ROSS ELEMENTARY SCHOOL

1150 Ross Road, St Louis, MO 63146

Parkway Project #: PN062501B

Building Renovations & Site Improvements

BID/ PERMIT SET
ISSUE DATE: OCTOBER 12, 2026

Architect

Bond Architects, Inc.
MO State Cert. of Authority #2009027409
222 South Central Avenue, Suite 501
St. Louis, MO 63105
(314) 863.4994 tel
(314) 863.4996 fax
Contact: Sue King
Email: sking@bondarchitectsinc.com

Civil Engineer

COLE & Associates, Inc.
Consultant Project #26-0054
Certificate of Authority #001165
401 S. 18th Street, Suite 200
St. Louis, MO 63103
314.984.9887 tel
Contact: Jared Wilson
Email: jwilson@colestl.com

MEP / FP Engineer

RTM Engineering Consultants
Consultant Project #26.B002031924
Certificate of Authority #2002028690
3701 S. Lindbergh Blvd.
St. Louis, MO 63127
314.725.5889 tel
Contact: Margaret Bailey
Email: margaret.bailey@rtmec.com

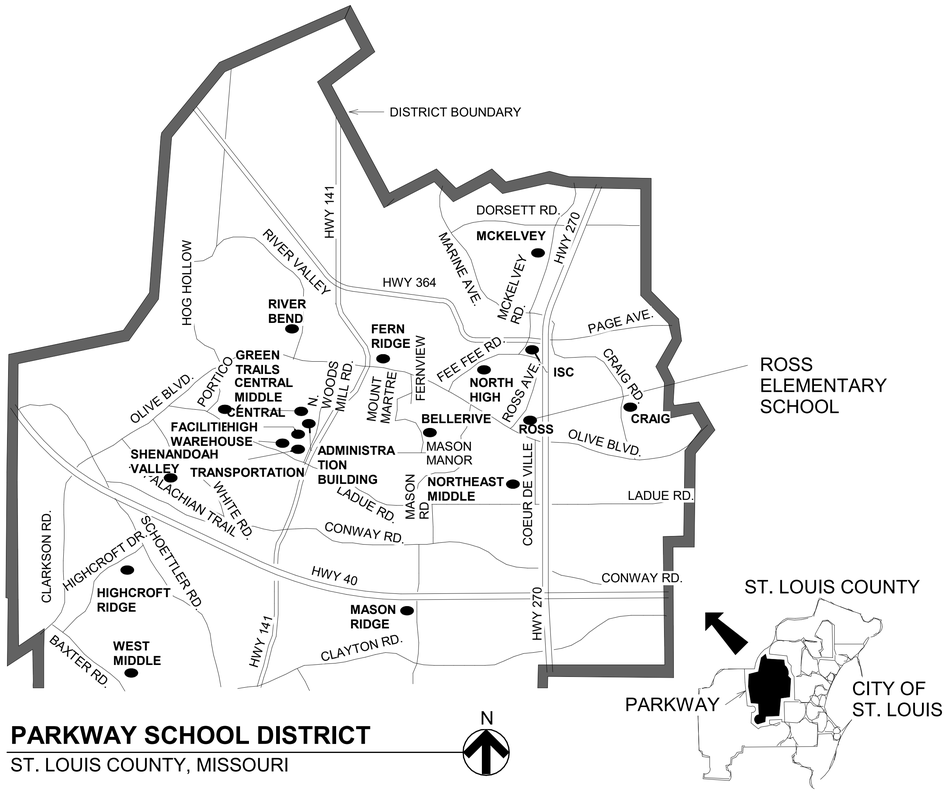
HAZ MAT Consultant

Pinchin, LLC
Consultant Project #R262.00457.001
Certificate of Authority #
2 Cityplace Drive, Suite 195,
St. Louis, Missouri 63141
314.230.0182 tel
Contact: Megan Kienker
Email: Megan.Kienker@pinchin.com

Structural Engineer

Case Engineering, Inc.
Project Number: BDA-MO-07-26
Certificate of Authority # 001498
796 Merus Ct.
Fenton, MO 63026
636.349.1600 tel
Contact: Ardie Mansouri
Email: a.mansouri@caseengineeringinc.com

PROJECT SITE



PARKWAY SCHOOL DISTRICT
ST. LOUIS COUNTY, MISSOURI

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bond architects
222 SOUTH CENTRAL AVE.
SUITE# 501
ST. LOUIS, MO 63105
TEL: 314.863.4994
FAX: 314.863.4996
www.bondarchitectsinc.com
Bond Architects, Inc.
Missouri State Certificate of Authority # 2009027409

COLE & Associates, Inc.
Civil Engineer
Consultant Project #26-0054
Certificate of Authority #001165
401 S. 18th Street, Suite 200
St. Louis, MO 63103
314.984.9887 tel

RTM Engineering Consultants
MEP / FP Engineer
Consultant Project #26.B002031924
Certificate of Authority #2002028690
3701 S. Lindbergh Blvd.
St. Louis, MO 63127
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Certificate of Authority #
2 Cityplace Drive, Suite 195,
St. Louis, Missouri 63141
314.230.0182 tel

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Structural Engineer
Project Number: BDA-MO-07-26
Certificate of Authority # 001498
796 Merus Ct.
Fenton, MO 63026
636.349.1600 tel

ROSS ELEMENTARY SCHOOL
1150 Ross Road, St Louis, MO 63146
Parkway Project #: PN062501B
Building Renovations & Site Improvements

Parkway School District
363 N. Woods Mill Rd., Chesterfield, MO 63017
314.415.8231 tel

Project No: 26017

Revisions

No.	Description	Date

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STATE OF MISSOURI
MICHELLE R. WELLS
NUMBER A-2021031961
ARCHITECT
10/12/26

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DATE: 10/12/2026

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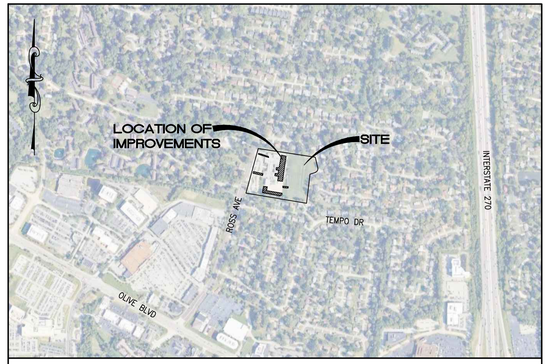
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SITE IMPROVEMENT PLANS
for
PARKWAY SCHOOL DISTRICT - ROSS ELEMENTARY

A TRACT OF LAND BEING PART OF LOT 7 OF THE SUBDIVISION OF WASHINGTON ROSS ESTATE, SITUATED IN U.S. SURVEY 433, TOWNSHIP 46 NORTH, RANGE 5 EAST ST. LOUIS COUNTY, MISSOURI

LEGEND

EXISTING		PROPOSED
460 / 459	CONTOURS	460 / 459
620.15	SPOT GRADE	621.25 (TOP OF CURB) (FINISH PAVEMENT)
	TREE LINE	
8"	TREE	
	BUSH	
	STORM MANHOLE	
A1	AREA INLET	
	CURB INLET	
	GRATED INLET	
	FLARED END SECTION	
12" RCP	STORM SEWER	
	GRATED MANHOLE	
69	STORM DESIGNATOR	22
DS	DOWNSPOUT	
DP	DRAINAGE PIPE	
	SWALE/SLOPE INDICATOR	
S	SANITARY MANHOLE	
8"VCP	SANITARY SEWER	SS
	CLEAN OUT	CO
A	SANITARY DESIGNATOR	A
	UTILITY POLE	
	GUIDE WIRE	
OU	OVERHEAD UTILITY	OU
UE UE	UNDERGROUND ELECTRIC	UE UE
	ELECTRIC MARKER	
	ELECTRIC METER	
	ELECTRIC BOX	
EPB	ELECTRIC PULL BOX	
	ELECTRIC TRANSFORMER	
E	ELECTRIC MANHOLE	
UT	UNDERGROUND TELEPHONE	UT
	FIBER OPTIC MARKER	
	CABLE MARKER	
G	GAS LINE	G
	GAS VALVE	GV
	GAS METER	GM
	GAS MARKER	
W	WATER LINE	W
	WATER VALVE	WV
	WATER METER	
	FIRE HYDRANT	
	SIGN	
	MAIL BOX	
B-1 405.5	TEST HOLE	
	LIGHT STANDARD	
X X X X	FENCE	X X
B	BOLLARD	
	RETAINING WALL	
	CONCRETE PAVEMENT	
	SILTATION FENCE	
AC	AIR CONDITIONER	
	FLAG POLE	
	MONITORING WELL	
PM	PARKING METER	
	PLANTER	
SCB	SPRINKLER CONTROL BOX	
SHD	SPRINKLER	
SVLV	SPRINKLER VALVE	
	TRAFFIC CONTROL BOX	
	TRAFFIC POLE	
	YARD LIGHT	
	GUARD RAIL	
	PROPERTY LINE	
	EASEMENT	
	SETBACK	
	INLET PROTECTION	
	WATTLE	
	CHECK DAM	
	USE IN PLACE	(UIP)
	TO BE REMOVED	(TBR)
	ADJUST TO GRADE	(ATG)
	TO BE REMOVED & REPLACED	(TBR&R)
	TYPICAL	(TYP)
	NOT TO SCALE	N.T.S.
	HIGH POINT IN GRADE	HP
	LOW POINT IN GRADE	LP
	TOP OF WALL	TW
	BOTTOM OF WALL	BW
	NOT IN CONTRACT	(NIC)



LOCATION MAP
(NOT TO SCALE)

LIMITS OF DISTURBANCE:

THE CONTRACTOR SHALL STAY WITHIN THE LIMITS OF DISTURBANCE AS SHOWN ON THE PLANS AND MINIMIZE DISTURBANCE WITHIN THE WORK AREA WHEREVER POSSIBLE.

STORMWATER MANAGEMENT FUTURE DISTURBANCE NOTE:

LAND AREA DISTURBED = ±0.82 ACRES

DIFFERENTIAL RUNOFF RATE = ±0.21 CFS

NOTE:

ANY FUTURE LAND DISTURBANCE AND/OR INCREASE IN IMPERVIOUS AREA ON THIS SITE MAY REQUIRE ADDITIONAL STORM WATER MANAGEMENT PER MSD REGULATIONS IN PLACE AT THAT TIME (INCLUDING TOTAL LAND DISTURBANCE AND/OR IMPERVIOUSNESS ADDED ON THIS PLAN).

PERTINENT DATA

OWNER	=	PARKWAY SCHOOL DISTRICT
SITE ADDRESS	=	1150 ROSS AVE. ST. LOUIS, MO 63146
SITE ACREAGE	=	±8.58 AC
EXISTING ZONING	=	"R-3" RESIDENCE DISTRICT
PROPOSED ZONING	=	"R-3" RESIDENCE DISTRICT
LOCATOR NUMBER	=	160140040
SCHOOL DISTRICT	=	PARKWAY
WATERSHED	=	CREVE COEUR CREEK
FEMA MAP PANEL	=	29189C0187K, DATE: FEBRUARY 4, 2015

UTILITIES

SEWER SERVICE	=	METROPOLITAN ST. LOUIS SEWER DISTRICT 2350 MARKET ST. ST. LOUIS, MO 63103 PH. (314) 7686272
FIRE DISTRICT	=	MONARCH FIRE PROTECTION DISTRICT 13725 OLIVE BLVD. CHESTERFIELD, MO 63017 PH. (314) 514-0900
WATER SERVICE	=	MISSOURI AMERICAN WATER COMPANY 727 CRAIG RD. CREVE COEUR, MO 63141 PH. (866) 430-0820
TELECOM SERVICE	=	CHARTER COMMUNICATIONS 815 CHARTER COMMONS TOWN & COUNTRY, MO 63107 PH. (314) 275-0025
GAS SERVICE	=	SPIRE 4118 SHREWSBURY AVE. ST. LOUIS, MO 63119 PH. (800) 887-4173
ELECTRIC SERVICE	=	AMEREN-UE ELECTRIC COMPANY DORSETT DISTRICT 12121 DORSETT RD. MARYLAND HEIGHTS, MO 63043 PH. (314) 344-9575
TELECOM SERVICE	=	AT&T 11600 OLIVE BLVD. CREVE COEUR, MO 63141 PH. (314) 818-7910

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UTILITY INFORMATION

UTILITIES SHOWN HAVE BEEN TAKEN FROM AVAILABLE SURVEYS, UTILITY COMPANY MAPS AND PHYSICAL PROPERTY INSPECTION. THE LOCATIONS AND FACILITIES SHALL BE CONSIDERED APPROXIMATE ONLY. THERE MAY BE ADDITIONAL UTILITIES THAT HAVE NOT BEEN SHOWN ON THIS SURVEY. THE CONTRACTOR WILL BE RESPONSIBLE FOR THE LOCATIONS OF ALL UTILITIES PRIOR TO EXCAVATION OR CONSTRUCTION.

MISSOURI ONE CALL SYSTEM, INC. 1-800-344-7483 STOP-CALL BEFORE YOU DIG!

CALL 1-800-DIG-RITE (MISSOURI ONE CALL) TO HAVE LOCATIONS MARKED IN THE FIELD (SUBSCRIBING UTILITIES REQUIRE 48 HOURS NOTICE PRIOR TO CONSTRUCTION).

SITE BENCHMARK INFORMATION

SITE BENCHMARK #1
CUT "L" ON AT SOUTHWEST CORNER OF AREA INLET, LOCATED 400 FEET EAST OF THE CENTERLINE OF ROSS AVENUE AND 175 FEET SOUTH OF THE CENTERLINE OF BETSY ROSS LANE.
ELEVATION 539.59 NAVD88

SITE BENCHMARK #2
CUT "SQUARE" ON CONCRETE BASE OF LIGHT STANDARD, LOCATED 75 FEET EAST OF THE CENTERLINE OF ROSS AVENUE AND 360 FEET SOUTH OF THE CENTERLINE OF BETSY ROSS LANE.
ELEVATION 535.24 NAVD88

bond architects
222 SOUTH CENTRAL AVE.
SUITE# 501
ST. LOUIS, MO 63105
TEL: 314.863.4994
FAX: 314.863.4996
www.bondarchitectsinc.com
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Project No: 26-0054

Revisions

No.	Description	Date
	MSD COMMENTS	09/04/2026

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STATE OF MISSOURI STANLEY EARL FOWLER JR. NUMBER PE-2020000037 PROFESSIONAL ENGINEER
10/12/2026

CIVIL ENGINEERS
CORPORATE ENGINEERING CERTIFICATE #001165
STANLEY EARL FOWLER, JR.
CIVIL ENGINEER
PE NO: PE-2020000037

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DATE: 10/12/2026

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COVER SHEET

C1.0

BASE MAP: 16O
MSD P.NO. 26MSD-00362

USER: Austin Fitchthal TAB: Cover
DATE: October 8, 2026 - 11:54:32 AM
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SCALE: 3/4" = 1'-0" (1" 0.5" 0)
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SCALE: 3/4" = 1'-0" (3" 2" 1" 0)
SCALE: 1/2" = 1'-0" (4" 2" 1" 0)
SCALE: 1/4" = 1'-0" (8" 4" 2" 0)
SCALE: 1/2" = 1'-0" (16" 8" 4" 0)
SCALE: 1/16" = 1'-0" (32" 16" 8" 0)

SANITARY SEWER NOTES

1. ALL STORM AND SANITARY SEWER STRUCTURES AND APPURTENANCES TO BE DEDICATED TO MSD, OR TO BE PRIVATE UNDER MSD INSPECTION, SHALL CONFORM TO THE METROPOLITAN ST. LOUIS SEWER DISTRICT, STANDARD CONSTRUCTION SPECIFICATIONS FOR SEWERS AND DRAINAGE FACILITIES, 2023. THAT WILL INCLUDE STANDARD DETAILS SHOWN THEREIN, AND SHALL INCLUDE ALL SUBSEQUENT CHANGES MADE THERETO.

   SOME RECENT CHANGES CONCERN PLASTIC PIPE MATERIALS AND PIPE FIELD TESTING AND PERFORMANCE, AND INCLUDE THE FOLLOWING:

   PART 2 – MATERIALS OF CONSTRUCTION

   SECTION G PIPE

   12. CORRUGATED POLYPROPYLENE PIPE

   D. PIPE FOR GRAVITY SEWER INSTALLATIONS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321. CONSOLIDATION BY WATER (JETTING OR PUDDLING) SHALL NOT BE USED. CONSOLIDATION SHALL BE IN ACCORDANCE WITH MSD STANDARD CONSTRUCTION SPECIFICATIONS FOR TRENCH BACKFILL. PRICE FOR COMPACTED BACKFILL SHALL BE INCLUDED IN PIPE UNIT COST.

      1. FOR USE IN SANITARY AND COMBINED SEWER INSTALLATIONS, A REPRESENTATIVE FROM THE PIPE MANUFACTURER SHALL VISIT THE SITE WITHIN THE FIRST 100 FEET OF PIPE INSTALLATION. COORDINATION OF THIS SITE VISIT SHALL BE ARRANGED BY THE CONTRACTOR. THE CONTRACTOR SHALL PROVIDE THE MSD INSPECTOR AT LEAST 24 HOURS' NOTICE OF THE PLANNED DATE AND TIME OF THE MANUFACTURER'S SITE VISIT.

      2. FOLLOWING THE SITE VISIT, THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE A LETTER FROM THE PIPING MANUFACTURER SUMMARIZING THEIR OBSERVATIONS. AT A MINIMUM, THE LETTER SHALL:

         A) INDICATE THE DATE THE INITIAL SECTION OF PIPE WAS INSTALLED; AND

         B) VERIFY THAT THE INSTALLATION OCCURRED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDED PROCEDURES.

   E. TRENCH WIDTH SHALL BE IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION RECOMMENDATIONS. DISTRICT STANDARD PAYLINE WIDTHS BASED ON THE NOMINAL INSIDE PIPE DIAMETER SHALL APPLY.

2. NOTE– PIPE JOINTS WITH ADAPTERS AND COUPLINGS SHALL BE SUPPLIED AND INSTALLED WITH 316 STAINLESS STEEL NUT AND BOLT CLAMPS (T–BOLT) CONFIGURATION; AND WITH STAINLESS STEEL SHEAR BANDS, BEING A MINIMUM OF TWELVE (12) MILS (MSD STD. CONST. SPECS. PT. 2, SUBSECTION H 11). WORM DRIVE HOSE CLAMPS AND CONCRETE BACKFILLING (CAUSTICITY) WILL NO LONGER BE ALLOWED AT THOSE JOINTS. GRANULAR BACKFILL SHOULD BE USED. IF FLOWABLE FILL IS REQUIRED THE CONTRACTOR SHALL WRAP AND TAPE THE ADAPTERS AND COUPLINGS WITH A SIX (6) MIL POLYETHYLENE SHEET.

3. ALL MATERIALS AND METHODS OF CONSTRUCTION FOR SANITARY SEWERS TO MEET REQUIREMENTS OF METROPOLITAN ST. LOUIS SEWER DISTRICT (2023).

4. ALL MANHOLES SHALL BE 48" DIA. PRE–CAST CONCRETE PER ASTM C–478.

5. ALL LATERAL SEWER CONSTRUCTION METHODS TO CONFORM TO LATEST STANDARDS AND SPECIFICATIONS OF THE METROPOLITAN ST. LOUIS SEWER DISTRICT (2023).

6. ALL TRENCHES UNDER AREAS TO BE PAVED SHALL BE GRANULARLY FILLED WITH 3/4" MINUS CRUSHED LIMESTONE. BACKFILL SHALL BE PLACED IN ACCORDANCE WITH ST. LOUIS COUNTY AND/OR MSD SPECIFICATIONS.

7. CONTRACTOR TO START LAYING PIPE AT DOWNSTREAM MANHOLE AND WORK UPSTREAM.

8. CLEANOUTS SHALL BE LOCATED AT ALL HORIZONTAL AND VERTICAL CHANGES IN DIRECTION OF FLOW FOR BUILDING LATERALS AND ANY SANITARY LATERAL OF 100 FEET OR LONGER.

9. ALL SANITARY SEWER BUILDING CONNECTIONS SHALL BE DESIGNED SO THAT THE MINIMUM VERTICAL DISTANCE TAKEN FROM THE LOW POINT OF THE BASEMENT TO THE FLOWLINE OF A SANITARY SEWER AT THE CORRESPONDING BUILDING CONNECTION SHALL NOT BE LESS THAN THE DIAMETER OF THE PIPE PLUS THE VERTICAL DISTANCE OF 2–1/2 FEET.

10. ALL TRENCHES UNDER AREAS TO BE PAVED AND UNDER EXISTING PAVING SHALL BE GRANULARLY BACKFILLED WITH 3/4 INCH MINUS CRUSHED WHITE ROCK ONLY. BACKFILL SHALL BE PLACED IN ACCORDANCE WITH 2023 M.S.D STANDARDS AND SECTION 726.6.2.2 OF ST. LOUIS COUNTY STANDARDS FOR HIGHWAY CONSTRUCTION.

11. JETTING IS NOT AN ACCEPTABLE METHOD OF ACHIEVING BACKFILL COMPACTION. ALL BACKFILL MATERIAL SHALL BE MECHANICALLY COMPACTED TO AT LEAST 90 PERCENT OF THE MATERIAL'S STANDARD PROCTOR MAXIMUM DRY DENSITY.

12. GAS, WATER, AND OTHER UNDERGROUND UTILITIES SHALL NOT CONFLICT WITH THE DEPTH OR HORIZONTAL LOCATION OF EXISTING OR PROPOSED SANITARY AND STORM SEWERS.

13. THE CONTRACTOR SHALL PREVENT ALL STORM, SURFACE WATER, MUD AND CONSTRUCTION DEBRIS FROM ENTERING THE EXISTING SANITARY SEWER SYSTEMS.

14. THE METROPOLITAN SEWER DISTRICT SHALL BE NOTIFIED AT LEAST 48 HOURS PRIOR TO CONSTRUCTION FOR COORDINATION OF INSPECTION.

15. ALL SANITARY SEWER MANHOLES SHALL BE WATERPROOFED ON THE EXTERIOR IN ACCORDANCE WITH METROPOLITAN ST. LOUIS SEWER DISTRICT STANDARDS AND SPECIFICATIONS (2023).

16. ALL PVC SANITARY SEWER PIPE IS TO BE SDR–35 OR EQUAL WITH "CLEAN" 1/2 INCH TO 1 INCH GRANULAR STONE BEDDING UNIFORMLY GRADED. THIS BEDDING SHALL EXTEND FROM 4 INCHES BELOW THE PIPE TO SPRINGLINE OF PIPE. IMMEDIATE BACKFILL OVER PIPE SHALL CONSIST OF SAME SIZE "CLEAN" OR "MINUS" STONE FROM SPRINGLINE OF PIPE TO 6 INCHES ABOVE THE TOP OF PIPE.

17. BRICK SHALL NOT BE USED ON SANITARY SEWER MANHOLES.

18. EXISTING SANITARY SEWER SERVICE SHALL NOT BE INTERRUPTED.

19. ALL SANITARY FLOW LINES AND TOPS BUILT WITHOUT ELEVATIONS FURNISHED BY THE ENGINEER WILL BE THE RESPONSIBILITY OF THE SEWER CONTRACTOR.

20. ALL PIPES SHALL HAVE POSITIVE DRAINAGE THROUGH MANHOLES. NO FLAT INVERT STRUCTURES ARE ALLOWED.

21. PRE–MANUFACTURED ADAPTERS SHALL BE USED AT ALL PVC AND DIP CONNECTIONS. RUBBER BOOT/MISSION–TYPE COUPLINGS WILL NOT BE ALLOWED.

22. ANY PERMITS, LICENSES, EASEMENTS, OR APPROVALS REQUIRED TO WORK ON PUBLIC OR PRIVATE PROPERTIES OR ROADWAYS ARE THE RESPONSIBILITY OF THE DEVELOPER.

23. ALL LATERALS ARE TO BE INSTALLED AT A MINIMUM 2% SLOPE.

24. THE SOILS ENGINEER WILL VERIFY THAT ALL COMPRESSIBLE MATERIAL HAS BEEN REMOVED PRIOR TO FILL PLACEMENT AND THAT ALL FILLED AREAS, INCLUDING TRENCH BACKFILLS, UNDER BUILDINGS, PROPOSED STORM AND SANITARY SEWER LINES, AND PAVED AREAS SHALL BE COMPACTED TO A MINIMUM OF 90% OF "MODIFIED PROCTOR". FILL IS TO BE PLACED IN A MAXIMUM 9" LIFTS. TESTS SHALL BE TAKEN AT A MAXIMUM OF 50' INTERVALS ALONG THE ROUTE OF THE PIPE, AT A MAXIMUM OF 2' VERTICAL, AND LATERALLY ON EACH SIDE OF THE PIPE, AT A DISTANCE EQUAL TO THE DEPTH OF FILL OVER THE PIPE. A COPY OF THESE RESULTS WILL BE SUBMITTED TO M.S.D. PRIOR TO CONSTRUCTION.

25. TYPE "C" BEDDING PER M.S.D. STANDARDS IS REQUIRED FOR PIPES IN ROCK.

26. THE CONTRACTOR MUST VERIFY SIZE AND LOCATION OF EXISTING MAIN PRIOR TO ANY CONSTRUCTION. IF THERE IS A DISCREPANCY, HE MUST NOTIFY THE ENGINEER IMMEDIATELY.

27. ANY ABANDONED SEWERS SHALL BE REMOVED OR COMPLETELY GROUT FILLED.

28. THE REMOVAL AND REPLACEMENT, OR REHABILITATION OF THE EXISTING STRUCTURES WILL BE DETERMINED BY THE MSD FIELD INSPECTOR. IF THE STRUCTURE IS DETERMINED TO REMAIN IN PLACE, THEN THE TOP SHALL BE ADJUSTED TO GRADE, IF NEEDED.

29. MSD PERMITS ARE REQUIRED PRIOR TO THE ABANDONMENT OR REMOVAL OF EXISTING SEWERS. TO RECEIVE MSD PERMITS THE PROJECT MUST HAVE MSD PLAN APPROVAL. NOTIFY MSD 48 HOURS PRIOR TO SEWER ABANDONMENT AND/OR REMOVAL.

30. TRENCH BACKFILL COMPACTION AND TESTING REQUIREMENTS:
    THE CONTRACTOR IS TO REFER TO PART 4, SECTION H OF THE METROPOLITAN ST. LOUIS SEWER DISTRICT, STANDARD CONSTRUCTION SPECIFICATIONS FOR SEWERS AND DRAINAGE FACILITIES, 2023 EDITION, TO ESTABLISH THE REQUIREMENTS FOR THE SPECIFIC TYPE OF BACKFILL BEING USED.

31. THE PARTIAL REMOVAL, REPLACEMENT, AND CONVERSION OF THE EXISTING STRUCTURES WILL BE DETERMINED BY THE MSD FIELD INSPECTOR. IF THE STRUCTURE IS DETERMINED TO REMAIN IN PLACE, AND THE TOP SECTION CAN BE CONVERTED AS PROPOSED AND STILL MEET MSD STANDARDS, THEN CONVERT AND ADJUST TO GRADE. OTHERWISE, THE ENTIRE STRUCTURE WILL BE REMOVED AND REPLACED WITH A NEW STRUCTURE.

32. MAINTENANCE OF THE SEWERS DESIGNATED "PUBLIC" SHALL BE THE RESPONSIBILITY OF THE METROPOLITAN ST. LOUIS SEWER DISTRICT UPON DEDICATION OF THE SEWERS TO THE DISTRICT.

33. CONSTRUCTION OF STRAPPED PLUMBING SHALL BE CONSISTENT WITH MSD RULES AND REGULATIONS AND ENGINEERING DESIGN REQUIREMENTS FOR SANITARY SEWER AND STORMWATER DRAINAGE FACILITIES (FEBRUARY 2018), FIGURES 3–1.

34. ALL SEWERS ARE PRIVATE UNLESS NOTED OTHERWISE.

STORM SEWER NOTES

1. ALL STORM AND SANITARY SEWER STRUCTURES AND APPURTENANCES TO BE DEDICATED TO MSD, OR TO BE PRIVATE UNDER MSD INSPECTION, SHALL CONFORM TO THE METROPOLITAN ST. LOUIS SEWER DISTRICT, STANDARD CONSTRUCTION SPECIFICATIONS FOR SEWERS AND DRAINAGE FACILITIES, 2023. THAT WILL INCLUDE STANDARD DETAILS SHOWN THEREIN, AND SHALL INCLUDE ALL SUBSEQUENT CHANGES MADE THERETO.

2. FOR SEWER PIPE (STORM, SANITARY, OR COMBINED) WITH A DESIGN GRADE LESS THAN ONE PERCENT (1%), VERIFICATION OF THE PIPE GRADE WILL BE REQUIRED FOR EACH INSTALLED REACH OF SEWER, PRIOR TO ANY SURFACE RESTORATION OR INSTALLATION OF ANY SURFACE IMPROVEMENTS. THE CONTRACTOR'S FIELD SUPERVISOR WILL BE REQUIRED TO PROVIDE DAILY DOCUMENTATION VERIFYING THAT THE AS–BUILT PIPE GRADE MEETS THE DESIGN GRADE THROUGH THE SUBMITTAL OF SIGNED CUT SHEETS TO THE MSD INSPECTOR UPON REQUEST. FIELD SURVEYED VERIFICATION MUST BE MADE UNDER THE DIRECTION OF A LICENSED LAND SURVEYOR OR REGISTERED ENGINEER. THE CONTRACTOR WILL BE REQUIRED TO REMOVE AND REPLACE ANY SEWER REACH HAVING AN AS–BUILT GRADE WHICH IS FLATTER THAN THE DESIGN GRADE BY MORE THAN 0.1%. SEWER WITH GRADES GREATER THAN THE DESIGN SLOPE MAY BE LEFT IN PLACE, PROVIDED NO OTHER SEWER GRADE IS REDUCED BY THIS VARIANCE IN THE AS–BUILT GRADE. MSD ALSO RESERVES THE RIGHT TO REQUIRE THE CONTRACTOR TO REMOVE AND REPLACE ANY SEWER (AT ANY TIME PRIOR TO CONSTRUCTION APPROVAL) FOR WHICH THE AS–BUILT GRADE DOES NOT COMPLY WITH THE GRADE TOLERANCE STATED IN THE ABOVE PARAGRAPH. THE SEWER CONTRACTOR SHALL BE RESPONSIBLE FOR ANY COSTS ASSOCIATED WITH THE FIELD VERIFICATION OF THE SEWER GRADE, OR REMOVAL AND REPLACEMENT OF THE SEWER PIPE OR ASSOCIATED APPURTENANCES.

3. MAINTENANCE OF THE SEWERS DESIGNATED AS "PUBLIC" SHALL BE THE RESPONSIBILITY OF THE METROPOLITAN ST. LOUIS SEWER DISTRICT UPON DEDICATION OF THE SEWERS TO THE DISTRICT.

4. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE EXACT HORIZONTAL AND VERTICAL LOCATIONS AND SIZES OF ALL EXISTING UTILITIES, WHETHER SHOWN OR NOT SHOWN ON THIS PLAN, PRIOR TO THE START OF ANY CONSTRUCTION. THE ENGINEER HAS NOT FIELD VERIFIED THE EXISTING UTILITIES. THE UTILITIES SHOWN ON THIS PLAN HAVE BEEN TAKEN FROM RECORDS AND UTILITY MAPS MADE AVAILABLE TO THE ENGINEER AND THE LOCATIONS AND SIZES SHALL BE CONSIDERED APPROXIMATE ONLY. OTHER UTILITIES, NOT SHOWN ON THIS PLAN, MAY EXIST ON OR NEAR THE SITE

5. ALL FILL AREAS, INCLUDING TRENCH BACKFILLS, UNDER BUILDINGS, PROPOSED STORM AND SANITARY SEWER LINES, AND PAVED AREAS SHALL BE COMPACTED TO A MINIMUM OF 90 PERCENT OF "MODIFIED PROCTOR". FILL IS TO BE PLACED IN A MAXIMUM OF 9–INCH LIFTS. TESTS SHALL BE TAKEN AT A MAXIMUM OF 50–FOOT INTERVALS ALONG THE ROUTE OF THE PIPE; AT A MAXIMUM OF 2–FOOT VERTICALLY; AND LATERALLY ON EACH SIDE OF THE PIPE, AT A DISCHARGE EQUAL TO THE DEPTH OF FILL OVER THE PIPE. A COPY OF THESE RESULTS WILL BE SUBMITTED TO MSD PRIOR TO CONSTRUCTION APPROVAL.

6. ALL FILLED PLACES IN PROPOSED ROADS SHALL BE COMPACTED FROM THE BOTTOM OF THE FILL 90% MAXIMUM DENSITY AS DETERMINED BY THE MODIFIED AASHTO T–180 COMPACTION UP TO 95% OF MAXIMUM DENSITY AS DETERMINED BY THE STANDARD PROCTOR TEST AASHTO T–99 . ALL TESTS SHALL BE VERIFIED BY A SOILS ENGINEER CONCURRENT WITH GRADING AND BACKFILLING OPERATIONS PER GEOTECHNICAL REPORT.

7. TYPE "C" BEDDING PER M.S.D. STANDARDS IS REQUIRED FOR ALL PIPES IN ROCK EXCEPT AS NOTED.

8. ALL TRENCHES IN AREAS TO BE PAVED AND UNDER EXISTING PAVEMENT OR WITHIN PUBLIC R.O.W. SHALL BE GRANULARLY BACKFILLED WITH 3/4–INCH MINUS CRUSHED LIMESTONE IN ACCORDANCE WITH 2023 M.S.D. STANDARDS.

9. THE SOILS ENGINEER WILL VERIFY THAT ALL COMPRESSIBLE MATERIAL HAS BEEN REMOVED PRIOR TO FILL PLACEMENT AND THAT ALL FILL UNDER STORM AND SANITARY SEWER LINES CONSTRUCTED ABOVE ORIGINAL GRADE, HAS BEEN COMPACTED TO 90% OF "MODIFIED PROCTOR". FILL IS TO BE PLACED IN A MAXIMUM 9" LIFTS. TESTS SHALL BE TAKEN AT A MAXIMUM OF 50' INTERVALS ALONG THE ROUTE OF THE PIPE, AT A MAXIMUM OF 2' VERTICAL, AND LATERALLY ON EACH SIDE OF THE PIPE, AT A DISTANCE EQUAL TO THE DEPTH OF FILL OVER THE PIPE. A COPY OF THESE RESULTS WILL BE SUBMITTED TO M.S.D. PRIOR TO CONSTRUCTION.

10. ANY ABANDONED SEWERS SHALL BE REMOVED OR COMPLETELY GROUT FILLED.

11. THE REMOVAL AND REPLACEMENT, OR REHABILITATION OF THE EXISTING STRUCTURE WILL BE DETERMINED BY THE MSD FIELD INSPECTOR. IF THE STRUCTURE IS DETERMINED TO REMAIN IN PLACE, THEN THE TOP SHALL BE ADJUSTED TO GRADE, IF NEEDED.

12. STORMWATER SHALL BE DISCHARGED AT AN ADEQUATE NATURAL DISCHARGE POINT. SINKHOLES ARE NOT DISCHARGE POINTS.

13. PRIOR TO OBTAINING A CONSTRUCTION PERMIT FROM THE METROPOLITAN ST. LOUIS SEWER DISTRICT, THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE THE DISTRICT WITH A COPY OF AN EXECUTED CERTIFICATE OF INSURANCE INDICATING THAT THE PERMITTEE HAS OBTAINED AND WILL CONTINUE TO CARRY COMMERCIAL GENERAL LIABILITY AND COMPREHENSIVE AUTO LIABILITY INSURANCE. THE REQUIREMENTS AND LIMITS SHALL BE AS STATED IN THE "RULES AND REGULATIONS AND ENGINEERING DESIGN REQUIREMENTS FOR SANITARY AND STORMWATER DRAINAGE FACILITIES." SECTION 10–090 (ADDENDUM).

14. PIPE JOINTS WITH ADAPTERS AND COUPLINGS SHALL BE SUPPLIED AND INSTALLED WITH 316 STAINLESS STEEL NUT AND BOLT CLAMPS (T–BOLT) CONFIGURATION; AND WITH STAINLESS STEEL SHEAR BANDS, BEING A MINIMUM OF TWELVE (12) MILS (MSD STD. CONST SPECS. PT. 2, SUBSECTION H11). WORM DRIVE HOSE CLAMPS AND CONCRETE BACKFILLING (CAUSTICITY) WILL NO LONGER BE ALLOWED AT THOSE JOINTS. GRANULAR BACKFILL SHOULD BE USED. IF FLOWABLE FILL IS REQUIRED, THE CONTRACTOR SHALL WRAP AND TAPE THE ADAPTERS AND COUPLINGS WITH A SIX (6) MIL POLYETHYLENE SHEET.

15. TRENCH BACKFILL COMPACTION AND TESTING REQUIREMENTS: THE CONTRACTOR IS TO REFER TO PART 4, SECTION H OF THE METROPOLITAN ST. LOUIS SEWER DISTRICT, STANDARD CONSTRUCTION SPECIFICATIONS FOR SEWERS AND DRAINAGE FACILITIES, 2023 EDITION, TO ESTABLISH THE REQUIREMENTS FOR THE SPECIFIC TYPE OF BACKFILL BEING USED.

GENERAL NOTES

1. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE EXACT HORIZONTAL AND VERTICAL LOCATIONS AND SIZES OF ALL EXISTING UTILITIES, WHETHER SHOWN OR NOT SHOWN ON THIS PLAN, PRIOR TO THE START OF ANY CONSTRUCTION. THE ENGINEER HAS NOT FIELD VERIFIED THE EXISTING UTILITIES. THE UTILITIES SHOWN ON THIS PLAN HAVE BEEN TAKEN FROM RECORDS AND UTILITY MAPS MADE AVAILABLE TO THE ENGINEER AND THE LOCATIONS AND SIZES SHALL BE CONSIDERED APPROXIMATE ONLY. OTHER UTILITIES, NOT SHOWN ON THIS PLAN, MAY EXIST ON OR NEAR THE SITE.

2. TOPOGRAPHIC SURVEY BY COLE AND ASSOCIATES INC. A

3. ALL MATERIALS AND METHODS OF CONSTRUCTION TO MEET THE CURRENT STANDARDS AND SPECIFICATIONS AS REQUIRED BY ST. LOUIS COUNTY, MO AND MSD.

4. ALL GRADED AREAS SHALL BE PROTECTED FROM EROSION BY EROSION CONTROL DEVICES AND/OR SEEDING AND MULCHING. EROSION CONTROL SHALL NOT BE LIMITED TO WHAT IS SHOWN ON THE PLAN. WHATEVER MEANS NECESSARY SHALL BE TAKEN TO PREVENT SILTATION AND EROSION FROM FROM ENTERING NATURAL STREAMS AND ADJACENT ROADWAYS, PROPERTIES, AND DITCHES.

5. PRIOR TO BEGINNING ANY WORK ON THE SITE, THE CONTRACTOR SHALL CONTACT THE OFFICE OF THE DEVELOPER FOR SPECIFIC INSTRUCTIONS RELEVANT TO THE SEQUENCING OF WORK.

6. GRADING CONTRACTOR SHALL INSTALL SILTATION CONTROL PRIOR TO STARTING THE GRADING. ADDITIONAL SILTATION CONTROL DEVICES MAY BE REQUIRED AS DIRECTED BY ST. LOUIS COUNTY OR THE DEVELOPER.

7. ALL FILLS AND BACKFILLS SHALL BE MADE OF SELECTED EARTH MATERIALS, FREE FROM BROKEN MASONRY, ROCK, FROZEN EARTH, RUBBISH, ORGANIC MATERIAL AND DEBRIS.

8. PROPOSED CONTOURS SHOWN ARE FINISHED ELEVATIONS ON PAVED AREAS. CONTRACTOR TO GRADE ALL AREAS TO REQUIRED SUBGRADE.

9. ALL FILL PLACED FOR PROPOSED STORM AND SANITARY SEWER LINES AND/OR PAVED AREAS, AND FOR DRAINAGE BERMS SHALL BE COMPACTED TO 90% OF MAXIMUM DENSITY AS DETERMINED BY THE MODIFIED AASHTO T–180 COMPACTION TEST OR 95% OF MAXIMUM DENSITY AS DETERMINED BY THE STANDARD PROCTOR TEST AASHTO T–99. ALL TEST SHALL BE VERIFIED BY A SOILS ENGINEER CONCURRENT WITH GRADING AND BACKFILLING OPERATIONS.

10. A GRADING PERMIT IS REQUIRED PRIOR TO ANY GRADING ON THE SITE.

11. THE DEVELOPER IS REQUIRED TO PROVIDE ADEQUATE STORM–WATER SYSTEMS IN ACCORDANCE WITH ST. LOUIS COUNTY AND MSD STANDARDS.

12. ALL STORM–WATER SHALL BE DISCHARGED AT AN ADEQUATE NATURAL DISCHARGE POINT.

13. THE CONTRACTOR MUST BE ON FILE WITH THE MISSOURI ONE CALL SYSTEM 1–800–344–7483.

14. ALL PROPOSED UTILITIES ON THIS SITE MUST BE LOCATED UNDERGROUND.

15. SAFETY NOTICE TO CONTRACTOR: IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT LIMITED TO NORMAL WORKING HOURS.

16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE RAZING AND REMOVAL OF THE EXISTING STRUCTURES, INCLUDING FOUNDATIONS, RELATED UTILITIES, PAVING, UNDERGROUND FACILITIES AND ANY OTHER EXISTING IMPROVEMENTS.

17. CONTRACTOR IS TO REMOVE AND DISPOSE OF, OFF SITE, ALL DEBRIS, RUBBISH AND OTHER MATERIALS RESULTING FROM DEMOLITION OPERATIONS.

18. THE CONTRACTOR WILL BE HELD SOLELY RESPONSIBLE AND SHALL TAKE ALL PRECAUTIONS NECESSARY TO AVOID DAMAGE TO ADJACENT PROPERTIES DURING ALL PHASES OF THIS DEMOLITION PLAN.

19. THE CONTRACTOR SHALL RESTORE OFFSITE CONSTRUCTION AREAS TO AN EQUAL OR BETTER CONDITION THAN EXISTED PRIOR TO THE COMMENCEMENT OF WORK

20. ALL EXCAVATIONS, GRADING, OR FILLING SHALL HAVE A FINISHED GRADE NOT TO EXCEED A 4:1 SLOPE (25 PERCENT). STEEPER GRADES MAY BE APPROVED BY THE DESIGNATED OFFICIAL IF THE EXCAVATION IS THROUGH ROCK OR THE EXCAVATION OR THE FILL IS ADEQUATELY PROTECTED (A DESIGNED HEAD WALL OR TOE WALL MAY BE REQUIRED). RETAINING WALLS THAT EXCEED A HEIGHT OF FOUR (4) FEET SHALL REQUIRE THE CONSTRUCTION OF SAFETY GUARDS AS IDENTIFIED IN THE APPROPRIATE SECTION(S) OF THE ADOPTED BOCA CODES AND MUST BE APPROVED BY THE CITY BUILDING DEPARTMENT. PERMANENT SAFETY GUARDS WILL BE CONSTRUCTED IN ACCORDANCE WITH THE APPROPRIATE SECTION(S) OF THE ADOPTED BOCA CODES.

21. ALL FILLED PLACES IN PROPOSED ROADS SHALL BE COMPACTED FROM THE BOTTOM OF THE FILL UP TO 90% MAXIMUM DENSITY AS DETERMINED BY THE MODIFIED AASHTO T–180 COMPACTION TEST OR 95% OF MAXIMUM DENSITY AS DETERMINED BY THE STANDARD PROCTOR TEST AASHTO T–99. A SOIL'S ENGINEER SHALL VERIFY ALL TESTS CONCURRENT WITH GRADING AND BACKFILLING OPERATIONS. A SEALED COPY OF THE RESULT REPORTS SHALL BE GIVE TO THE ST. LOUIS COUNTY CONSTRUCTION INSPECTOR.

22. ALL PUBLIC ROADS MUST BE KEPT CLEAR OF MUD AND DEBRIS AT ALL TIMES. FAILURE TO DO SO WILL BE CAUSE FOR THE COUNTY TO SUSPEND WORK.

23. WHERE NATURAL VEGETATION IS REMOVED DURING GRADING, VEGETATION SHALL BE REESTABLISHED IN SUCH A DENSITY AS TO PREVENT EROSION. PERMANENT SOD SHALL BE ESTABLISHED AS SOON AS POSSIBLE.

24. WHEN GRADING OPERATIONS ARE COMPLETED OR SUSPENDED FOR MORE THAN 30 DAYS, PERMANENT GRASS MUST BE ESTABLISHED AT SUFFICIENT DENSITY TO PROVIDE EROSION CONTROL ON THE SITE. BETWEEN PERMANENT GRASS SEEDING PERIODS, TEMPORARY COVER SHALL BE PROVIDED ACCORDING TO THE DESIGNATED OFFICIAL'S RECOMMENDATION.

25. ALL FINISHED GRADES (AREAS NOT TO BE DISTURBED BY FUTURE IMPROVEMENT) IN EXCESS OF 20% SLOPES (5:1) SHALL BE MULCHED AND TACKED AT THE RATE OF 100 POUNDS PER 1,000 SQUARE FEET WHEN SEEDED.

26. RUNOFF WATER FROM DEVELOPED AREAS (PARKING LOTS, PAVED SITES, AND BUILDINGS) ABOVE THE AREA TO DEVELOP SHALL BE DIRECTED TO DIVERSIONS, DETENTION BASINS, CONCRETE GUTTERS AND/OR UNDERGROUND OUTLET SYSTEMS. SUFFICIENTLY ANCHORED STRAW BALES MAY BE TEMPORARILY SUBSTITUTED WITH THE APPROVAL OF THE DESIGNATED OFFICIAL.

27. ALL CONSTRUCTION METHODS AND PRACTICES TO CONFORM WITH OSHA STANDARDS.

28. ANY RETAINING WALLS REFERRED TO IN THESE PLANS ARE SHOWN FOR REFERENCE ONLY ARE NOT TO BE INTERPRETED AS DESIGN OF THE WALL SYSTEM. SEE STRUCTURAL PLANS FOR DESIGN OF SITE RETAINING WALLS. A SEPARATE BUILDING PERMIT MAY BE REQUIRED FOR EACH WALL.

29. CONTRACTOR SHALL BID THESE PLANS AND SPECIFICATIONS IN THEIR ENTIRETY (COMPLETE SETS).

SCALE: 3/16" = 1'-0" (0, 8", 16", 32")
SCALE: 1/8" = 1'-0" (0, 4", 8", 16")
SCALE: 1/4" = 1'-0" (0, 2", 4", 8")
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bond architects
222 SOUTH CENTRAL AVE.
SUITE# 501
ST. LOUIS, MO 63105
TEL: 314.863.4994
FAX: 314.863.4996
www.bondarchitectsinc.com
Bond Architects, Inc.
Missouri State Certificate of Authority # 2009027409

COLE & ASSOCIATES, INC.
Civil Engineer
Consultant Project #26-0054
Certificate of Authority #001165
401 S. 18th Street, Suite 200
St. Louis, MO 63103
314.984.9887 tel

RTM Engineering Consultants
MEP / FP Engineer
Consultant Project #26.B002031924
Certificate of Authority #2002028690
3701 S. Lindbergh Blvd.
St. Louis, MO 63127
314.725.5889 tel

Pinchin, LLC
HAZ MAT Consultant
Consultant Project #R262.00457.001
Certificate of Authority #
2 Cityplace Drive, Suite 195,
St. Louis, Missouri 63141
314.230.0182 tel

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Building Renovations & Site Improvements

Parkway School District
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314.415.8231 tel

Project No: 26-0054

Revisions

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10/12/2026

STANLEY EARL FOWLER, JR.
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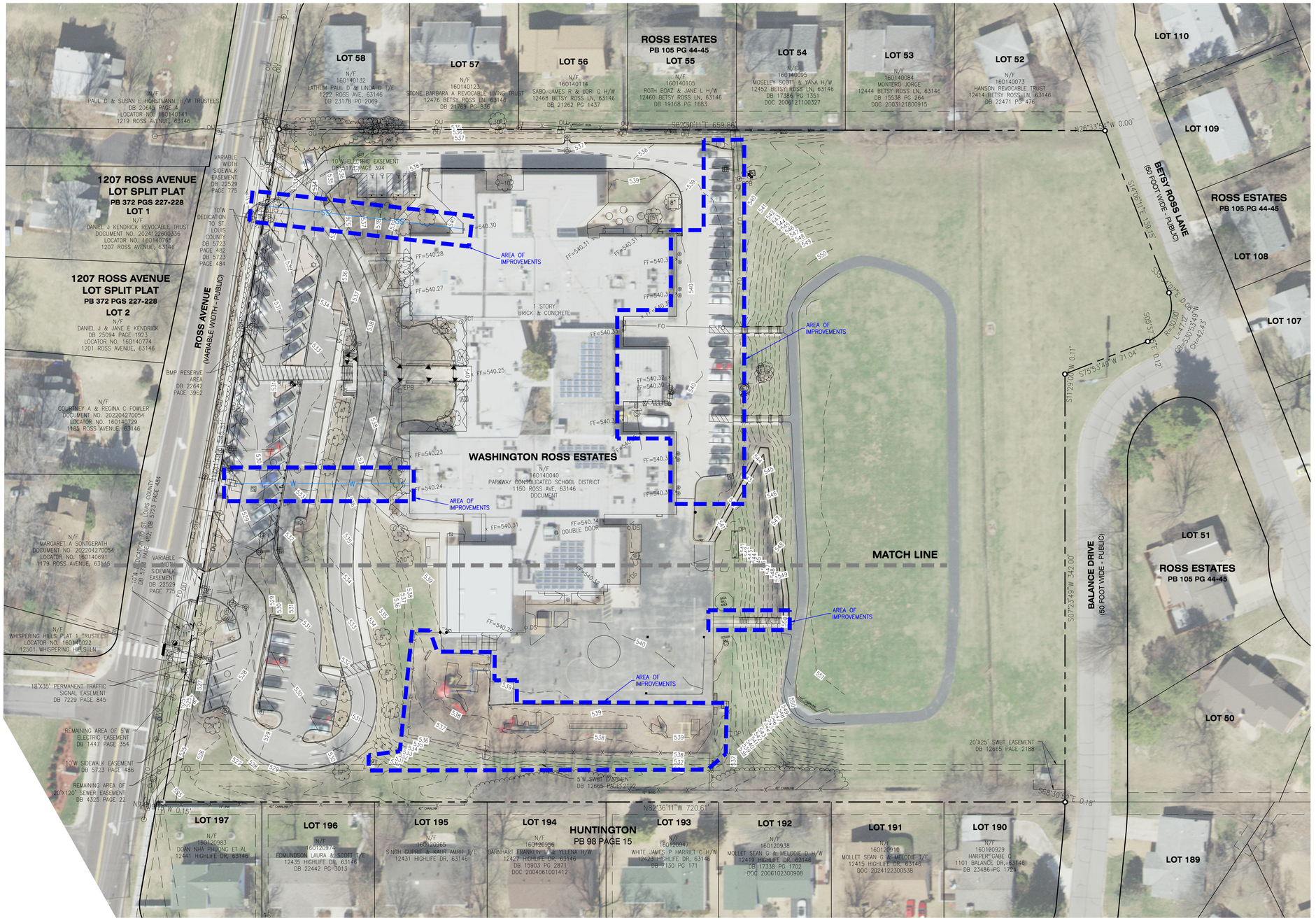
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SPECIFICATION SHEET

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BASE MAP: 16O
MSD P.NO.: 26MSD-00362



40' 0' 40' 80'

SCALE: 1" = 40'

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222 SOUTH CENTRAL AVE.
SUITE# 501
ST. LOUIS, MO 63105
TEL: 314.863.4994
FAX: 314.863.4996
www.bondarchitectsinc.com
Bond Architects, Inc.
Missouri State Certificate of Authority # 2009027409

COLE & ASSOCIATES, INC.
Civil Engineer
Consultant Project #26-0054
Certificate of Authority #001165
401 S. 18th Street, Suite 200
St. Louis, MO 63103
314.984.9887 tel

RTM Engineering Consultants
MEP / FP Engineer
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3701 S. Lindbergh Blvd.
St. Louis, MO 63127
314.725.5889 tel

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2 Cityplace Drive, Suite 195,
St. Louis, Missouri 63141
314.230.0182 tel

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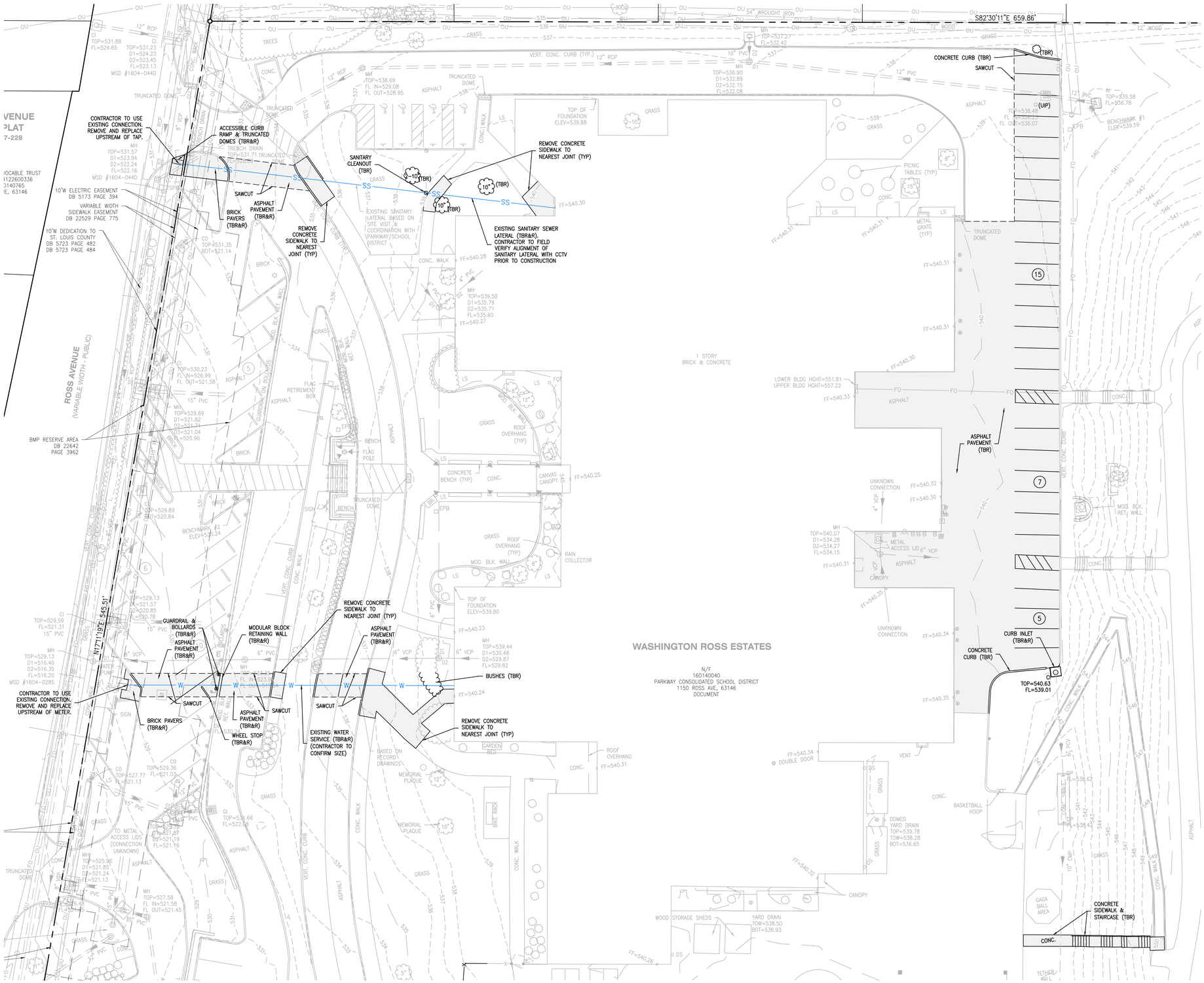
OVERALL EXISTING CONDITIONS

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bond architects
222 SOUTH CENTRAL AVE.
SUITE# 501
ST. LOUIS, MO 63105
TEL: 314.863.4994
FAX: 314.863.4996
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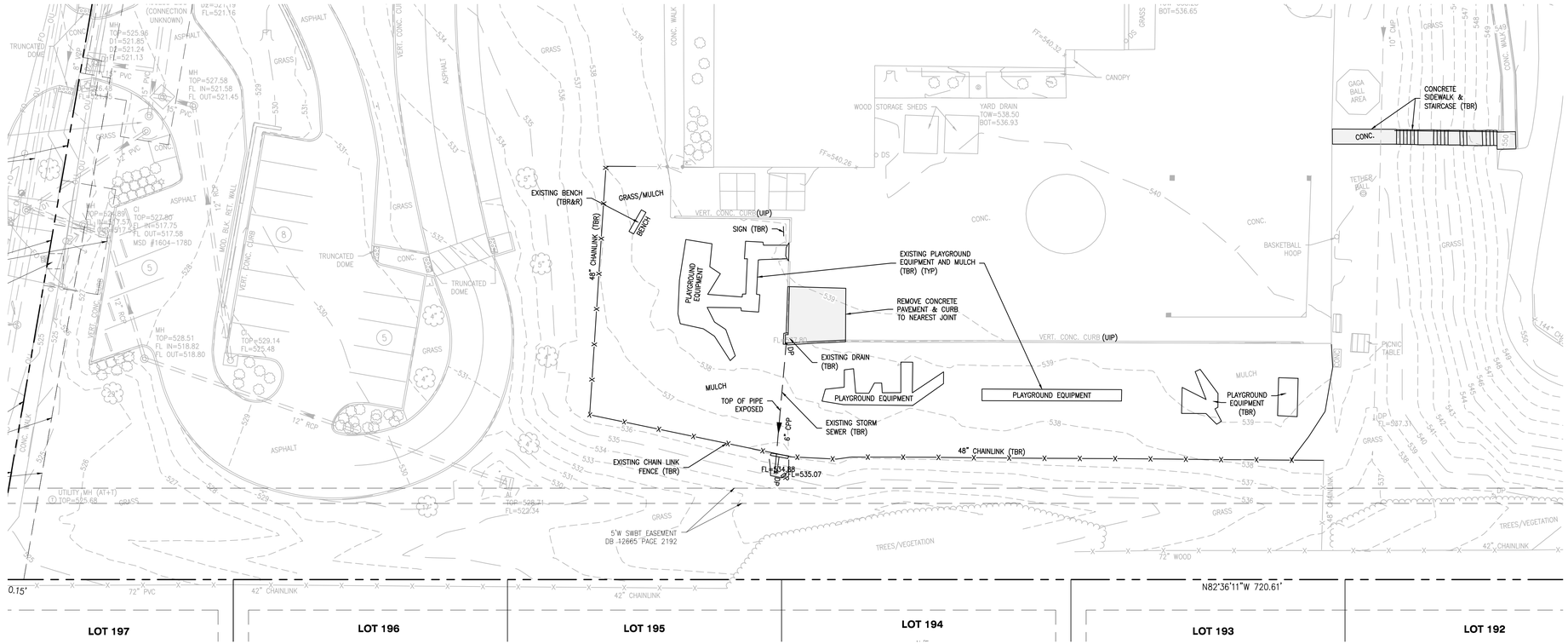
NORTH DEMOLITION PLAN

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MSD P.NO. 26MSD-00362 BASE MAP - 16O

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bond architects
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SUITE# 501
ST. LOUIS, MO 63105
TEL: 314.863.4994
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PROFESSIONAL ENGINEER

CORPORATE ENGINEERING CERTIFICATE #001165

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CIVIL ENGINEER
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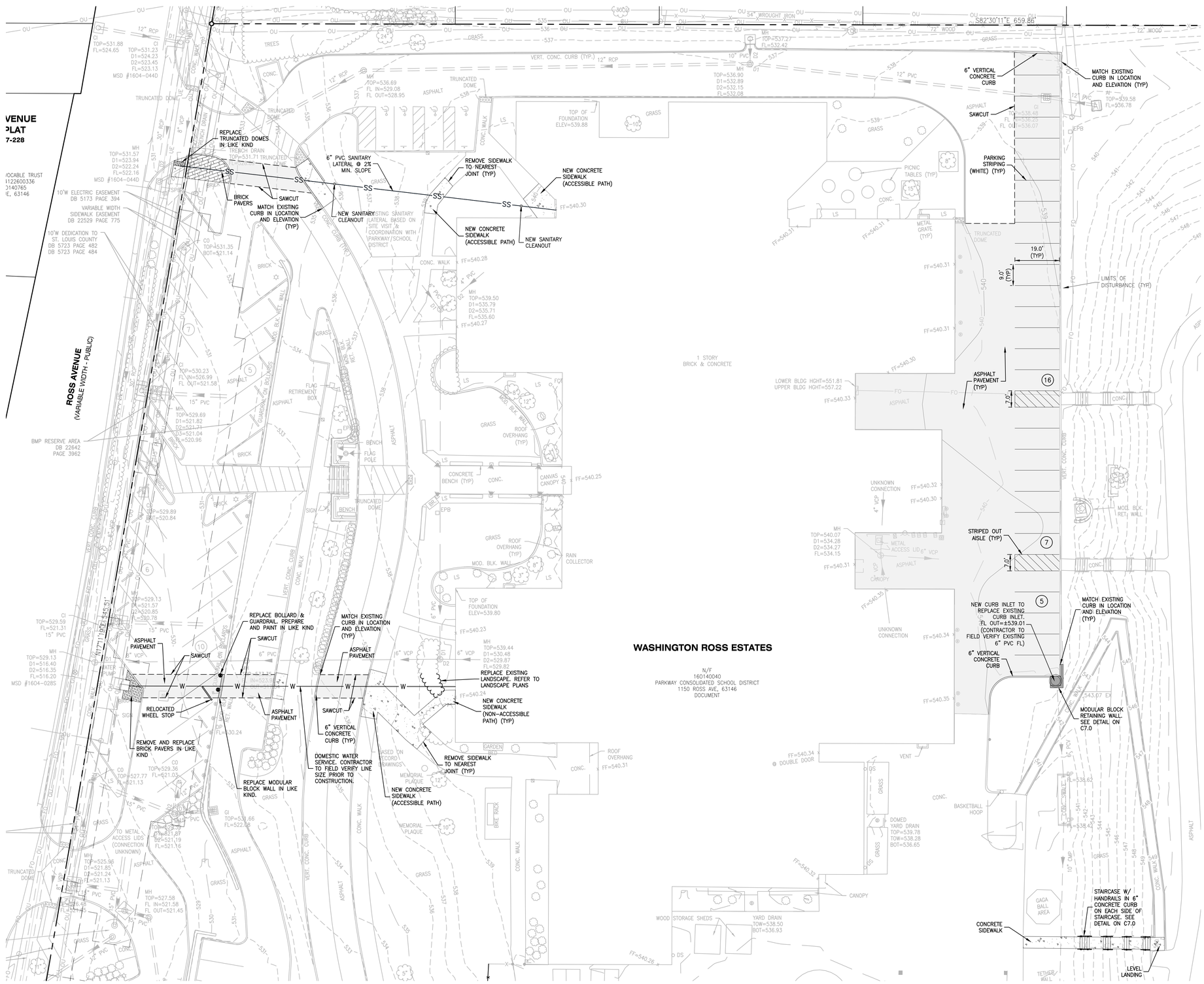
SOUTH DEMOLITION PLAN (PLAYGROUND)

C4.1

BASE MAP: 16O
MSD P.NO. 26MSD-00362

SCALE: 3" = 1'-0" (1" 0.5" 0)
SCALE: 1 1/2" = 1'-0" (2" 1" 0.5" 0)
SCALE: 1" = 1'-0" (2" 1" 0.5" 0)
SCALE: 3/4" = 1'-0" (3" 2" 1" 0)
SCALE: 1/2" = 1'-0" (4" 2" 1" 0)
SCALE: 1/4" = 1'-0" (8" 4" 2" 0)
SCALE: 1/8" = 1'-0" (16" 8" 4" 0)
SCALE: 1/16" = 1'-0" (32" 16" 8" 0)

USER: Austin Fitterling TAB: C4.1
DATE: October 8, 2026 - 11:35:22 AM
DRAWING: S:\JOBS\Jobs2026\26-0054\CAD0\C-Plan\PlotSheets\D_IPLAN_DEMO_26-0054.dwg



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222 SOUTH CENTRAL AVE.
SUITE# 501
ST. LOUIS, MO 63105
TEL: 314.863.4994
FAX: 314.863.4996
www.bondarchitectsinc.com
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Missouri State Certificate of Authority # 2009027409

COLE & ASSOCIATES, INC.
Civil Engineer
Consultant Project #26-0054
Certificate of Authority #001165
401 S. 18th Street, Suite 200
St. Louis, MO 63103
314.984.9887 tel

RTM Engineering Consultants
MEP / FP Engineer
Consultant Project #26.B002031924
Certificate of Authority #2002028690
3701 S. Lindbergh Blvd.
St. Louis, MO 63127
314.725.5889 tel

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2 Cityplace Drive, Suite 195,
St. Louis, Missouri 63141
314.230.0182 tel

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Parkway Project #: PN062501B
Building Renovations & Site Improvements

Parkway School District
363 N. Woods Mill Rd., Chesterfield, MO 63017
314.415.8231 tel

Project No: 26-0054

Revisions

No.	Description	Date
	MSD COMMENTS	09/04/2026

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CIVIL ENGINEER
PE NO: PE-2020000037
10/12/2026

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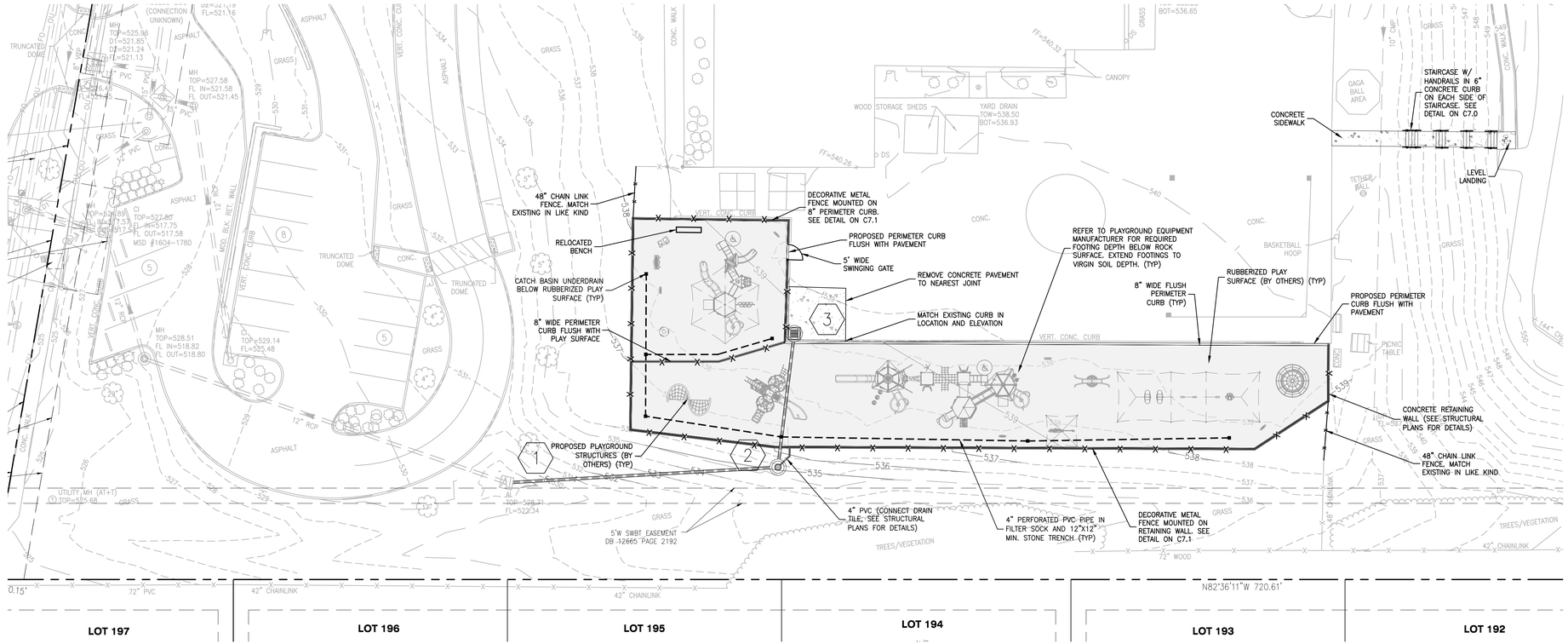
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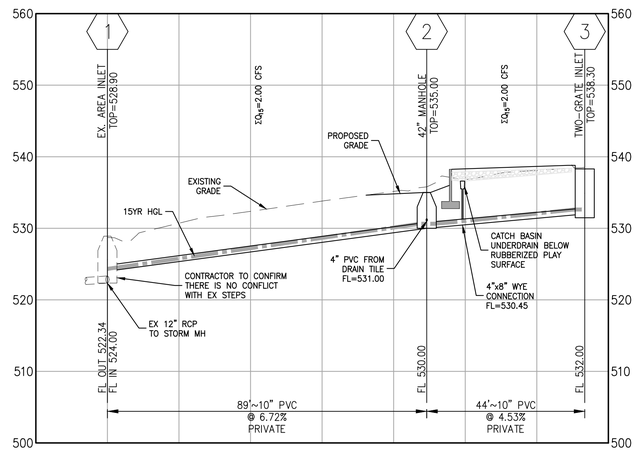
MSD P.NO. 26MSD-00362

NORTH SITE & UTILITY PLAN

C5.0

USER: Austin Eatenhold 748 C5.0
DATE: October 12, 2026 - 7:20:14 AM
DRAWING: S:\JOBS\Jobs2026\26-0054\2400\C-Plan\PlotSheets\0_IPLAN_UTILITY_26-0054.dwg





1 **STORM PROFILE 1-3**
SCALE: 1"=20' HORIZ. 1"=10' VERT. **REF. DWG.**

15 YR, 20 MIN STORM HYDRAULICS

Line ID	Line Size (in)	Line Length (ft)	Line Slope (%)	Manning's n	Bend Angle (Deg)	Added Flow (cfs)	Cumulative Flow Rate (cfs)	Capacity (Full Flow) (cfs)	Velocity (Out) (ft/s)	Invert (Start) (ft)	Ground Elevation (Start) (ft)	HGL (In) (ft)	Freeboard (ft)	Invert (Stop) (ft)	Ground Elevation (Stop) (ft)	HGL (Out) (ft)
2-1	10	89.24	6.72	0.012	4.12	0.00	2.00	6.15	10.07	530.00	535.00	530.63	4.37	524.00	528.90	524.33
3-2	10	43.27	4.62	0.012	-80.74	2.00	2.00	5.10	4.49	532.00	538.30	532.63	5.67	530.00	535.00	530.63

100 YR, 20 MIN STORM HYDRAULICS

Line ID	Line Size (in)	Line Length (ft)	Line Slope (%)	Manning's n	Bend Angle (Deg)	Added Flow (cfs)	Cumulative Flow Rate (cfs)	Capacity (Full Flow) (cfs)	Velocity (Out) (ft/s)	Invert (Start) (ft)	Ground Elevation (Start) (ft)	HGL (In) (ft)	Freeboard (ft)	Invert (Stop) (ft)	Ground Elevation (Stop) (ft)	HGL (Out) (ft)
2-1	10	89.24	6.72	0.012	4.12	0.00	2.69	6.15	10.90	530.00	535.00	530.72	4.28	524.00	528.90	524.39
3-2	10	43.27	4.62	0.012	-80.74	2.69	2.69	5.10	5.36	532.00	538.30	532.72	5.58	530.00	535.00	530.72

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222 SOUTH CENTRAL AVE.
SUITE# 501
ST. LOUIS, MO 63105
TEL: 314.863.4994
FAX: 314.863.4996
www.bondarchitectsinc.com
Bond Architects, Inc.
Missouri State Certificate of Authority # 2009027409

COLE & ASSOCIATES, INC.
Civil Engineer
Consultant Project #26-0054
Certificate of Authority #001165
401 S. 18th Street, Suite 200
St. Louis, MO 63103
314.984.9887 tel

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MEP / FP Engineer
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St. Louis, MO 63127
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Project No: 26-0054

Revisions

No.	Description	Date
	MSD COMMENTS	09/04/2026

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STANLEY EARL FOWLER, JR.
CIVIL ENGINEER
PE NO: PE-2020000037
10/12/2026

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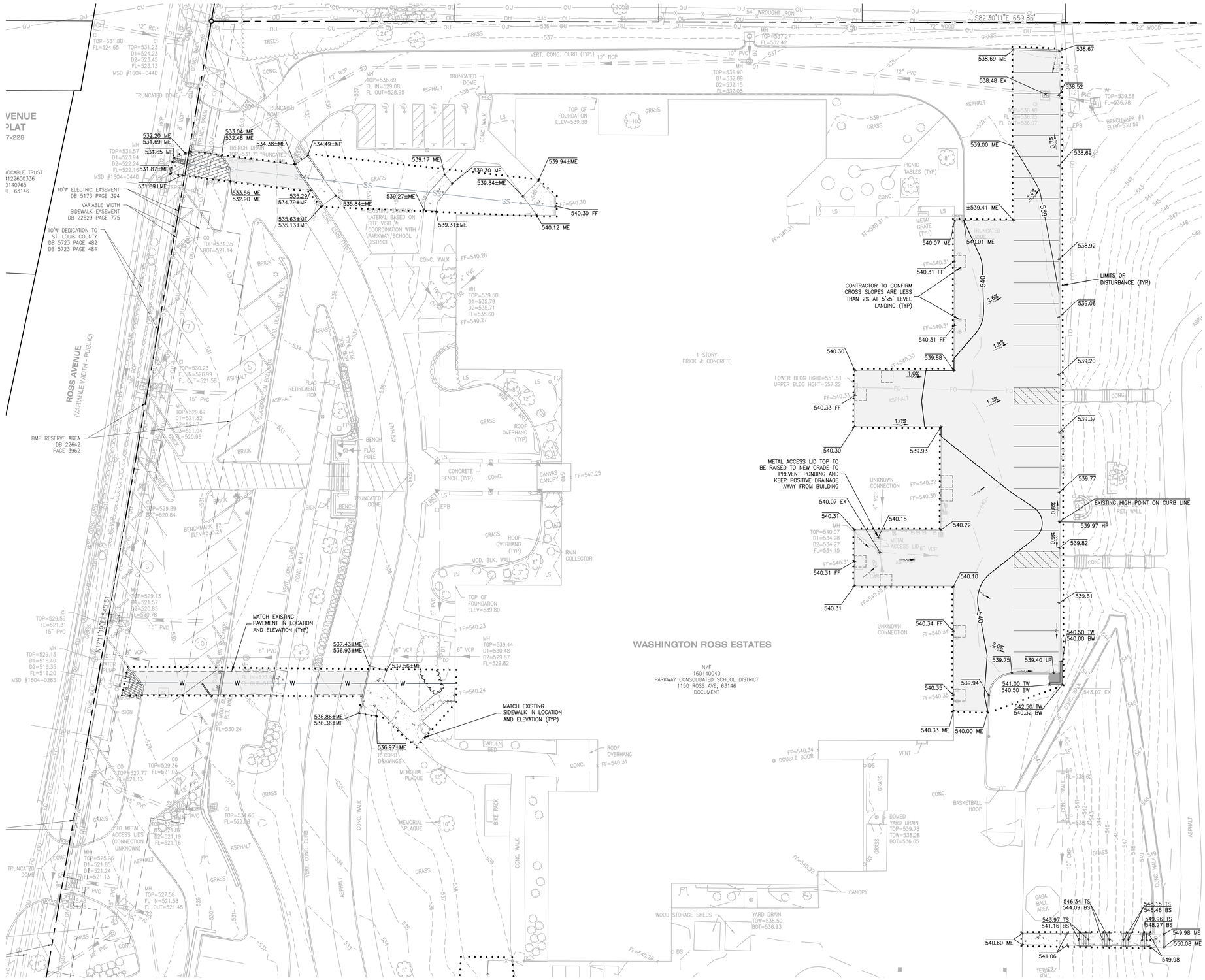
SOUTH SITE & UTILITY PLAN (PLAYGROUND)

C5.1

BASE MAP: 16O
MSD P.NO. 26MSD-00362

USER: Austin Fitterling TAB: C5.1
DATE: October 8, 2026 - 2:08:58 PM
DRAWING: S:\JOBS\Jobs2026\26-0054\CADD\C-Plan\PlotSheets\D_PLAN_UTILITY_26-0054.dwg

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SCALE: 1/16" = 1'-0" 0 8' 16' 32'



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	MSD COMMENTS	09/04/2026

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CIVIL ENGINEER
PE NO: PE--2020000037
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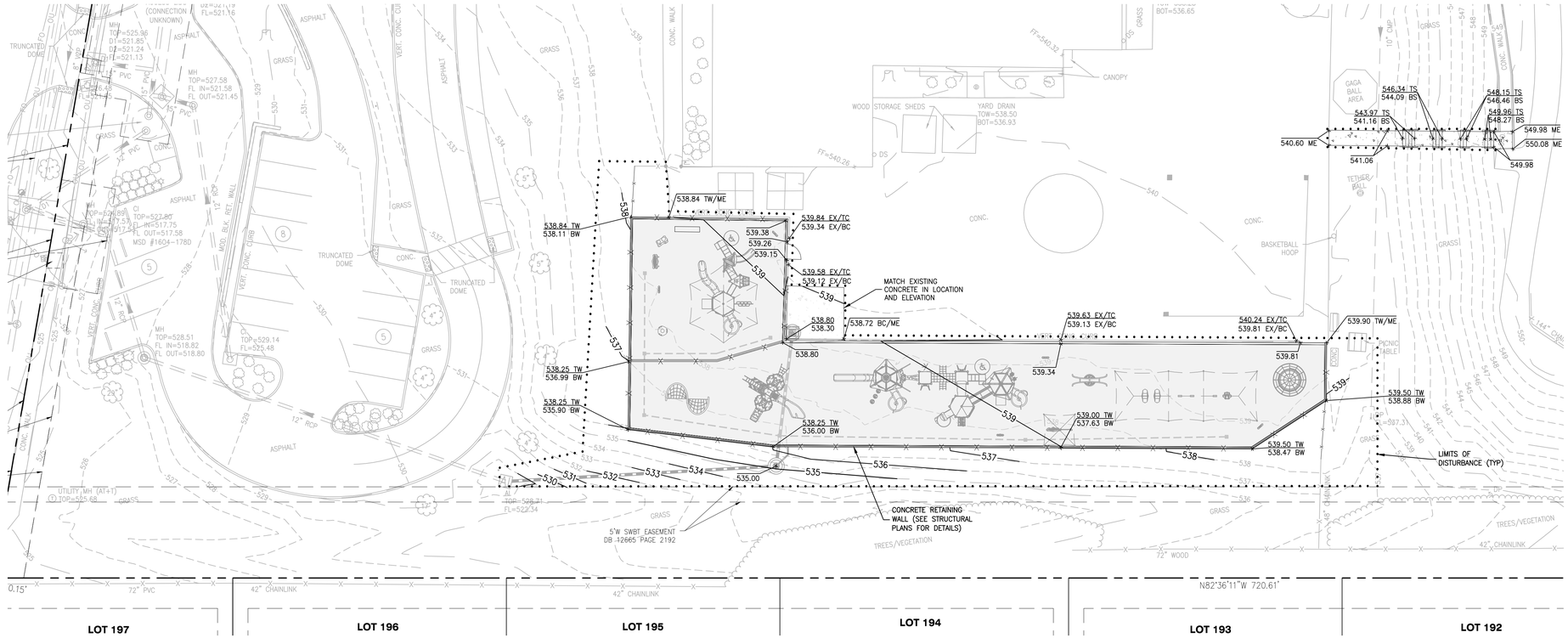
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NORTH GRADING PLAN

C6.0

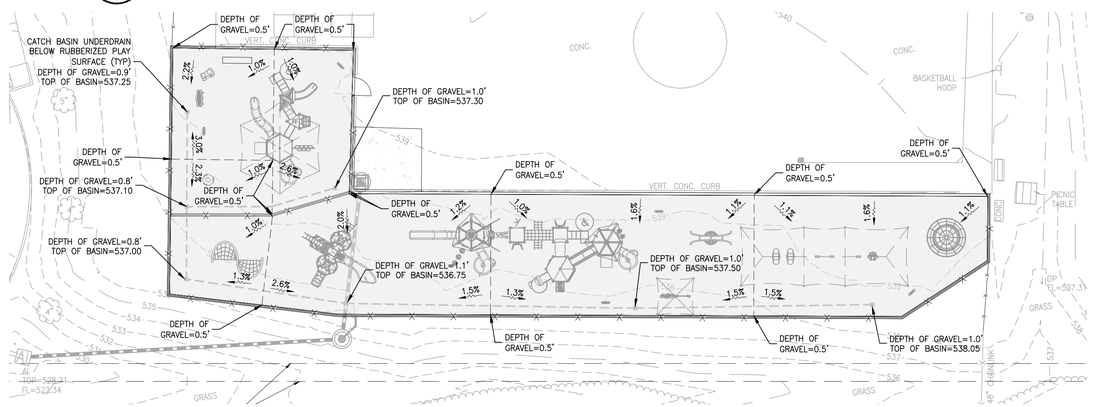
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DATE: October 8, 2026 - 12:41:46 PM
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1 SOUTH GRADING PLAN

SCALE: 1" = 20' **REF. DWG.**



2 PLAYGROUND SUBGRADE PLAN

SCALE: 1" = 20' **REF. DWG.**

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	MSD COMMENTS	09/04/2026

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CIVIL ENGINEER
PE NO: PE-2020000037
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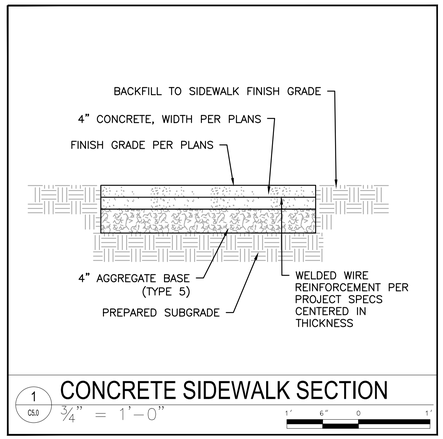
SOUTH GRADING PLAN (PLAYGROUND)

C6.1

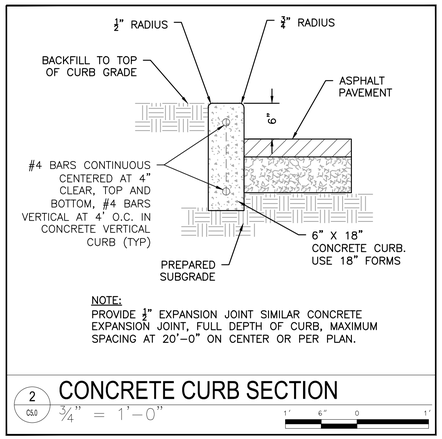
BASE MAP: 16O
MSD P.NO. 28MSD-00362

SCALE: 3/4" = 1'-0" 0 0.25' 0.5' 1'
SCALE: 1 1/2" = 1'-0" 0 0.5' 1' 2'
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SCALE: 1/2" = 1'-0" 0 1' 2' 4'
SCALE: 1/4" = 1'-0" 0 2' 4' 8'
SCALE: 1/8" = 1'-0" 0 4' 8' 16'
SCALE: 1/16" = 1'-0" 0 8' 16' 32'

USER: Austin Fitterling 748 - 06.1
DATE: October 8, 2026 - 12:01:03 PM
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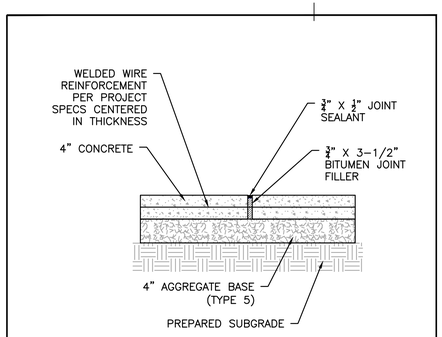


1 C5.0 — CONCRETE SIDEWALK SECTION
SCALE: 3/4" = 1'-0"



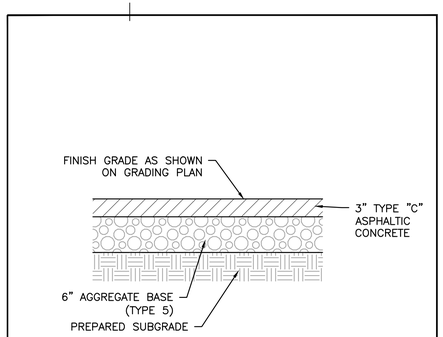
NOTE:
PROVIDE 1/2" EXPANSION JOINT SIMILAR CONCRETE EXPANSION JOINT, FULL DEPTH OF CURB, MAXIMUM SPACING AT 20'-0" ON CENTER OR PER PLAN.

2 C5.0 — CONCRETE CURB SECTION
SCALE: 3/4" = 1'-0"

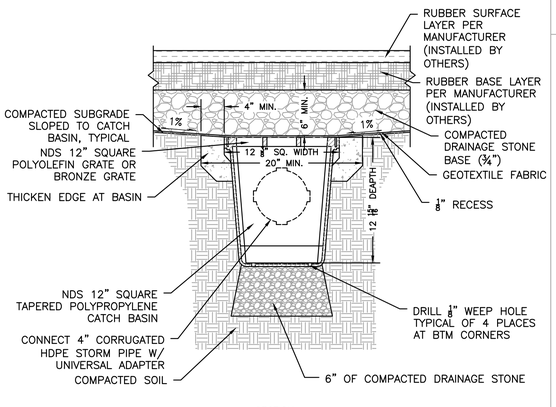


NOTE:
MAXIMUM SPACING EQUALS 20'-0" ON CENTER OR PER PLANS

3 C5.0 — CONCRETE EXPANSION JOINT
SCALE: 3/4" = 1'-0"



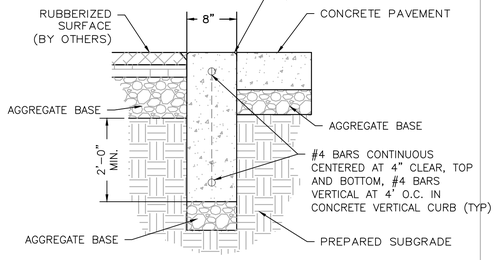
4 C5.0 — 6/3 ASPHALT PAVEMENT SECTION
SCALE: 3/4" = 1'-0"



SECTION

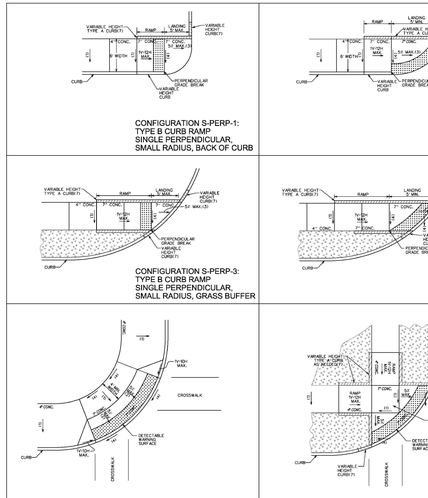
NOTES
1. GRATE TO BE ATTACHED TO CATCH BASIN WITH SCREW PROVIDED AT TIME OF INSTALLATION.
2. BRONZE GRATE TO BE USED IN PEDESTRIAN TRAFFIC APPLICATION ONLY.
3. DO NOT USE OVER 5 RISERS WITH CATCH BASIN.
4. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.

5 — CATCH BASIN - PLAYGROUND UNDERDRAIN
SCALE: N.T.S. REF. DWG. C5.0



NOTE:
PROVIDE DOWELED AND SEALED EXPANSION JOINTS AT 30'-0" MAXIMUM SPACING

6 — 8" FLUSH CONCRETE PERIMETER CURB
SCALE: N.T.S. REF. DWG. C5.0



NOTES:
(1) CROSS SLOPE SHALL BE SUFFICIENT TO PREVENT PONDING UP TO A MAXIMUM OF 2% UNLESS OTHERWISE NOTED. 1.5% +/-0.5% CROSS SLOPE RECOMMENDED.
(2) THE RUNNING SLOPE OF A BLENDED TRANSITION MAY BE WARPED TO MEET ROAD GRADE UP TO 5% MAXIMUM.
(3) ALGEBRAIC DIFFERENCE BETWEEN PAVEMENT OR GUTTER SLOPE IN THE DIRECTION OF PEDESTRIAN TRAVEL AND CURB RAMP SLOPE SHALL NOT EXCEED 13.0%. PROVIDE A 24" LEVEL LANDING IF ALGEBRAIC DIFFERENCE EXCEEDS 13.0%.
(4) CROSS SLOPE SHALL BE A MIN OF 1.0% AND A MAX OF 2.0% AT INTERSECTIONS WITH STOP OR YIELD CONTROL. CROSS SLOPE SHALL BE A MAX OF 5.0% AT INTERSECTIONS WITHOUT STOP OR YIELD CONTROL.
(5) CURB RAMP RUNNING SLOPE SHALL BE 8.3% MAX.
(6) TRAVERSABLE FLARE RUNNING SLOPE SHALL BE 10% MAX.
(7) IN ORDER TO PREVENT TRIPPING HAZARDS, RETURN CURBS AND NON-TRAVERSIBLE FLARES MAY BE USED ONLY WHEN NECESSARY. IF GRADING CAN BE PERFORMED TO ELIMINATE THE NEED FOR A RETURN CURB OR NON-TRAVERSIBLE FLARE, VERTICAL CURBS ADJACENT TO THE PEDESTRIAN ACCESS ROUTE SHALL BE AVOIDED.

GENERAL NOTES:

THE CONTRACTOR SHALL COMPLY WITH ALL LAWS PERTAINING TO THE AMERICANS WITH DISABILITIES ACT ON PUBLIC RIGHTS OF WAY. EXCEPTIONS MUST BE APPROVED BY THE ENGINEER. ALL AREAS OF NON-COMPLIANCE SHALL BE REMOVED AND CORRECTED AT THE CONTRACTOR'S EXPENSE.

SIDEWALK AND RAMP WIDTH SHALL BE 5'-0" IN ARTERIAL/MRS, COLLECTOR, CBD (CITY), AND NONRESIDENTIAL COLLECTOR. A MIN WIDTH FOR RESIDENTIAL LOCAL STREETS IS 4'-0" MIN WIDTH IN ALL CASES WHEN SIDEWALK IS CONSTRUCTED AT THE BACK OF CURB.

FINISHED SIDEWALK SHALL BE STABLE, SLIP RESISTANT, AND SURFACE SHALL NOT POND WATER.

THE RUNNING GRADE OF A SIDEWALK SHALL NOT EXCEED 5.0% EXCEPT WHEN MATCHING THE GRADE OF AN ADJACENT ROADWAY.

A DIAGONAL RAMP IS A SINGLE CURB RAMP WHICH STRIKES TWO CROSSINGS. DIAGONAL RAMPS MAY ONLY BE USED FOR NEW CONSTRUCTION OR RECONSTRUCTION PROJECTS. DIAGONAL RAMPS MAY ONLY BE USED FOR ALTERATION TYPE PROJECTS WHERE CONSTRUCTION OF SPLIT RAMPS IS NOT PRACTICABLE AS DETERMINED BY THE ENGINEER.

LANDINGS, TURNING SPACES, AND CLEAR SPACES LOCATED IN THE ROADWAY MUST BE COMPLETELY CONTAINED WITHIN THE CROSSWALK.

TRANSITIONS FROM SIDEWALK TO GUTTER TO ROADWAY MUST BE FLUSH.

DETECTABLE WARNING DEVICES ARE REQUIRED AT PUBLIC STREETS AND SIGNALIZED INTERSECTIONS. FOR DETECTABLE WARNING SURFACE REQUIREMENTS SEE STANDARD DRAWING C608.01

RUNNING SLOPE OF CURVED SIDEWALKS AND RAMPS SHALL BE MEASURED ON THE INSIDE EDGE OF THE CURVE.

15 FOOT RULE: THE RUNNING SLOPE FOR A CURB RAMP IS NOT LIMITED TO EXCEED MAXIMUM IF THE CONSTRUCTED CURB RAMP EXCEEDS 15 FEET IN LENGTH. THIS EXCEPTION DOES NOT APPLY TO SIDEWALK RAMPS.

GRADE BREAK BETWEEN RAMP AND ADJACENT SIDEWALK MUST BE PERPENDICULAR TO THE DIRECTION OF TRAVEL.

TYPE A CURB IS INCIDENTAL TO CURB RAMP CONSTRUCTION. NO ADDITIONAL PAY WILL BE PROVIDED.

A CLEAR SPACE SHALL BE PROVIDED BEYOND THE BOTTOM GRADE BREAK OF ALL CURB RAMPS. THE CLEAR SPACE SHALL BE A MINIMUM OF 4'-1" BY 4'-1" AND RESIDE WHOLLY OUTSIDE OF THE PARALLEL VEHICLE TRAVEL LANE.

A 4'-5" X MINIMUM TURNING SPACE SHALL BE PROVIDED AT THE BOTTOM OF ANY SINGLE RAMP WHICH SERVES MORE THAN ONE DIRECTION, REGARDLESS OF WHETHER THE TURNING SPACE IS FLAT. RESIDE WHOLLY OUTSIDE OF BOTH PARALLEL VEHICLE TRAVEL LANES.

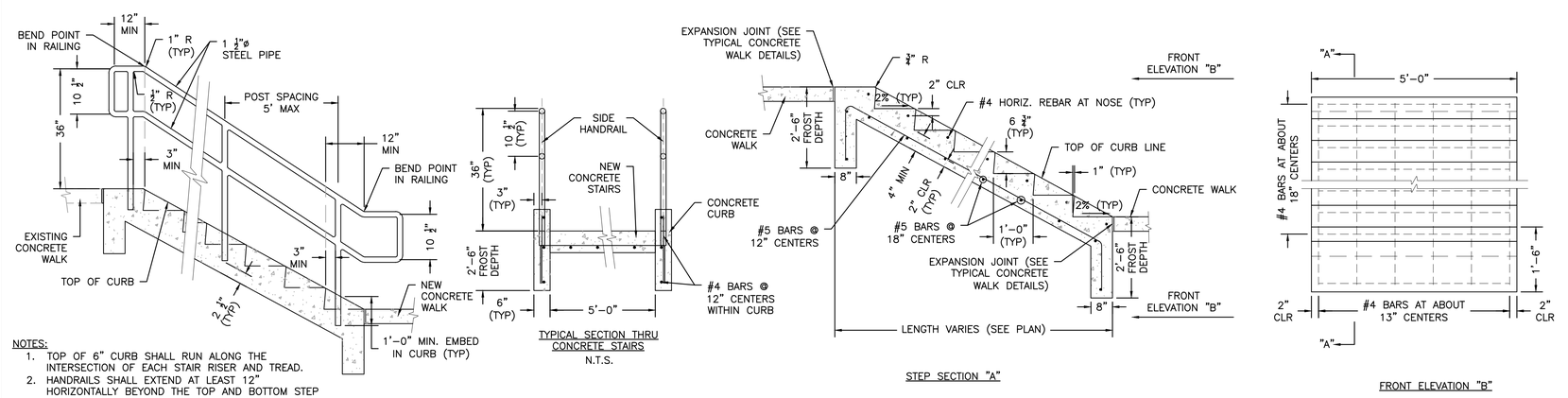
A SEGMENTAL TRANSITION SHALL BE PROVIDED WHEN CONNECTING NEW PEDESTRIAN FACILITIES TO AN EXISTING ROADWAY.

ALL SLOPES AND GRADES SHALL BE MEASURED WITH A CALIBRATED 2 FOOT LONG DIGITAL LEVEL.

FLEXIBLE PAVEMENT SHALL NOT BE PERMITTED FOR THE CONSTRUCTION OF CURB RAMPS, BLENDED TRANSITIONS, OR TURNING SPACES. ALL PROPOSED PERMANENT PAVEMENT INSTALLATIONS SHALL REQUIRE DEPARTMENTAL APPROVAL.

ISSUE DATE	THIS IS NOT A CERTIFIED DOCUMENT	Saint Louis COUNTY TRANSPORTATION	CURB RAMP CONFIGURATIONS FOR USE WITHIN PUBLIC RIGHT-OF-WAY		
10/10/2020		1050 HIGHLAND ARCADE DR. ST. LOUIS, MISSOURI 63110	EFFECTIVE 05/01/2020	SHEET 1 OF 7	DRAWING C608.41
REVISIONS					

7 — PUBLIC CURB RAMP DETAIL
SCALE: N.T.S. REF. DWG. C5.0



NOTES:
1. TOP OF 6" CURB SHALL RUN ALONG THE INTERSECTION OF EACH STAIR RISER AND TREAD.
2. HANDRAILS SHALL EXTEND AT LEAST 12" HORIZONTALLY BEYOND THE TOP AND BOTTOM STEP AS SHOWN.
3. ALL PIPE SHALL BE SCH40 STEEL PIPE.
4. ALL JOINT WELDS TO BE CONTINUOUS.
5. GRIND WELD JOINTS SMOOTH.
6. HANDRAILS TO BE PAINTED
   a. ONE (1) PRIME COAT WITH ALKYD PRIMER.
   b. TWO (2) TOP COATS WITH BLACK ALKYD PAINT.

HANDRAIL DETAIL
N.T.S.

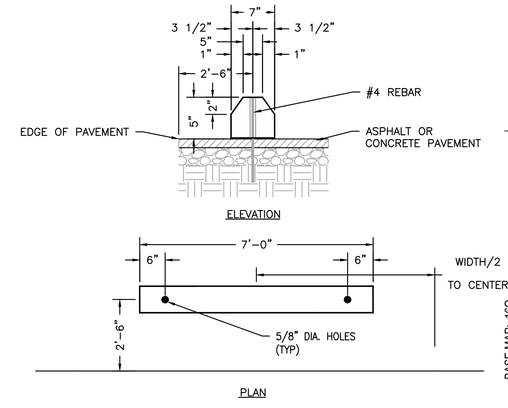
TYPICAL SECTION THRU CONCRETE STAIRS
N.T.S.

STEP SECTION "A"

CONCRETE STAIR DETAIL
N.T.S.

FRONT ELEVATION "B"

8 — STAIRCASE AND HANDRAIL DETAIL
SCALE: N.T.S. REF. DWG. C5.0



ELEVATION

PLAN

NOTES:
1. SIMILAR SHAPE MAY BE USED UPON APPROVAL OF ENGINEER.
2. HOLD IN PLACE WITH 18" LONG #4 REBARS PLACED IN THE HOLES AT EACH END AND DRIVEN FLUSH WITH THE TOP.

9 — WHEEL STOP DETAIL
SCALE: N.T.S. REF. DWG. C5.0

bond architects
222 SOUTH CENTRAL AVE.
SUITE# 501
ST. LOUIS, MO 63105
TEL: 314.863.4994
FAX: 314.863.4996
www.bondarchitectsinc.com
Bond Architects, Inc.
Missouri State Certificate of Authority # 2009027409

COLE & ASSOCIATES, INC.
Civil Engineer
Consultant Project #26-0054
Certificate of Authority #001165
401 S. 18th Street, Suite 200
St. Louis, MO 63103
314.984.9887 tel

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MEP / FP Engineer
Consultant Project #26.B002031924
Certificate of Authority #2002028690
3701 S. Lindbergh Blvd.
St. Louis, MO 63127
314.725.5889 tel

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Certificate of Authority #
2 Cityplace Drive, Suite 195,
St. Louis, Missouri 63141
314.230.0182 tel

ROSS ELEMENTARY SCHOOL
1150 Ross Ave, St. Louis, MO 63146
Parkway Project #: PN062501B
Building Renovations & Site Improvements

Parkway School District
363 N. Woods Mill Rd., Chesterfield, MO 63017
314.415.8231 tel

Project No: 26-0054

Revisions

No.	Description	Date
	MSD COMMENTS	09/04/2026

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STATE OF MISSOURI — STANLEY EARL FOWLER JR. — NUMBER PE-2020000037 — PROFESSIONAL ENGINEER
CIVIL ENGINEERS
CORPORATE ENGINEERING CERTIFICATE #001165
STANLEY EARL FOWLER, JR.
CIVIL ENGINEER
PE NO: PE-2020000037
10/12/2026

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DATE: 10/12/2026

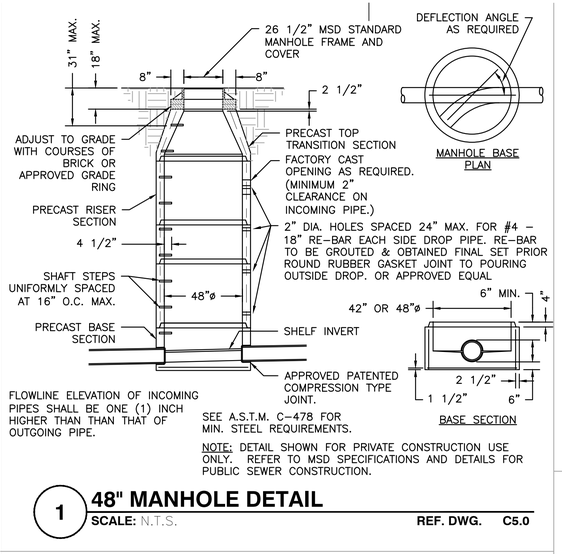
BID/PERMIT SET

SITE DETAILS

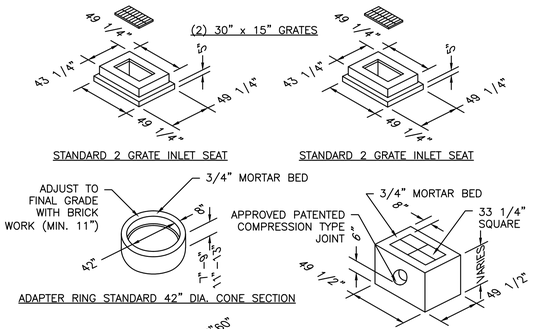
C7.0

BASE MAP: 16O
MSD P.NO. 26MSD0362

USER: Austin Eidenhoff 749, Date/ 1
DATE: October 8, 2026 - 12:01:12 PM
DRAWING: S:\JOBS\Jobs2026\26-0054\CAD\C-Plan\PlotSheets\0_PLAN_DETAIL_26-0054.dwg



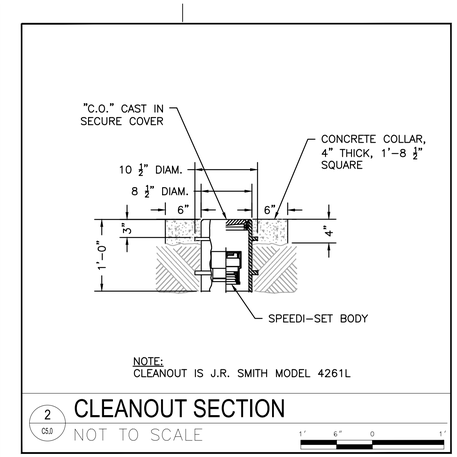
1 **48" MANHOLE DETAIL**
SCALE: N.T.S. REF. DWG. C5.0



NOTE: INLETS ON THIS SHEET ARE TO BE USED IN LOCATIONS WHERE STANDARD OPEN THROAT INLETS CAN NOT BE USED, IN PAVED TRAFFIC WAY AND IN LIMITED EASEMENTS.

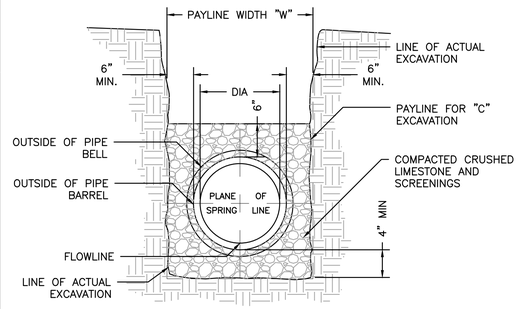
NOTE: DETAIL SHOWN FOR PRIVATE CONSTRUCTION USE ONLY. REFER TO MSD SPECIFICATIONS AND DETAILS FOR PUBLIC SEWER CONSTRUCTION.

3 **TWO GRATE INLET DETAIL**
SCALE: N.T.S. REF. DWG. C5.0

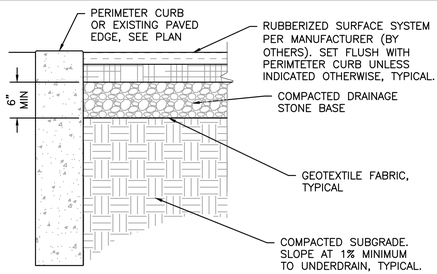


NOTE:
CLEANOUT IS J.R. SMITH MODEL 4261L

2 C5.0 **CLEANOUT SECTION**
NOT TO SCALE

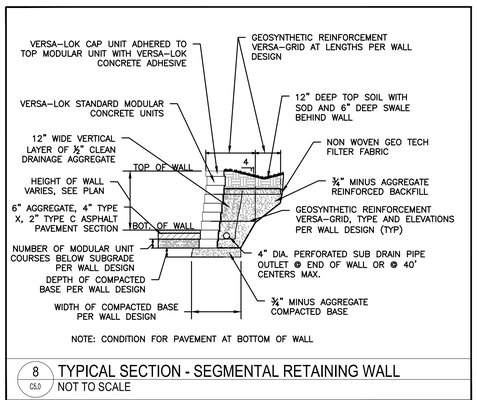


4 **PVC PIPE BEDDING DETAIL**
SCALE: N.T.S. REF. DWG. C5.0

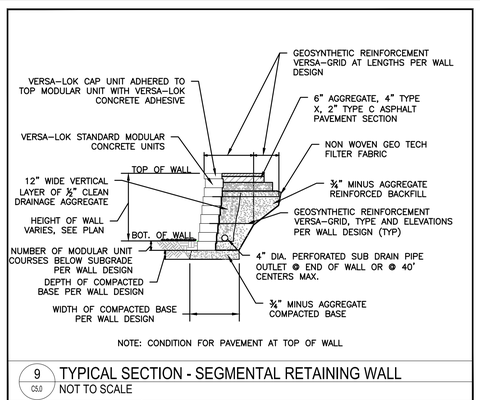


SECTION

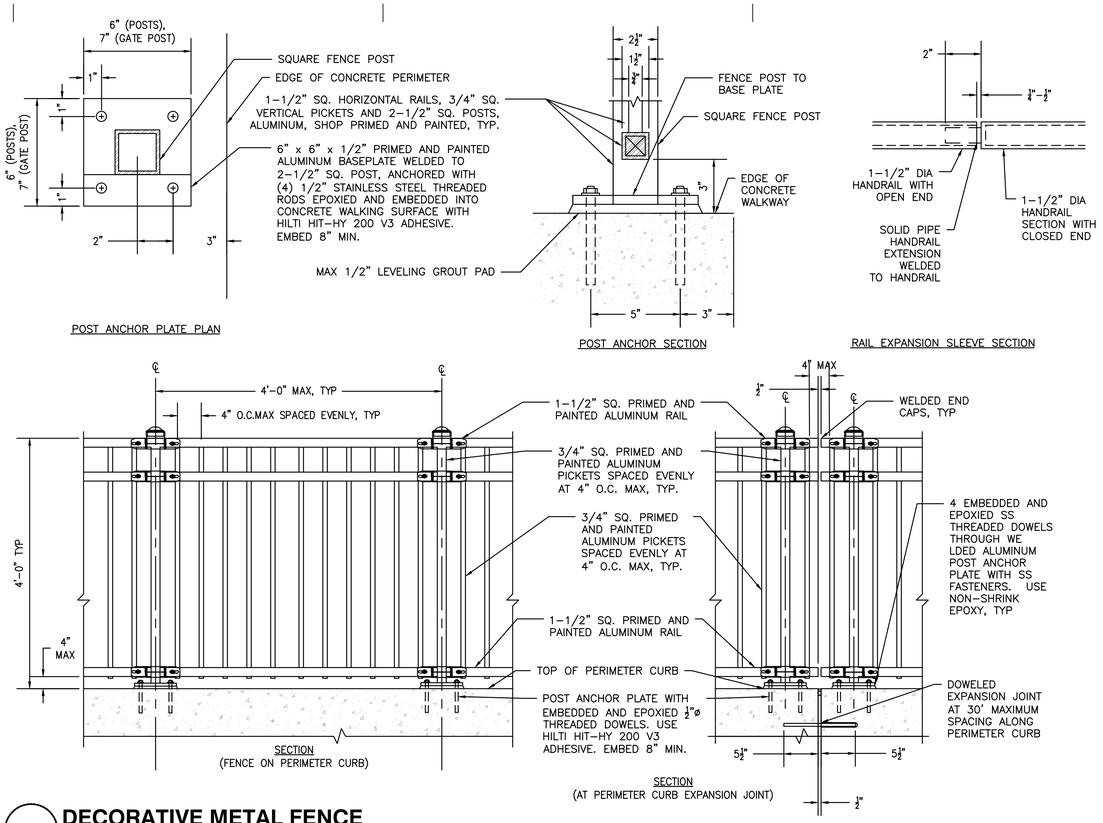
6 **RUBBERIZED PLAY SURFACE**
SCALE: N.T.S. REF. DWG. C5.0



8 C5.0 TYPICAL SECTION - SEGMENTAL RETAINING WALL
NOT TO SCALE



9 C5.0 TYPICAL SECTION - SEGMENTAL RETAINING WALL
NOT TO SCALE



POST ANCHOR PLATE PLAN

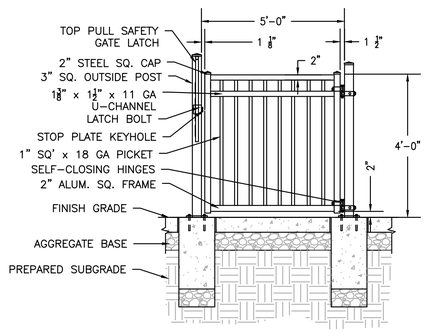
POST ANCHOR SECTION

RAIL EXPANSION SLEEVE SECTION

SECTION
(FENCE ON PERIMETER CURB)

SECTION
(AT PERIMETER CURB EXPANSION JOINT)

5 **DECORATIVE METAL FENCE**
SCALE: N.T.S. REF. DWG. C5.0



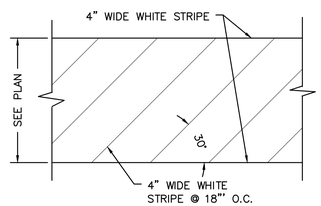
ELEVATION

HARDWARE SCHEDULE

HARDWARE	PRODUCT
SELF–CLOSE HINGE	TRUCLOSE HEAVY DUTY FOR METAL GATES, D&D TECHNOLOGIES. ADJUSTABLE TENSION.
LOCKABLE PULL GATE LATCH	LOCKABLE MAGNA–LATCH S3 TOP PULL SAFETY GATE LATCH, KEYED ALIKE, COLOR: BLACK

NOTES:
1. PROVIDE THE BASIS OF DESIGN PRODUCTS LISTED ABOVE OR ARCHITECT ACCEPTED EQUAL PRODUCTS THAT MEET THE SALIENT CHARACTERISTICS IDENTIFIED IN THE CONSTRUCTION DOCUMENTS.
2. PROVIDE SHOP DRAWINGS FOR ALL FENCE, GATE AND GATE LATCHING COMPONENTS FOR REVIEW AND APPROVAL BY ARCHITECT PRIOR TO INITIATING FENCE PURCHASE.
3. FENCE, GATE, HARDWARE AND ACCESSORIES COLOR: BLACK.
4. FENCE GATE POSTS AND CORNER POSTS MAY BE EMBEDDED INTO GROUT–FILLED PAINTED GALVANIZED STEEL SLEEVES CORE–DRILLED INTO CONCRETE PERIMETER CURBS. PAINT EMBEDDED POST INTERIOR AND ENDS. SEE DETAIL.

7 **DECORATIVE FENCE GATE**
SCALE: N.T.S. REF. DWG. C5.0



10 **CROSS WALK DETAIL**
SCALE: N.T.S. REF. DWG. C5.0

bond architects
222 SOUTH CENTRAL AVE.
SUITE# 501
ST. LOUIS, MO 63105
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FAX: 314.863.4996
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Building Renovations & Site Improvements

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Project No: 26-0054

Revisions

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	MSD COMMENTS	09/04/2026

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STANLEY EARL FOWLER, JR.
NUMBER PE-2020000037
PROFESSIONAL ENGINEER
STATE OF MISSOURI
STANLEY EARL FOWLER, JR.
CIVIL ENGINEER
PE NO: PE–2020000037
10/12/2026

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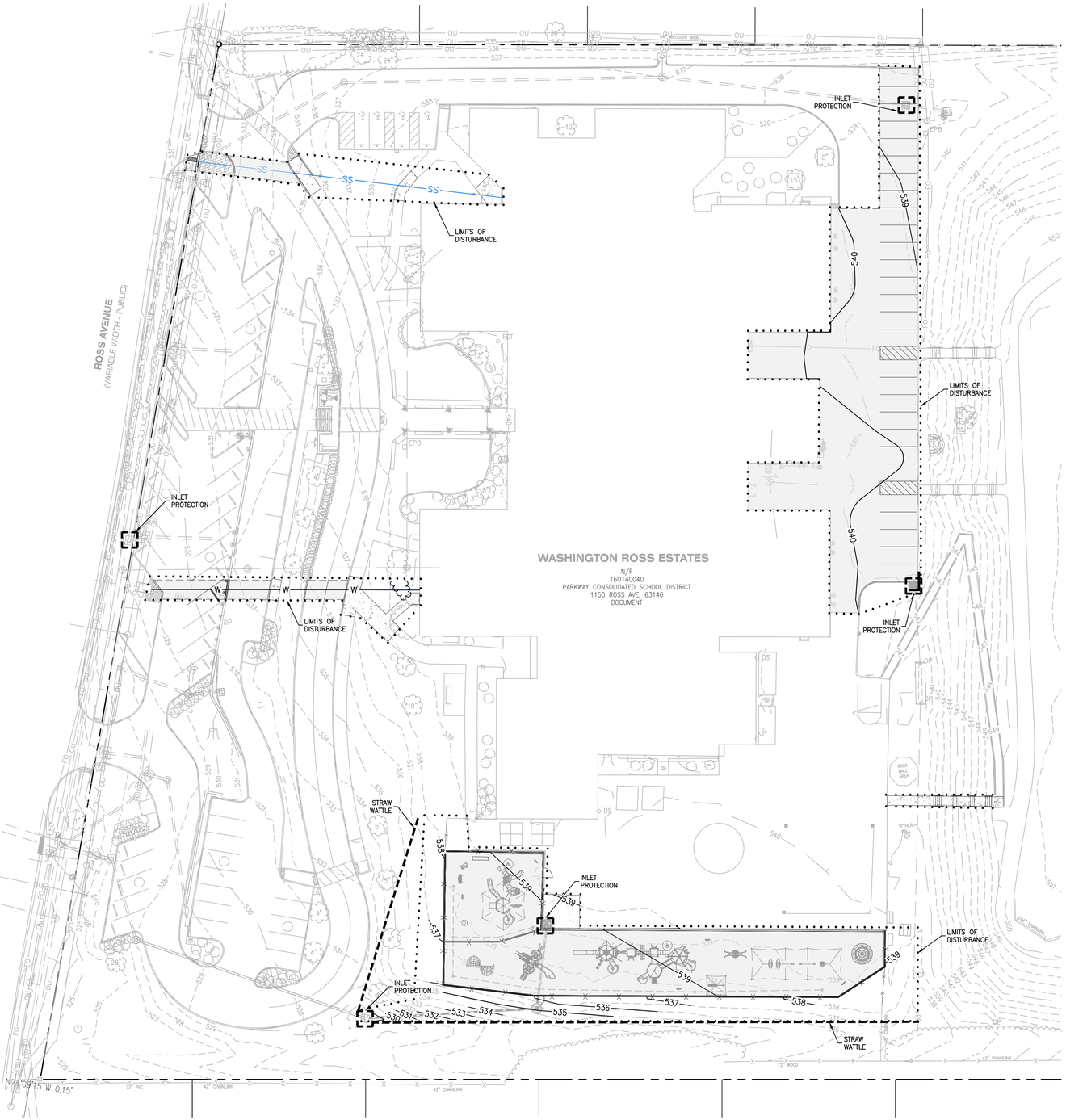
BASE MAP: 16O

MSD P.NO. 28MSD-00362

SITE DETAILS

C7.1

USER: Austin Fisherhall TAB: Detail 2
DATE: October 8, 2026 – 12:01:17 PM
DRAWING: S:\JOBS\Jobs2026\26-0054\CADD\C–Plan\PlotSheets\D_PLAN_DETAIL_26–0054.dwg



30' 0' 30' 60'

SCALE: 1" = 30'

LEGEND

RECORD DRAWINGS

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222 SOUTH CENTRAL AVE.
SUITE# 501
ST. LOUIS, MO 63105
TEL: 314.863.4994
FAX: 314.863.4996
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PE NO: PE--2020000037

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STORMWATER POLLUTION PREVENTION PLAN

C8.0

BASE MAP: 16O

MSD P.NO. 26MSD-00362

SCALE: 1/16" = 1'-0" 0 8 16 32
SCALE: 3/32" = 1'-0" 0 4 8 16
SCALE: 1/8" = 1'-0" 0 4 8 16
SCALE: 1/4" = 1'-0" 0 2 4 8
SCALE: 1/2" = 1'-0" 0 1 2 4
SCALE: 3/4" = 1'-0" 0 1 2 3
SCALE: 1" = 1'-0" 0 0.5' 1' 2'
SCALE: 1 1/2" = 1'-0" 0 0.5' 1' 2'
SCALE: 3" = 1'-0" 0 0.25' 0.5' 1'

USER: Austin Eckenfold TAB_SWPP
DATE: October 8, 2026 - 12:02:31 PM
DRAWING: S:\JOBS\Jobs2026\26-0054\CAD\C-Plan\PlotSheets\0_PLAN_SWPP_26-0054.dwg

SWPPP NOTES

SITE OWNER: PARKWAY SCHOOL DISTRICT
SITE ADDRESS: 363 N WOODS MILLS RD
CHESTERFIELD, MO 63017

SITE CONTACT/
SPECIAL INSPECTOR: POETTKER CONSTRUCTION

1. REFER TO IMPROVEMENT PLANS FOR PERTINENT SITE MAP INFO.
2. REFER TO IMPROVEMENT PLANS FOR PERTINENT TOPOGRAPHICAL INFO.
3. TOTAL LAND ESTIMATED TO BE DISTURBED – APPROXIMATELY 0.82 AC
4. REFER TO DRAINAGE AREA MAP IN IMPROVEMENT PLANS FOR DRAINAGE PATTERNS.
5. REFER TO SWPPP PLAN FOR LOCATION OF ACCESS TO CONSTRUCTION SITE.
6. DESCRIPTION OF B.M.P.'S TO CONTROL EROSION AND SEDIMENTATION (INTERIM AND PERMANENT STABILIZATION PRACTICES)

A. CONTRACTOR SHALL ESTABLISH PERIMETER SILTATION CONTROL PRIOR TO ANY CONSTRUCTION ACTIVITIES. AREAS REQUIRING MINOR CLEARING &/OR GRADING PRIOR TO INSTALLATION OF SILTATION CONTROL SHALL BE COMPLETED IN A TIMELY MANNER AND SILTATION CONTROL ESTABLISHED IMMEDIATELY FOLLOWING.

B. TEMPORARY CONSTRUCTION ENTRANCE SHALL BE INSTALLED WHERE THE ACCESS AREAS INTERSECT WITH PUBLIC ACCESS WAYS. DURING MUDDY CONDITIONS, DRIVERS OF VEHICLES WILL BE REQUIRED TO WASH THEIR WHEELS BEFORE ENTERING THE ROADWAY. WHERE SEDIMENT IS TRANSPORTED ONTO PUBLIC ACCESS WAYS, THE ROAD SHALL BE CLEANED THOROUGHLY AT THE END OF EACH DAY. SEDIMENT SHALL BE REMOVED FROM THE ROAD BY SHOVELING OR SWEEPING. STREET WASHING SHALL BE ALLOWED ONLY AFTER SEDIMENT IS REMOVED IN THIS MANNER.

C. UPON COMMENCEMENT OF INITIAL CLEARING AND GRUBBING OPERATIONS, AS WELL AS FUTURE GRADING OPERATIONS, TOPSOIL MUST BE STRIPPED FROM GRADED AREAS AND STOCKPILED FOR IN FINAL GRADING AND / OR EXCESS REMOVAL. THE STOCKPILES WILL BE KEPT ON SITE BUT MUST STAY CLEAR OF ALL CONSTRUCTION ACTIVITY. THE STOCKPILE MUST BE STABILIZED WITH TEMPORARY VEGETATION, OR COVERED AT THE END OF EACH WORKDAY, OR PERIMETER CONTROLS MUST BE IN PLACE TO PREVENT SOIL LOSS AND SEDIMENT TRANSPORT FROM THE STOCKPILE ITSELF UNTIL NEEDED.

D. CONTRACTOR SHALL CLEAR AND GRUB THOSE AREAS OF THE SITE SCHEDULED FOR CONSTRUCTION. AREAS NOT SCHEDULED FOR IMMEDIATE CONSTRUCTION SHALL NOT BE CLEARED OF ESTABLISHED VEGETATION UNTIL REQUIRED. REMAINDER OF SITE SHALL BE GRADED, AS REQUIRED. CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLATION AND MAINTENANCE OF SILTATION CONTROL THROUGHOUT THE DURATION OF THE PROJECT.

E. STORM DRAINS SHALL BE INSTALLED AS EARLY AS POSSIBLE, PROVIDED THE INSTALLATION DOES NOT CONFLICT WITH OTHER CONSTRUCTION ACTIVITIES. INLET PROTECTION SHALL BE PLACED AROUND EACH INLET, IMMEDIATELY, UPON COMPLETION OF CONSTRUCTION OF EACH INLET. INLETS MAY BE UTILIZED FOR STORM WATER CONTROL DURING CONSTRUCTION, WITH THE SILT FENCE AND EROSION CONTROL MEASURES IN PLACE. CONTRACTOR SHALL TAKE PRECAUTIONS TO LIMIT SILT FROM ENTERING STORM PIPE, PRIOR TO INSTALLATION OF STORM STRUCTURES.

F. IF SEEDING OR ANOTHER VEGETATIVE EROSION CONTROL METHOD IS USED, IT SHALL BECOME ESTABLISHED WITHIN TWO WEEKS OR THE SITE SHALL BE RE-SEEDED OR A NON-VEGETATIVE OPTION EMPLOYED.

G. TECHNIQUES SHALL BE EMPLOYED TO ENSURE STABILIZATION ON STEEP SLOPES AND IN DRAINAGE WAYS.

H. THE ENTIRE SITE MUST BE STABILIZED, USING HEAVY MULCH LAYER OR ANOTHER METHOD THAT DOES NOT REQUIRE GERMINATION TO CONTROL EROSION, AT THE CLOSE OF THE CONSTRUCTION SEASON. REFER TO TABLE ON THIS SHEET FOR MULCHING RATES.

I. TECHNIQUES SHALL BE EMPLOYED TO PREVENT THE BLOWING OF DUST OR SEDIMENT FROM THE SITE.

J. ALL PROPOSED TURF AREAS ARE TO BE REPLACED WITH SOD ONCE CONSTRUCTION IS COMPLETED WITHIN FIVE DAYS AFTER FINAL GRADING OF THE SITE WHERE SHOWN ON THE PLAN. SHOULD WEATHER CAUSE DELAYS IN EARTHWORK OPERATIONS, ADDITIONAL SILTATION CONTROL MEASURES MAY BE REQUIRED.

K. ANY DISTURBED AREAS WHICH WILL REMAIN UNWORKED FOR 5 DAYS OR MORE SHALL BE STABILIZED WITH SEEDING AND MULCHING PER SPECIFICATIONS WITHIN 5 DAYS. IF SEASONAL CONDITIONS PROHIBIT SEEDING, MULCHING OR MATTING SHALL BE USED.

L. SEDIMENTATION CONTROLS SHALL ONLY BE REMOVED WITH CITY APPROVAL AFTER THE SITE IS COMPLETELY STABILIZED, VEGETATION IS WELL ESTABLISHED, AND ALL PAVEMENT AREAS ARE INSTALLED.

M. SOIL STABILIZATION SHALL BE COMPLETED WITHIN FIVE (5) DAYS OF CLEARING OR INACTIVITY IN CONSTRUCTION.

7. DESCRIPTION OF B.M.P.'S TO PREVENT POTENTIAL POLLUTANTS
(CONSTRUCTION WASTES, TOXIC OR HAZARDOUS SUBSTANCES, PETROLEUM PRODUCTS, PESTICIDES, HERBICIDES, SITE LITTER, SANITARY WASTES, ETC.)

A. SOLID NON-HAZARDOUS CONSTRUCTION WASTE – DISPOSE OF IN TRASH DUMPSTERS OR APPROVED EQUIVALENT IN A LOCATION APPROVED BY THE OWNER. POTENTIALLY SOLUBLE OR LEACHABLE SOLID WASTE SHALL BE STORED OFF THE GROUND AND IN COVERED LEAK-PROOF CONTAINERS. SOLID WASTE SHALL BE STORED OFF THE GROUND AND IN COVERED LEAK-PROOF CONTAINERS. SOLID WASTE SHALL BE PROPERLY DISPOSED OF OFF-SITE ON A REGULAR BASIS.

B. HAZARDOUS WASTE – HAZARDOUS WASTE SHALL BE SEGREGATED FROM NON-HAZARDOUS CONSTRUCTION SITE DEBRIS. LIQUID OR SEMI-LIQUID HAZARDOUS WASTE SHALL BE STORED IN APPROPRIATE CONTAINERS (CLOSED DRUMS OR SIMILAR) AND SHALL BE KEPT UNDER COVER. GRANULAR, SOLUBLE, OR LEACHABLE HAZARDOUS WASTE MATERIALS SHALL BE STORED OFF THE GROUND AND IN COVERED LEAK-PROOF CONTAINERS, THE OWNER SHALL PROPERLY APPROVE ANY HAZARDOUS WASTE STORAGE AREA LOCATIONS.

C. HAZARDOUS WASTE SHALL BE PROPERLY DISPOSED OF OFF-SITE ON A REGULAR BASIS BY A REPUTABLE, LICENSED HAZARDOUS WASTE HAULER.

D. IT IS NOT THE INTENT OF THIS SWPPP TO SUPERSEDE OR REPLACE NORMAL SITE ASSESSMENT AND REMEDIATION PROCEDURES CONCERNING HAZARDOUS MATERIALS. SIGNIFICANT SPILLS AND/OR CONTAMINATION WARRANT AN IMMEDIATE RESPONSE BY TRAINED PROFESSIONALS. SUSPECTED JOB SITE CONTAMINATION SHOULD IMMEDIATELY BE REPORTED TO REGULATORY AUTHORITIES AND PROTECTIVE MEASURES TAKEN.

E. FRESH CONCRETE WASTE AND CONCRETE EQUIPMENT WASH DOWNS SHALL BE CONTAINED AND SHALL BE STORED AWAY FROM DRAINAGE DITCHES, SWALES AND DRAINAGE STRUCTURES. WHERE APPROPRIATE, CONTAINMENT BERMS SHALL BE PLACED AROUND WASTE STORAGE AREAS.

F. ON-SITE FUELING FACILITIES ARE REQUIRED TO ADHERE TO ALL APPLICABLE FEDERAL AND STATE REGULATIONS CONCERNING STORAGE AND DISPENSERS.

G. PROVISIONS SHALL BE MADE SO THAT A SUFFICIENT NUMBER OF TEMPORARY TOILET FACILITIES ARE AVAILABLE TO SERVE THE NUMBER OF WORKERS ON-SITE.

H. PROVISIONS SHALL BE MADE FOR LITTER CONTROL.

8. DESCRIPTION OF B.M.P.'S TO REMAIN AFTER CONSTRUCTION

A. STORM DRAINS – THE DEVELOPMENT WILL BE SERVED BY A STORM WATER SYSTEM CONSISTING OF PIPE AND INLETS. ANY STORM DRAINAGE SYSTEM DESIGNATED AS "PRIVATE" SHALL BE OPERATED AND MAINTAINED BY THE OWNER. ANY STORM DRAINAGE SYSTEM DESIGNATED AS "PUBLIC" SHALL BE MAINTAINED BY METROPOLITAN ST. LOUIS SEWER DISTRICT (MSD) UPON DEDICATION OF THE SEWERS TO THE DISTRICT.

B. TURF AREAS – TURF AREAS SHALL BE MAINTAINED TO INSURE SITE AREAS REMAIN STABILIZED UPON COMPLETION OF CONSTRUCTION ACTIVITIES.

C. PAVED AREAS AND WALKWAYS – AREAS SUBJECT TO FOOT AND VEHICLE TRAFFIC SHALL BE PAVED AND KEPT IN GOOD REPAIR FOLLOWING COMPLETION OF CONSTRUCTION ACTIVITIES.

9. CONTRACTOR TO COORDINATE WITH THE CITY AND DEVELOPER FOR OFF STREET PARKING AREA..

10. HAUL ROUTE OF EXCESS SPOILS TO BE DETERMINED BY SITE CONTRACTOR.

11. REFER TO B.M.P.'S DESCRIPTIONS (**#6, #7, #8**) AND THE SWPP PLAN TO REFERENCE ALL EROSION AND SEDIMENT CONTROL MEASURES REQUIRED FOR THIS SITE.

12. REFER TO SEEDING RATES/MIXTURES ON THIS SHEET.

13. PLANNED RESPONSE TO LOSS OF CONTAINED SEDIMENT:
B.M.P.'S SHALL BE REPAIRED AND/OR REPLACED IMMEDIATELY, AS REQUIRED, TO STABILIZE SITE AND CONTAIN SEDIMENT LADEN RUNOFF. OFFSITE AREAS SHALL BE REVIEWED FOR EXTENT OF IMPACT FROM B.M.P. FAILURE. PERMIT HOLDER SHALL BE REQUIRED TO PROVIDE DOCUMENTATION TO THE ST. CHARLES DEPARTMENT OF PUBLIC WORKS OF THE B.M.P. MEASURES, INSTALLED AND SCHEDULED MAINTENANCE, AND REPAIRS.

14. PERMIT HOLDER

A. PERMIT HOLDER SHALL NOTIFY ALL CONTRACTORS AND OTHER ENTITIES (INCLUDING UTILITY CREWS, CITY EMPLOYEES, OR THEIR AGENTS) THAT WILL PERFORM WORK AT THE SITE, OF THE EXISTENCE OF THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AND WHAT ACTIONS OR PRECAUTIONS SHALL BE TAKEN WHILE ON SITE TO MINIMIZE THE POTENTIAL FOR EROSION AND THE POTENTIAL FOR DAMAGING ANY BEST MANAGEMENT PRACTICES (BMP'S).

B. PERMIT HOLDER SHALL DETERMINE THE NEED FOR AND ESTABLISH TRAINING PROGRAMS TO ENSURE THAT ALL SITE WORKERS HAVE BEEN TRAINED, AT A MINIMUM, IN EROSION CONTROL, MATERIAL HANDLING AND STORAGE, AND HOUSEKEEPING.

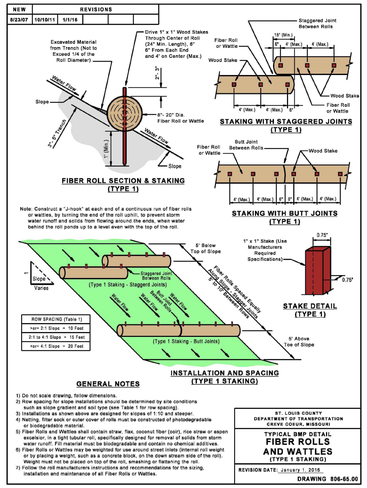
C. PROVIDE COPIES OF THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) TO ALL PARTIES WHO ARE RESPONSIBLE FOR INSTALLATION, OPERATION, OR MAINTENANCE FOR ANY BEST MANAGEMENT PRACTICES (BMP'S).

D. MAINTAIN A CURRENT COPY OF THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) ON THE SITE AT ALL TIMES. A COPY OF THE SWPPP WILL BE LOCATED AT THE CONSTRUCTION TRAILER AND BE AVAILABLE FOR VIEWING AT ALL TIMES.

15. PRIOR TO ANY MAJOR LAND DISTURBANCE ACTIVITY, A LAND DISTURBANCE PERMIT FROM THE STATE OF MISSOURI DEPARTMENT OF NATURAL RESOURCES AND COUNTY, WILL BE REQUIRED.

16. ANY LAND CLEARING, CONSTRUCTION, OR DEVELOPMENT INVOLVING THE MOVEMENT OF EARTH SHALL BE IN ACCORDANCE WITH THE STORM WATER POLLUTION PREVENTION PLAN.

USER: Austin Eckenfels TAB: SWPP Notes
DATE: October 8, 2020 - 12:02:34 PM
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1/1/2016 Page 140 *Sediment and Erosion Control Manual Standard Drawings*

1 STRAW WATTLE DETAIL
SCALE: N.T.S. **REF. DWG. C8.0**

FIBER ROLLS AND FILTER ROLLS

PHYSICAL DESCRIPTION - A fiber roll, also known as a wattle, consists of straw, flax, coconut fiber (coir), rice straw or other similar materials bound in a tight photodegradable or biodegradable tubular roll or filter sock. A filter roll consists of a biodegradable, coarse composted or filter material bound in a tight photodegradable or biodegradable tubular roll or filter sock. They intercept runoff, reduce flow velocity, remove sediment from the runoff, and reduce soil erosion. Fiber rolls and filter rolls must be prefabricated.

WHERE BMP IS TO BE INSTALLED - Installed on erodible slopes, at top of and toe of slopes, around the perimeter of the site, and around temporary stockpiles, as final barrier to sediment being carried off site. Spacing of rolls along slopes is relative to slope. Filter rolls and fiber rolls may also be used at drain inlets, swales and other concentrated flow areas to prevent sediment, silt, and other solids in storm water runoff from entering the storm sewer system. Rolls may also be used as mini check dams in unlined ditches and swales.

CONDITIONS FOR EFFECTIVE USE OF BMPs

Type of Flow: Sheet flow and concentrated flow
Contributing Slope: For slopes, use the following row spacing:

2:1 (H:V) or steeper:	10 feet
Between 2:1 and 4:1 (H:V):	15 feet
4:1 (H:V) or flatter:	20 feet

WHEN BMP IS TO BE INSTALLED - Prior to disturbance of natural vegetation and at intervals during construction of fill slopes. Fiber rolls and filter rolls should not be used on slopes subject to creep, slumping or landslide. Rolls are difficult to move once saturated.

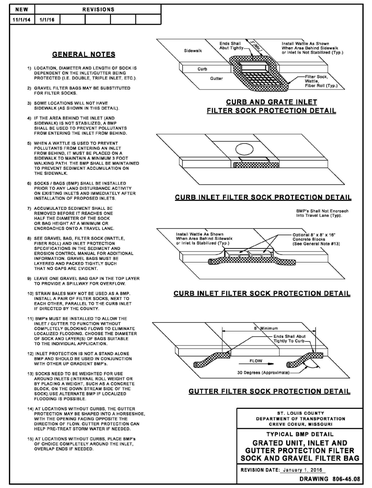
INSTALLATION / CONSTRUCTION PROCEDURES

- ✓ Calculate required roll diameter, length and row spacing based on slope and the manufacturers recommendations.
- ✓ Dig trench to required depth for fiber rolls (filter rolls do not require trench).
- ✓ Place fiber rolls in trench or filter rolls directly on slope.
- ✓ Stake the fiber rolls or filter rolls as shown on detail drawings.
- ✓ Place excavated soil (fiber roll) or filter roll material along the upside of rolls as shown on detail drawings, not to exceed ¼ of the roll diameter.

O&M PROCEDURES

- ✓ Inspect every week and after every storm.
- ✓ Remove sediment buildup deeper than ½ the exposed roll height.
- ✓ Replace or repair split, torn, unraveling, slumping or damaged rolls.
- ✓ Repair or replace unstable or broken wood stakes.
- ✓ Stabilize any areas susceptible to undermining.
- ✓ Extend rows or add additional rolls if necessary to provide adequate protection.

7/1/2018 Page 100 *Sediment and Erosion Control Manual*



1/1/2016 Page 124 *Sediment and Erosion Control Manual Standard Drawings*

2 INLET PROTECTION DETAIL
SCALE: N.T.S. **REF. DWG. C8.0**

INLET PROTECTION - BLOCK & GRAVEL, GRAVEL BAGS, AND FIBER ROLLS

PHYSICAL DESCRIPTION - A temporary sediment control barrier consisting of a short concrete block wall supporting gravel filter media, gravel bags, or fiber rolls around a storm water inlet designed to prevent sediment from entering the storm sewer. Shallow temporary ponding during and after rainfall should be expected. Use an alternate method if flooding of driving lanes, adjacent property, etc. is possible. Block and Gravel (Double Area Inlet), Fiber Roll (Single Curb Inlet), Fiber Roll (Double Curb Inlet), Fiber Roll (Triple Curb Inlet), Fiber Roll (Grated Inlet), or Fiber Roll (Gutter Protection).

WHERE BMP IS TO BE INSTALLED - At inlets where heavy flows are expected and an overflow capacity is necessary to prevent excessive ponding around the structure.

CONDITIONS FOR EFFECTIVE USE OF BMPs

Type of Flow: Sheet flow and concentrated flow
Contributing Area: Maximum of 1 acre

WHEN BMP IS TO BE INSTALLED - Immediately after placement of inlet and before construction starts on existing inlets.

INSTALLATION / CONSTRUCTION PROCEDURES

- ✓ Backfill, compact and uniformly grade area around inlet.
- ✓ Install first row of concrete blocks adjacent to the inlet sill, placing one block on its side on each side of inlet. The blocks are placed against the sill for lateral support and to avoid washouts when overflows occur.
- ✓ If needed for lateral support, install 2 x 4 lumber through vertical block openings.
- ✓ Fill vertical block openings with gravel for stability.
- ✓ Place second row of block offsetting one-half block from the first row, in a brick-like pattern.
- ✓ Fill vertical block openings with gravel.
- ✓ Anchor wire screen over horizontal block openings to support gravel.
- ✓ Place gravel around the blocks.

O&M PROCEDURES

- ✓ Inspect every week and after every storm.
- ✓ Remove sediment accumulation to keep it at least 8 inches from the top of the blocks.
- ✓ Remove trash accumulation at inlet.
- ✓ Repair elements to original configuration as needed.

SITE CONDITIONS FOR REMOVAL - Remove after contributing drainage areas have been adequately stabilized. Restore area to grade and vegetate.

TYPICAL DETAIL - 806-45.02 (Block and Gravel, Single Area Inlet)
806-45.08 (Fiber Roll, Single Curb Inlet)

5/19/2005 22

SEEDING REQUIREMENTS

Dates for Seeding

Permanent Seeding	Jan	Feb	March	April	May	June	July	Aug	Sep	Oct	Nov	Dec
Tall Fescue			O	O	O			O	O			
Smooth Brome			O	O	O			O	O			
Fescue & Brome			O	O	O	O		O	O			
Fescue, Rye & Bluegrass	A	A	O	O	O	P	P	O	O	P	P	A

Temporary Seeding	Jan	Feb	March	April	May	June	July	Aug	Sep	Oct	Nov	Dec
Rye or Sudan	A	A	O	O	O	O	O	O	O	O	A	A
Oats		A	O	O	O	O	O	O	O			

O = Optimum seeding dates
A = Acceptable seeding dates
P = Permitted seeding dates with reseeding 2 months later - Initially use 50% of seed and 75% of fertilizer. Reseed with additional 75% seed and remaining fertilizer.

Minimum Fertilizer and Seeding Rates

Permanent Seeding*	Pounds per acre	Pounds Per 1000 sq. ft.
Tall Fescue	300	7.0
Smooth Brome	200	4.6
Mixture # 1	250	5.7
Mixture # 2	210	4.8

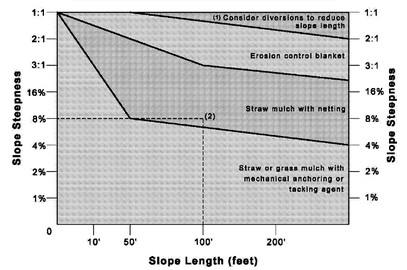
Mixture # 1 = Tall Fescue @ 150 pounds per acre and Brome @ 100 pounds per acre.
Mixture # 2 = Tall Fescue @ 100 pounds per acre; Perennial Rye grass @ 100 pounds per acre; and Kentucky Blue grass @ 110 pounds per acre.
* = Seeding rate for slopes in excess of 20% (5:1), shall be 10 pounds per 1000 sq. ft.

Temporary Seeding	Pounds per acre	Pounds Per 1000 sq. ft.
Rye or Sudan	150	3.5
Oats	200	2.5

Fertilizer	Permanent Seeding (pounds per acre)	Temporary Seeding (pounds per acre)
Nitrogen	45	30
Phosphate	85	30
Potassium	85	30
Lime - ENM	600	600

ENM = Effective neutralizing material per State evaluation of quarried rock.

MULCH SELECTION AS A FUNCTION OF SLOPE



(1) For slopes steeper than 1:1, consider building a diversion above slope to divert water.
(2) Example: An 8% slope, 100 feet long, requires straw mulch with netting

GENERAL MULCH RECOMMENDATIONS TO PROTECT FROM SPLASH AND SHEET FLOW

Material	Rate Per Acre	Requirements	Notes
Straw	2 to 2.5 tons	Dry, unchopped unweathered; avoid weeds	Spread by hand or machine; must be tacked or tied down
Wood Fiber or Wood Cellulose	0.5 to 1 ton		Use with hydro seeder, may be used to tack straw. Do not use in hot, dry weather.
Wood Chips	5 to 8 tons	Air dry. Add nitrogen fertilizer at 12 lb per ton	Apply with blower, chip handler, or by hand. Not for fine turf areas.
Bark	35 cu. yds.	Air dry, shredded, or hammermilled; or chips	Apply with mulch blower, chip handler or by hand. Do not use asphalt tack.

5/19/2005 26

bond architects
222 SOUTH CENTRAL AVE.
SUITE# 501
ST. LOUIS, MO 63105
TEL: 314.863.4994
FAX: 314.863.4996
www.bondarchitectsinc.com
Bond Architects, Inc.
Missouri State Certificate of Authority # 2009027409

COLE & ASSOCIATES, INC.
Civil Engineer
Consultant Project #26-0054
Certificate of Authority #001165
401 S. 18th Street, Suite 200
St. Louis, MO 63103
314.984.9887 tel

RTM Engineering Consultants
MEP / FP Engineer
Consultant Project #26.B002031924
Certificate of Authority #2002028690
3701 S. Lindbergh Blvd.
St. Louis, MO 63127
314.725.5889 tel

Pinchin, LLC
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Certificate of Authority #
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St. Louis, Missouri 63141
314.230.0182 tel

ROSS ELEMENTARY SCHOOL
1150 Ross Ave, St. Louis, MO 63146
Parkway Project #: PN062501B
Building Renovations & Site Improvements

Parkway School District
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314.415.8231 tel

Project No: 26-0054

Revisions

No.	Description	Date
	MSD COMMENTS	09/04/2026

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STANLEY EARL FOWLER JR.
NUMBER PE-2020000037
PROFESSIONAL ENGINEER
CIVIL ENGINEERS
CORPORATE ENGINEERING CERTIFICATE #001165
STANLEY EARL FOWLER, JR.
CIVIL ENGINEER
PE NO: PE--2020000037
10/12/2026

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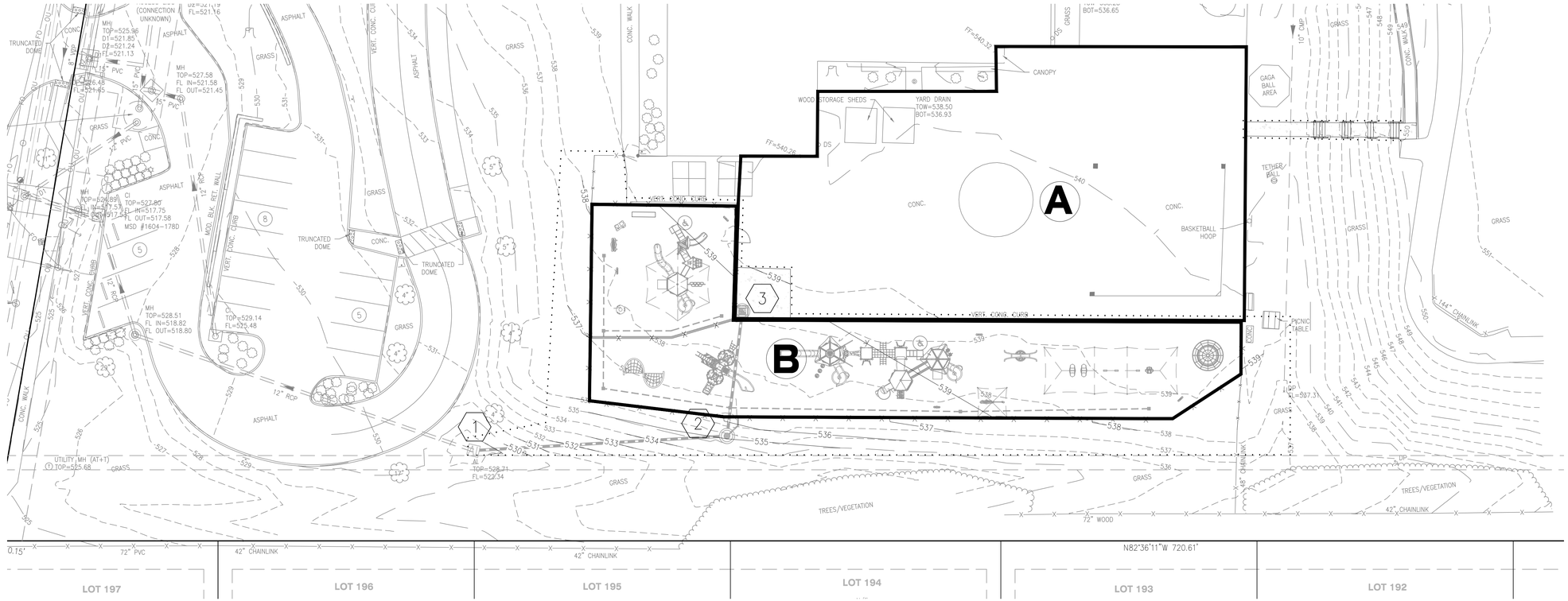
DATE: 10/12/2026

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BASE MAP: 16O
MSD P.NO. 26WSD-00362

STORMWATER POLLUTION PREVENTION PLAN DETAILS

C8.1



INLET DRAINAGE AREA TABLE												
Designation	Pervious (sf)	Impervious (sf)	Total Area (sf)	Pervious (ac)	Impervious (ac)	TOTAL AREA (ACRES)	IMPERV %	PI (100 yr, 20 min)	PI (15 yr, 20 min)	Q100 (cfs)	Q15 (cfs)	DRAINAGE AREA TRIBUTARY STRUCTURE
A	-	15,058	15,058	-	0.35	0.35	100.0%	4.77	3.54	1.65	1.22	GRATED INLET 3
B	-	9,493	9,493	-	0.22	0.22	100.0%	4.77	3.54	1.04	0.77	GRATED INLET 3

STORMWATER MANAGEMENT NOTE:

LAND AREA DISTURBED = ±0.82 ACRES

NOTES:

1. ANY FUTURE LAND DISTURBANCE AND/OR INCREASE IN IMPERVIOUS AREA ON THIS SITE MAY REQUIRE ADDITIONAL STORM WATER MANAGEMENT PER MSD REGULATIONS IN PLACE AT THAT TIME.
2. DURING CONSTRUCTION, SITE RUNOFF SHALL NOT FLOW INTO THE BIORETENTION OR THE PERMEABLE PAVEMENT AREAS. ALL STORMWATER FLOW TO THE BMP AREAS SHALL BE DIVERTED, PLUGGED, OR DISCONNECTED UNTIL THE CONSTRUCTION SITE IS STABLE AND THE MSD INSPECTOR PROVIDES APPROVAL TO PLACE THE BMP(S) ONLINE.

THIS SHEET IS FOR DRAINAGE CALCULATION PURPOSES ONLY AND NOT TO BE USED AS CONSTRUCTION PLANS

bond architects
222 SOUTH CENTRAL AVE.
SUITE# 501
ST. LOUIS, MO 63105
TEL: 314.863.4994
FAX: 314.863.4996
www.bondarchitectsinc.com
Bond Architects, Inc.
Missouri State Certificate of Authority # 2009027409

COLE & ASSOCIATES, INC.
Civil Engineer
Consultant Project #26-0054
Certificate of Authority #001165
401 S. 18th Street, Suite 200
St. Louis, MO 63103
314.984.9887 tel

RTM Engineering Consultants
MEP / FP Engineer
Consultant Project #26.B002031924
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Parkway School District
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314.415.8231 tel

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STANLEY EARL FOWLER, JR.
CIVIL ENGINEER
PE NO: PE-2020000037
10/12/2026

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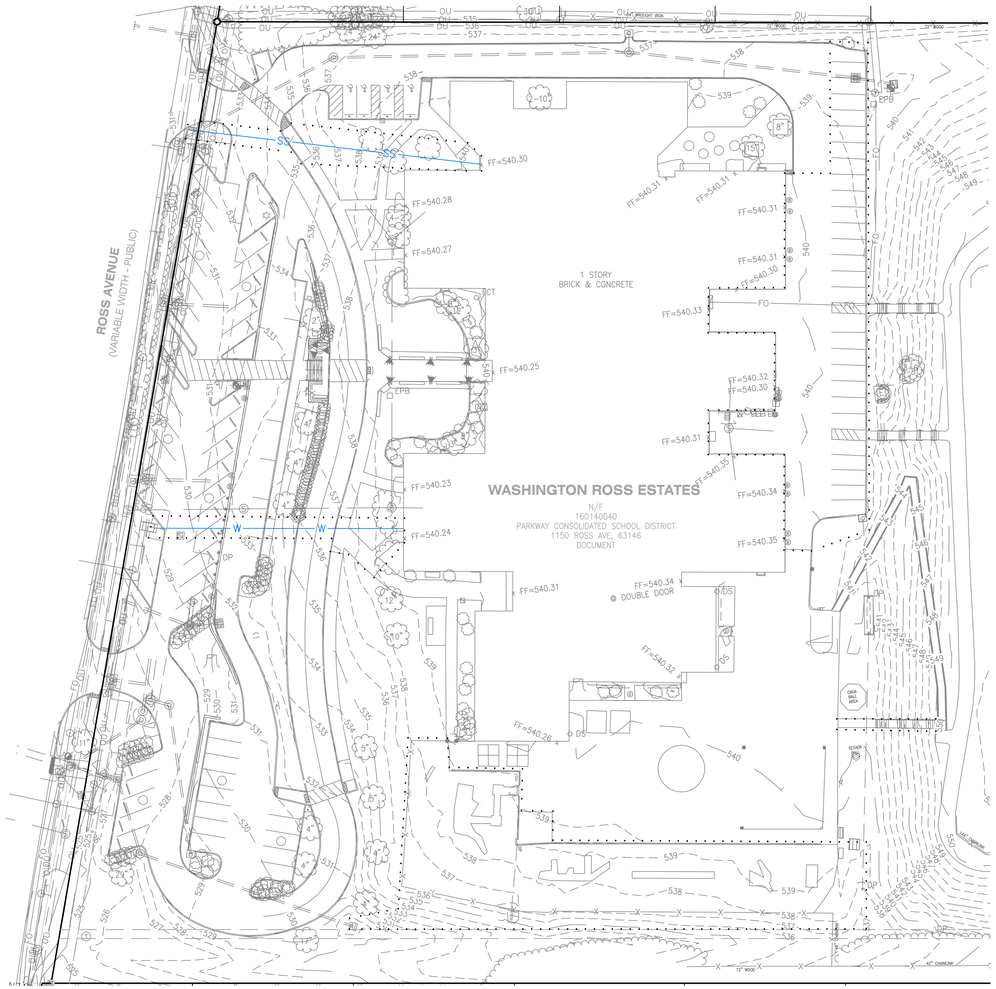
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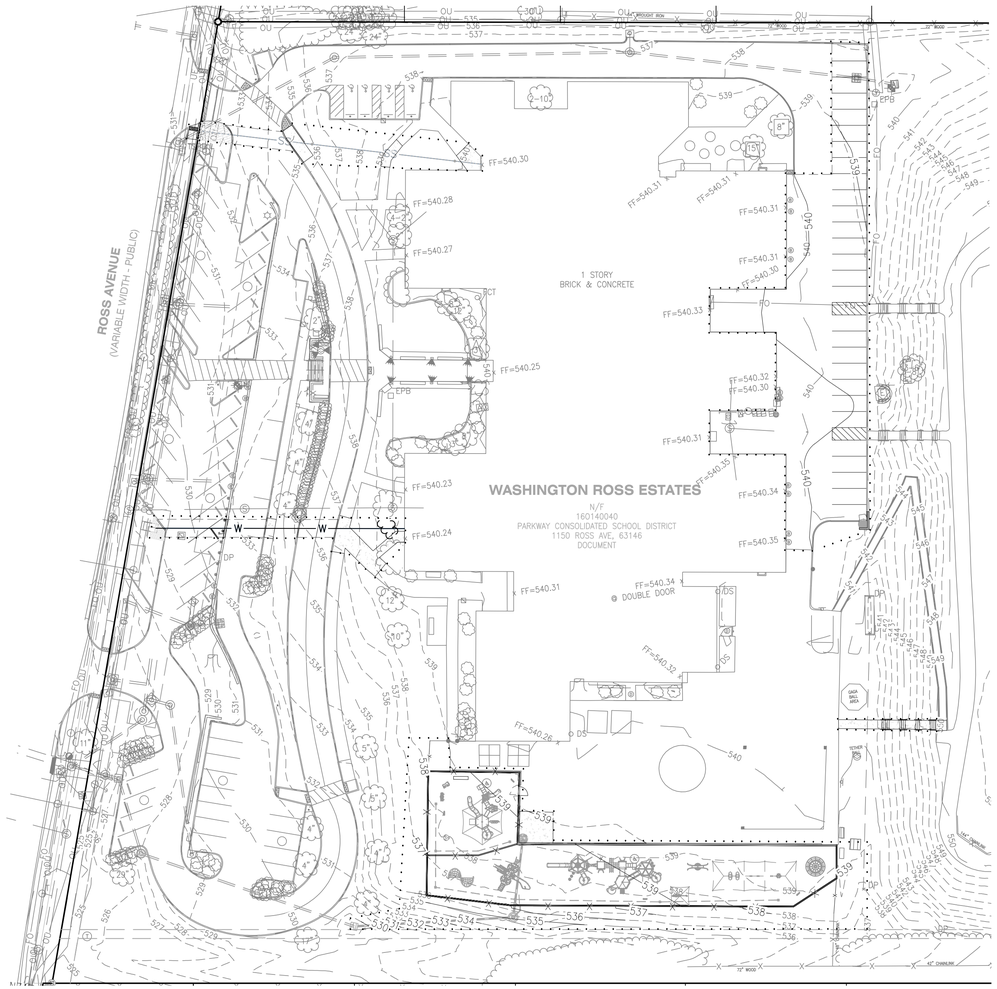
INLET DRAINAGE AREA MAP

C9.0

BASE MAP: 16O
MSD P.NO. 26MSD-00362

USER: Austin Fetterhoff 7AB_PAM
DATE: October 8, 2026 - 12:03:55 PM
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LEGEND

RECORD DRAWINGS

40' 0' 40' 80'

SCALE: 1" = 40'

PRE DEVELOPED CONDITIONS (0.82 AC)

PERVIOUS AREA = 0.20 AC.
x PI=1.70 (15 YR)
TOTAL PERVIOUS AREA CFS = 0.34 CFS

PERVIOUS AREA (MULCH) = 0.25 AC.
x PI=2.00 (15 YR)
TOTAL PERVIOUS (MULCH) AREA = 0.50 CFS

IMPERVIOUS AREA = 0.37 AC.
x PI=3.54 (15 YR)
TOTAL IMPERVIOUS AREA CFS = 1.31 CFS

TOTAL = 2.15 CFS

POST DEVELOPED CONDITIONS (0.82 AC)

PERVIOUS AREA = 0.26 AC.
x PI=1.70 (15 YR)
TOTAL PERVIOUS AREA CFS = 0.44 CFS

IMPERVIOUS AREA (RUBBERIZED SURFACE) = 0.21 AC.
x PI=3.24 (15 YR)
TOTAL IMPERVIOUS AREA (RUBBERIZED SURFACE) = 0.68 CFS

IMPERVIOUS AREA = 0.35 AC.
x PI=3.54 (15 YR)
TOTAL IMPERVIOUS AREA CFS = 1.24 CFS

TOTAL=2.36 CFS

DIFFERENTIAL RUNOFF CALCULATIONS (15YR)

PRE DEVELOPED CONDITIONS	**2.15 CFS**
POST DEVELOPED CONDITIONS	**2.36 CFS**
DIFFERENTIAL RUNOFF RATE	**+0.21 CFS**

IMPERVIOUS AREA INCREASE = 0.19 ACRES
DISTURBED AREA = 0.82 ACRES

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bond architects
222 SOUTH CENTRAL AVE.
SUITE# 501
ST. LOUIS, MO 63105
TEL: 314.863.4994
FAX: 314.863.4996
www.bondarchitectsinc.com
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Civil Engineer
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CIVIL ENGINEER
PE NO: PE-2020000037
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PRE-POST DRAINAGE AREA MAP

C9.1

BASE MAP: 16O
MSD P.NO. 26MSD-00362

USER: Austin Fetterhoff TAB: PRE_POST
DATE: October 8, 2026 - 12:05:48 PM
DRAWING: S:\JOBS\Jobs2026\26-0054\CADD\C-Plan\PlotSheets\C_LPLAN_DAM_26-0054.dwg

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10/9/2026 12:59:52 PM

Area Schedule (Life Safety)

Name	Location	Function of Space	Area	Area per Occupant	Calculated Occupancy
A.V. STORAGE		ASSM	226 SF	300	1
ALL PURPOSE ROOM		ASSEMBLY UNCONCENTRATED	3626 SF	15	242
BOILER ROOM		ASSM	620 SF	300	3
CLASSROOM		CLASSROOM	795 SF	20	40
CLASSROOM		CLASSROOM	795 SF	20	40
CLASSROOM		CLASSROOM	803 SF	20	41
CLASSROOM		CLASSROOM	805 SF	20	41
CLASSROOM		CLASSROOM	810 SF	20	41
CLASSROOM		CLASSROOM	662 SF	20	34
CLASSROOM		CLASSROOM	798 SF	20	40
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CLASSROOM		CLASSROOM	798 SF	20	40
CLASSROOM		CLASSROOM	812 SF	20	41
CLASSROOM		CLASSROOM	941 SF	20	48
CLASSROOM		CLASSROOM	805 SF	20	41
CLASSROOM		CLASSROOM	810 SF	20	41
CLASSROOM		CLASSROOM	795 SF	20	40
CLASSROOM		CLASSROOM	805 SF	20	41
CLASSROOM		CLASSROOM	803 SF	20	41
CLASSROOM		CLASSROOM	795 SF	20	40
CLASSROOM		CLASSROOM	795 SF	20	40
CLASSROOM		CLASSROOM	795 SF	20	40
CLASSROOM		CLASSROOM	803 SF	20	41
CLASSROOM		CLASSROOM	805 SF	20	41
CLASSROOM		CLASSROOM	797 SF	20	40
CLASSROOM		CLASSROOM	810 SF	20	41
COMPUTER CLASSROOM		CLASSROOM	574 SF	20	29
COUNSELOR		OFFICE	266 SF	100	3
COURTYARD		COURTYARD	927 SF		
COURTYARD		COURTYARD	927 SF		
COURTYARD PLANTER		COURTYARD	47 SF		
GIFTED CLASSROOM		CLASSROOM	281 SF	20	15
GYMNASIUM		EXERCISE	3983 SF	50	80
INSTRUMENTAL MUSIC		CLASSROOM	890 SF	20	45
JAN.		ASSM	32 SF	300	1
JAN.		ASSM	32 SF	300	1
JAN.		ASSM	32 SF	300	1
JAN.		ASSM	88 SF	300	1
JAN.		ASSM	32 SF	300	1
JAN.		ASSM	32 SF	300	1
KILN RM.		ASSM	24 SF	300	1
KINDERGARTEN CLASSROOM		CLASSROOM	1014 SF	20	51
KINDERGARTEN CLASSROOM		CLASSROOM	1014 SF	20	51

Area Schedule (Life Safety)

Name	Location	Function of Space	Area	Area per Occupant	Calculated Occupancy
KITCHEN		KITCHEN	506 SF	200	3
KITCHEN STORAGE		ASSM	353 SF	300	2
LIBRARY OFFICE		OFFICE	259 SF	100	3
NUCLEUS		* ACCESSORY	428 SF	0	
NUCLEUS		* ACCESSORY	410 SF	0	
NUCLEUS		* ACCESSORY	423 SF	0	
NUCLEUS		* ACCESSORY	425 SF	0	
NUCLEUS		* ACCESSORY	424 SF	0	
NUCLEUS		* ACCESSORY	410 SF	0	
NURSE		OFFICE	144 SF	100	2
NURSE'S OFFICE		OFFICE	86 SF	100	1
OFFICE		OFFICE	294 SF	100	3
OFFICE		OFFICE	427 SF	100	5
P.E. OFFICE		OFFICE	164 SF	100	2
PRINCIPAL'S OFFICE		OFFICE	160 SF	100	2
READING RM.		READING ROOM	243 SF	50	5
RESOURCE AREA		LIBRARY - STACKS	2511 SF	100	26
SICK BAY		OFFICE	38 SF	100	1
SPEECH		CLASSROOM	210 SF	20	11
STOR.		ASSM	104 SF	300	1
STOR.		ASSM	137 SF	300	1
STOR.		ASSM	141 SF	300	1
STOR.		ASSM	42 SF	300	1
STOR.		ASSM	63 SF	300	1
STOR.		ASSM	230 SF	300	1
STOR.		ASSM	88 SF	300	1
STOR.		ASSM	105 SF	300	1
STOR.		ASSM	106 SF	300	1
STOR.		ASSM	60 SF	300	1
STOR.		ASSM	42 SF	300	1
STOR.		ASSM	60 SF	300	1
STOR.		ASSM	107 SF	300	1
STORAGE		ASSM	107 SF	300	1
STORAGE		ASSM	73 SF	300	1
STORAGE		ASSM	76 SF	300	1
STORAGE		ASSM	77 SF	300	1
TEACHER'S LOUNGE		ASSEMBLY UNCONCENTRATED	448 SF	15	30
VOCAL MUSIC		CLASSROOM	767 SF	20	39
Grand total: 82					1688

CODE REVIEW

ST LOUIS COUNTY APPLICABLE CODES:
2015 - INTERNATIONAL BUILDING CODE (IBC)
2015 - INTERNATIONAL EXISTING BUILDING CODE (IEBC)
2014 - NATIONAL ELECTRICAL CODE (NEC)
2015 - UNIFORM PLUMBING CODE (UPC)
2015 - INTERNATIONAL MECHANICAL CODE (IMC)
2015 - INTERNATIONAL ENERGY CONSERVATION CODE
2015 - INTERNATIONAL FUEL GAS CODE (IFGC)
ZONING R3 , UNINCORPORATED ST LOUIS COUNTY
LOCATOR#16O140040, LAND USE 681, MUNICODE 000

CREVE COEUR FIRE PROTECTION DISTRICT APPLICABLE CODES:
2021 - INTERNATIONAL BUILDING CODE (IBC)
2021 - INTERNATIONAL FIRE CODE (IFC) & LOCAL ORDINANCES

GENERAL SCOPE OF WORK: THIS PROJECT CONSISTS OF:
PAVEMENT & SITE WORK IMPROVEMENTS INCLUDING: REPLACEMENT OF PARKING LOT & DRIVE, REPLACEMENT OF SIDEWALKS, REPLACEMENT OF EXTERIOR STAIRS AND RAILING, REMOVAL AND REPLACEMENT OF PLAYGROUND EQUIPMENT AND IMPROVEMENTS, DOMESTIC WATER LINE AND SANITARY SEWER REPLACEMENT, AND HVAC REPLACEMENT OF HOT WATER BOILERS & PUMPS AND ASSOCIATED EQUIPMENT.

CODE REVIEW:
WORK IS LIMITED TO MINOR ALTERATIONS TO AN EXISTING FACILITY.
WORK OCCURS IN EXISTING 620 S.F. EXISTING BOILER ROOM ONLY.
THERE IS NO CHANGE TO AREA, HEIGHT OF BUILDING OR OCCUPANCY LOAD, NO CHANGE TO CONFIGURATION, TRAVEL DISTANCE, PATH OF EGRESS, EGRESS WIDTHS, NUMBER OR CAPACITY OF EXITS.

RENOVATION, SPRINKLERED - NO
EXISTING BUILDING USE GROUP (305): EDUCATIONAL GROUP E
EXISTING BUILDING CONSTRUCTION TYPE (602.2): II-B
(NOTE: ASSEMBLY SPACES SUCH AS CAFETERIA , AUDITORIUMS, GYMS, LIBRARIES AND SIMILAR SPACES ARE ANCILLARY TO EDUCATION OCCUPANCY, DO NOT CONSTITUTE SEPARATE OCCUPANCIES FOR THE PURPOSE OF MIXED USE CALCULATIONS.)

ACTUAL EXISTING BUILDING HEIGHT (NO CHANGE) = 23', 1 STORY
ACTUAL EXISTING BUILDING AREA (NO CHANGE) = 54,772 SF
SCOPE OF WORK AREA FOR BOILER ROOM = 620 S.F.
NO CHANGE PROPOSED TO BUILDING AREA OR HEIGHT.

EXISTING FIRE-RESISTANCE RQMTS. FOR BUILDING ELEMENTS:
(PER 2015 IBC TABLE 601)

PRIMARY STRUCTURAL FRAME	0
BEARING WALLS	
EXTERIOR	0
INTERIOR	0
NONBEARING WALLS & PARTITIONS	
EXTERIOR (IBC 2015 T 602, 2021 T 705.5)	0
INTERIOR	0
FLOOR CONSTRUCTION & SECONDARY MEMBERS	0
ROOF CONSTRUCTION & SECONDARY MEMBERS	0

CORRIDOR (>30) OCC SEPARATION (TABLE 1020.1)
(NS) 1 HR.

LEGEND

1 HOUR FIRE BARRIER
2 HOUR FIREWALL

STORM SHELTER AREA

EGRESS ACTUAL / MAX CAPACITY — EGRESS CAPACITY OF DOOR & DIRECTION

EGRESS ACTUAL / MAX CAPACITY — EGRESS CAPACITY OF STAIR & DIRECTION

FEC — FIRE EXTINGUISHER CABINET

NAME OF SPACE
FUNCTION
PER TABLE 1004.1.1
AREA (SF)
AREA OF SPACE

bond architects
222 SOUTH CENTRAL AVE.
SUITE# 501
ST. LOUIS, MO 63105
TEL: 314.863.4994
FAX: 314.863.4996
www.bondarchitectsinc.com
Bond Architects, Inc.
Missouri State Certificate of Authority # 2009027409

COLE & Associates, Inc.
Civil Engineer
Consultant Project #26-0054
Certificate of Authority #001165
401 S. 18th Street, Suite 200
St. Louis, MO 63103
314.984.9887 tel

RTM Engineering Consultants
MEP / FP Engineer
Consultant Project #26.B002031924
Certificate of Authority #2002028690
3701 S. Lindbergh Blvd.
St. Louis, MO 63127
314.725.5889 tel

Pinchin, LLC
HAZ MAT Consultant
Consultant Project #R262.00457.001
Certificate of Authority #
2 Cityplace Drive, Suite 195,
St. Louis, Missouri 63141
314.230.0182 tel

ROSS ELEMENTARY SCHOOL
1150 Ross Road, St Louis, MO 63146
Parkway Project #: PN062501B
Building Renovations & Site Improvements

Parkway School District
363 N. Woods Mill Rd., Chesterfield, MO 63017
314.415.8231 tel

Project No: 26017

Revisions

No.	Description	Date

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STATE OF MISSOURI
MICHELLE R. WELLS
NUMBER A-2021031961
ARCHITECT
10/12/26

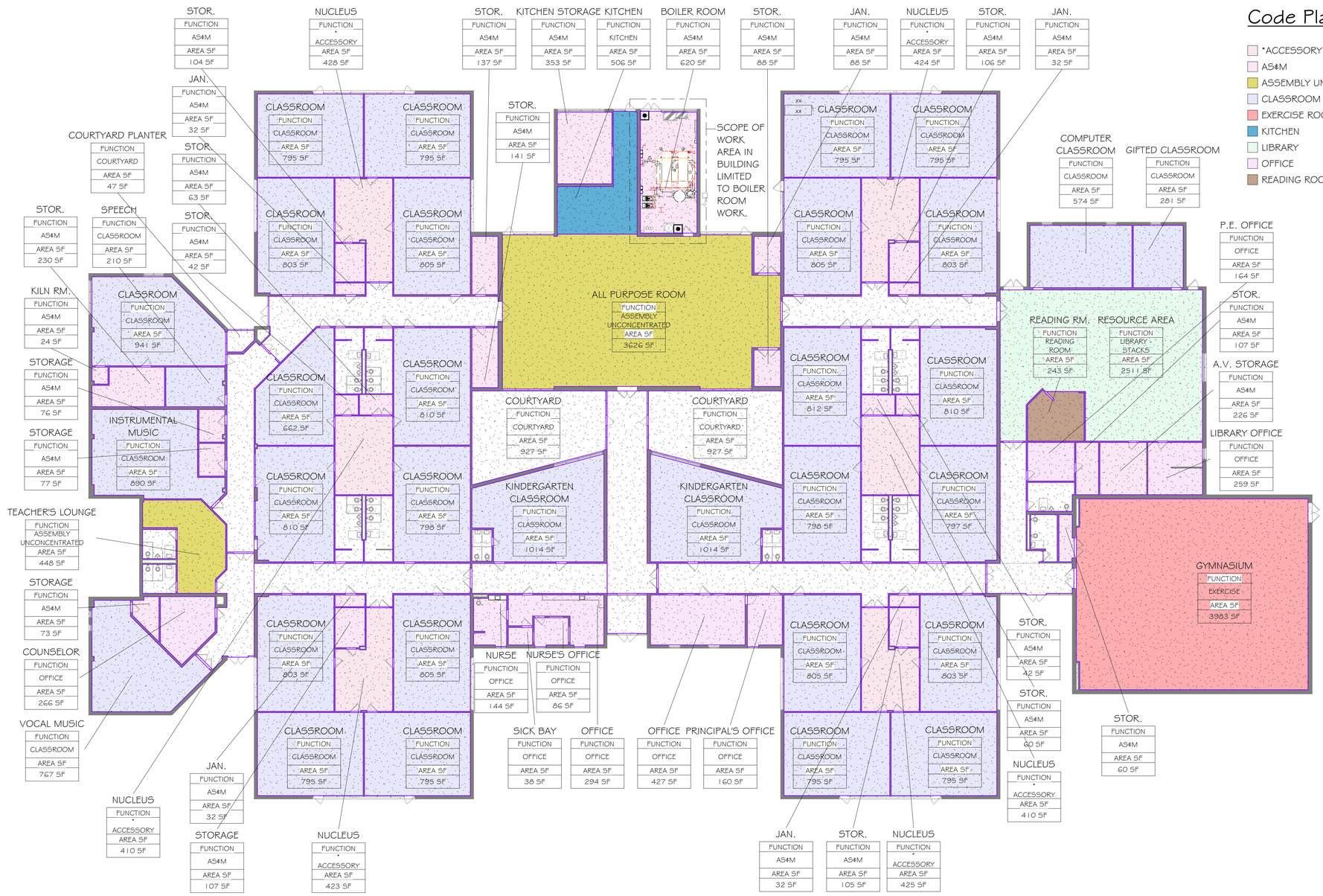
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CODE PLAN

A0.1



Code Plan Legend

- *ACCESSORY (ACCESSORY STORAGE & MECHANICAL)
- AS#M
- ASSEMBLY UNCONCENTRATED
- CLASSROOM
- EXERCISE ROOM
- KITCHEN
- LIBRARY
- OFFICE
- READING ROOM

N

1 AO.2 Level 1 - Life Safety Plan

1/16" = 1'-0"

SCALE: 1/16" = 1'-0"

0 8' 16' 32'

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bond architects

222 SOUTH CENTRAL AVE.
SUITE# 501
ST. LOUIS, MO 63105
TEL: 314.863.4994
FAX: 314.863.4996
www.bondarchitectsinc.com
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Parkway Project #: PN062501B
Building Renovations & Site Improvements

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LIFE SAFETY PLAN

A0.2

STANDARD ABBREVIATIONS

&	And
@	At
ABV	Above
ACT	Acoustic Ceiling Tile
ADA	American with Disabilities Act
ADJ	Adjacent
AFF	Above Finish Floor
ALUM	Aluminum
APROX	Approximate
BLDG	Building
BLK	Block
BLKG	Blocking
BM	Beam
BO	Bottom Of
CAB	Cabinetry
CB	Chalk Board
CJ	Construction/Control Joint
CL	Center Line
CLG	Ceiling
CLR	Clear
CMU	Concrete Masonry Unit
CO	Clean Out
COL	Column
CONC	Concrete
CONST	Construction
CONT	Continuous
CPT	Carpet
CPCI	Contractor Provided Contractor Installed
CPOI	Contractor Provided Owner Installed
CSDO	Cased Opening
CT	Ceramic Tile
DF	Drinking Fountain
DIA	Diameter
DR	Door
DS	Downspout
DTL	Detail
DWG	Drawing
EJ	Expansion Joint
EL	Elevation
ELEC	Electrical
ELEV	Elevator
EQ	Equal
EQIV	Equivalent
EWC	Electric Water Cooler
EXIST	Existing
EXP	Exposed
EXT	Exterior
FD	Floor Drain
FEC	Fire Extinguisher Cabinet
FIN	Finish
FLR	Floor
FO	Face Of
FT	Feet
FRT	Fire Retardant Treated
FTG	Footing
GC	General Contractor
GFI	Ground Fault Interrupter
GYP	Gypsum Board
HDR	Header
HM	Hollow Metal
HORZ	Horizontal
HR	Hour
HVAC	Heating Ventilating and Air Conditioning
ID	Inside Diameter
INSUL	Insulation
INT	Interior
JAN	Janitor
LAV	Lavatory (Sink)
MB	Marker Board
MDF	Medium Density Fiberboard
MECH	Mechanical
MFR	Manufacturer
MIN	Minimum
MISC	Miscellaneous
MO	Masonry Opening
MTL	Metal
NIC	Not In Contract
NTS	Not To Scale
OC	On Center
OD	Outside Diameter
OH	Opposite Hand
OPCI	Owner Provided Contractor Installed
OPNG	Opening
OPP	Opposite
OPOI	Owner Provided Owner Installed
OSB	Oriented Strand Board
PL	Plate
PLAM	Plastic Laminate
PLAS	Plaster
PLUM	Plumbing
PLYWD	Plywood
PNT	Paint
PRLAM	Parallam
PT	Porcelain Tile
PVC	Polyvinyl Chloride
QT	Quarry Tile
QTY	Quantity
R	Riser
RB	Rubber Base
RD	Roof Drain
REINF	Reinforcing
REQD	Required
RM	Room
RO	Rough Opening
SC	Solid Core
SECT	Section
SHT	Sheet
SIM	Similar
SPEC	Specification
SSTL	Stainless Steel
STD	Standard
STL	Steel
STOR	Storage
STRUC	Structural
SV	Sheet Vinyl
T	Tread
TB	Tack Board
TNG	Tongue & Groove
TO	Top Of
TYP	Typical
UNO	Unless Noted Otherwise
VB	Vinyl Base
VCT	Vinyl Composition Tile
VERT	Vertical
VIF	Verify In Field
VWC	Vinyl Wall Covering
w/	With
w/o	Without
WC	Water Closet (Toilet)
WD	Wood
WDW	Window
WPR	Waterproofing
WWF	Welded Wire Fabric

SCALE: 3" = 1'-0"
SCALE: 1 1/2" = 1'-0"
SCALE: 1" = 1'-0"
SCALE: 3/4" = 1'-0"
SCALE: 1/2" = 1'-0"
SCALE: 1/4" = 1'-0"
SCALE: 1/8" = 1'-0"
SCALE: 1/16" = 1'-0"

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GENERAL NOTES

1. VERIFY AND COORDINATE ALL DIMENSIONS AT JOB SITE FOR COMPARISON WITH DRAWINGS AND SPECIFICATIONS PRIOR TO BIDDING AND START OF AND DURING CONSTRUCTION. IF ANY DISCREPANCIES, INCONSISTENCIES OR OMISSIONS ARE FOUND, THE ARCHITECT SHALL BE NOTIFIED, IN WRITING, FOR CLARIFICATION PRIOR TO PROCEEDING WITH WORK. IN THE ABSENCE OF A WRITTEN DIMENSION, OR IN CASE OF DOUBT AS TO THE PROPER MEASUREMENT, CONSULT THE ARCHITECT FOR CLARIFICATION.
2. IF DISCREPANCIES ARE FOUND WITHIN CONTRACT DOCUMENTS AND PROJECT MANUAL, OR IN THE CASE OF CONFLICT BETWEEN THE DRAWINGS AND THE SPECIFICATIONS, THE MOST DEMANDING AND/OR COST INTENSIVE REQUIREMENT SHALL TAKE PRECEDENCE UNLESS OTHERWISE AGREED BY THE ARCHITECT IN WRITING. NOTIFY THE ARCHITECT & GENERAL CONTRACTOR OF ANY CONFLICT AND GET CLARIFICATION FROM ARCHITECT BEFORE PROCEEDING WITH THE WORK.
3. DO NOT SCALE DRAWINGS. RELY ON WRITTEN DIMENSIONS GIVEN. NOTIFY THE ARCHITECT FOR CLARIFICATIONS. ALL DIMENSIONS SHALL BE FIELD VERIFIED AND COORDINATED WITH ALL OF THE WORK OF ALL TRADES. IF DISCREPANCIES ARE FOUND, NOTIFY THE ARCHITECT IN WRITING FOR CLARIFICATION BEFORE THE COMMENCEMENT OR RESUMPTION OF WORK.
4. VERIFY ALL COLUMN COORDINATES AND CHECK AGAINST DIMENSIONS SHOWN ON PLANS AND DETAILS.
5. IN THE CASE OF CONFLICT BETWEEN THE DRAWINGS AND THE SPECIFICATIONS, NOTIFY THE ARCHITECT IN WRITING. NOTIFY THE CONSTRUCTION MANAGER/GENERAL CONTRACTOR OF ANY CONFLICT AND GET CLARIFICATION FROM ARCHITECT BEFORE PROCEEDING WITH THE WORK.
6. ABBREVIATIONS THROUGHOUT THE PLANS ARE THOSE IN COMMON USE. NOTIFY THE ARCHITECT OF ANY ABBREVIATIONS IN QUESTION.
7. DIMENSIONS SHOWN ON FLOOR PLANS, SECTIONS, ELEVATIONS, AND DETAILS ARE TO FINISH FACE OF PARTITIONS, MASONRY, OR COLUMN GRID LINES, UNLESS OTHERWISE NOTED.
8. PROVIDE AND INSTALL ACCESS PANELS WHERE SHOWN ON THE REFLECTED CEILING PLANS AND AS REQUIRED BY BUILDING CODE OR FOR THE PROPER OPERATION OR MAINTENANCE OF MECHANICAL OR ELECTRICAL EQUIPMENT, WHETHER OR NOT INDICATED ON THE DRAWINGS. COORDINATE SIZE, LOCATION, AND TYPE OF ACCESS PANEL WITH OTHER WORK AND RECEIVE APPROVAL OF THE ARCHITECT. ACCESS PANEL SHALL BE AS SPECIFIED.
9. PATCH/ REPAIR/ INFILL DAMAGED SUBSTRATES OR HOLES DUE TO DEMOLITION OR NEW CONSTRUCTION. PROVIDE SMOOTH FLUSH SURFACES WHERE PATCHED. ANY REQUIRED FIRE RATINGS ARE TO BE MAINTAINED.
10. INSTALL ALL WORK PLUMB, LEVEL, TRUE, SQUARE, STRAIGHT AND IN PROPER ALIGNMENT WITH NO DISTORTIONS, PROVIDE SHIMS AS REQUIRED.
11. INSTALLATION OF SUSPENDED CEILING SYSTEMS SHALL MEET LOCAL CODE REQUIREMENTS FOR SEISMIC BRACING.
12. WHERE INDICATED ON THE DRAWINGS, PROVIDE ACOUSTIC BLANKETS IN PARTITIONS TIGHT WITHIN SPACE, AROUND CUT OPENINGS, BEHIND AND AROUND ELECTRICAL AND MECHANICAL ITEMS WITHIN OR BEHIND PARTITIONS, AND TIGHT TO ITEMS PASSING THROUGH PARTITIONS.
13. ALL STAIRS AND SHAFTS TO BE RATED 1HR UNLESS NOTED OTHERWISE. SEAL ALL PENETRATIONS PER UL STANDARD ASSEMBLIES OR EQUAL BY APPROVED AGENCY
14. ALL CONCEALED WOOD (PLYWOOD SHEATHING, BLOCKING, ETC.) TO BE FIRE TREATED.
15. PROVIDE FIRE TREATED 2 INCH X 6 INCH NOMINAL WOOD BLOCKING OR EQUIVALENT METAL STRAPPING RUNNING CONTINUOUSLY BETWEEN STUDS FOR ALL WALL HUNG EQUIPMENT OR OTHER ITEMS ATTACHED TO GYPSUM WALL BOARD PARTITIONS.
16. WHERE FIRE EXTINGUISHER CABINETS AND OTHER EQUIPMENT ARE RECESSED IN FIRE RATED PARTITIONS, MODIFY PARTITIONS AS REQUIRED TO PROVIDE CONTINUOUS ENCLOSURE TO ENSURE UNINTERRUPTED FIRE RATING.
17. PROVIDE AND INSTALL ALL STIFFENERS, BRACING, BACK-UP PLATES AND SUPPORTING BRACKETS REQUIRED FOR THE INSTALLATION OF ALL CASEWORK, TOILET ACCESSORIES AND OF ALL FLOOR-MOUNTED OR SUSPENDED MECHANICAL AND ELECTRICAL EQUIPMENT.
18. PROVIDE FIRE SAFING INSULATION PER UL LISTED REQ'D AT ALL PIPE, DUCT, ELECTRICAL, ETC., PENETRATIONS THROUGH CONCRETE FLOOR SLABS AND AT FIRE AND SMOKE WALLS.
19. ALL DUCT PENETRATIONS THROUGH PARTITIONS AND CEILING SHALL BE PROVIDED WITH NECESSARY FRAMES AND BRACING AROUND THE OPENING AND SHALL BE PROVIDED WITH AUTOMATIC FIRE DAMPERS AS REQUIRED BY THE BUILDING DEPARTMENT FOR FIRE-RATED PARTITIONS.
20. ALL EXPOSED STEEL ANGLES, PLATES, ETC., SHALL BE GALVANIZED FOR CORROSION RESISTANCE UNLESS NOTED OTHERWISE.
21. NOTIFY ARCHITECT OF DISCREPANCIES BETWEEN TYPICAL ELEVATION MOUNTING HEIGHTS/LOCATIONS AND MANUFACTURER'S RECOMMENDATIONS FOR ADA COMPLIANCE PRIOR TO INSTALLATION.
22. CONTRACTOR TO RETAIN FLOATABLE WIND BLOWN MATERIALS ON SITE BY STORING ALL TRASH AND BUILDING MATERIAL WASTE IN ENCLOSURES UNTIL PROPER DISPOSAL AT AN OFF-SITE FACILITY. CONTRACTOR TO CHECK ADJACENT AREAS DAILY AND PICK UP CONSTRUCTION WASTE MATERIAL AND DEBRIS THAT HAVE BLOWN OR WASHED OFF-SITE.
23. ALIGN FINISH FACE OF NEW PARTITION WITH FINISH FACE OF FURRED OUT PARTITION, UON.
24. CONTRACTOR TO VERIFY FLOOR FLATNESS AFTER DEMO AND PARTITIONS AND STOREFRONTS ARE MARKED ON FLOOR. IF FLOOR IS OUT OF FLATNESS BY MORE THAN SPECIFIED IN 03 30 00, APPLY HYDRAULIC CEMENT UNDERLAYMENT SPECIFIED IN 03 54 16 TO CORRECT FLOOR PRIOR TO CONSTRUCTION OF ALL PARTITIONS AND STOREFRONTS. PROVIDE UNIT COST.
25. CONTRACTOR IS RESPONSIBLE FOR PROVIDING TEMPORARY PROTECTION, FENCING AND PARTITIONS AS NECESSARY
26. IF HAZARDOUS MATERIAL IS ENCOUNTERED NOTIFY ARCHITECT & OWNER IMMEDIATELY.
27. TYPICAL DETAILS THROUGHOUT THE DRAWING SET SHALL APPLY FOR ALL APPLICABLE CONDITIONS EVEN IF NOT SPECIFICALLY SHOWN OR REFERENCED.
28. ALL WALL MOUNTED DEVICE LOCATIONS SHALL BE COORDINATED BY THE GENERAL CONTRACTOR WITH ALL OTHER SUB-CONTRACTORS SO THAT THEY ARE INSTALLED IN AN ORDERLY MANNER (I.E. LIGHT SWITCHES, RECEPTACLES, FIRE ALARM DEVICES, COMMUNICATION DEVICES, THERMOSTATS, ETC.).

ELEVATION SYMBOL LEGEND

- WINDOW TYPE
- DOOR NUMBER
- REFER TO KEYNOTE LEGEND
- CONCRETE MASONRY
- BRICK MASONRY
- METAL PANELS
- PRECAST STONE

PLAN SYMBOLS LEGEND

- EXISTING CONSTRUCTION TO REMAIN
- EXISTING CONSTRUCTION TO BE REMOVED
- NEW CONSTRUCTION

ROOF SYMBOLS LEGEND

- EXISTING MECHANICAL UNIT
- NEW MECHANICAL UNIT
- ROOF DRAIN
- SPLASH PAN
- GAS VENT

SYMBOL LEGEND

- SECTION NUMBER / SHEET NAME (1 / A1.0)
- ELEVATION NUMBER / SHEET NAME (1 / A1.0)
- REVISION CLOUD & NUMBER
- BREAKLINE
- PLAN MATCHLINE (1/A102 / 1/A101)
- OUTLINE OF HIDDEN OBJECTS, NIC ITEMS, REMOVED MATERIALS
- CENTER LINE OR FLOOR LINE
- COLUMN GRID LINE (O)
- TRUE NORTH (N)
- ROOM TAG (ROOM NAME / 101)
- DOOR TAG (0000)
- WINDOW TAG (D)
- KEYNOTE
- CEILING HEIGHT TAG (1'-0")
- WALL PARTITION TYPE (2a)
- ELEVATION (LEVEL NAME / ELEVATION)

bond architects
222 SOUTH CENTRAL AVE.
SUITE# 501
ST. LOUIS, MO 63105
TEL: 314.863.4994
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Revisions

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MICHELLE R. WELLS
NUMBER A-2021031961
ARCHITECT
10/12/26

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GENERAL NOTES & SYMBOLS

A0.3

SCALE: 3" = 1'-0"

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

SCALE: 1" = 1'-0"

SCALE: 3/4" = 1'-0"

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

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

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

SCALE: 1/16" = 1'-0"

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HAZARDOUS MATERIALS GENERAL NOTES:

ABATEMENT AND HAZARDOUS MATERIALS NOTED IN THESE DOCUMENTS HAVE BEEN PROVIDED BY PARKWAY SCHOOL DISTRICT'S ABATEMENT RECORDS PLANS AND DOCUMENTS. CONTRACTOR TO REVIEW ALL HAZARDOUS MATERIALS DOCUMENTS PRIOR TO THE START OF CONSTRUCTION. BOND ARCHITECTS HAS NO JURISDICTION OVER HANDLING HAZARDOUS MATERIALS.

STOP WORK AND NOTIFY OWNER OF ANY HAZARDOUS MATERIALS ENCOUNTERED THAT WERE NOT PREVIOUSLY IDENTIFIED; OWNER'S CONSULTANT SHALL SAMPLE MATERIAL(S) AND HAVE MATERIAL(S) ANALYZED BY NVLAP-APPROVED LABORATORY. IF FOUND BY OWNER'S CONSULTANT TO BE A HAZARDOUS MATERIAL, ASBESTOS ABATEMENT CONTRACTOR SHALL CONTAIN AND ABATE, REPAIR, OR ENCAPSULATE AS REQUIRED FOR NEW WORK AS DIRECTED BY OWNER.

REGULATED MATERIAL ABATEMENT GENERAL NOTES:

1. REFER TO PINCHIN'S PROJECT INFORMATION PACKET (PROJECT INFORMATION FORM, PHOTOGRAPHS AND REGULATED MATERIALS DRAWINGS) INCLUDED IN PROJECT MANUAL IN CONJUNCTION WITH OWNER PROVIDED HAZARDOUS MATERIAL DRAWINGS PRIOR TO ANY DEMOLITION OR CONSTRUCTION.
2. ANY NOTES ON ARCHITECTURAL DRAWINGS REGARDING HAZARDOUS MATERIALS ARE FOR REFERENCE ONLY. CONTRACTOR TO REFER TO AND COORDINATE WITH PINCHIN'S PROJECT INFORMATION PACKET AND OWNER'S HAZARDOUS MATERIAL DRAWINGS.
3. IF UNEXPECTED HAZARDOUS MATERIAL ARE ENCOUNTERED, STOP WORK AND NOTIFY OWNER OF ANY HAZARDOUS MATERIALS ENCOUNTERED THAT WERE NOT PREVIOUSLY IDENTIFIED; OWNER'S CONSULTANT SHALL SAMPLE MATERIAL(S) AND HAVE MATERIAL(S) ANALYZED BY NVLAP-APPROVED LABORATORY. IF FOUND BY OWNER'S CONSULTANT TO BE A HAZARDOUS MATERIAL, ASBESTOS ABATEMENT CONTRACTOR SHALL CONTAIN AND ABATE, REPAIR, OR ENCAPSULATE AS REQUIRED FOR NEW WORK AS DIRECTED BY OWNER.
4. ALL ABATEMENT, REPAIR OR ENCAPSULATION TO BE PERFORMED BY LICENSED ABATEMENT CONTRACTORS.
5. NEW CONSTRUCTION MAY REQUIRE ABATEMENT, REGARDLESS OF PRIOR DEMOLITION.
6. NEW CONNECTIONS TO EXISTING STRUCTURE MAY REQUIRE ABATEMENT AT CONNECTION LOCATIONS. PRIOR TO WELDING, DRILLING, OR ANY OTHER CONNECTION METHOD, VERIFY PRESENCE OF REGULATED MATERIAL PER OWNER'S HAZARDOUS MATERIAL DRAWINGS AND PINCHIN'S PROJECT INFORMATION PACKET.
7. CONNECTIONS INCLUDE, BUT ARE NOT LIMITED TO, WALL BRACING, DEFLECTION TRACKS, CEILING HANGERS, DUCT HANGERS, EQUIPMENT HANGERS, LIGHTING, PLUMBING SUPPORTS, STRUCTURAL STEEL AND OTHER PENETRATIONS PER OWNER'S HAZARDOUS MATERIAL DRAWINGS.
8. WELDED CONNECTIONS ARE TO BE ABATED TO THE EXTENT WHICH MINIMIZES HEAT-GENERATED HAZARDS PER OWNER'S HAZARDOUS MATERIAL DRAWINGS.
9. DRILLED CONNECTIONS ARE TO BE ABATED TO THE EXTENT WHICH MINIMIZES PARTICLE-GENERATED HAZARDS PER OWNER'S HAZARDOUS MATERIAL DRAWINGS.

GENERAL ASSET PROTECTION NOTES:

1. ALL ITEMS TO BE REMOVED WHICH DO NOT DISTURB HAZARDOUS MATERIALS MAY BE REMOVED AND STORED BY THE CONTRACTOR. ALL ITEMS WHICH WOULD DISTURB HAZARDOUS MATERIALS TO BE REMOVED BY THE ABATEMENT CONTRACTOR, ABATED AND RETURNED TO OWNER FOR REUSE.
2. ALL CASEWORK IN ROOMS WITH DEMOLITION WORK TO BE PROTECTED. CONTRACTOR TO COORDINATE CASEWORK PROTECTION TO REMAIN IN ROOMS RECEIVING ASBESTOS ABATEMENT THROUGHOUT PROCESS. HORIZONTAL SURFACES SHALL BE COVERED WITH SHEET PLASTIC OVER CARDBOARD. VERTICAL SURFACES SHALL BE COVERED WITH SHEET PLASTIC.
3. CONTRACTOR TO PROTECT ALL CARPET FLOORING IN ACCORDANCE WITH PROJECT INFORMATION FORM AND MUST FOLLOW ALL ST. LOUIS COUNTY, MISSOURI DEPARTMENT OF NATURAL RESOURCES AND US ENVIRONMENTAL PROTECTION AGENCY CONTAINMENT MINIMUMS THROUGHOUT THE ABATEMENT PROCESS. *AND WITH SELF-ADHERING FILM THROUGHOUT THE CONSTRUCTION PROCESS.*
4. CONTRACTOR TO PROTECT ALL RESILIENT FLOORING IN ACCORDANCE WITH PROJECT INFORMATION FORM AND MUST FOLLOW ALL ST. LOUIS COUNTY, MISSOURI DEPARTMENT OF NATURAL RESOURCES AND US ENVIRONMENTAL PROTECTION AGENCY CONTAINMENT MINIMUMS THROUGHOUT THE ABATEMENT PROCESS. *AND WITH PLASTIC FLOOR RUNNERS TAPED OVER HARBOARD (MASONITE) THROUGHOUT CONSTRUCTION PROCESS.*
5. CONTRACTOR TO COORDINATE THE REMOVAL, STORAGE, & REINSTALLATION OF ALL REMAINING FURNITURE & ITEMS NOT AFFIXED TO BUILDING DURING CONSTRUCTION.
6. ALL BUILT-IN SHELVING IN CLOSET SPACES TO REMAIN. REQUIRES SHEET PLASTIC PROTECTION THROUGH ALL PHASES OF CONSTRUCTION.
7. REMOVAL AND STORAGE OF INTERACTIVE WHITE BOARDS BY OWNER'S SUPPLIER.
8. AT ANY ROOM REQUIRING ACT CEILING REMOVAL: REMOVE, SALVAGE, AND STORE CEILING TILES & LIMITED CROSS TEE'S. CONSOLIDATE ALL UNDAMAGED EXISTING TILES INTO CLASSROOMS AND REINSTALL PANELS AND CROSS TEES. PROVIDE NEW CEILING PANELS IN CORRIDORS AND REINSTALL EXISTING CROSS TEES.
9. CONTRACTOR IS RESPONSIBLE MONETARILY & FOR THE LABOR COORDINATION OF INTERACTIVE WALL-MOUNTED PROJECTORS. REMOVAL OF WALL-MOUNTED INTERACTIVE WHITE BOARD/*SMART BOARD* AND PROJECTOR TO BE BY PSD CERTIFIED SMART-BOARD INSTALLER - SHILLERS A/V - SEE ELECTRICAL DRAWINGS. INTERACTIVE-BOARD INSTALLER TO STORE EQUIPMENT FOR DURATION OF CONSTRUCTION.
10. CONTRACTOR TO PROTECT MARKER BOARDS & TACK BOARDS IN ROOMS RECEIVING ABATEMENT THROUGHOUT CONSTRUCTION PROCESS.
11. CONTRACTOR TO PROTECT ALL EXISTING DOORS AND WINDOWS WITHIN WORK AREA AND ALONG WORK ACCESS PATH.
12. ALL WINDOW BLINDS ARE TO BE REMOVED, LABELED AND STORED BY CONTRACTOR IN ROOMS RECEIVING ABATEMENT THROUGHOUT CONSTRUCTION PROCESS. BLINDS TO BE REINSTALLED AFTER CONSTRUCTION WORK IS COMPLETE.
13. REMOVAL, RELOCATION, AND REINSTALLATION OF SOLAR ARRAY BY OWNER'S SUPPLIER: STRAIGHT UP SOLAR.
14. ABATEMENT CONTRACTOR SHALL BE RESPONSIBLE FOR ALL PROTECTION AND CONTAINMENT REQUIRED DURING ABATEMENT WORK. FOR A; ITEMS NOTED AS TO BE PROTECTED DURING CONSTRUCTION, PROTECTION SHALL BE PUT IN PLACE AFTER ALL ABATEMENT PROTECTION ITEMS ARE REMOVED.
15. ABATEMENT CONTRACTOR TO ENCAPSULATE ANY REMAINING ASBESTOS CONTAINING MATERIALS.
16. WHERE PENETRATING WALLS, CEILINGS, FLOORS OR ROOFS, CONTRACTOR TO MAINTAIN ALL SMOKE/FIRE RATED ASSEMBLIES.

GENERAL DEMOLITION NOTES

1. THE SCOPE OF DEMOLITION WORK IS NOT LIMITED EXCLUSIVELY TO THE WORK INDICATED ON THE DEMOLITION SHEETS. THE CONSTRUCTION DOCUMENTS ARE PROVIDED AS A GENERAL GUIDE FOR DEMOLITION. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ADDITIONAL DEMOLITION THAT MAY BE REQUIRED FOR DEMOLITION AND PROPER INSTALLATION OF NEW WORK PRIOR TO BID. REFER TO ALL CONSTRUCTION DOCUMENTS FOR ADDITIONAL DEMOLITION INFORMATION AND COORDINATION.
2. ALL EXISTING PIPING, DUCTS, ETC THAT HAVE BEEN ABANDONED ARE TO BE REMOVED. ABANDONED PIPING BELOW CONCRETE SLABS ON GRADE ARE TO BE CAPPED BELOW FLOOR LEVEL. COORDINATE WITH MEP.
3. REMOVE ALL WALL MOUNTED ACCESSORIES, HANGERS, WIRE MOLD & HARDWARE. SALVAGE ACCESSORIES FOR POSSIBLE REUSE.
4. OWNER TO HAVE SALVAGE RIGHTS ON ALL ITEMS WHETHER NOTED ON THE PLANS OR NOT. GENERAL CONTRACTOR TO DISPOSE OF ALL ITEMS NOT REUSED IN THE PROPOSED WORK.
5. COORDINATE DEMOLITION WORK WITH THE NEW CONSTRUCTION SHOWN IN THE DRAWINGS. DUE CARE IS TO BE TAKEN TO AVOID UNDUE DAMAGE TO ADJACENT AREAS, OCCUPIED AND UNOCCUPIED. ADJACENT SURFACES DAMAGED DUE TO DEMOLITION SHALL BE REPAIRED IN ORDER TO ACHIEVE A SEAMLESS APPEARANCE.
6. WHEREVER DEMOLITION OCCURS, THE REMAINING FLOOR, WALLS, AND CEILINGS ARE TO BE PATCHED TO MATCH THE ADJACENT WITH CONTINUOUS SURFACE MATERIAL, TEXTURE, COLOR & FINISH.
AREAS IMMEDIATELY ADJACENT TO THE AREA OF THIS WORK MAY BE OCCUPIED BY THE OWNER DURING THE DEMOLITION AND NEW CONSTRUCTION WORK. CONTRACTOR SHALL PROVIDE PROTECTIONS FOR OWNER'S PERSONNEL AND ALL OTHER USERS OF THE SURROUNDING AREAS. CONTRACTOR SHALL PROVIDE PROTECTION FROM THE SPREAD OF DUST AND DIRT DURING THE ENTIRE DEMOLITION AND NEW CONSTRUCTION PERIOD.
7. IF HAZARDOUS MATERIALS ARE ENCOUNTERED THE ARCHITECT & OWNER ARE TO BE NOTIFIED IMMEDIATELY.
8. CONTRACTOR TO VERIFY EXISTING CONDITION OF ALL ITEMS TO BE DEMOLISHED IN THE FIELD.
9. PATCH/REPAIR ALL AREAS DAMAGED DURING SELECTIVE DEMOLITION.
10. PROVIDE TEMPORARY SHORING AT ALL CEILINGS/WALLS WHERE DEMOLITION MAY COMPROMISE THE STABILITY AND/OR STRUCTURAL INTEGRITY OF THE SYSTEM.
11. MINIMIZE DEMOLITION OF SLAB TO AREAS DESIGNATED IN PLUMBING DEMOLITION AND NEW PLUMBING PLANS
12. CONTRACTOR TO COORDINATE REMOVAL OF ALL EQUIPMENT AND FURNITURE WITH OWNER PRIOR TO START OF DEMOLITION.
13. REMOVE AND STORE ALL FIRE EXTINGUISHERS, WHICH HAVE NOT EXPIRED, FOR REUSE. ALL SPRINKLER PIPE & HEADS TO REMAIN IN PLACE THROUGHOUT CONSTRUCTION, PROTECT AS REQUIRED UNLESS NOTED OTHERWISE.
14. CONTRACTOR TO COORDINATE REMOVAL OF ALL EQUIPMENT AND FURNITURE WITH OWNER PRIOR TO START OF DEMOLITION.
15. CONTRACTOR TO VERIFY WALL CONSTRUCTION OF ALL WALLS RELATED TO WORK. AFTER CEILING FINISH HAS BEEN REMOVED, CONTRACTOR TO IDENTIFY MEP/S SYSTEMS TO BE REMOVED FOR ONSITE REVIEW WITH ARCHITECT & ENGINEERS
16. SALVAGE AND RELOCATE DONATED FURNITURE, PLAQUES, SIGNS, ETC. COORDINATE WITH OWNER.
17. CONSTRUCT NEW PARTITIONS TIGHT TO EXISTING STRUCTURE, UNO.
18. EXISTING BLOCKING UNCOVERED THROUGH DEMOLITION TO BE REPLACED WITH FRT BLOCKING - SEE SPECIFICATIONS.
19. REPLACE ALL EXISTING FIREPROOFING WHERE DISTURBED W/ EQUIVALENT MATERIAL & RATING.
20. RELOCATE CONTROLS (ELEVATOR CALL BUTTON, ETC), DEVICES, AND OUTLETS NOT DEMO'D TO THE FINISH FACE OF NEW PARTITION.
21. WHERE EXISTING WALLS MUST BE CUT FOR NEW WORK, WALLS ARE TO BE PATCHED AND PAINTED TO MATCH EXISTING CONDITIONS. PAINT ENTIRE WALL/CEILING TO NEAREST CORNER.
22. ANY EXISTING MATERIALS DAMAGED BY WORK SHOULD BE REPAIRED TO MATCH EXISTING.
23. PATCH AND REPAIR WALLS, FLOORS, CEILINGS WHERE DEVICES WERE REMOVED.

bond architects
222 SOUTH CENTRAL AVE.
SUITE# 501
ST. LOUIS, MO 63105
TEL: 314.863.4994
FAX: 314.863.4996
www.bondarchitectsinc.com
Bond Architects, Inc.
Missouri State Certificate of Authority # 2009027409

COLE & Associates, Inc.
Civil Engineer
Consultant Project #26-0054
Certificate of Authority #001165
401 S. 18th Street, Suite 200
St. Louis, MO 63103
314.984.9887 tel

RTM Engineering Consultants
MEP / FP Engineer
Consultant Project #26.B002031924
Certificate of Authority #2002028690
3701 S. Lindbergh Blvd.
St. Louis, MO 63127
314.725.5889 tel

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Consultant Project #R262.00457.001
Certificate of Authority #
2 Cityplace Drive, Suite 195,
St. Louis, Missouri 63141
314.230.0182 tel

ROSS ELEMENTARY SCHOOL
1150 Ross Road, St Louis, MO 63146
Parkway Project #: PN062501B
Building Renovations & Site Improvements

Parkway School District
363 N Woods Mill Rd., Chesterfield, MO 63017
314.415.8231 tel

Project No: 26017

Revisions

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GENERAL & DEMOLITION NOTES

A0.4

SCALE: 3" = 1'-0" 0 0.25' 0.5' 1'

SCALE: 1 1/2" = 1'-0" 0 0.5' 1' 2'

SCALE: 1" = 1'-0" 0 0.5' 1' 2'

SCALE: 3/4" = 1'-0" 0 1' 2' 3'

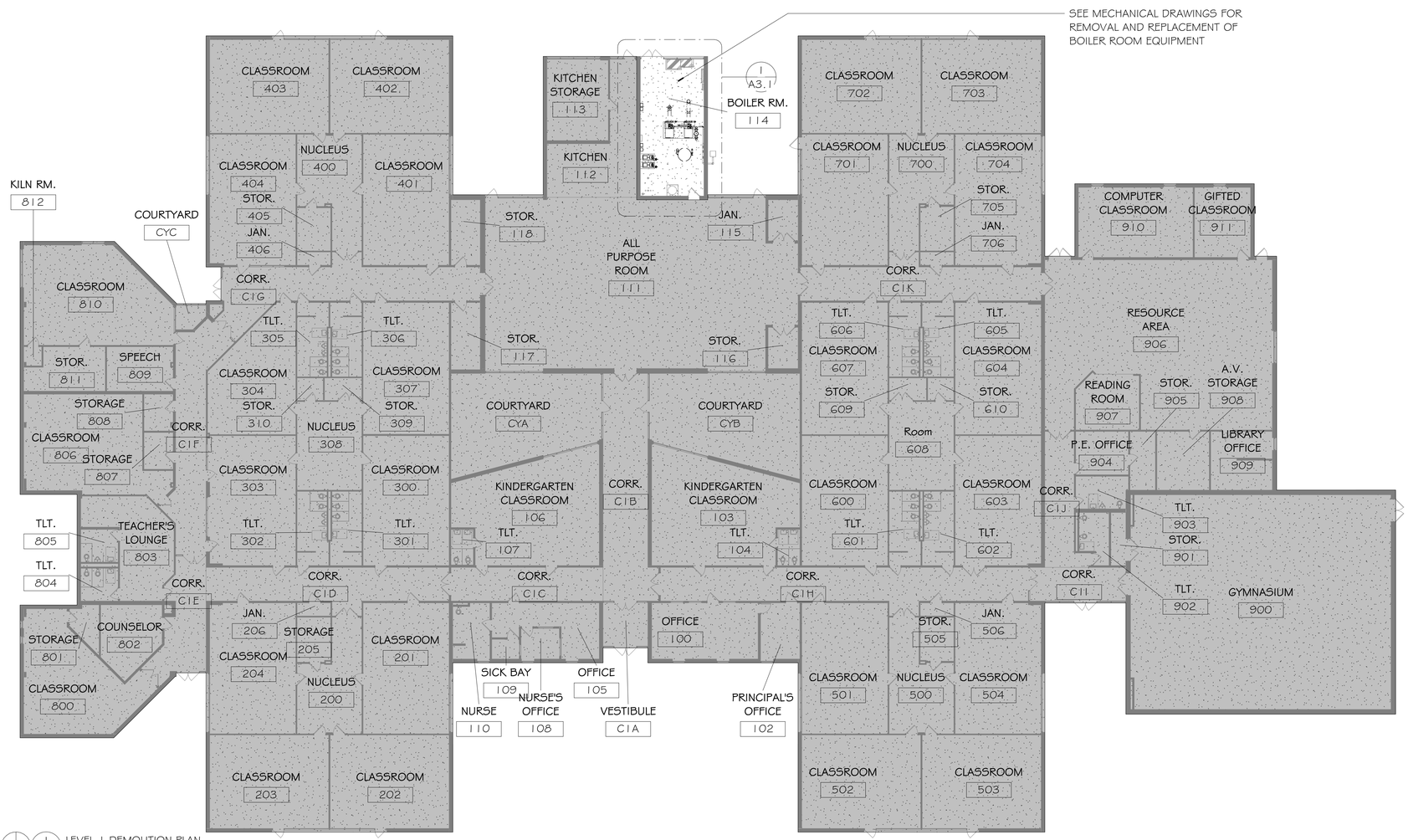
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SCALE: 1/4" = 1'-0" 0 2' 4' 8'

SCALE: 1/8" = 1'-0" 0 4' 8' 16'

SCALE: 1/16" = 1'-0" 0 8' 16' 32'

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N 1 AD2.1 LEVEL 1 DEMOLITION PLAN 1/16" = 1'-0" SCALE: 1/16" = 1'-0" 0 8' 16' 32'

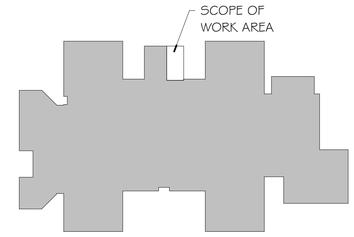
OVERALL DEMO PLAN GENERAL NOTE:

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HAZARDOUS MATERIALS GENERAL NOTES:

ABATEMENT AND HAZARDOUS MATERIALS NOTED IN THESE DOCUMENTS HAVE BEEN PROVIDED BY PARKWAY SCHOOL DISTRICT'S ABATEMENT RECORDS PLANS AND DOCUMENTS. CONTRACTOR TO REVIEW ALL HAZARDOUS MATERIALS DOCUMENTS PRIOR TO THE START OF CONSTRUCTION. BOND ARCHITECTS HAS NO JURISDICTION OVER HANDLING HAZARDOUS MATERIALS.

STOP WORK AND NOTIFY OWNER OF ANY HAZARDOUS MATERIALS ENCOUNTERED THAT WERE NOT PREVIOUSLY IDENTIFIED; OWNER'S CONSULTANT SHALL SAMPLE MATERIAL(S) AND HAVE MATERIAL(S) ANALYZED BY NVLAP-APPROVED LABORATORY. IF FOUND BY OWNER'S CONSULTANT TO BE A HAZARDOUS MATERIAL, ASBESTOS ABATEMENT CONTRACTOR SHALL CONTAIN AND ABATE, REPAIR, OR ENCAPSULATE AS REQUIRED FOR NEW WORK AS DIRECTED BY OWNER.



N KEYPLAN 1" = 80'-0"

bond architects
222 SOUTH CENTRAL AVE.
SUITE# 501
ST. LOUIS, MO 63105
TEL: 314.863.4994
FAX: 314.863.4996
www.bondarchitectsinc.com
Bond Architects, Inc.
Missouri State Certificate of Authority # 2009027409

COLE & Associates, Inc.
Civil Engineer
Consultant Project #26-0054
Certificate of Authority #001165
401 S. 18th Street, Suite 200
St. Louis, MO 63103
314.984.9887 tel

RTM Engineering Consultants
MEP / FP Engineer
Consultant Project #26.B002031924
Certificate of Authority #2002028690
3701 S. Lindbergh Blvd.
St. Louis, MO 63127
314.725.5889 tel

Pinchin, LLC
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Consultant Project #R262.00457.001
Certificate of Authority #
2 Cityplace Drive, Suite 195,
St. Louis, Missouri 63141
314.230.0182 tel

ROSS ELEMENTARY SCHOOL
1150 Ross Road, St Louis, MO 63146
Parkway Project #: PN062501B
Building Renovations & Site Improvements

Parkway School District
363 N Woods Mill Rd., Chesterfield, MO 63017
314.415.8231 tel

Project No: 26017

Revisions

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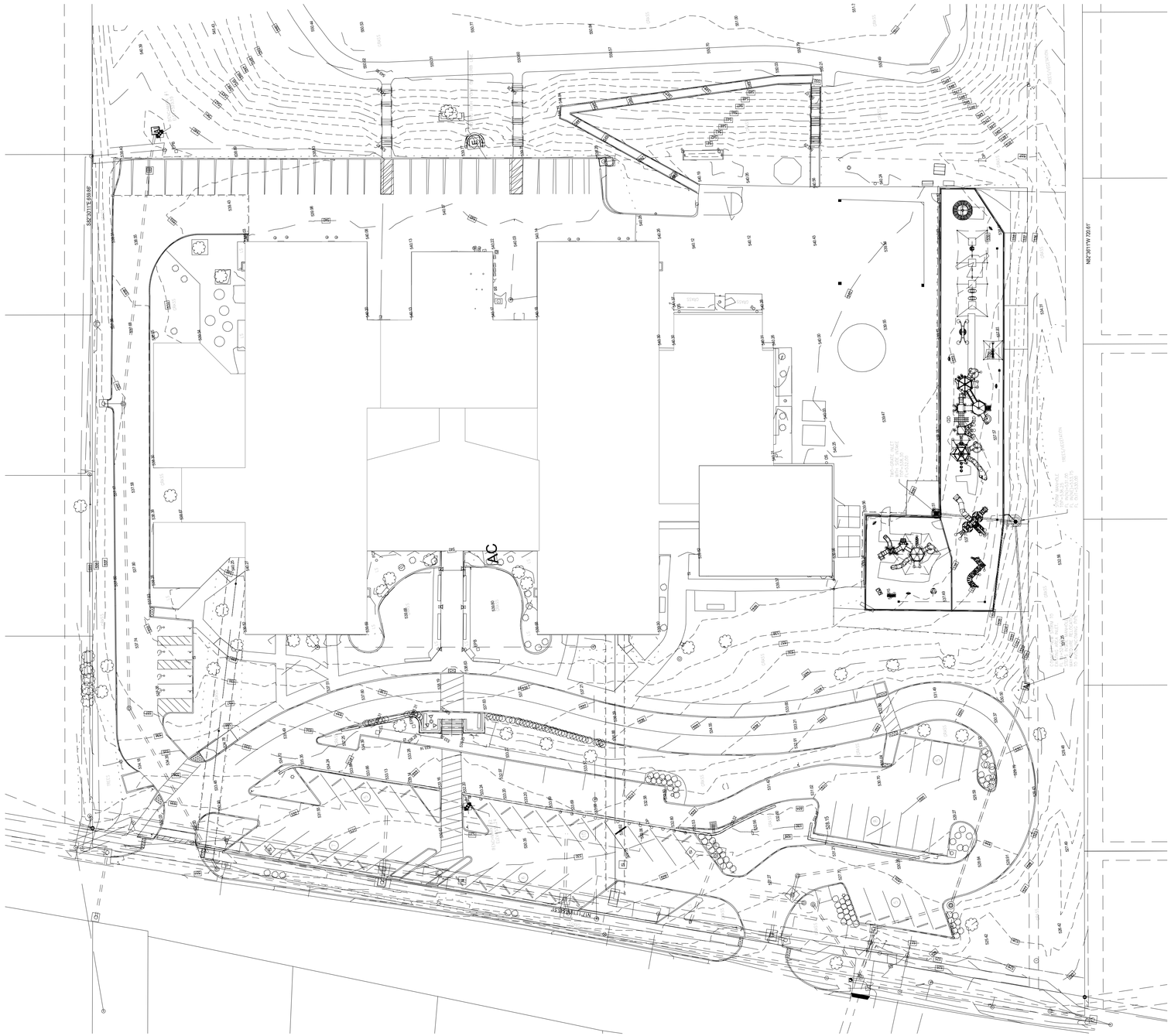
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DEMOLITION PLAN

AD2.1



N

A1.0 Site
1" = 30'-0"

ARCHITECTURAL SITE PLAN GENERAL NOTE:
THIS ARCHITECTURAL SITE PLAN IS PROVIDED TO SHOW THE GENERAL RELATIONSHIP OF BUILDING TO THE SITE. SEE CIVIL DRAWINGS FOR DETAILED SITE PLANS AND CIVIL SCOPE OF WORK.

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222 SOUTH CENTRAL AVE.
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ST. LOUIS, MO 63105
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SITE PLAN

A1.0

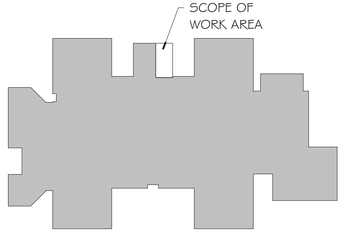
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OVERALL FLOOR PLAN GENERAL NOTE:
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SEE MECHANICAL DRAWINGS FOR REMOVAL AND REPLACEMENT OF BOILER ROOM EQUIPMENT

CLASSROOM 403 | CLASSROOM 402 | CLASSROOM 404 | NUCLEUS 400 | CLASSROOM 401 | STOR. 405 | JAN. 406 | KITCHEN STORAGE 113 | KITCHEN 112 | BOILER RM. 114 | 2 A3.1 | STOR. 118 | JAN. 115 | ALL PURPOSE ROOM 111 | CLASSROOM 702 | CLASSROOM 703 | CLASSROOM 701 | NUCLEUS 700 | CLASSROOM 704 | STOR. 705 | JAN. 706 | COMPUTER CLASSROOM 910 | GIFTED CLASSROOM 911 | COURTYARD CYC | CLASSROOM 810 | KILN RM. 812 | CORR. C1G | CORR. C1K | TLT. 305 | TLT. 306 | STOR. 117 | STOR. 116 | TLT. 606 | TLT. 605 | CLASSROOM 607 | CLASSROOM 604 | STOR. 609 | STOR. 610 | RESOURCE AREA 906 | READING ROOM 907 | STOR. 905 | A.V. STORAGE 908 | P.E. OFFICE 904 | LIBRARY OFFICE 909 | STOR. 811 | SPEECH 809 | CLASSROOM 304 | CLASSROOM 307 | STOR. 310 | NUCLEUS 308 | STOR. 309 | COURTYARD CYA | COURTYARD CYB | Room 608 | STORAGE 808 | CLASSROOM 806 | CORR. C1F | STORAGE 807 | CLASSROOM 303 | CLASSROOM 300 | KINDERGARTEN CLASSROOM 106 | CORR. C1B | KINDERGARTEN CLASSROOM 103 | CLASSROOM 600 | CLASSROOM 603 | CORR. C1J | TLT. 903 | STOR. 901 | TLT. 902 | GYMNASIUM 900 | TLT. 805 | TLT. 804 | TEACHER'S LOUNGE 803 | TLT. 302 | TLT. 301 | TLT. 107 | TLT. 104 | TLT. 601 | TLT. 602 | CORR. C1I | CORR. C1E | CORR. C1D | CORR. C1C | CORR. C1H | STORAGE 801 | COUNSELOR 802 | JAN. 206 | STORAGE 205 | CLASSROOM 204 | CLASSROOM 201 | NUCLEUS 200 | SICK BAY 109 | NURSE 110 | NURSE'S OFFICE 108 | OFFICE 105 | VESTIBULE C1A | OFFICE 100 | PRINCIPAL'S OFFICE 102 | STOR. 505 | JAN. 506 | CLASSROOM 501 | NUCLEUS 500 | CLASSROOM 504 | CLASSROOM 800 | CLASSROOM 203 | CLASSROOM 202 | CLASSROOM 502 | CLASSROOM 503

N — 1 / A2.1 FLOOR PLAN
1/16" = 1'-0"
SCALE: 1/16" = 1'-0"
0 8' 16' 32'



N — KEYPLAN
1" = 80'-0"

SCALE: 3" = 1'-0" (0, 0.25', 0.5', 1')
SCALE: 1 1/2" = 1'-0" (0, 0.5', 1', 2')
SCALE: 1" = 1'-0" (0, 0.5', 1', 2')
SCALE: 3/4" = 1'-0" (0, 1', 2', 3')
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SCALE: 1/8" = 1'-0" (0, 4', 8', 16')
SCALE: 1/16" = 1'-0" (0, 8', 16', 32')

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bond architects
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SUITE# 501
ST. LOUIS, MO 63105
TEL: 314.863.4994
FAX: 314.863.4996
www.bondarchitectsinc.com
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1150 Ross Road, St Louis, MO 63146
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OVERALL FLOOR PLAN

A2.1

SCALE: 3" = 1'-0"
0 0.25' 0.5' 1'

SCALE: 1 1/2" = 1'-0"
0 0.5' 1' 2'

SCALE: 1" = 1'-0"
0 0.5' 1' 2'

SCALE: 3/4" = 1'-0"
0 1' 2' 3'

SCALE: 1/2" = 1'-0"
0 1' 2' 4'

SCALE: 1/4" = 1'-0"
0 2' 4' 8'

SCALE: 1/8" = 1'-0"
0 4' 8' 16'

SCALE: 1/16" = 1'-0"
0 8' 16' 32'

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SEE MECHANICAL DRAWINGS FOR REMOVAL AND REPLACEMENT OF BOILER ROOM EQUIPMENT

3
A3.1

006-ROF-001
006-ROF-002
006-ROF-003
006-ROF-004
006-ROF-005
006-ROF-006
006-ROF-008
006-ROF-009
006-ROF-010
006-ROF-011
006-ROF-012
006-ROF-013
006-ROF-014

N

1
A2.2
ROOF PLAN
1/16" = 1'-0"
SCALE: 1/16" = 1'-0"
0 8' 16' 32'

ROOF GENERAL NOTES

1. ALL ROOF PENETRATIONS AND ACCESSORIES (DRAINS, VENTS, ETC.) ARE TO BE INSTALLED AND FLASHED IN COMPLIANCE WITH THE CURRENT EDITIONS OF N.R.C.A. ROOFING AND WATERPROOFING MANUAL AND S.M.A.C.N.A. (ARCHITECTURAL SHEET METAL MANUAL).
2. PROVIDE WALKWAY PROTECTION WHERE INDICATED AND AT ALL SIDES OF MECHANICAL ROOF TOP UNITS REQUIRING SERVICE AND AT TOP AND BOTTOM OF ALL ROOF STAIRS.
3. ALL ROOF TOP EQUIPMENT (EXCLUDING PREFINISHED ITEMS) SHALL BE FIELD PAINTED.
4. CONTRACTOR IS RESPONSIBLE FOR PROVIDING FRT WOOD BLOCKING AS REQUIRED TO ACCOMMODATE ALL PROFILES OF FINISHED ROOFING INCLUDING AT CRICKETS AND TAPERED INSULATION AT WALLS, PARAPETS AND GRAVEL STOPS. GRAVEL STOPS AT GUTTERS TO BE STAINLESS STEEL WITH SOLDERED JOINTS.
5. COORDINATE MEP EQUIPMENT LOCATIONS ON ROOF WITH MEP PLANS.

ROOF SYMBOLS LEGEND

- EXISTING MECHANICAL UNIT
- NEW MECHANICAL UNIT
- ROOF DRAIN
- SPLASH PAN
- GAS VENT

SCOPE OF WORK AREA

N

KEYPLAN
1" = 80'-0"

bond architects
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Revisions

No.	Description	Date

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STATE OF MISSOURI
MICHELLE R. WELLS
NUMBER A-2021031961
ARCHITECT
10/12/26

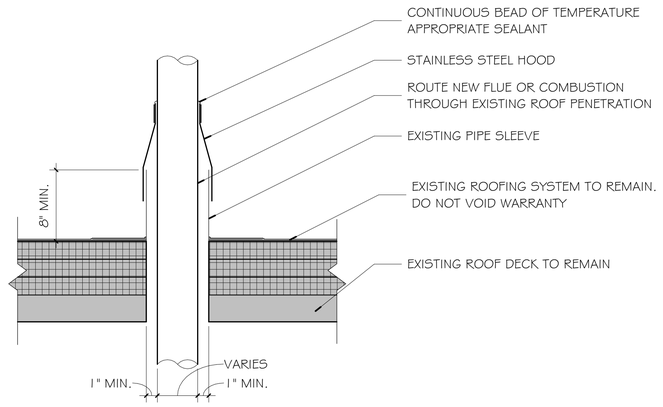
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DATE: 10/12/2026

BID/ PERMIT SET

ROOF PLAN

A2.2

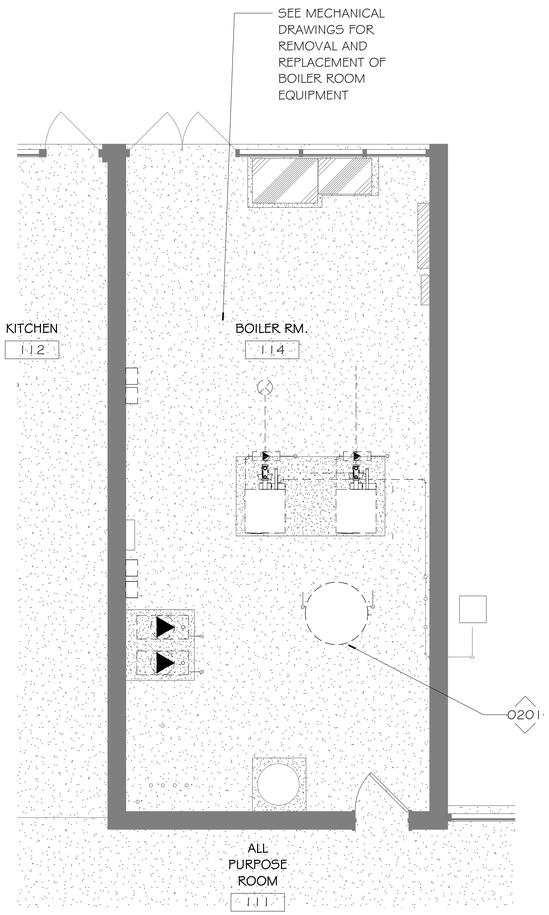


4 / A3.1 COMBUSTION & FLUE PENETRATION TYPICAL DETAIL
1 1/2" = 1'-0" REF: 3/A3.1

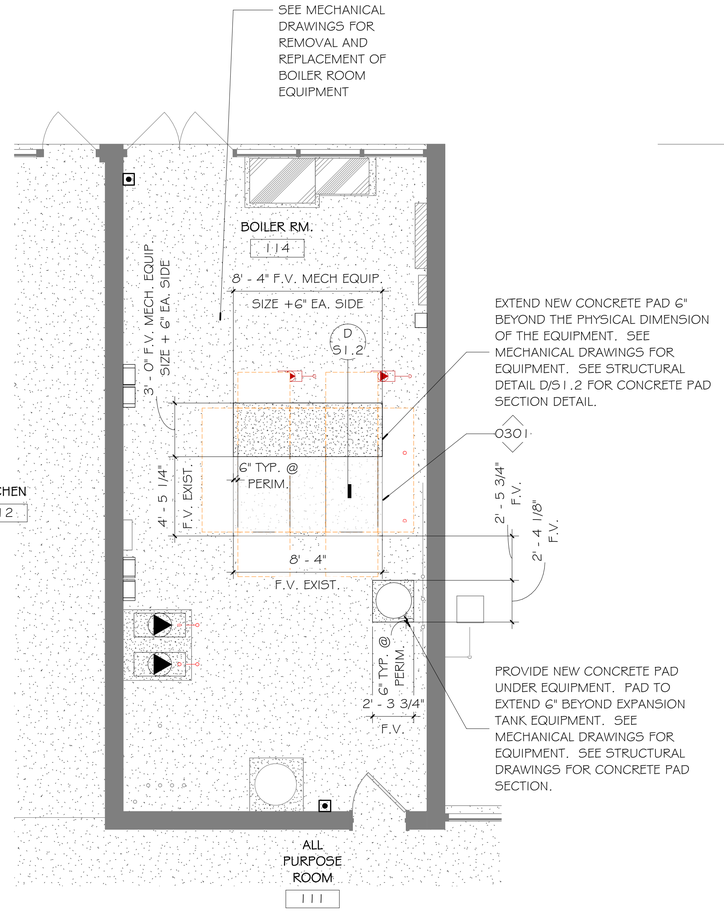
ENLARGED FLOOR PLANS GENERAL NOTE:

- SEE ALSO GENERAL NOTES AND SYMBOLS ON SHEET A0.3.
- SEE GENERAL DEMOLITION NOTES, GENERAL ASSET PROTECTION NOTES, REGULATED MATERIAL ABATEMENT GENERAL NOTES, AND HAZARDOUS MATERIALS GENERAL NOTES ON SHEET AD2.1.
- SEE ROOF GENERAL NOTES ON SHEET A2.2.
- SEE ALSO CIVIL, STRUCTURAL, ELECTRICAL AND MECHANICAL DRAWINGS FOR THEIR RESPECTIVE SCOPES OF WORK.

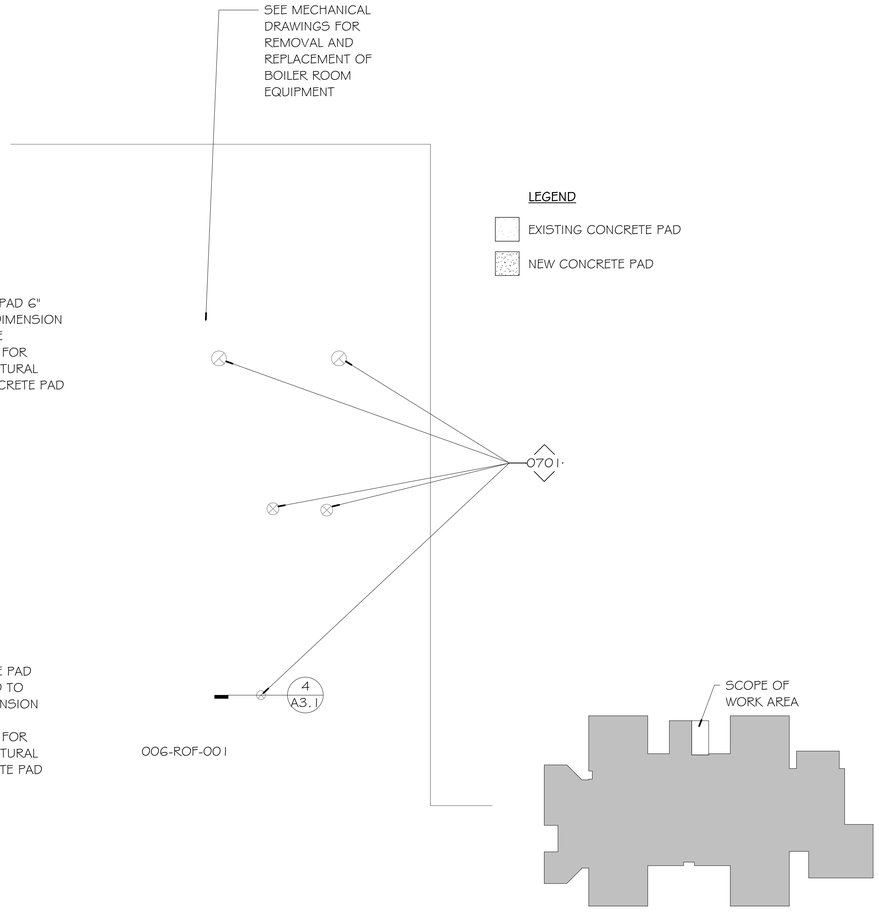
Keynote Legend	
Key Value	Keynote Text
0201	REMOVE EXISTING BUFFER TANK.
0301	EXISTING CONCRETE PAD TO REMAIN.
0701	INSTALL NEWCOMBUSTION/ FLUE THROUGH EXISTING FLUE PENETRATION LOCATION & PROVIDE NEW STAINLESS STEEL HOOD, STAINLESS STEEL CLAMP RING AND SEALANT. SEE FLUE PENETRATION DETAIL. SEE ALSO MECHANICAL DRAWINGS.



1 / A3.1 ENLARGED DEMO PLAN - BOILER ROOM
1/4" = 1'-0" REF: 1/AD2.1



2 / A3.1 ENLARGED PLAN - BOILER ROOM
1/4" = 1'-0" REF: 1/A2.1



3 / A3.1 ENLARGED ROOF PLAN OVER BOILER ROOM
1/4" = 1'-0" REF: 1/A2.2

KEYPLAN
1" = 80'-0"

bond architects
222 SOUTH CENTRAL AVE.
SUITE# 501
ST. LOUIS, MO 63105
TEL: 314.863.4994
FAX: 314.863.4996
www.bondarchitectsinc.com
Bond Architects, Inc.
Missouri State Certificate of Authority # 2009027409

COLE & Associates, Inc.
Civil Engineer
Consultant Project #26-0054
Certificate of Authority #001165
401 S. 18th Street, Suite 200
St. Louis, MO 63103
314.984.9887 tel

RTM Engineering Consultants
MEP / FP Engineer
Consultant Project #26.B002031924
Certificate of Authority #2002028690
3701 S. Lindbergh Blvd.
St. Louis, MO 63127
314.725.5889 tel

Pinchin, LLC
HAZ MAT Consultant
Consultant Project #R262.00457.001
Certificate of Authority #
2 Cityplace Drive, Suite 195,
St. Louis, Missouri 63141
314.230.0182 tel

ROSS ELEMENTARY SCHOOL
1150 Ross Road, St Louis, MO 63146
Parkway Project #: PN062501B
Building Renovations & Site Improvements

Parkway School District
363 N. Woods Mill Rd., Chesterfield, MO 63017
314.415.8231 tel

Project No: 26017

Revisions

No.	Description	Date

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MICHELLE R. WELLS
NUMBER A-2021031961
ARCHITECT
10/12/26

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DATE: 10/12/2026

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ENLARGED PLANS

A3.1

10/9/2026 1:00:08 PM

STRUCTURAL ABBREVIATIONS

#	POUND(S), NUMBER
&	AND
(E)	EXISTING
@	AT
AB	ANCHOR BOLT (S)
ADDL	ADDITIONAL
ALT	ALTERNATE
ARCH	ARCHITECT(URAL)
B/FTG	BOTTOM OF FOOTING
BLDG	BUILDING
BLKG	BLOCKING
BM	BEAM
BMD	BOTTOM OF METAL DECK
BN	BOUNDARY NAIL
BOT	BOTTOM
BP	BASE PLATE
BRG	BEARING
BS	BOUNDARY SCREW
BTWN	BETWEEN
CANT	CANTILEVER(ED)
CFS	COLD-FORMED STEEL
CIP	CAST-IN-PLACE
CJ	CONTROL OR CONST JOINT
CL	CENTER LINE
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
CONC	CONCRETE
CONN	CONNECTION
CONST	CONSTRUCTION
CONT	CONTINUOUS
CTR	CENTER
DBL	DOUBLE
DC	DEMAND CRITICAL (WELD)
deg	DEGREE
DET	DETAIL(S)
DF	DOUGLAS FIR
DFL	DOUGLAS FIR LARCH
dia	DIAMETER
DIM	DIMENSION
DWG	DRAWING
DWL	DOWEL
EA	EACH
EE	EACH END
EF	EACH FACE
EL	ELEVATION
ELEV	ELEVATOR
EMB	EMBEDMENT
EN	EDGE NAIL
EOJ	END OF JOIST
EOR	ENGINEER OF RECORD
EOS	EDGE OF SLAB
EQ	EQUAL
ES	EDGE SCREW
ETC	ET CETERA
EW	EACH WAY
EXP	EXPANSION
EXT	EXTERIOR
FDN	FOUNDATION
FF	FINISH FLOOR
FIN FLR	FINISH FLOOR
FLR	FLOOR
FN	FIELD NAILING
FRMG	FRAMING
FRT	FIRE-RETARDENT TREATED
FS	FAR SIDE
FS	FIELD SCREW
FTG	FOOTING
FV	FIELD VERIFY
ga	GAUGE
GALV	GALVANIZE(D)
GLB	GLULAM BEAM
HDR	HEADER
HGR	HANGER

STRUCTURAL ABBREVIATIONS

HK	HOOK
HORIZ	HORIZONTAL
HSS	HOLLOW STRUCTURAL SECTION
INT	INTERIOR
ISF	INSIDE FACE
J/BRG	JOIST BEARING
JG	JOIST GIRDER
JG/BRG	JOIST GIRDER BEARING
JST	JOIST
JT	JOINT
kip	1,000 POUNDS
ksi	kips PER SQUARE INCH
LB	POUND
LG	LONG
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
MAX	MAXIMUM
MECH	MECHANICAL
MEZZ	MEZZANINE
MFR	MANUFACTURER
MIN	MINIMUM
MISC	MISCELLANEOUS
MTL	METAL
NIC	NOT IN CONTRACT
NS	NEAR SIDE
NTS	NOT TO SCALE
oc	ON CENTER
OH	OPPOSITE HAND
OPNG	OPENING
OSF	OUTSIDE FACE
PAF	POWER-ACTUATED FASTENER
PARA	PARAPET
PEMB	PRE-ENGINEERED METAL BUILDING (MANUFACTURER)
PIL	PILASTER
PL	PLATE
PLBG	PLUMBING
PLYWD	PLYWOOD
psf	POUNDS PER SQUARE FOOT
psi	POUNDS PER SQUARE INCH
PT	PRESSURE TREATED
QT	QUANTITY
REINF	REINFORCED, REINFORCING
REQD	REQUIRED
RTU	ROOF TOP UNIT
SCHED	SCHEDULE
SD	SNOW DRIFT
SHTG	SHEATHING
SIM	SIMILAR
SL	SNOW LOAD
SOG	SLAB ON GRADE
SPF	SPRUCE PINE FIR
STD	STANDARD
STL	STEEL
STRUC	STRUCTURAL
SYP	SOUTHERN YELLOW PINE
T&B	TOP AND BOTTOM
T&G	TONGUE AND GROOVE
T/BRG	TRUSS BEARING
T/CONC	TOP OF CONCRETE
T/FTG	TOP OF FOOTING
T/PARA	TOP OF PARAPET
T/PIL	TOP OF PILASTER
T/STL	TOP OF STEEL
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
USGS	US GEOLOGICAL SURVEY
VAR	VARIES
VERT	VERTICAL
w/	WITH
WHS	WELDED HEADED STUD(S)
WP	WORK POINT
WWR	WELDED WIRE REINFORCEMENT

SHOP DRAWING AND SUBMITTAL NOTES

1. SHOP DRAWINGS AND/OR SUBMITTALS SHALL BE FURNISHED FOR ALL STRUCTURAL COMPONENTS. UNLESS OTHERWISE NOTED, THESE SHALL BE SUBMITTED FOR REVIEW PRIOR TO FABRICATION IN ACCORDANCE WITH THESE CONTRACT DRAWINGS AND PROJECT SPECIFICATIONS (IF APPLICABLE). CONTRACTOR SHALL ALLOW A MINIMUM OF 2 WEEKS FROM RECEIPT OF SHOP DRAWINGS FOR CASE ENGINEERING INC. TO PROVIDE RESPONSE.
2. PRIOR TO SUBMITTAL TO CASE ENGINEERING, THE CONTRACTOR AND ARCHITECT SHALL HAVE REVIEWED THE SHOP DRAWINGS AND MADE ANY CORRECTIONS REQUIRED. THE CONTRACTOR AND ARCHITECT SHALL STAMP THE DRAWINGS, INDICATING THE SUBMITTAL HAS BEEN REVIEWED.
3. STRUCTURAL DRAWINGS ARE THE SOLE PROPERTY OF CASE ENGINEERING. REPRODUCTION OF STRUCTURAL DRAWINGS FOR USE IN SHOP DRAWING SUBMITTALS IS NOT ACCEPTABLE WITHOUT OUR WRITTEN AGREEMENT.
4. SHOP DRAWING REVIEW IS FOR GENERAL CONFORMANCE WITH THE CONTRACT DOCUMENTS. THE RESPONSIBILITY FOR FINAL COMPLETENESS AND CORRECTNESS SHALL RESIDE WITH THE PREPARER OF THE SHOP DRAWINGS.

BUILDING CODES AND STANDARDS USED FOR DESIGN

1. INTERNATIONAL BUILDING CODE 2015 EDITION
   ASCE 7-10
   RISK CATEGORY: I

DESIGN LOADS

1. SNOW LOAD DESIGN CRITERIA
   MINIMUM FROST DEPTH: 2'-6"
2. SEISMIC LOAD DESIGN CRITERIA
   IMPORTANCE FACTOR, I: 1.0
   SITE CLASS: D
   SPECTRAL RESPONSE ACCELERATIONS: Ss=0.381g, S1=0.154g
   Sds=0.380g, Sd1=0.224g
   SEISMIC DESIGN CATEGORY: D

GENERAL STRUCTURAL NOTES

1. THIS DRAWING SET IS TO BE VIEWED AS A WHOLE AND COORDINATED WITH ARCHITECTURAL, CIVIL, AND OTHER DISCIPLINES. ALL WORK PERTAINING TO A SPECIFIC CONTRACTOR MAY OR MAY NOT BE SHOWN ON SPECIFIC DRAWING SECTIONS. IT IS EACH SUBCONTRACTOR'S RESPONSIBILITY TO PREPARE HIS BID FROM A COMPLETE SET OF PLANS.
2. THE CONTRACTOR SHALL FOLLOW WRITTEN DIMENSIONS ONLY. DO NOT SCALE DRAWINGS. DIMENSIONS NOT SHOWN ON PLAN TO BE COORDINATED WITH ARCHITECTURAL PLANS.
3. ALL DETAILS AND SECTIONS SHOWN ON THE DRAWINGS ARE INTENDED TO BE TYPICAL AND SHALL APPLY AT ANY SIMILAR SITUATION ELSEWHERE ON THE JOB, EXCEPT WHERE A DIFFERENT DETAIL OR SECTION IS SHOWN.
4. THE STRUCTURE SHALL BE ADEQUATELY BRACED AND SHORED DURING ERECTION AGAINST WIND AND ERECTION LOADS. STRUCTURAL MEMBERS ARE DESIGNED FOR "IN-PLACE" LOADS ONLY.
5. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT AND ENGINEER IMMEDIATELY OF ANY DISCREPANCIES BETWEEN CONSTRUCTION DOCUMENTS AND ACTUAL FIELD CONDITIONS.
6. THE VARIOUS SUBCONTRACTORS ARE RESPONSIBLE FOR PLACING SLEEVES, OUTLET BOXES, ANCHORS, VENT OPENINGS, ETC. THAT MAY BE REQUIRED IN FOUNDATION WALLS. CONSTRUCTION MANAGER SHALL COORDINATE ALL PLACEMENT OF ITEMS IN FOUNDATION WALLS.
7. SEE ARCHITECTURAL PLANS FOR ADDITIONAL DETAILS AND INFORMATION.
8. ALL ELEVATIONS GIVEN ARE REFERENCED TO FINISHED FLOOR ELEVATIONS AT 100'-0" OR 0'-0", UNLESS SHOWN AS USGS ELEVATIONS.
9. WHERE GENERAL NOTES OR TYPICAL DETAILS CONTRADICT INFORMATION PROVIDED IN BUILDING SECTIONS, THE BUILDING SECTIONS TAKE PRECEDENCE.
10. WHERE INFORMATION PROVIDED IN THESE STRUCTURAL DRAWINGS CONTRADICTS INFORMATION PROVIDED IN PROJECT SPECIFICATIONS, THE SPECIFICATIONS SHALL TAKE PRECEDENCE.
11. FOR ARCHITECTURAL & STRUCTURAL COORDINATION: MODELED ELEMENTS SHOWN ON STRUCTURAL DRAWINGS ARE NOT THE FINAL CONFIGURATION. ALL COORDINATION SHALL BE PERFORMED BETWEEN THE VARIOUS TRADES AND THE SUPPLIERS OF THESE ELEMENTS FOR THE STRUCTURE, NOT WITH THE STRUCTURAL MODEL.
12. THIS DRAWING SET IS TO BE VIEWED AS A WHOLE, ALL TYPICAL DETAILS AND GENERAL NOTES SHOWN IN THESE DRAWINGS ARE APPLICABLE TO THE PROJECT EVEN IF THEY ARE NOT SHOWN ON PLANS OR SECTIONS.
13. DESIRED ALTERATIONS TO ANY DETAIL, MEMBER SIZE, MEMBER TYPE, OR ANY OTHER STRUCTURAL COMPONENT SHOWN ON THE DRAWINGS, SHALL BE SUBMITTED AS A REQUEST IN WRITING TO CASE ENGINEERING. CASE ENGINEERING WILL NOT BE RESPONSIBLE FOR CHANGES TO THE DESIGN OR DETAILS MADE DURING SHOP DRAWINGS DEVELOPMENT, DURING CONSTRUCTION, OR AT ANY OTHER TIME WITHOUT WRITTEN CONSENT.

EXCAVATION AND EARTHWORK NOTES

1. THE NET ALLOWABLE SOIL BEARING VALUE AND LATERAL EARTH PRESSURES USED IN THE FOUNDATION DESIGN IS BASED ON (IBC CONSERVATIVE ENGINEERING VALUES)
   - SPREAD FOOTINGS 1,500 psf
   - CONT. WALL FOOTINGS 1,500 psf
   - ACTIVE PRESSURE 60 psf/ft
   - AT-REST PRESSURE 100 psf/ft
   - PASSIVE PRESSURE 100 psf/ft (CONSERVATIVE PER IBC)
   - FRICTION COEFFICIENT 0.25
2. ALL EXCAVATION, FILL, COMPACTION, AND GRADING OF THE SITE SHALL BE COMPLETED PRIOR TO CONSTRUCTING FOUNDATIONS AND SHALL BE IN ACCORDANCE WITH THE RECOMMENDATIONS CONTAINED IN THE PROJECT'S FINAL GEOTECHNICAL REPORT AND OSHA REQUIREMENTS.
3. ALL FOOTING EXCAVATIONS SHALL BE INSPECTED, PRIOR TO CONCRETE PLACEMENT, BY A SOILS ENGINEER TO VERIFY SUITABLE BEARING MATERIAL OF CAPACITY AS SPECIFIED.
4. NOTIFY THE OWNER'S REPRESENTATIVE WHEN ADDITIONAL EXCAVATION IS REQUIRED TO REACH SUITABLE BEARING MATERIAL.
5. THE SOILS ENGINEER SHALL CERTIFY IN WRITING THAT ALL FOUNDATIONS WERE PLACED ON SOIL WITH THE BEARING VALUE AS SPECIFIED.
6. WITHIN THE EXCAVATION AREA OF FOUNDATIONS, ALL VEGETATION, TOPSOIL, PREVIOUSLY PLACED FILL AND UNSUITABLE SOILS SHALL BE REMOVED. ALL FOOTINGS TO BEAR ON VIRGIN SOIL OR PROPERLY PLACED AND COMPACTED ENGINEERED FILL.
7. FOUNDATION DESIGN DOES NOT ACCOUNT FOR WINTER CONSTRUCTION. ANY UNENCLOSED / UNHEATED SPACES SHALL BE ADEQUATELY PROTECTED AGAINST FROST DURING WINTER CONSTRUCTION BY THE CONTRACTOR.
8. IF ANY SOFT SPOTS, OR AREAS QUESTIONABLE FOR ANY REASONS ARE ENCOUNTERED BY THE CONTRACTOR, ARCHITECT/ENGINEER SHALL BE NOTIFIED IMMEDIATELY SO THAT ANY REQUIRED ACTION MAY BE TAKEN PRIOR TO CONTINUATION OF CONSTRUCTION IN THAT AREA.

DEVELOPMENT LENGTH OF STANDARD HOOKS IN CONCRETE - 60 ksi...

BAR SIZE	f'c = 4,000 psi	f'c = 4,500 psi	f'c = 5,000 psi
#3	8	7	7
#4	10	9	9
#5	12	12	11
#6	15	14	13
#7	17	16	15
#8	19	18	17
#9	22	21	20
#10	25	23	22
#11	27	26	24

CONCRETE NOTES

1. ALL CONCRETE WORK INCLUDING FORMING, REINFORCING, MIXING, PLACING, FINISHING AND CURING SHALL BE DONE IN ACCORDANCE WITH THE ACI MANUAL OF CONCRETE PRACTICE INCLUDING "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE", ACI 318, AND "SPECIFICATIONS FOR STRUCTURAL CONCRETE", ACI 301 LATEST EDITIONS.
2. IT SHALL BE THE RESPONSIBILITY OF THE MIX DESIGN SUPPLIER TO PROPORTION MIXES APPROPRIATELY TO REACH THE REQUIRED PROPERTIES NOTED, AND SHALL BE APPROPRIATE FOR THEIR INTENDED USE. ADMIXTURES MEETING ASTM C494 ARE OPTIONAL. HOWEVER, AIR-ENTRAINING ADMIXTURES MEETING ASTM C260 SHALL BE USED FOR CONCRETE EXPOSED TO THE EXTERIOR OR FREEZE-THAW CYCLES.
3. CONTRACTOR SHALL SUBMIT CONCRETE MIX DESIGNS FOR EACH INTENDED USE ON THE PROJECT FOR REVIEW AND APPROVAL BY CASE ENGINEERING. CONTENTS OF THE MIX DESIGN SHALL COMPLY WITH, AND INCLUDE ALL INFORMATION REQUIRED BY, ACI 318, CHAPTER 5 (FOR 2011 AND EARLIER CODE EDITIONS), & CHAPTER 26 (FOR 2014 CODE EDITION). THIS INCLUDES, BUT IS NOT LIMITED TO NUMBER OF TESTS AND AGE OF TESTS INCLUDED IN THE MIX DESIGN REPORT.
4. ALL CONCRETE DENSITY SHALL BE NORMAL WEIGHT (145 pcf +/- 5) UNLESS OTHERWISE INDICATED.
5. FLY ASH ALLOWANCES:
   - 20% MAXIMUM BY WEIGHT OF CEMENTITIOUS IN FOOTINGS
6. COORDINATE CONCRETE WORK WITH THAT OF OTHER TRADES TO ALLOW FOR SETTING OF SLEEVES, ACCESSORIES, ETC.
7. ALL REINFORCING STEEL, ANCHOR RODS, DOWELS, AND INSERTS SHALL BE WELL-SECURED IN POSITION PRIOR TO PLACING CONCRETE. DO NOT "WET SET" OR "FLOAT" INTO CONCRETE.
8. TEST CYLINDERS WILL BE REQUIRED, AND RECORDS OF RESULTS SHALL BE SUBMITTED TO CASE ENGINEERING. PROVIDE A MINIMUM OF (4) 6"x12" OR (5) 4"x8" CYLINDERS OF EACH MIX DESIGN FOR TESTING AT THE FREQUENCIES LISTED BELOW. TEST 1 AT 7 DAYS, 2 AT 28 DAYS FOR 6"x12" CYLINDERS, OR 3 AT 28 DAYS FOR 4"x8" CYLINDERS. KEEP 1 SPARE FOR FURTHER TESTING IF NEEDED. CYLINDERS SHALL BE TAKEN AND TESTED NO LESS THAN THE FOLLOWING: (SLUMP TESTS ARE RECOMMENDED)
   A. ONCE A DAY
   B. FOR EACH 150 CUBIC YARDS POURED
   C. FOR EACH 5,000 SQ. FT. OF SURFACE AREA POURED
9. CONSTRUCTION JOINTS IN CONCRETE INDICATED WITH A ROUGH, CLEAN SURFACE SHALL HAVE A 1/4" AVERAGE AMPLITUDE.
10. ALL COLD JOINTS SHALL BE ROUGHENED AND CLEANED PRIOR TO PLACING CONCRETE.
11. SLUMP: CONCRETE MIXES SHALL BE PROPORTIONED TO ACHIEVE A MAXIMUM SLUMP OF 8" FOR CONCRETE CONTAINING HIGH RANGE WATER REDUCING ADMIXTURE. 6" FOR CONCRETE CONTAINING A MID-RANGE WATER REDUCING ADMIXTURE. MIXES SHALL HAVE A WATER SLUMP OF 2"-3" PRE-ADDITIVE (3" TO 4" FOR CONCRETE RECEIVING A "DRY-SHAKE" HARDENER). MAXIMUM 4" WATER SLUMP FOR ALL OTHER CONCRETE NOT CONTAINING A WATER REDUCER.
12. ALL CONCRETE SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH IN ACCORDANCE WITH THE FOLLOWING:
   A. AIR ENTRAINMENT IS NOT RECOMMENDED FOR SURFACES TO BE GIVEN A SMOOTH, DENSE, HARD-TROWELED FINISH. COORDINATE FINISH REQUIREMENTS WITH ARCHITECTURAL DRAWINGS AND/ OR SPECIFICATIONS.

CONCRETE TABLE

INTENDED USE	EXPOSURE CLASS	MIN 28 DAY STRENGTH (psi)	MAX WATER-CEMENT RATIO	% TOTAL AIR LIMITS	% MAX SHRINKAGE @ 28 DAYS
FOOTING & FOUNDATION WALLS	F3	5,000	0.40	4.5 TO 7.5	0.05

REINFORCING STEEL NOTES

1. NON-WELDED STEEL BAR REINFORCING SHALL CONFORM TO ASTM A615, GRADE 60. WELDED STEEL BAR REINFORCING SHALL CONFORM TO ASTM A706.
2. WELDING OF REINFORCING STEEL SHALL BE PERFORMED BY AWS QUALIFIED WELDERS IN CONFORMANCE WITH AWS D1.1 USING E90 ELECTRODES FOR ASTM A615 REBAR, AND E80 ELECTRODES FOR ASTM A706 REBAR UNLESS OTHERWISE NOTED ON THE DRAWINGS.
3. MINIMUM CONCRETE COVER FOR REINFORCING STEEL IN CAST-IN-PLACE (NON-PRESTRESSED) CONCRETE SHALL BE AS FOLLOWS UNLESS OTHERWISE NOTED ON THE DRAWINGS:
   A. CONCRETE CAST AGAINST EARTH = 3"
   B. CONCRETE EXPOSED TO EARTH OR WEATHER:
      - #6 BAR AND LARGER = 2"
      - #5 BAR AND SMALLER = 1 1/2"
4. ALL DETAILING, FABRICATION, AND ERECTION OF REINFORCING STEEL SHALL CONFORM TO THE LATEST EDITION OF ACI 315 (SP-66), DETAILS AND DETAILING OF CONCRETE REINFORCEMENT.
5. LAP SPLICE LENGTHS FOR BARS INSTALLED IN CONCRETE SHALL BE IN ACCORDANCE WITH THE TABLE(S).

DEVELOPMENT LENGTH OF STANDARD HOOKS IN CONCRETE NOTES

1. VALUES IN TABLE ARE BASED ON 60ksi REBAR. FOR OTHER REBAR YIELD STRENGTHS, MULTIPLY VALUES IN THE TABLE BY THE SPECIFIED YIELD STRENGTH DIVIDED BY 60.
2. REBAR IN ALL CONCRETE MEMBERS SHALL HAVE STANDARD HOOKS WHERE SHOWN ON SECTIONS IN ACCORDANCE WITH "DEVELOPMENT LENGTH OF STANDARD HOOKS IN TENSION" TABLE, UNLESS SPECIFICALLY NOTED OTHERWISE ON THE DRAWINGS.

TENSION LAP SPLICE LENGTH IN CONCRETE NOTES

1. FOR HORIZONTAL BARS, VALUES IN THE TABLE SHALL BE MULTIPLIED BY 1.3 WHERE MORE THAN 12 INCHES OF FRESH CONCRETE IS CAST BELOW THE BAR.
2. WHERE CLEAR SPACING OF BARS BEING SPLICED IS AT LEAST 2 BAR DIAMETERS AND CLEAR COVER AT LEAST 1 BAR DIAMETER, USE CASE 1. FOR ALL OTHER BAR ARRANGEMENTS, USE CASE 2.
3. VALUES IN THE TABLE ARE BASED ON 60ksi REBAR. FOR OTHER REBAR YIELD STRENGTHS, MULTIPLY VALUES IN THE TABLE BY THE SPECIFIED YIELD STRENGTH DIVIDED BY 60.
4. WHERE BARS OF DIFFERENT SIZES ARE SPLICED, PROVIDE THE LAP LENGTH OF THE LARGER BAR.
5. WELDED WIRE REINFORCEMENT (DEFORMED OR PLAIN WIRE) SHALL BE LAPPED ONE FULL MESH SQUARE PLUS 2 INCHES MINIMUM, BUT NOT LESS THAN 12 INCHES.
6. REBAR IN ALL CONCRETE MEMBERS SHALL BE SPLICED IN ACCORDANCE WITH "TENSION LAP SPLICE LENGTH" TABLE, UNLESS SPECIFICALLY NOTED OTHERWISE ON THE DRAWINGS.

TENSION LAP SPLICE LENGTH IN CONCRETE - 60 KSI REBAR TABLE (INCHES)

f'c =	3,500psi	3,500psi	4,000psi	4,000psi	4,500psi	4,500psi	5,000psi	5,000psi
BAR SIZE	CASE 1	CASE 2	CASE 1	CASE 2	CASE 1	CASE 2	CASE 1	CASE 2
#3	20	30	19	28	18	27	17	25
#4	27	40	25	37	24	35	23	34
#5	33	50	31	47	30	44	28	42
#6	40	60	37	56	35	53	34	50
#7	58	87	54	81	51	77	49	73
#8	66	99	62	93	59	88	56	83
#9	75	112	70	105	66	99	63	94
#10	84	126	79	118	74	111	71	106
#11	93	140	87	131	82	123	78	117

SPECIAL INSPECTIONS

1. REFER TO THE SPECIAL INSPECTION TABLES FOR THE LIST OF ELEMENTS OF CONSTRUCTION THAT SHALL REQUIRE SPECIAL INSPECTION. THIS SHALL BE CONSIDERED A GUIDE, AND THE CONTRACTOR AND INSPECTOR SHALL REFER TO THE IBC FOR COMPLETE REQUIREMENTS, QUALIFICATIONS, EXCEPTIONS, AND SUBMITTALS. REFER TO IBC CHAPTER 17. THE OWNER SHALL BE RESPONSIBLE FOR EMPLOYING THE SPECIAL INSPECTION AGENCY. ANY "OBSERVATIONS" BY CASE ENGINEERING WILL NOT BE TO PERFORM SPECIAL INSPECTIONS AND SHALL NOT BE INTERPRETED AS SUCH.
2. COPIES OF ALL INSPECTION REPORTS THAT REPORT COMPLIANCE SHALL BE SUBMITTED TO THE ARCHITECT OF RECORD, CASE ENGINEERING, AND BUILDING INSPECTOR WITHIN 7 CALENDAR DAYS OF COMPLETION OF THAT PORTION OF WORK. A MINIMUM OF ONE (1) PROGRESS REPORT PER MONTH FOR EACH TYPE OF CONSTRUCTION REQUIRING SPECIAL INSPECTION SHALL BE SUBMITTED TO CASE ENGINEERING.
3. SPECIAL INSPECTOR SHALL INFORM CASE ENGINEERING IMMEDIATELY OF NON-COMPLIANCE WITH CONSTRUCTION DOCUMENTS OR APPROVED SUBMITTALS. CONTACT CASE ENGINEERING THE SAME DAY NON-COMPLIANCE IS DISCOVERED AND FOLLOW UP WITH AN OFFICIAL REPORT WITHIN 2 BUSINESS DAYS.
4. THE SPECIAL INSPECTIONS IDENTIFIED ON THE PLANS ARE IN ADDITION TO, AND NOT A SUBSTITUTE FOR THOSE INSPECTIONS REQUIRED TO BE PERFORMED BY A BUILDING INSPECTOR.
5. SPECIAL INSPECTIONS ARE NOTED AS EITHER "CONTINUOUS" OR "PERIODIC". A "CONTINUOUS" INSPECTION REQUIRES THE PRESENCE OF A QUALIFIED INSPECTOR IN THE VICINITY OF THE WORK BEING PERFORMED FOR 100% OF THAT WORK. A "PERIODIC" INSPECTION REQUIRES PART-TIME OBSERVATION OF THE WORK BEING PERFORMED. THE INSPECTOR SHALL ALSO OBSERVE THE FINAL CONDITION OF THE WORK BEFORE IT IS CLOSED FROM VIEW.
6. WHEN WORK IN MORE THAN ONE CATEGORY OF WORK REQUIRING SPECIAL INSPECTION IS TO BE PERFORMED SIMULTANEOUSLY, OR THE GEOGRAPHIC LOCATION OF THE WORK IS SUCH THAT IT CANNOT BE CONTINUOUSLY OBSERVED, IT SHALL BE THE RESPONSIBILITY OF THE AGENT TO EMPLOY A SUFFICIENT NUMBER OF SPECIAL INSPECTORS TO ASSURE THAT ALL WORK IS CONTINUOUSLY INSPECTED IN ACCORDANCE WITH THOSE PROVISIONS.
7. SPECIAL INSPECTIONS AND TESTS ARE NOT REQUIRED FOR PORTIONS OF STRUCTURES DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH THE COLD-FORMED STEEL LIGHT-FRAME CONSTRUCTION PROVISIONS OF SECTION 2211 OF THE IBC OR THE CONVENTIONAL LIGHT-FRAME CONSTRUCTION PROVISIONS OF SECTION 2308 OF THE IBC.

SPECIAL INSPECTIONS - CONCRETE TABLE

ITEM	INSPECTION FREQUENCY	SCOPE
REINFORCEMENT	PERIODIC	INSPECT REINFORCEMENT AND PLACEMENT; VERIFY CONFORMANCE WITH CONSTRUCTION DOCUMENTS, AND THAT BARS ARE FREE FROM MATERIALS THAT COULD PREVENT BOND, ARE ADEQUATELY LAPPED, SPLICED, TIED, AND SUPPORTED
REINFORCEMENT	PERIODIC	VERIFY WELDABILITY OF REBAR OTHER THAN ASTM A 706; INSPECT SINGLE PASS FILLET WELDS NOT GREATER THAN 5/16"
MIX DESIGN	PERIODIC	VERIFY USE OF APPROVED MIX DESIGN
SAMPLING AND TESTING	CONTINUOUS	PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTING; PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE TEMPERATURE OF THE CONCRETE
CONCRETE PLACEMENT	PERIODIC	VERIFY MAINTENANCE OF CURING TEMPERATURE AND TECHNIQUES
CONCRETE PLACEMENT	PERIODIC	VERIFY STRENGTH OF CONCRETE PRIOR TO REMOVAL OF SHORES
CONCRETE PLACEMENT	PERIODIC	INSPECT FORMWORK FOR SHAPE, LOCATION, AND DIMENSIONS OF CONCRETE MEMBER BEING FORMED
CONCRETE PLACEMENT	CONTINUOUS	CONCRETE PLACEMENT

SPECIAL INSPECTIONS - SOILS AND FOUNDATIONS TABLE

ITEM	INSPECTION FREQUENCY	SCOPE
SOILS	PERIODIC	VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY; VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL; PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS; PRIOR TO PLACEMENT OF COMPACTED FILL, INSPECT SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY
SOILS	CONTINUOUS	VERIFY USE OF PROPER MATERIALS, DENSITIES, LIFT THICKNESSES, AND COMPACTION OF FILL; VERIFY MATERIALS AND PROCEDURES COMPLY WITH THE GEOTECHNICAL REPORT / SOILS ENGINEER

bond architects
222 SOUTH CENTRAL AVE.
SUITE# 501
ST. LOUIS, MO 63105
TEL: 314.863.4994
FAX: 314.863.4996
www.bondarchitectsinc.com
Bond Architects, Inc.
Missouri State Certificate of Authority # 2009027409

STATE OF MISSOURI
KYLE LINENFELSER
NUMBER PE-2010036255
PROFESSIONAL ENGINEER
10/12/26

CASE Engineering Inc.
796 Merus Court
St. Louis, MO 63026 | T 636.349.1600
CERTIFICATE OF AUTHORITY NO. 001498

ROSS ELEMENTARY
1150 ROSS AVE, SAINT LOUIS, MO 63146

Parkway School District
363 N. Woods Mill Rd.
Chesterfield, MO 63017
314.415.8231

Project No: BDA-MO-07-26

Revisions

Description	Date

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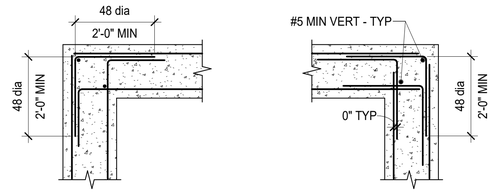
GENERAL NOTES

S1.1

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SCALE: 3" = 1'-0" 0 0.25' 0.5' 1'
SCALE: 1 1/2" = 1'-0" 0 0.5' 1' 2'
SCALE: 1" = 1'-0" 0 0.5' 1' 2'
SCALE: 3/4" = 1'-0" 0 1' 2' 3'
SCALE: 1/2" = 1'-0" 0 1' 2' 4'
SCALE: 1/4" = 1'-0" 0 2' 4' 8'
SCALE: 1/8" = 1'-0" 0 4' 8' 16'
SCALE: 1/16" = 1'-0" 0 8' 16' 32'

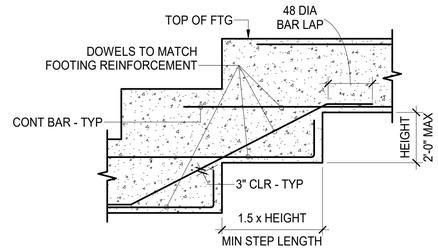
NOTES:
1. WHERE SINGLE CURTAIN OF REINFORCING OCCURS, BEND BARS AS SHOWN FOR OUTSIDE BARS.
2. FOR MORE THAN 2 BARS PER LAYER, EXTEND INNER BARS 12" INTO PERPENDICULAR FOOTING. OUTER BARS SHALL BE PLACED AS INDICATED.
3. CORNER BARS TO MATCH WALL REINFORCEMENT.



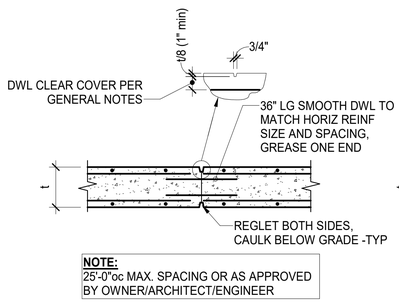
PLAN OF TYPICAL CORNER

PLAN OF ALTERNATE CORNER

A TYP CONCRETE FOOTING, FOUNDATION, & WALL REINFORCEMENT DETAIL
S1.2 N.T.S.

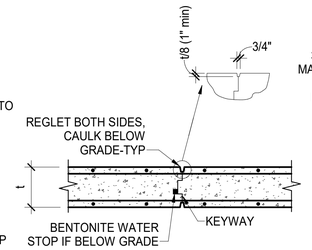


B TYP FOOTING STEP DETAIL
S1.2 N.T.S.



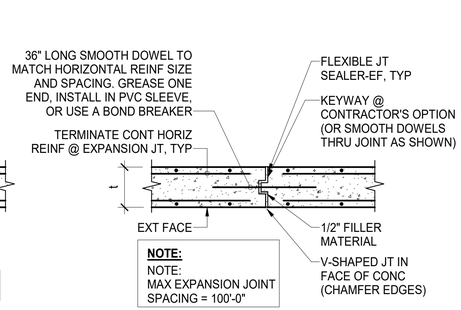
NOTE:
25'-0"oc MAX. SPACING OR AS APPROVED BY OWNER/ARCHITECT/ENGINEER

CONTROL JOINT



NOTE:
LOCATION TO BE BY CONTRACTOR.

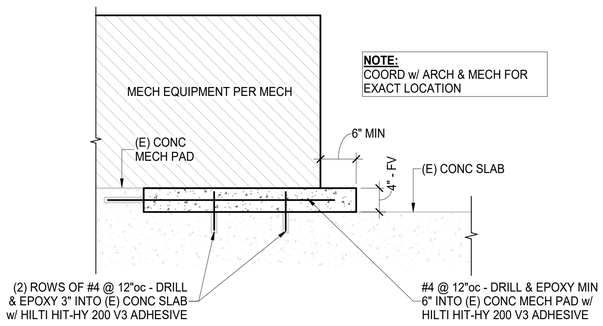
CONSTRUCTION JOINT



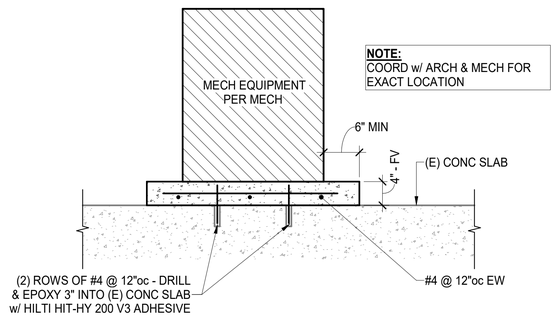
NOTE:
NOTE:
MAX EXPANSION JOINT SPACING = 100'-0"

EXPANSION JOINT

C TYP CONCRETE WALL CONTROL, CONSTRUCTION, AND EXPANSION JOINT DETAILS
S1.2 N.T.S.



D MECH PAD EXTENSION
S1.2 N.T.S.



E CONC MECH PAD
S1.2 N.T.S.

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bond architects
222 SOUTH CENTRAL AVE.
SUITE# 501
ST. LOUIS, MO 63105
TEL: 314.863.4994
FAX: 314.863.4996
www.bondarchitectsinc.com
Bond Architects, Inc.
Missouri State Certificate of Authority # 2009027409

STATE OF MISSOURI
KYLE LINENFELSER
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10/12/26

CASE Engineering Inc.
796 Merus Court
St. Louis, MO 63026 | T 636.349.1600
CERTIFICATE OF AUTHORITY NO. 001498

ROSS ELEMENTARY
1150 ROSS AVE, SAINT LOUIS, MO 63146

Parkway School District
363 N. Woods Mill Rd.
Chesterfield, MO 63017
314.415.8231

Project No: BDA-MO-07-26

Revisions

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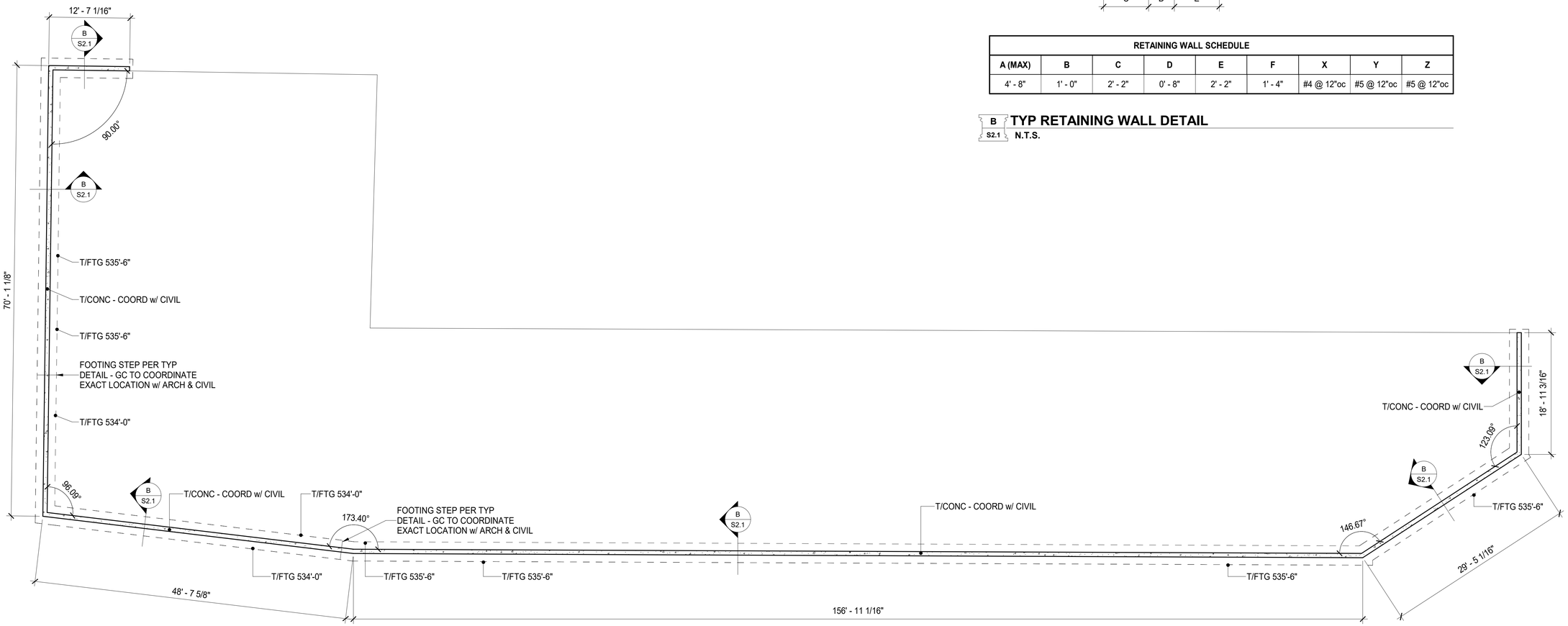
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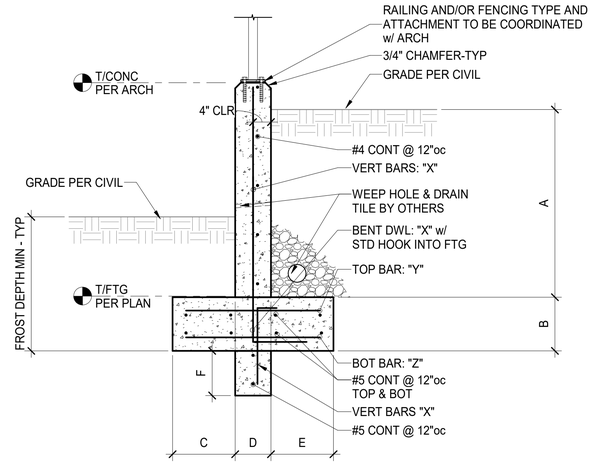
PERMIT SET

TYPICAL DETAILS

S1.2



A S2.1 **RETAINING WALL FOUNDATION PLAN**
1/8" = 1'-0"



RETAINING WALL SCHEDULE								
A (MAX)	B	C	D	E	F	X	Y	Z
4' - 8"	1' - 0"	2' - 2"	0' - 8"	2' - 2"	1' - 4"	#4 @ 12"oc	#5 @ 12"oc	#5 @ 12"oc

B S2.1 **TYP RETAINING WALL DETAIL**
N.T.S.

bond
architects
222 SOUTH CENTRAL AVE.
SUITE# 501
ST. LOUIS, MO 63105
TEL: 314.863.4994
FAX: 314.863.4996
www.bondarchitectsinc.com
Bond Architects, Inc.
Missouri State Certificate of Authority #
2009027409

STATE OF MISSOURI
KYLE LINENFELSER
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PROFESSIONAL ENGINEER
10/12/26

CASE
Engineering Inc.
796 Merus Court
St. Louis, MO 63026 | T 636.349.1600
CERTIFICATE OF AUTHORITY NO. 001498

ROSS ELEMENTARY
1150 ROSS AVE, SAINT LOUIS, MO 63146

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363 N. Woods Mill Rd.
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RETAINING WALL PLAN

S2.1

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ELECTRICAL COMPONENTS EARTHQUAKE LOAD RESISTANCE

OCCUPANCY CATEGORY: III — SEISMIC DESIGN CATEGORY: D

LISTING OF EQUIPMENT AND SYSTEM COMPONENTS	ANCHORAGE TO FLOORS, ROOFS, ETC.		SWAY BRACING		LOCATION OF PROFESSIONALLY SEALED ANCHORAGE AND SWAY BRACING DETAILS.				COMMENTS
	NOT PROVIDED	PROVIDED	NOT PROVIDED	PROVIDED	ON CONST. DOCUMENTS		SUBSEQUENT SUBMITTAL		
					DWG. NO.	SPEC SECT.	SHOP DWGS	SEP. PERMIT	
FIRE PROTECTION, DETECTION & ALARM EQUIPMENT & SYSTEM COMPONENTS: N/A	X								NOTE #3
EMERGENCY OR STANDBY EQUIP. AND SYSTEM COMPONENTS	X								N/A
OTHER EQUIPMENT AND SYSTEM COMPONENTS NEEDED FOR CONTINUED OPERATION OF SEISMIC GROUP III FACILITIES OR WHOSE FAILURE COULD IMPAIR THEIR CONTINUED OPERATION:	X								N/A
OTHER GENERAL EQUIPMENT AND SYSTEM COMPONENTS: LIGHT FIXTURES: DISCONNECT SWITCHES: VARIABLE FREQUENCY DRIVES:	X	 X X							 NOTE #4 NOTE #2 NOTE #2

NOTES:

1. IT IS THE BASIC INTENT OF THIS CODE BLOCK TO DECLARE WHETHER OR NOT ANCHORAGE AND SWAY BRACING IS BEING PROVIDED ON THE PROJECT. IF SO, TO DECLARE WHETHER OR NOT THE DETAILS ARE SHOWN ON THE PLANS OR WILL BE SHOWN ON A SUBSEQUENT SUBMISSION. IF SEISMIC RESTRAINT OF A COMPONENT IS NOT REQUIRED BY CODE THIS SHOULD BE STATED IN COMMENTS. IF SEISMIC RESTRAINT, WHICH IS NOT REQUIRED BY CODE, IS BEING PROVIDED DUE TO OWNER/DESIGNER REQUIREMENTS, THIS SHOULD ALSO BE STATED IN THE COMMENTS.
2. SHOP DRAWINGS NEED TO BE SUBMITTED TO THE COUNTY A MINIMUM OF TWO WEEKS PRIOR TO THE PLANNED INSTALLATION TO ALLOW FOR PLAN REVIEW AND DISTRIBUTION TO THE INSPECTOR. ADDITIONAL TIME MAY BE NEEDED IF SUCH SUBMISSIONS ARE DEFICIENT.
3. FIRE ALARM SYSTEMS THAT REQUIRE SEISMIC RESTRAINT ARE EXISTING.
4. LIGHT FIXTURES ARE EXISTING.

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bond architects
222 SOUTH CENTRAL AVE.
SUITE# 501
ST. LOUIS, MO 63105
TEL: 314.863.4994
FAX: 314.863.4996
www.bondarchitectsinc.com
Bond Architects, Inc.
Missouri State Certificate of Authority # 2009027409

COLE Design Group
Civil Engineer
Consultant Project #26-0054
Certificate of Authority #
401 S. 18th Street, Suite 200
St. Louis, MO 63103
314.984.9887 tel

RTM Engineering Consultants
MEP / FP Engineer
Consultant Project #26.B002031924
Certificate of Authority #2002028690
3701 S. Lindbergh Blvd.
St. Louis, MO 63127
314.725.5889 tel

Pinchin, LLC
HAZ MAT Consultant
Consultant Project #R262.00457.001
Certificate of Authority #
2 Cityplace Drive, Suite 195,
St. Louis, Missouri 63141
314.230.0182 tel

ROSS ELEMENTARY SCHOOL
1150 Ross Road, St Louis, MO 63146
Parkway Project #: PN062501B
Building Renovations & Site Improvements

Parkway School District
363 N. Woods Mill Rd., Chesterfield, MO 63017
314.415.8231 tel

Project No: 26017

Revisions

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REGISTERED PROFESSIONAL ARCHITECT
MICHAEL D. MITCHELL
062-063142
STATE OF ILLINOIS

10/12/2026
MICHAEL D. MITCHELL
MO License:2010019577 Exp:12/31/2026

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BID/PERMIT SET

ELECTRICAL SEISMIC CODE BLOCK

E0.0

ELECTRICAL LEGEND AND ABBREVIATIONS (SEE SPECIFICATIONS & SCHEDULES)

NOTES:
1. NOT ALL SYMBOLS AND ABBREVIATIONS ARE USED ON THESE PLANS.
2. ALL MOUNTING HEIGHTS ARE TO CENTERLINE OF DEVICES AND EQUIPMENT UNLESS NOTED OTHERWISE.
3. IN GENERAL, SYMBOLS SHOWN WITH LIGHT LINES DENOTE EXISTING WORK. SYMBOLS SHOWN WITH HEAVY LINES DENOTE PROPOSED WORK.

JUNCTION AND PULL BOXES

- J — JUNCTION BOX (4"x4"x1/2" MINIMUM)
- P — PULL BOX

WIRING PLANS

- CONDUIT RUN CONCEALED IN CEILING OR WALL CONSTRUCTION
- CONDUIT RUN IN FLOOR CONSTRUCTION OR UNDERGROUND
- CONDUIT RUN EXPOSED
- CONDUIT TURNING UP
- CONDUIT TURNING DOWN
- CONDUIT CAPPED FOR FUTURE.
- HOMERUN TO PANEL OR DESTINATION NOTED
- HACHURES INDICATE NUMBER OF CONDUCTORS IN CONDUIT NOTE:

  LONG HACHURE - NEUTRAL CONDUCTOR SHORT HACHURE - HOT OR SWITCHED CONDUCTORS

  LONG HACHURE WITH DOT - GROUND CONDUCTOR

  LONG HACHURE WITH DOT & RETURN LINE - ISOLATED GROUND CONDUCTOR.

  WHEN HACHURES ARE NOT SHOWN AND WIRING IS FOR POWER OR LIGHTING CIRCUITS, PROVIDE HOT, NEUTRAL, AND GROUND. WHEN FOR MULTIPLE CIRCUITS, PROVIDE NO. OF PHASE CONDUCTORS, NEUTRAL CONDUCTORS AND A GROUND CONDUCTOR. HACHURES ARE SHOWN AS A GUIDE AND MAY NOT BE EXACT COUNTS IN ALL CASES. PROVIDE WIRING REQUIRED BY THE CIRCUITING AND SWITCHING REQUIREMENTS FOR THE PARTICULAR CIRCUITS INVOLVED.

ONE-LINE DIAGRAM SYMBOLS

- XX/XX — FUSIBLE SWITCH (SIZE/FUSE)
- XX/XX — DRAWOUT CIRCUIT BREAKER
- XX/XX — CIRCUIT BREAKER (FRAME/TRIP)

  (3 POLE UNITS U.O.N.)
- MOTOR STARTER
- CONTACTOR

  (3 POLE UNITS U.O.N.)
- GEN — GENERATOR
- 1 — FEEDER NUMBER
- CURRENT TRANSFORMER
- VOLTAGE TRANSFORMER
- POWER TRANSFORMER
- G — GROUND BUS
- N — NEUTRAL BUS
- GROUND
- K — KEY-INTERLOCK
- CAPACITOR
- M — MOTOR OPERATED MEDIUM VOLTAGE LOAD INTERRUPTER SWITCH
- GAP TYPE SURGE ARRESTOR
- TVSS — TRANSIENT VOLTAGE SURGE SUPPRESSOR
- M — ELECTRICAL SERVICE METER

POWER EQUIPMENT

- MOTOR - SEE EQUIPMENT DATA SCHEDULE FOR HORSEPOWER
- STARTERS (MANUAL, MAGNETIC & COMB. MAGNETIC WITH DISC.)
- 1LP1 — PANELBOARD SEQUENCE NUMBER / TYPE
  - P - POWER
  - U - UPS
  - D - DISTRIBUTION
  - VOLTAGE
    - H - 480V
    - L - 240V OR 208/120V
  - FLOOR
- TRANSFORMER
- F / N — DISCONNECT SWITCH. FUSED OR UNFUSED AS NOTED
- VFD — VARIABLE FREQUENCY DRIVE

WIRING DEVICES, RECEPTACLES - MISC.

TYPICAL MOUNTING HEIGHT - 18" AFF

- SINGLE RECEPTACLE OUTLET
- DUPLEX RECEPTACLE OUTLET
- DUPLEX RECEPTACLE OUTLET - GROUND FAULT TYPE
- USB — COMBINATION DUPLEX RECEPTACLE AND USB OUTLET
- IG — DUPLEX RECEPTACLE OUTLET WITH ISOLATED GROUND
- DOUBLE DUPLEX RECEPTACLE OUTLET
- DOUBLE DUPLEX RECEPTACLE OUTLET - GROUND FAULT TYPE
- OC — DUPLEX RECEPTACLE OUTLET MOUNTED +8" ABOVE COUNTER
- OC — DUPLEX RECEPTACLE OUTLET MOUNTED +8" ABOVE COUNTER - GROUND FAULT TYPE
- FLOOR BOX - SYMBOL DESIGNATES TYPE OF SERVICE
- SPECIAL PURPOSE OUTLET AS NOTED

DRAWING REFERENCES

- 1 / E101 — DETAIL NUMBER; PLAN DETAIL REFERENCE TITLE; DRAWING NUMBER
- 3 — KEYED NOTE DESIGNATION
- 1 / E101 — SECTION NUMBER; SECTION REFERENCE TITLE; DRAWING NUMBER
- 1 / 4 E101 2 / 3 — ELEVATION NUMBER (TYPICAL OF 4); ELEVATION REFERENCE TITLE; DRAWING NUMBER

ABBREVIATIONS

A.C.S.	-	ACCESS CONTROL SYSTEM
A.F.F.	-	ABOVE FINISHED FLOOR
ATS	-	AUTOMATIC TRANSFER SWITCH
B.C.	-	BELOW CEILING
C	-	CONDUIT
CAM	-	CAMERA
CB	-	CIRCUIT BREAKER
CC	-	CONTROL CONTACTOR
CCTV	-	CLOSED CIRCUIT TELEVISION
CCW	-	COUNTER CLOCKWISE
CW	-	CLOCKWISE
DCU	-	DISTRIBUTED CONTROLLER UNIT
DN	-	DOWN
DP	-	DISTRIBUTION PANEL
DT	-	DUSTTIGHT
DWG	-	DRAWING
E.C.	-	ELECTRICAL CONTRACTOR
ELEC	-	ELECTRIC OR ELECTRICAL
EMT	-	ELECTRICAL METALLIC TUBING
ER	-	EXISTING RELOCATED
ETR	-	EXISTING TO REMAIN
EWC	-	ELECTRIC WATER COOLER
FA	-	FIRE ALARM
FM	-	F/O MODEM
F/O	-	FIBER OPTIC
FS	-	FUSIBLE SWITCH
G.C.	-	GENERAL CONTRACTOR
GF	-	GROUND FAULT
GFCI	-	GROUND FAULT CIRCUIT INTERRUPTER
GRD	-	GROUND
GRS	-	GALVANIZED RIGID STEEL
HH	-	HANDHOLE
ILSM	-	INTERIM LIFE SAFETY MEASURES
IMC	-	INTERMEDIATE METAL CONDUIT
I/O	-	INPUT/OUTPUT
LAN	-	LOCAL AREA NETWORK
LP	-	LIGHTING PANEL
MATV	-	MASTER ANTENNA TELEVISION
MC	-	METAL CLAD
MCC	-	MOTOR CONTROL CENTER
MCP	-	MOTOR CONTROL PANEL
MH	-	MANHOLE
MT	-	EMPTY CONDUIT
NC	-	NURSE CALL
NL	-	NIGHT LIGHT
PA	-	PUBLIC ADDRESS
PI	-	PORTABLE INTERFACE
P.I.R.	-	PASSIVE INFRA RED
PP	-	POWER PANEL
PR.	-	PAIR
PVC	-	POLYVINYL CHLORIDE CONDUIT
R	-	RECESSED
RF	-	RADIO FREQUENCY
RGS	-	RIGID GALVANISED STEEL
RT	-	RAINTIGHT
SHLD	-	SHIELDED (AS IN CABLE)
SWBD	-	SWITCHBOARD
T	-	TELEPHONE
TYP.	-	TYPICAL
UNG	-	UNGROUNDED
UPS	-	UNINTERUPTIBLE POWER SUPPLY
U.O.N.	-	UNLESS OTHERWISE NOTED
VFD	-	VARIABLE FREQUENCY DRIVE
VT	-	VAPORTIGHT
WT	-	WATERTIGHT
XP	-	EXPLOSION PROOF
WP	-	WEATHER-PROOF

GENERAL NOTES

A. THE ELECTRICAL DRAWINGS HAVE BEEN PREPARED UTILIZING EXISTING DRAWINGS AND BUILDING OBSERVATIONS AND MAY NOT SHOW ALL CONDITIONS. CONTRACTOR SHALL VISIT THE BUILDING PRIOR TO BID SUBMISSION AND BECOME FAMILIAR WITH ALL EXISTING CONDITIONS. CONTRACTOR WILL NOT BE ALLOWED ADDITIONAL FUNDS OR TIME DUE TO THE CONTRACTOR'S FAILURE TO BECOME FAMILIAR WITH ALL EXISTING CONDITIONS.

B. ACCEPTANCE OF CONTRACT MEANS INSTALLER ACCEPTS EXISTING CONDITIONS.

C. COORDINATE INSTALLATION WITH EXISTING CONDITIONS. FIELD VERIFY EXISTING CONDITIONS.

D. CONTRACTOR SHALL SCHEDULE ALL ELECTRICAL SYSTEM POWER OUTAGES WITH THE OWNER'S REPRESENTATIVE AT LEAST 14 CALENDAR DAYS IN ADVANCE OF A SHUTDOWN. DOWNTIME ON BRANCH CIRCUIT PANELBOARDS, SWITCHBOARDS, DISTRIBUTION PANELBOARDS, MOTOR CONTROL CENTERS, ETC., WHICH SERVE LOADS OUTSIDE OF THE CONSTRUCTION AREAS SHALL BE LIMITED TO A (1) HOUR (MAXIMUM) OUTAGE. MORE THAN (1) SCHEDULED OUTAGE MAY OCCUR ON EACH PIECE OF EQUIPMENT, BUT THE MAXIMUM OUTAGE TIME MUST BE MAINTAINED.

E. ALL PENETRATIONS THROUGH CONCRETE OR MASONRY WALLS AND FLOOR SLABS SHALL BE CORE DRILLED. AFTER CONDUITS HAVE BEEN INSTALLED, SEAL WALL AROUND CONDUIT TO MAINTAIN 2-HOUR FIRE RATING USING UL LISTED METHODS AND MATERIALS. EXTERIOR WALLS SHALL BE SEALED WATERTIGHT.

F. CONTRACTOR SHALL UPDATE EXISTING PANELBOARD CIRCUIT DIRECTORIES TO REFLECT ALL CHANGES MADE TO EXISTING PANELBOARDS DURING THIS PROJECT.

G. WHEN INSTALLING CIRCUIT BREAKERS IN EXISTING PANELBOARDS, MATCH EXISTING CIRCUIT BREAKER TYPES AND INTERRUPTING RATINGS.

H. CONTRACTOR SHALL REFER TO "ARCHITECTURAL REFLECTED CEILING PLANS" FOR PLACEMENT OF ALL LIGHTING FIXTURES, CEILING SPEAKERS, AND SMOKE DETECTORS. COORDINATE INSTALLATION WITH THE WORK OF OTHER TRADES THAT AFFECT THE PLACEMENT OF CEILING MOUNTED EQUIPMENT.

I. PROVIDE ELECTRICAL METALLIC TUBING (EMT) SLEEVES WITH INSULATED BUSHINGS ON EACH END FOR ALL TELEPHONE, DATA, DICTATION, NURSE CALL, TV ANTENNA, FIRE ALARM, AND PUBLIC ADDRESS SYSTEM CABLES PASSING THROUGH WALLS AND FLOORS. SEAL AROUND CABLES TO MAINTAIN FIRE RATING OF WALL OR FLOOR.

J. CONTRACTOR SHALL PROVIDE BARRIERS IN BOXES, INCLUDING SWITCHBOXES, TO PROVIDE SEPARATION OF LIFE SAFETY AND CRITICAL BRANCH CIRCUIT WIRING FROM ALL OTHER WIRING AND EQUIPMENT.

K. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING EXISTING DIVISION 26 RELATED ITEMS TO REMAIN IN PLACE WITH THE INSTALLATION OF GENERAL CONSTRUCTION WORK, DUCTWORK, PIPING, ETC. ALL ATTEMPTS SHALL BE MADE PRIOR TO THE START OF CONSTRUCTION TO AVOID THE REMOVAL AND RELOCATION OF EXISTING DIVISION 26 RELATED ITEMS WHICH ARE NOT AFFECTED BY WORK OF THIS CONTRACT.

L. DO NOT ROUTE CONDUITS CONCEALED IN ABOVE GRADE CONCRETE SLABS. CONDUITS SHALL BE ROUTED EXPOSED TO THE UNDERSIDE OF THE SLAB AND STUBBED UP THROUGH THE SLAB TO THE EQUIPMENT BEING SERVED.

M. CONTRACTOR SHALL PROVIDE A SET OF HAND MARKED RECORD DRAWINGS TO THE ENGINEER AT THE COMPLETION OF THE PROJECT INDICATING ACTUAL INSTALLED CONDITIONS. THE HAND MARKING SHALL BE CLEARLY LEGIBLE AND SHALL BE MARKED IN RED. MARKS SHALL INCLUDE ITEMS SUCH AS CIRCUITING CHANGES, DEVICE AND EQUIPMENT LOCATION CHANGES, MAJOR FEEDER AND CABLING ROUTING CHANGES, ETC.

N. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF ALL DEVICE LOCATIONS (RECEPTACLES, VOICE/DATA OUTLETS, SWITCHES, ETC.) WITH ARCHITECTURAL ELEVATIONS AND FURNITURE SUBMITTALS PRIOR TO ROUGH-IN TO ENSURE THAT DEVICES ARE NOT LOCATED BEHIND CABINETS OR FURNITURE. FAILURE TO COORDINATE SHALL NOT RESULT IN ADDITIONAL COST TO THE PROJECT, AND THE DEVICE(S) SHALL BE RELOCATED AT THE CONTRACTORS EXPENSE.

O. ALL RECESSED AND SURFACE MOUNTED LIGHT FIXTURES SHALL BE POSITIVELY ATTACHED TO THE BUILDING STRUCTURE WITH TWO (2) #12 GAUGE SUPPORT WIRES PER FIXTURE. THE WIRE AND ATTACHMENTS SHALL BE CAPABLE OF SUPPORTING THE FULL WEIGHT OF THE FIXTURE. PROVIDE ALL NECESSARY COMPONENTS AND MOUNTING HARDWARE FOR A COMPLETE INSTALLATION.

P. PENDANT MOUNTED LIGHT FIXTURES SHALL BE SUPPORTED BY A PRE-MANUFACTURED CABLE HANGER SYSTEM. A TYPICAL SUPPORT SHALL INCLUDE A CEILING CONNECTOR (ANCHOR, EYEBOLT, ETC.), A STAINLESS STEEL 3/32 INCH CABLE (LENGTH AS REQUIRED), AND A FIXTURE CONNECTOR FLANGE ASSEMBLY. THE FIXTURE CONNECTOR ASSEMBLY SHALL BE SECURED TO THE FIXTURE HOUSING WITH TWO SCREWS. A TYPICAL 1' X 4' LIGHT FIXTURE SHALL REQUIRE TWO SUPPORTS, ONE AT EACH END OF THE FIXTURE. THE CABLE HANGER SYSTEM SHALL BE MANUFACTURED BY THE LIGHT FIXTURE MANUFACTURER THE CABLE ASSEMBLY WILL BE USED FOR OR SIMILAR TO THE GRIP-LOCK SYSTEMS LIGHTING AIR CRAFT CABLE HANGER SYSTEM (GRIPLOCKSYSTEMS.COM).

Q. WHERE ARCHITECTURAL DRAWINGS INDICATE EXISTING CEILINGS ARE TO BE RAISED, THE CONTRACTOR SHALL VISIT THE SITE AND IDENTIFY FEEDERS, WIRING, ELECTRICAL EQUIPMENT, SYSTEMS WIRING AND EQUIPMENT, ETC. ABOVE THE CEILING THAT REQUIRE RELOCATION AND SHALL INCLUDE THE COST OF RELOCATION IN THE BID. FAILURE TO INCLUDE THIS COST IN THE BID SHALL NOT RESULT IN ADDITIONAL COST TO THE OWNER.

R. CONTRACTOR SHALL LOCATE ALL EXISTING UNDERGROUND UTILITIES PRIOR TO THE START OF EXCAVATION. DAMAGE TO EXISTING UNDERGROUND UTILITIES RESULTING FROM A FAILURE TO LOCATE UTILITIES SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL EXPENSE TO THE OWNER.

S. WHERE CIRCUIT NUMBERS ONLY ARE SHOWN ON THE DRAWINGS, THE CONTRACTOR SHALL PROVIDE CONDUIT AND CONDUCTORS AND SHALL MAKE FINAL CONNECTIONS FOR A COMPLETE INSTALLATION.

T. PROVIDE A MINIMUM OF 6 INCHES OF HORIZONTAL OFFSET BETWEEN RECEPTACLES ON OPPOSITE SIDES OF THE SAME WALL TO MINIMIZE SOUND TRANSMISSION THROUGH WALLS. DO NOT INSTALL RECEPTACLES ON OPPOSITE SIDES OF THE SAME WALL "BACK-TO-BACK".

U. PROVIDE #10 CONDUCTORS FOR ALL 120V, 20A CIRCUITS EXCEEDING 75'-0" IN LENGTH. PROVIDE #8 CONDUCTORS FOR ALL 120V, 20A CIRCUITS EXCEEDING 150'-0" IN LENGTH.

V. ALL RECEPTACLES SHALL BE TAMPER RESISTANT TYPE.

W. PROVIDE FIRE CAULKING AT ALL RECESSED ELECTRICAL DEVICES INSTALLED IN FIRE RATED ASSEMBLIES. SEE ARCHITECTURAL DRAWINGS FOR LOCATION OF FIRE RATED ASSEMBLIES.

X. PROVIDE A SEPARATE INSULATED NEUTRAL CONDUCTOR FOR EACH UNGROUNDED CONDUCTOR IN A MULTI-WIRE BRANCH CIRCUIT SERVING LINE-TO-NEUTRAL LOADS PER NEC ARTICLE 210.4(B). DO NOT USE HANDLE TIES TO SATISFY THIS REQUIREMENT.

GENERAL DEMOLITION NOTES

A. THE ELECTRICAL CONTRACTOR SHALL REMOVE, CAP AND/OR RELOCATE EQUIPMENT, OUTLETS, CONDUIT, WIRE, ETC., [AS SHOWN AND SPECIFIED ON THE DRAWINGS] [WHETHER INDICATED ON THE DRAWINGS OR NOT], AND AS MAY BECOME NECESSARY BECAUSE OF EXISTING FIELD CONDITIONS. IT SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO VISIBLY EXAMINE ALL EXISTING WALLS DESIGNATED FOR REMOVAL OR MODIFICATION TO DETERMINE THE CONDUIT AND THE WIRING THAT WILL REQUIRE CAPPING AND/OR REMOVAL. THE CONTRACTOR SHALL BE HELD TO HAVING VISITED THE SITE AND TAKEN ALL EXISTING CONDITIONS INTO CONSIDERATION.

B. PROTECT ADJACENT MATERIALS INDICATED TO REMAIN. INSTALL AND MAINTAIN DUST AND NOISE BARRIERS TO KEEP DIRT, DUST, AND NOISE FROM BEING TRANSMITTED TO ADJACENT AREAS. REMOVE PROTECTION AND BARRIERS AFTER DEMOLITION OPERATIONS ARE COMPLETE.

C. LOCATE, IDENTIFY, AND PROTECT ELECTRICAL SERVICES PASSING THROUGH DEMOLITION AREA AND SERVING OTHER AREAS OUTSIDE THE DEMOLITION LIMITS. MAINTAIN SERVICES TO AREAS OUTSIDE DEMOLITION LIMITS. WHEN SERVICES MUST BE INTERRUPTED, INSTALL TEMPORARY SERVICES FOR AFFECTED AREAS.

D. MAINTAIN AND PROTECT EXISTING BUILDING SERVICES WHICH TRANSIT THE AREA AFFECTED BY SELECTIVE DEMOLITION.

E. MAINTAIN CIRCUIT CONTINUITY TO ALL EXISTING FIXTURES, EQUIPMENT, OUTLETS, ETC., TO REMAIN IN USE WHETHER NOTED ON THE PLANS OR NOT. FIELD VERIFY EXISTING ITEMS TO REMAIN IN USE. WIRING FOR EXISTING CIRCUITS WHICH MUST BE RE-ROUTED OR WHICH ARE PARTIALLY ABANDONED, SHALL BE RECONNECTED TO SERVICE THE REMAINING OUTLETS ON THE CIRCUIT.

F. IN THE DEMOLITION WORK, REMOVE ALL UNUSED WIRING AND CABLES AND UNUSED CONDUIT THAT IS EXPOSED OR WITHIN ACCESSIBLE CEILINGS WHICH IS AFFECTED BY AND IS IN THE AREA OF THE WORK OF THIS CONTRACT.

G. THE INTENTION OF THE ELECTRICAL DEMOLITION IS TO DISCONNECT AND REMOVE ALL ELECTRICAL WORK MADE VOID BY THE SCOPE OF THE CONSTRUCTION AND ALTERATION. FIELD VERIFY EXACT MATERIAL QUANTITIES REQUIRED TO BE REMOVED.

H. WHERE ELECTRICAL EQUIPMENT, CONDUIT, BOXES, AND SUPPORTING HARDWARE ARE REMOVED, PATCH, AND FINISH THE SURFACE AS REQUIRED TO MATCH THE EXISTING, UNLESS OTHERWISE NOTED.

I. WHERE BURIED CONDUITS EXTENDING OUT OF A CONCRETE SLAB BECOME ABANDONED, CUT AND GRIND THE CONDUITS OFF FLUSH WITH TOP OF SLAB AND PLUG WITH NON-SHRINK WATERPROOF GROUT FILL.

J. ALL REMOVED MATERIALS, OTHER THAN REMOVED MATERIALS TO BE RELOCATED, OR STORED, OR TURNED OVER TO THE OWNER, SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE PROJECT SITE.

K. ACCEPTANCE OF CONTRACT MEANS INSTALLER ACCEPTS EXISTING CONDITIONS.

L. CONTRACTOR SHALL COORDINATE ALL DEMOLITION WORK WITH ALL OTHER TRADES.

M. IN WALLS OR FLOORS WHERE A FLUSH DEVICE IS BEING REMOVED, BUT THE WALL OR FLOOR REMAINS OR FOR ANY OUTLET WHICH MUST REMAIN, BUT HAS A DEVICE REMOVED, PROVIDE A BLANK COVER OVER THE OUTLET. MATCH THE COLOR AND MATERIAL OF EXISTING REMAINING COVERS IN THE ROOM OR SPACE.

N. LEGALLY DISPOSE OF HAZARDOUS MATERIALS AND BALLASTS OR OTHER EQUIPMENT CONTAINING PCB'S AND LAMPS CONTAINING MERCURY. COMPLY WITH ALL FEDERAL, STATE, AND LOCAL LAWS.

O. MODIFY EXISTING PANEL DIRECTORIES (OR REPLACE) FOR PANELS WHICH HAVE HAD ALTERATIONS TO THE CIRCUITS ORIGINATING THEREIN. DESCRIBE THE LOAD AND LOCATION.

P. WHERE WORK IS TO BE PERFORMED ABOVE EXISTING ACCESSIBLE CEILINGS, CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING CEILING TILES AND GRID WITHOUT DAMAGE; STORAGE OF EXISTING TILES AND GRID WHILE WORK IS BEING PERFORMED, AND INSTALLATION OF EXISTING GRID AND TILES AFTER DIVISION 26 WORK IS COMPLETED.

Q. ALL EXISTING ELECTRICAL WORK AND ASSOCIATED RACEWAY AND WIRING WHICH HAS BEEN MADE OBSOLETE BY THE WORK AND/OR IS SHOWN DASHED ON THE ELECTRICAL DEMOLITION DRAWINGS, SHALL BE DISCONNECTED AND REMOVED, UNLESS OTHERWISE NOTED. ALTHOUGH AN ATTEMPT HAS BEEN MADE TO INDICATE ALL OF THIS WORK, TOTAL ACCURACY IS NOT GUARANTEED. CONTRACTOR SHALL VISIBLY EXAMINE ALL AREAS AND WALLS AND CEILINGS SCHEDULED FOR REMOVAL TO DETERMINE EXISTING ELECTRICAL ITEMS TO REMAIN.

ELECTRICAL SHEET INDEX:

SHEET NO.	SHEET NAME
E0.0	ELECTRICAL SEISMIC CODE BLOCK
E0.1	ELECTRICAL LEGEND AND NOTES
E1.0	FLOOR PLANS - ELECTRICAL
E6.0	ELECTRICAL - SCHEDULES
E7.0	ELECTRICAL - DETAILS

bond architects
222 SOUTH CENTRAL AVE.
SUITE# 501
ST. LOUIS, MO 63105
TEL: 314.863.4994
FAX: 314.863.4996
www.bondarchitectsinc.com
Bond Architects, Inc.
Missouri State Certificate of Authority # 2009027409

COLE Design Group
Civil Engineer
Consultant Project #26-0054
Certificate of Authority #
401 S. 18th Street, Suite 200
St. Louis, MO 63103
314.984.9887 tel

RTM Engineering Consultants
MEP / FP Engineer
Consultant Project #26.B002031924
Certificate of Authority #2002028690
3701 S. Lindbergh Blvd.
St. Louis, MO 63127
314.725.5889 tel

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Certificate of Authority #
2 Cityplace Drive, Suite 195,
St. Louis, Missouri 63141
314.230.0182 tel

ROSS ELEMENTARY SCHOOL
1150 Ross Road, St Louis, MO 63146
Parkway Project #: PN062501B
Building Renovations & Site Improvements

Parkway School District
363 N. Woods Mill Rd., Chesterfield, MO 63017
314.415.6231 tel

Project No: 26017

Revisions

No.	Description	Date

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10/12/2026

MICHAEL D. MITCHELL
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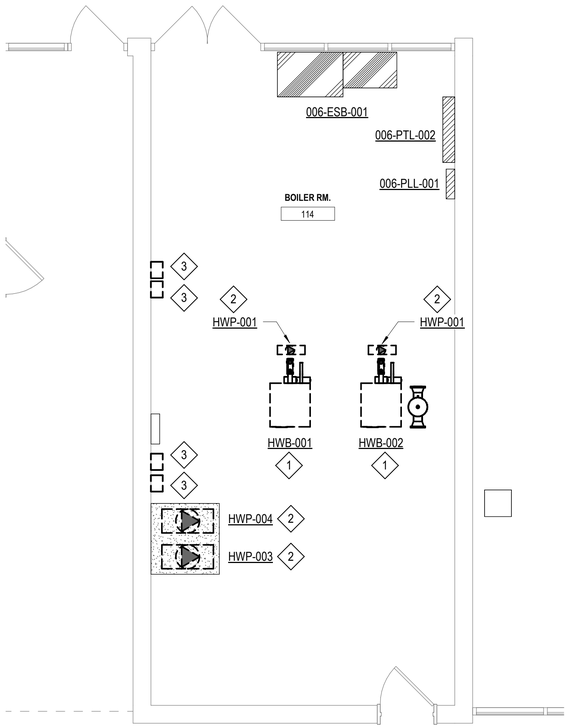
DATE: 10/12/2026

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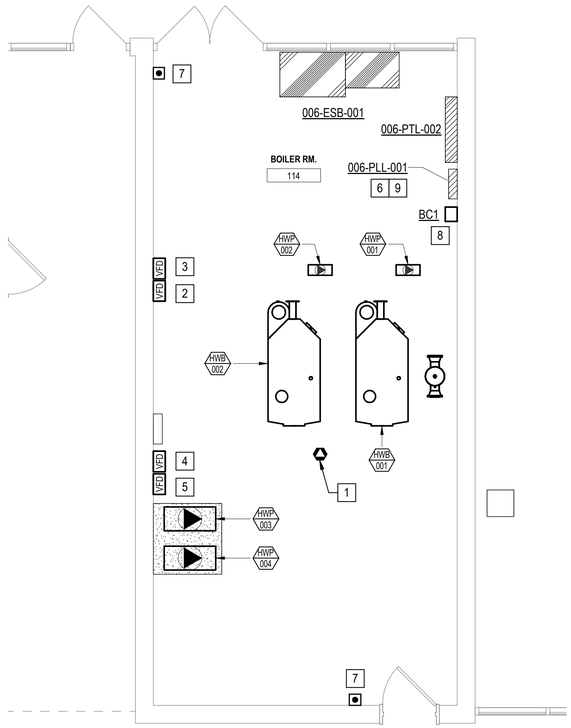
ELECTRICAL LEGEND AND NOTES

E0.1

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1 MECHANICAL ROOM 114 DEMOLITION PLAN
1/4" = 1'-0"



2 MECHANICAL ROOM 114 NEW WORK PLAN
1/4" = 1'-0"

GENERAL NOTES

A. ALL WORK ON THIS SHEET IS TO BE PROVIDED BY THE ELECTRICAL CONTRACTOR UNDER BASE BID.

B. NEW FIRE ALARM DEVICE SHALL CONNECT TO MAIN FIRE ALARM CONTROL PANEL LOCATED IN ROOM 117.

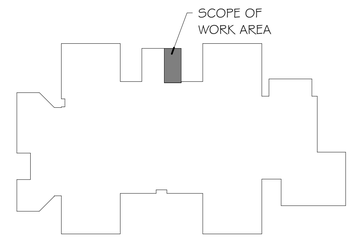
C. SEE EQUIPMENT DATA SCHEDULE ON SHEET E6.0 FOR FEEDER INFORMATION FOR NEW MECHANICAL EQUIPMENT.

DEMOLITION KEYED NOTES

1. DISCONNECT EXISTING BOILER AND DEMOLISH CIRCUIT FROM PANELBOARD 006-PLL-001.
2. DISCONNECT EXISTING PUMP AND REMOVE FEEDER FROM ASSOCIATED VFD.
3. DEMOLISH EXISTING VFD AND FEEDER FROM PANELBOARD 006-PLL-001.

KEYED NOTES

1. PROVIDE NEW CARBON MONOXIDE DETECTOR AND CONNECT TO NEAREST CIRCUIT. CONTRACTOR SHALL PROGRAM FIRE ALARM SYSTEM TO ACCOMMODATE NEW COMPONENT.
2. INSTALL VFD (FURNISHED BY MECHANICAL CONTRACTOR) AND PROVIDE DISCONNECT FOR HWP-001. SEE EQUIPMENT DATA SCHEDULE ON SHEET E6.0 FOR MORE INFORMATION.
3. INSTALL VFD (FURNISHED BY MECHANICAL CONTRACTOR) AND PROVIDE DISCONNECT FOR HWP-002. SEE EQUIPMENT DATA SCHEDULE ON SHEET E6.0 FOR MORE INFORMATION.
4. INSTALL VFD (FURNISHED BY MECHANICAL CONTRACTOR) AND PROVIDE DISCONNECT FOR HWP-003. SEE EQUIPMENT DATA SCHEDULE ON SHEET E6.0 FOR MORE INFORMATION.
5. INSTALL VFD (FURNISHED BY MECHANICAL CONTRACTOR) AND PROVIDE DISCONNECT FOR HWP-004. SEE EQUIPMENT DATA SCHEDULE ON SHEET E6.0 FOR MORE INFORMATION.
6. REMOVE EXISTING CIRCUIT BREAKERS IN PANELBOARD 006-PLL-001 CURRENTLY SERVING HEATING WATER PUMPS HWP-001, HWP-002, HWP-003, AND HWP-004. REPLACE WITH NEW CIRCUIT BREAKERS. SEE EQUIPMENT DATA SCHEDULE ON SHEET E6.0 FOR MORE INFORMATION.
7. PROVIDE EMERGENCY POWER OFF (EPO) SWITCH AND FIELD WIRING FOR BOILERS. SEE DETAIL 1/E7.0 FOR MORE INFORMATION.
8. PROVIDE CONTACTOR BC1 FOR BOILER CONTROL AND EMERGENCY SHUTDOWN. PROVIDE 2#12 AND 1#12 GRD IN 3/4" CONDUIT TO PANELBOARD 006-PLL-001 FOR CONTACTOR CONTROL CIRCUIT. SEE DETAIL 1/E7.0 FOR MORE INFORMATION.
9. PROVIDE TWO NEW CIRCUIT BREAKERS IN EXISTING PANELBOARD 006-PLL-001 FOR BOILERS HWB-001 AND HWB-002. SEE EQUIPMENT DATA SCHEDULE ON SHEET E6.0 FOR MORE INFORMATION.



KEYPLAN
1" = 80'-0"

bond
architects
222 SOUTH CENTRAL AVE.
SUITE# 501
ST. LOUIS, MO 63105
TEL: 314.863.4994
FAX: 314.863.4996
www.bondarchitectsinc.com
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REGISTERED PROFESSIONAL ENGINEER
MICHAEL D. MITCHELL
062-063142
STATE OF ILLINOIS
10/12/2026

MICHAEL D. MITCHELL
MO License:2010019577 Exp:12/31/2026

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FLOOR PLANS - ELECTRICAL

E1.0

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EQUIPMENT DATA SCHEDULE

PLAN MARK	EQUIPMENT	LOCATION	FURNISH BY (1)	MOTOR OR EQUIPMENT DATA			FED FROM	BRANCH CIRCUIT (3)	DISCONNECT SWITCH AT EQUIPMENT					STARTER								KEYED NOTES AND REMARKS (#)
				HP/KW/A (2)	VOLTS/ PHASE	INST.BY/ CONN.BY (1)			TYPE (4)	NEMA ENCLOS. TYPE	SWITCH/ FUSE SIZE	FURNISH. BY (1)	INST.BY/ CONN.BY (1)	NEMA SIZE	TYPE (5)	NEMA ENCLOS. TYPE	SWITCH/ FUSE SIZE	ACCESS. (6)	FURNISH. BY (1)	CONN. BY (1)	CONTROL WIRING BY (1)	
HWB-001	HOT WATER BOILER	BOILER ROOM 114	23	4.5 A	208/3	23/26	006-PLL-001 CKT 37/39/41	2#12, 1#12 GRD, 3/4"C.	NF	1	30A / -	26	23/26	-	-	-	-	-	-	-	23	1 2
HWB-002	HOT WATER BOILER	BOILER ROOM 114	23	4.5 A	208/3	23/26	006-PLL-001 CKT 38/40/42	3#12, 1#12 GRD, 3/4"C.	NF	1	30A / -	26	23/26	-	-	-	-	-	-	-	23	1 2
HWP-001	HEATING WATER PUMP	BOILER ROOM 114	23	2 HP	208/3	23/26	006-PLL-001 CKT 13/15/17	3#12, 1#12 GRD, 3/4"C.	NF	1	30A / -	26	23/26	-	VFD	-	-	-	23	26	23	2 4
HWP-002	HEATING WATER PUMP	BOILER ROOM 114	23	2 HP	208/3	23/26	006-PLL-001 CKT 19/21/23	3#12, 1#12 GRD, 3/4"C.	NF	1	30A / -	26	23/26	-	VFD	-	-	-	23	26	23	2 4
HWP-003	HEATING WATER PUMP	BOILER ROOM 114	23	7.5 HP	208/3	23/26	006-PLL-001 CKT 25/27/29	3#8, 1#10 GRD, 3/4"C.	NF	1	60A / -	26	23/26	-	VFD	-	-	-	23	26	23	3
HWP-004	HEATING WATER PUMP	BOILER ROOM 114	23	7.5 HP	208/3	23/26	006-PLL-001 CKT 31/33/35	3#8, 1#10 GRD, 3/4"C.	NF	1	60A / -	26	23/26	-	VFD	-	-	-	23	26	23	3

(1) SPECIFICATION DIVISION NUMBER:
DIVISION 22 - PLUMBING
DIVISION 23 - MECHANICAL
DIVISION 26 - ELECTRICAL
GC - GENERAL CONTRACTOR

(2) HORSEPOWER (HP) IS SHOWN UNLESS AMPS(A) OR KILOWATTS (KW) ARE CALLED OUT.

(3) REFER TO FEEDER SCHEDULE WHEN THIS COLUMN CONTAINS A FEEDER DESIGNATION INSTEAD OF CONDUCTOR SIZE.

(4) CB - CIRCUIT BREAKR ENCL.
NF - NON FUSED
F- FUSED
TOG - TOGGLE

(5) STARTER TYPE:
COMB1 - COMBINATION FULL VOLTAGE NON-REVERSING MAGNETIC STARTER WITH NON-FUSED DISCONNECT
COMB2 - SWITCH. COMBINATION FULL VOLTAGE NON-REVERSING
COMB3 - MAGNETIC STARTER WITH FUSED DISCONNECT SWITCH. COMBINATION FULL VOLTAGE NON-REVERSING MAGNETIC STARTER WITH THERMAL MAGNETIC MOLDED
COMB4 - CASE CIRCUIT BREAKER DISCONNECT. COMBINATION FULL VOLTAGE NON-REVERSING MAGNETIC STARTER WITH MAGNETIC ONLY MOLDED CASE CIRCUIT BREAKER DISCONNECT.
FVNR - FULL VOLTAGE NON-REVERSING MAGNETIC STARTER WITHOUT DISCONNECT.
MAN - MANUAL STARTER WITH PILOT LIGHT.
SDS - STAR DELTA STARTER.
PWCP - PREWIRED CONTROL PANEL.
VFD - VARIABLE FREQUENCY DRIVE.
2S2W - 2 SPEED, 2 WINDING
2S1W - 2 SPEED, SINGLE WINDING
SC - SPEED CONTROLLER

(6) ACCESSORIES:
HOAP - HOA WITH PILOT LIGHT
PB - START/STOP PUSH BUTTON (MOMENTARY CONTACT)

ALL MAGNETIC AND SOLID STATE STARTERS ARE TO BE EQUIPPED WITH AUXILIARY CONTACTS, PILOT LIGHTS AND FUSED CONTROL POWER TRANSFORMERS. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION.

KEYED NOTES

1. POWER TO BOILER SHALL BE WIRED THROUGH EMERGENCY POWER OFF (EPO) CONTACTOR BC1. SEE DETAIL 1 ON SHEET E7.0 FOR MORE INFORMATION.
2. REPLACE EXISTING CIRCUIT BREAKER(S) IN PANELBOARD 006-PLL-001 WITH NEW 15A/3P CIRCUIT BREAKER.
3. REPLACE EXISTING CIRCUIT BREAKER IN PANELBOARD 006-PLL-001 WITH NEW 40A/3P CIRCUIT BREAKER.
4. FINAL FEEDER AND CIRCUIT BREAKER SIZES TO BE DETERMINED BY EQUIPMENT SELECTED BY BOILER MANUFACTURER. ELECTRICAL CONTRACTOR TO FIELD-COORDINATE WITH MECHANICAL CONTRACTOR.

SCALE: 3" = 1'-0" 0 0.25' 0.5' 1'
SCALE: 1 1/2" = 1'-0" 0 0.5' 1' 2'
SCALE: 1" = 1'-0" 0 0.5' 1' 2'
SCALE: 3/4" = 1'-0" 0 1' 2' 3'
SCALE: 1/2" = 1'-0" 0 1' 2' 4'
SCALE: 1/4" = 1'-0" 0 2' 4' 8'
SCALE: 1/8" = 1'-0" 0 4' 8' 16'
SCALE: 1/16" = 1'-0" 0 8' 16' 32'

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bond architects
222 SOUTH CENTRAL AVE.
SUITE# 501
ST. LOUIS, MO 63105
TEL: 314.863.4994
FAX: 314.863.4996
www.bondarchitectsinc.com
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10/12/2026
MICHAEL D. MITCHELL
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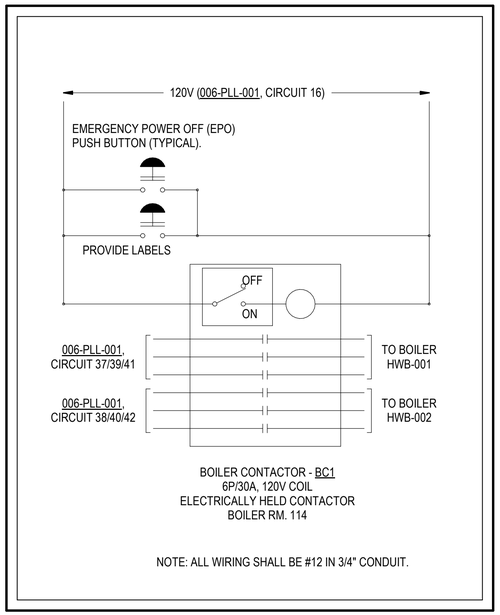
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DATE: 10/12/2026

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ELECTRICAL - SCHEDULES

E6.0



1 / E7.0 BOILER EMERGENCY SHUT-DOWN DETAIL
NOT TO SCALE

bond
architects
222 SOUTH CENTRAL AVE.
SUITE# 501
ST. LOUIS, MO 63105
TEL: 314.863.4994
FAX: 314.863.4996
www.bondarchitectsinc.com
Bond Architects, Inc.
Missouri State Certificate of Authority # 2009027409

COLE Design Group
Civil Engineer
Consultant Project #26-0054
Certificate of Authority #
401 S. 18th Street, Suite 200
St. Louis, MO 63103
314.984.9887 tel

RTM Engineering Consultants
MEP / FP Engineer
Consultant Project #26.B002031924
Certificate of Authority #2002028690
3701 S. Lindbergh Blvd.
St. Louis, MO 63127
314.725.5889 tel

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Certificate of Authority #
2 Cityplace Drive, Suite 195,
St. Louis, Missouri 63141
314.230.0182 tel

ROSS ELEMENTARY SCHOOL
1150 Ross Road, St Louis, MO 63146
Parkway Project #: PN062501B
Building Renovations & Site Improvements

Parkway School District
363 N. Woods Mill Rd., Chesterfield, MO 63017
314.415.6231 tel

Project No: 26017

Revisions

No.	Description	Date

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MICHAEL D. MITCHELL
062-063142
STATE OF ILLINOIS
10/12/2026
MICHAEL D. MITCHELL
MO License:2010019577 Exp:12/31/2026

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ELECTRICAL - DETAILS

E7.0

10/12/2026 11:44:19 AM

SCALE: 3" = 1'-0" 0 0.25' 0.5' 1'
SCALE: 1-1/2" = 1'-0" 0 0.5' 1' 2'
SCALE: 1" = 1'-0" 0 0.5' 1' 2'
SCALE: 3/4" = 1'-0" 0 1' 2' 3'
SCALE: 1/2" = 1'-0" 0 1' 2' 4'
SCALE: 1/4" = 1'-0" 0 2' 4' 8'
SCALE: 1/8" = 1'-0" 0 4' 8' 16'
SCALE: 1/16" = 1'-0" 0 8' 16' 32'

SCALE: 3" = 1'-0"
SCALE: 1-1/2" = 1'-0"
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MECHANICAL SEISMIC DESIGN CODE SCHEDULE

OCCUPANCY CATEGORY: III — SEISMIC DESIGN CATEGORY: D

LISTING OF EQUIPMENT AND SYSTEM COMPONENTS	ANCHORAGE TO FLOORS, ROOFS, ETC.		SWAY BRACING		LOCATION OF PROFESSIONALLY SEALED ANCHORAGE AND SWAY BRACING DETAILS.				COMMENTS
	NOT PROVIDED	PROVIDED	NOT PROVIDED	PROVIDED	ON CONST. DOCUMENTS		SUBSEQUENT SUBMITTAL		
					DWG. NO.	SPEC SECT.	SHOP DWGS	SEP. PERMIT	
FIRE PROTECTION, DETECTION & ALARM EQUIPMENT & SYSTEM COMPONENTS: N/A									N/A
HAZARDOUS EQUIPMENT AND SYSTEM COMPONENTS:									
GAS PIPING 1" OR LESS	X		X						NOTE # 3
GAS PIPING > 1"	X		X						NOTE # 3
OTHER EQUIPMENT AND SYSTEM COMPONENTS NEEDED FOR CONTINUED OPERATION OF SEISMIC GROUP IV FACILITIES OR WHOSE FAILURE COULD IMPAIR THEIR CONTINUED OPERATION: N/A									N/A
OTHER GENERAL EQUIPMENT AND SYSTEM COMPONENTS: Ip=1.0									
ROOF-MOUNTED EQUIPMENT > 400 POUNDS N/A									N/A
ROOF-MOUNTED EQUIPMENT < 400 POUNDS N/A									N/A
FLOOR MOUNTED									
BOILER (HWB), PUMP (HWP), AND EXPANSION TANK HXT > 400 LBS		X	X		1/M5.1		X		NOTE # 9
PUMP (HWP) < OR = 400 LBS	X		X						NOTE # 3.1
EQUIPMENT SUSPENDED FROM STRUCTURE									
AIR AND DIRT SEPARATOR (HAS)		X		X	M5.1				NOTE # 9
HVAC DUCTWORK < 6 S.F.	X		X						NOTE # 4
HVAC DUCTWORK > 6 S.F.	X		X						NOTE # 4
PIPING ≤ 3"		X		X	5& 6/M5.1				NOTE # 5, 6.3,11
PIPING > 3" OR NON-DUCTILE		X		X	5 &6/M5.1				NOTE # 5, 6.3,11
AIR DEVICES < 20 POUNDS (N/A)									N/A

TYPICAL NOTES:

1. TABLE 4.4, GENERAL EXEMPTION - SEISMIC BRACING NOT REQUIRED FOR ALL MEP COMPONENTS IN SEISMIC DESIGN CATEGORY A OR B.
2. TABLE 4.4, GENERAL EXEMPTION - SEISMIC BRACING NOT REQUIRED FOR ALL MEP COMPONENTS IN SEISMIC DESIGN CATEGORY C AND THE COMPONENT IMPORTANCE FACTOR = 1.0.
3. TABLE 4.4, GENERAL EXEMPTION - SEISMIC BRACING NOT REQUIRED FOR ALL MEP COMPONENTS IN SEISMIC DESIGN CATEGORY D, E OR F, AND THE COMPONENT IMPORTANCE FACTOR = 1.0, AND COMPONENTS HAVE APPROVED FLEXIBLE CONNECTIONS NO LESS THAN 3 FEET IN LENGTH TO THE ASSOCIATED DUCTWORK, PIPING AND CONDUIT, AND THE COMPONENTS ARE EITHER:
   1. MOUNTED 4 FEET OR LESS ABOVE THE FLOOR LEVEL AND WEIGH 400 POUNDS OR LESS.
   2. WEIGH 20 POUNDS OR LESS, OR FOR DISTRIBUTION SYSTEMS WEIGHING 5 LB/FT OR LESS.
4. TABLE 4.4, DUCT EXEMPTION - SEISMIC BRACING NOT REQUIRED FOR DUCTS NOT PART OF HAZARDOUS EXHAUST SYSTEMS OR FIRE PROTECTION SYSTEMS SUCH AS SMOKE CONTROL OR EVACUATION SYSTEMS WHEN EITHER:
   1. HVAC DUCTS SUSPENDED FROM HANGERS 12 INCHES OR LESS IN LENGTH: HANGERS SHALL BE DETAILED TO AVOID SIGNIFICANT BENDING OF THE HANGERS AND THEIR ATTACHMENTS.
   2. HVAC DUCTS HAVING A CROSS-SECTIONAL AREA OF LESS THAN 6 SQUARE FEET.
5. TABLE 4.4, PIPING SYSTEM EXEMPTIONS - SEISMIC BRACING NOT REQUIRED FOR PIPING THAT IS SUPPORTED BY ROD HANGERS: HANGERS IN THE PIPE RUN ARE 12 INCHES OR LESS IN LENGTH FROM THE TOP OF THE PIPE TO THE SUPPORTING STRUCTURE; HANGERS ARE DETAILED TO AVOID BENDING OF THE HANGERS AND THEIR ATTACHMENTS; AND PROVISIONS ARE MADE FOR PIPING TO ACCOMMODATE EXPECTED DEFLECTIONS.
6. TABLE 4.4, PIPING SYSTEM EXEMPTIONS - SEISMIC BRACING NOT REQUIRED FOR HIGH DEFORMABILITY PIPING; PROVISIONS ARE MADE TO AVOID IMPACT WITH LARGER PIPING OR MECHANICAL COMPONENTS OR TO PROTECT THE PIPING IN THE EVENT OF SUCH IMPACT; AND THE NOMINAL PIPE SIZES ARE LIMITED TO:
   1. 1 INCH OR LESS FOR SEISMIC DESIGN CATEGORY D, E OR F, AND IMPORTANCE FACTOR > 1.0.
   2. 2 INCHES OR LESS FOR SEISMIC DESIGN CATEGORY C, AND IMPORTANCE FACTOR > 1.0.
   3. 3 INCHES OR LESS FOR SEISMIC DESIGN CATEGORY D, E OR F, AND IMPORTANCE FACTOR = 1.0.
7. TABLE 4.4, GAS PIPING SYSTEM EXEMPTIONS - SEISMIC BRACING NOT REQUIRED FOR ALL TYPES OF EXTERIOR GAS PIPING INSTALLED ON ROOFS IN SEISMIC DESIGN CATEGORY C, D, E OR F, WHEN SUCH PIPING WILL SUPPLY GAS UNDER NO MORE THAN 2 PSI AND IS PROTECTED BY ONE OF THE TWO FOLLOWING METHODS:
   1. AN APPROVED SEISMIC SHUT-OFF VALVE IS INSTALLED WITHIN 5 FEET OF THE BEGINNING OF THE RUN OF GAS PIPE ON THE ROOF, OR OTHER APPROVED LOCATION.
   2. APPROVED FLEXIBLE PIPING NO LESS THAN 3 FEET IN LENGTH IS INSTALLED WITHIN 3 FEET OF THE BEGINNING OF THE RUN OF GAS PIPE ON THE ROOF AND AT THE CONNECTION TO THE EQUIPMENT SERVED BY THE PIPE AND AT INTERVALS ALONG THE RUN OF NO MORE THAN 42 FEET.
8. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS TO THE ENGINEER OF RECORD FOR REVIEW AND APPROVAL PRIOR TO SUBMITTAL TO THE PLAN REVIEWER.
9. TYPICAL SEISMIC ANCHORAGE (ON SWAY BRACING) IS PROVIDED ON THE DRAWINGS FOR REFERENCE ONLY. PLANS SIGNED AND SEALED BY A MISSOURI PROFESSIONAL ENGINEER TO BE SUBMITTED SEPARATELY WITH PERMIT APPLICATION FOR REVIEW.
10. COMPONENTS THAT ARE INSTALLED IN-LINE WITH THE DUCT SYSTEM AND HAVE AN OPERATING WEIGHT GREATER THAN 75 LBS. SHALL BE SUPPORTED AND LATERALLY BRACED INDEPENDENT OF THE DUCT SYSTEM.
11. UNBRACED PIPING ATTACHED TO IN-LINE EQUIPMENT SHALL BE PROVIDED WITH ADEQUATE FLEXIBILITY TO ACCOMMODATE DIFFERENTIAL DISPLACEMENTS.
12. APPURTENANCES SUCH AS DAMPERS, LOUVERS AND DIFFUSERS SHALL BE POSITIVELY ATTACHED WITH MECHANICAL FASTENERS.

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MICHAEL D. MITCHELL
062-063142
STATE OF ILLINOIS
PROFESSIONAL ENGINEER
10/12/2026

MICHAEL D. MITCHELL
MO License:2010019577 Exp:12/31/2026

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MECHANICAL SEISMIC CODE BLOCK

M0.0

GENERAL NOTES

1. THESE PLANS ARE DIAGRAMMATIC IN NATURE SINCE THEY REFLECT ONLY THE AVAILABLE INFORMATION OBTAINED FROM EXISTING PLANS, SPECIFICATIONS, AND FIELD SURVEYS. THE EXACT LOCATION OF EXISTING DUCTWORK, PIPING, AND EQUIPMENT MAY DEVIATE FROM THE LOCATION INDICATED ON THE DRAWINGS. THE CONTRACTOR SHALL BE PREPARED TO MAKE SOME ALTERATIONS TO NEW AND/OR EXISTING SERVICES TO FIT ACTUAL JOB CONDITIONS.
2. THE SPACE ALLOWED FOR MECHANICAL (HVAC, PLUMBING, FIRE PROTECTION) AND ELECTRICAL WORK ABOVE THE SUSPENDED CEILING IS CRITICAL AND REQUIRES COORDINATION BETWEEN TRADES. CONTRACTORS SHALL THOROUGHLY FAMILIARIZE THEMSELVES WITH THE ARCHITECTURAL, STRUCTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS PRIOR TO FABRICATION OR INSTALLATION OF ANY MATERIALS. DUCTWORK SHALL BE HUNG AS CLOSE AS POSSIBLE TO THE STRUCTURE ABOVE UNLESS INDICATED OTHERWISE. REWORK OF PIPING, DUCTWORK, EQUIPMENT LOCATION, CONDUIT, ETC. AS A RESULT OF POOR PLANNING, COORDINATION, OR SCHEDULING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
3. ANY HOLES LEFT IN EXISTING WALL CONSTRUCTION DUE TO DEMOLITION OR NEW WORK SHALL BE PATCHED TO MATCH EXISTING CONDITIONS.
4. PIPES/ETC. PENETRATING ROOFS SHALL BE SEALED WEATHER PROOF.
5. INSTALL H.V.A.C. SYSTEM IN ACCORDANCE WITH ALL STATE AND LOCAL CODES.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF ANY FRAMING REVISIONS, EQUIPMENT LOCATIONS, ADDITION OF CONTROLS, ELECTRICAL CIRCUITING REVISIONS, ETC. THAT RESULT FROM USING EQUIPMENT OTHER THAN INDICATED ON THE DRAWINGS. APPROVAL OF THE SHOP DRAWINGS BY THE ENGINEER WILL NOT WAIVE THE CONTRACTOR OF THIS RESPONSIBILITY.
7. THE CONTRACTOR SHALL HAVE THE FINAL RESPONSIBILITY FOR SYSTEM START UP AND TURN OVER TO THE OWNER.
8. ALL ITEMS INCLUDED ON THESE DRAWINGS AND THE SPECIFICATIONS SHALL BE INCLUDED IN THE CONTRACTOR'S BID. IF THE CONTRACTOR DOES NOT CLEARLY UNDERSTAND THESE PLANS OR IS NOT SURE OF THEIR MEANING, THE CONTRACTOR SHOULD OBTAIN THE ENGINEER'S WRITTEN EXPLANATION AND INTERPRETATION PRIOR TO BID TIME. THE CONTRACTOR WILL BE HELD TO THE INTERPRETATION OF THE ENGINEER.
9. CAULK ALL PENETRATIONS THRU WALLS TO MINIMIZE SOUND PENETRATION THRU WALLS.
10. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE ALL TEMPERATURE CONTROL SYSTEM REQUIREMENTS.
11. ANY DAMAGE TO THE SITE (SIDEWALKS, CURBS, ETC) OR TO THE BUILDING AS A RESULT OF WORK PERFORMED UNDER THIS CONTRACT SHALL BE FIXED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
12. CONTRACTOR WILL BE RESPONSIBLE FOR ALL CUTTING AND PATCHING OF ROOFS/WALLSS AND CORE DRILLS REQUIRED TO COMPLETE THEIR RESPECTIVE WORK.
13. THE OWNER SHALL HAVE FIRST SALVAGE RIGHTS OF EQUIPMENT AND MATERIALS REMOVED. ALL EQUIPMENT AND MATERIALS NOT CLAIMED BY THE OWNER SHALL BE REMOVED FROM THE PREMISES BY THE CONTRACTORS.
14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ANY TEMPORARY FENCING AROUND THE LIFT SITE DURING LIFTS.
15. OWNER SHALL BE RESPONSIBLE FOR REMOVING ALL ASBESTOS-CONTAINING MATERIAL ASSOCIATED WITH THIS PROJECT.

GENERAL NOTES (HYDRONIC)

1. THE CONTRACTOR SHALL COORDINATE SYSTEM SHUT-DOWNS, INCLUDING CHILLED WATER AND HEATING WATER SYSTEM SHUT-DOWNS, WITH THE OWNER. PROVIDE A MINIMUM TWO DAY NOTICE PRIOR TO ANY SYSTEM SHUT-DOWN.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DRAINING, FILLING, AND VENTING OF ALL HYDRONIC SYSTEMS IMPACTED BY THIS PROJECT.

GENERAL NOTES (DEMOLITION)

1. THESE PLANS ARE DIAGRAMMATIC IN NATURE. SINCE THEY REFLECT ONLY THE AVAILABLE INFORMATION OBTAINED FROM EXISTING PLANS, SPECIFICATIONS, AND FIELD SURVEYS. THE EXACT LOCATION OF EXISTING DUCTWORK, PIPING, AND EQUIPMENT MAY DEVIATE FROM THE LOCATION INDICATED ON THESE DRAWINGS. THE CONTRACTOR SHALL BE PREPARED TO MAKE SOME ALTERATIONS TO NEW AND/OR EXISTING SERVICES TO FIT ACTUAL JOB CONDITIONS.
2. ITEMS SHOWN BOLD AND/OR DASHED ON THE DEMOLITION SHEETS INDICATE ITEMS TO BE REMOVED.
3. CROSS HATCHING INDICATES ITEMS TO BE REMOVED.
4. OWNER HAS FIRST RIGHT OF REFUSAL FOR ALL EQUIPMENT BEING REMOVED. CONTRACTOR TO DISPOSE OF EQUIPMENT BEING REMOVED BUT NOT RETAINED BY OWNER.

GENERAL NOTES (ROOF PROTECTION)

1. THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE A MINIMUM OF SEVEN DAYS PRIOR TO THE BEGINNING OF WORK THAT INVOLVES ACTIVITY ON THE ROOF.
2. TRAFFIC OVER THE EXISTING ROOF SURFACES SHALL BE KEPT TO AN ABSOLUTE MINIMUM.
3. THE CONTRACTOR AND THE OWNER'S REPRESENTATIVE SHALL INSPECT THE EXPOSED ROOFING MEMBRANE SYSTEM PRIOR TO THE START OF CONSTRUCTION. ANY PREVIOUS DAMAGE OR DEFECTS OF THE ROOFING SYSTEM SHALL BE DOCUMENTED BY WRITING AND/OR PHOTOGRAPHS.
4. THE CONTRACTOR SHALL PLACE MINIMUM OF 48" WIDE, 1/2" THICK APPROVED PROTECTION BOARDS (1 LAYER) MADE OF CONSTRUCTION GRADE PLYWOOD (ORIENTED STRAND BOARD WILL BE ACCEPTABLE) OVER ALL MEMBRANE ROOFING THAT WILL HAVE CONSTRUCTION TRAFFIC. THIS ROOF PROTECTION SHALL BE PROVIDED FOR THE ENTIRE AREA WITHIN THE LIMITS OF THE WORK (SEE DRAWINGS THIS SHEET). SUCH PROTECTION SHALL ALSO BE PROVIDED IN THE FORM OF A WALKWAY FROM THE ROOF ACCESS DOOR TO THE PROTECTED CONSTRUCTION AREA.
5. STORAGE OF MATERIALS ON EXISTING ROOF WILL NOT BE ALLOWED.
6. THE CONTRACTOR SHALL REMOVED DAILY ALL PROJECT DEBRIS FROM ALL ROOFING SURFACES.
7. THE CONTRACTOR SHALL ADVISE THE OWNER'S REPRESENTATIVE WHEN WORK ON THE ROOF IS COMPLETE AND THE PROTECTION BOARDS HAVE BEEN REMOVED. THE CONTRACTOR AND THE OWNER'S REPRESENTATIVE SHALL EXAMINE ALL ROOF SURFACES WHERE WORK HAS OCCURED AND WILL REPAIR ALL DEFECTS NOT PREVIOUSLY DOCUMENTED.
8. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE BUILDING, ROOF, STRUCTURAL FRAMING, ETC. INCURRED DURING CONSTRUCTION.
9. CONTRACTOR SHALL UTILIZED A LICENSED APPLICATOR OF THE EXISTING ROOFING SYSTEM TO REPAIR ANY AND ALL DAMAGE INCURRED DURING THE COURSE OF CONSTRUCTION.
10. THE CONTRACTOR SHALL VERIFY WARRANTY OF THE EXISTING MEMBRANE ROOFING SYSTEM. THE CONTRACTOR SHALL UTILIZE A LICENSED APPLICATOR OF THE EXISTING ROOFING SYSTEM TO PERFORM ALL ROOFING WORK AND TO REPAIR ANY AND ALL DAMAGE. UPON COMPLETION, THE CONTRACTOR SHALL OBTAIN A LETTER FROM THE ROOF MANUFACTURER STATING THAT THE EXISTING WARRANTY REMAINS IN FULL FORCE AND EFFECT.

HEATING AND VENTILATION SYMBOLS

- SA — SOUND ATTENUATOR
- FC — FLEXIBLE CONNECTION
- SPLITTER DAMPER
- VD — MANUAL VOLUME DAMPER
- BD — GRAVITY BACKDRAFT DAMPER
- MD — MOTORIZED VOLUME DAMPER
- FD — FIRE DAMPER (FD)
- SD — SMOKE DAMPER (SD)
- FD — FIRE DAMPER (FSD)
- TV — TURNING VANES
- RETURN/TRANSFER/COMBUSTION AIR DISCHARGE DUCT UP
- RETURN/TRANSFER/COMBUSTION AIR DISCHARGE DUCT DOWN
- SUPPLY AIR/COMBUSTION AIR INTAKE UP
- SUPPLY AIR/COMBUSTION AIR INTAKE DOWN
- EXHAUST AIR DUCT UP
- EXHAUST AIR DUCT DOWN
- ROUND DUCT DOWN
- ROUND DUCT UP
- INCLINED DROP IN THE DIRECTION OF AIR FLOW (D)
- INCLINED RISE IN THE DIRECTION OF AIR FLOW (R)
- ECCENTRIC DUCT TRANSITION
- CONCENTRIC DUCT TRANSITION
- RECTANGULAR DUCT TO ROUND DUCT TRANSITION
- FXD — FLEXIBLE DUCT
- CEILING AIR DEVICE
- AIR DEVICE THROW DESIGNATION: (HATCHING DESIGNATES ZERO THROW)
- SIDEWALL AIR DEVICE
- DAMPERED SHOE DUCT TAP FROM RECT. MAIN
- SHOE DUCT TAP FROM RECT. MAIN
- 45° DAMPERED DUCT TAP
- 45° DUCT TAP
- SADDLE TAP
- STRAIGHT RECT. DUCT TAP FROM RECT. MAIN
- STRAIGHT RECT. DUCT TAP FROM ROUND MAIN
- S-1 / 1000 — (AIR DEVICE TYPE) - (SCHEDULE NUMBER) (AIR FLOW IN CFM)

AIR DEVICE TYPE:
S - SUPPLY DIFFUSER
R - RETURN GRILLE
E - EXHAUST GRILLE
T - TRANSFER GRILLE

- 24" x 12" RA — DUCT SIZE DESIGNATION: 1ST FIGURE SIDE SHOWN. (SIZE SHOWN IS FREE AREA SIZE, ALLOWANCE HAS NOT BEEN MADE DUCT SYSTEM TYPE DESIGNATION: SPECIFIED.)
- 24"/12" — FLAT OVAL DUCT

DUCT SYSTEM TYPE:
SA - SUPPLY AIR
RA - RETURN AIR
EA - EXHAUST AIR
TA - TRANSFER AIR
OA - OUTDOOR AIR

NOTE: NOT ALL SYMBOLS OR ABBREVIATIONS MAY BE USED.

- CWS — CONDENSING WATER SUPPLY
- CWR — CONDENSING WATER RETURN
- H/C S — HOT/CHILLED WATER SUPPLY
- H/C R — HOT/CHILLED WATER RETURN
- FOS — FUEL OIL SUPPLY
- FOR — FUEL OIL RETURN
- FOV — FUEL OIL VENT
- MU — MAKE - UP WATER LINE
- D — DRAIN LINE (OTHER THAN PLUMBING)
- VL — VENT LINE (OTHER THAN PLUMBING)
- RD — REFRIGERANT DISCHARGE
- RL — REFRIGERANT LIQUID
- RS — REFRIGERANT SUCTION
- G — GAS
- CHWS — CHILLED WATER SUPPLY
- CHWR — CHILLED WATER RETURN
- CA — COMPRESSED AIR
- LPS — LOW PRESSURE STEAM
- MPS — MEDIUM PRESSURE STEAM
- LPC — LOW PRESSURE CONDENSATE
- MPC — MEDIUM PRESSURE CONDENSATE
- HPS — HIGH PRESSURE STEAM
- HPC — HIGH PRESSURE CONDENSATE
- CPD — CONDENSATE PUMP DISCHARGE
- HWS — HEATING WATER SUPPLY
- HWR — HEATING WATER RETURN
- NOS — NITROGEN OXIDE SENSOR
- T — THERMOSTAT / TEMPERATURE SENSOR
- S — TEMPERATURE SENSOR
- CO — CARBON MONOXIDE SENSOR
- H — HUMIDISTAT

MISCELLANEOUS SYMBOLS

- EQUIPMENT OR PLUMBING FIXTURE DESIGNATION
- (RISER INDICATION P=PLUMBING, K=KITCHEN, A=ACID) RISER DESIGNATION (RISER NUMBER)
- (DETAIL NUMBER) DETAIL DESIGNATION (SHEET NUMBER WHERE DETAIL IS FOUND)
- (SECTION NUMBER) SECTION DESIGNATION (SHEET NUMBER WHERE SECTION IS FOUND)
- KEYED NOTES
- REVISIONS
- AP — ACCESS PANEL
- NEW CONNECTION
- AFMS — AIR FLOW MEASURING STATION
- CVR — CONSTANT VOLUME REGULATOR

PIPING SPECIALTIES

- SV — SHUTOFF VALVE
- CV — CHECK VALVE
- STR — STRAINER
- U — UNION
- BC — BALANCING COCK
- SOC — SHUT-OFF COCK
- SLV — SOLENOID VALVE
- FS — FLOW SWITCH (VALVE W/ SUPERVISORY SWITCH)
- FCV — FLOW CONTROL VALVE (GPM INDICATED)
- T&PR — TEMPERATURE AND PRESSURE RELIEF VALVE
- PG — PRESSURE GAUGE
- TH — THERMOMETER (TUBE OR DIAL AS INDICATED)
- PRV — PRESSURE REDUCING VALVE
- DIRECTION OF FLOW
- ANCHORS
- PIPE GUIDES
- MV — MOTORIZED VALVE
- DV — DIAPHRAGM VALVE
- LPV — LUBRICATED VALVE
- HEV — HOSE END VALVE
- SWV — STOP AND WASTE VALVE
- TWV — 3 - WAY VALVE (MIXING OR BY-PASS AS INDICATED)
- PETES PLUG
- RV — RELIEF VALVE
- FC — FLEXIBLE PIPE CONNECTION
- AVM — AIR VENT (MANUAL)
- AVA — AIR VENT (AUTOMATIC)
- EX — EXPANSION JOINT
- CCR — CONCENTRIC REDUCER
- TEE (SIDE OUTLET UP)
- TEE (SIDE OUTLET DOWN)
- ELBOW (TURNED UP)
- ELBOW (TURNED DOWN)
- BMD — COMBINATION BALANCING & MEASURING DEVICE
- ECR — ECCENTRIC REDUCER
- FMD — FLOW MEASURING DEVICE
- STEAM TRAP
- BALANCING VALVE
- FLEXIBLE CONNECTION
- ELBOW
- TEE

ABBREVIATIONS

FFE	FINISH FLOOR ELEVATION
AFF	ABOVE FINISH FLOOR
TE	TOP ELEVATION
BE	BOTTOM ELEVATION
FL	FLOW LINE
INV	INVERT ELEVATION
℄	CENTER LINE
GC	GENERAL CONSTRUCTION CONTRACTOR
HAC	HEATING & AIR CONDITIONING CONTRACTOR
PC	PLUMBING CONTRACTOR
EC	ELECTRICAL CONTRACTOR
ACS	AUTOMATIC CONTROL SUB-CONTRACTOR
FPC	FIRE PROTECTION CONTRACTOR
HSC	HALON SUB-CONTRACTOR
KEC	KITCHEN EQUIPMENT CONTRACTOR
MC	MECHANICAL CONTRACTOR
TCC	TEMPERATURE CONTROL CONTRACTOR

MECHANICAL SHEET INDEX:

SHEET NO.	SHEET NAME
M0.0	MECHANICAL SEISMIC CODE BLOCK
M0.1	MECHANICAL LEGEND AND NOTES
M1.0	FLOOR PLANS - MECHANICAL
M5.0	DETAILS - MECHANICAL
M5.1	DETAILS - MECHANICAL
M6.0	SCHEDULES - MECHANICAL
M8.0	CONTROLS - MECHANICAL

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3701 S. Lindbergh Blvd.
St. Louis, MO 63127
314.725.5889 tel

Pinchin, LLC
HAZ MAT Consultant
Consultant Project #R262.00457.001
Certificate of Authority #
2 Cityplace Drive, Suite 195,
St. Louis, Missouri 63141
314.230.0182 tel

ROSS ELEMENTARY SCHOOL
1150 Ross Road, St Louis, MO 63146
Parkway Project #: PN062501B
Building Renovations & Site Improvements

Parkway School District
363 N. Woods Mill Rd., Chesterfield, MO 63017
314.415.6231 tel

Project No: 26017

Revisions

No.	Description	Date

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LICENSED PROFESSIONAL ENGINEER — MICHAEL D. MITCHELL — 062-063142 — STATE OF ILLINOIS

10/12/2026

MICHAEL D. MITCHELL
MO License:2010019577 Exp:12/31/2026

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DATE: 10/12/2026

BID/PERMIT SET

MECHANICAL LEGEND AND NOTES

M0.1

SCALE: 3/4" = 1'-0" 0 0.25' 0.5' 1'
SCALE: 1 1/2" = 1'-0" 0 0.5' 1' 2'
SCALE: 1" = 1'-0" 0 0.5' 1' 2'
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SCALE: 1/8" = 1'-0" 0 4' 8' 16'
SCALE: 1/16" = 1'-0" 0 8' 16' 32'

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GENERAL NOTES

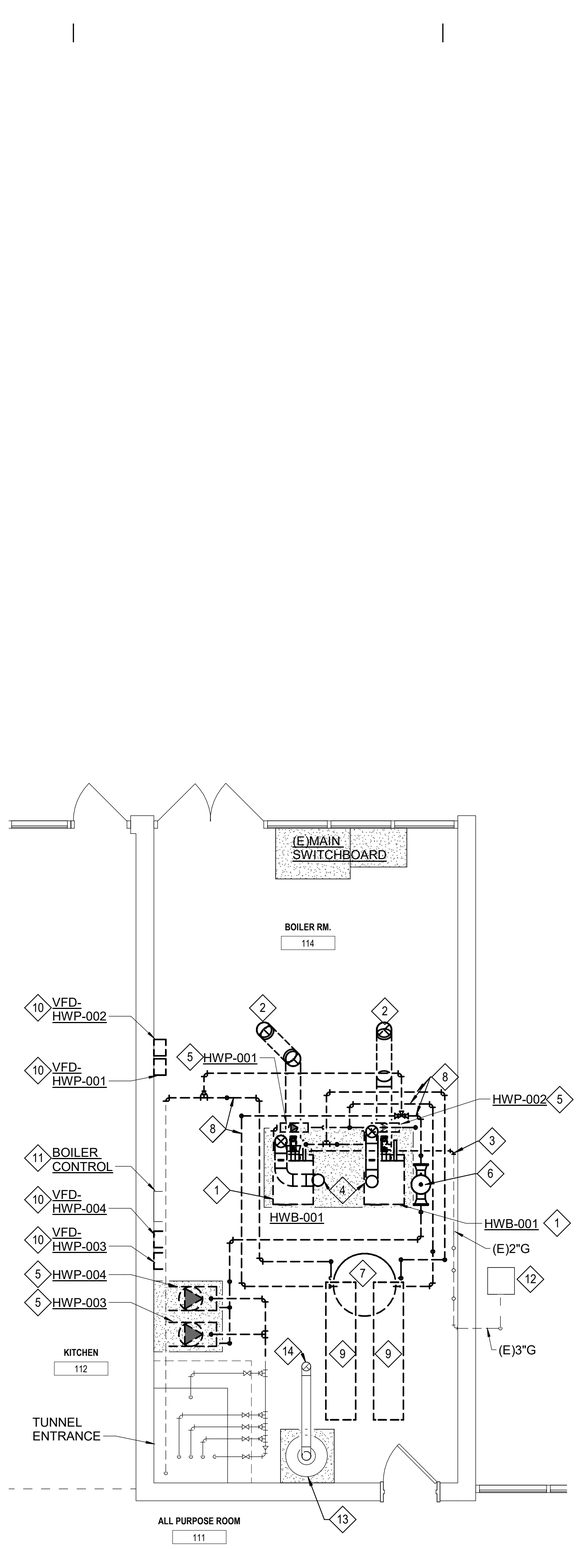
A. REFER TO M0.1 FOR GENERAL NOTES.

KEYED NOTES

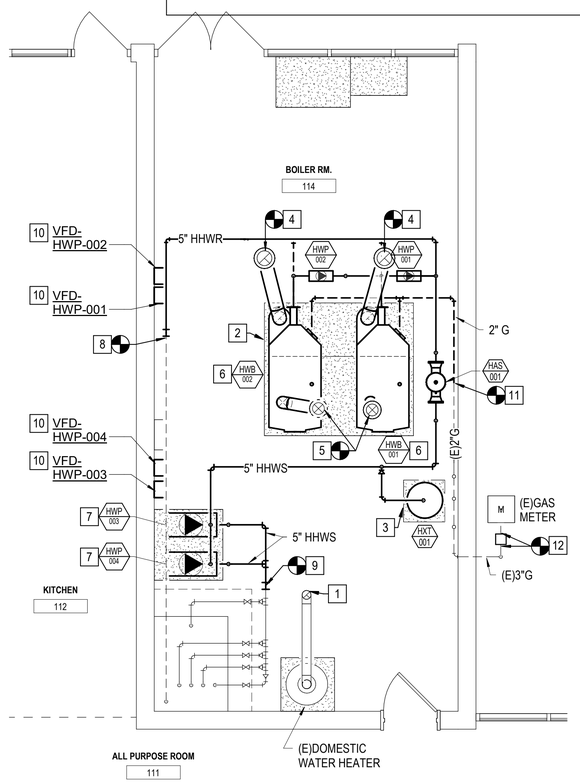
1. EXISTING DOMESTIC WATER HEATER FLUE.
2. REFER TO STRUCTURAL PLANS FOR THE CONCRETE HOUSEKEEPING PAD EXTENSION FROM THE EXISTING CONCRETE HOUSEKEEPING PAD.
3. REFER TO STRUCTURAL PLANS FOR THE CONCRETE HOUSEKEEPING PAD. PAD SHALL EXTEND 6" BEYOND THE EQUIPMENT FOOTPRINT.
4. ROUTE THE 9" FLUE TO THE EXISTING ROOF PENETRATION. TERMINATE WITH MANUFACTURER FLUE TERMINATION MIN. 5'-0" ABOVE ROOF.
5. ROUTE THE 8" COMBUSTION TO THE EXISTING ROOF PENETRATION. TERMINATE WITH MANUFACTURER GOOSENECK WITH INSECT SCREEN TERMINATION MIN. 5'-0" ABOVE ROOF.
6. INSTALL THE NEW BOILER ON THE EXISTING CONCRETE PAD. REFER TO STRUCTURAL PLANS FOR THE CONCRETE HOUSEKEEPING PAD EXTENSION TO COVER THE NEW BOILER FOOTPRINT.
7. INSTALL THE NEW PUMP ON THE EXISTING CONCRETE PAD.
8. CONNECT EXISTING HEATING HOT WATER RETURN PIPING TO NEW 5" HEATING HOT WATER RETURN PIPING. FIELD COORDINATE EXISTING PIPE LOCATION AND ELEVATION.
9. CONNECT 5" HEATING HOT WATER PIPING TO EXISTING HOT WATER HEATING PIPING. FIELD COORDINATE EXISTING PIPE LOCATION AND ELEVATION.
10. MOUNT PUMP VFD 48" ABOVE FINISH FLOOR. COORDINATE WITH ELECTRICAL CONTRACTOR WIRING AND POWER CONNECTION.
11. ROUTE 2" GAS LINE TO EACH BOILER.
12. PROVIDE SEISMIC GAS SHUTOFF VALVE. REFER TO 8/M5.1 GAS METER DETAIL.

DEMOLITION KEYED NOTES

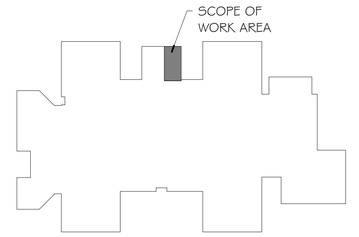
1. REMOVE EXISTING BOILER. DISCONNECT THE GAS PIPING, COMBUSTION, AND FLUE. REFER TO ELECTRICAL DRAWINGS FOR POWER DISCONNECT. REMOVE ALL ASSOCIATED PIPE, VALVES, AND CONTROL WIRING.
2. REMOVE EXISTING COMBUSTION DUCTWORK. THE EXISTING ROOF FLASHING SHALL REMAIN. PREPARE OPENING FOR NEW ROOF PENETRATION.
3. REMOVE EXISTING GAS PIPING AND ASSOCIATED REGULATOR. TERMINATE 6" FROM ISOLATION VALVE.
4. REMOVE EXISTING FLUE DUCTWORK AND TERMINATION. THE EXISTING ROOF FLASHING SHALL REMAIN. PREPARE OPENING FOR NEW ROOF PENETRATION. REFER TO ARCHITECTURAL PLANS FOR ROOF OPENING CAP.
5. REMOVE EXISTING PUMP. DISCONNECT THE PIPING AS INDICATED, VALVES, FITTING, SUPPORTS, AND ALL ASSOCIATED CONTROLS. REFER TO ELECTRICAL FOR POWER DISCONNECT.
6. REMOVE THE EXISTING AIR SEPARATOR.
7. REMOVE EXISTING BUFFER TANK AND ALL ASSOCIATED PIPING, VALVES, FITTING, AND ASSOCIATED SUPPORTS.
8. REMOVE EXISTING HEATING HOT WATER PIPING AND ASSOCIATED SUPPORTS.
9. REMOVE EXISTING EXPANSION TANK.
10. REMOVE CONTROL WIRING. COORDINATE WITH ELECTRICAL CONTRACTOR REMOVAL OF VFD AND POWER.
11. EXISTING BOILER CONTROL SHALL REMAIN.
12. EXISTING GAS METER SHALL REMAIN.
13. EXISTING DOMESTIC WATER HEATER SHALL REMAIN AND ALL ASSOCIATED SYSTEM COMPONENTS SUCH AS PUMPS, PIPING, VALVES, ETC.
14. EXISTING DOMESTIC WATER HEATER FLUE SHALL REMAIN.



N MI.0 1 MECHANICAL ROOM 114 DEMOLITION PLAN
1/4" = 1'-0"



N MI.0 2 MECHANICAL ROOM 114 NEW WORK PLAN
1/4" = 1'-0"



KEYPLAN
1" = 80'-0"

bond architects
222 SOUTH CENTRAL AVE.
SUITE# 501
ST. LOUIS, MO 63105
TEL: 314.863.4994
FAX: 314.863.4996
www.bondarchitectsinc.com
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Missouri State Certificate of Authority # 2009027409

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Project No: 26017

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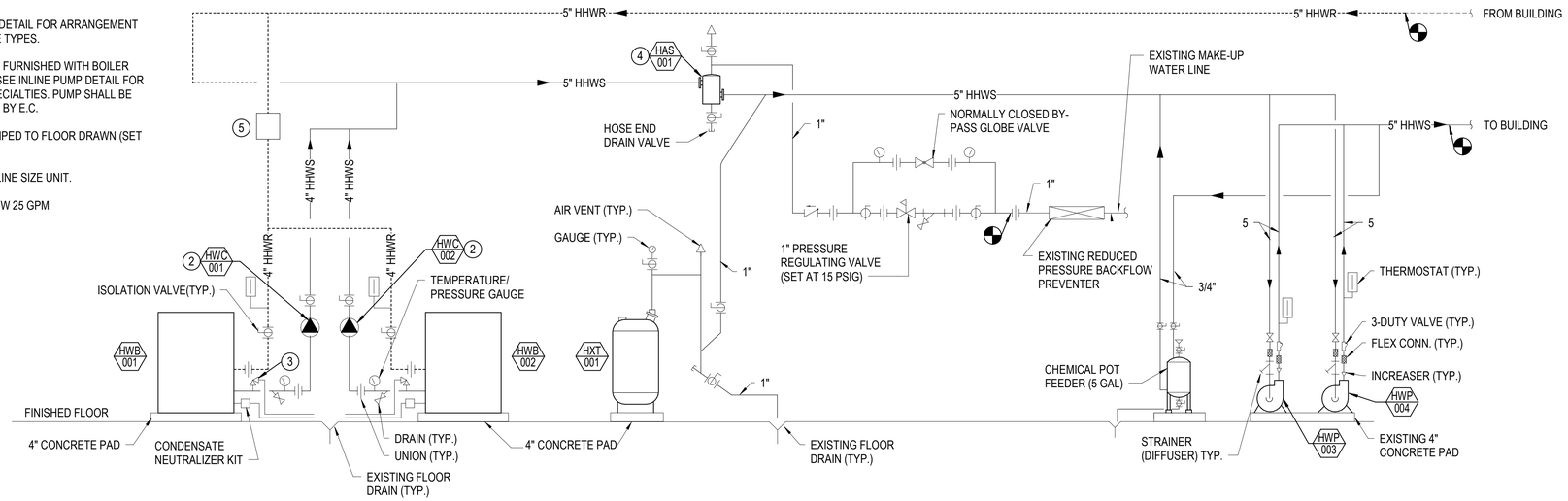
BID/PERMIT SET

FLOOR PLANS - MECHANICAL

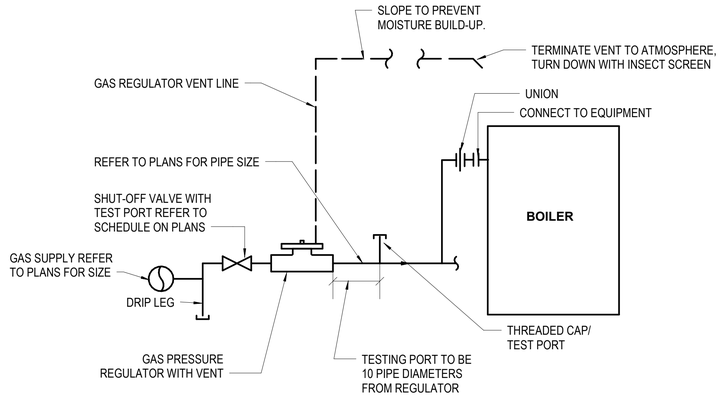
M1.0

KEYED DETAIL NOTES:

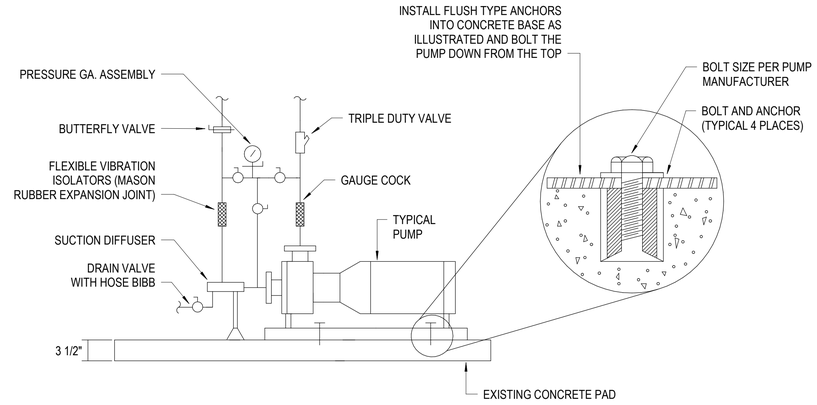
1. SEE BASE MOUNTED PUMP DETAIL FOR ARRANGEMENT OF SPECIALTIES AND VALVE TYPES.
2. BOILER CIRCULATING PUMP FURNISHED WITH BOILER FOR FIELD INSTALLATION. SEE INLINE PUMP DETAIL FOR REQUIRED VALVES AND SPECIALTIES. PUMP SHALL BE INTERLOCKED WITH BOILER BY E.C.
3. PRESSURE RELIEF VALVE PIPED TO FLOOR DRAWN (SET AT 40 PSIG).
4. AIR SEPARATOR SHALL BE LINE SIZE UNIT.
5. FLOW METER. MINIMUM FLOW 25 GPM



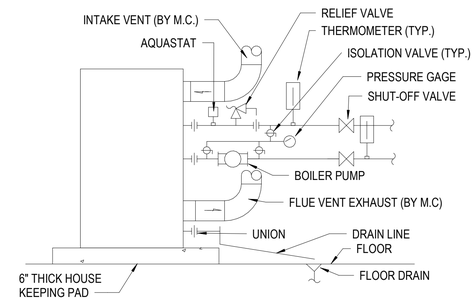
1 M5.0 HEATING HOT WATER BOILER PIPING DIAGRAM
NOT TO SCALE



4 M5.0 GAS CONNECTION TO HOT WATER BOILERS DETAIL
NOT TO SCALE



3 M5.0 TYPICAL PUMP CONNECTIONS AND MOUNTING DETAIL
NOT TO SCALE



NOTE: PROVIDE CONDENSATE NEUTRALIZATION KIT.

2 M5.0 BOILER - PIPING
NOT TO SCALE

bond architects
222 SOUTH CENTRAL AVE.
SUITE# 501
ST. LOUIS, MO 63105
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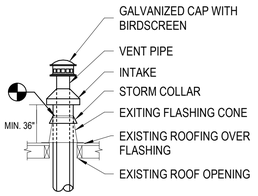
BID/PERMIT SET

DETAILS - MECHANICAL

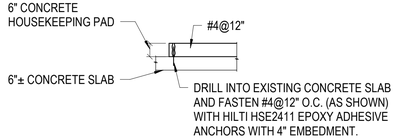
M5.0

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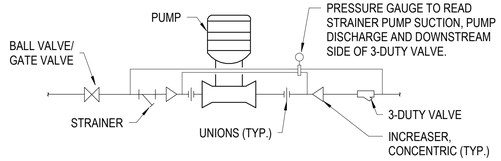
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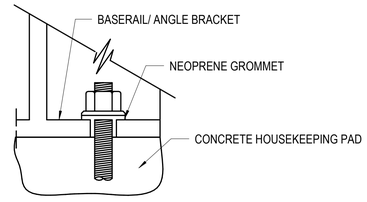
4 M5.1 BOILER VENT DETAIL
NOT TO SCALE



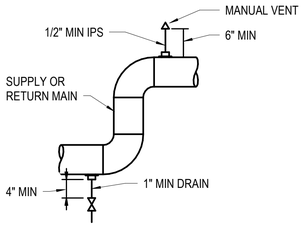
3 M5.1 EXISTING HOUSEKEEPING PAD TO REMAIN
NOT TO SCALE



2 M5.1 PIPING SCHEMATIC - INLINE PUMP DETAIL
NOT TO SCALE

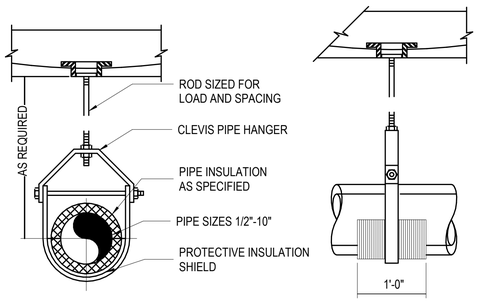


1 M5.1 FLOOR MOUNTED EQUIPMENT ANCHORING DETAIL
NOT TO SCALE



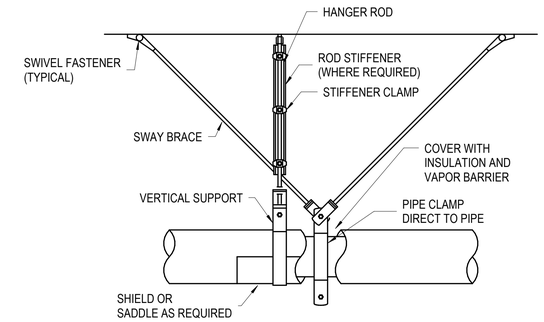
NOTES:
1. TYPICAL FOR ALL HIGH POINTS, LOW POINTS AND POCKETS.
2. LOW POINT DRAINS SHALL BE 2" MINIMUM ON 6" AND LARGER MAINS.

7 M5.1 MANUAL VENTS AND DRAINS
NOT TO SCALE

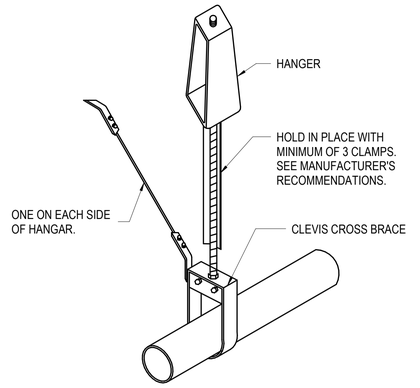


NOTES:
1. PIPE HANGERS SHALL BE OVERSIZED AS REQUIRED TO ACCOMODATE THE THICKNESS OF INSULATION SPECIFIED. HANGAR SHALL NOT COME INTO CONTACT WITH THE INSULATION DIRECTLY, EITHER AT THE VERTICAL YOKE OR AT THE POINT OF SUPPORT. FOR REQUIREMENTS ON INSULATION SHIELD USED WITH PIPE HANGERS, SEE SPECIFICATIONS.

6 M5.1 INSULATED PIPE HANGAR
NOT TO SCALE

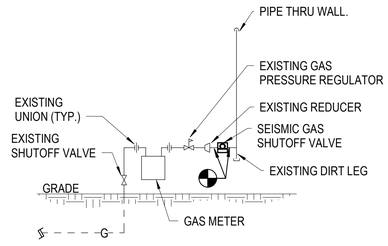


LONGITUDINAL PIPING RESTRAINT



LATERAL PIPING RESTRAINT

5 M5.1 SEISMIC PIPE MOUNTING SUPPORTS DETAIL
NOT TO SCALE



NOTE:
PAINT ALL EXPOSED FERROUS METAL.
SEE SPECIFICATIONS

8 M5.1 GAS METER DETAIL
NOT TO SCALE

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DETAILS - MECHANICAL

M5.1

BOILER SCHEDULE

PLAN MARK	MANUFACTURER	MODEL	FUEL	CAPACITY (MBH)		TURNDOWN	MAX. WORKING PRESSURE (PSIG)	RELIEF VALVE SETTING (PSIG)	EWT (°F)	LWT (°F)	CAPACITY (GAL)	PERESSURE DROP FT.HD	AFUE (%)	ELECTRICAL	AIR DIA. (IN.)	VENT DIA. (IN.)	WEIGHT (LBS)	REMARKS
				INPUT	OUTPUT									VOLTS/PH				
HWB-001	LOCHINVAR	CREST - FCB2500	NG	2500	2400	20:1	160	50	150	180	157	150	96	208/ 3	8	9	3,600	1 THRU 6
HWB-002	LOCHINVAR	CREST - FCB2500	NG	2500	2400	20:1	20	50	150	180	157	120	96	208/ 3	8	9	3,600	1 THRU 6

NOTE:

1. CONDENSATE NEUTRALIZATION KIT.
2. PROVIDE BMS GATEWAY TO BACNET
3. BOILER BURNER TRIM & CONTROLS TO MEET LOCAL ADAPTED NFPA 85 REQUIREMENTS
4. PROVIDE DIRECT VENT AND INTAKE CONNECTION AND TERMINATE THROUGH EXISTING FLUE OPENING IN ROOF.
5. BOILER MANUFACTURER PROVIDE AND SIZE THE VARIABLE SPEED BOILER PUMP FOR FIELD INSTALLATION. COORDINATE WITH ELECTRICAL CONTRACTOR FOR POWER CONNECTION.
6. REFER TO ELECTRICAL DRAWINGS FOR ALL ELECTRICAL REQUIREMENTS.

PUMP SCHEDULE

PLAN MARK	MANUFACTURER	MODEL	TYPE	SERVICE	FLOW RATE (GPM)	HEAD (FT.)	MOTOR (HP)	MOTOR (BHP)	PUMP (RPM)	ELECTRICAL		WEIGHT (LBS)	REMARKS
										VOLTS/PH	HZ		
HWP-001	-	-	IN-LINE	HWB-1	130	35	2	1.4	1750	208/ 3	60	250	1 ,3 THRU 8
HWP-002	-	-	IN-LINE	HWB-2	130	35	2	1.4	1750	208/3	60	250	1, 3 THRU 8
HWP-003	TACO	2509D	FLOOR MOUNTED	BLDG HHW	260	60	7.5	5.13	1750	208/3	60	500	1,2,4 THRU 6, 8
HWP-004	TACO	2509D	FLOOR MOUNTED	BLDG HHW	260	60	7.5	5.13	1750	208/ 3	60	500	1,2,4 THRU 6, 8

NOTE:

1. PROVIDE VARIABLE FREQUENCY DRIVE. REFER TO SPECIFICATION SECTION 262923 VARIABLE FREQUENCY MOTOR CONTROLLERS.
2. SUPPORT PUMP FROM FLOOR WITH VERTICAL SUPPORTS INDEPENDENT FROM PIPING
3. SUPPORT PUMP FROM STRUCTURE WITH VERTICAL SUPPORTS INDEPENDENT FROM PIPING
4. DISCONNECT PROVIDED BY DIVISION 26 CONTRACTOR
5. PUMP MOTOR SHALL BE NON-OVERLOADED THROUGHOUT THE FULL RANGE OF THE PUMP CURVE.
6. NPSHA IS THE NET POSITIVE SUCTION HEAD AVAILABLE TO THE PUMP. PUMP DESIGN CONDITIONS SHALL HAVE NPSH UNLESS THAN SPECIFIED VALUES.
7. BOILER MANUFACTURER SHALL FURNISH AND FINALIZE THE SIZE OF THE VARIABLE SPEED BOILER PUMP FOR FIELD INSTALLATION.
8. REFER TO ELECTRICAL DRAWINGS FOR ALL ELECTRICAL REQUIREMENTS.

EXPANSION TANK SCHEDULE

PLAN MARK	MANUFACTURER	MODEL	TANK VOLUME (GAL)	ACCEPTANCE VOLUME (GAL)	DIAMETER (IN.)	HEIGHT (IN.)	APPROX. WEIGHT (WATERLOGGED) LBS	ASME PRESSURE RATING	REMARKS
HXT-001	TACO	CA450-AB	119	119	24	77-3/8	1393	125	1 THRU 6

NOTE:

1. PROVIDE PRE-CHARGED BLADDER - TYPE ASTME RATED TANK.
2. VERTICAL TANK SHALL BE INSTALLED TO ACCOMMODATE BOTTOM DRAIN CONNECTION.
3. PROVIDE CONCRETE HOUSEKEEPING PAD PER SPECIFICATIONS FOR FLOOR-MOUNTED LIMITS.
4. PROVIDE ANCHOR CLIPS
5. PROVIDE BULLS EYE SIGHT GLASS

AIR AND DIRT SEPARATOR TANK SCHEDULE

PLAN MARK	MANUFACTURER	MODEL	TANK VOLUME (GAL)	ACCEPTANCE VOLUME (GAL)	DIAMETER (IN.)	HEIGHT (IN.)	APPROX. WIEGHT (WATERLOGGED) LBS	ASME PRESSURE RATING	REMARKS
HAS-001	SPIROTHERM	VDT-500FEM	20	B-1	13	46	420	125	1 THRU 3

NOTE:

1. PROVIDE REMOVABLE LOWER HEAD.
2. SUPPORT FROM STRUCTURE WITH VERTICAL SUPPORTS INDEPENDENT FROM PIPING
3. UNIT SHALL INCLUDE FACTORY DESIGNED MAGNETIC STRAINED CAPABILITY.

bond architects
222 SOUTH CENTRAL AVE.
SUITE# 501
ST. LOUIS, MO 63105
TEL: 314.863.4994
FAX: 314.863.4996
www.bondarchitectsinc.com
Bond Architects, Inc.
Missouri State Certificate of Authority # 2009027409

COLE Design Group
Civil Engineer
Consultant Project #26-0054
Certificate of Authority #
401 S. 18th Street, Suite 200
St. Louis, MO 63103
314.984.9887 tel

RTM Engineering Consultants
MEP / FP Engineer
Consultant Project #26.B002031924
Certificate of Authority #2002028690
3701 S. Lindbergh Blvd.
St. Louis, MO 63127
314.725.5889 tel

Pinchin, LLC
HAZ MAT Consultant
Consultant Project #R262.00457.001
Certificate of Authority #
2 Cityplace Drive, Suite 195,
St. Louis, Missouri 63141
314.230.0182 tel

ROSS ELEMENTARY SCHOOL
1150 Ross Road, St Louis, MO 63146
Parkway Project #: PN062501B
Building Renovations & Site Improvements

Parkway School District
363 N. Woods Mill Rd., Chesterfield, MO 63017
314.415.6231 tel

Project No: 26017

Revisions

No.	Description	Date

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REGISTERED PROFESSIONAL ARCHITECT
MICHAEL D. MITCHELL
062-063142
STATE OF ILLINOIS
10/12/2026

MICHAEL D. MITCHELL
MO License:2010019577 Exp:12/31/2026

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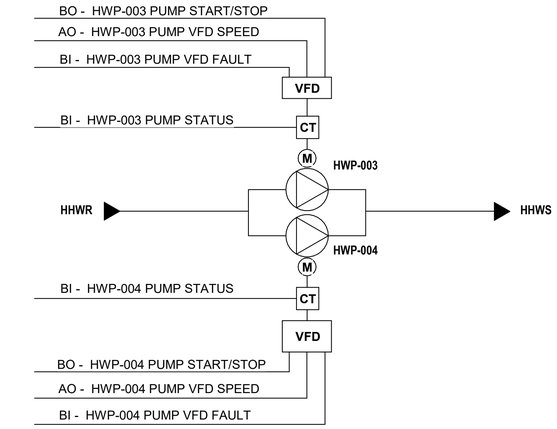
SCHEDULES - MECHANICAL

M6.0

SCALE: 3" = 1'-0" 0 0.25' 0.5' 1'
SCALE: 1-1/2" = 1'-0" 0 0.5' 1' 2'
SCALE: 1" = 1'-0" 0 0.5' 1' 2'
SCALE: 3/4" = 1'-0" 0 1' 2' 3'
SCALE: 1/2" = 1'-0" 0 1' 2' 4'
SCALE: 1/4" = 1'-0" 0 2' 4' 8'
SCALE: 1/8" = 1'-0" 0 4' 8' 16'
SCALE: 1/16" = 1'-0" 0 8' 16' 32'

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BOILER INTERFACE (HWB-001/HWP-001 AND HWB-002/HWP-002)											
POINT NAME	HARDWARE POINTS				SOFTWARE POINTS						GRAPHIC
	AI	AO	BI	BO	AV	BV	LOOP	SCHED	TREND	ALARM	
(HWB-001) BURNER CYCLE					X						X
(HWB-001) OPERATING PRESSURE					X					X	X
(HWB-001) OPERATING HOURS					X						X
(HWB-001) OPERATING TEMPERATURE					X					X	X
(HWB-001) BOILER SUPPLY WATER TEMP SETPOINT					X					X	X
(HWB-001) BOILER SUPPLY WATER TEMPERTURE					X					X	X
(HWB-001) BOILER RETURN WATER TEMPERTURE					X					X	X
(HWB-001) BOILER STATUS						X				X	X
(HWB-001) BOILER ENABLED						X				X	X
(HWB-001) BOILER ISOLATION VALVE						X				X	X
(HWB-001) GENERAL BOILER ALARM						X				X	X
(HWB-001) GAS VALVE						X				X	X
(HWB-001) FIRING RATE						X				X	X
(HWB-001) FLOW SWITCH						X				X	X
(HWB-001) ALARM CONTRACTS						X				X	X
(HWP-001) BOILER PUMP START/STOP				X					X		
(HWP-001) BOILER PUMP VFD SPEED		X							X		X
(HWP-001) BOILER PUMP VFD FAULT			X							X	X
(HWP-001) BOILER PUMP STATUS			X						X		X
(HWP-001) BOILER PUMP FAILURE			X						X		X
(HWP-001) BOILER PUMP RUNNING IN HAND										X	
(HWB-002) BURNER CYCLE					X						X
(HWB-002) OPERATING PRESSURE					X					X	X
(HWB-002) OPERATING HOURS					X						X
(HWB-002) OPERATING TEMPERATURE					X					X	X
(HWB-002) BOILER SUPPLY WATER TEMP SETPOINT					X					X	X
(HWB-002) BOILER SUPPLY WATER TEMPERTURE					X					X	X
(HWB-002) BOILER RETURN WATER TEMPERTURE					X					X	X
(HWB-002) BOILER STATUS						X				X	X
(HWB-002) BOILER ENABLED						X				X	X
(HWB-002) BOILER ISOLATION VALVE						X				X	X
(HWB-002) GENERAL BOILER ALARM						X				X	X
(HWB-002) GAS VALVE						X				X	X
(HWB-002) FIRING RATE						X				X	X
(HWB-002) FLOW SWITCH						X				X	X
(HWB-002) ALARM CONTRACTS						X				X	X
(HWP-002) BOILER PUMP START/STOP				X					X		
(HWP-002) BOILER PUMP VFD SPEED		X							X		X
(HWP-002) BOILER PUMP VFD FAULT			X							X	X
(HWP-002) BOILER PUMP STATUS			X						X		X
(HWP-002) BOILER PUMP FAILURE			X						X		X
(HWP-002) BOILER PUMP RUNNING IN HAND										X	
HEATING HOT WATER FLOW RATE	X									X	X



1 / M8.0 HEATING WATER PUMPS CONTROLS DIAGRAM
NOT TO SCALE

HEATING WATER PUMPS (HWP-003 AND HWP-004)											
POINT NAME	HARDWARE POINTS				SOFTWARE POINTS						GRAPHIC
	AI	AO	BI	BO	AV	BV	LOOP	SCHED	TREND	ALARM	
HWP-003 PUMP START/STOP				X					X		
HWP-003 PUMP VFD SPEED		X							X		X
HWP-003 PUMP VFD FAULT			X							X	X
HWP-003 PUMP STATUS			X						X		X
HWP-003 PUMP FAILURE										X	X
HWP-003 PUMP RUNNING IN HAND										X	
HWP-003 PUMP RUN TIME EXCEEDED										X	
HWP-004 PUMP START/STOP				X					X		
HWP-004 PUMP VFD SPEED		X							X		X
HWP-004 PUMP VFD FAULT			X							X	X
HWP-004 PUMP STATUS			X						X		X
HWP-004 PUMP FAILURE			X						X		X
HWP-004 PUMP RUNNING IN HAND										X	
HWP-004 PUMP RUN TIME EXCEEDED										X	
OUTDOOR TEMPERTURE			X						X		X
SYSTEM SUPPLY TEMPERTURE			X						X		X
SYSTEM RETURN TEMPERTURE			X						X		X
SYSTEM SUPPLY TEMPERTURE SETPOINT									X		X
SYSTEM RETURN TEMPERTURE SENSOR	X								X		X
HHW DIFFERENTIAL PRESSURE SETPOINT					X						X
HIGH HHW DIFFERENTIAL PRESSURE										X	
LOW HHW DIFFERENTIAL PRESSURE										X	

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MICHAEL D. MITCHELL
062-063142
PROFESSIONAL ENGINEER
STATE OF ILLINOIS
10/12/2026
MICHAEL D. MITCHELL
MO License:2010019577 Exp:12/31/2026

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