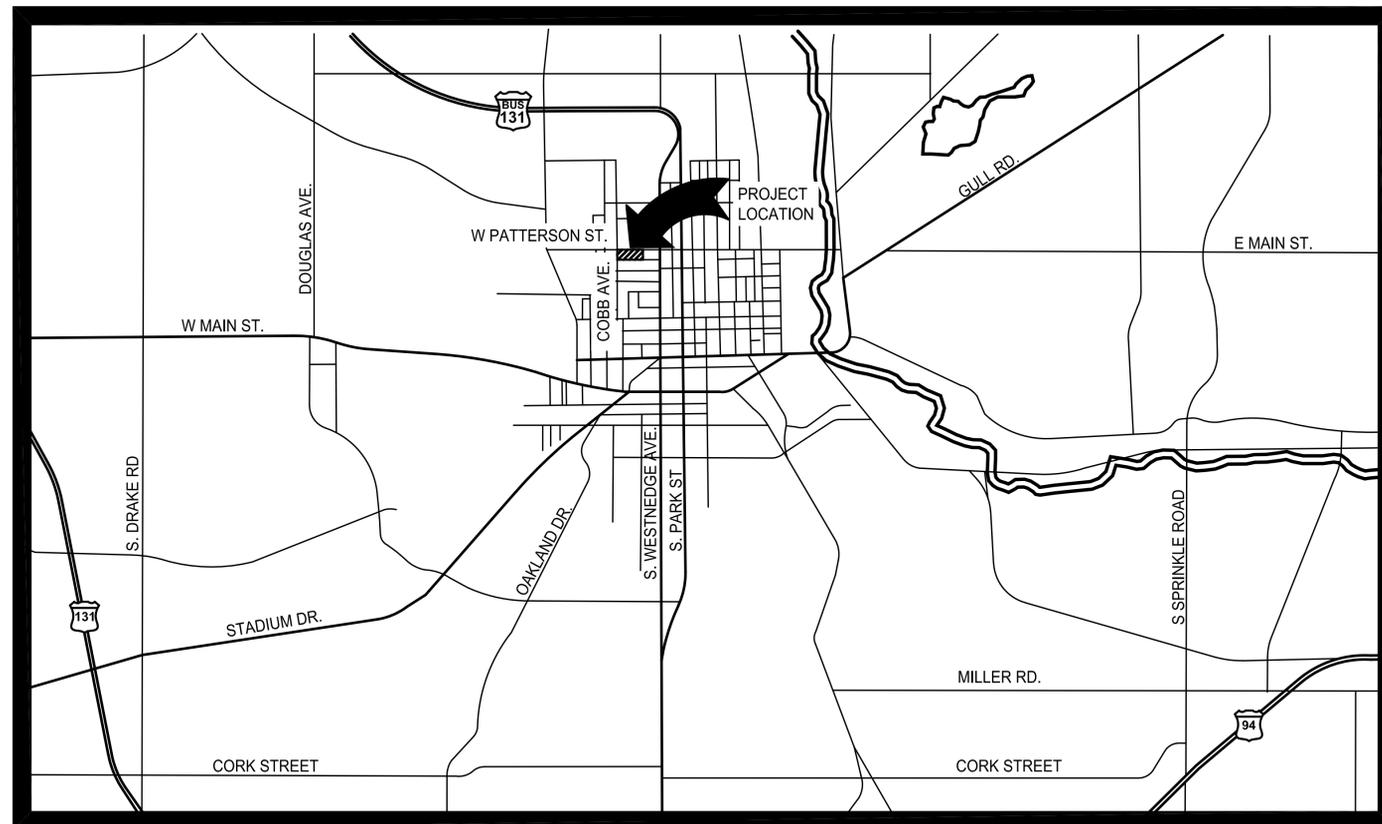


CONSTRUCTION PLANS LA CRONE PARK SPLASHPAD IMPROVEMENTS

City Of Kalamazoo
09.24.2020



LOCATION MAP

NOT TO SCALE



SHEET INDEX

- 1 Site Plan
- 2 Existing Conditions and Removals Plan
- 3 Layout Plan
- 4 Layout Plan Enlargements
- 5 Grading and Drainage Plan
- 6 Not Used
- 7 Splashpad Plan and Details
- 8 Landscape and SESC Plan
- 9 Utility Plan
- 10-11 Construction Details
- 12 Survey

CONSULTING TEAM MEMBERS:

SUMMIT SURVEYING, INC.
TOPOGRAPHIC SURVEY



SUMMIT SURVEYING, INC.
P.O. Box 410
Allendale, MI 49401
Phone (616) 895-7190
Fax (616) 895-7191

SME
GEOTECHINCAL EVALUATION REPORT

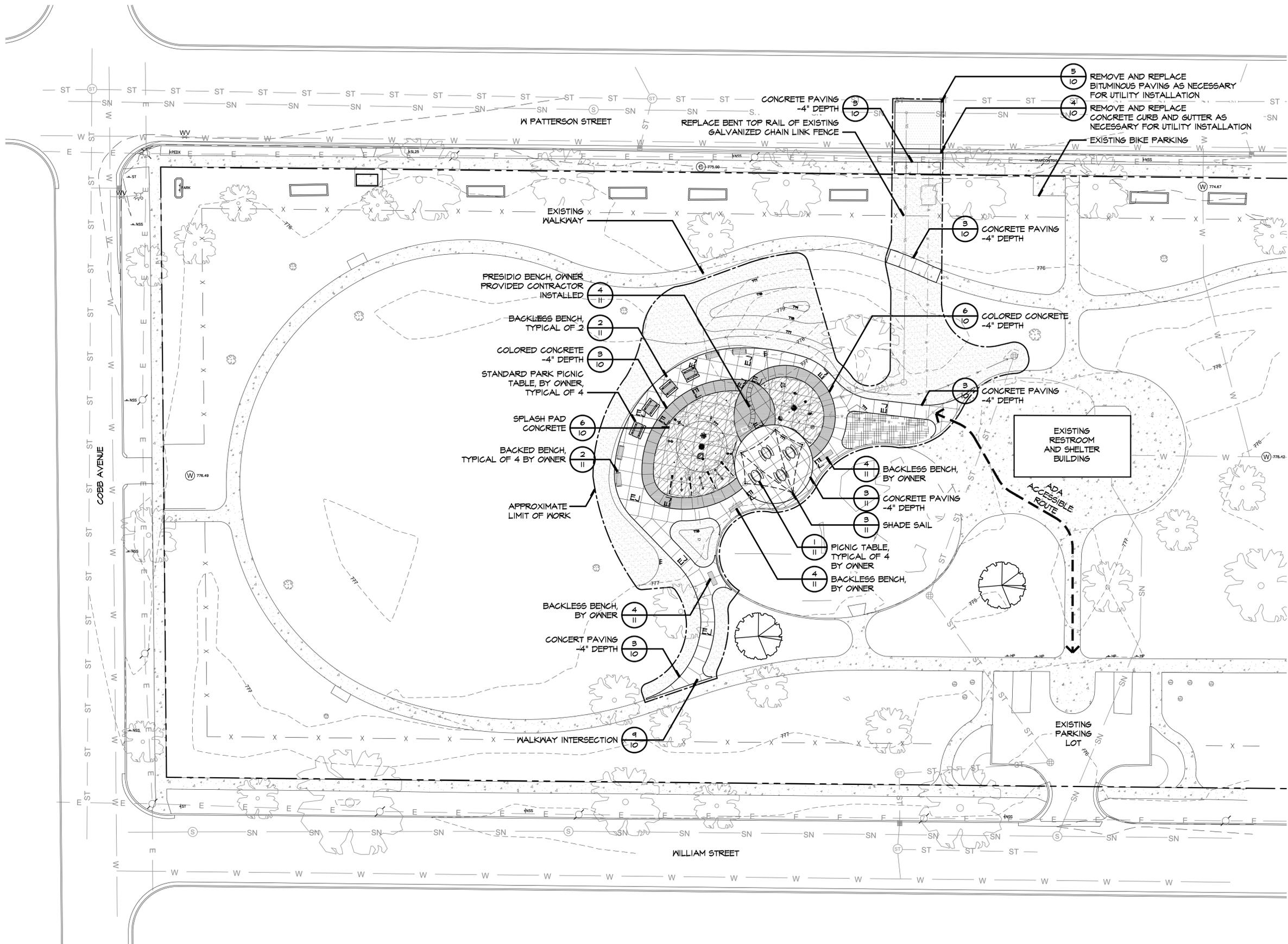
SME PROJEDCT NO. 084004.00
3301 Tech Circle Drive
Kalamazoo, MI 49008-5611
Phone (269) 323-3555

MCSA GROUP, INC.

Landscape Architecture • Park & Recreation Planning • Architecture
Downtown Planning • Interior Design • Sports Facility Planning

529 Greenwood Avenue S.E. • East Grand Rapids, MI 49506
616-451-3346 • FAX: 616-451-1935 • EMAIL: tas@mcsagroup.com





SITE CALCULATIONS:

GROSS SITE AREA: 217,492 SF/4.99 Acres
 EXISTING IMPERVIOUS SURFACE: 44,034 SF
 PROPOSED IMPERVIOUS SURFACE: 1,230 SF
 TOTAL IMPERVIOUS SURFACE: 51,264 SF
 PERCENTAGE OF IMPERVIOUS SURFACE INCREASE: 3.32%
 EXISTING BARRIER FREE PARKING: 4 SPACES
 EXISTING BIKE PARKING: 7
 TOTAL TREES (10" DBH OR GREATER) IN WORK AREA: 27
 TOTAL TREES REMOVED: 2

SITE GENERAL NOTES:

1. SITE PLAN SHOWN FOR GENERAL INFORMATION AND DETAIL. REFERENCE ONLY. SEE FOLLOWING PLAN SHEETS FOR SITE LAYOUT, GRADING, AND LANDSCAPE INFORMATION.
2. SEE SHEET 1 FOR PLAN SPLASHPAD EQUIPMENT.
3. CONTRACTOR SHALL PURCHASE AND STORE SPLASHPAD EQUIPMENT PRIOR TO THE END OF THE 2020 YEAR TO AVOID COST INCREASE. IF NOT PURCHASED WITHIN THE 2020 YEAR, ADDITIONAL COST WILL BE AT THE CONTRACTORS EXPENSES.

COMPLIANCE:

- ALL CONSTRUCTION SHALL CONFORM TO ALL ASPECTS OF THE STATE OF MICHIGAN BUILDING CODE (MBC), THE ADA ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES (ADAAG) AND THE AMERICANS WITH DISABILITIES ACT (ADA). ALL WORK BY THE CONTRACTOR FOR COMPLETE EXECUTION OF THIS PROJECT SHALL MEET OR EXCEED LAWS, GUIDELINES, AND STATUTES IN EVERY SITUATION. IN THE EVENT THE CONTRACTOR BELIEVES THAT ANY PORTION OF THE WORK IS INCONSISTENT WITH THE MBC, ADAAG, AND ADA THEY MUST IMMEDIATELY INFORM THE LANDSCAPE ARCHITECT.

LEGEND

- DETAIL NUMBER SHEET NUMBER
- 4" CONCRETE PAVEMENT WITH CONTROL JOINTS
- 4" COLORED CONCRETE (SEE SPLASHPAD PLANS FOR COLOR PATTERN)
- SPLASHPAD CONCRETE (SEE SPLASHPAD PLANS FOR COLOR PATTERN)
- BITUMINOUS PAVING
- PLANTING BED WITH WOOD MULCH
- LAWN SEEDING
- EJ EXPANSION JOINT
- LIMIT OF WORK LINE
- X-X-X- EXISTING CHAINLINK FENCE TO REMAIN

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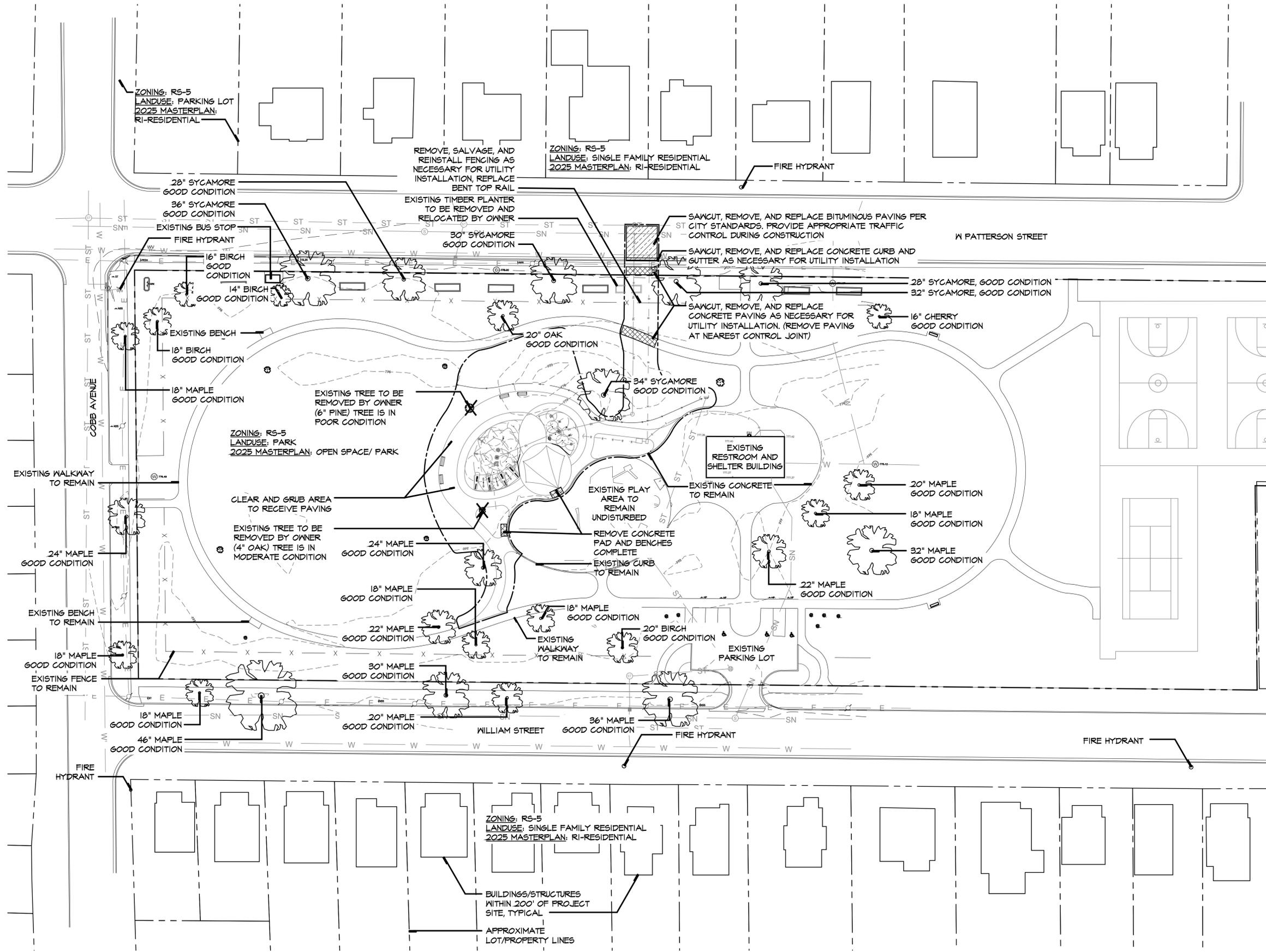
La Crone Park Splashpad Improvements
 Kalamazoo, MI

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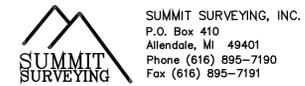
Site Plan

DATE	09.24.2020	PROJECT NO.	
REVISIONS		SHEET NO.	1



EXISTING CONDITIONS AND REMOVALS GENERAL NOTES:

- TOPOGRAPHIC SURVEY BY:
- THE CONTRACTOR IS TO LOCATE ALL UTILITIES PRIOR TO CONSTRUCTION OPERATIONS. CONTRACTOR WILL BE RESPONSIBLE FOR ANY DAMAGES TO UTILITIES CAUSED BY THEIR WORK. CONTACT MISS DIG FOR CONFIRMATION OF UTILITY LOCATIONS (1-800-482-7171).
- PROTECT ALL TREES. DO NOT OPERATE EQUIPMENT, STORE, STOCKPILE, OR PARK WITHIN DRIPLINE OF TREES. HOLD NECESSARY DISTURBANCE TO A MINIMUM.
- THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR DAMAGE TO ITEMS NOT SCHEDULED FOR REMOVAL.
- REMOVAL ITEMS SHOWN ARE BASED ON BEST AVAILABLE INFORMATION AND ARE SHOWN SCHEMATICALLY. THE CONTRACTOR SHALL WALK THE SITE PRIOR TO BID TO BE FULLY FAMILIAR WITH THE EXTENT OF REMOVAL ITEMS. THE CONTRACTOR IS RESPONSIBLE FOR ALL REMOVALS NECESSARY TO COMPLETE CONSTRUCTION. QUESTIONS REGARDING ITEMS TO BE REMOVED SHALL BE DIRECTED TO THE LANDSCAPE ARCHITECT.
- CONTRACTOR SHALL STRIP AND STOCKPILE TOPSOIL AND DISTRIBUTE A MINIMUM OF 4" OF TOPSOIL ON ALL DISTURBED AREAS AT COMPLETION OF SITE GRADING. ALL DISTURBED AREAS SHALL BE SEEDED AND MULCHED PER PLANTING PLANS AND SPECIFICATIONS.
- CONTOURS ARE BASED ON NAVD83 DATUM



REMOVALS LEGEND:

- SAWCUT LINE
- CONCRETE TO BE REMOVED
- BITUMINOUS PAVEMENT TO BE REMOVED
- LIMIT OF WORK LINE
- REMOVE EXISTING TREE COMPLETE

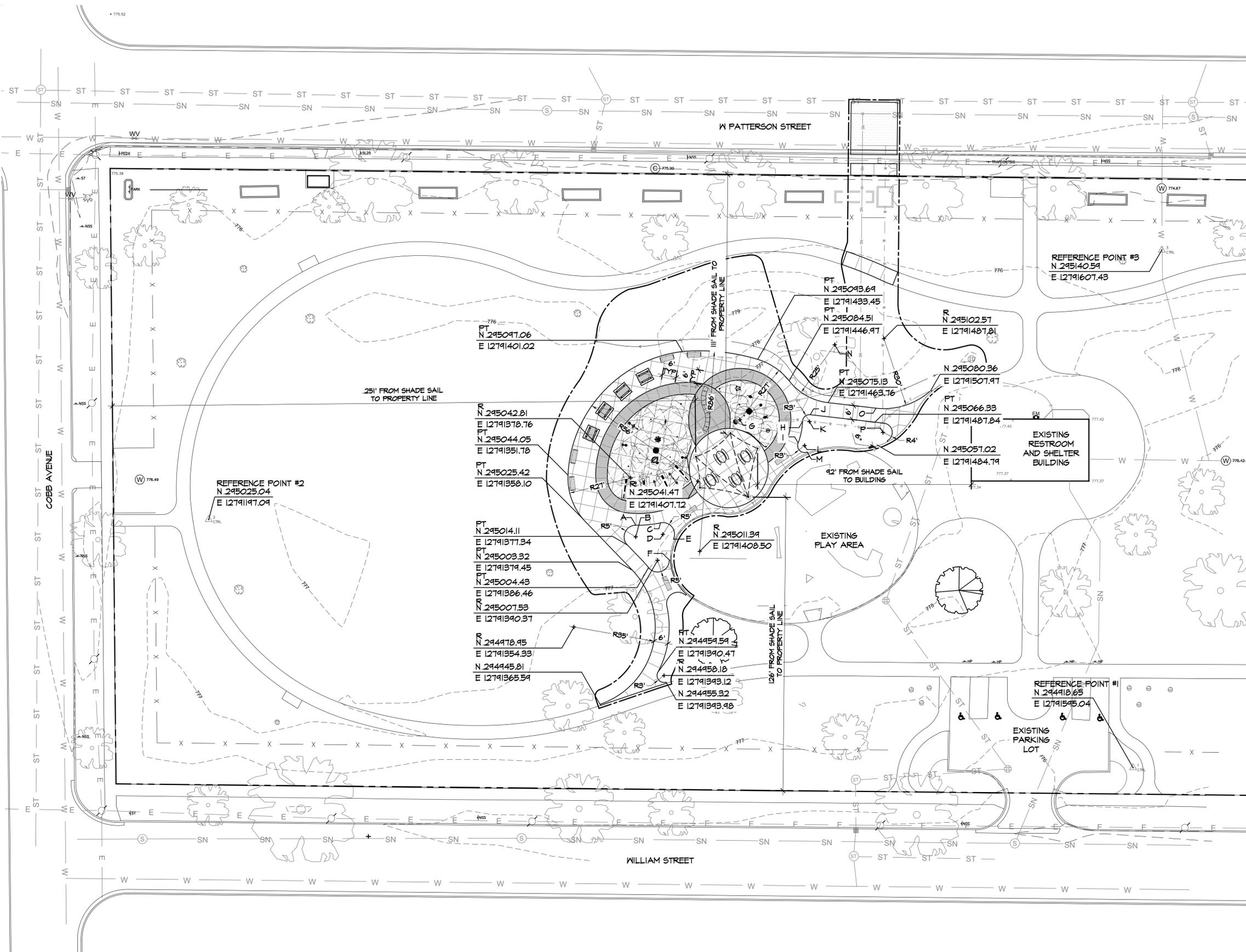
EXISTING CONDITIONS LEGEND:

- DECIDUOUS TREE
- CONIFEROUS TREE
- SITE LIGHT
- UTILITY POLE
- GUY ANCHOR
- ELECTRICAL
- CHAINLINK FENCE



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COORDINATION TABLE

KEY	COORDINATES
A	N 245022.59, E 12791380.93
B	N 245017.59, E 12791380.93
C	N 245023.60, E 12791391.58
D	N 245019.71, E 12791392.64
E	N 245016.64, E 12791397.19
F	N 245007.67, E 12791395.37
G	N 245067.81, E 12791425.75
H	N 245067.03, E 12791452.74
I	N 245057.85, E 12791450.85
J	N 245069.97, E 12791456.08
K	N 245066.99, E 12791455.74
L	N 245056.75, E 12791453.63
M	N 245053.98, E 12791454.78
N	N 245099.97, E 12791466.61
O	N 245072.77, E 12791484.39
P	N 245062.36, E 12791487.38

REFERENCE POINTS

REFERENCE POINTS ARE 18" REBAR WITH RED "SUMMIT SURVEYING" CAP. ELEVATIONS ARE BASED ON NAVD83 DATUM. USE REFERENCE POINTS AS BENCHMARKS.

Point	Northing	Easting	Elevation
1	244,918.65	12,791,595.04	776.25
2	245,025.04	12,791,917.09	776.83
3	245,140.59	12,791,607.43	775.33

LAYOUT LEGEND

- PCC POINT OF COMPOUND CURVATURE
- PT POINT OF TANGENCY
- R RADIUS POINT

LAYOUT GENERAL NOTES

1. ALL LAYOUT IS TO BE STAKED BY THE CONTRACTOR FOR APPROVAL BY THE LANDSCAPE ARCHITECT PRIOR TO CONSTRUCTION.
2. NORTHINGS AND EASTINGS REFLECT THE CENTERLINE OF THE PATHS AND MAJOR END POINTS OF SITE ELEMENTS. AN EFFORT HAS BEEN MADE TO MINIMIZE THE DISTURBANCE OF MATURE TREES AND OTHER EXISTING NATURAL SITE FEATURES. THESE NORTHINGS AND EASTINGS MAY ONLY BE ADJUSTED WITH THE APPROVAL OF THE LANDSCAPE ARCHITECT.
3. CONTRACTOR SHALL VERIFY IN THE FIELD ALL LINES AND DIMENSIONS INDICATED IN THE PLANS AND REPORT ANY INCONSISTENCIES TO THE LANDSCAPE ARCHITECT FOR RESOLUTION.
4. ALL ANGLES ARE PERPENDICULAR UNLESS OTHERWISE NOTED.
5. CONTRACTOR SHALL BE PROVIDED ELECTRONIC COPY IN AUTOCAD 2018 FOR ALL LAYOUT AND GRADING CONTROL.

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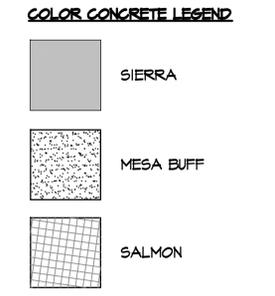
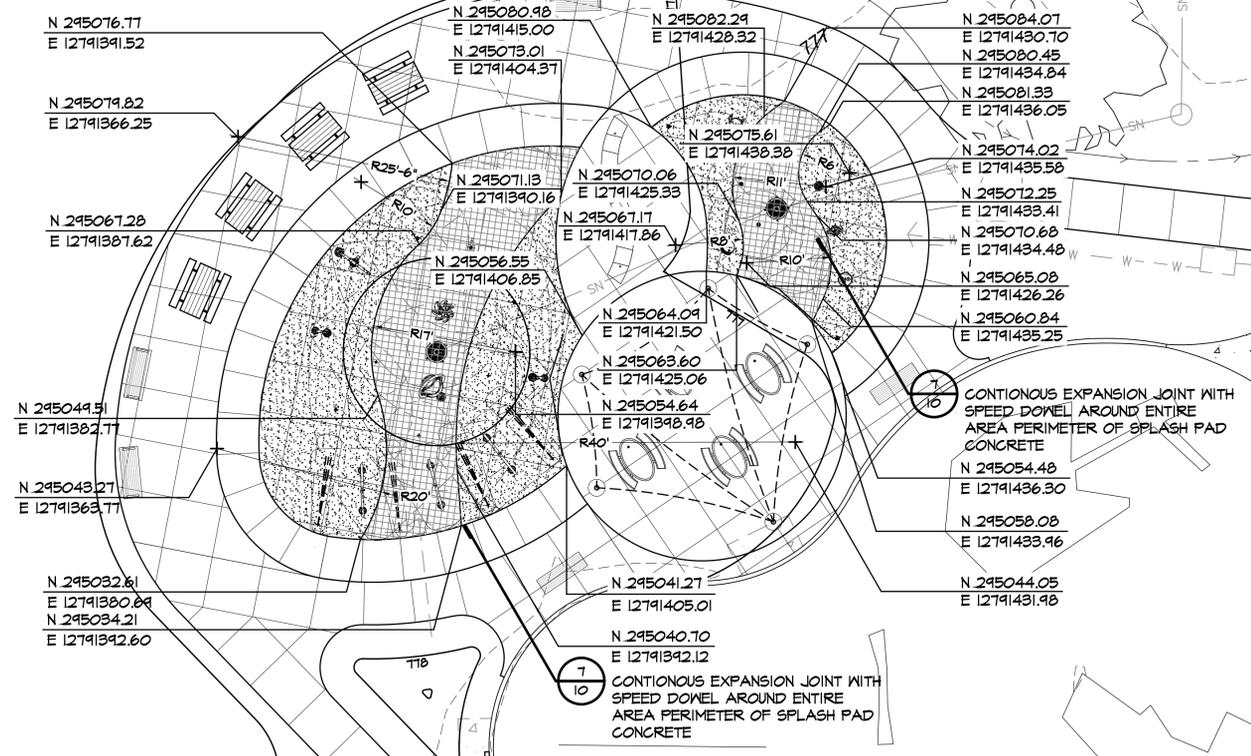
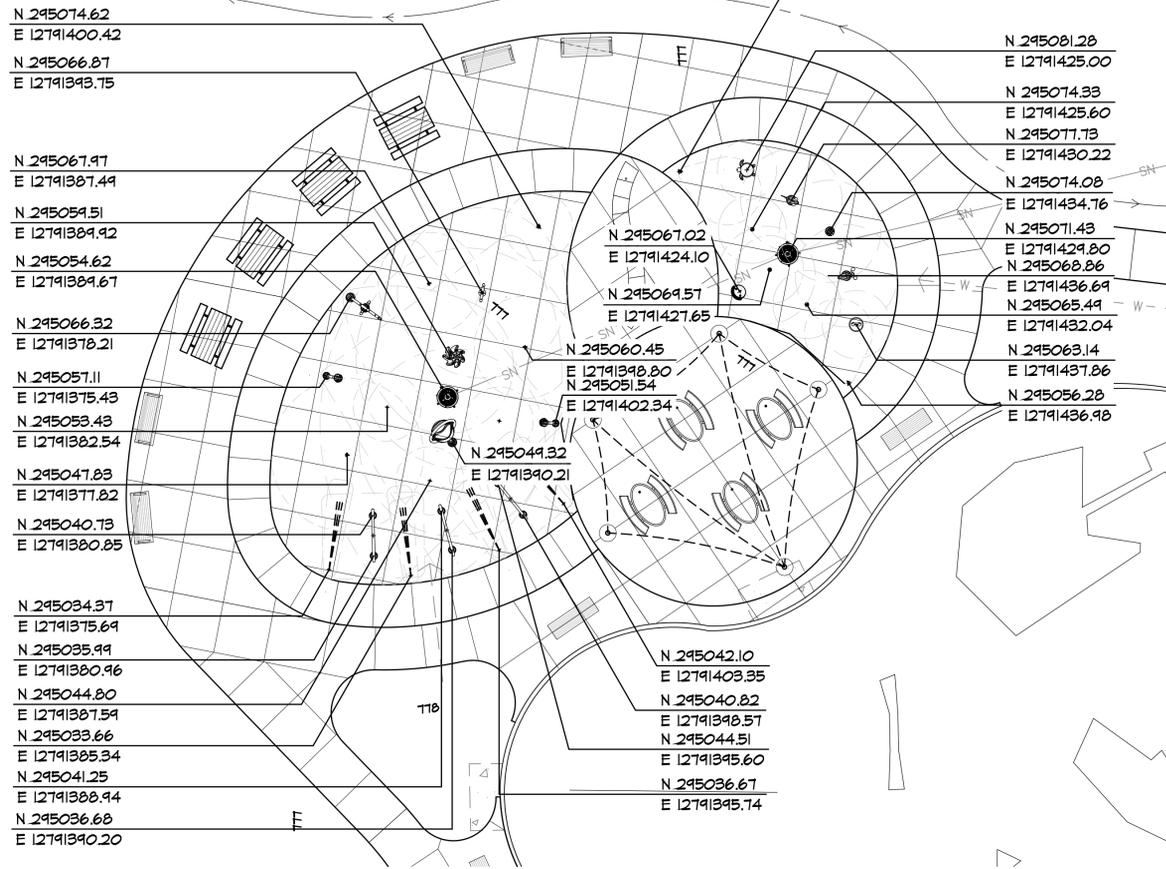
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SCALE:
1" = 20'

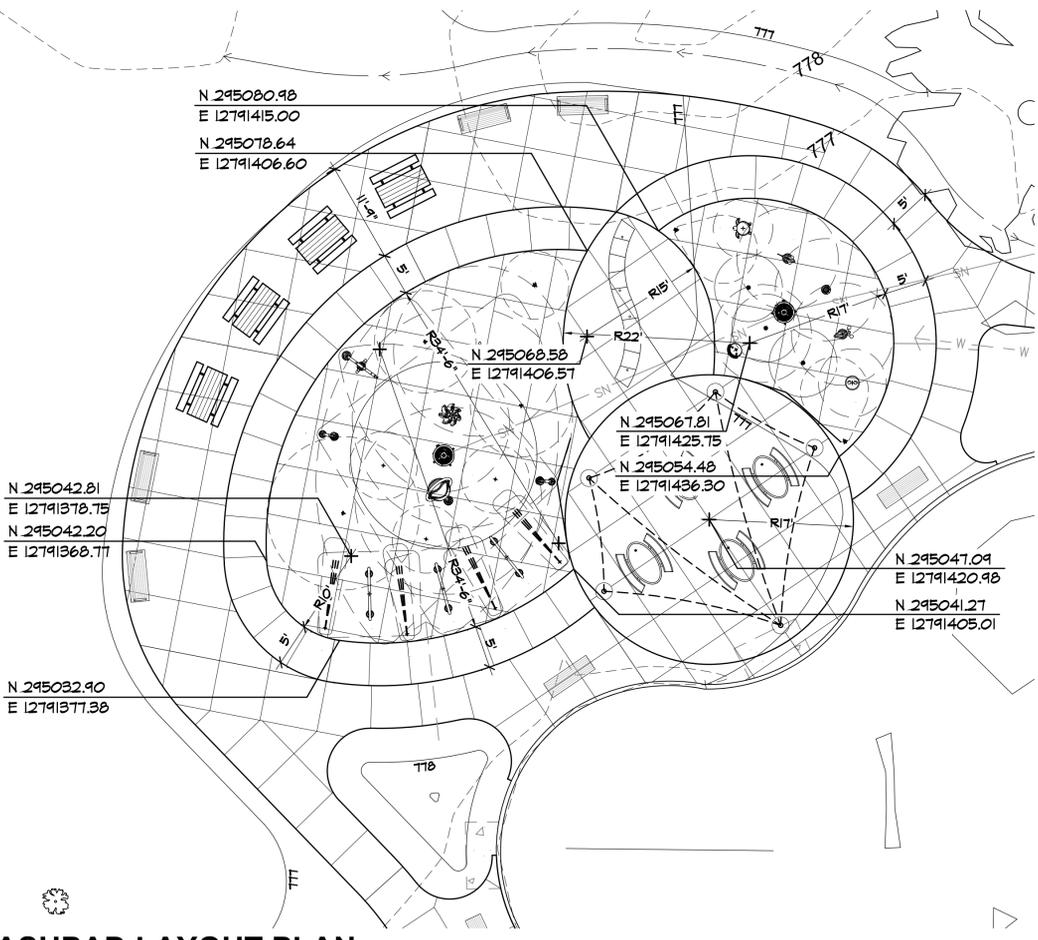
DATE	REVISIONS
09.24.2020	

PROJECT NO.	SHEET NO.
2029	3



- COLOR CONCRETE NOTES:**
- COLOR ADDITIVES FOR INTEGRALLY COLORED CONCRETE SHALL BE DAVIS COLORS.
 - SUBMIT PRODUCT DATA MANUFACTURERS INSTRUCTIONS FOR COLOR ADDITIVES CURING COMPOUNDS.
 - SUBMIT SAMPLES FOR COLOR SELECTION BY LANDSCAPE ARCHITECT.
 - PROVIDE ON SITE 3' X 3' MOCK UP FOR REVIEW BY LANDSCAPE ARCHITECT.
 - CONCRETE CONTRACTION JOINTS SHALL BE INSTALLED 5'-0" ON CENTER.

COLORED CONCRETE LAYOUT PLAN
1" = 10'



REFERENCE POINTS:
REFERENCE POINTS ARE 18" REBAR WITH RED "SUMMIT SURVEYING" CAP. ELEVATIONS ARE BASE ON NAVD88 DATUM. USE REFERENCE POINTS AS BENCHMARKS.

Point	Northing	Easting	Elevation
1	244,918.65	12,791,595.04	776.25
2	245,025.04	12,791,197.09	776.83
3	245,140.59	12,791,607.43	775.33

- LAYOUT LEGEND:**
- PCC POINT OF COMPOUND CURVATURE
 - PT POINT OF TANGENCY
 - R RADIUS POINT
 - C CENTER OF CIRCLE

- LAYOUT GENERAL NOTES:**
- ALL LAYOUT IS TO BE STAKED BY THE CONTRACTOR FOR APPROVAL BY THE LANDSCAPE ARCHITECT PRIOR TO CONSTRUCTION. TRAIL LAYOUT ADJUSTMENT WILL BE MADE BY THE LANDSCAPE ARCHITECT WITH NO CONTRACT CHANGE.
 - NORTHINGS AND EASTINGS REFLECT THE CENTERLINE OF THE TRAILS AND PATHS AND MAJOR END POINTS OF SITE ELEMENTS. AN EFFORT HAS BEEN MADE TO MINIMIZE THE DISTURBANCE OF MATURE TREES AND OTHER EXISTING NATURAL SITE FEATURES. THESE NORTHINGS AND EASTINGS MAY ONLY BE ADJUSTED WITH THE APPROVAL OF THE LANDSCAPE ARCHITECT.
 - CONTRACTOR SHALL VERIFY IN THE FIELD ALL LINES AND DIMENSIONS INDICATED IN THE PLANS AND REPORT ANY INCONSISTENCIES TO THE LANDSCAPE ARCHITECT FOR RESOLUTION.
 - ALL ANGLES ARE PERPENDICULAR UNLESS OTHERWISE NOTED.
 - CONTRACTOR SHALL BE PROVIDED ELECTRONIC COPY IN AUTOCAD 2018 FOR ALL LAYOUT AND GRADING CONTROL.
 - SEE SHEET 3 FOR LAYOUT OF OVERALL ELLIPSE.

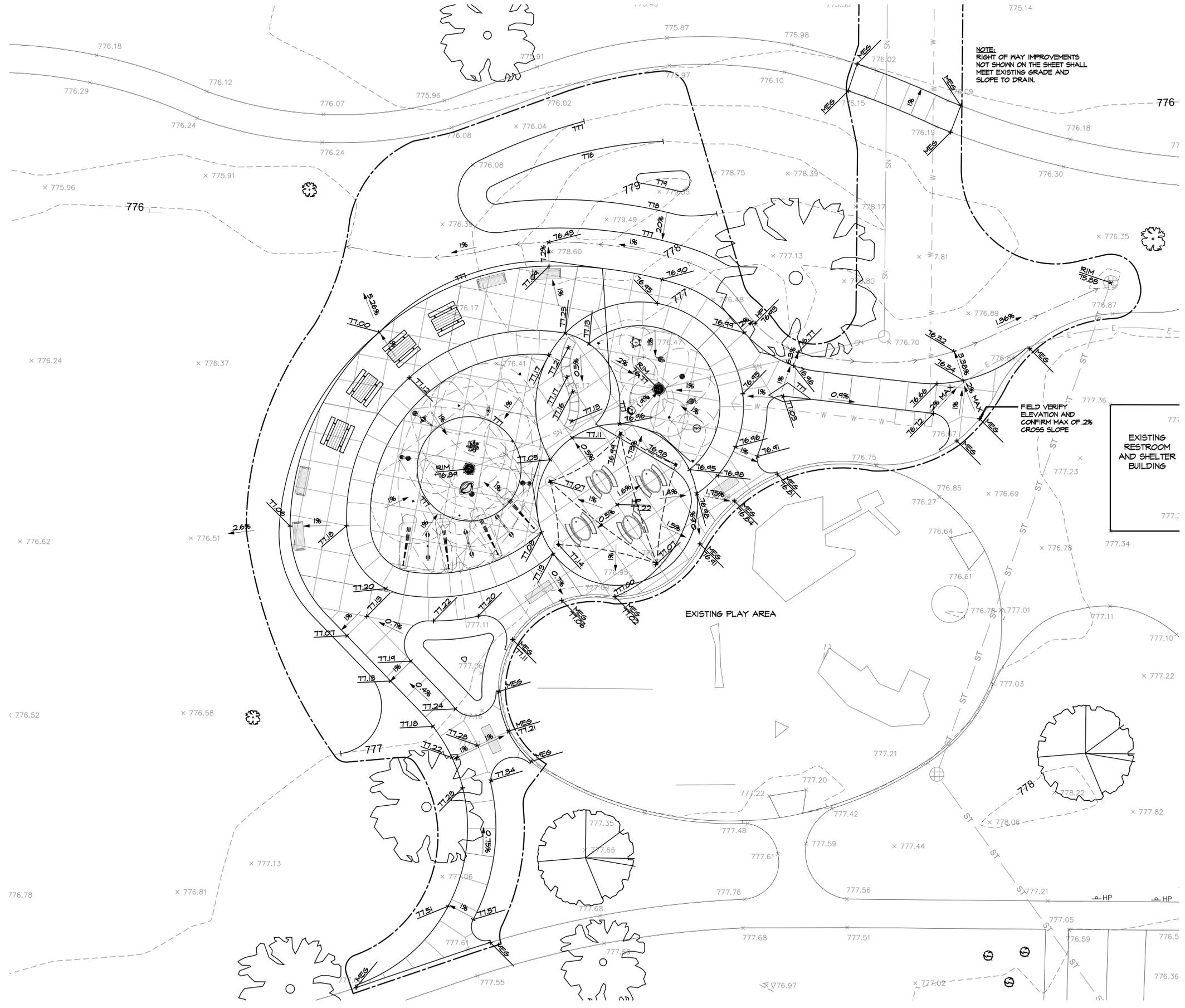
SPLASHPAD EQUIPMENT LAYOUT PLAN
1" = 10'

SPLASHPAD LAYOUT PLAN
1" = 10'

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GRADING LEGEND:

HP	HIGH POINT	PROPOSED CONTOUR	
LP	LOW POINT	SPOT GRADE	
MEG	MEET EXISTING GRADE	DIRECTION OF SLOPE	
RIM	RIM ELEVATION	CENTERLINE OF SWALE	
- 96	EXISTING CONTOUR		

GRADING GENERAL NOTES:

1. FINISHED SURFACES TO BE SMOOTH AND EVEN WITH NO ABRUPT OR ANKWARD CHANGES IN GRADE. ADJUSTMENTS TO BE APPROVED BY LANDSCAPE ARCHITECT.
2. GRADE ALL SURFACES AS NOTED ON PLANS, MAXIMUM TRAVERSE SLOPE, OR RUNNING SLOPE SHALL NOT EXCEED 5% (1' IN 20') UNLESS OTHERWISE NOTED. PROPOSED CROSS SLOPES SHALL NOT EXCEED 2% (1' IN 50') UNLESS OTHERWISE NOTED.
3. ANY PAVING IN EXCESS OF THESE SLOPES AND NOT MEETING ADA REQUIREMENTS SHALL BE REMOVED AND REPLACED BY THE CONTRACTOR AT THEIR OWN COST.
4. GRADING LIMIT LINE SHALL BE MAINTAINED AS SHOWN ON THE PLANS.
5. CONTRACTOR TO PROVIDE ANY NECESSARY FILL MATERIAL.
6. ANY EXCESS FILL SHALL BE REMOVED FROM THE SITE.
7. ELEVATIONS ARE BASED ON NAVD88 DATUM (GEOID 12A) UTILIZING MDOT CORS.
8. THE HUNDREDS DIGIT HAS BEEN OMITTED FROM SOME GRADES. ADD 100 TO MATCH SURVEYED ELEVATIONS, DEPENDING ON SPOT ELEVATION LOCATION.
9. CONTRACTOR SHALL EXCAVATE A MINIMUM OF 4'-0" BELOW SPLASH PAD PAVING AND SHADE SAIL AREA. THIS EXCAVATION AND BACKFILLING WITH APPROPRIATE FILL SHALL BE PART OF CONTRACTORS BASE BID. PRIOR TO BACKFILLING SUB GRADE SHALL BE REVIEWED BY GEOTECHNICAL ENGINEER/TESTING COMPANY. IF ADDITIONAL EXCAVATION IS REQUIRED CONTRACTOR SHALL BE PAID USING UNIT PRICE ON BID FORM.

COMPLIANCE NOTE:

- ALL CONSTRUCTION SHALL CONFORM TO ALL ASPECTS OF THE STATE OF MICHIGAN BUILDING CODE (MBC), UNIFORM FEDERAL ACCESSIBILITY STANDARDS (UFAS), THE ADA ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES (ADAAG) AND THE AMERICANS WITH DISABILITIES ACT (ADA). ALL WORK BY THE CONTRACTOR FOR COMPLETE EXECUTION OF THIS PROJECT SHALL MEET OR EXCEED LAWS, GUIDELINES, AND STATUTES IN EVERY SITUATION. IN THE EVENT THE CONTRACTOR BELIEVES THAT ANY PORTION OF THE WORK IS INCONSISTENT WITH THE MBC, UFAS, ADAAG, AND ADA THEY MUST IMMEDIATELY INFORM THE LANDSCAPE ARCHITECT.

La Crone Park Splashpad Improvements
Kalamazoo, MI

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616-451-3346 • FAX: 616-451-1935 • EMAIL: tas@mcsgroup.com



SCALE:
1" = 10'

Grading and Drainage Plan

DATE	09.24.2020
REVISIONS	

PROJECT NO.	2029
SHEET NO.	5

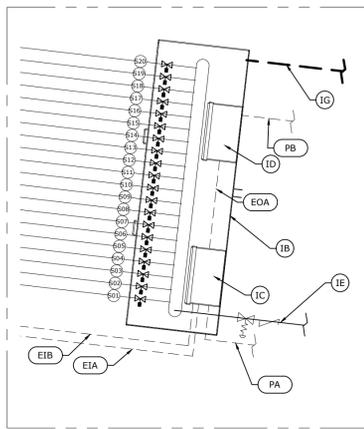
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1 PIPING

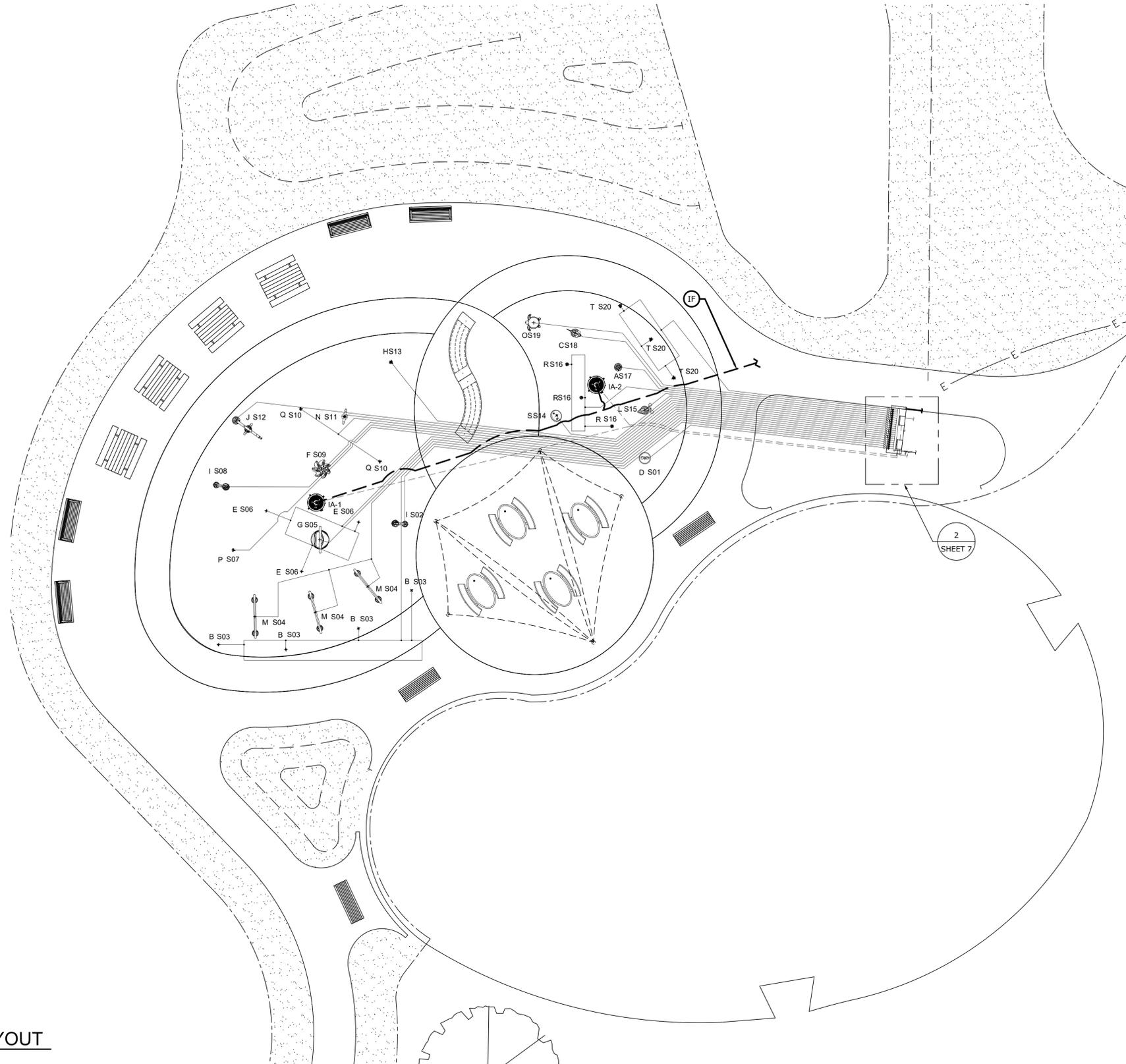
- 1.1 WDS CONFIGURATION ARE SCHEMATIC AND MAY BE MOVED OR ADJUSTED ON SITE BY VORTEX CERTIFIED INSTALLER TO ADJUST FOR SITE CONDITIONS
- 1.2 ANY REQUIRED BACKFLOW PREVENTER, PRESSURE REGULATOR AND WATER METER ON THE CITY WATER MAIN SHALL BE PROVIDED BY INSTALLER.
- 1.3 ALL PIPE LINES TO FEATURES TO HAVE A 1% MINIMUM RECOMMENDED SLOPE FOR PROPER WINTERIZATION.
- 1.4 ALL LINE SIZING (FEATURE CONNECTION TABLE) ASSUMES A MAXIMUM DISTANCE OF 135 FEET BETWEEN THE WATER DISTRIBUTION MANIFOLD AND THE FURTHEST PLAY PRODUCT. DISTANCES ABOVE 135 FEET MAY REQUIRE AN INCREASE IN LINE SIZING. PLEASE CONTACT VORTEX.
- 1.5 THE LINE DIAMETER FROM DRAIN SHALL BE 8" BASED ON THE MAXIMUM APPROXIMATE FLOW AT 1% SLOPE. FINAL LOCATION OF DRAIN AND LINE ROUTING ARE TO BE DETERMINED BY OTHERS.
- 1.6 PRESSURE LINES ARE RECOMMENDED TO BE SCHEDULE 80 PVC OR PEX, AND NON-PRESSURE LINES TO BE SCHEDULE 40, UNLESS OTHERWISE REQUESTED BY LOCAL CODE.
- 1.7 DRAINAGE LINES ARE RECOMMENDED TO BE SDR 35, UNLESS OTHERWISE REQUESTED BY LOCAL CODE.
- 1.8 PIPING SHOULD BE INSPECTED AFTER TRANSPORTATION FOR CUTS, SCRATCHES, GOUGES OR SPLITS; DAMAGED SECTIONS MUST BE DISCARDED OR CUT OUT.
- 1.9 PIPE SHALL BE INSTALLED BELOW THE FROST LEVEL NOT LESS THAN 12" (ASTM F-645) UNLESS OTHERWISE REQUESTED BY LOCAL CODE.
- 1.10 PIPE INSTALLATION MINIMUM COVER SHOULD BE EVALUATED ACCORDING TO ASTM D-2774, UNLESS OTHERWISE REQUESTED BY LOCAL CODE.
- 1.11 SPECIAL CONSIDERATIONS SHOULD BE TAKEN FOR THERMAL CONDITIONS, EXPANSION AND CONTRACTIONS DUE TO TEMPERATURE SHOULD BE EVALUATED BEFORE THE INSTALLATION BY THE CONTRACTOR.
- 1.12 VALVE NUMBER 1 IS LOCATED TO THE LEFT OF THE MANIFOLD FACING THE SOLENOID.
- 1.13 MINIMUM 50 PSI REQUIRED AT THE INLET OF THE BACKFLOW PREVENTER AND PRESSURE REGULATING DEVICE.
- 1.14 MAXIMUM FLOW CAPACITY OF MANIFOLD IS 159 GPM.
- 1.15 TOTAL FLOW OF THE FEATURE IS 215 GPM.
- 1.16 FACTORY MAXIMUM SEQUENCING FLOW IS 127 GPM. ACTUAL FLOW MAY VARY DUE TO SITE CONDITIONS.

2 ELECTRICAL

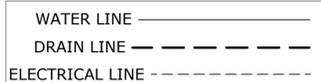
- 2.1 WIRING FROM THE CONTROLLER TO EACH PLAYSFAE DRAIN-PRESS & PLAY No3 ACTIVATOR SHALL BE #22 AWG. A TOTAL OF FIVE (5) CONDUCTORS PER ACTIVATOR. CABLE LENGTH UP TO 164', PROVIDED BY VORTEX.
- 2.2 ALL CONNECTIONS TO THE CONTROLLER AND OTHER VORTEX ELECTRICAL PANEL SHALL BE PERFORMED USING AN APPROVED NEMA 4X CONNECTOR.
- 2.3 WIRE FROM MAIN POWER TO VORTEX PANEL TO BE DETERMINED BY OTHERS RESPECTING THE LOCAL CODE.
- 2.4 MAINTAIN A MINIMUM CLEARANCE ZONE OF 36" IN FRONT OF ELECTRICAL PANEL, UNLESS OTHERWISE REQUESTED BY LOCAL CODE.
- 2.5 USE #8 BARE COPPER BONDING WIRE BETWEEN FEATURES TO A GROUNDING ROD IN THE SOIL, TIED INTO REBAR GRID, OR AS PER LOCAL CODE.
- 2.6 AS PER ELECTRICAL CONSTRUCTION AND SAFETY CODES: CONTROLLER AND ANY OTHER ELECTRICAL ENCLOSURE MUST BE HARD-WIRED TO A GROUND FAULT CIRCUIT INTERRUPTER (GFCI) FROM THE INPUT POWER SOURCE.
- 2.7 ALL ELECTRICAL WORK SHOULD BE PERFORMED BY A LICENCE ELECTRICIAN IN ACCORDANCE TO LOCAL ELECTRICAL CONSTRUCTION AND SAFETY CODES.



2 PLUMBING & ELECTRICAL LAYOUT
SHEET 7 SCALE: 1/2"=1'-0"



1 PLUMBING & ELECTRICAL LAYOUT
SHEET 7 SCALE: 1/8"=1'-0"



Feature Connection Table						
Manifold Output Ref.	Solenoid Valve	Feature Ref.	Feature	Qty	Line Size	Gpm Output
S01	1 1/2" Std	D	Frog N°1 VOR 7200	1	1 1/2"	11.5 IC-01
S02	1 1/2" Std	I	Luna Cannon N°1 VOR 7235	1	1 1/2"	6.5 IC-02
S03	1 1/2" Std	B	Directional Jet N°1 VOR 0305	4	1 1/2"	8 IC-03
S04	1 1/2" Std	M	Spray Loop VOR 0519	3	1 1/2"	22.5 IC-04
S05	1 1/2" Std	G	Helio N°6 VOR 7241	1	1 1/2"	13 IC-05
S06	1 1/2" Std	E	Geysier VOR 0301	3	1 1/2"	13.5 IC-06
S07	1 1/2" Std	P	Water Bloom N°1 VOR 0322	1	1 1/2"	9 IC-07
S08	1 1/2" Std	I	Luna Cannon N°1 VOR 7235	1	1 1/2"	6.5 IC-08
S09	1 1/2" Std	F	Helio N°2 VOR 7237	1	1 1/2"	6 IC-09
S10	1 1/2" Std	Q	Water Bloom N°2 VOR 0329	2	1 1/2"	18 IC-10
S11	1 1/2" Std	N	Sunspray N°1 VOR 7578	1	1 1/2"	12.5 IC-11
S12	1 1/2" Std	J	Luna N°3 VOR 7234	1	1 1/2"	6.5 IC-12
S13	1 1/2" Std	H	Jet Stream No.2 VOR 0325	1	1 1/2"	4 IC-13
S14	1 1/2" Std	S	Waterbug N°2 VOR 7581	1	1 1/2"	6 IC-14
S15	1 1/2" Std	L	Snail N°4 VOR 7217	1	1 1/2"	6.5 IC-15
S16	1 1/2" Std	R	Water Jelly N°1 VOR 7010	3	1 1/2"	14 IC-16
S17	1 1/2" Std	A	Aqua Dome N°1 VOR 0555	1	1 1/2"	18 ID-01
S18	1 1/2" Std	C	Fish N°1 VOR 7218	1	1 1/2"	4 ID-02
S19	1 1/2" Std	O	Turtle N°2 VOR 7216	1	1 1/2"	12.5 ID-03
S20	1 1/2" Std	T	Wave VOR 0327	3	1 1/2"	16.5 ID-04

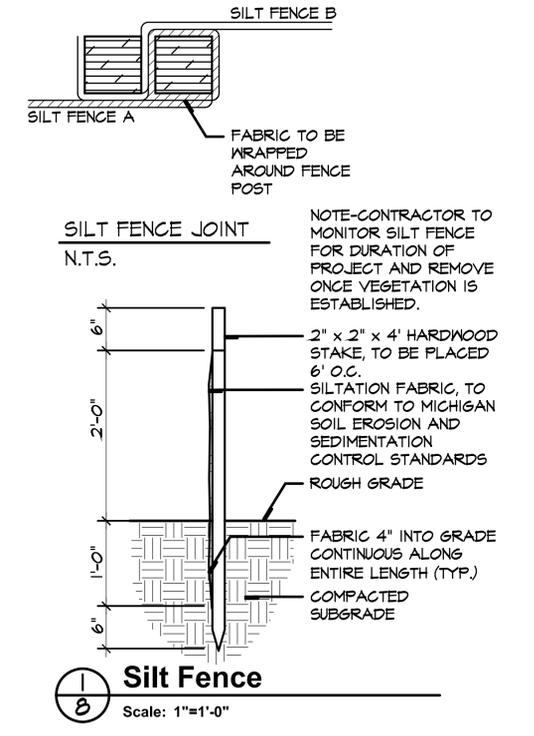
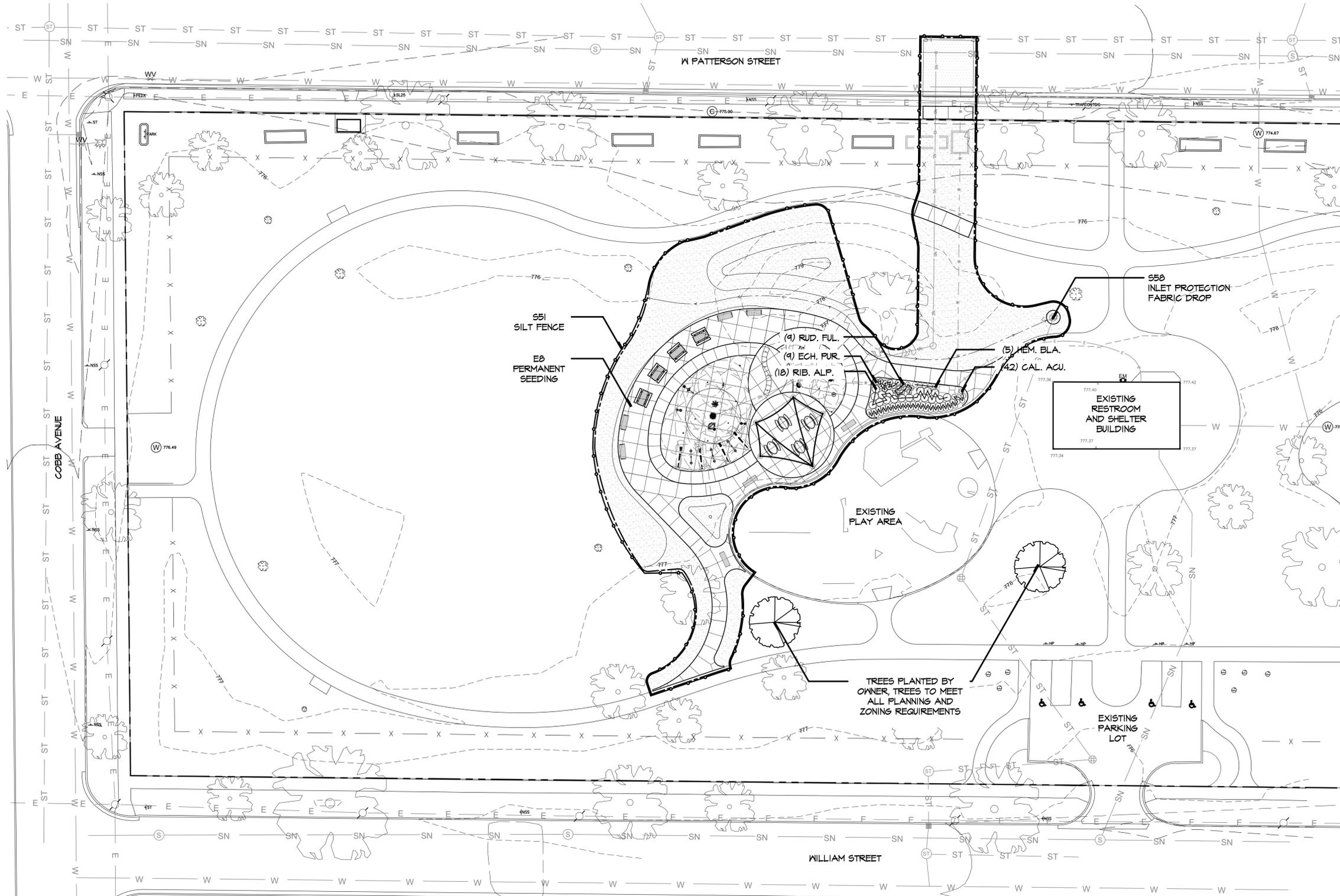
Electrical Line Connections Power					
Product Code	From	To	# Conductors	Gauge/Type	Note
PA	Main Power Line (by Owner)	IC-120VAC	3	N/A	120V, 1 Phase, 60Hz, 10Amps Breaker Recommended ± 10% Voltage Drop is Acceptable (by Installer)
PB	Main Power Line (by Owner)	ID-120VAC	3	N/A	120V, 1 Phase, 60Hz, 10Amps Breaker Recommended ± 10% Voltage Drop is Acceptable (by Installer)

Electrical Line Connections Controller Outputs					
Product Code	From	To	# Conductors	Gauge/Type	Note
EOA	IC	ID	Cable	CAT 5	Signal from Maestro Controller to Maestro Expansion (by Installer)

Electrical Line Connections Controller Inputs					
Product Code	From	To	# Conductors	Gauge/Type	Note
EIA	ID-Input 1	IA-1	5	22	Playsafe Drain - Press&Play No3 - Post Activator 24 VAC, Max 250 mA, 164' Long Cable (by Vortex)
EIB	ID-Input 2	IA-2	5	22	Playsafe Drain - Press&Play No3 - Post Activator 24 VAC, Max 250 mA, 164' Long Cable (by Vortex)

Product Legend		
Product Ref.	Product	Qty
IA (IA-1, IA-2)	Playsafe Drain - Press & Play N°3 VOR 1001.4003	2
IB	Water Distribution System: ECCC Cabinet Command Center 29281D1710R01	1
IC	Maestro Controller 16out/ 8 in	1
ID	Maestro Expansion 8 out/ 8 in	1
IE	3"City Water Line (by Installer)	1
IF	To Municipal Drain (by Installer)	1
IG	4" TYP Drain Line With Strainer Connected to Drainage System. Ensure P-Trap is Below Frost Line to Prevent Freezing. (by Installer)	1
Pressure Regulator (by other)		1
Backflow Preventer (by other)		1
Solenoid Valve 1 1/2"		20

Drawing #	Drawing Name	Rev #
PE-001	Plumbing & Electrical Layout	02



SOIL EROSION AND SEDIMENT CONTROL KEYING SYSTEM

KEY	BEST MANAGEMENT PRACTICES	SYMBOL
EROSION CONTROLS		
E8	PERMANENT SEEDING	
SEDIMENT CONTROLS		
S51	SILT FENCE	
S58	INLET PROTECTION FABRIC DROP	

SOIL EROSION AND SEDIMENTATION CONTROL GENERAL NOTES

- PLACE EROSION CONTROL MEASURES AS SHOWN TO ESTABLISH VEGETATION AND ELIMINATE SEDIMENTATION INTO NON-CONSTRUCTION AREAS. CONTRACTOR SHALL OBTAIN REQUIRED EROSION AND SEDIMENTATION CONTROL PERMIT THROUGH ALLEGAN COUNTY AND MUST POST THE PERMIT ON SITE THROUGHOUT THE DURATION OF THE PROJECT.

- ALL TEMPORARY SOIL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED THROUGHOUT THE DURATION OF THE PROJECT.
- ANY MUD OR DEBRIS TRACKED ONTO EXISTING ROADWAYS MUST BE REMOVED DAILY.
- ANY MATERIAL STOCKPILED ON-SITE MUST BE PROTECTED WITH TARP AND OR SILT FENCE.

- SLOPES 25% (4:1) OR GREATER SHALL BE PROTECTED WITH MULCH BLANKETS. MULCH BLANKETS SHALL BE NORTH AMERICAN GREEN SC150BN. SEE SPECIFICATIONS.

LANDSCAPE GENERAL NOTES

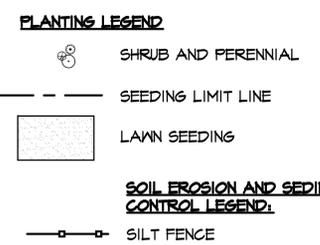
- PLANTING SOIL AND MULCH FOR ALL TREES SHALL BE AS PER APPROPRIATE DETAIL.
- ALL TREES TO BE STAKED BY THE CONTRACTOR FOR APPROVAL BY THE LANDSCAPE ARCHITECT.
- SEED LIMIT LINE IS APPROXIMATE, ALL DISTURBED AREAS SHALL BE SEEDED AND RESTORED, UNLESS OTHERWISE DISTURBED.
- FOR ALL AREAS TO BE SEEDED, SEE SPECIFICATION FOR SEED MIX.
- SEE PLANTING DETAILS 1 AND 2 ON SHEET 10.

PLANT MATERIAL LIST
SHRUBS, GRASSES, AND PERENNIALS

PLANT KEY	TOTAL QUANTITY	SIZE	COMMON NAME BOTANICAL NAME
CAL ACU	42	#3 CONT. MIN.	KARL FOERSTER FEATHER REED GRASS CALAMAGROTIS X ACUTIFLORA 'KARL FOERSTER'
ECH PUR	9	#1 CONT. MIN.	'POW WOW WILDBERRY' CONEFLOWER ECHINACEA 'POW WOW WILDBERRY' CONEFLOWER
HEM BLA	5	#1 CONT. MIN.	'BLACK EYED STELLA' DAYLILY HEMEROCALLIS 'BLACK EYED STELLA'

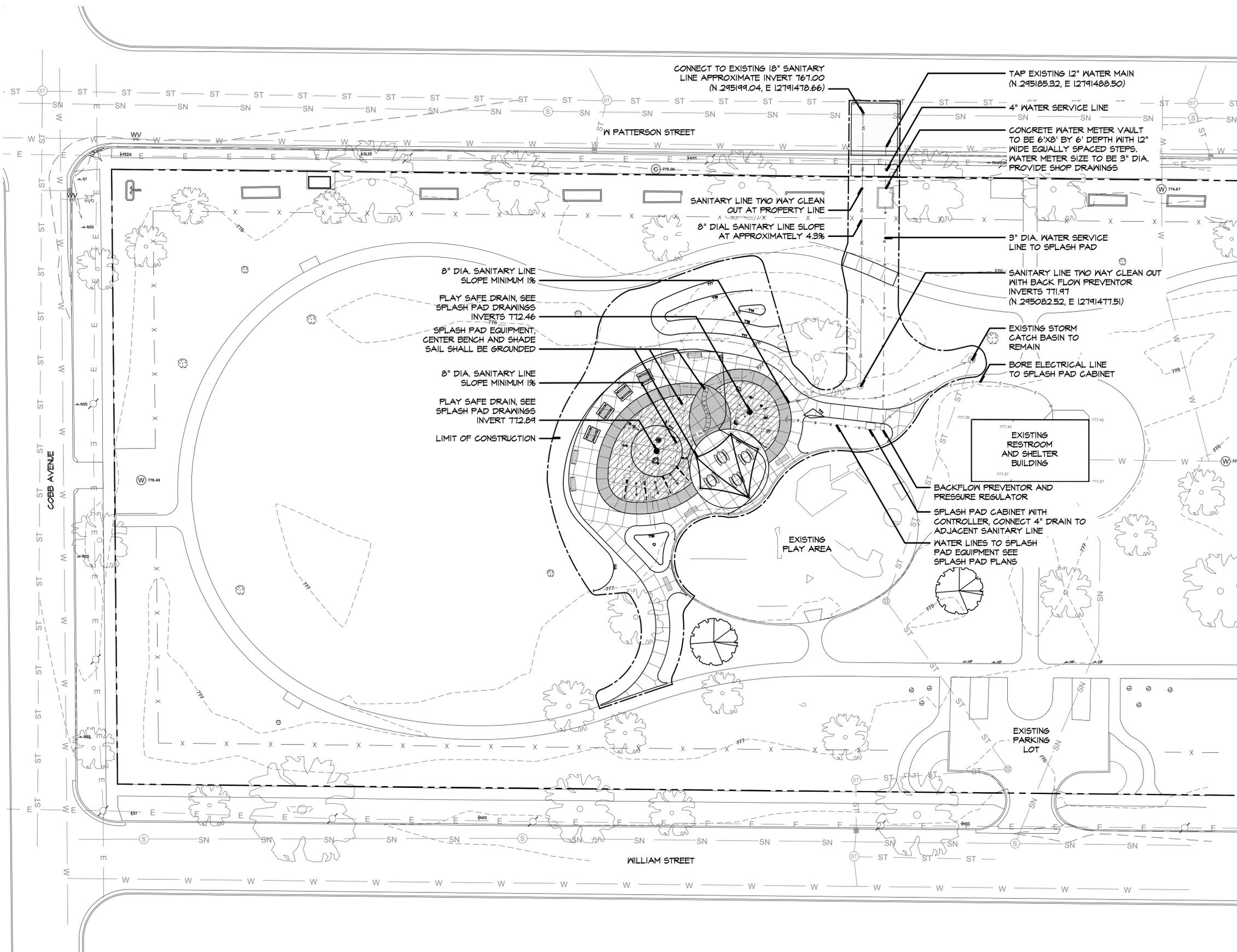
SHRUBS, GRASSES, AND PERENNIALS

PLANT KEY	TOTAL QUANTITY	SIZE	COMMON NAME BOTANICAL NAME
RIB. ALP.	18	#3 CONT. MIN.	GREEN MOUND ALPINE CURRANT RIBES ALPIMUM 'GREEN MOUND'
RUD FUL	9	#2 CONT. MIN.	'GOLDSTRUM' ORANGE CONEFLOWER RUDBECKIA FULGIDA VAR. SULLIVANTAIL 'GOLDSTRUM'



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SANITARY SEWER DESIGN FLOW INFORMATION

- + 216.5 GPM @ FULL CAPACITY
- + AVERAGE OF 50,920 GALLONS PER DAY DURING SPLASH PAD SEASON
- + APPROXIMATELY 4,277,280 GALLONS PER SEASON (12 WEEKS)

ELECTRICAL NOTES:

1. ALL ELECTRICAL WORK TO MEET NEC AND LOCAL CODES.
2. CONTRACTOR TO ACQUIRE ALL NECESSARY PERMITS.
3. CONNECT TO EXISTING PANEL IN EXISTING RESTROOM BUILDING.
4. ALL WIRE TO BE PLACED IN CONDUIT, ALL WIRE TO BE THHN COPPER.
5. PROVIDE ELECTRICAL POWER LINE TO SPLASH PAD CONTROLLER AS DETAILED ON SHEET 7.

SITE UTILITY GENERAL NOTES:

1. UTILITY IMPROVEMENTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF KALAMAZOO STANDARD CONSTRUCTION REQUIREMENTS AND 2012 INTERNATIONAL BUILDING CODE.
2. COORDINATE WITH CITY OF KALAMAZOO UTILITY DEPARTMENT AS NECESSARY FOR WATER AND SANITARY SERVICE CONNECTIONS.
3. CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND PAYING FOR ALL OTHER PERMITS REQUIRED FOR UTILITY WORK. CONTRACTOR SHALL ALSO PAY FEES FOR WATER LINE TAP, INSPECTION, AND METER BY CITY.
4. THE CONTRACTOR IS TO LOCATE ALL UTILITIES PRIOR TO CONSTRUCTION OPERATIONS. CONTRACTOR WILL BE RESPONSIBLE FOR ANY DAMAGES TO UTILITIES CAUSED BY THEIR WORK. CONTACT MISS DIG FOR CONFIRMATION OF UTILITY LOCATIONS (1-800-482-7171).
5. 3" DIAMETER WATER PIPES SHALL BE TYPE K ANNEALED SEAMLESS COPPER WATER TUBING WITH COMPRESSION TYPE FITTINGS. 4" DIAMETER WATER SERVICE LINE TO BE CLASS 52 DUCTILE IRON PIPE.
6. PLACE WATER LINE WITH 5' COVER MINIMUM.
7. SANITARY PIPE SHALL BE PVC CONFORMING TO ASTM D3033 OR ASTM D3213. MINIMUM WALL THICKNESS SHALL BE SDR-26. JOINTS SHALL BE OF THE ELASTOMERIC GASKET PUSH-ON TYPE CONFORMING TO ASTM D3212.
8. ENSURE 10' OF SEPARATION BETWEEN WATER AND SEWER LINES.

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La Crone Park Splashpad Improvements
Kalamazoo, MI

MCSA GROUP, INC.
Landscape Architecture • Park & Recreation Planning • Architecture
Downtown Planning • Interior Design • Sports Facility Planning
529 Greenwood Avenue S.E. • East Grand Rapids, MI 49506
616-451-3346 • FAX: 616-451-1935 • EMAIL: tas@mcsgroup.com



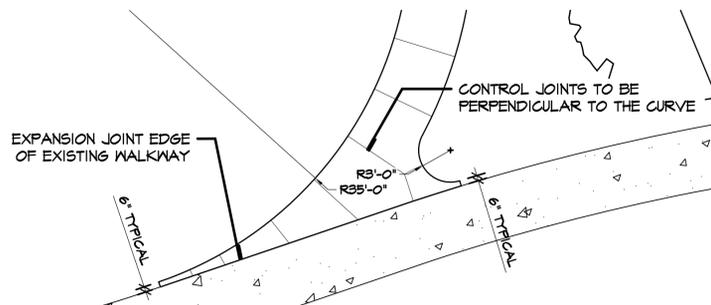
SCALE:
1" = 20'

Utility Plan

DATE	REVISIONS
09.24.2020	

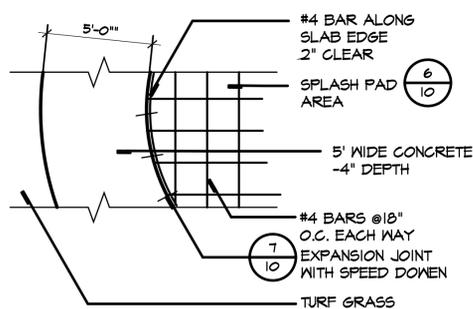
PROJECT NO.	SHEET NO.
2029	9

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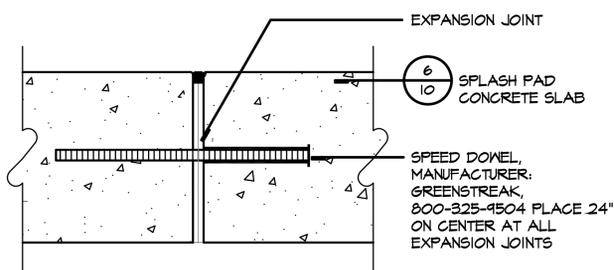
9 Walkway Intersection Detail

Scale: 1/8" = 1'-0"



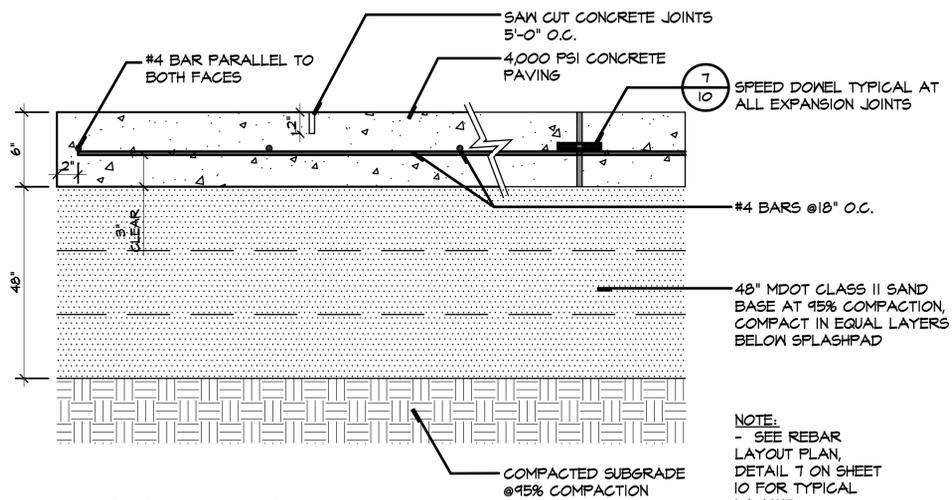
8 Rebar Layout

Scale: 1/4" = 1'-0"



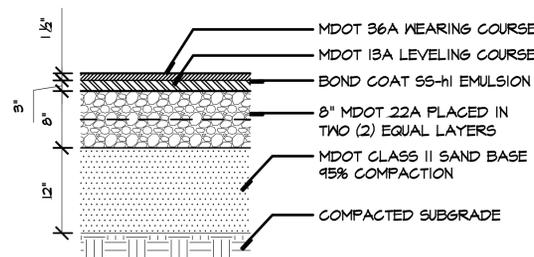
7 Speed Dowel

Scale: 3" = 1'-0" SUBMITTAL REQUIRED



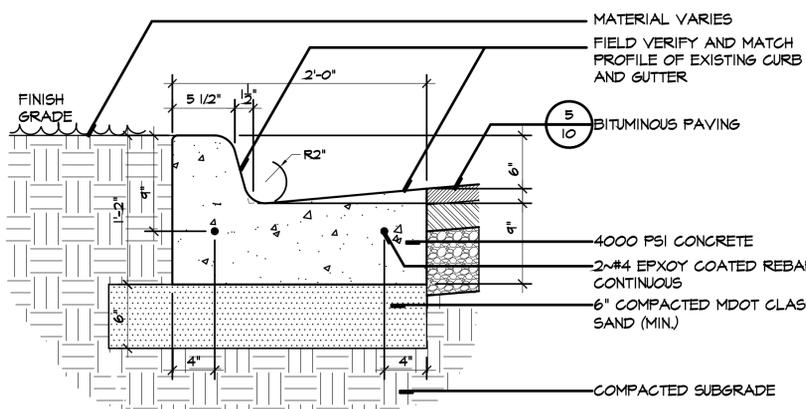
6 Splashpad Concrete

Scale: 1 1/2" = 1'-0"



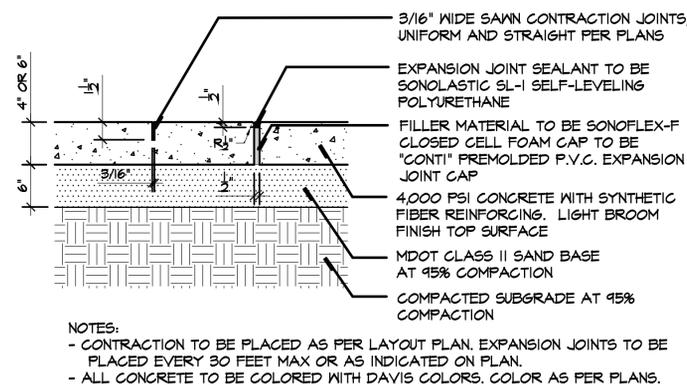
5 Bituminous Paving

Scale: 1" = 1'-0"



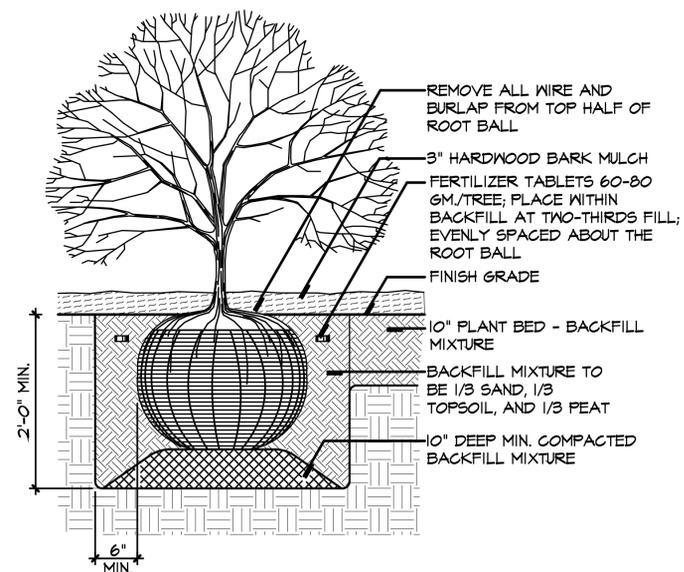
4 Concrete Curb and Gutter

Scale: 1 1/2" = 1'-0"



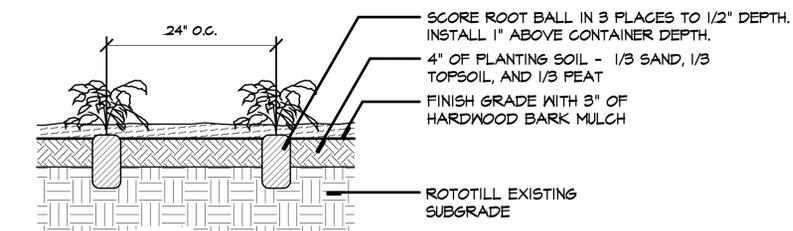
3 Concrete Paving & Joints

Scale: 1-1/2" = 1'-0"



2 Shrub Installation

Scale: 1" = 1'-0" SHOP DRAWINGS REQUIRED



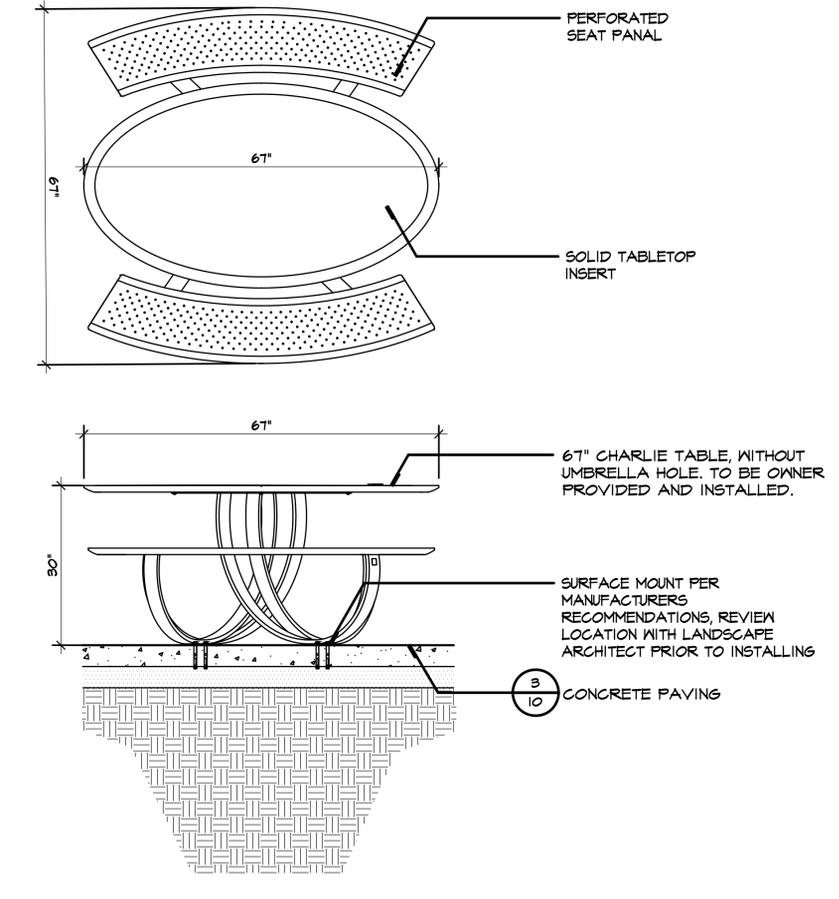
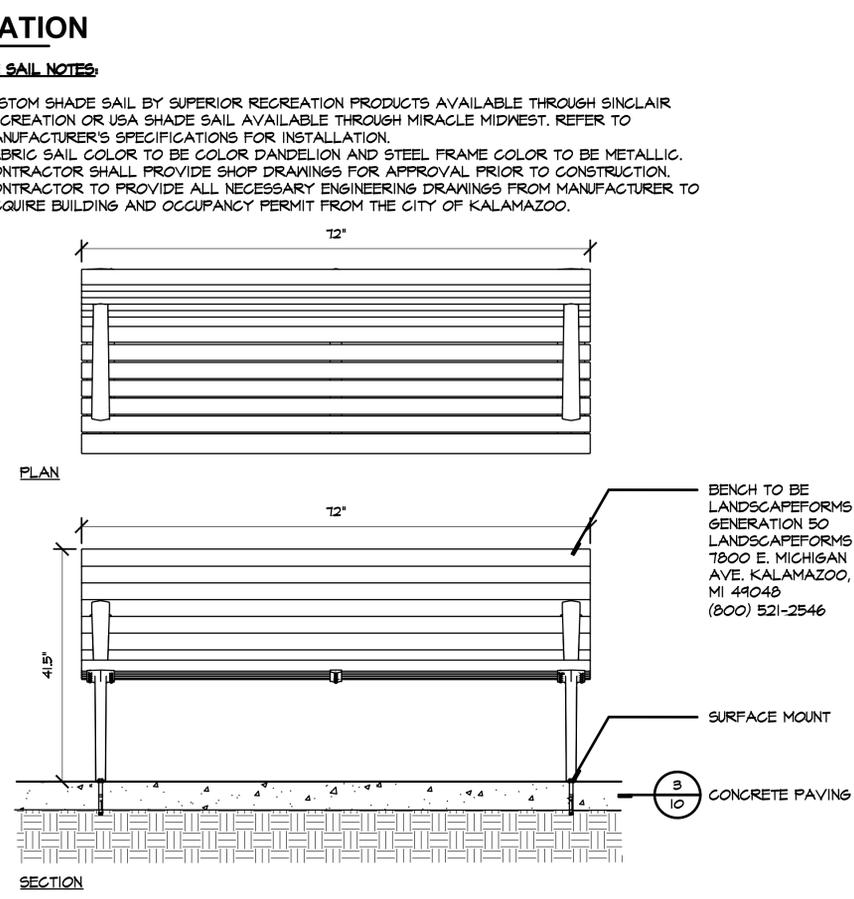
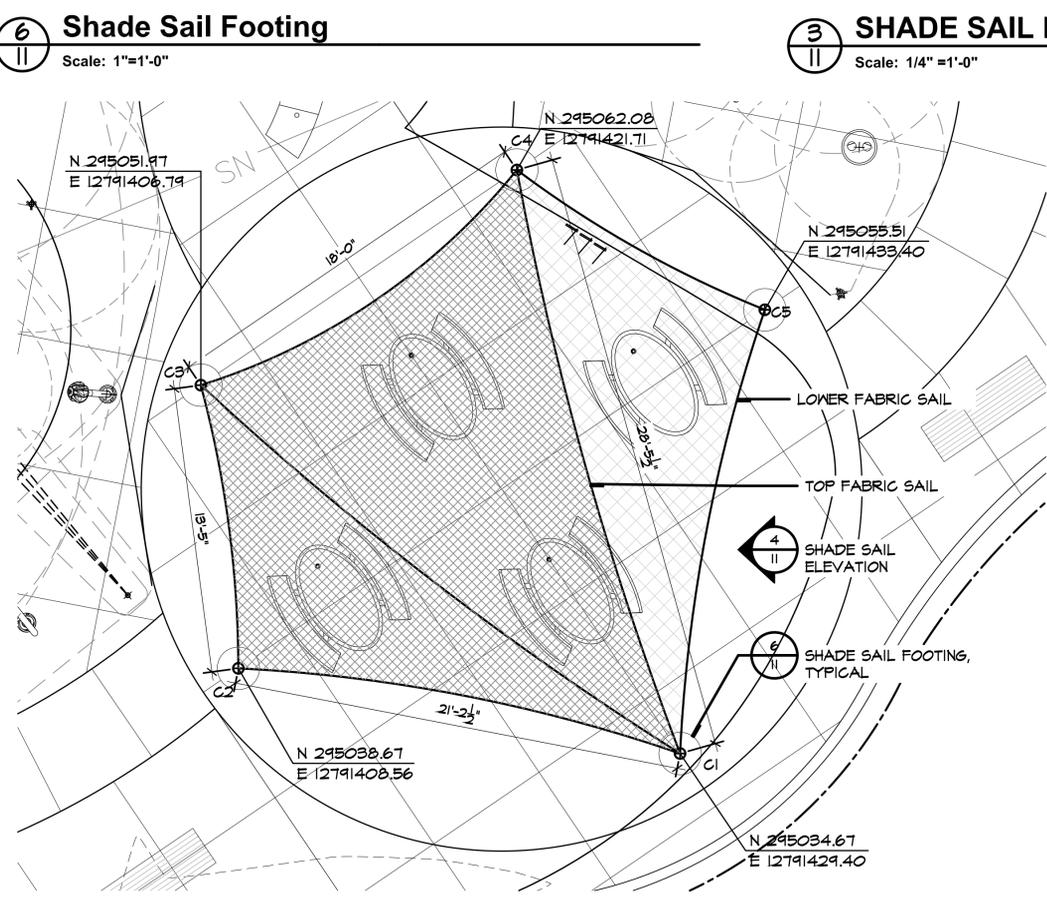
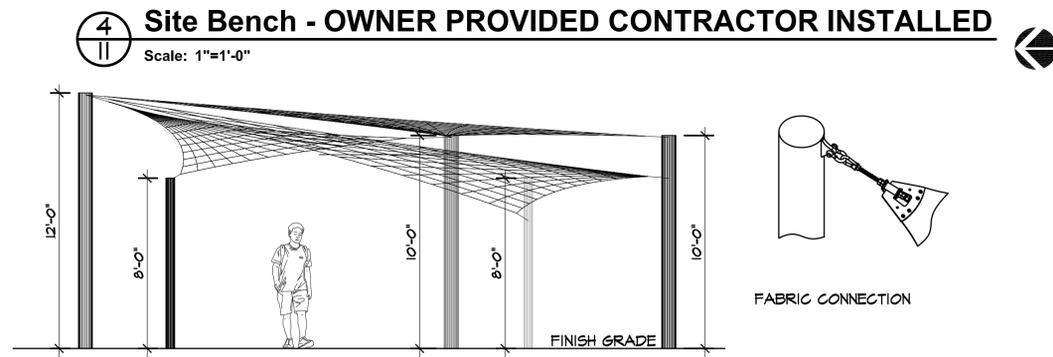
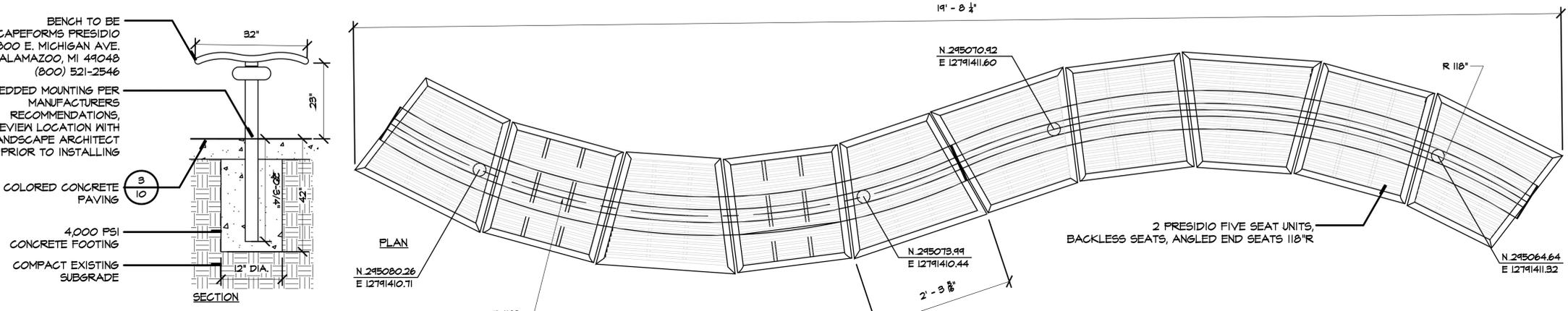
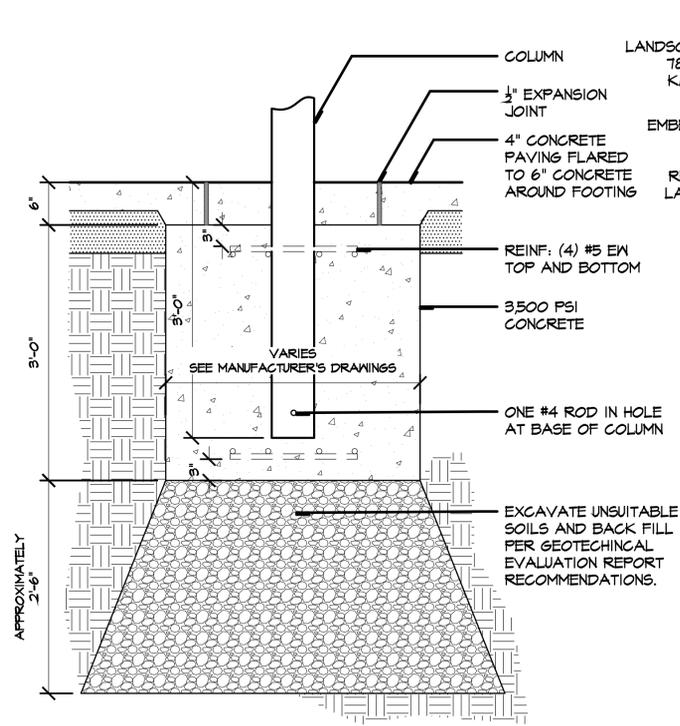
1 Perennial Installation

Scale: 1" = 1'-0"



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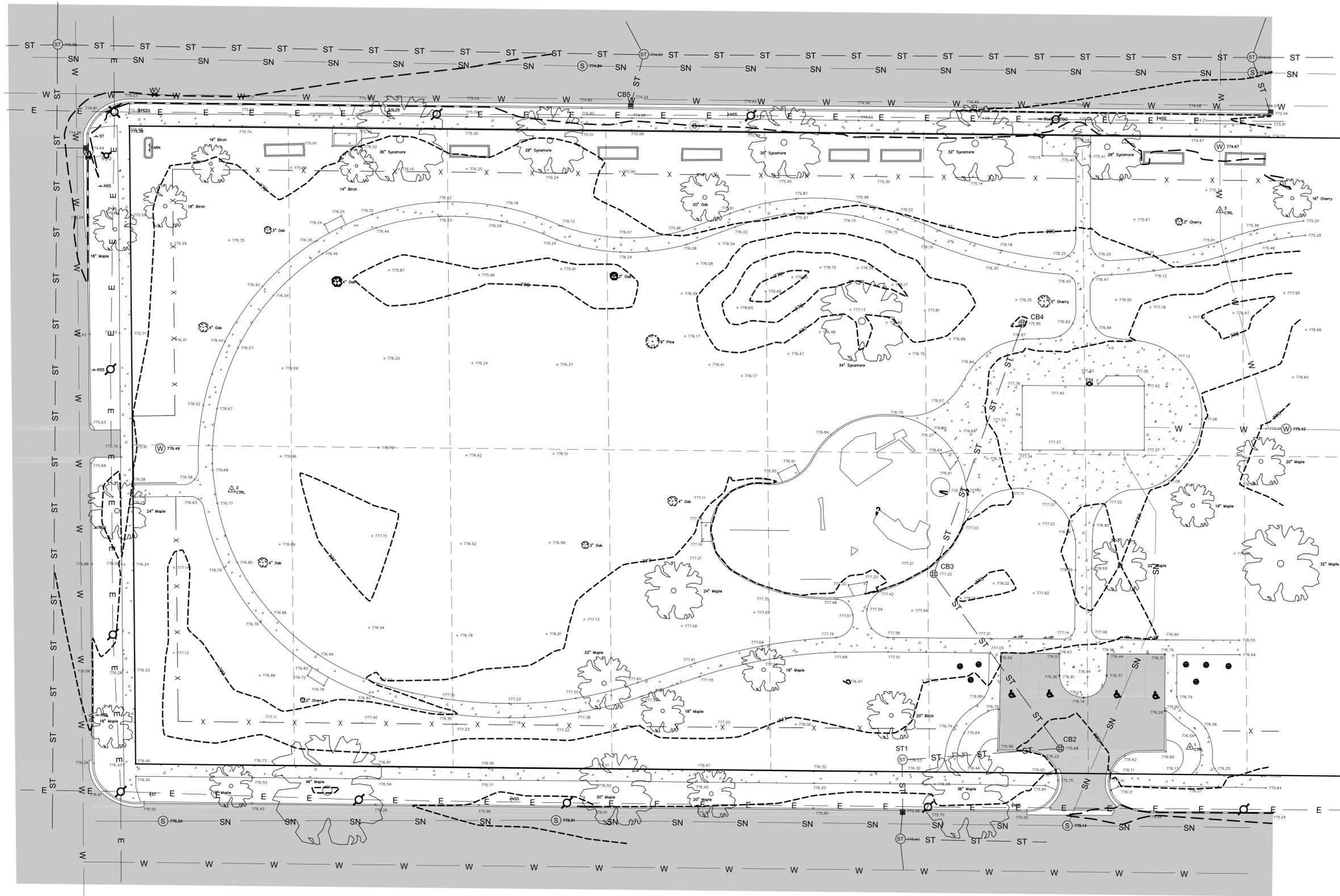
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NOTES:
- FOUNDATION DESIGNED FOR A SOIL BEARING VALUE OF 3,000 P.S.F.
- FOOTING, ANCHOR BOLT PATTERN AND SIZES MAY VARY. MANUFACTURER TO PROVIDE FINAL ENGINEERING DRAWINGS.

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GENERAL NOTES:

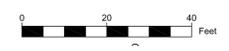
- Utilities shown are approximate locations derived from actual measurements. They should not be interpreted to be exact locations nor should it be assumed that they are the only utilities in this area.
- Reference points are 18" rebar with red "Summit Surveying" caps.

Point	Northing	Easting	Elevation
1	294,918.65	12,791,595.04	776.25
2	295,025.04	12,791,197.09	776.83
3	295,140.59	12,791,607.43	775.33
- Coordinates are Michigan State Plane South and elevations are NAVD83 (Geoid 12A) utilizing MDOT CORS.
- Per City of Kalamazoo Department of Parks and Recreation there are no assessments of concern.
- Property Description: Lots 16 thru 40 of Austin and Tomlinson's Addition to the Village (now City) of Kalamazoo, Liber 3 of Plats, Page 3.

Symbol Legend

- Symbol Denotes
- ⊙ Communication MH
 - ⊕ Coniferous tree
 - ⊖ Deciduous tree
 - ⊕ Electric meter
 - ⊕ Hydrant
 - ⊕ Found iron
 - ⊕ Power pole
 - ⊕ Reference point
 - ⊕ Round CB
 - ⊕ Sanitary MH
 - ⊕ Shrub
 - ⊕ Sign
 - ⊕ Sign
 - ⊕ Square CB
 - ⊕ Storm MH
 - ⊕ Water meter pit
 - ⊕ Water valve

Existing Storm Sewer		
Number	Rim	Invert
ST1	776.53	12" S.E. - 771.25
CB2	775.68	12" W.W. - 771.34
CB3	777.22	12" S.E. - 771.77
CB4	775.85	8" S.W. - 772.58
CB5	774.24	12" N. - 775.32



SUMMIT SURVEYING, INC.
 P.O. Box 410
 Allendale, MI 49401
 Phone (616) 895-7190
 Fax (616) 895-7191
 todd@summitsurveying.com

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SCALE:
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Site Survey

DATE	REVISIONS
09.24.2020	

PROJECT NO.	SHEET NO.
2029	12