENT INCLUDING ALL CONCRETE FOOTINGS. DESTROY ALL PLAY EQUIPMENT COMPLETELY SO THAT IT CANNOT BE RE-ASSEMBLED.
- 3 REMOVE EXISTING PLAY SAFETY SURFACING, INCLUDING DRAINAGE AGGREGATE.
- 4 PLAYGROUND CONTRACTOR TO SALVAGE EXISTING PLAY EQUIPMENT AND RE-INSTALL ON-SITE.
- 5 REMOVE EXISTING PLAY EDGING COMPLETELY.
- 6 REMOVE EXISTING FENCING COMPLETELY (INCLUDING FOUNDATIONS)
- 7 REMOVE EXISTING TREE INCLUDING ALL ROOT SYSTEMS.
- 8 SAWCUT AND REMOVE EXISTING BITUMINOUS PAVEMENT INCLUDING SUB-BASE.
- 9 OWNER TO CONFIRM POWER DISCONNECTION FROM LIGHT FIXTURE. SITE CONTRACTOR TO CUT WIRE AT A MINIMUM OF 24" BELOW FINISHED GRADE.
- 10 SALVAGE EXISTING SITE EQUIPMENT, PLAYGROUND CONTRACTOR TO REINSTALL ON SITE.
- 11 SALVAGE EXISTING SITE FURNISHINGS AND REINSTALL AT LOCATION TO BE DETERMINED.
- 12 SAWCUT AND REMOVE EXISTING CURB AND GUTTER

DEMOLITION LEGEND:



TREE PROTECTION NOTES:

- PROVIDE AND MAINTAIN TEMPORARY TREE PROTECTION FENCING IN ALL LOCATIONS MARKED . TREE FENCING SHALL BE PROVIDED AND IN PLACE PRIOR TO ANY WORK ON SITE (INCLUDING TOPSOIL STRIPPING OPERATIONS). REFER TO THE FOLLOWING NOTES AND THE SPECIFICATIONS FOR TREE PROTECTION REQUIREMENTS.
1. NO CONSTRUCTION OPERATIONS, EQUIPMENT, MATERIALS OR TOPSOIL SHALL BE ALLOWED WITHIN THE TREE PROTECTION AREAS.
 2. EXISTING GROUND COVER AND TOPSOIL SHALL NOT BE REMOVED FROM TREE PROTECTION AREAS DURING EARTHWORK PHASE.
 3. VEHICULAR TRAFFIC, PARKING, EQUIPMENT OR MATERIAL STORAGE MAY NOT OCCUR WITHIN THE TREE PROTECTION AREAS AT ANY TIME.
 4. NO EXCAVATION SHALL BE MADE WITHIN THE TREE PROTECTION AREAS EXCEPT AS NOTED OTHERWISE.



T M P ARCHITECTURE INC
1191 WEST SQUARE LAKE ROAD
BLOOMFIELD HILLS MICHIGAN 48302
PH 248-388-4561 FX 248-388-0223
EM 410 INFO @TMP-ARCHITECTURE.COM

REGISTRATION SEAL

CONSULTANT



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

PROJECT TITLE
**Leonard Elementary School
Playground Renovation
Bld Package No.01A**

**Troy School District
Troy, Michigan**

DRAWING TITLE
Demolition Plan

ISSUE DATES

1	10-03-2024
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	

DATE: 10-03-2024

ISSUED FOR:

DRAWN: DID

CHECKED: DID

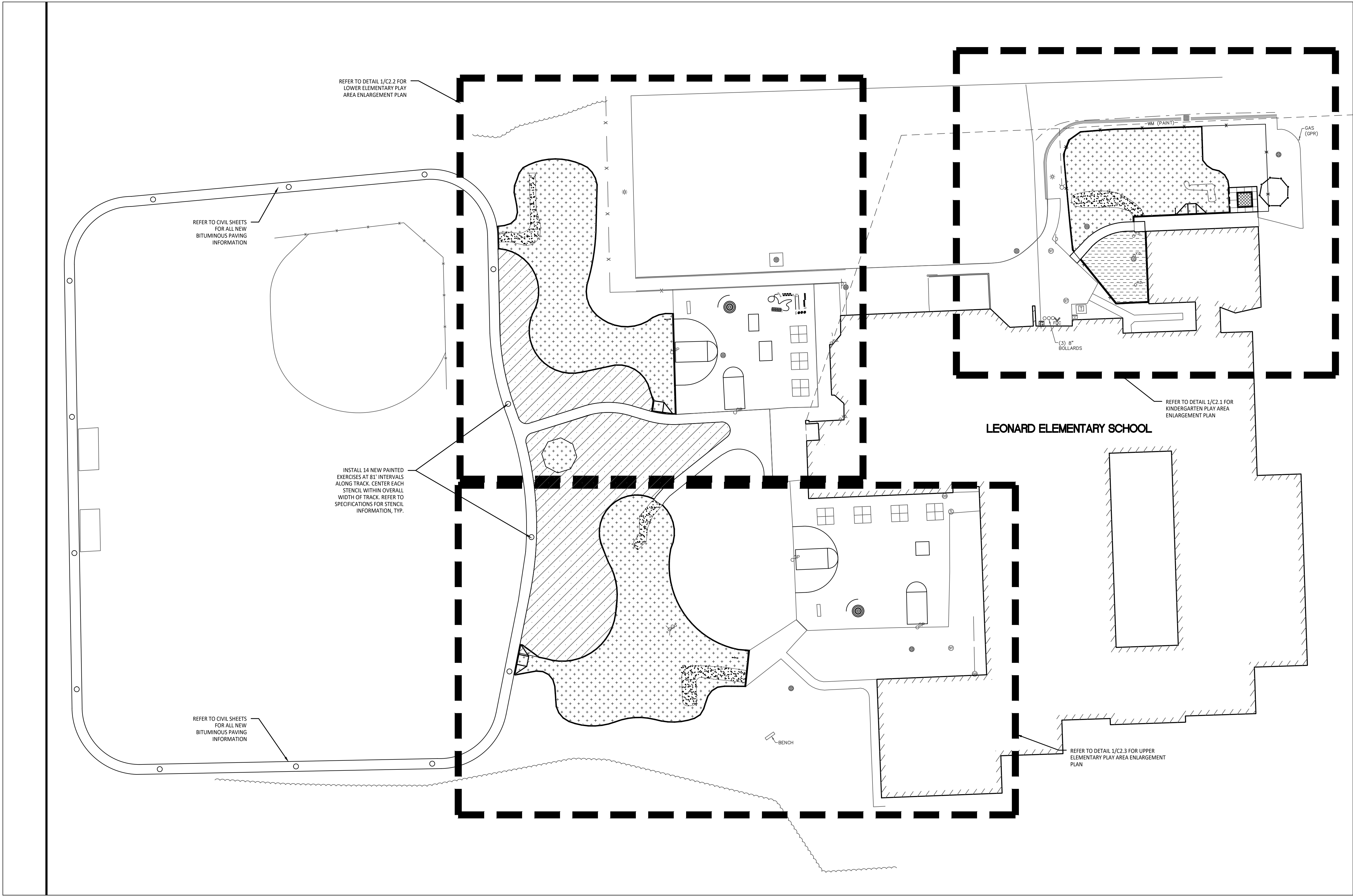
APPROVED: DID

PROJECT NO.

22091B

DRAWING NO.

C1.0



LAYOUT NOTES:

1. SURVEY OF EXISTING CONDITIONS PROVIDED BY PEA GROUP, 1849 POND RUN, AUBURN HILLS, MICHIGAN 48326, (248)689-9090.
2. PAVEMENT DIMENSIONS AND RADI ARE TO EDGE OF PAVEMENT OR BACK OF CURB. PLASTIC EDGING MEASURED TO/ FROM CENTER OF PIN.
3. DISCREPANCIES BETWEEN SITE AND PLANS SHOULD BE REPORTED TO THE PROJECT MANAGER IMMEDIATELY.
4. VERIFY LOCATIONS OF ALL BELOW GRADE UTILITIES PRIOR TO BEGINNING WORK. 72 HOURS BEFORE YOU DIG CALL "MISS DIG" AT 1-800-482-7171.
5. PROVIDE BARRIER FREE PARKING SIGNS FOR ALL BARRIER FREE PARKING SPACES. ALL SIGNS TO COMPLY WITH THE MDOIT MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
6. SITE LAYOUT POINTS SHOULD BE ESTABLISHED AND PROTECTED FOR FUTURE SITE WORK.

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 FOLLOWINGS:

- 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.

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.

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.

CONTRACTOR COORDINATION NOTES:

SITE CONTRACTOR AND PLAYGROUND CONTRACTOR ARE REQUIRED TO COORDINATE BOTH WITH EACH OTHER AND WITH CONSTRUCTION MANAGER. THE INSTALLATION PROCESS FOR THE PLAYGROUND SAFETY SURFACING SHOULD BE AS FOLLOWS:

- * SITE CONTRACTOR TO EXCAVATE AREA AS SHOWN ON CONSTRUCTION DOCUMENTS.
- * SITE CONTRACTOR TO INSTALL UNDERDRAINS AS SHOWN ON CONSTRUCTION DOCUMENTS. SITE CONTRACTOR TO USE LAYOUT SERVICES FROM CADD FILES FOR INSTALLATION TO ENSURE THAT THE UNDERDRAINS ARE INSTALLED IN THE CORRECT LOCATIONS.
- * THE PLAYGROUND CONTRACTOR WILL THEN INSTALL THE POSTS AND FOOTINGS FOR ALL EQUIPMENT.
- * THE SITE CONTRACTOR WILL THEN INSTALL THE DRAINAGE AGGREGATE, TAKING CARE TO NOT DAMAGE THE POSTS OR POWDERCOATING OF THE PLAY EQUIPMENT. THE SITE CONTRACTOR WILL ALSO INSTALL THE ADDITIONAL ENGINEERED FILL FOR THE RESILIENT SURFACING AREAS. THE SITE CONTRACTOR MUST COORDINATE THE DEPTHS WITH THE PLAYGROUND CONTRACTOR PRIOR TO INSTALLATION AS THE DEPTHS VARY BETWEEN PLAYGROUND CONTRACTORS.
- * THE PLAYGROUND CONTRACTOR WILL INSTALL THE GEOTEXTILE FABRIC, PLAYGROUND EQUIPMENT, AND SAFETY SURFACING.



TMP ARCHITECTURE INC
1191 WEST SQUARE LAKE ROAD
BLOOMFIELD HILLS • MICHIGAN • 48302
PH • 248.338.4561 FX • 248.338.0203
EM • INFO@TMP-ARCHITECTURE.COM

REGISTRATION SEAL

CONSULTANT



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

Landscape Architecture
Urban Planning
Parks & Recreation
Campus & Institutional Planning
Camp Planning & Design

PROJECT TITLE

**Leonard
Elementary School
Playground Remodel
Bld Package No.01B**

**Troy School District
Troy, Michigan**

DRAWING TITLE

**Overall Playground
Layout Plan**

ISSUE DATES

10-03-2024	CONSTRUCTION DOCUMENTS
------------	------------------------

DATE: ISSUED FOR:

DRAWN	DID
CHECKED	DID
APPROVED	DID

PROJECT NO.

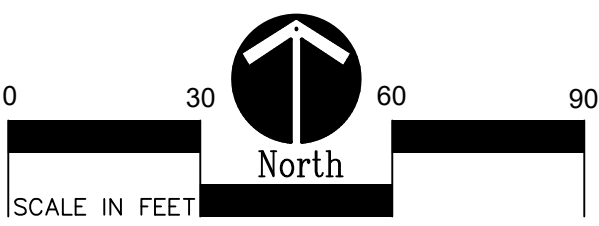
22091B

DRAWING NO.

C2.0

1 Overall Playground Layout Plan

Scale: 1" = 30'-0"

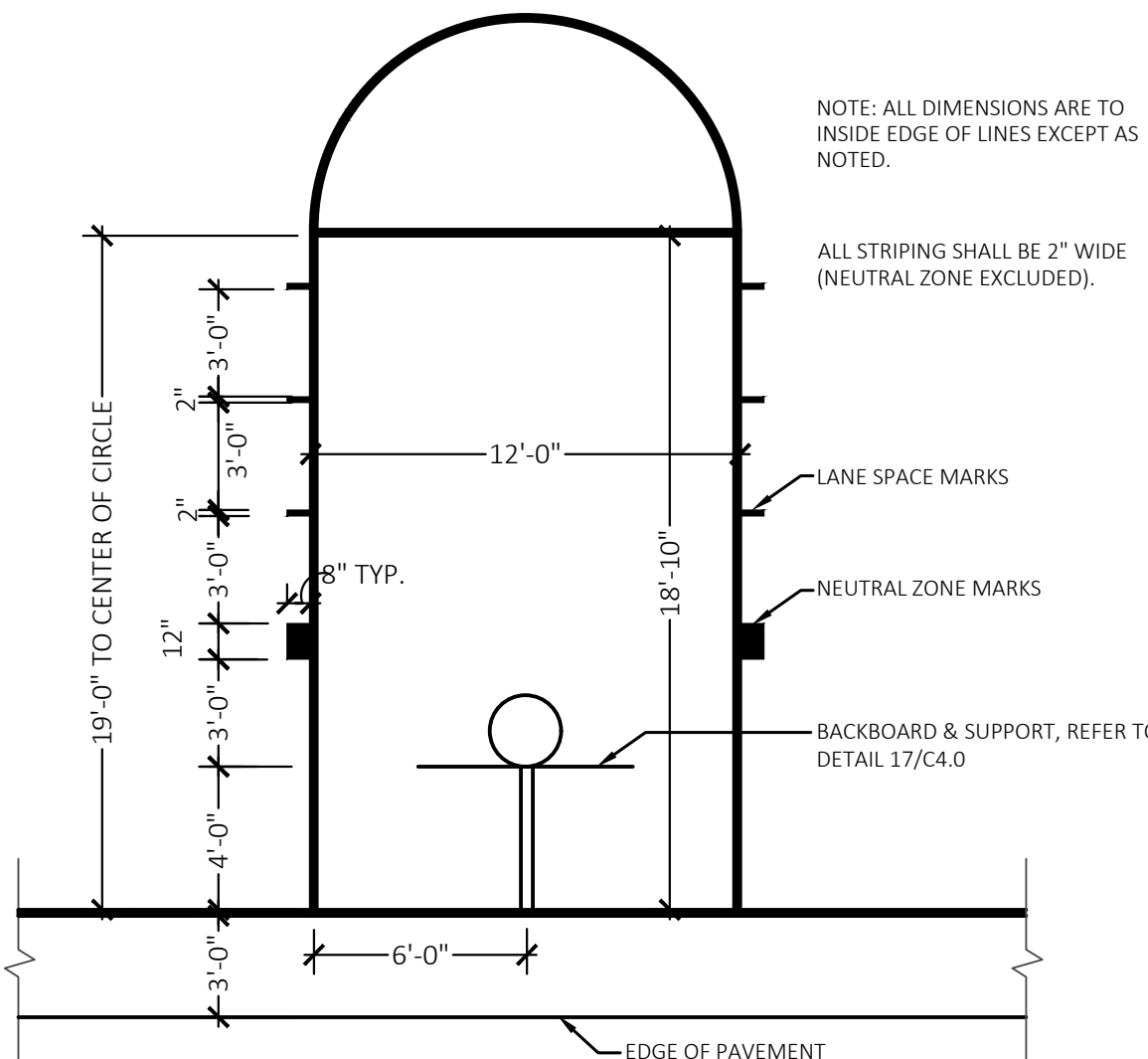


PROPOSED FEATURES LEGEND:

SYMBOL	DESCRIPTION	KEY	DESCRIPTION	DETAIL
	RESILIENT SURFACING (BY OTHERS)	A	STRAIGHT FACE CONCRETE CURB	6/C4.0
	LOOSE FILL SAFETY SURFACING (BY OTHERS)	B	THICKENED EDGE CONCRETE	11/C4.0
	SYNTHETIC TURF (BY OTHERS)	C	RESILIENT SURFACING (BY OTHERS)	7/C4.0
	SYNTHETIC TURF (BY OTHERS)	D	LOOSE FILL SAFETY SURFACING (BY OTHERS)	3 & 9/C4.0
	PLAY SAND	E	PLASTIC PLAY EDGING (BY OTHERS)	12, 13, & 18/C4.0
	PLAY HILL, REFER TO CIVIL DRAWINGS	F	SYNTHETIC TURF (BY OTHERS)	4, 5, & 8/C4.0
	PLASTIC PLAY EDGING, BY OTHERS REFER TO PLAYGROUND CONTRACTOR'S DRAWINGS AND SPECS	G	CONCRETE WALK	2/C4.0
	STRAIGHT FACE CONCRETE CURB	H	PLAY AREA ENTRANCE RAMP	16/C4.0
	THICKENED EDGE CONCRETE	I	CONCRETE SAND BOX	15/C4.0
	INTEGRAL WALK AND CURB	J	N/A	
	BARRIER-FREE PLAY AREA ENTRANCE RAMP	K	N/A	
	CHAIN LINK FENCE, REFER TO CIVIL PLANS	L	N/A	
	ENLARGEMENT LIMIT LINE	M	N/A	
		N	N/A	
		O	N/A	
		P	N/A	

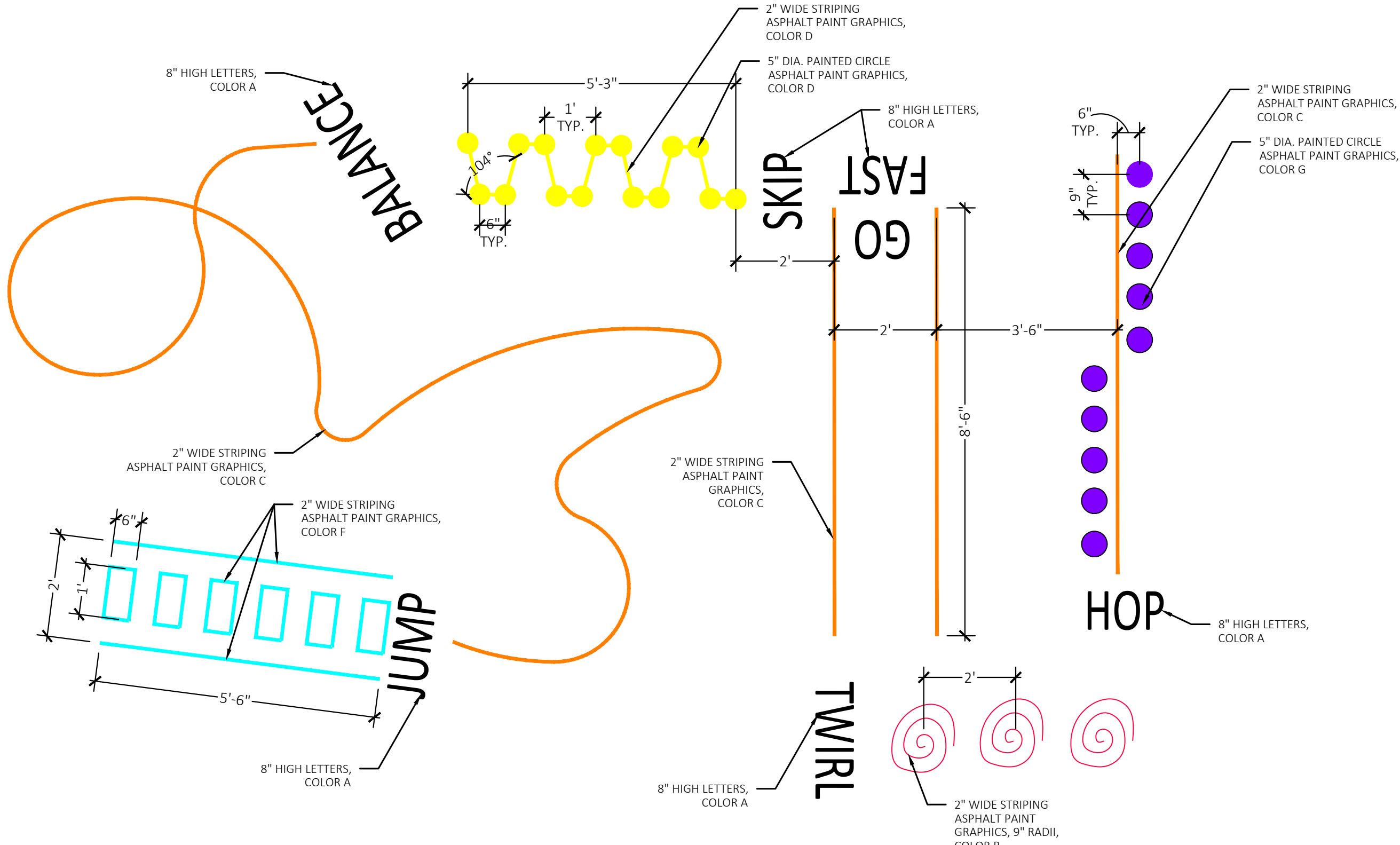
SIGNS

(S)	COMMUNICATION BOARD; PURCHASED BY OWNER, INSTALLED BY SITE CONTRACTOR	SEE SPECS.
-----	---	------------



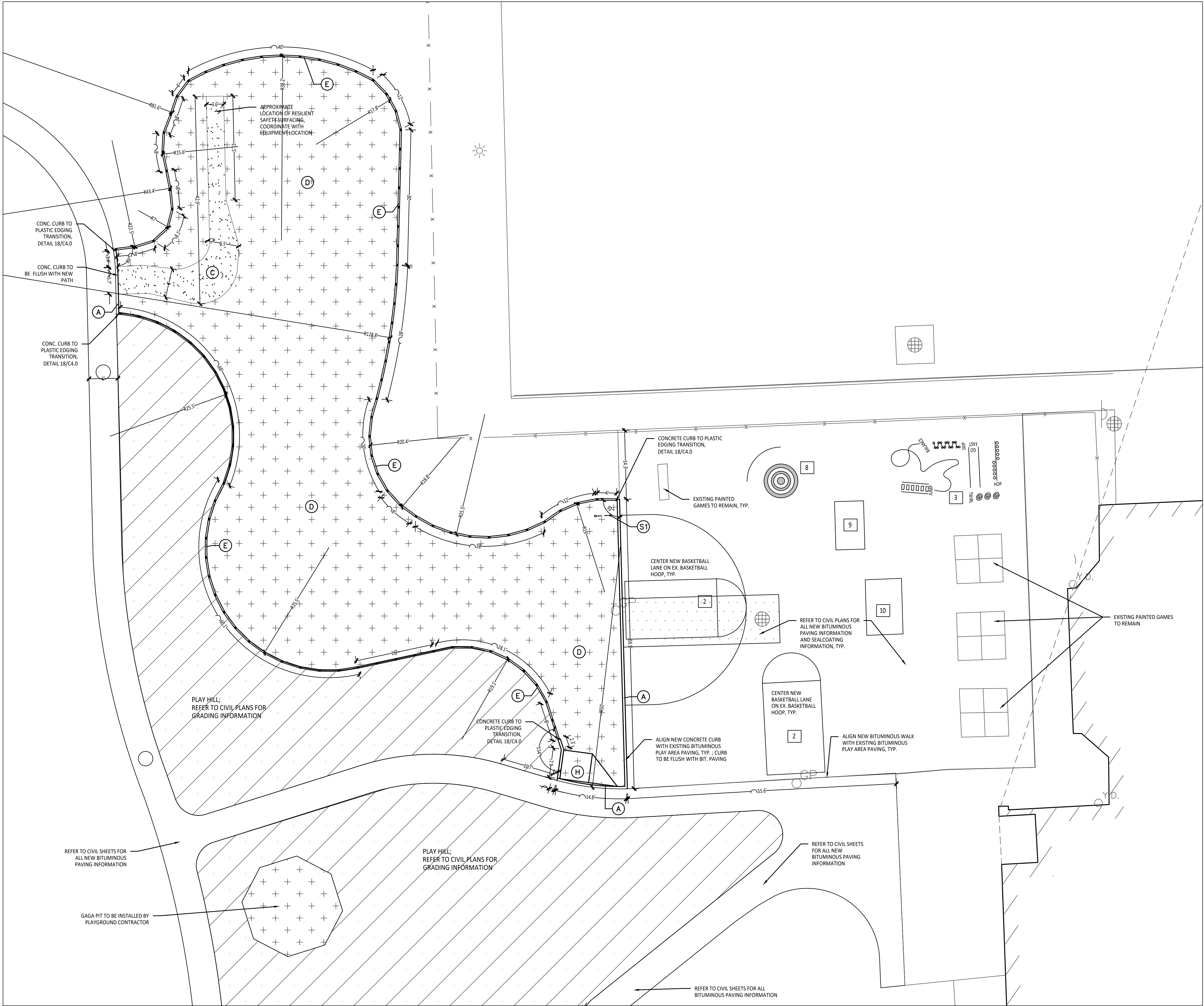
2 Basketball Lane Layout

NOT TO SCALE

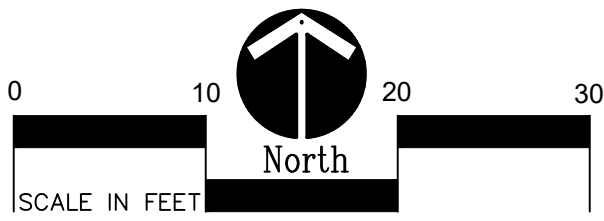


3 Silly Track Layout

Not to Scale



1 Playground Layout Enlargement Plan - Lower Elementary
Scale: 1" = 10'-0"



PAINTED GAMES SCHEDULE:

SYMBOL	DESCRIPTION	DETAIL
1	FOUR SQUARE	3/ C2.1
2	BASKETBALL LANE LAYOUT	2/ C2.0
3	SILLY TRACK	3/ C2.0
4	N/A	
5	N/A	
6	N/A	
7	BASKETBALL LANE W/ 3 POINT LINE	4/ C2.1
8	BULLSEYE GAME	
9	ROBOT HOPSCOTCH	
10	ALPHABET SNAKE	
11	SKELLY BOARD	

LAYOUT NOTES:

1. SURVEY OF EXISTING CONDITIONS PROVIDED BY PEA GROUP, 1849 POND RUN, AUBURN HILLS, MICHIGAN 48326, (248)689-9090.
2. PAVEMENT DIMENSIONS AND RADII ARE TO EDGE OF PAVEMENT OR BACK OF CURB. PLASTIC EDGING MEASURED TO/FROM CENTER OF PIN.
3. DISCREPANCIES BETWEEN SITE AND PLANS SHOULD BE REPORTED TO THE PROJECT MANAGER IMMEDIATELY.
4. VERIFY LOCATIONS OF ALL BELOW GRADE UTILITIES PRIOR TO BEGINNING WORK. 72 HOURS BEFORE YOU DIG CALL "MISS DIG" AT 1-800-482-7171.
5. PROVIDE BARRIER FREE PARKING SIGNS FOR ALL BARRIER FREE PARKING SPACES. ALL SIGNS TO COMPLY WITH THE MDOT MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
6. SITE LAYOUT POINTS SHOULD BE ESTABLISHED AND PROTECTED FOR FUTURE SITE WORK.

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.

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:

SYMBOL	DESCRIPTION
	RESILIENT SURFACING (BY OTHERS)
	LOOSE FILL SAFETY SURFACING (BY OTHERS)
	N/A
	N/A
	N/A
	PLAY HILL, REFER TO CIVIL DRAWINGS
	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
	CHAIN LINK FENCE, REFER TO CIVIL PLANS
	ENLARGEMENT LIMIT LINE

KEY	DESCRIPTION	DETAIL
A	STRAIGHT FACE CONCRETE CURB	6 / C4.0
B	THICKENED EDGE CONCRETE	11 / C4.0
C	RESILIENT SURFACING (BY OTHERS)	7 / C4.0
D	LOOSE FILL SAFETY SURFACING (BY OTHERS)	3 & 9 / C4.0
E	PLASTIC PLAY EDGING (BY OTHERS)	12, 13, & 18 / C4.0
F	SYNTHETIC TURF (BY OTHERS)	4, 5, & 8 / C4.0
G	CONCRETE WALK	2 / C4.0
H	PLAY AREA ENTRANCE RAMP	16 / C4.0
J	CONCRETE SAND BOX	15 / C4.0
K	BASKETBALL HOOP POLE (BY OTHERS)	17 / C4.0
L	N/A	
M	N/A	
N	N/A	
P	N/A	

SIGNS	DESCRIPTION	DETAIL
S1	COMMUNICATION BOARD; PURCHASED BY OWNER, INSTALLED BY SITE CONTRACTOR	SEE SPECS.

CONTRACTOR COORDINATION NOTES:

SITE CONTRACTOR AND PLAYGROUND CONTRACTOR ARE REQUIRED TO COORDINATE BOTH WITH EACH OTHER AND WITH CONSTRUCTION MANAGER. THE INSTALLATION PROCESS FOR THE PLAYGROUND SAFETY SURFACING SHOULD BE AS FOLLOWS:

- * SITE CONTRACTOR TO EXCAVATE AREA AS SHOWN ON CONSTRUCTION DOCUMENTS.
- * SITE CONTRACTOR TO INSTALL UNDERDRAINS AS SHOWN ON CONSTRUCTION DOCUMENTS. SITE CONTRACTOR TO USE LAYOUT SERVICES FROM CADD FILES FOR INSTALLATION TO ENSURE THAT THE UNDERDRAINS ARE INSTALLED IN THE CORRECT LOCATIONS.
- * THE PLAYGROUND CONTRACTOR WILL THEN INSTALL THE POSTS AND FOOTINGS FOR ALL EQUIPMENT.
- * THE SITE CONTRACTOR WILL THEN INSTALL THE DRAINAGE AGGREGATE, TAKING CARE TO NOT DAMAGE THE POSTS OR POWDERCOATING OF THE PLAY EQUIPMENT. THE SITE CONTRACTOR WILL ALSO INSTALL THE ADDITIONAL ENGINEERED FILL FOR THE RESILIENT SURFACING AREAS. THE SITE CONTRACTOR MUST COORDINATE THE DEPTHS WITH THE PLAYGROUND CONTRACTOR PRIOR TO INSTALLATION AS THE DEPTHS VARY BETWEEN PLAYGROUND CONTRACTORS.
- * THE PLAYGROUND CONTRACTOR WILL INSTALL THE GEOTEXTILE FABRIC, PLAYGROUND EQUIPMENT, AND SAFETY SURFACING.



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



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

Landscape Architecture
Urban Planning
Parks & Recreation
Campus & Institutional Planning
Camp Planning & Design

PROJECT TITLE

**Leonard
Elementary School
Playground Remodel
Bld Package No.01B**

**Troy School District
Troy, Michigan**

DRAWING TITLE

**Playground Layout
Enlargement Plans**

ISSUE DATES

10-03-2024	CONSTRUCTION DOCUMENTS
------------	------------------------

DATE: ISSUED FOR:

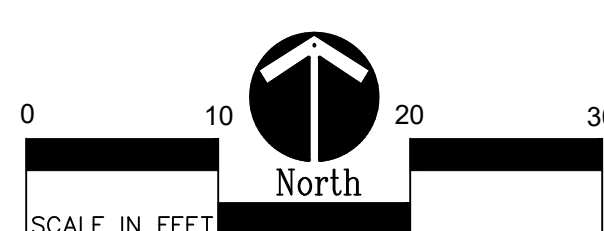
DRAWN	DID
CHECKED	DID
APPROVED	DID

PROJECT NO.

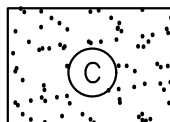
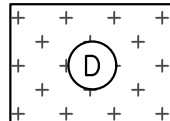
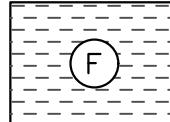

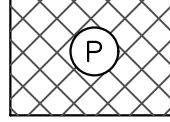
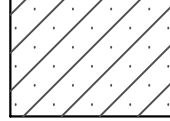
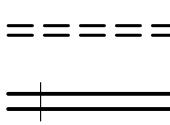
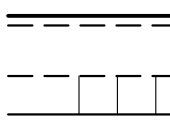
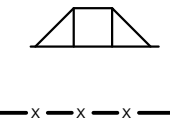



22091B

DRAWING NO.

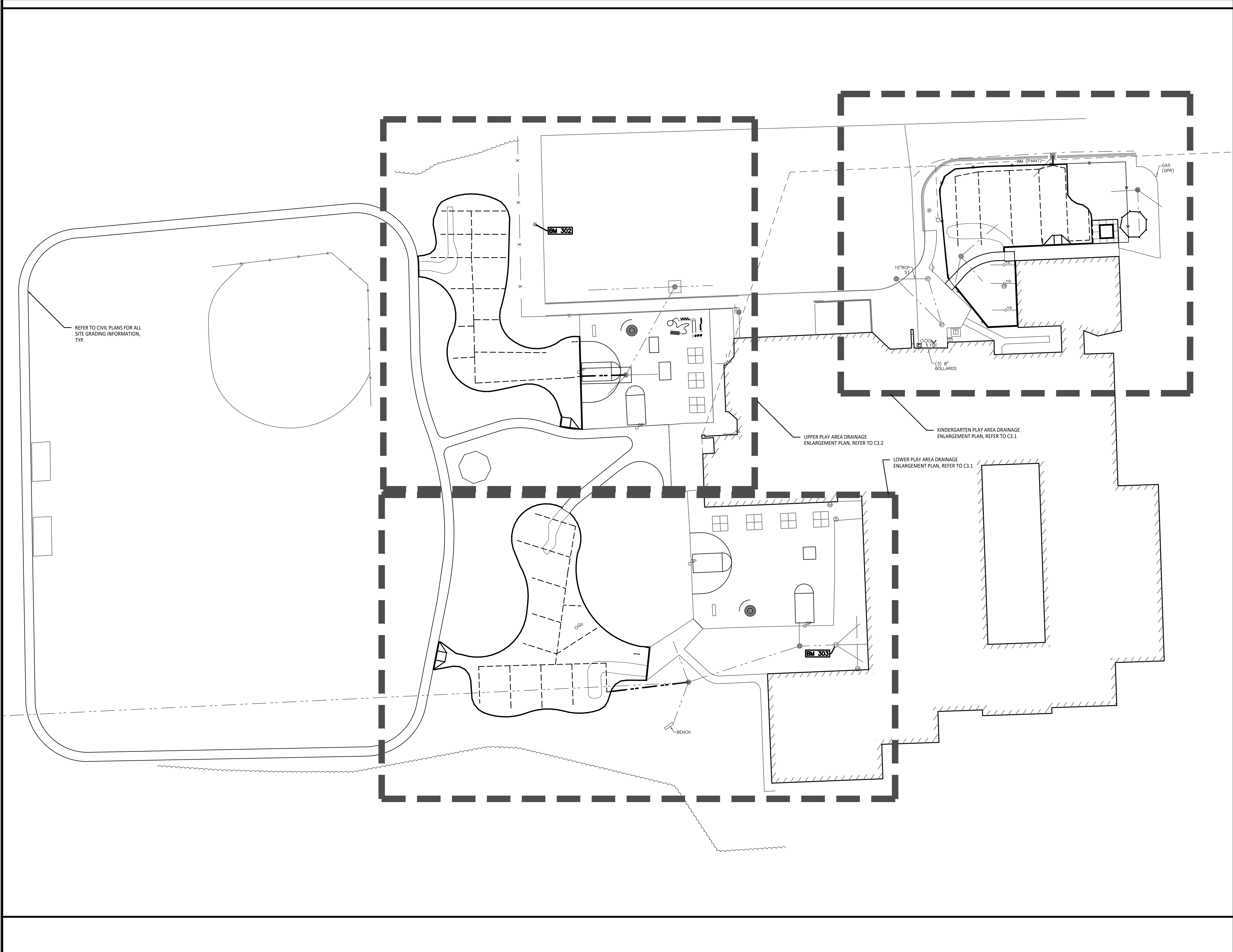
C2.2



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.

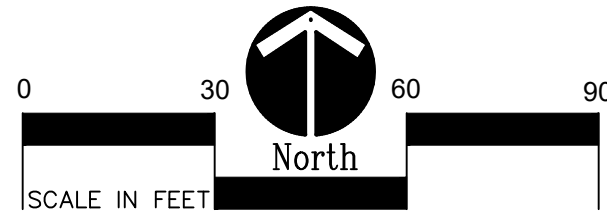
SYMBOL	DESCRIPTION	KEY	DESCRIPTION	DETAIL
	RESILIENT SURFACING (BY OTHERS)	(A)	STRAIGHT FACE CONCRETE CURB	6 /C4.0
	LOOSE FILL SAFETY SURFACING (BY OTHERS)	(B)	THICKENED EDGE CONCRETE	11 /C4.0
	N/A	(C)	RESILIENT SURFACING (BY OTHERS)	7 /C4.0
	N/A	(D)	LOOSE FILL SAFETY SURFACING (BY OTHERS)	3 & 9 /C4.0
	N/A	(E)	PLASTIC PLAY EDGING (BY OTHERS)	12, 13, & 18 /C4.0
	PLAY HILL, REFER TO CIVIL DRAWINGS	(F)	N/A	
	PLAY HILL, REFER TO CIVIL DRAWINGS	(G)	CONCRETE WALK	2 /C4.0
	PLAY HILL, REFER TO CIVIL DRAWINGS	(H)	PLAY AREA ENTRANCE RAMP	16 /C4.0
	PLAY HILL, REFER TO CIVIL DRAWINGS	(J)	CONCRETE SAND BOX	15 /C4.0
	PLAY HILL, REFER TO CIVIL DRAWINGS	(K)	BASKETBALL HOOP POLE (BY OTHERS)	17 /C4.0
	PLAY HILL, REFER TO CIVIL DRAWINGS	(L)	N/A	
	PLAY HILL, REFER TO CIVIL DRAWINGS	(M)	N/A	
	PLAY HILL, REFER TO CIVIL DRAWINGS	(N)	N/A	
	PLAY HILL, REFER TO CIVIL DRAWINGS	(P)	N/A	
	PLAY HILL, REFER TO CIVIL DRAWINGS			
	PLAY HILL, REFER TO CIVIL DRAWINGS			
	PLAY HILL, REFER TO CIVIL DRAWINGS			
	PLAY HILL, REFER TO CIVIL DRAWINGS			
	PLAY HILL, REFER TO CIVIL DRAWINGS			
	PLAY HILL, REFER TO CIVIL DRAWINGS			
	PLAY HILL, REFER TO CIVIL DRAWINGS			
	PLAY HILL, REFER TO CIVIL DRAWINGS			
	PLAY HILL, REFER TO CIVIL DRAWINGS			
	PLAY HILL, REFER TO CIVIL DRAWINGS			
	PLAY HILL, REFER TO CIVIL DRAWINGS			
	PLAY HILL, REFER TO CIVIL DRAWINGS			
	PLAY HILL, REFER TO CIVIL DRAWINGS			
	PLAY HILL, REFER TO CIVIL DRAWINGS			
	PLAY HILL, REFER TO CIVIL DRAWINGS			
	PLAY HILL, REFER TO CIVIL DRAWINGS			
	PLAY HILL, REFER TO CIVIL DRAWINGS			
	PLAY HILL, REFER TO CIVIL DRAWINGS			
	PLAY HILL, REFER TO CIVIL DRAWINGS			
	PLAY HILL, REFER TO CIVIL DRAWINGS			
	PLAY HILL, REFER TO CIVIL DRAWINGS			
	PLAY HILL, REFER TO CIVIL DRAWINGS			
	PLAY HILL, REFER TO CIVIL DRAWINGS			
	PLAY HILL, REFER TO CIVIL DRAWINGS			
	PLAY HILL, REFER TO CIVIL DRAWINGS			
	PLAY HILL, REFER TO CIVIL DRAWINGS			
	PLAY HILL, REFER TO CIVIL DRAWINGS			
	PLAY HILL, REFER TO CIVIL DRAWINGS			
	PLAY HILL, REFER TO CIVIL DRAWINGS			
	PLAY HILL, REFER TO CIVIL DRAWINGS			
	PLAY HILL, REFER TO CIVIL DRAWINGS			
	PLAY HILL, REFER TO CIVIL DRAWINGS			
	PLAY HILL, REFER TO CIVIL DRAWINGS			
	PLAY HILL, REFER TO CIVIL DRAWINGS			
	PLAY HILL, REFER TO CIVIL DRAWINGS			
	PLAY HILL, REFER TO CIVIL DRAWINGS			

C2.3



1 Overall Playground Grading Plan

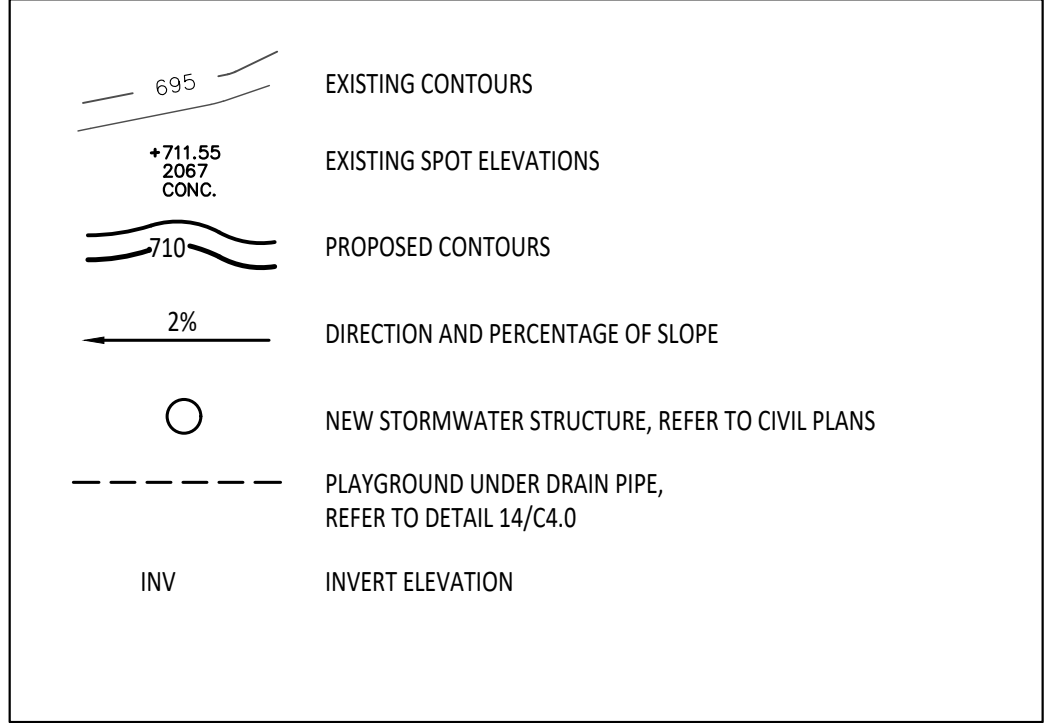
1" = 30'-0"



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.

PROPOSED FEATURES LEGEND:



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.

CONTRACTOR COORDINATION NOTES:

- SITE CONTRACTOR AND PLAYGROUND CONTRACTOR ARE REQUIRED TO COORDINATE BOTH WITH EACH OTHER AND WITH CONSTRUCTION MANAGER. THE INSTALLATION PROCESS FOR THE PLAYGROUND SAFETY SURFACING SHOULD BE AS FOLLOWS:
- * SITE CONTRACTOR TO EXCAVATE AREA AS SHOWN ON CONSTRUCTION DOCUMENTS.
 - * SITE CONTRACTOR TO INSTALL UNDERDRAINS AS SHOWN ON CONSTRUCTION DOCUMENTS. SITE CONTRACTOR TO USE LAYOUT SERVICES FROM CADD FILES FOR INSTALLATION TO ENSURE THAT THE UNDERDRAINS ARE INSTALLED IN THE CORRECT LOCATIONS.
 - * THE PLAYGROUND CONTRACTOR WILL THEN INSTALL THE POSTS AND FOOTINGS FOR ALL EQUIPMENT.
 - * THE SITE CONTRACTOR WILL THEN INSTALL THE DRAINAGE AGGREGATE, TAKING CARE TO NOT DAMAGE THE POSTS OR POWDERCOATING OF THE PLAY EQUIPMENT. THE SITE CONTRACTOR WILL ALSO INSTALL THE ADDITIONAL ENGINEERED FILL FOR THE RESILIENT SURFACING AREAS. THE SITE CONTRACTOR MUST COORDINATE THE DEPTHS WITH THE PLAYGROUND CONTRACTOR PRIOR TO INSTALLATION AS THE DEPTHS VARY BETWEEN PLAYGROUND CONTRACTORS.
 - * THE PLAYGROUND CONTRACTOR WILL INSTALL THE GEOTEXTILE FABRIC, PLAYGROUND EQUIPMENT, AND SAFETY SURFACING.

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 SOILED, 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.



TMP ARCHITECTURE INC
1191 WEST SQUARE LAKE ROAD
BLOOMFIELD HILLS - MICHIGAN - 48302
PH - 248.338.4861 FX - 248.338.0223
EM - INFO@TMP-ARCHITECTURE.COM

REGISTRATION SEAL

CONSULTANT



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

Landscape Architecture
Urban Planning
Parks & Recreation
Campus & Institutional Planning
Camp Planning & Design

PROJECT TITLE

**Leonard
Elementary School
Playground Remodel
Bld Package No.01B**

**Troy School District
Troy, Michigan**

DRAWING TITLE

**Overall Playground
Drainage Plan**

ISSUE DATES

1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10	10
11	11
12	12
13	13
14	14
15	15
16	16
17	17
18	18
19	19
20	20
21	21
22	22
23	23
24	24
25	25
26	26
27	27
28	28
29	29
30	30
31	31
32	32
33	33
34	34
35	35
36	36
37	37
38	38
39	39
40	40
41	41
42	42
43	43
44	44
45	45
46	46
47	47
48	48
49	49
50	50
51	51
52	52
53	53
54	54
55	55
56	56
57	57
58	58
59	59
60	60
61	61
62	62
63	63
64	64
65	65
66	66
67	67
68	68
69	69
70	70
71	71
72	72
73	73
74	74
75	75
76	76
77	77
78	78
79	79
80	80
81	81
82	82
83	83
84	84
85	85
86	86
87	87
88	88
89	89
90	90
91	91
92	92
93	93
94	94
95	95
96	96
97	97
98	98
99	99
100	100

10-03-2024 CONSTRUCTION DOCUMENTS

DATE: ISSUED FOR:

DRAWN: DID

CHECKED: DID

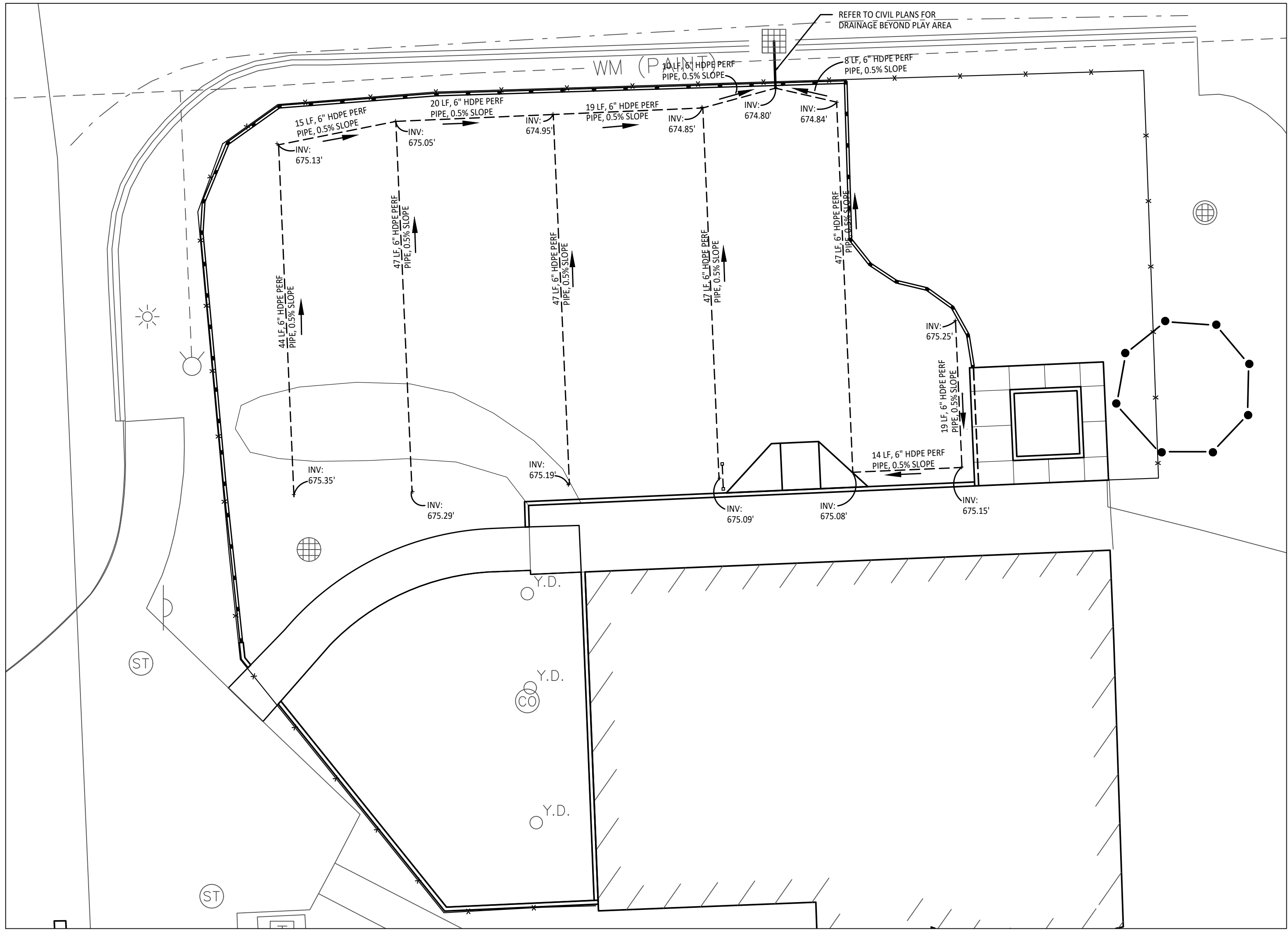
APPROVED: DID

PROJECT NO.

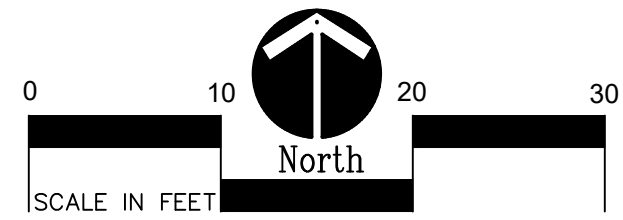
22091B

DRAWING NO.

C3.0



1 Playground Drainage Enlargement Plan - Kindergarten Play Area
1" = 10'-0"



CONTRACTOR COORDINATION NOTES:

SITE CONTRACTOR AND PLAYGROUND CONTRACTOR ARE REQUIRED TO COORDINATE BOTH WITH EACH OTHER AND WITH CONSTRUCTION MANAGER. THE INSTALLATION PROCESS FOR THE PLAYGROUND SAFETY SURFACING SHOULD BE AS FOLLOWS:

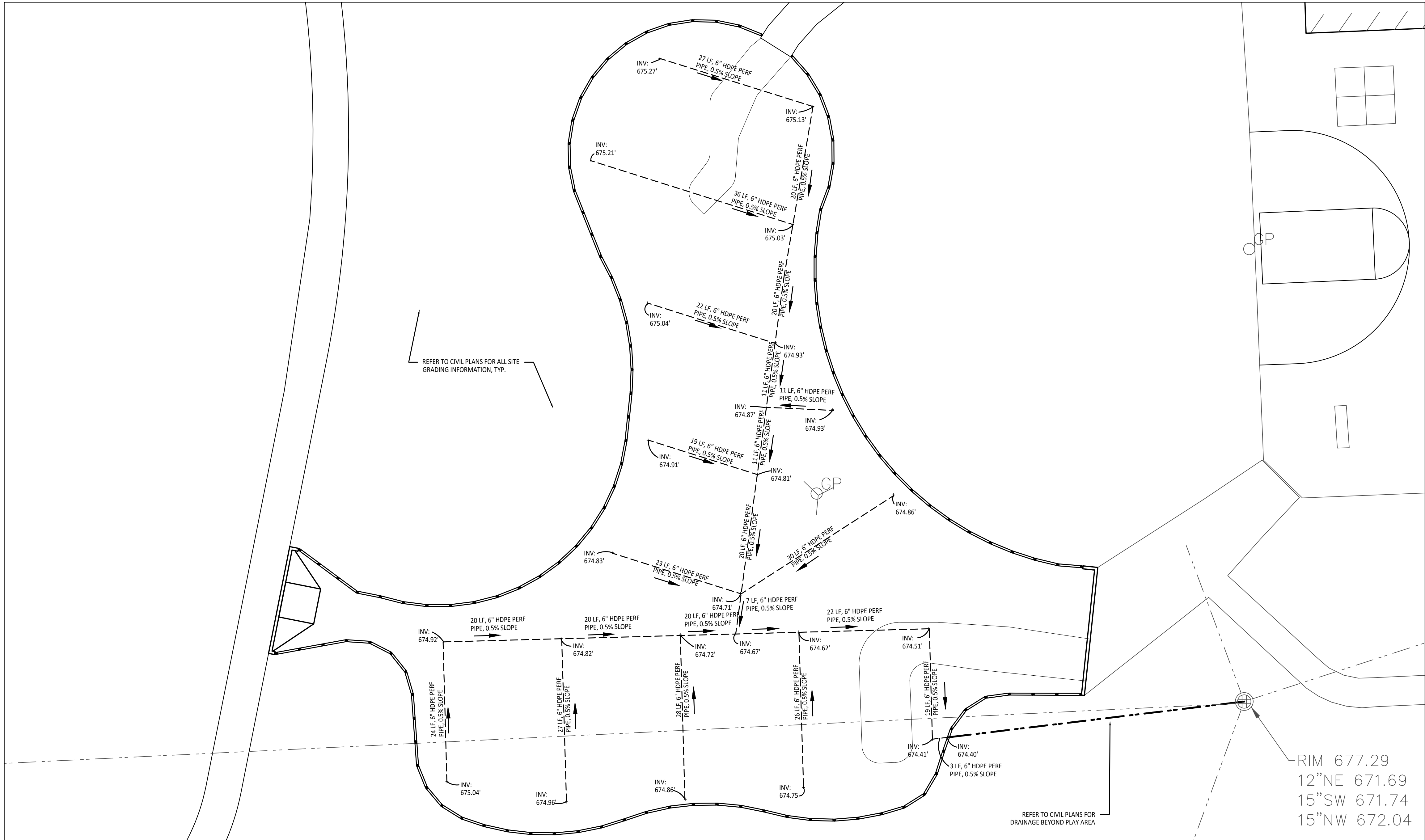
- * SITE CONTRACTOR TO EXCAVATE AREA AS SHOWN ON CONSTRUCTION DOCUMENTS.
- * SITE CONTRACTOR TO INSTALL UNDERDRAINS AS SHOWN ON CONSTRUCTION DOCUMENTS. SITE CONTRACTOR TO USE LAYOUT SERVICES FROM CADD FILES FOR INSTALLATION TO ENSURE THAT THE UNDERDRAINS ARE INSTALLED IN THE CORRECT LOCATIONS.
- * THE PLAYGROUND CONTRACTOR WILL THEN INSTALL THE POSTS AND FOOTINGS FOR ALL EQUIPMENT.
- * THE SITE CONTRACTOR WILL THEN INSTALL THE DRAINAGE AGGREGATE, TAKING CARE TO NOT DAMAGE THE POSTS OR POWDERCOATING OF THE PLAY EQUIPMENT. THE SITE CONTRACTOR WILL ALSO INSTALL THE ADDITIONAL ENGINEERED FILL FOR THE RESILIENT SURFACING AREAS. THE SITE CONTRACTOR MUST COORDINATE THE DEPTHS WITH THE PLAYGROUND CONTRACTOR PRIOR TO INSTALLATION AS THE DEPTHS VARY BETWEEN PLAYGROUND CONTRACTORS.
- * THE PLAYGROUND CONTRACTOR WILL INSTALL THE GEOTEXTILE FABRIC, PLAYGROUND EQUIPMENT, AND SAFETY SURFACING.

IMPORTANT NOTE

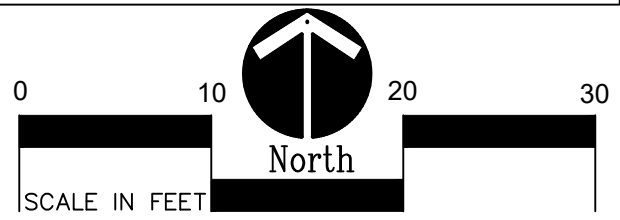
GENERAL EARTHWORK NOTE:

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



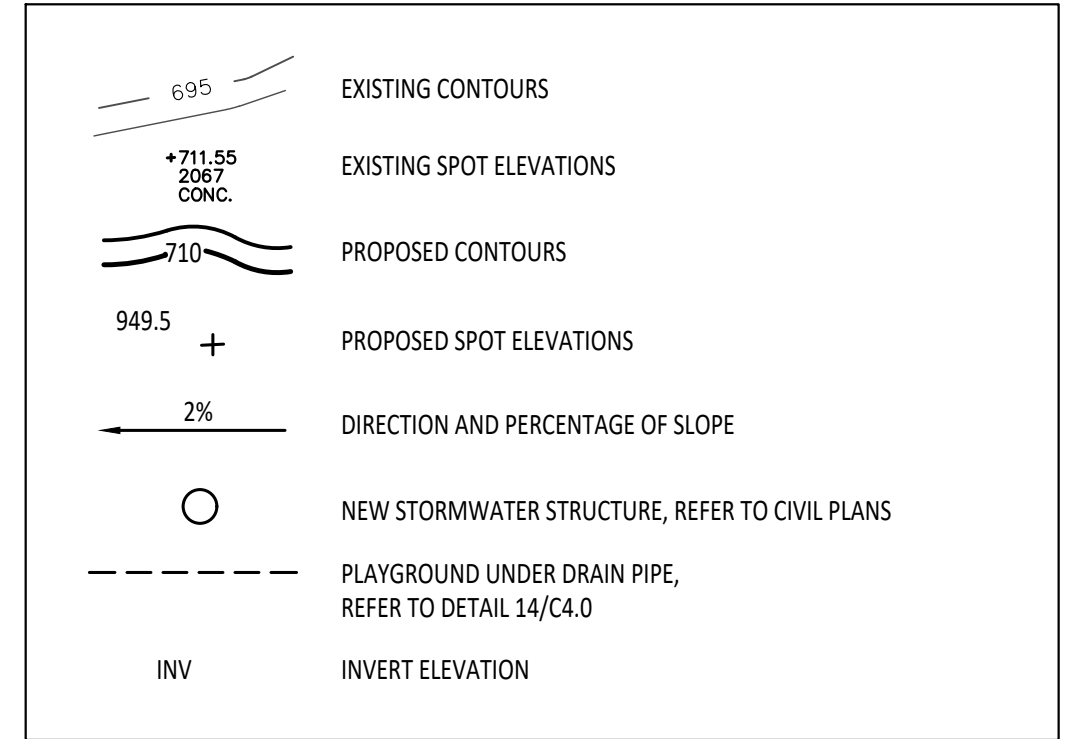
2 Playground Drainage Enlargement Plan - Lower Elementary Play Area
1" = 10'-0"



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.

PROPOSED FEATURES LEGEND:



BARRIER-FREE NOTES

BARRIER-FREE PARKING AND ACCESSIBLE ROUTES 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.



TMP ARCHITECTURE INC
1191 WEST SQUARE LAKE ROAD
BLOOMFIELD HILLS - MICHIGAN - 48302
PH - 248.338.4361 FX - 248.338.0223
EM - INFO@TMP-ARCHITECTURE.COM

REGISTRATION SEAL

CONSULTANT



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

Landscape Architecture
Urban Planning
Parks & Recreation
Campus & Institutional Planning
Camp Planning & Design

PROJECT TITLE

**Leonard
Elementary School
Playground Remodel
Bld Package No.01B**

**Troy School District
Troy, Michigan**

DRAWING TITLE

**Playground Drainage
Enlargements Plan**

ISSUE DATES

1	2
3	4
5	6
7	8
9	10
11	12
13	14
15	16
17	18
19	20
21	22
23	24
25	26
27	28
29	30
31	32
33	34
35	36
37	38
39	40
41	42
43	44
45	46
47	48
49	50
51	52
53	54
55	56
57	58
59	60
61	62
63	64
65	66
67	68
69	70
71	72
73	74
75	76
77	78
79	80
81	82
83	84
85	86
87	88
89	90
91	92
93	94
95	96
97	98
99	100

10-03-2024 CONSTRUCTION DOCUMENTS

DATE ISSUED FOR:

DRAWN DID

CHECKED DID

APPROVED DID

PROJECT NO.

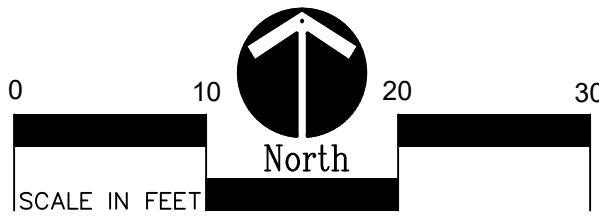
22091B

DRAWING NO.

C3.1



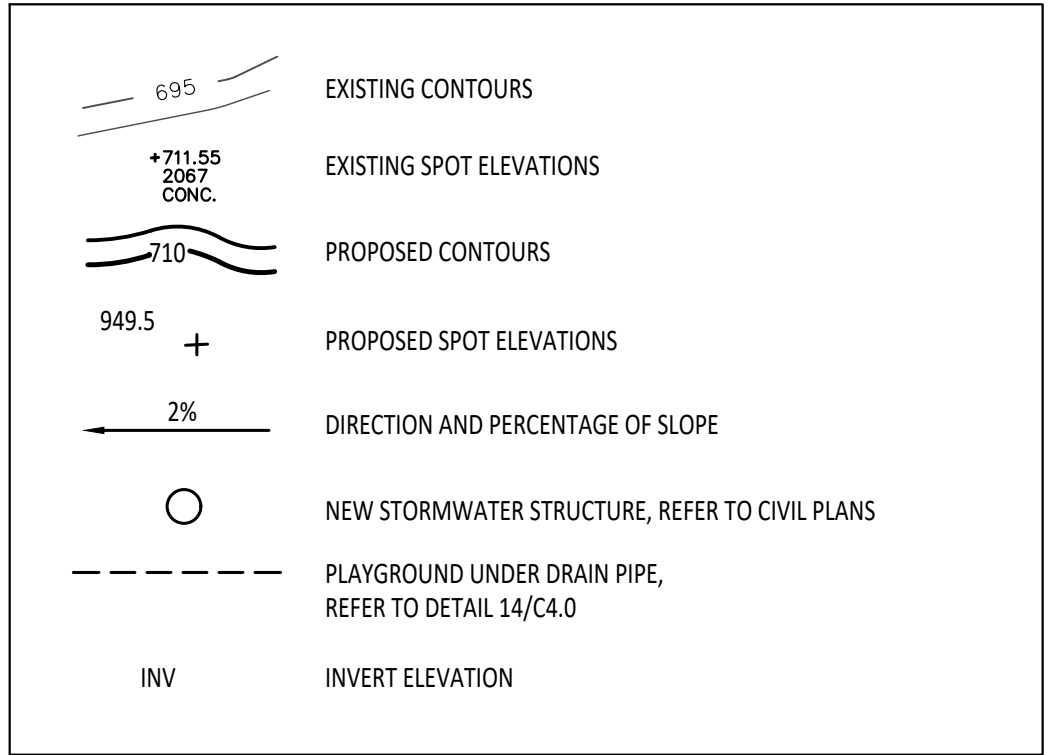
1 Playground Drainage Enlargement Plan - Upper Elementary Play Area
1" = 10'-0"



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.

PROPOSED FEATURES LEGEND:



BARRIER-FREE NOTES

- BARRIER-FREE PARKING AND ACCESSIBLE ROUTES 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.

CONTRACTOR COORDINATION NOTES:

- SITE CONTRACTOR AND PLAYGROUND CONTRACTOR ARE REQUIRED TO COORDINATE BOTH WITH EACH OTHER AND WITH CONSTRUCTION MANAGER. THE INSTALLATION PROCESS FOR THE PLAYGROUND SAFETY SURFACING SHOULD BE AS FOLLOWS:
- * SITE CONTRACTOR TO EXCAVATE AREA AS SHOWN ON CONSTRUCTION DOCUMENTS.
 - * SITE CONTRACTOR TO INSTALL UNDERDRAINS AS SHOWN ON CONSTRUCTION DOCUMENTS. SITE CONTRACTOR TO USE LAYOUT SERVICES FROM CADD FILES FOR INSTALLATION TO ENSURE THAT THE UNDERDRAINS ARE INSTALLED IN THE CORRECT LOCATIONS.
 - * THE PLAYGROUND CONTRACTOR WILL THEN INSTALL THE POSTS AND FOOTINGS FOR ALL EQUIPMENT.
 - * THE SITE CONTRACTOR WILL THEN INSTALL THE DRAINAGE AGGREGATE, TAKING CARE TO NOT DAMAGE THE POSTS OR PONDING/CORROSION OF THE PLAY EQUIPMENT. THE SITE CONTRACTOR WILL ALSO INSTALL THE ADDITIONAL ENGINEERED FILL FOR THE RESILIENT SURFACING AREAS. THE SITE CONTRACTOR MUST COORDINATE THE DEPTHS WITH THE PLAYGROUND CONTRACTOR PRIOR TO INSTALLATION AS THE DEPTHS VARY BETWEEN PLAYGROUND CONTRACTORS.
 - * THE PLAYGROUND CONTRACTOR WILL INSTALL THE GEOTEXTILE FABRIC, PLAYGROUND EQUIPMENT, AND SAFETY SURFACING.

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 SOILED, 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



TMP ARCHITECTURE INC
1191 WEST SQUARE LAKE ROAD
BLOOMFIELD HILLS • MICHIGAN • 48302
PH • 248.338.4361 FX • 248.338.0223
EM • INFO@TMP-ARCHITECTURE.COM

REGISTRATION SEAL

CONSULTANT



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

Landscape Architecture
Urban Planning
Parks & Recreation
Campus & Institutional Planning
Camp Planning & Design

PROJECT TITLE

**Leonard
Elementary School
Playground Remodel
Bld Package No.01B**

**Troy School District
Troy, Michigan**

**DRAWING TITLE
Playground Drainage
Enlargements Plan**

ISSUE DATES

1	10-03-2024
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	
25	
26	
27	
28	
29	
30	

DATE

ISSUED FOR:

DRAWN

DID

CHECKED

DID

APPROVED

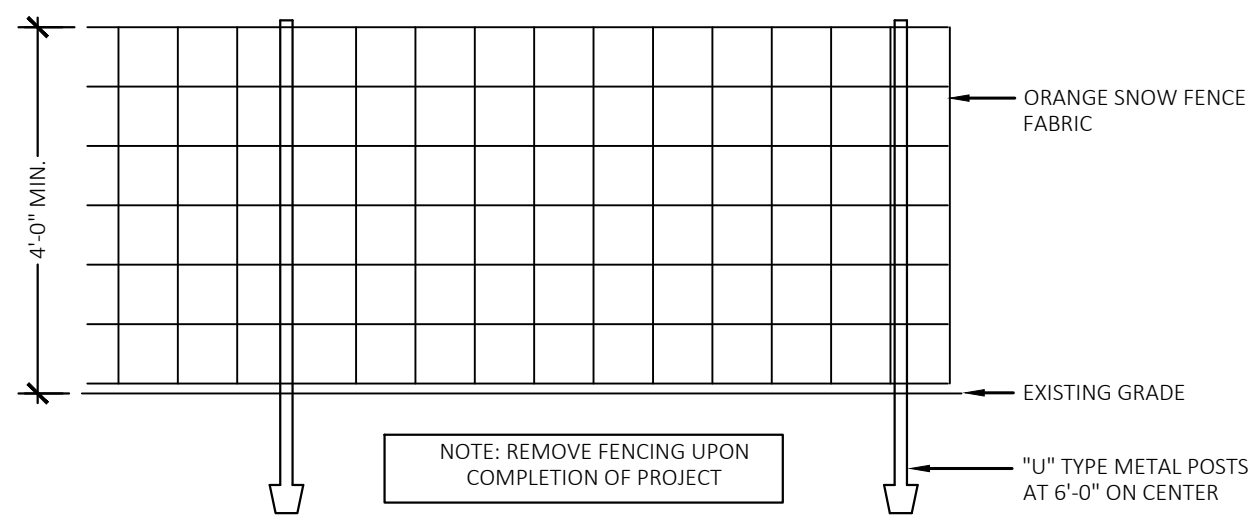
DID

PROJECT NO.

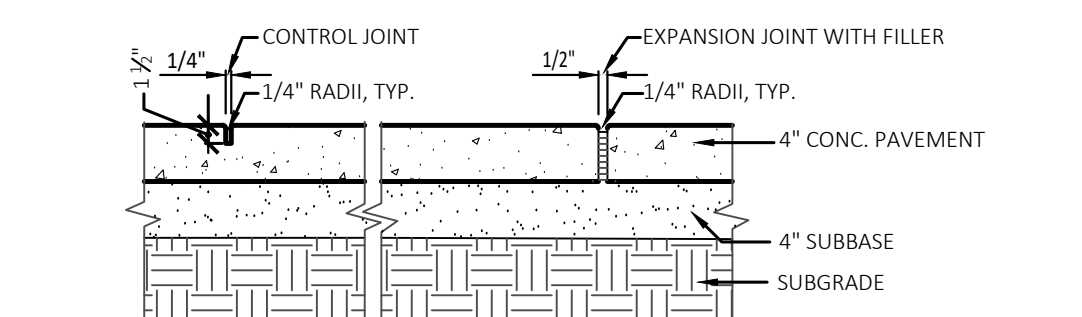
22091B

DRAWING NO.

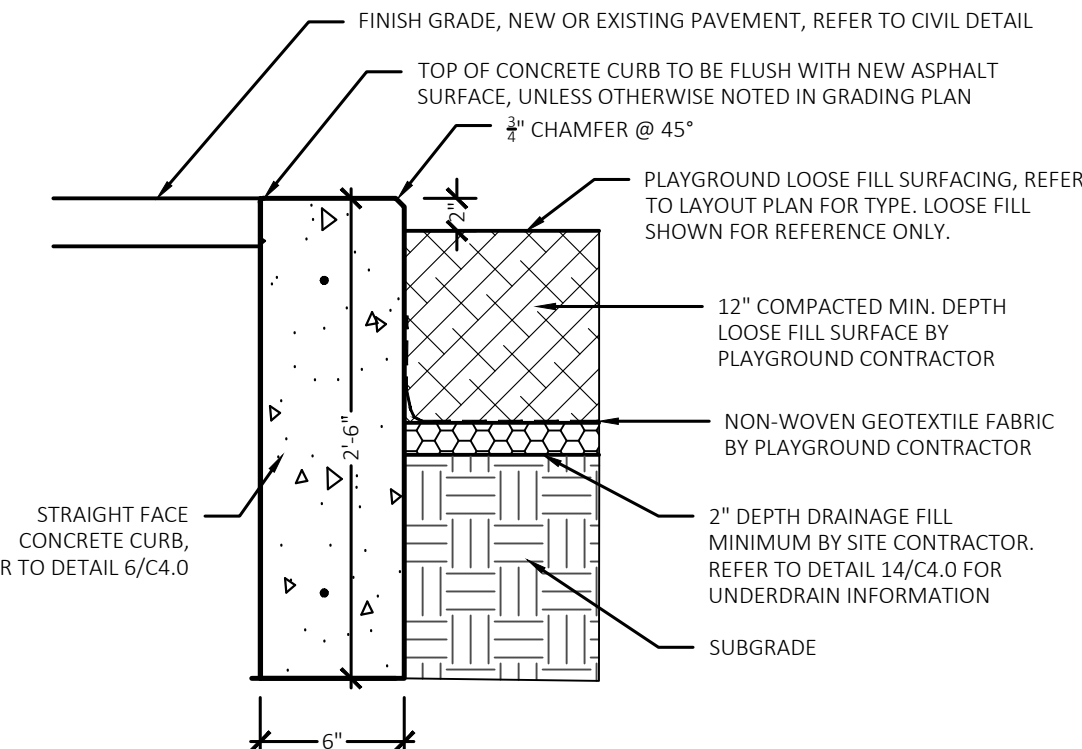
C3.2



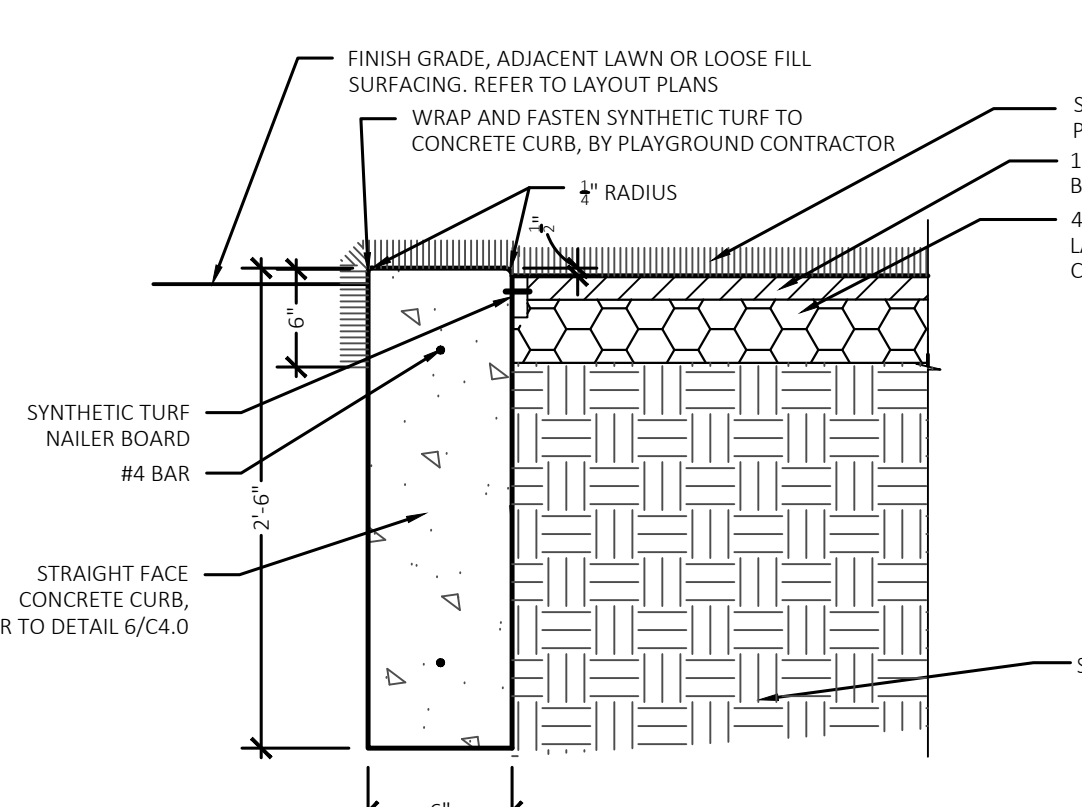
1 Tree Protection Fencing Detail
NOT TO SCALE



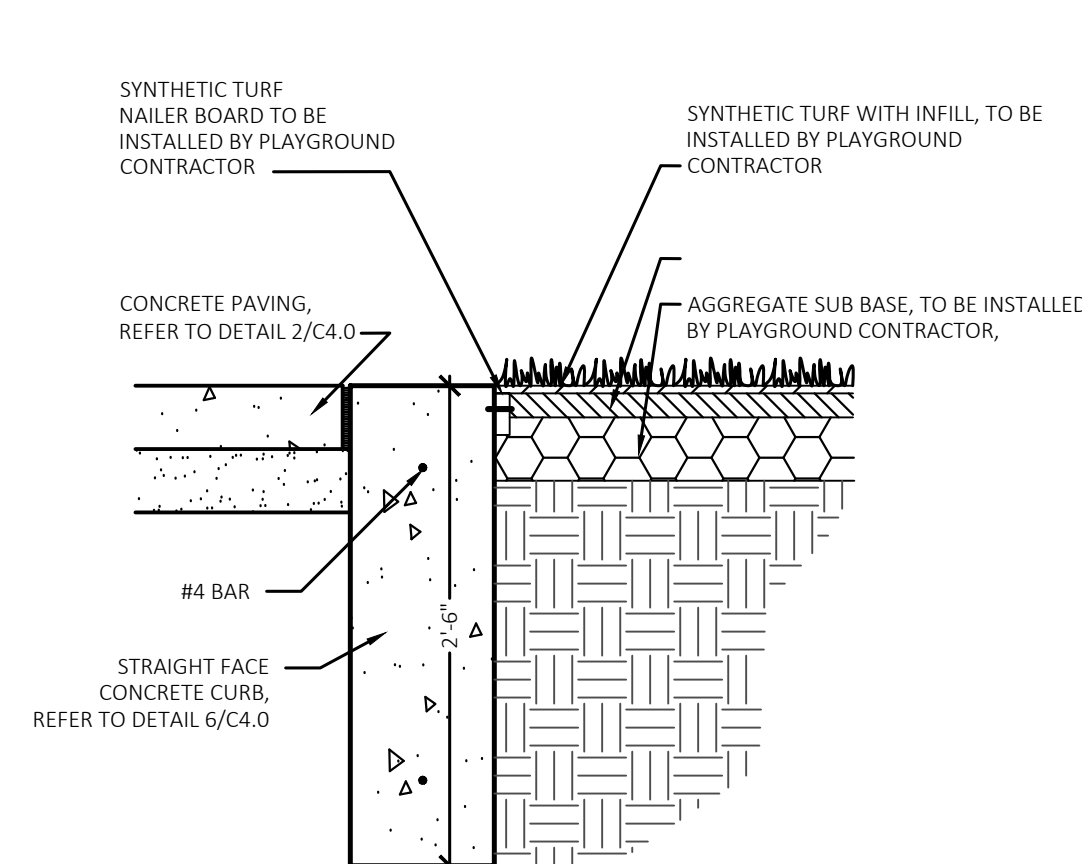
2 Section-Conc. Paving + Jointing
NOT TO SCALE



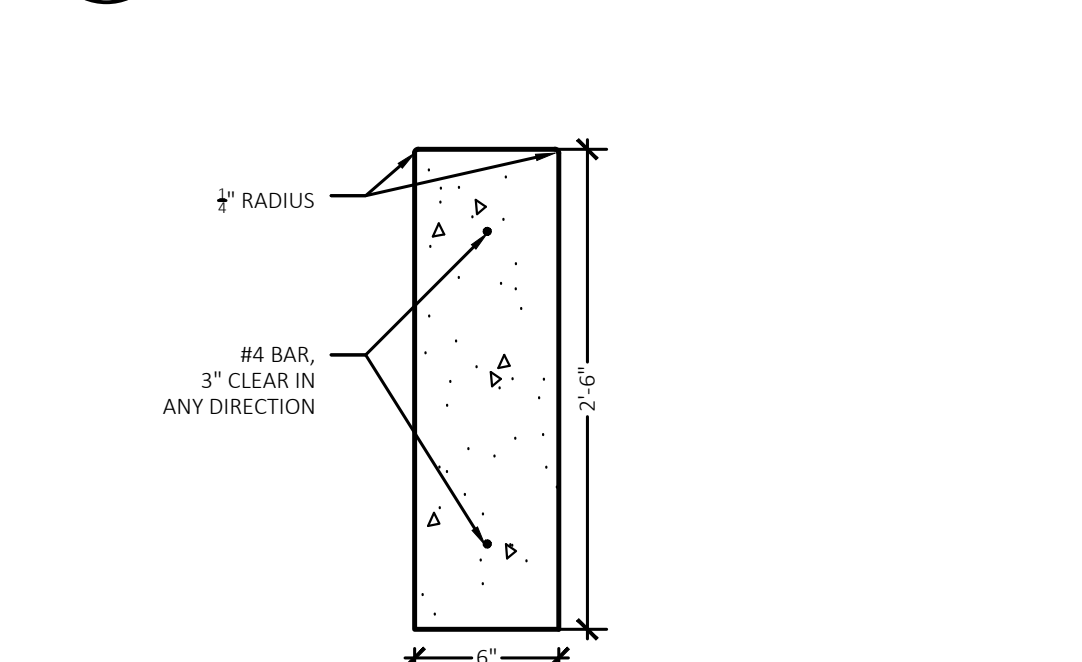
3 New Concrete Curb to Paving Loose Fill Play Surfacing Detail
Not to Scale



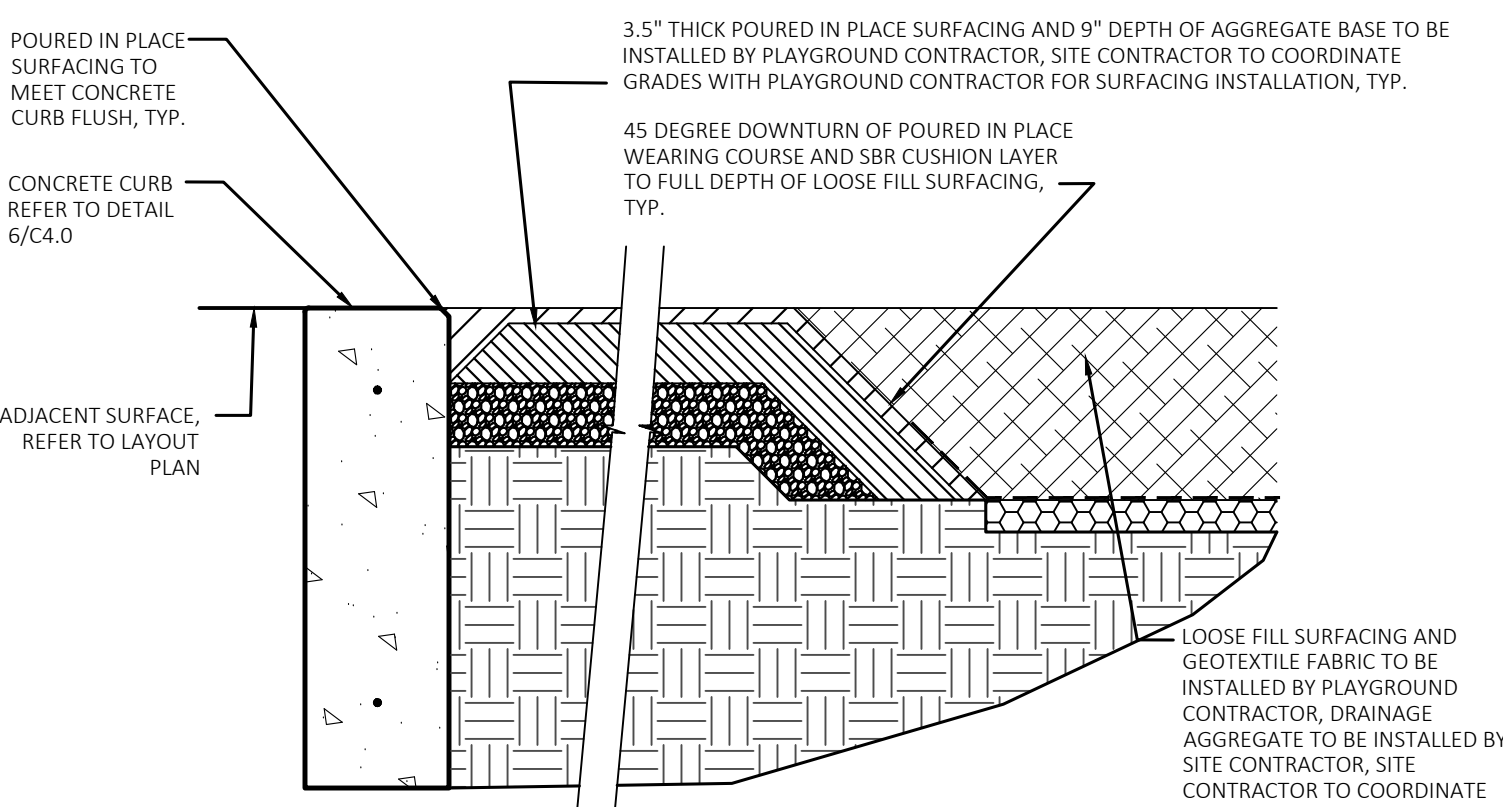
4 Synthetic Turf Wrap Over Concrete Curb Detail
Not to Scale



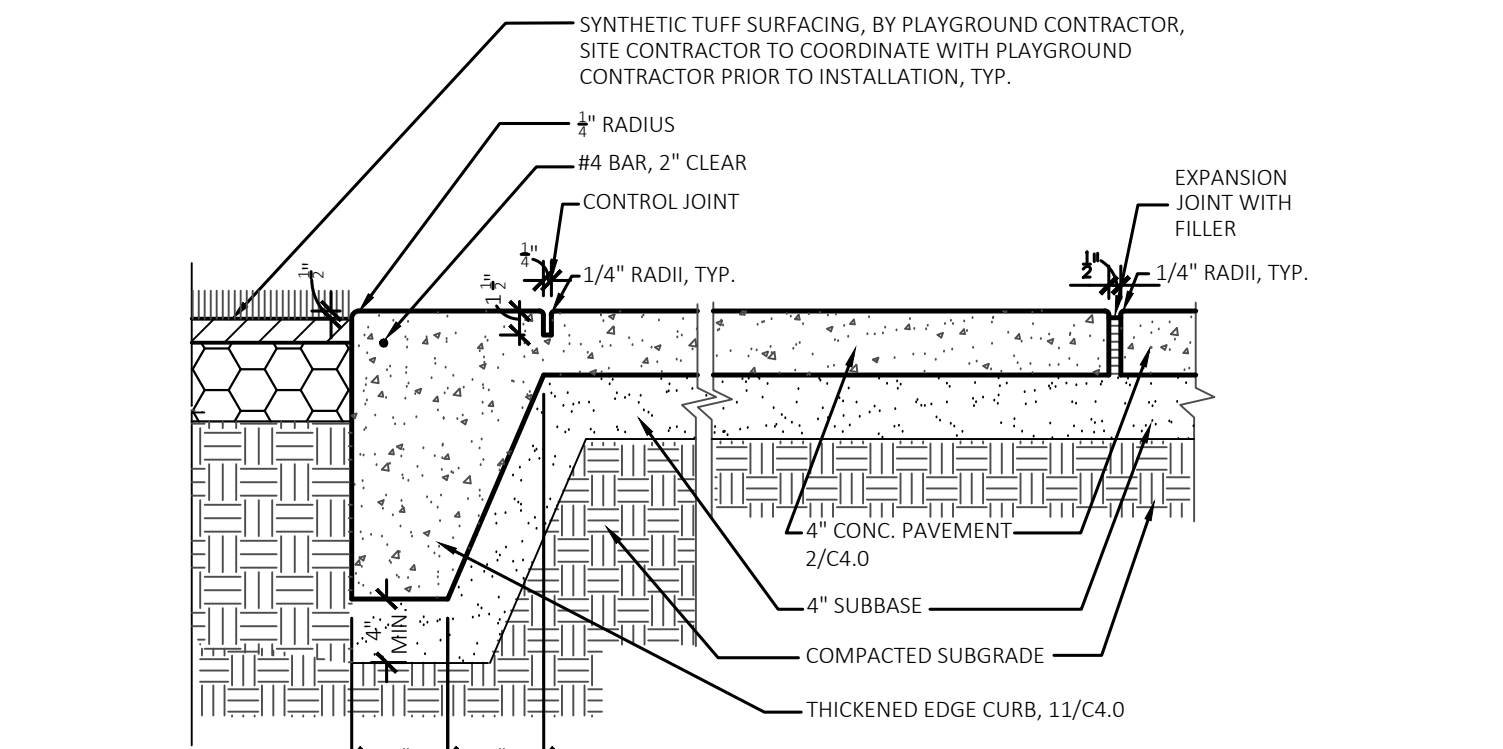
5 Synthetic Turf Transition to Concrete Curb Detail
NOT TO SCALE



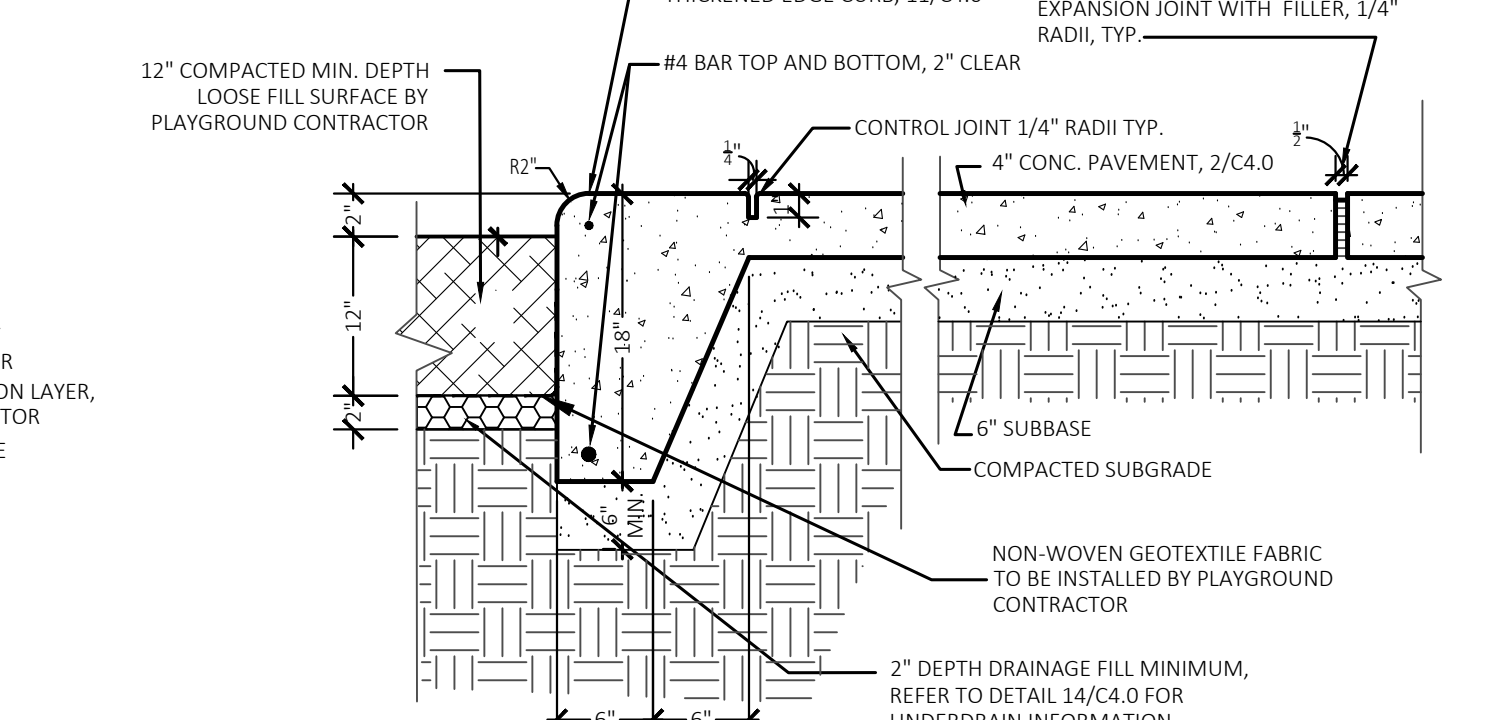
6 Straight Face Concrete Curb Detail
NOT TO SCALE



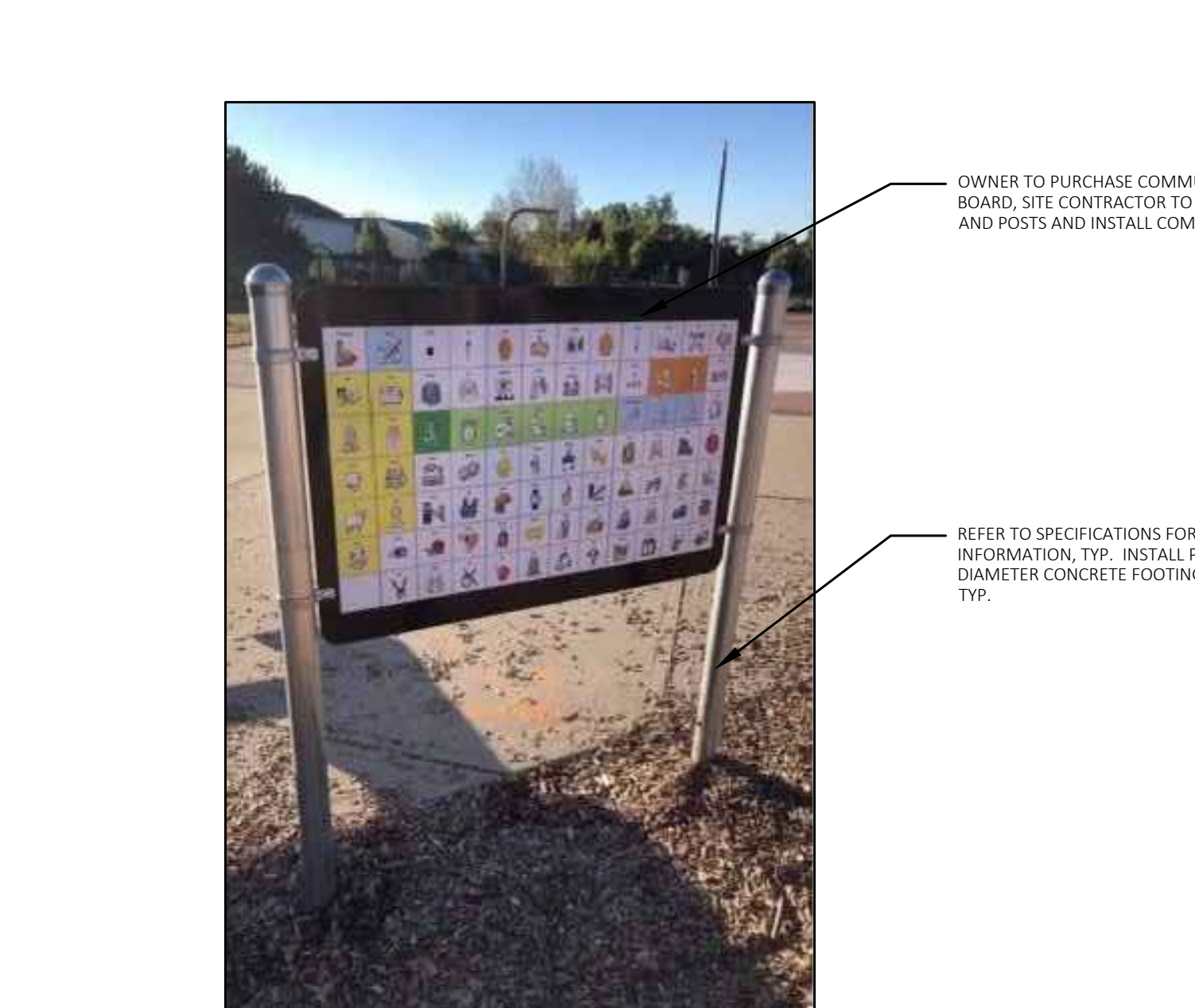
7 Poured in Place Surfacing Transition to Loose Fill Surfacing and Concrete Curb Detail
NOT TO SCALE



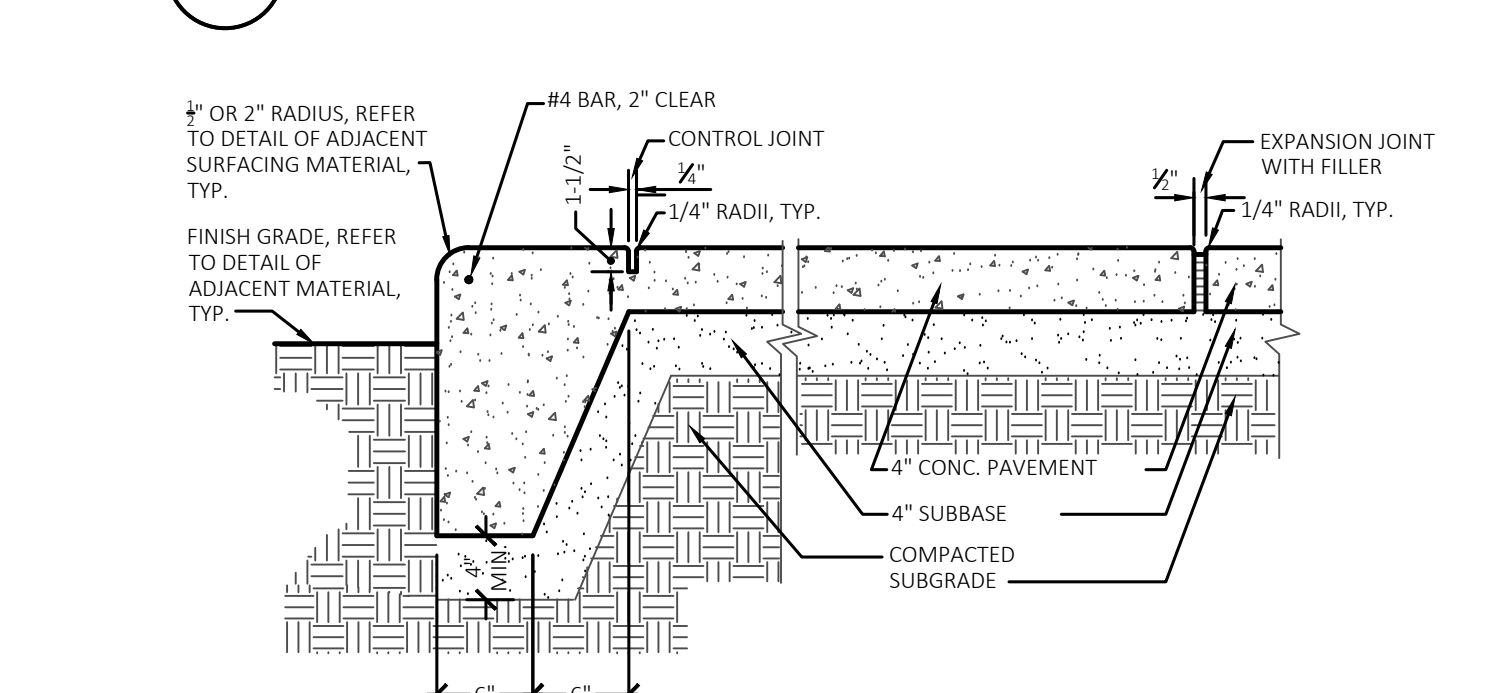
8 Synthetic Turf Transition to Thickened Edge Concrete
Not To Scale



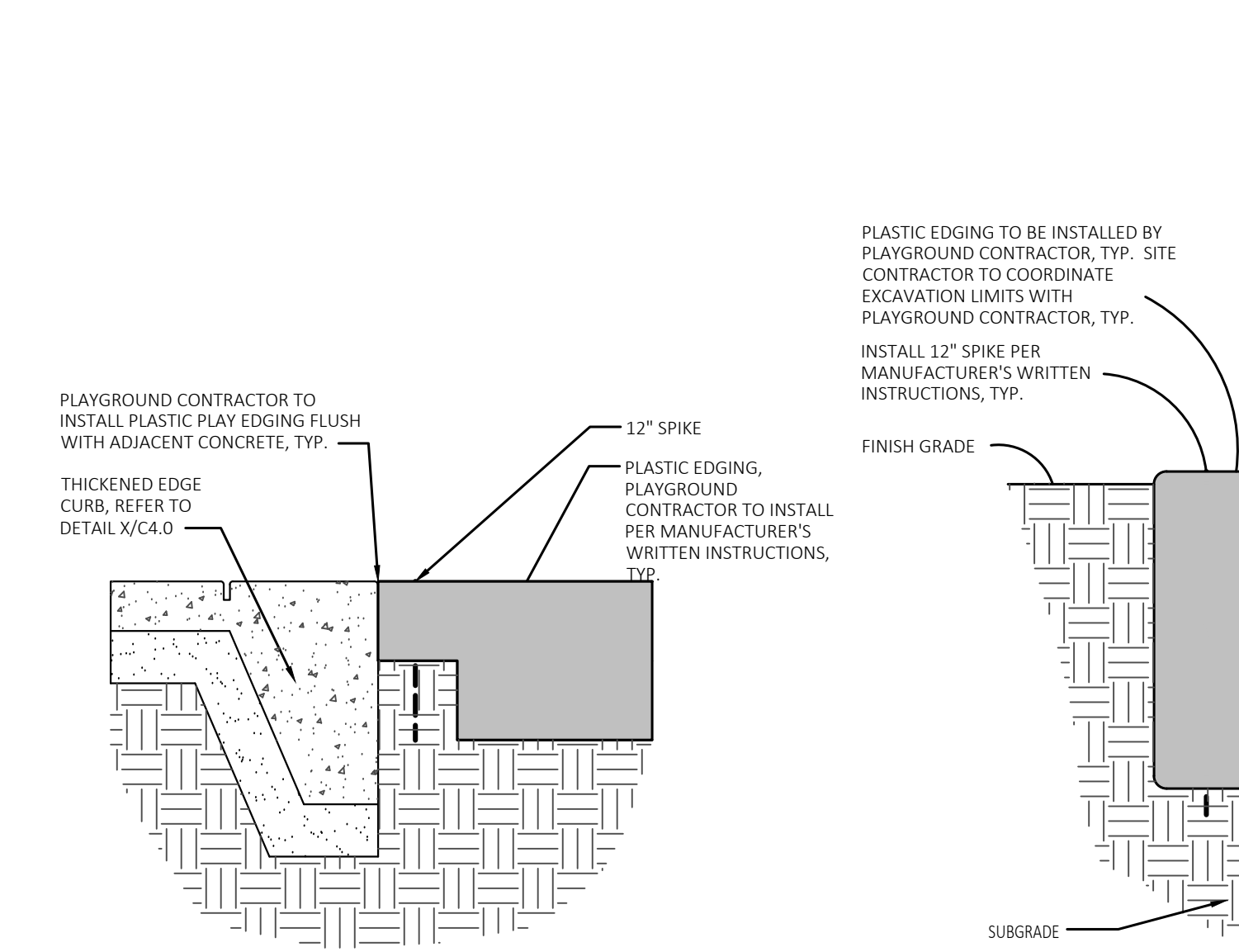
9 Loose Fill Surfacing to Thickened Edge Concrete Detail
NOT TO SCALE



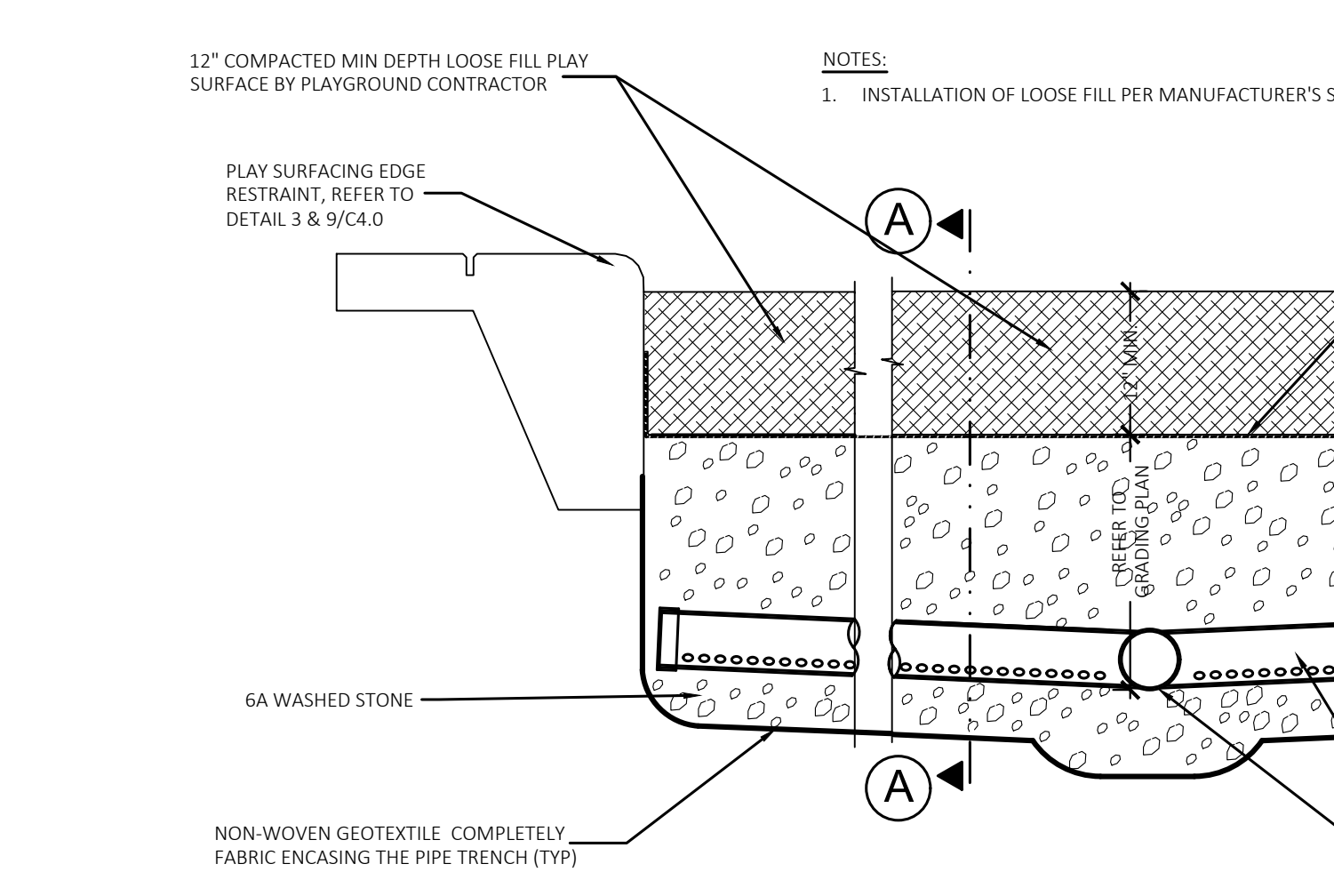
10 Communication Board Detail
Not To Scale



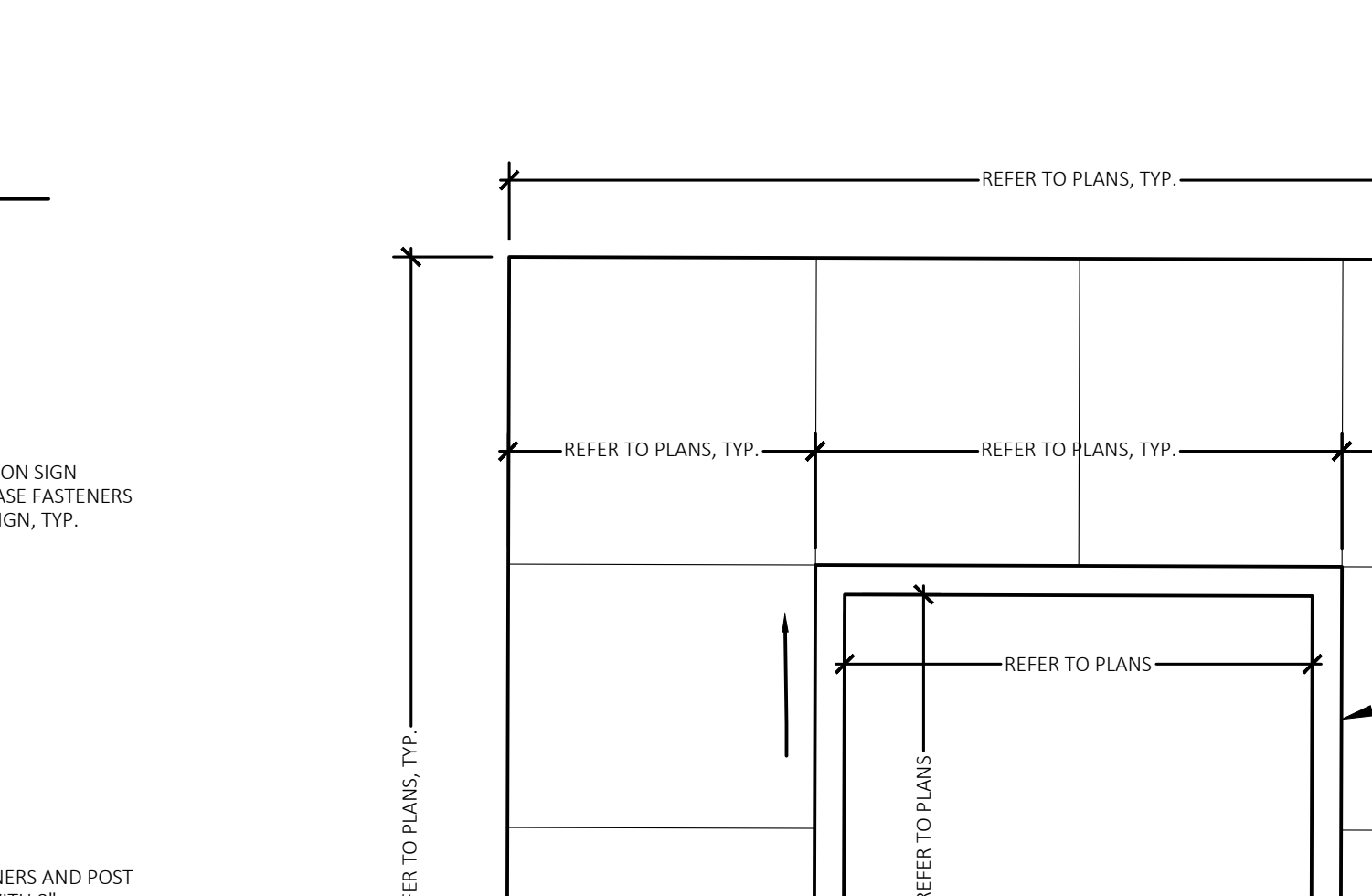
11 Thickened Edge Curb Detail
Not To Scale



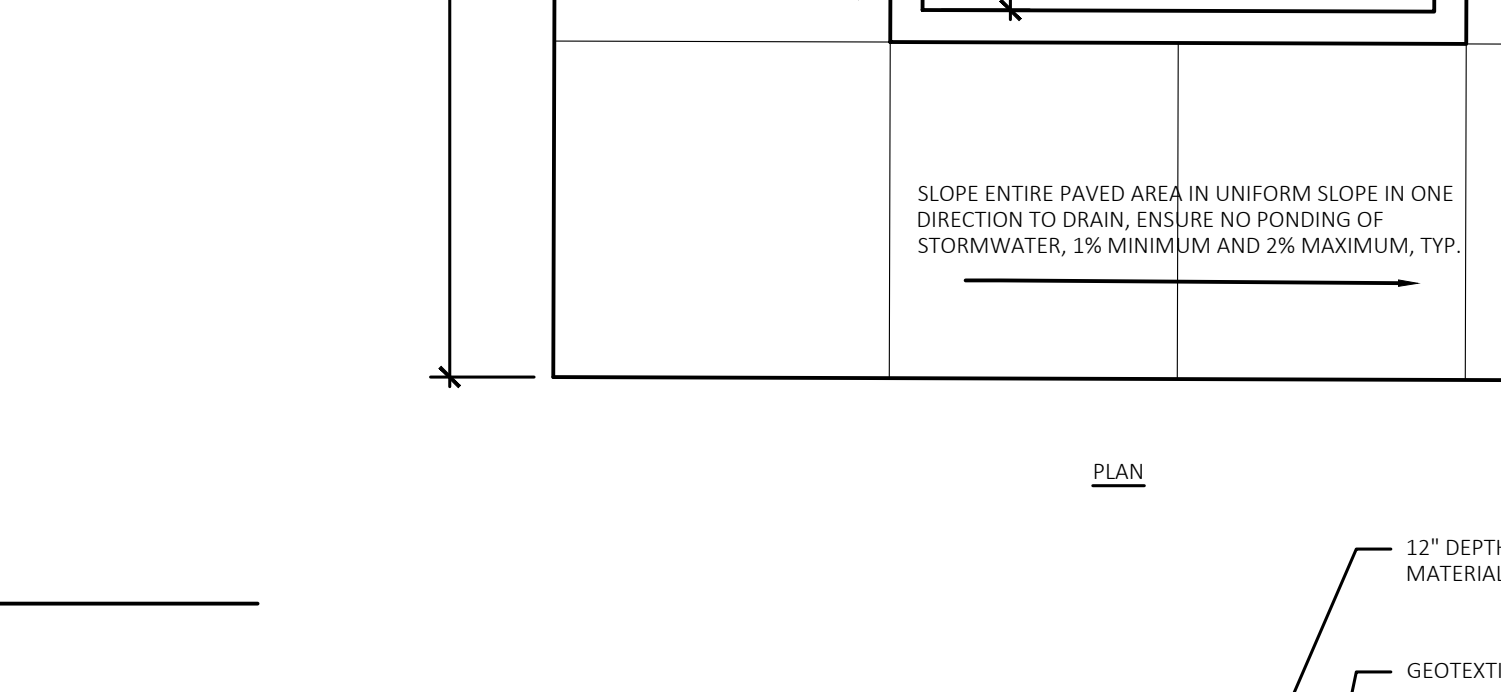
12 Thickened Edge Curb to Plastic Edging Transition Detail
Not to Scale



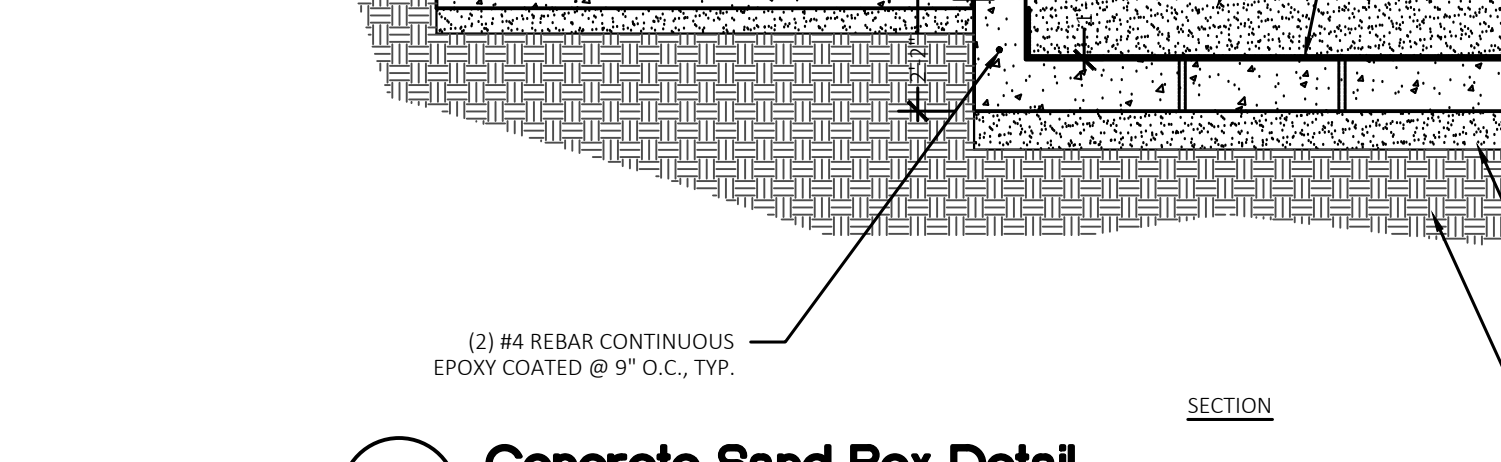
13 Plastic Edging Detail
Not to Scale



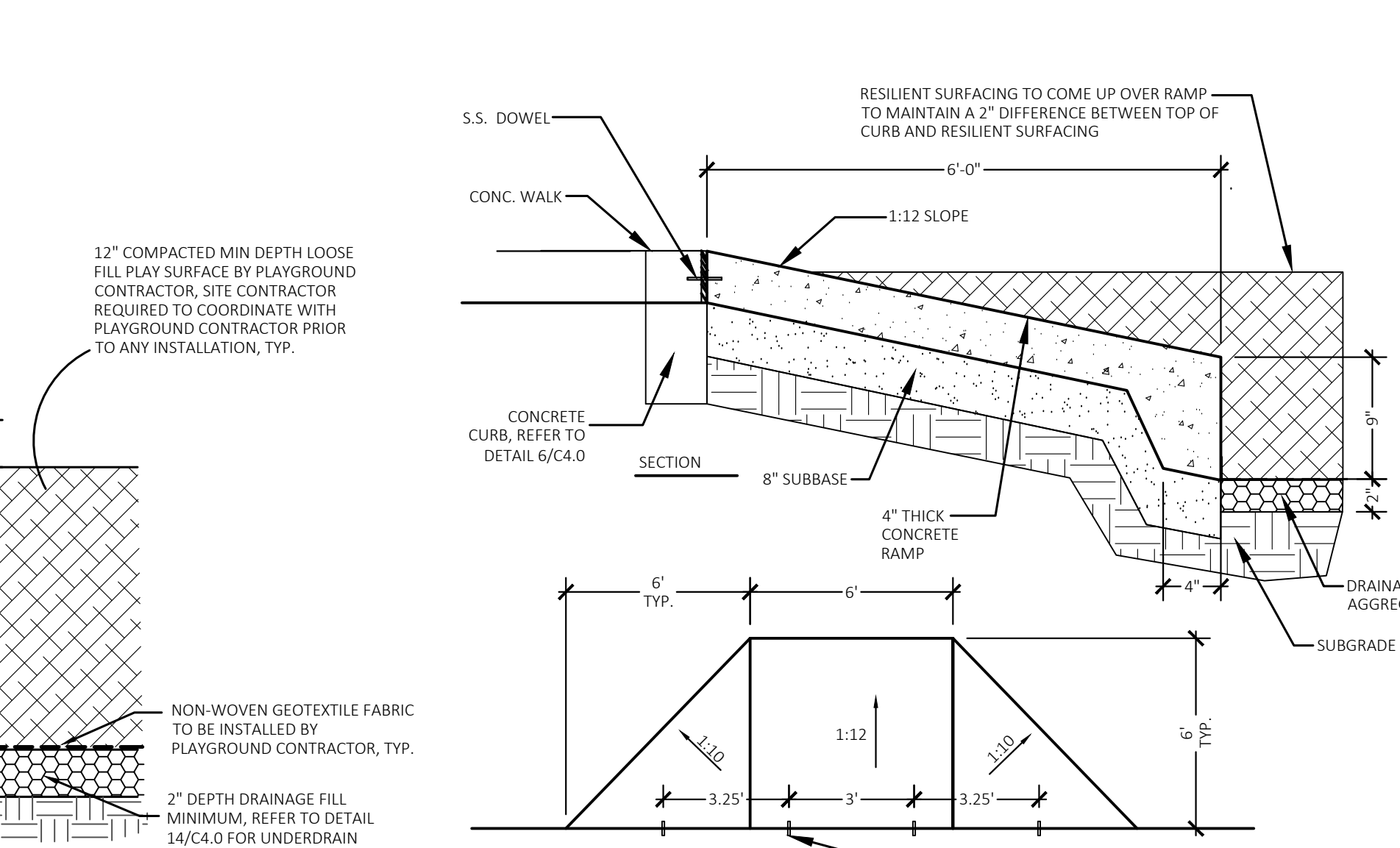
14 Playground Drainage Detail
NOT TO SCALE



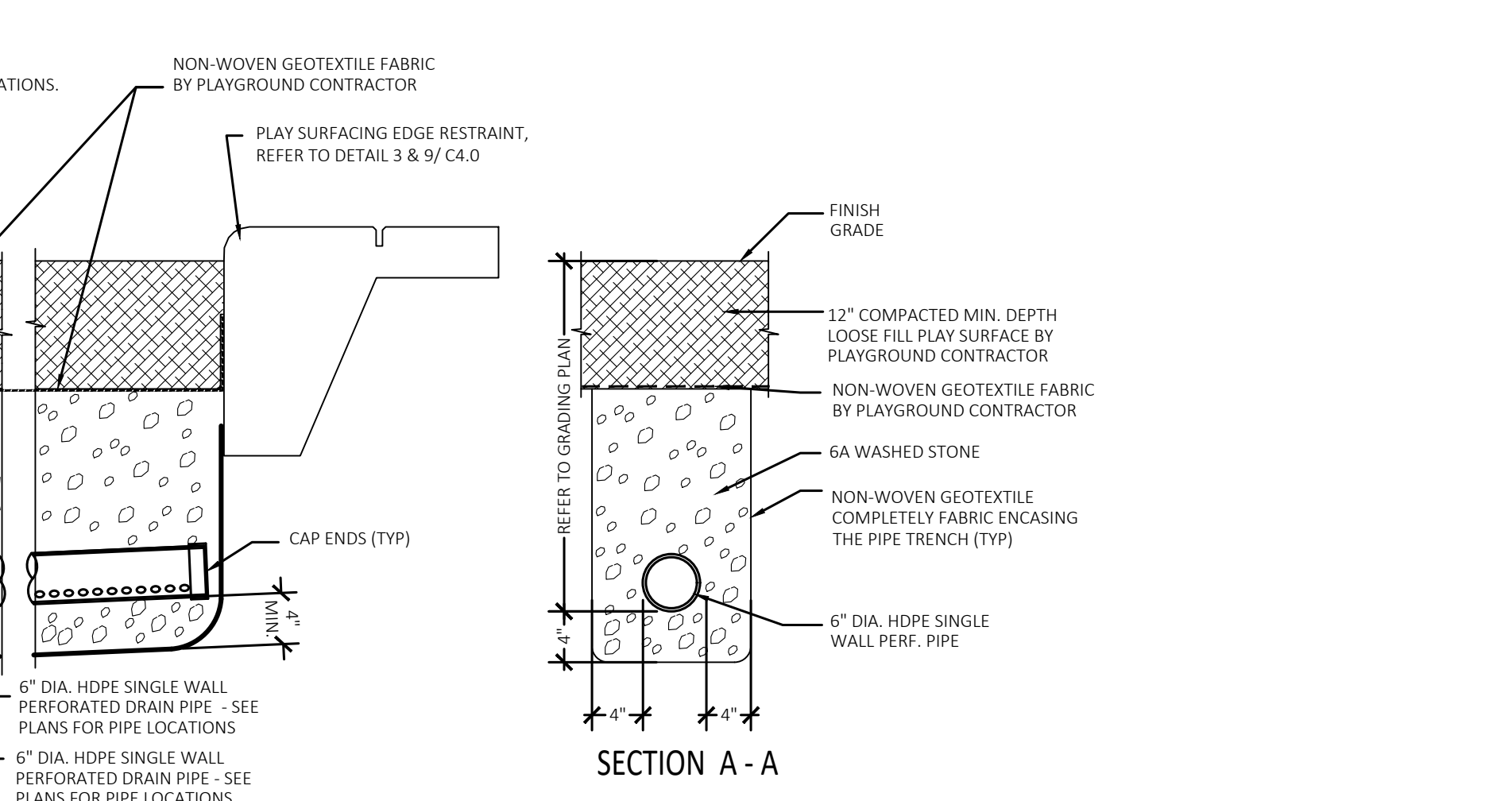
15 Concrete Sand Box Detail
Not to Scale



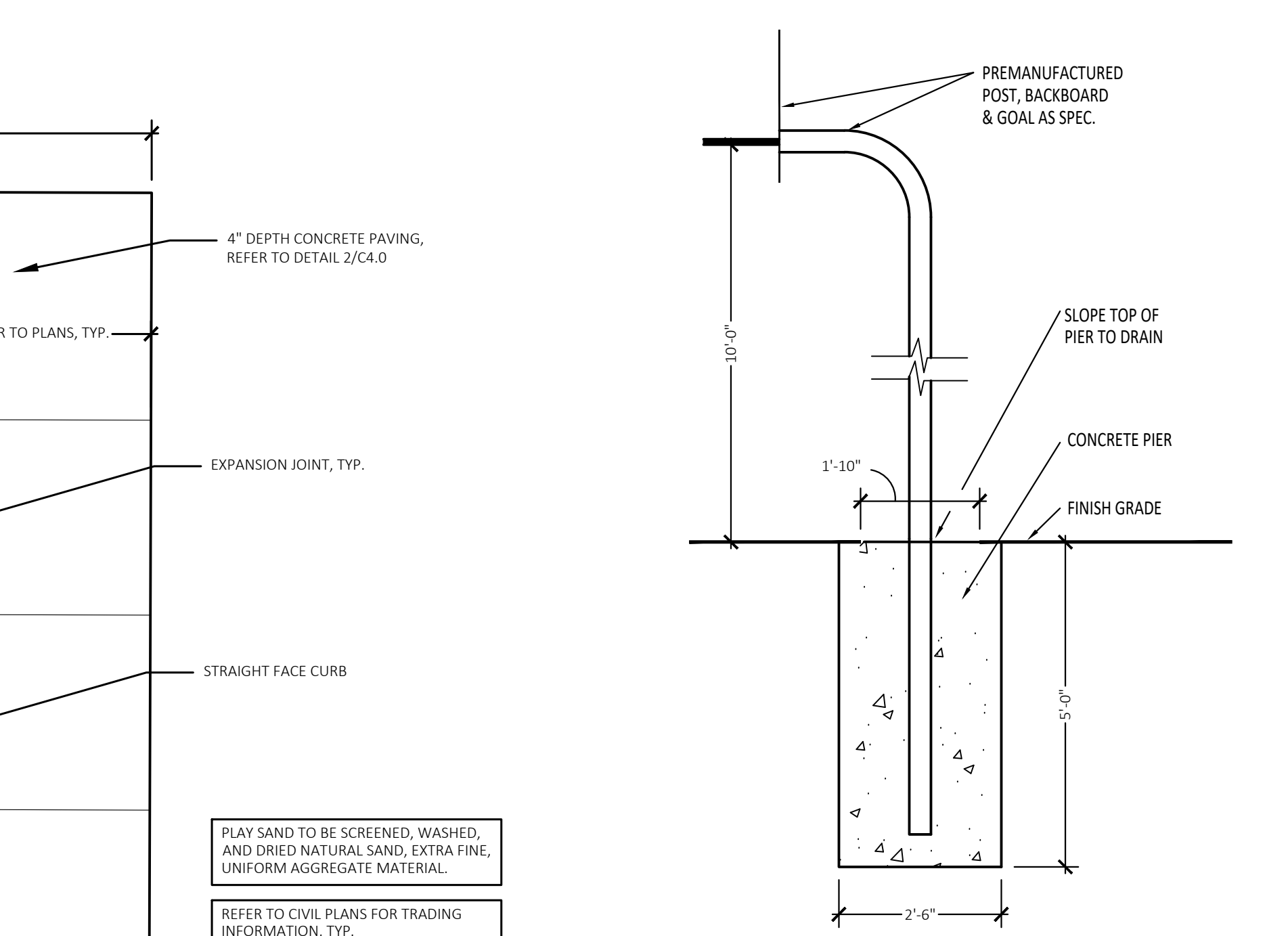
16 Concrete Curb to Plastic Edging Transition Detail
Not to Scale



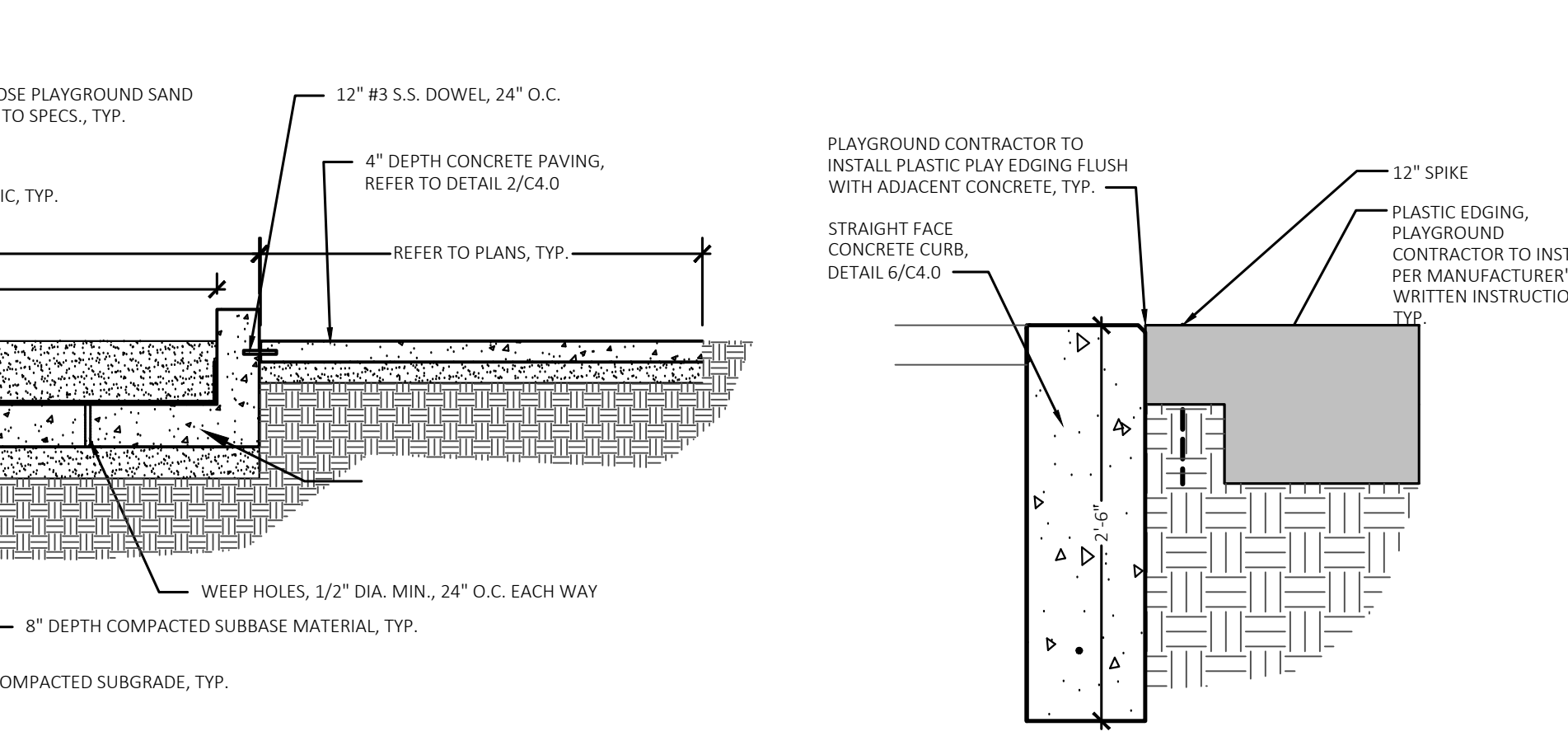
16 Access Ramp to Play Areas Detail
NOT TO SCALE



Section A-A



'For Reference' Basketball Post Footing Detail
Not to Scale



Concrete Curb to Plastic Edging Transition Detail
Not to Scale



TMP ARCHITECTURE INC
1191 WEST SQUARE LAKE ROAD
BLOOMFIELD HILLS • MICHIGAN • 48302
PH • 248.338.4581 FX • 248.338.0023
EM • INFO@TMPARCHITECTURE.COM

REGISTRATION SEAL



141 E. Michigan Avenue, Suite 500
Kalamazoo Michigan 49007
Phone (269) 381-3357
Fax (269) 381-2944
Landscape Architecture
Urban Planning
Parks & Recreation
Campus & Institutional Planning
Camp Planning & Design

PROJECT TITLE
**Leonard Elementary School
Playground Remodel
Bld Package No.01B**

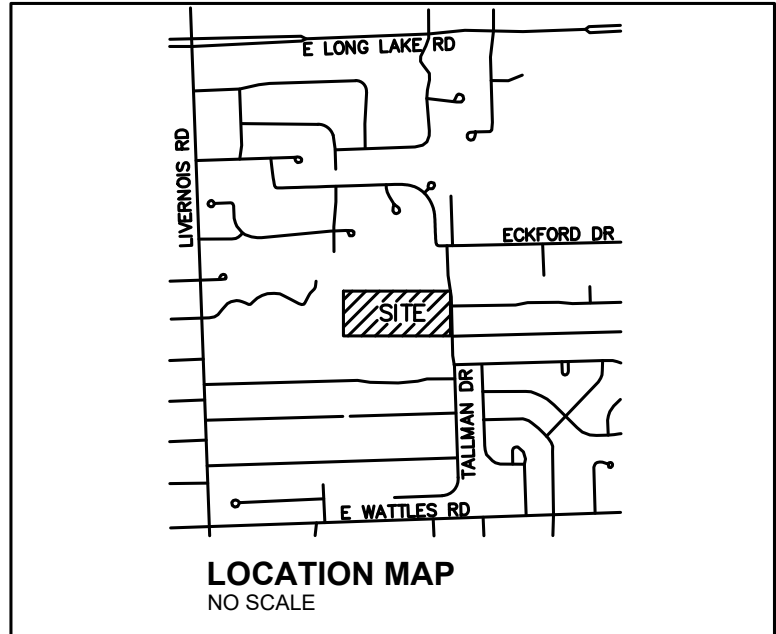
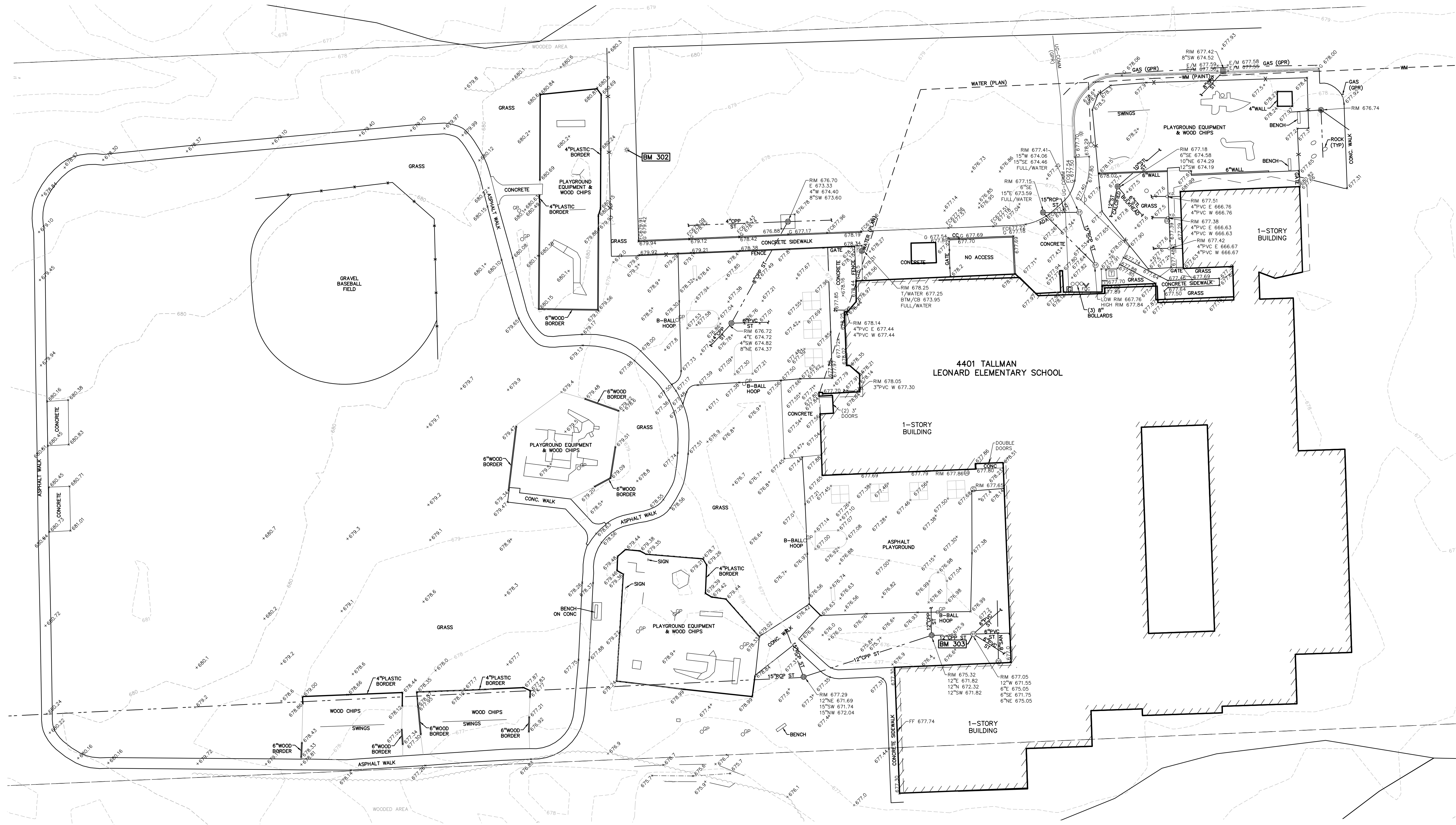
**Troy School District
Troy, Michigan**

DRAWING TITLE
Details

ISSUE DATES

DATE	ISSUED FOR
10-03-2024	CONSTRUCTION DOCUMENTS
DRAWN	DID
CHECKED	DID
APPROVED	DID

PROJECT NO.
22091B
DRAWING NO.
C4.0



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 26125C0534F, DATED SEPTEMBER 29, 2006.



0 15 30 60
SCALE: 1" = 30'

- LEGEND:**
- OH-ELEC-44-0- EX. OH. ELEC. POLE & GUY WIRE
 - UG-CATV- EX. U.G. CABLE TV & PEDESTAL
 - UG-COM- EX. U.G. COMMUNICATION LINE, PEDESTAL & MANHOLE
 - UG-ELEC- EX. U.G. ELEC. MANHOLE, METER & HANDHOLE
 - EX. GAS LINE
 - EX. GAS VALVE & GAS LINE MARKER
 - EX. TRANSFORMER & IRRIGATION VALVE
 - EX. WATER MAIN
 - EX. HYDRANT, GATE VALVE & POST INDICATOR VALVE
 - EX. WATER VALVE BOX & SHUTOFF
 - EX. SANITARY SEWER
 - EX. SANITARY CLEANOUT & MANHOLE
 - EX. COMBINED SEWER MANHOLE
 - EX. STORM SEWER
 - EX. CLEANOUT & MANHOLE
 - EX. SQUARE, ROUND, & BEEHIVE CATCH BASIN
 - EX. YARD DRAIN & ROOF DRAIN
 - EX. UNIDENTIFIED STRUCTURE
 - EX. MAILBOX, SIGN & LIGHTPOLE
 - EX. FENCE
 - EX. GUARD RAIL
 - EX. SPOT ELEVATION
 - EX. CONTOUR
 - EX. WETLAND
 - IRON FOUND / SET
 - NAIL FOUND / NAIL & CAP SET
 - BRASS PLUG SET
 - MONUMENT FOUND / SET
 - SECTION CORNER FOUND
 - RECORDED / MEASURED / CALCULATED

- 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:**
- CABLE - COMCAST
 - COMMUNICATION - WOW
 - FIBER OPTICS - EARTHLINK FIBER, DATED 4-11-23
 - FIBER OPTICS - FIBER LINK
 - SANITARY - CITY OF TROY GIS ONLINE, DATED 4-11-23
 - STORM - CITY OF TROY GIS ONLINE, DATED 4-11-23
 - TELEPHONE - AT&T, DATED 4-14-23
 - WATER MAIN - CITY OF TROY GIS ONLINE, DATED 4-11-23

- BENCHMARKS:**
(GPS DERIVED - NAVD83)
- BM 302 - SET MAG NAIL IN THE EAST SIDE CONCRETE BASE OF LIGHT POLE ALONG THE WEST LINE OF THE NORTH PARKING LOT. ELEVATION: 662.58
 - BM 303 - SET CHISELED "X" IN THE RIM OF STORM MAN ALONG THE WEST SIDE OF THE BUILDING. ELEVATION: 677.02



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
Leonard Elementary School
4401 TALLAM DRIVE

Playground Remodel
Bid Package No.01B

Troy School District
Troy, Michigan

DRAWING TITLE
Topographic Survey

ISSUE DATAS

10-03-2024	CONSTRUCTION DOCUMENTS
09-10-2024	OWNER REVIEW
08-21-2024	INTERNAL COORDINATION
07-24-2024	DESIGN DEVELOPMENT

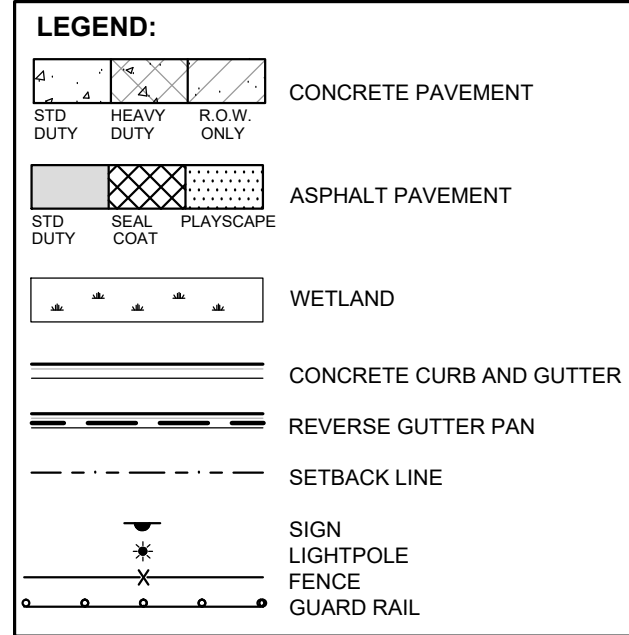
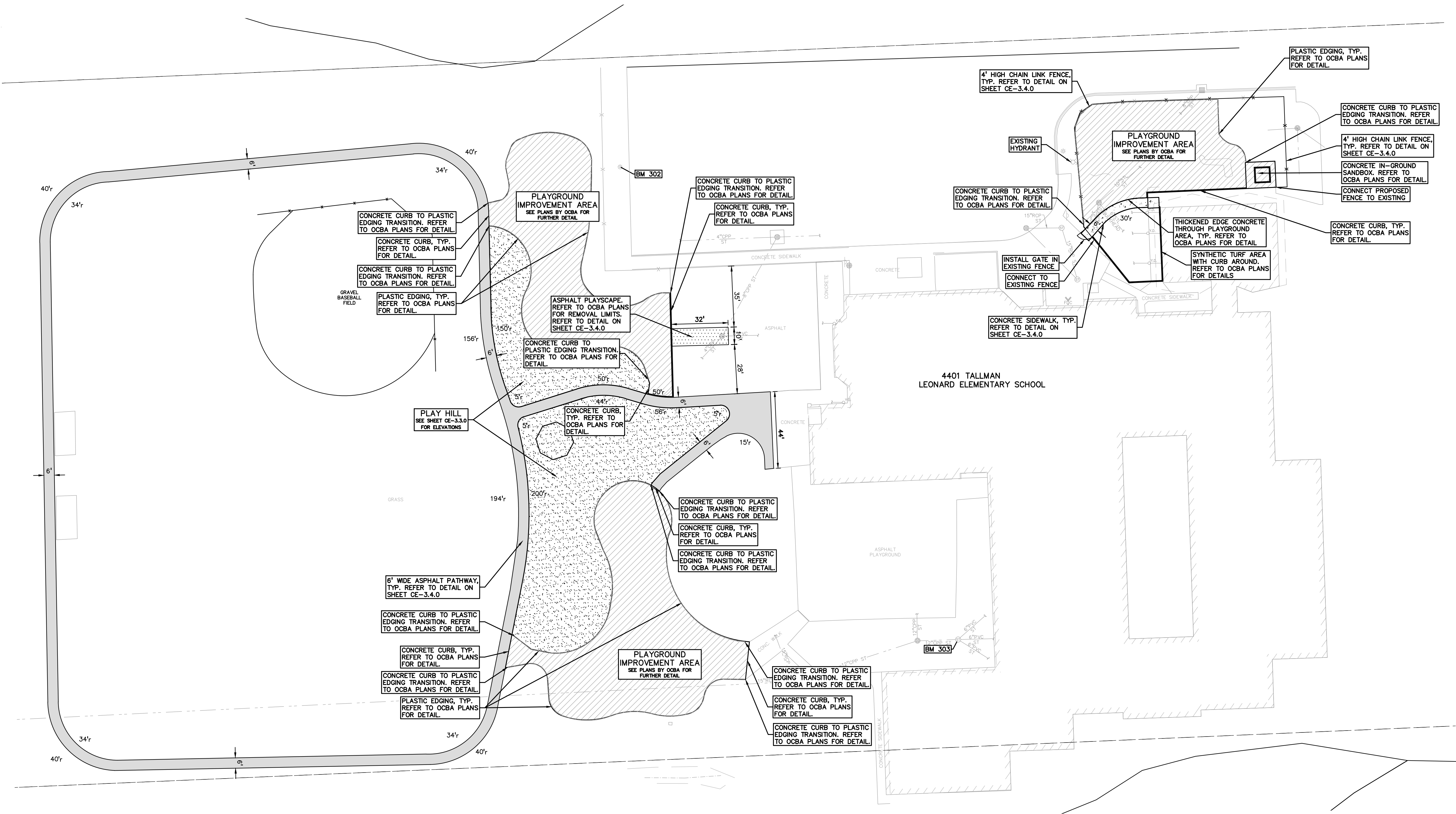
DATE	ISSUED FOR:
DRAWN	JG
CHECKED	JW
APPROVED	TD

PROJECT NO.

22091B

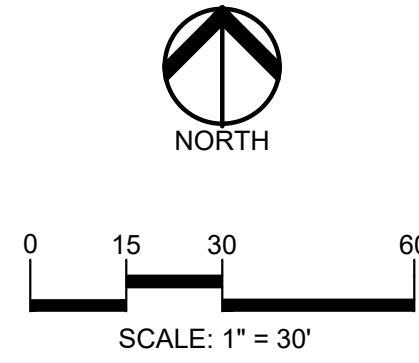
DRAWING NO.

CE-3.1.0



- 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 PEAGROUP, 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 OTHERWISE NOTED.
 - DOWEL INTO EXISTING CURB AND GUTTER 9" WITH EPOXY COATED #4 BAR CONTINUOUS BETWEEN EXISTING AND PROPOSED CURBING.
 - REFER TO NOTES AND DETAILS SHEET FOR PAVING DETAILS.
 - CONTRACTOR TO FIELD VERIFY ALL UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION INCLUDING BUT NOT LIMITED TO: 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. ALL POSTS DAMAGED OR OTHERWISE NOT IN USEABLE CONDITION, SHALL BE DISPOSED OF AT NO ADDITIONAL COST TO THE OWNER.
 - 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 RECONSTRUCTION.

- SUBGRADE UNDERCUTTING NOTES:**
- TO MINIMIZE SUBGRADE INSTABILITY AND UNDERCUTS, THE SUBGRADE SHALL NOT BE LEFT EXPOSED TO PRECIPITATION AND CONSTRUCTION OPERATIONS 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.
 - SUBGRADE UNDERCUT SHALL BE EVALUATED BY A QUALIFIED ENGINEERING TECHNICIAN TO DETERMINE IF SUBGRADE STABILIZATION IS NECESSARY. UNDERCUT EXCAVATIONS SHALL BE BACKFILLED WITH MOOT 21AA DENSE GRADED AGGREGATE PLACED IN AN ENGINEERED MANNER. LIFT THICKNESS SHALL NOT EXCEED 9 INCHES. THE USE OF TRI-AXIAL GEOTEXTILE MAY BE USED TO REDUCE UNDERCUT DEPTHS, AS APPROVED BY THE DISTRICT AND PER THE UNIT PRICE PROVIDED WITH THE CONTRACTORS BID.
 - 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 MOISTURE 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 COMBESIVE 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.



REGISTRATION SEAL

CONSULTANT

PEA
GROUP

t: 844.813.2949
www.peagroup.com

PROJECT TITLE
Leonard Elementary School
4401 TALLAM DRIVE

Playground Remodel
Bid Package No.01B

Troy School District
Troy, Michigan

DRAWING TITLE
Dimension & Paving Plan

ISSUE DATES

10-03-2024	CONSTRUCTION DOCUMENTS
09-10-2024	OWNER REVIEW
08-21-2024	INTERNAL COORDINATION
07-24-2024	DESIGN DEVELOPMENT

DATE	ISSUED FOR:
DRAWN	JG
CHECKED	JW
APPROVED	TD

PROJECT NO.

22091B

DRAWING NO.

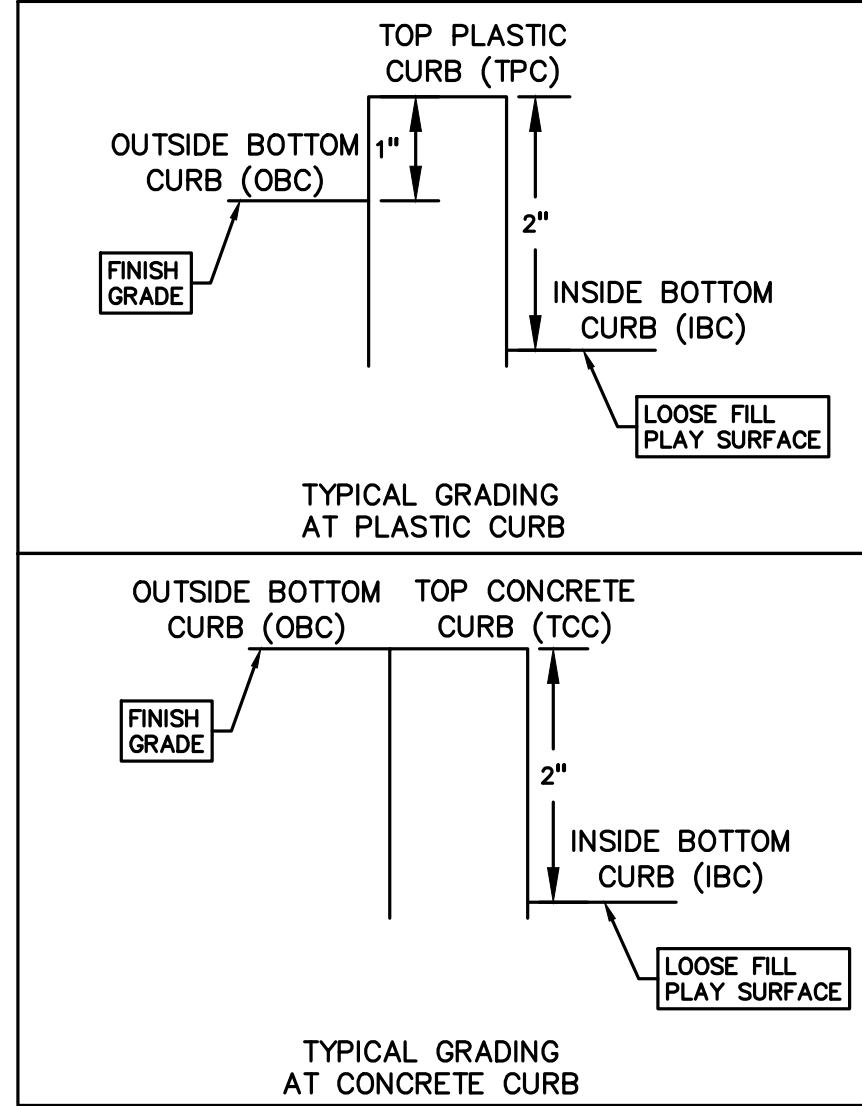
CE-3.2.0

SEQUENCE OF CONSTRUCTION:

START DAY	END DAY	DESCRIPTION
1	2	INSTALL TEMPORARY SOIL EROSION CONTROL MEASURES, SILT FENCES, INLET PROTECTION, ETC. AS NECESSARY.
1	90	MAINTAIN A 25' BUFFER OF VEGETATION AROUND PERIMETER OF SITE WHERE POSSIBLE.
5	15	STRIP AND STOCKPILE TOPSOIL AS REQUIRED RESTORATION. ALL STOCKPILES MUST BE GRADED AND SEEDED.
15	15	REMOVE ALL PAVEMENT, CURB, UTILITIES, ETC. AS REQUIRED TO INSTALL THE PROPOSED WORK AS SHOWN ON THE TOPOGRAPHIC SURVEY AND DEMOLITION PLAN.
10	15	DISPOSE OF ALL EXCESS/UNSUITABLE MATERIALS OFF SITE IN A LEGAL MANNER. NO ON-SITE BURN OR BURY PITS ALLOWED.
30	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.
15	90	TEMPORARY SEEDING MUST BE PROVIDED IN AREAS NOT TO BE WORKED ON FOR 15 DAYS OR LONGER.
40	50	FINE GRADE SITE AND PREPARE FOR SITE PAVING OPERATIONS.
50	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 MUST BE TEMPORARILY SEEDED. REPAIR INLET PROTECTION, SILT FENCE AND ANY OTHER DAMAGED 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.
88	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.

NOTE:

- 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 DISTRICTS 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.
- 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.
- CONTRACTOR TO FIELD VERIFY ALL UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION INCLUDING BUT NOT LIMITED TO: SITE LIGHTING, FIBER LINES, ETC.



REFER TO OCSA SHEET C4.0 FOR DETAILS OF CURB SECTIONS

- SYMBOLS: EROSION CONTROL:**
- (SP-2) SILT FENCE
 - (SI-2A) LOW POINT INLET FILTER
 - (SI-3) RYOB INLET FILTER
 - (E-9) EROSION CONTROL BLANKET
 - LAWN RESTORATION
 - LIMITS OF DISRUPTION
- REFER TO CITY OF TROY SOIL EROSION AND SEDIMENTATION CONTROL DETAILS SHEET FOR ALL DEVICE DETAILS.

- GRADING LEGEND:**
- EXISTING SPOT ELEVATION
 - PROPOSED SPOT ELEVATION: TYPICALLY TOP OF PAVEMENT IN PAVED AREAS, GUTTER GRADE IN CURB LINES
 - EXISTING CONTOUR
 - PROPOSED CONTOUR
 - PROPOSED RIDGE LINE
 - PROPOSED SWALE/DITCH
- ABBREVIATIONS:**
- TIC = TOP OF CURB
 - T/P = TOP OF PAVEMENT
 - T/S = TOP OF SIDEWALK
 - T/W = TOP OF WALL
 - TPC = TOP OF PLASTIC CURB
 - IBC = INSIDE OF BOTTOM OF CURB
 - OBC = OUTSIDE BOTTOM OF CURB
 - G = GUTTER GRADE
 - F.G. = FINISH GRADE
 - RM = RM ELEVATION
 - B.W. = BOTTOM OF WALL
 - TPC = TOP OF PLASTIC CURB
 - IBC = INSIDE OF BOTTOM OF CURB
 - OBC = OUTSIDE BOTTOM OF CURB
- REFER TO GRADING NOTES ON SHEET CE-3.4.0

- UTILITY LEGEND:**
- EX. OH. ELEC. POLE & GUY WIRE
 - EX. U.G. CABLE TV & PEDESTAL
 - EX. U.G. COMMUNICATION LINE, PEDESTAL & MANHOLE
 - EX. U.G. ELEC. MANHOLE, METER & HANDHOLE
 - EX. GAS VALVE & GAS LINE MARKER
 - EX. TRANSFORMER & IRRIGATION VALVE
 - EX. WATER MAIN
 - EX. HYDRANT, GATE VALVE & POST INDICATOR VALVE
 - EX. WATER VALVE BOX & SHUTOFF
 - EX. SANITARY SEWER
 - EX. SANITARY CLEANOUT & MANHOLE
 - EX. COMBINED SEWER MANHOLE
 - EX. STORM SEWER
 - EX. CLEANOUT & MANHOLE
 - EX. SQUARE, ROUND, & BEEHIVE CATCH BASIN
 - EX. YARD DRAIN & ROOF DRAIN
 - EX. UNIDENTIFIED STRUCTURE
 - PROPOSED WATER MAIN
 - PROPOSED HYDRANT AND GATE VALVE
 - PROPOSED TAPPING SLEEVE, VALVE & WELL
 - PROPOSED POST INDICATOR VALVE
 - PROPOSED SANITARY SEWER
 - PROPOSED SANITARY CLEANOUT & MANHOLE
 - PROPOSED STORM SEWER
 - PROPOSED STORM SEWER CLEANOUT & MANHOLE
 - PROPOSED CATCH BASIN, INLET & YARD DRAIN

- BENCHMARKS:**
- (GPS DERIVED - NAVD88)
 - BM 302 - SET MAG NAIL IN THE EAST SIDE CONCRETE BASE OF LIGHT POLE ALONG THE WEST LINE OF THE NORTH PARKING LOT. ELEVATION: 682.58
 - BM 303 - SET CHISELED "X" IN THE RIM OF STORM MAN ALONG THE WEST SIDE OF THE BUILDING. ELEVATION: 677.02

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.

NOTE:

CONTRACTOR TO VERIFY ALL QUANTITIES. ANY DEVIATIONS OF THE PLAN QUANTITIES SHALL BE BROUGHT TO THE ATTENTION OF PEA GROUP FOR VERIFICATION PRIOR TO BIDDING.

STORM SEWER QUANTITIES:

6" PVC CONNECT TO EXISTING MANHOLE 84 LF
3 EA.

EROSION CONTROL QUANTITIES:

SILT FENCE 1,148 LF
INLET FILTERS 9 EA.

CONSULTANT

PEA GROUP

t: 844.813.2949
www.peagroup.com

PROJECT TITLE

Leonard Elementary School
4401 TALLMAN DRIVE

Playground Remodel Bid Package No.01B

Troy School District
Troy, Michigan

DRAWING TITLE

Grading, Utility & Soil Erosion Control Plan

ISSUE DATES

10-03-2024	CONSTRUCTION DOCUMENTS
09-10-2024	OWNER REVIEW
08-21-2024	INTERNAL COORDINATION
07-24-2024	DESIGN DEVELOPMENT

DATE ISSUED FOR:

DRAWN	JG
CHECKED	JW
APPROVED	TD

PROJECT NO.

22091B

DRAWING NO.

CE-3.3.0

GENERAL NOTES:
THESE NOTES APPLY TO ALL CONSTRUCTION ACTIVITIES ON THIS PROJECT.

1. ALL CONSTRUCTION, WORKMANSHIP AND MATERIALS SHALL BE IN 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 AND ASSUMES ALL RESPONSIBILITY AND RISK OF THE CONTRACTOR.

4. ALL NECESSARY PERMITS, TESTING, BONDS AND INSURANCES ETC., SHALL BE PAID FOR BY THE CONTRACTOR. THE OWNER SHALL PAY FOR ALL CITY INSPECTION FEES.

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. THE 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 TO BE IN ACCORDANCE WITH LOCAL REQUIREMENTS AND 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 BARRICADES, 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 SUBMITTAL. ANY ADJUSTMENTS SHALL BE INCIDENTAL TO THE JOB AND WILL NOT BE PAID FOR SEPARATELY.

PAVING NOTES:
1. 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 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. PROVIDE DOWEL 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 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 81 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' SPACING
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 ANGLE OTHER THAN 90° AT THE CURBLINE

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.

2. ALL GRADES ARE TO TOP OF PAVEMENT UNLESS OTHERWISE NOTED.

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.

4. ALL SOIL EROSION AND SEDIMENTATION CONTROL MEASURES IS SHALL MEET THE REQUIREMENTS OF THE AUTHORIZED PUBLIC AGENCY OF JURISDICTION.

5. ALL EARTHWORK AND GRADING OPERATIONS SHALL BE PERFORMED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS.

6. REFER TO SOIL EROSION CONTROL PLAN FOR ADDITIONAL SOIL EROSION 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 TANDEN 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 GEOTEXTILES 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 TOPSOIL IN FILL AREAS OR BELOW SUBGRADE IN CUT AREAS. THIS SHALL NOT BE PAID FOR SEPARATELY, BUT INCLUDED IN THE EARTHWORKS FOR THE PROJECT.

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 PROJECT.

14. ANY SOIL GRADING WORK 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 PERFORMED.
1. SOIL EROSION AND SEDIMENTATION CONTROL MEASURES
2. 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 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 OF THE SUBMITTAL UNLESS APPROVED OTHERWISE BY THE ENGINEER
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:
• B.1. CONCRETE MIX DESIGN REVIEW CHECKLIST (FORM 2000)
• B.2. SUPERPAVE MIX DESIGN CHECKLIST (FORM 1962)
• B.3. MARSHALL MIX DESIGN CHECKLIST (FORM 1949)
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 SPECIALTY 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:
1. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF THE CITY OF TROY.

1. 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.

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 PRIOR BEFORE BREAKING SECTION OUT.

4. THE LOCATIONS AND DIMENSIONS SHOWN ON THE PLANS FOR EXISTING UTILITIES ARE IN ACCORDANCE WITH AVAILABLE INFORMATION WITHOUT UNDERMINING 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 PROPER INSTALLATION PRIOR TO THE PLACEMENT OF THE PROPOSED PAVEMENT AND LANDSCAPING.

6. PIPE LENGTHS INDICATED ARE FROM CORNER 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:
1. 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 SPECIFIED IN A.S.T.M. DESIGNATION D-3212.

GENERAL BARRIER FREE NOTES:
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 USABLE 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.

1. AN ACCESSIBLE ROUTE CONSISTS OF WALK SURFACES, CURB RAMPS AND RAMPS, AT LEAST ONE ACCESSIBLE ROUTE SHALL BE PROVIDED WITHIN THE PROJECT. ACCESSIBLE ROUTES SHALL BE PROVIDED WITHIN THE PROJECT. ACCESSIBLE ROUTES SHALL BE PROVIDED WITHIN THE PROJECT. ACCESSIBLE ROUTES SHALL BE PROVIDED WITHIN THE PROJECT. ACCESSIBLE ROUTES SHALL BE PROVIDED WITHIN THE PROJECT.

2. THE RUNNING SLOPE OF ALL WALKING SURFACES SHALL NOT EXCEED 5% (1:20) AND THE CROSS-SLOPE SHALL NOT EXCEED 2% (1:48). THE CROSS-SLOPE OF ALL WALKING SURFACES SHALL NOT EXCEED 2% (1:48). THE CROSS-SLOPE OF ALL WALKING SURFACES SHALL NOT EXCEED 2% (1:48). THE CROSS-SLOPE OF ALL WALKING SURFACES SHALL NOT EXCEED 2% (1:48).

3. THE CROSS-SLOPE OF ALL WALKING SURFACES SHALL NOT EXCEED 2% (1:48). THE CROSS-SLOPE OF ALL WALKING SURFACES SHALL NOT EXCEED 2% (1:48). THE CROSS-SLOPE OF ALL WALKING SURFACES SHALL NOT EXCEED 2% (1:48). THE CROSS-SLOPE OF ALL WALKING SURFACES SHALL NOT EXCEED 2% (1:48).

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 DIRECTION.

5. ACCESSIBLE ROUTES WILL BE DESIGNED TO BE A MINIMUM OF 5 FEET WIDE. THE MINIMUM CLEAR WIDTH IS 3 FEET.

6. RAMPS ALONG ACCESSIBLE ROUTES WILL HAVE A RUNNING SLOPE GREATER THAN 5% (1:20) AND LESS THAN 8.3% (1:12).

7. THE CROSS-SLOPE OF RAMPS SHALL NOT EXCEED 2% (1:48).

8. THE MINIMUM CLEAR WIDTH 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 LONG.

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 CURBLINE.

16. ACCESSIBLE PARKING SPACES ON SITE SHALL BE PROVIDED AS REQUIRED IN SECTION 802 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. FOR EVERY SIX OR FRACTION OF SIX ACCESSIBLE PARKING SPACES, ONE VAN ACCESSIBLE SPACE SHALL BE PROVIDED.

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

18. 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.

19. SURFACE SLOPES WITHIN THE PARKING SPACES AND AISLES SHALL NOT EXCEED 2% (1:48).

20. 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.

AGGREGATE BASE NOTE:
THIS PAVEMENT SECTION ASSUMES THE USE OF MDOT 21AA CRUSHED LESTONE BASE MATERIAL, THAT MEETS THE REQUIREMENTS OF MDOT STANDARD SPECIFICATION SECTION 802 FOR AGGREGATE. IF CRUSHED CONCRETE AGGREGATE BASE IS PROPOSED IN LIEU OF THE SPECIFIED CRUSHED LESTONE MATERIAL, THE GROUP WILL REQUIRE A MINIMUM 25% INCREASE IN BASE THICKNESS. HOWEVER, IF TESTING DOCUMENTATION IS PROVIDED TO PEA GROUP THAT SHOWS THAT THE CRUSHED CONCRETE MATERIAL MEETS ALL REQUIREMENTS OF MDOT SPECIFICATION SECTION 802, THEN THE 25% INCREASE IN THICKNESS MAY BE REEVALUATED.

ASPHALT MIX DESIGN CHART

COMMERICAL LOT #	COMMERICAL LOT #	COMMERICAL LOT #	COMMERICAL LOT #	APPLICATION RATE (LB/SY)
42L	42M	42N	42P	220-275
SEL	SEM	SEM	SMA OR SEMH	165-220
PG 58-28	PG 64-28	PG 64-28	PG 70-28P	

ASPHALT MATERIAL NOTES:
HOT-MIX ASPHALT MIXTURES UTILIZING RECYCLED ASPHALT PAVEMENT (RAP) MUST MEET MDOT SPECIAL PROVISION 1220P(4). THE BINDER GRADE FOR THIS WORK IS PG58-28. IF ASPHALT MIXES CONTAINING RAP ARE TO BE SUPPLIED FOR THIS PROJECT, THE ASPHALT BINDER MUST BE REVISED PER MDOT REQUIREMENTS. TESTING DOCUMENTATION IS PROVIDED TO PEA GROUP THAT SHOWS THAT THE CRUSHED CONCRETE MATERIAL MEETS ALL REQUIREMENTS OF MDOT SPECIFICATION SECTION 802, THEN THE 25% INCREASE IN THICKNESS MAY BE REEVALUATED.

MEET EXISTING PAVEMENT
24" MIN.
WEDGE WITH TEMPORARY ASPHALT MIX UTILIZING RECYCLED ASPHALT PAVEMENT (RAP) MUST MEET MDOT SPECIAL PROVISION 1220P(4). THE BINDER GRADE FOR THIS WORK IS PG58-28. IF ASPHALT MIXES CONTAINING RAP ARE TO BE SUPPLIED FOR THIS PROJECT, THE ASPHALT BINDER MUST BE REVISED PER MDOT REQUIREMENTS. TESTING DOCUMENTATION IS PROVIDED TO PEA GROUP THAT SHOWS THAT THE CRUSHED CONCRETE MATERIAL MEETS ALL REQUIREMENTS OF MDOT SPECIFICATION SECTION 802, THEN THE 25% INCREASE IN THICKNESS MAY BE REEVALUATED.

ASPHALT OVERLAY, MATCH THICKNESS OF WEARING COURSE OF ADJACENT NEW PAVEMENT, TYP.

PROPOSED PAVEMENT
COLD-MIX EXISTING SURFACE, 12" MIN. DEPTH TO EXISTING WEARING COURSE THICKNESS.

2.5" O.D. LINE POST
3.0" O.D. CORNER POST
1 5/8" O.D. TOP RAIL
2" #9 GAUGE GALVANIZED FABRIC
1 5/8" O.D. BOTTOM RAIL
12" MIN.
WHEN NOT ADDRESSED IN THE GEOTECHNICAL INVESTIGATION OR THE ARCHITECTURAL PLAN, PLACE ON NATURAL SOILS OF AT LEAST 1500 PSF NET ALLOWABLE BEARING CAPACITY OR DOCUMENTED ENGINEERED FILL.
PROVIDE HEAVY DUTY STEEL BRACING TIES AT ALL POSTS, TYP.

CONCRETE FOOTING (3000 PSI)
12" MIN.
WHEN NOT ADDRESSED IN THE GEOTECHNICAL INVESTIGATION OR THE ARCHITECTURAL PLAN, PLACE ON NATURAL SOILS OF AT LEAST 1500 PSF NET ALLOWABLE BEARING CAPACITY OR DOCUMENTED ENGINEERED FILL.

NOTE:
FENCE POST TO BE SCHEDULE 40 PIPE WEIGHT.

4 FT HIGH CHAIN LINK FENCE DETAIL
NOT TO SCALE

CONCRETE SIDEWALK
NOT TO SCALE

3" MDOT SEMI-ASPHALT WEARING COURSE (17% MAX. R.A.P. CONTENT)
6" MDOT 21AA CRUSHED LESTONE BASE COURSE COMPACTED TO 95% MAX. DRY UNIT WEIGHT PER ASTM D-1557
CLEAN FILL PER CURRENT MDOT SPEC. RESTORE AREA PER LANDSCAPING PLANS
1 ON 1 SLOPE
25' MAX. CROSS SLOPE
4" MDOT CLASS II SAND BASE COURSE COMPACTED TO 90% MAXIMUM DRY UNIT WEIGHT PER ASTM D-1557
PROOF-ROLLED/COMPACTED SUBGRADE OR ENGINEERED FILL COMPACTED TO 95% OF MAX. DRY UNIT WEIGHT PER ASTM D-1557
NOTE: SLOPE OF SIDEWALK MUST NOT EXCEED 2.0% EXCEPT IN TRANSITION AREA MATCHING INTO EXISTING SIDEWALK

ASPHALT PATHWAY DETAIL
NOT TO SCALE

3" MDOT SEMI-ASPHALT WEARING COURSE (17% MAX. R.A.P. CONTENT)
6" MDOT 21AA CRUSHED LESTONE BASE COURSE COMPACTED TO 95% MAX. DRY UNIT WEIGHT PER ASTM D-1557
CLEAN FILL PER CURRENT MDOT SPEC. RESTORE PER LANDSCAPING PLANS
1 ON 1 SLOPE
25' MAX. CROSS SLOPE
4" MDOT CLASS II SAND BASE COURSE COMPACTED TO 90% MAXIMUM DRY UNIT WEIGHT PER ASTM D-1557
PROOF-ROLLED/COMPACTED SUBGRADE OR ENGINEERED FILL COMPACTED TO 95% OF MAX. DRY UNIT WEIGHT PER ASTM D-1557
NOTE: SLOPE OF SIDEWALK MUST NOT EXCEED 2.0% EXCEPT IN TRANSITION AREA MATCHING INTO EXISTING SIDEWALK

AGGREGATE BASE NOTE:
THIS PAVEMENT SECTION ASSUMES THE USE OF MDOT 21AA CRUSHED LESTONE BASE MATERIAL, THAT MEETS THE REQUIREMENTS OF MDOT STANDARD SPECIFICATION SECTION 802 FOR AGGREGATE. IF CRUSHED CONCRETE AGGREGATE BASE IS PROPOSED IN LIEU OF THE SPECIFIED CRUSHED LESTONE MATERIAL, THE GROUP WILL REQUIRE A MINIMUM 25% INCREASE IN BASE THICKNESS. HOWEVER, IF TESTING DOCUMENTATION IS PROVIDED TO PEA GROUP THAT SHOWS THAT THE CRUSHED CONCRETE MATERIAL MEETS ALL REQUIREMENTS OF MDOT SPECIFICATION SECTION 802, THEN THE 25% INCREASE IN THICKNESS MAY BE REEVALUATED.

ASPHALT MATERIAL NOTES:
HOT-MIX ASPHALT MIXTURES UTILIZING RECYCLED ASPHALT PAVEMENT (RAP) MUST MEET MDOT SPECIAL PROVISION 1220P(4). THE BINDER GRADE FOR THIS WORK IS PG58-28. IF ASPHALT MIXES CONTAINING RAP ARE TO BE SUPPLIED FOR THIS PROJECT, THE ASPHALT BINDER MUST BE REVISED PER MDOT REQUIREMENTS. TESTING DOCUMENTATION IS PROVIDED TO PEA GROUP THAT SHOWS THAT THE CRUSHED CONCRETE MATERIAL MEETS ALL REQUIREMENTS OF MDOT SPECIFICATION SECTION 802, THEN THE 25% INCREASE IN THICKNESS MAY BE REEVALUATED.

BASE NOTE:
IN LOCATIONS WHERE THE PROPOSED ASPHALT PATHWAY MATCHES THE EXISTING PATHWAY, IF THE EXISTING BASE MATERIAL IS ADEQUATE IN BOTH DEPTH AND QUANTITY, IT CAN BE REUSED. IF EITHER OF THESE IS INADEQUATE, THE EXISTING MATERIAL SHOULD BE REMOVED AND REPLACED TO THE SPECIFIED REQUIREMENT.

tmf ARCHITECTURE

TMF ARCHITECTURE INC

1571 WEST SQUARE LAKE ROAD
BLOOMFIELD HILLS • MICHIGAN • 48302
PH • 248.338.4561 FX • 248.338.0223
EM • INFO@TMF-ARCHITECTURE.COM

REGISTRATION SEAL

CONSULTANT

PEA GROUP

t: 844.813.2949
www.peagroup.com

PROJECT TITLE

Leonard Elementary School
4401 TALLAM DRIVE
Playground Remodel
Bid Package No.01B

Troy School District
Troy, Michigan

DRAWING TITLE
Notes & Details

ISSUE DATES

10-03-2024	CONSTRUCTION DOCUMENTS
09-10-2024	OWNER REVIEW
08-21-2024	INTERNAL COORDINATION
07-24-2024	DESIGN DEVELOPMENT

DATE ISSUED FOR:

DRAWN JG

CHECKED JW

APPROVED TD

PROJECT NO.

22091B

DRAWING NO.

CE-3.4.0

L1.0